



User Guide

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Contents

1	Introduction	11
2	Installation	12
2.1	User Installer	13
2.2	Administrative Installer	13
2.3	Zip Archive	13
2.4	Panther Required Accounts	13
3	Getting Started	14
3.1	Connecting to Panther	14
3.2	Logging into Panther	14
4	Topology Management	16
4.1	Adding a Domain to Panther	19
4.2	Restore Panther access to a Domain	19
4.3	Interpreting Topology Results	20
5	The Panther User Interface	22
5.1	Domain Explorer	23
5.2	Application Workspace	24
5.3	Panther Menu	25
5.3.1	Tools Menu	25
5.3.2	Desktop Menu	25
5.3.3	Topology Management	25
5.3.4	Panther DNS Configuration	27
5.3.5	Panther Management	29
5.3.6	Foreign System Setup	36
5.3.7	Privilege Management	49
5.3.8	Email Preferences	58
5.3.9	Domains Menu	65
5.3.10	View Menu	65
5.3.11	Help Menu	66
6	Panther Desktops	67
6.1	Creating Desktops	67
6.2	Adding Desktop Controls	69
6.3	Resizing Desktop Components	71
6.3.1	Merging Component Panels	71
6.3.2	Resizing Rows and Columns	71
6.3.3	Maximizing/Restoring Components	72
6.4	Removing Desktop Components	72
6.5	Switching Between Desktops	73
6.6	Desktop Management	74
6.6.1	Copying Desktops	75
6.6.2	Sharing Desktops	76
7	Getting Support	78
8	Panther Controls	79
8.1	Action History Control	80

8.1.1	Viewing Action Details	81
8.1.2	Emailing Action Details	82
8.1.3	Windshield Wiper	82
8.1.4	Searching Action History	82
8.1.5	Action History Preferences	84
8.2	Audit Log Control	85
8.2.1	Viewing Audit Record Details	86
8.2.2	Searching Audit Records	87
8.2.3	Windshield Wiper Button	90
8.2.4	Audit Log Preferences	90
8.3	Current Events Control	91
8.3.1	Viewing Event Details	92
8.3.2	Emailing Event Details	93
8.3.3	Viewing Notifications	93
8.3.4	Emailing Notifications	95
8.3.5	Searching for Events	95
8.3.6	Preferences	96
8.4	Notification History Control	98
8.4.1	Viewing Notification Details	99
8.4.2	Emailing Notification Details	100
8.4.3	Windshield Wiper	100
8.4.4	Searching Notification History	101
8.4.5	Notification History Preferences	102
8.5	Reports Control	103
8.5.1	The Reports Control	103
8.5.2	Scheduling Reports	107
8.5.3	Viewing Reports	112
8.5.4	Report Display Preferences	114
8.5.5	Available Reports	114
8.6	Tablespace Projection Control	121
8.6.1	Search	123
9	Charge Capture	124
9.1	Charge Reconciliation Control	125
9.1.1	Charge Reconciliation Main Control	125
9.1.2	Search All Charges	126
9.1.3	Search by FIN	138
9.1.4	Search by MRN	140
9.1.5	Reviewer Performance	142
9.1.6	Charge Review Worklists	145
9.1.7	Viewing a Charge Review Worklist	147
9.1.8	Create/Edit Charge Review Worklist	149
9.2	Charge Reports Control	151
9.2.1	Executing reports	152
9.2.2	Scheduled Reports	156
9.3	Form Integrity Control	160
9.3.1	Search	160
9.3.2	Event Summary	161
9.3.3	All Activity	165
9.3.4	Clinical Summary	166
9.3.5	Build	167
9.3.6	FIN Lookup	171

9.4	Formulary Compliance Control	173
9.4.1	Formulary Compliance Main Control	173
9.4.2	Pharmacy Bill Item Summary	175
9.4.3	Improper/Incomplete Build	178
9.4.4	HPCPS/QCF Issues	181
9.4.5	NDC Validation	183
9.4.6	Bill Item Details Dialog	187
9.4.7	Dispense Details Dialog	189
9.4.8	NDC Lookup	189
9.5	Implant Recall Control	191
9.5.1	Search	192
9.5.2	Email Details	193
9.6	Missing OP Phys Doc Control	194
9.6.1	Encounter List	195
9.6.2	Search	199
9.7	Order Integrity Control	202
9.7.1	Orderable Summaries	202
9.7.2	Department Summary	205
9.7.3	Department Detail	205
9.7.4	Searching	208
9.7.5	Orderable Details	209
9.7.6	Order Details	212
9.7.7	Encounter Order Details	213
9.8	Pharmacy Integrity Control	214
9.8.1	Pharmacy Integrity Main Control	214
9.8.2	Encounter Details Dialog	227
9.8.3	Order Details Dialog	228
9.9	Physician Documentation Control	229
9.9.1	Searching	229
9.9.2	Search Presets	232
9.9.3	Documented Charge Summary	233
9.9.4	Summary Details Dialog	233
9.9.5	Encounter Details Dialog	234
9.9.6	Clinical Event Activity Dialog	235
9.9.7	Clinical Documents Dialog	235
9.9.8	Physician Summary	236
9.9.9	Physician Group Summary	237
9.9.10	Trending Details Dialog	238
9.9.11	Uncharged Notes	238
9.9.12	Undocumented Charges	239
9.9.13	Charged Notes with Incomplete Actions	239
9.9.14	Documented Charges Needing Verification	240
9.9.15	Scheduled Reports	241
9.10	Physician Timing Control	242
9.10.1	Searching	242
9.10.2	Search Presets	244
9.10.3	Timing Summary	245
9.10.4	Timing Summary Details Dialog	245
9.10.5	Scheduled Reports	246
9.11	Rules Engine Control	247
9.11.1	Copyright Notice	247

9.11.2	Rules Engine Main Control	248
9.11.3	Run Results	259
9.11.4	Charges for Fin	262
9.12	Supply Charging Control	263
9.12.1	Surgical Cases	263
9.12.2	Implants	271
9.12.3	By Surgeon	273
9.12.4	Average Usage	275
9.12.5	Encounters	276
9.12.6	Items	278
9.12.7	Reference Data	282
9.12.8	Searching	285
10	Patient Accounting	286
10.1	ATB Control	287
10.1.1	Working With Search Results	288
10.1.2	Search	292
10.1.3	Advanced Search	292
10.2	Balance Holds Control	293
10.2.1	Hold Summary	294
10.2.2	Hold Types	298
10.2.3	Worklists	299
10.3	Biller Productivity Control	300
10.3.1	Searching	301
10.3.2	Productivity Summary	302
10.3.3	Action Code Summary	303
10.3.4	Encounters Worked	304
10.3.5	Encounter Activity	305
10.3.6	Encounters Worked Summary	306
10.3.7	Work Queue Summary	306
10.3.8	Work Queue Details	307
10.3.9	Today's Activity	308
10.3.10	Current Work Items	309
10.3.11	Active Work Items	310
10.3.12	Reassigned Work Items	311
10.3.13	Received Cash	313
10.3.14	Build Configuration	316
10.3.15	Encounter Details Dialog	319
10.4	Cash Drawer Control	320
10.4.1	Cash Drawer Main Control	320
10.4.2	Posted Payments by Location	321
10.4.3	Posted Payments by Poster	324
10.4.4	Batch Views	325
10.5	Claim Denials Control	328
10.5.1	Search Dialog	329
10.5.2	Claim Denials By Attending Physician	330
10.5.3	Claim Denials By Claim	330
10.5.4	Claim Denials By Charge	331
10.5.5	Claim Denials By Denial Reason	332
10.5.6	Claim Denials By Health Plan	333
10.5.7	Bad Health Plans	334
10.5.8	Voided Benefit	335

10.5.9	Claim Number Lookup	336
10.5.10	Denial Details	337
10.5.11	Procedure Codes	338
10.5.12	Voided Benefit Activity Details	339
10.6	DNFB Control	341
10.6.1	Searching	342
10.6.2	Advanced Search	342
10.6.3	Working With Search Results	343
10.7	Encounter Holds Control	347
10.7.1	Active Holds	348
10.7.2	Hold Configuration	353
10.7.3	Waiting for Coding Configuration	354
10.8	General Ledger Build Control	355
10.8.1	Tree	355
10.8.2	Details	356
10.8.3	Filtering	358
10.9	HIM Productivity	359
10.9.1	Searching	359
10.9.2	Task Aging	360
10.9.3	Held Encounters	361
10.9.4	Held Encounters Dialog	362
10.9.5	Active HIM Tasks By Queue	363
10.9.6	Active HIM Tasks By User	363
10.9.7	Task Trending	364
10.9.8	Task Productivity	365
10.9.9	Action Productivity	365
10.9.10	Daily User Activity	366
10.9.11	Position/User Search	367
10.9.12	HIM Tasks Dialog	368
10.9.13	HIM Task Actions Dialog	369
10.9.14	Coding Actions Dialog	370
10.9.15	DRG Actions Dialog	370
10.9.16	Diagnosis Actions Dialog	371
10.9.17	Procedure Actions Dialog	372
10.9.18	Charge Actions Dialog	372
10.9.19	Coding Summary Dialog	373
10.9.20	HIM Task Details Dialog	377
10.9.21	Clinical Documents Dialog	379
10.9.22	Encounter Details Dialog	380
10.10	Payor Report Card Control	381
10.10.1	Health Plan Summary	381
10.10.2	Health Plan Details	382
10.10.3	Payments with No Transmission Date	384
10.10.4	Bills with Payments before Transmit	385
10.10.5	Responses Details Dialog	386
10.10.6	Searching	386
10.10.7	Encounter Details Dialog	387
10.10.8	Balance Details Dialog	388
10.10.9	Transaction Details Dialog	389
10.11	Reports Control	391
10.11.1	General Reports	392

10.11.2	ATB - Trending	396
10.11.3	DNFB - Trending	400
10.11.4	7-day Rolling Average	404
10.11.5	Inpatient/Outpatient	408
10.11.6	Revenue By Category	414
10.11.7	Revenue By CDM/CPT/HCPCS By Cost Center	417
10.11.8	Revenue By Cost Center	421
10.11.9	Revenue By Health Plan	425
10.11.10	Adjustments by Reason	429
10.11.11	Revenue By Service Provider	432
10.12	Work Queue Assignments Control	436
10.12.1	Alpha Split Configuration	438
10.12.2	Change Tracker	440
10.12.3	Queue Assignment Rule Stats	443
10.12.4	Searching	447
10.12.5	Split Alpha Set	448
10.12.6	Compare Alpha Set	449
10.12.7	Change Assignments	450
10.12.8	Change Range	451
10.12.9	Assigned Encounters	452
10.12.10	Encounter Details	452
11	EMR Performance	453
11.1	Accounts Control	454
11.1.1	Showing One or More Accounts	455
11.1.2	Searching Accounts	455
11.1.3	Account Filtering	456
11.1.4	Managing Account Defaults	456
11.1.5	Creating a New Millennium Account	457
11.1.6	Copying a Millennium Account	458
11.1.7	Removing a Millennium Account	458
11.1.8	Updating a Millennium Account	459
11.1.9	Reset an Account's Password	460
11.1.10	View a User's Prsnl Record	461
11.2	Configurations Control	462
11.2.1	Adding New Server Configurations	464
11.2.2	Managing Configuration Properties	465
11.2.3	Configuration Checkpoints	471
11.2.4	Configuration Defaults	477
11.2.5	Message Logs	478
11.2.6	Server Notes	479
11.2.7	Copying or Comparing Configurations	482
11.2.8	Preferences	483
11.3	Cycle Groups Control	486
11.3.1	Cycling Cycle Groups	487
11.3.2	Browsing Cycle History	488
11.3.3	Viewing Cycle History Records	490
11.3.4	Viewing Server Lists	492
11.3.5	Creating Cycle Groups	492
11.3.6	Modifying Cycle Groups	493
11.3.7	Removing Cycle Groups	495
11.3.8	Cycle Group Preferences	496

11.3.9	Copying Cycle Groups	496
11.3.10	Scheduling Cycle Groups	498
11.4	Cycle Schedules Control	500
11.4.1	Copying and Comparing Cycle Schedules	501
11.4.2	Editing Cycle Schedules	504
11.5	ESI Logs Control	505
11.5.1	ESI Log Interface List	505
11.5.2	ESI Log Record List	506
11.5.3	Log Display Limitations	508
11.5.4	Viewing Record Details	508
11.5.5	Searching ESI Logs	509
11.5.6	Emailing Log Entries	510
11.5.7	ESI Log Preferences	510
11.6	Favorite Logs Control	512
11.7	Interface Tx Loader Control	513
11.7.1	Loading OEN Transactions	514
11.7.2	The Transaction Explorer	516
11.7.3	Searching within OEN Transactions	517
11.7.4	Exporting OEN Transactions	519
11.7.5	Emailing OEN Transactions	521
11.8	iBus Logs Control	522
11.8.1	iBus Log File List	523
11.8.2	iBus Log Records	523
11.8.3	When iBus servers are not defined	526
11.9	Interfaces Control	527
11.9.1	Starting and Cycling Interface Servers	530
11.9.2	Interface Servers Configured Node	531
11.9.3	Cycle History	531
11.9.4	Interface Properties	531
11.9.5	Interface Blacklist	532
11.9.6	Viewing Current Events	533
11.9.7	Interface Notes	534
11.9.8	Comparing Interfaces	535
11.9.9	Interface View Management	536
11.9.10	Preferences	538
11.10	Message Logs Controls	541
11.10.1	Viewing Log File Information	543
11.10.2	Wrap Time	544
11.10.3	Windshield Wiper	546
11.10.4	Searching for Records	546
11.10.5	Viewing Record Details	547
11.10.6	Emailing Log Entries	551
11.10.7	Message Log Preferences	552
11.10.8	Log List Preferences	552
11.10.9	Record List Preferences	555
11.11	Oracle Query Control	557
11.11.1	Connecting to Oracle®	557
11.11.2	Issuing a Query	559
11.11.3	When a Query Succeeds	560
11.11.4	When a Query Fails	562
11.11.5	Disconnecting From Oracle®	563

11.12 Oracle Session Monitor Control	564
11.12.1 Killing a Session	565
11.12.2 Identifying Millennium Sessions	566
11.12.3 Preferences	566
11.13 Printers Control	570
11.13.1 Node Comparison	571
11.13.2 Node Queue Duplicates	572
11.13.3 Node Queue Duplicates by Queue	574
11.13.4 Node Queue Duplicate Details	575
11.13.5 Node with Queue	576
11.13.6 Queue Details	577
11.13.7 Printer Details	578
11.13.8 Blood Bank Printers	579
11.13.9 Flex Printers	580
11.13.10 Flex Printer Orderables	581
11.13.11 Printers by Label Prefix	582
11.13.12 Printers by Label Prefix Details	583
11.13.13 Printers by Scripts	584
11.13.14 Printers by Script Details	585
11.13.15 Printers by Type	586
11.13.16 Printers by Type Details	587
11.13.17 Pharmacy Printers	587
11.13.18 Summary	588
11.13.19 Search	588
11.13.20 Summary Details	589
11.13.21 Distribution	590
11.13.22 Distribution Log Details	591
11.13.23 Distribution Log	592
11.13.24 Fax Destination	593
11.13.25 Fax Destination Details	594
11.13.26 Fax Type	595
11.13.27 Fax Type Details	596
11.13.28 By Prsnl	597
11.13.29 By Prsnl Details	598
11.13.30 By Printer	598
11.13.31 By Printer Details	599
11.13.32 Interfaced	600
11.13.33 Interfaced Details	601
11.14 Queues Control	602
11.14.1 Viewing Messages	603
11.14.2 Message Details	605
11.14.3 Viewing Queue Connections	605
11.14.4 Managing Queue Properties	606
11.14.5 Manager Information	607
11.14.6 Queue Preferences	608
11.15 SCP Recommendations Control	611
11.15.1 Fixing Recommendations	613
11.16 Servers Control	614
11.16.1 Starting Servers	616
11.16.2 Stopping Servers	617
11.16.3 Killing Servers	618

11.16.4	Cycling Servers	619
11.16.5	Viewing Server Properties	621
11.16.6	Message Logs	622
11.16.7	Viewing Current Events	622
11.16.8	Server Notes	623
11.16.9	View Management	625
11.16.10	Preferences	625
11.17	Services Control	630
11.17.1	Viewing Service Properties	631
11.17.2	Service Preferences	632
12	Sensors	633
12.1	Functionality Summaries	633
12.1.1	BMDI Sensors	633
12.1.2	Chart Server Sensors	633
12.1.3	EKS Sensors	634
12.1.4	IBM WebSphere MQ Sensors	635
12.1.5	IBM WebSphere® Application Server Sensors	636
12.1.6	Millennium Sensors	636
12.1.7	NDC Sensors	638
12.1.8	OHPA® Sensors	639
12.1.9	Open Engine Sensors	639
12.1.10	Operations (Ops) Sensors	641
12.1.11	Oracle® Sensors	641
12.1.12	Remote Report Distribution Sensors	643
12.1.13	XR Sensors	643
12.2	Sensor Setup	644
12.2.1	Main Screen	644
12.2.2	Event Detection	645
12.2.3	Scheduling	647
12.2.4	Managing Recurrences	649
12.2.5	24-Hour Templates	651
12.2.6	Notification Setup	659
12.2.7	Proactive Actions	663
12.2.8	Operational Behavior	666
A	View Management	668
A.1	View List	669
A.1.1	Managing Views	669
A.1.2	Copying Views	669
A.2	View Details	673
A.2.1	General Tab	674
A.2.2	Users Tab	675
B	Oracle® Account Creation	676
C	Alerts Trigger Creation	677
C.1	Account Setup	677
C.2	Trigger Creation	677
C.3	Clean-up	680
D	Reply Queue Creation	682

E	Rules Engine Columns	683
F	Pharmacy Integrity Column Definitions	685
F.1	Pharmacy Summary	685
F.2	Charge Discrepancy Summary	685
F.3	Charge Details	686
F.4	Encounter Details	687
F.5	Order Details	690
F.6	Documentation Discrepancy Summary	691
F.7	Encounters with Unaccounted	691
F.8	Encounters with Invalid Administrations	692
F.9	Encounters with Undocumented Returns	693
F.10	Encounters with Calculation Issues	693
F.11	Shrinkage Summary	694
F.12	Shrinkage Details	694
	Glossary	696

1 Introduction

Panther is the most advanced Cerner Millennium® management and monitoring system available. With Panther's interactive components, you will be able to more effectively control your Millennium system. Additionally, Panther's agent-less [Sensors](#) allow you to receive accurate notifications of system anomalies — empowering you to significantly reduce unplanned downtime.

Because Panther is agent-less, you do not have to install any agents on your Millennium or Oracle® nodes. This means that Panther updates do not require updates to those nodes. Another benefit of agent-less monitoring is that all monitoring-related processing is offloaded to the Panther Server, freeing up your systems for their intended utilization.

This document is organized by functional areas within Panther. For more information on what these functional areas are, see [The Panther User Interface](#).

Many of the features added to Panther over the years have been the result of client suggestions. If you have any enhancement requests, questions, or comments, please contact us through our support site at <https://support.softekpanther.com/>.

For information on how to use the support website, see [Getting Support](#).

2 Installation

When new versions of Panther are released, these new versions of the client components need to be downloaded and installed again. Before installing new versions of Panther, Panther Support staff contacts your organization to help ensure that the installation of the Panther client will go smoothly.

The launch page on the Panther server provides a link which will initiate the installation using a single Microsoft Installer (MSI) package (Figure 1).

Softek Panther Client

To use Panther, please download the latest version of the client: [Launcher Installer](#).
If you need support, visit [our support site](#).

Minimum System Requirements

- **OS:** Windows 10 Version 1607 or later
- **Screen:** 1280x1024 or greater screen resolution
- **CPU:** Intel P4 2GHz, AMD Athlon XP 2000+ or better
- **RAM:** 512MB
- **HDD:** 200MB

All Downloads

- [Launcher Installer](#)
- [Admin Client Installer](#)
- [Client Zip Archive](#)
- [Launcher Zip Archive](#)

Documentation

- [Licenses](#)
- [API documentation](#)
- [Panther User Guide](#)

Figure 1: Panther launch page

There are additional ways of installing the Panther client. The “All Downloads” section at the bottom of the web page lists all of the options.

2.1. User Installer

If installing for the current user only, administrative access is not required. The MSI for this type of install can be found by browsing <https://<panther server>> and selecting the “download the latest version of the client” link, or by downloading <https://<panther server>/panther/install/panther.client.installer.msi> directly.

2.2. Administrative Installer

If installing for all users on a machine, the user needs to be an administrator. However, once Panther components are installed, non-administrators may use Panther normally. The MSI for this type of install can be found at <https://<panther server>/panther/install/panther.client.admin.installer.msi>.



Am I a Windows 10/11 administrator?

In Windows 10 and 11, press *Windows Key + I* to open Settings. Then click *Accounts*, if your account is an administrator it will say *Administrator* under your name/username.

2.3. Zip Archive

To run Panther without installing an MSI and without administrative privileges, click the “Zip Archive” link. This downloads a “Panther Client.zip” file that contains all of the files needed to run the Panther client. Once the file is downloaded, open your Downloads folder and extract the zip file by right clicking on the zip file and clicking the option “Extract All...”. Once the zip file is extracted to a folder, open that folder and double click the file “panther.exe” to run Panther.

2.4. Panther Required Accounts

In order for Panther to interact successfully with a Millennium domain, two accounts must exist in each domain accessed by Panther. These accounts require the same privileges as the “system” and “systemoe” accounts. [User1](#) (system) and [User2](#) (systemoe) will be used as references to the required accounts.

More specifically, the required privileges and restrictions are as follows:

User	Privileges	Restrictions
User1	Impersonate	NoLogFailDisuser
	ManageResources	NoPasswordExpire
User2	ManageResources	NoLogFailDisuser
	ManageServers	NoPasswordExpire

Table 1: Required Privileges and Restrictions

3 Getting Started

To get started with Panther, launch panther.exe. This can be found in the Start Menu under *Softek Solutions* → *Panther Client* → *Panther Client*.

3.1. Connecting to Panther

Initial connection to a Panther machine requires information about the address, port, and protocol to use. In earlier versions, this was provided via the address bar within Internet Explorer. Now, Panther provides a connection dialog to obtain this information (Figure 2):

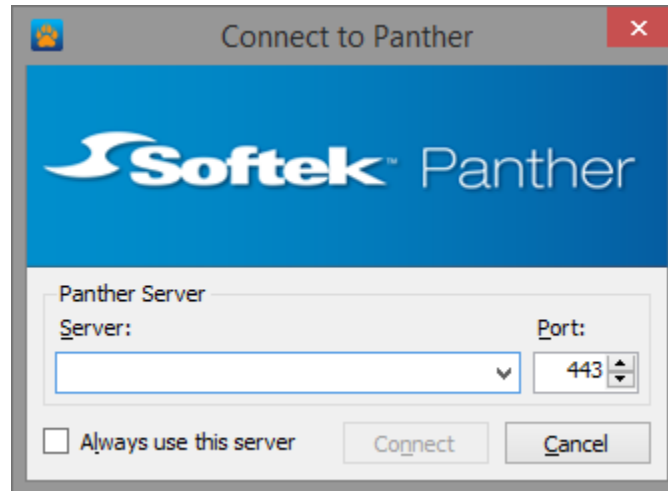


Figure 2: Connection dialog

1. Enter the address of the Panther machine into the *Server* field. This can be entered either as a hostname or an IP address.
2. Update the *Port* field to that used by the Panther machine.
By default, HTTPS connections use port 443.
3. Click *Connect*.

Please contact your system administrator if you do not know the address of the Panther server.



The connection dialog can be skipped.

If regularly connecting to the same Panther server, users can check the *Always use this server* box to skip the connection dialog. The Panther application will automatically connect to the currently-configured server and start at the login dialog.

3.2. Logging into Panther

Logging into Panther is done via a separate login dialog (Figure 3) using the following steps:

1. Enter your Millennium credentials in the *Username* and *Password* fields.
2. Select a domain using the *Domain* drop-down.

3. Click *Login*.

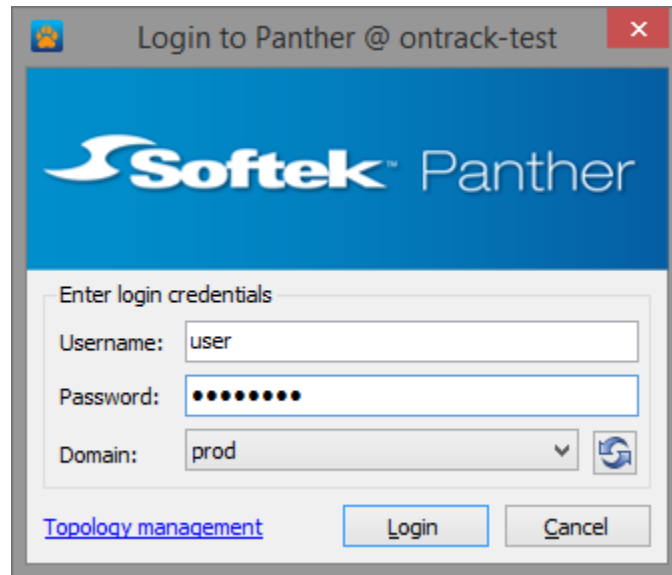


Figure 3: Panther login dialog



What if the desired domain does not appear in the Domain drop-down?

Domains will only appear if they have been added to Panther. If additional domains are desired, they can be added by clicking the *Topology management* link. This brings up the [Topology Management](#) window. Once the domain has been added, the drop-down can be updated with the  button.



Can I use my Millennium information to log in to Panther?

Yes, there is no need to create special accounts because Panther utilizes your existing Millennium accounts and the credentials associated with them.

4 Topology Management

Topology Management is a tool for managing the Cerner Millennium® domains that exist within Panther. Its operations are outlined in [Table 2](#).

Action	Description
Add to Panther	Panther requires a valid Millennium login, and verifies required account configuration before adding the domain. (Figure 3.3-3)
Repair this Domain	Panther verifies required account configuration, synchronizes Panther's node list with the current Millennium node list, and requests the list of ports for Millennium Services from the Service Manager.

Table 2: Topology Management actions

To access topology management, click either the *Topology management* link in the Panther login dialog ([Figure 4](#)) or the *Topology Management* menu item ([Figure 5](#)) under *Tools* within the main application. The main window is shown in [Figure 6](#).

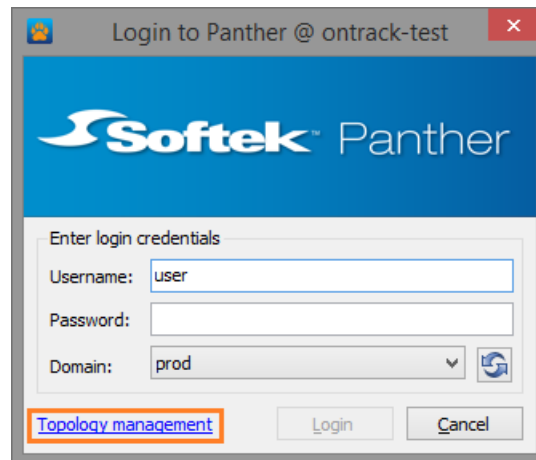


Figure 4: Panther login

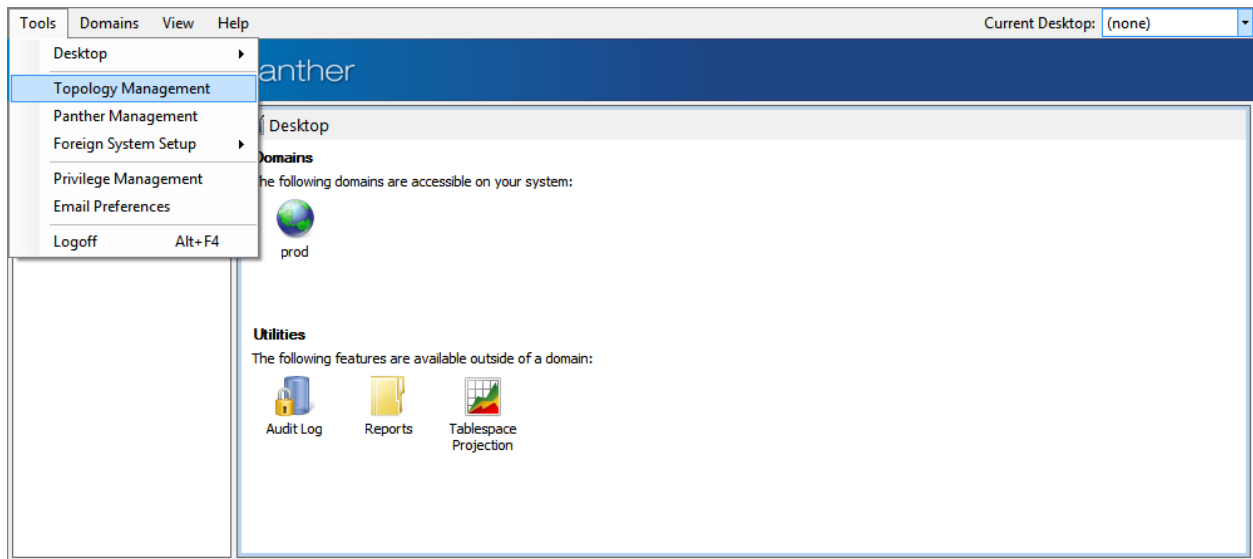


Figure 5: Topology Management inside Panther

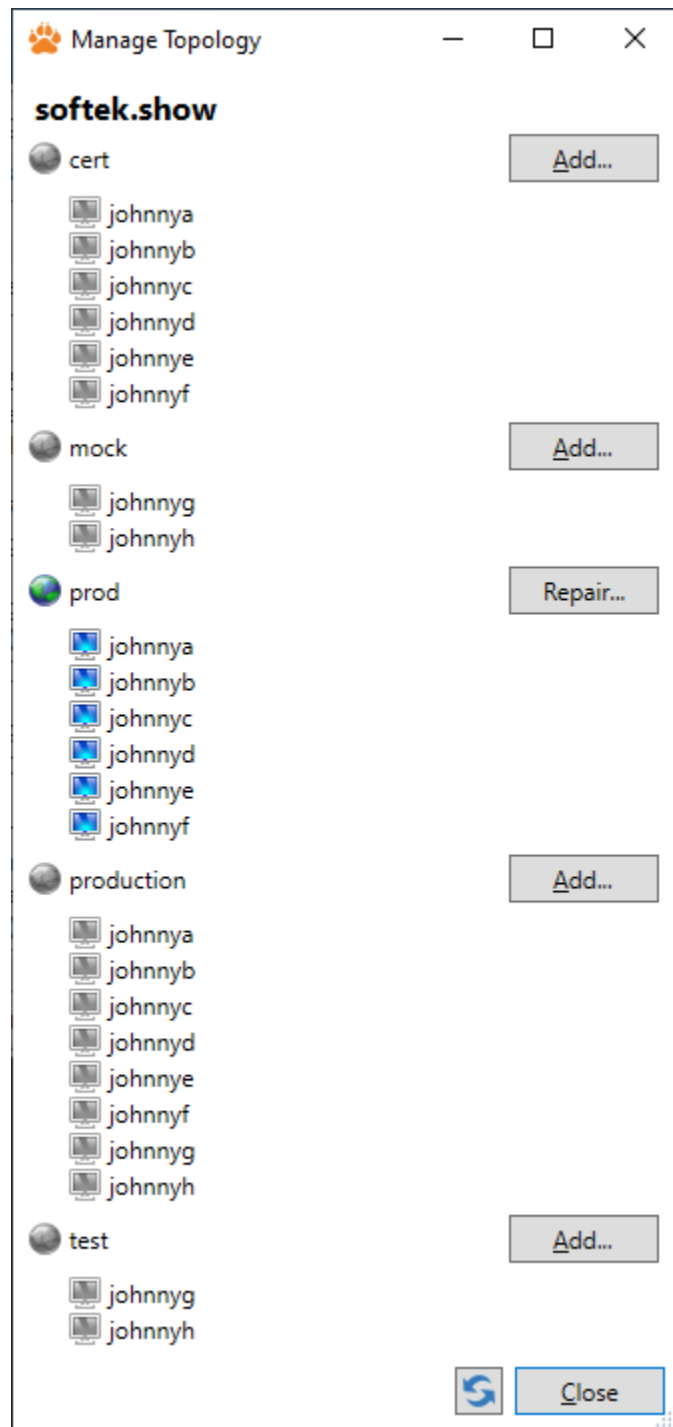


Figure 6: Topology Management

4.1. Adding a Domain to Panther

To use a domain that is not yet available through Panther, the domain must be added using Topology Management (Figure 6). Clicking the *Add Domain* link next to a domain opens a prompt for credentials (Figure 7).

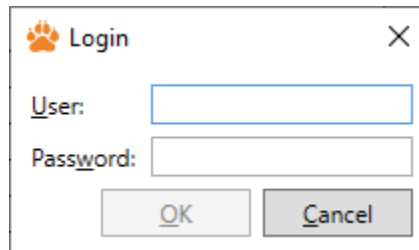


Figure 7: Topology Management credentials

Panther will test the required accounts by trying to log in to the domain. If successful, Panther will continue adding and configuring the domain. A [results window](#) will display, indicating the status of the operation.



Attention: Unlicensed domains

Domains that are not licensed on a particular Panther server will appear with a gray background in the list of domains and will have the *(not licensed)* suffix appended.



Attention: Not all users may add or repair domains.

In order for a user to be allowed to add or repair a domain, the user must have the *Access Panther* privilege. Users without this privilege will not be allowed to add or repair domains.

4.2. Restore Panther access to a Domain

If a domain is shut down without being suspended, Panther may not immediately restore connectivity when it is restarted. This issue can be corrected using the *Repair this Domain* option in Topology Management (Figure 6). Similar to the *Add Domain* option, this will navigate to a page asking for credentials (Figure 7), and a [results window](#) will display once the operation has completed.



Attention: Domains not in Millennium

If a domain exists in Panther but does not exist in the associated Millennium environment, it can be removed from within Panther via [Panther Management](#).

4.3. Interpreting Topology Results

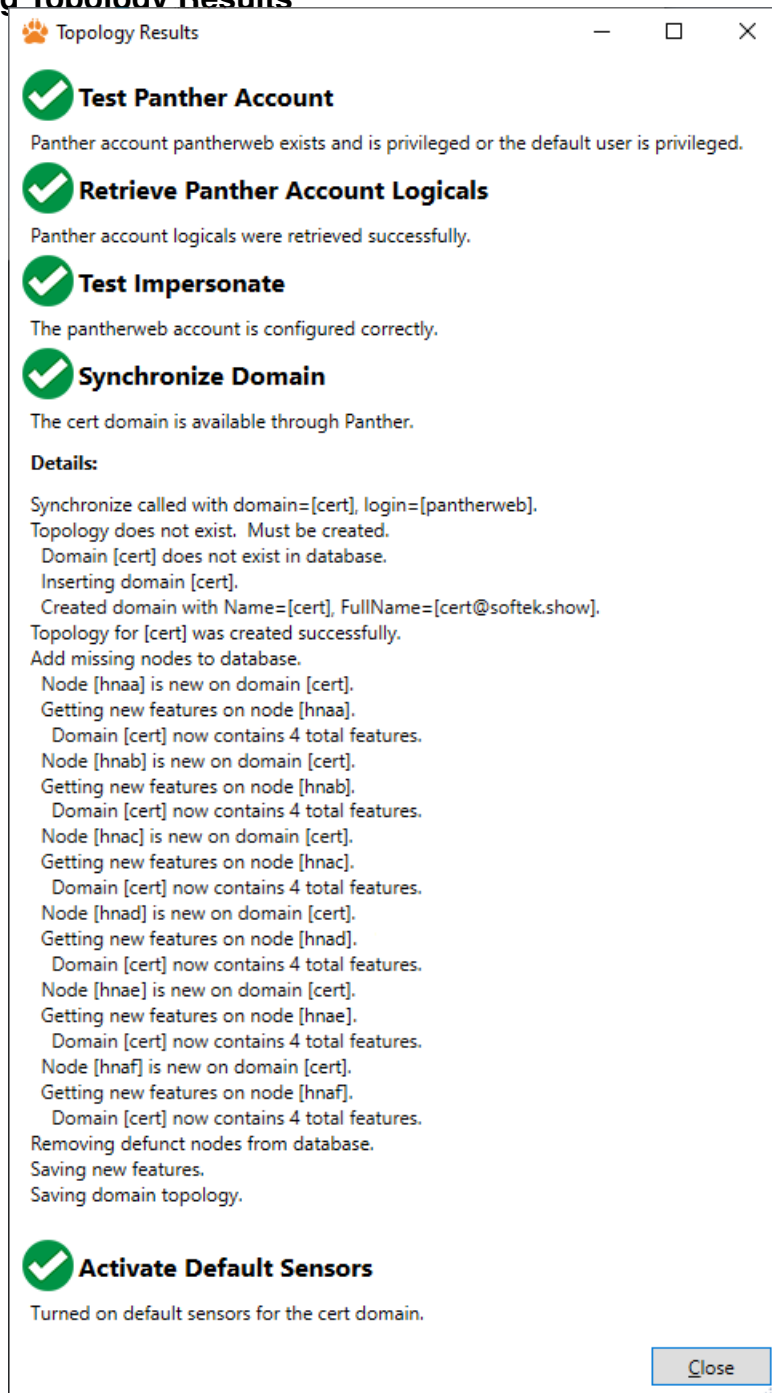


Figure 8: Add/Repair domain results

The summary icon and text at the top of the summary (Figure 8) shows the result of the domain add/repair request.

- If the result is success (✔), the domain should now be available in Panther.
- If the result is a warning (⚠), Panther added/repaired the domain, but the summary may include additional steps that need to be completed.
- If the result is an error (✖), Panther could not add the domain. The summary will indicate what is required before the domain can be added/repaired.



The following lists give detailed information for the various sections displayed in the [results window](#) that may be useful for troubleshooting. Within the figure, pantherweb and panthercycler are [User1](#) and [User2](#), respectively. For more information on [User1](#) and [User2](#), refer to the [Panther Required Accounts](#) section.

✔	The account provided when initiating the add/repair operation exists in Panther and has the <i>Panther Access</i> privilege, or the account does not exist in Panther, but the default user has the <i>Panther Access</i> privilege.
✖	The account provided when initiating the add/repair operation does not have the <i>Panther Access</i> privilege.

Table 3: Test Panther Account section

✔	The User1 and User2 accounts are defined.
✖	One or both the User1 and User2 accounts have not been defined on the Panther machine.

Table 4: Panther Account Logicals section

✔	The User1 account is set up appropriately.
✖	User1 failed to execute an <i>Impersonate</i> command. Either the account does not exist or does not have the privilege.

Table 5: Test Impersonate section

✔	The domain was added and is ready for use. The summary shows the nodes that were found if this was the first time it has been added to Panther. If the domain was restored, it will instead indicate that all settings, permissions, schedules, and history may still be present.
✖	Contact Softek Panther support and provide the log or a screen capture of the displayed error, as the details could not be recorded.

Table 6: Synchronize Domain section

✔	Default sensors have been activated for the domain. This section does not appear when repairing domains.

Table 7: Activate default sensors section

5 The Panther User Interface

The Panther User Interface is made up of three main components indicated below in [Figure 9](#).

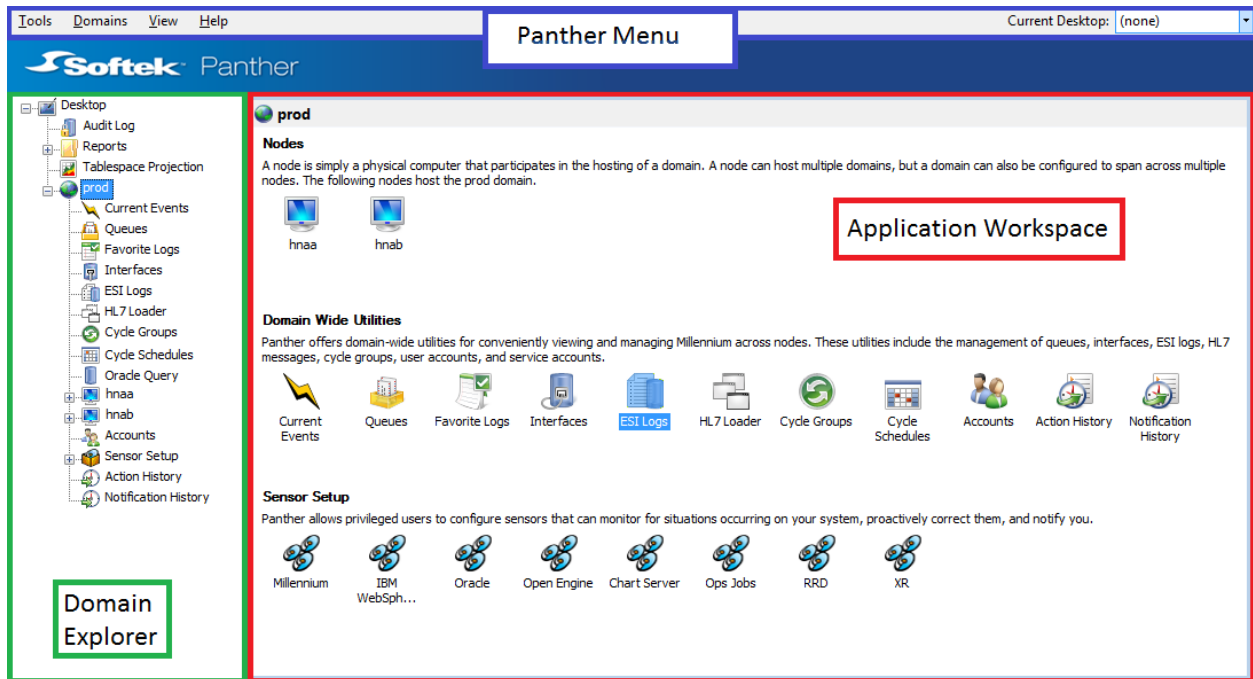


Figure 9: The Panther User Interface

5.1. Domain Explorer

The Domain Explorer displays a hierarchical view of controls relating to the domains that you have signed into successfully. For each item in the Domain Explorer, there is a corresponding control that appears in the Application Workspace.

The Domain Explorer was designed to make it easy to the following:

- Navigate between management features.
- Manage systems with multiple nodes.
- Navigate between multiple domains.
- Manage your system without having to sign into multiple applications.



Attention: Some controls may not appear in your Domain Explorer.

Depending on your privileges within Panther for a domain, certain components may or may not appear within the Domain Explorer. This means that you may have access to components in one domain but not another. Contact your Panther administrator to have your privileges modified.

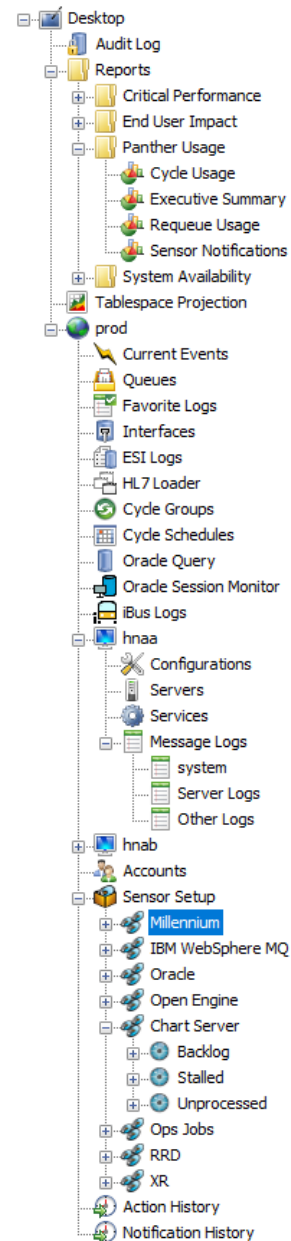


Figure 10: Domain Explorer

5.2. Application Workspace

The Application Workspace is where the selected control appears and is the most dynamic element in the Panther User Interface. Later sections in this document will describe in greater detail the contents of the Application Workspace for their control.

In addition to having a single control selected appear in the application workspace, you can create your own custom desktops that may contain many controls all at the same time (for more information on this feature, see the [Creating Desktops](#) section of this document).

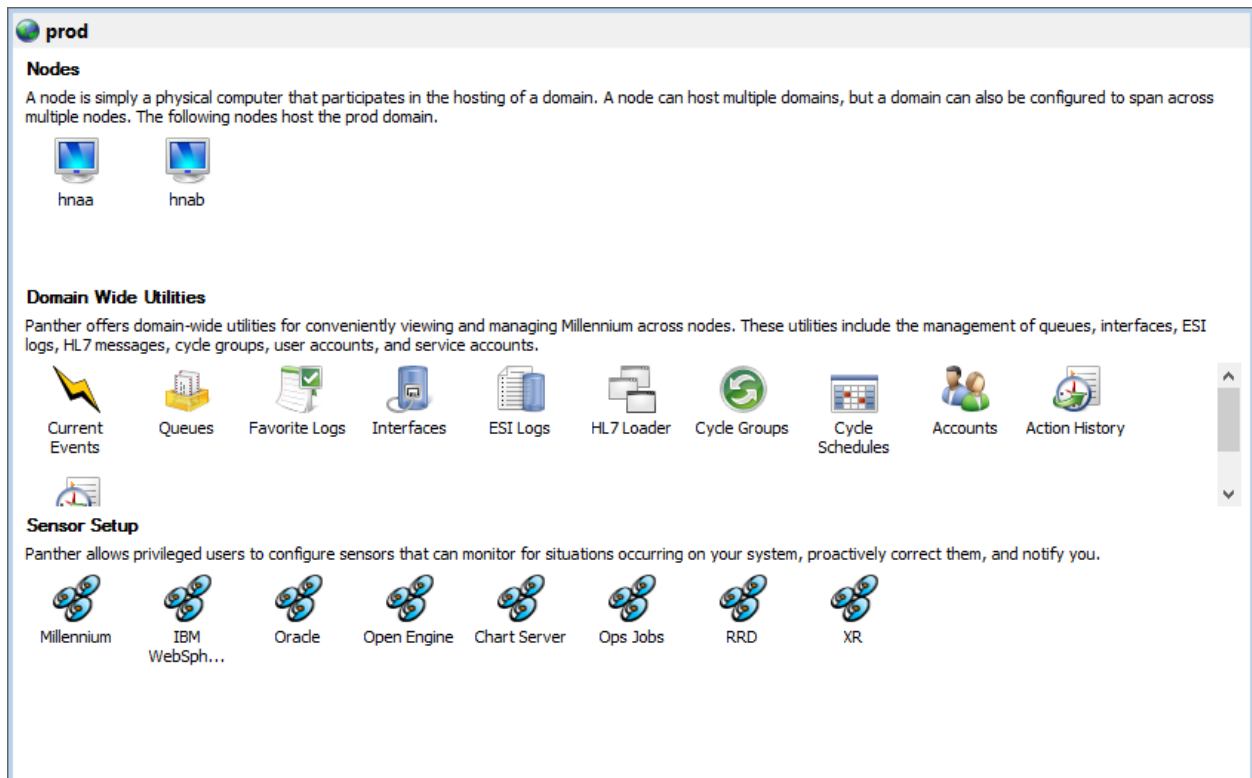


Figure 11: Application Workspace



Panther remembers where you are.

Panther remembers what control you are working with when you log off or close the browser, so the next time you sign in you will be where you were before.

5.3. Panther Menu

Panther uses a menu bar for tasks that relate to all of Panther; such as permissions, foreign system interaction, and high-level display settings. The menu appears just above the Application Workspace and contains the name of the control being displayed on the far left ([Figure 9](#)). The Panther Menu items are the same for all controls and are described in detail below.

5.3.1 Tools Menu

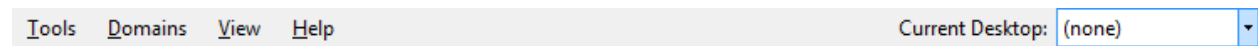


Figure 12: Panther Menu

From the Tools menu [Figure 12](#), you can manipulate custom desktops, manage Panther, define how Panther connects to foreign systems, add/edit/remove user/group privileges, and manage email preferences based on user/group accounts.

The contents of the Tools menu depend on the permissions of the user viewing it, so not all users will see all of these options.

5.3.2 Desktop Menu

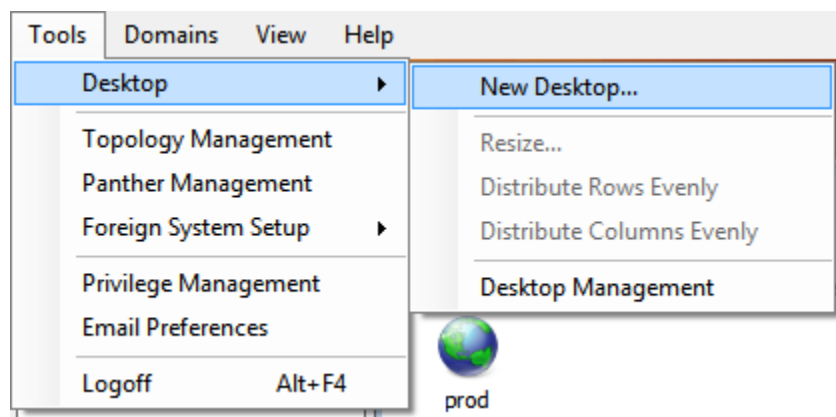


Figure 13: Desktop Menu

Desktops allow you to have multiple controls displayed in the application workspace. More information is available in the [Creating Desktops](#) section of this document.

5.3.3 Topology Management

The tools menu also provides a menu item to manage Panther's topology ([Figure 14](#)).

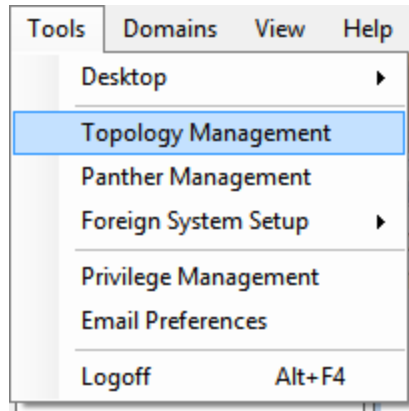


Figure 14: Topology Management

Selecting this menu item will open the [Topology Management](#) window.

5.3.4 Panther DNS Configuration

Panther can be configured to use its own DNS service, allowing users to manage which DNS records are seen by Panther, ultimately controlling what is seen in [Topology Management](#). Once this is done, a new *Configure Panther DNS* item will appear in the login dialog ([Figure 15](#)) and tools menu ([Figure 16](#)).



Figure 15: Login with configure link

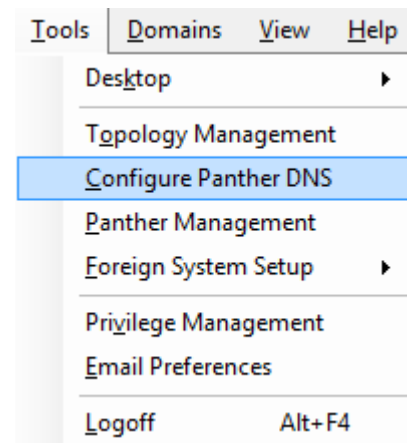


Figure 16: Tools menu with configure item



Attention: Panther DNS Configuration

Configuring DNS in Panther is meant as a work-around for cases when the Panther server lacks access to the DNS servers hosting A, SRV, and TXT records for Millennium. It is highly recommended to provide Panther access to existing DNS servers hosting that information whenever possible.

Manage Panther DNS

Clicking either of the aforementioned *Configure Panther DNS* items launches the Manage Panther DNS dialog ([Figure 17](#)). From here, you can manage the environments and specific DNS records seen by Panther.

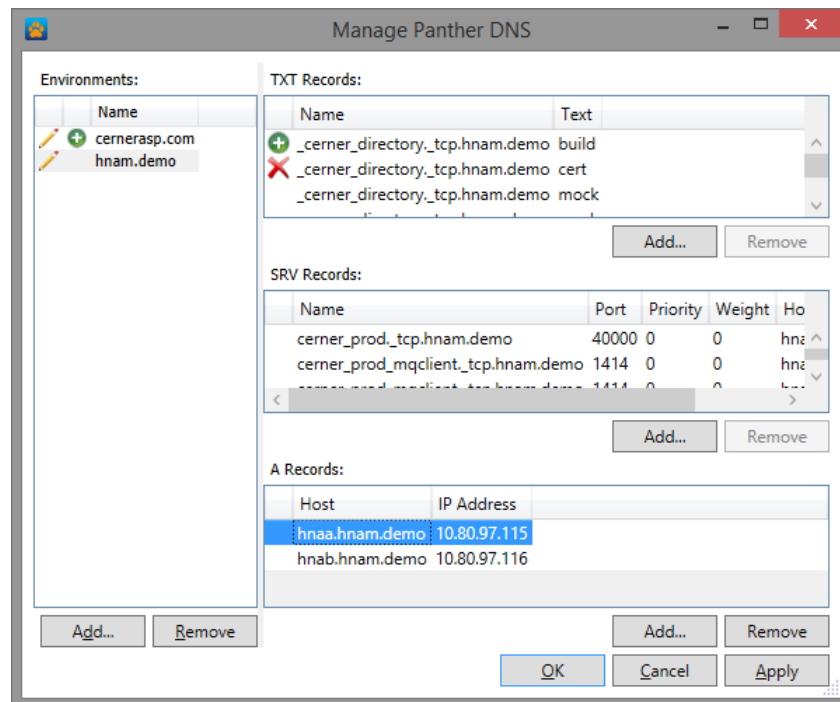


Figure 17: Manage Panther DNS dialog

Adding DNS Records

Once an environment is selected, the dialog will load any existing records and allow you to modify them. Since Panther deals heavily with Millennium environments, A, SRV, and TXT records are available. Additionally, the add dialogs for TXT (Figure 18) and SRV (Figure 19) records provide some default values to make entering data quicker and easier.

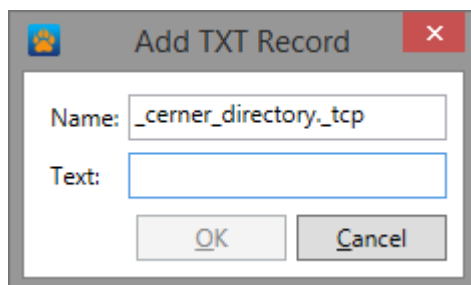


Figure 18: Add TXT dialog

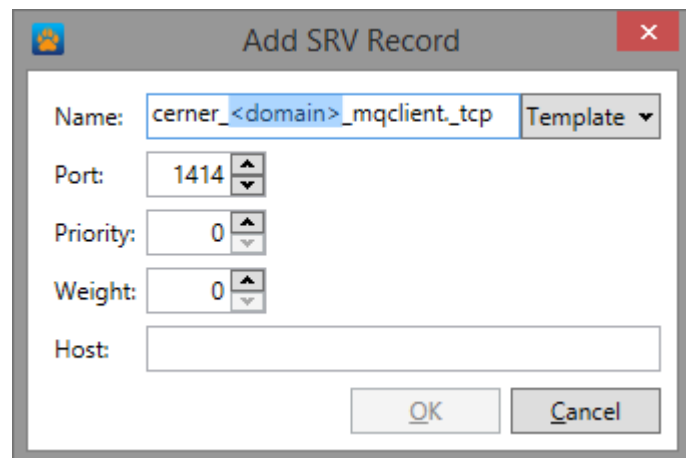


Figure 19: Add SRV dialog using MQ template

Once changes are saved, should they impact Millennium topology, they will be reflected within [Topology Management](#).

5.3.5 Panther Management

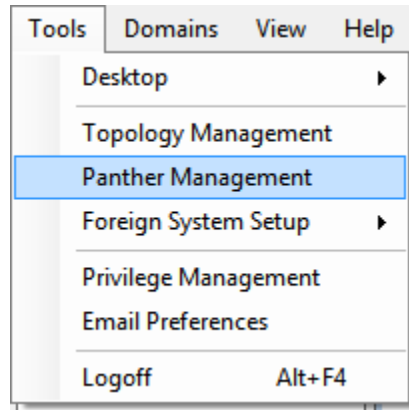


Figure 20: Panther Management

Actions performed in the main dialog of Panther Management are audited and can be viewed in the Audit Log provided the user has the 'Access Audit Log' privileges.

Panther Management includes managing suspensions of domains, nodes, notifications, and proactive actions. It also allows management of logging sensor events to the windows event log. It can be accessed by selecting *Panther Management* from the *Tools* menu in Panther, seen in [Figure 20](#).



Attention: Not all users have access to Panther Management.

Users who do not have the Manage Panther permission will not be able to see this menu item.

Domain Management

The *Domain Management* portion of the dialog allows the user to manage domain wide settings.

First, the user may choose to suspend/unsuspend the domain as a whole. Toggling the suspension of a domain controls whether or not any actions can be performed in Panther for that domain. This action is recommended for planned downtimes.

The second functionality of Panther that can be suspended on a domain level is notifications. Suspending notifications will cause the sensors to no longer generate notifications for the events it detects in the system. If the user wishes to ignore notifications for a domain but wants Panther sensors to continue running, the user can un-check the Notifications checkbox and no notifications will be sent for that domain.

The other two checkboxes for *Cycle failure notifications* force panther notifications to be sent to the user who issued an interactive cycle and the cycle failed. There is a separate checkbox for email notifications and pager notifications. When this feature is enabled for a domain, if the user who issued the interactive cycle on the domain is not signed up for cycle failure notifications in the Millennium Server Cycler Sensor Setup, that user will still receive a notification if the cycle fails. In order to receive these notifications, the user must also have an email address or a pager address specified in the [Email Preferences dialog](#). If a pager address is specified, Panther will send an interactive Cycle Failure notification to the user even if the user is not on call. If both the email address and the pager address are specified when cycle failure emails and pages are enabled, Panther will send notifications to both addresses.



Attention: You will not receive notifications from suspended domains.

You will not receive any notifications about events nor will proactive actions be taken by Panther on domains that are not checked in Panther Management.

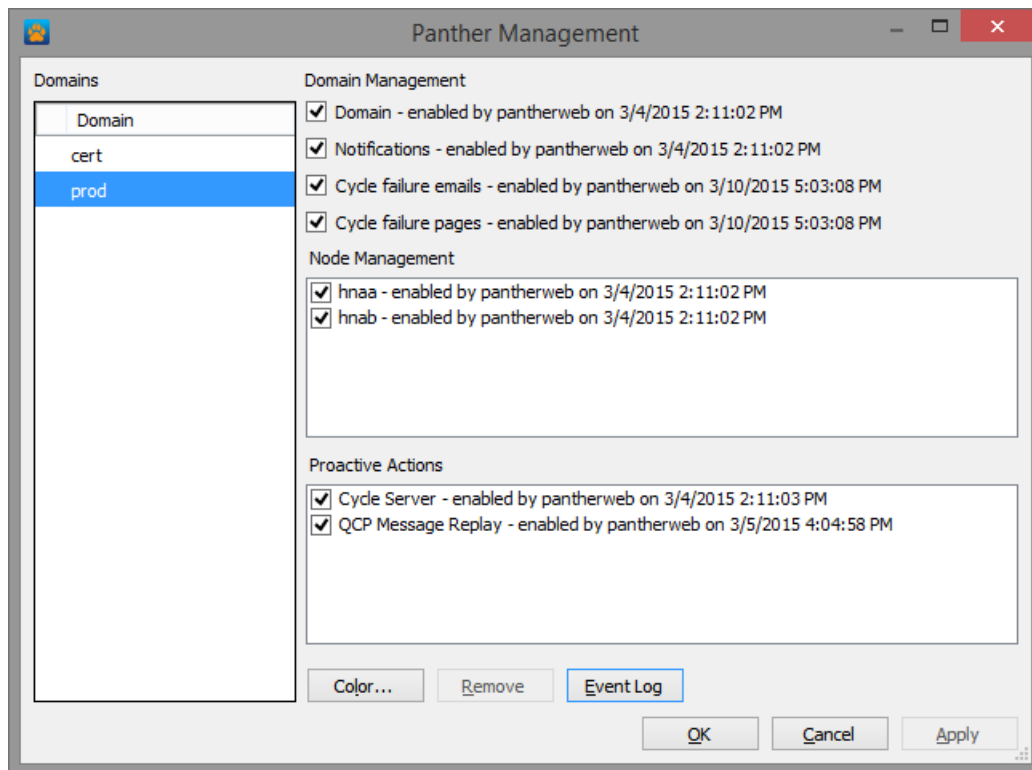


Figure 21: Panther Management

Node Management

The *Node Management* portion of the dialog allows the user to manage suspensions of nodes for the selected domain. If a node is down and cannot be managed or monitored through Panther, then suspending it will cause Panther to no longer attempt communication with that node.



Attention: You will not receive notifications from suspended nodes.

You will not receive any notifications about events nor will proactive actions be taken by Panther on nodes that are not checked in Panther Management.

Proactive Action Management

The *Proactive Actions* portion of the dialog allows the user to manage what proactive actions are enabled for the selected domain. Proactive actions are automated corrective actions performed on the Millennium system by Panther. By checking or un-checking an action for a given domain, the user is enabling or disabling that action for the selected domain.

Color

The *Color...* button opens a dialog where the user can select colors to use for the currently selected domain. To select the color for the foreground text, click on the 'Fore' color swatch, then click on one of the color swatches to the right of it. Or, click on 'Custom' to select some other color. To select the color of the background text, follow the same procedure with the 'Back' swatch. The example header below the color swatches will show what the two colors will look like together when in use.

Click 'Reset' to revert the colors to the system standard, 'OK' for the currently selected colors to take effect, or 'Cancel' to keep the currently saved colors.

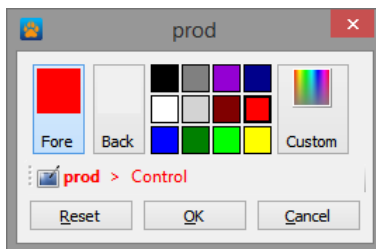


Figure 22: Color Selection Dialog

The colors selected for a domain are global, and affect all users. Changes are audited. A user must have the 'Manage Panther' privilege to access the *Panther Management* dialog, and the 'Manage Topology' privilege for a given domain to access its *Colors* dialog.

The colors affect the appearance of the [Breadcrumbs](#) that indicate which domain a control belongs. This can be used to help a production domain stand out in a desktop containing multiple domains.

Description	Ent...	Server ID	Start Date
Security Master	0	1	9/21/2015 7:56:57
Server Control Panel	1	2	9/26/2015 1:09:52
Transaction Database Master	2	14	9/18/2015 9:17:34
Message Journal	4	20	9/18/2015 9:17:35
Authorize	5	21	9/18/2015 9:17:35
Time Synchronizer	8	68	9/18/2015 9:17:47
Message Agent	10	8	9/27/2015 6:41:23
CPM Application Authorization	50	22	9/18/2015 9:17:35
CPM Script	51	32	9/23/2015 10:28:4
CPM Script	51	34	9/23/2015 10:28:4
CPM Script	51	36	9/23/2015 10:28:3
CPM Script	51	38	9/23/2015 10:28:2
CPM Script	51	40	9/23/2015 10:28:2
CPM Script	51	84	9/23/2015 10:28:1
CPM Code Cache Manager	52	42	9/18/2015 9:17:40
CPM Code Cache Manager	52	44	9/18/2015 9:17:40
CPM Script Private	53	46	9/18/2015 9:17:41

Description	Ent...	Server ID	Start Date
Security Master	0	4	9/18/2015 9:17:00
Server Control Panel	1	5	9/18/2015 9:17:00
Transaction Database Master	2	31	9/18/2015 9:17:37
Message Journal	4	37	9/18/2015 9:17:38
Authorize	5	39	9/18/2015 9:17:38
Time Synchronizer	8	67	9/18/2015 9:17:46
Message Agent	10	27	9/18/2015 9:17:37
CPM Application Authorization	50	41	9/18/2015 9:17:39
CPM Script	51	45	9/18/2015 9:17:41
CPM Script	51	47	9/18/2015 9:17:41
CPM Script	51	49	9/18/2015 9:17:42
CPM Script	51	51	9/18/2015 9:17:42
CPM Code Cache Manager	52	53	9/18/2015 9:17:43
CPM Script Private	53	55	9/18/2015 9:17:43
CPM Async Script	54	57	9/18/2015 9:17:43
CPM Process	55	59	9/18/2015 9:17:44

Figure 23: A desktop using colored breadcrumbs for production

Domain Removal

The *Remove* button will remove the currently selected domain from Panther. It will not affect the Millennium topology; it will only cause Panther to cease monitoring that domain. If a domain no longer exists in Millennium, it is recommended that it be removed from Panther.

Users must have both the 'Manage Panther' privilege to access the *Panther Management* dialog, and the 'Manage Topology' privilege for the domain they wish to remove.

If there is only one domain present in Panther, it can not be removed, and the *Remove* button will be disabled.

Event Log Management

The *Event Log* button on the Panther Management dialog opens the *Event Log* dialog where a user can configure which events and which sensors will write entries to a windows event log on the Panther server. This event log can be used to integrate with an Enterprise System Management (ESM) using an event log monitoring agent set up on the Panther server.

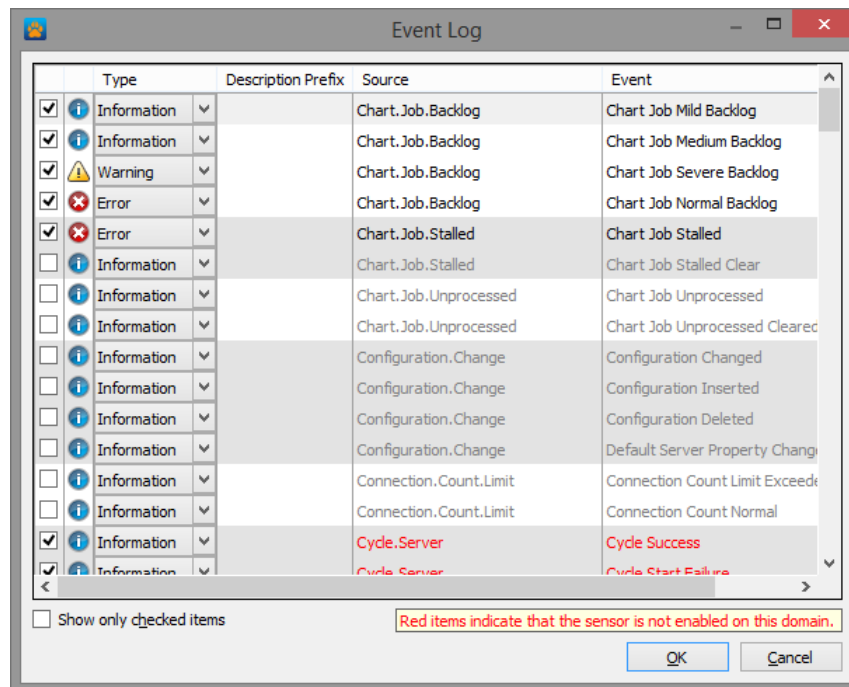


Figure 24: Event Log

In accordance with the log levels written by the .NET Event Log Trace Listener, events can be set to the Error, Warning, or Information levels. See the source code on Microsoft's website (<http://referencesource.microsoft.com/#System/services/monitoring/system/diagnostics/EventLogTraceListener.cs,b59ba3a72e84a6b1>).



Attention: The Event Log dialog may not be available at your organization.

The Event Log is useful to organizations who set up an event log monitoring agent on the Panther server.

Each event is written to the Panther.EventLog log on the Panther machine, using a standard format across sensors. Log structure is enumerated in the table below.

Word Position	Name	Description
0 to n	Description Prefix	User defined information to be written as description of the event log.
N + 1	Event Instance ID	Every event that occurs in the Panther system is assigned a globally unique identifier (GUID). This identifier will always be the first word written by Panther into the description field.
N + 2	Domain	The name of the Millennium domain that is associated with the event.
N + 3	Node	The name of the Millennium node that is associated with the event. When a node does not apply to the event, a <i>null</i> will be written.
N + 4	Component	The name of the component of interest relating to the event. For example, for IBM MQ Backlog, the Component will be the queue name. When a component field does not apply to the event, a <i>null</i> will be written.
N + 5 to m	Additional Data	Additional information specific to an event.

Table 8: Panther.EventLog Structure

Figure 25 is an example event log written by the Oracle® Alerts sensor:

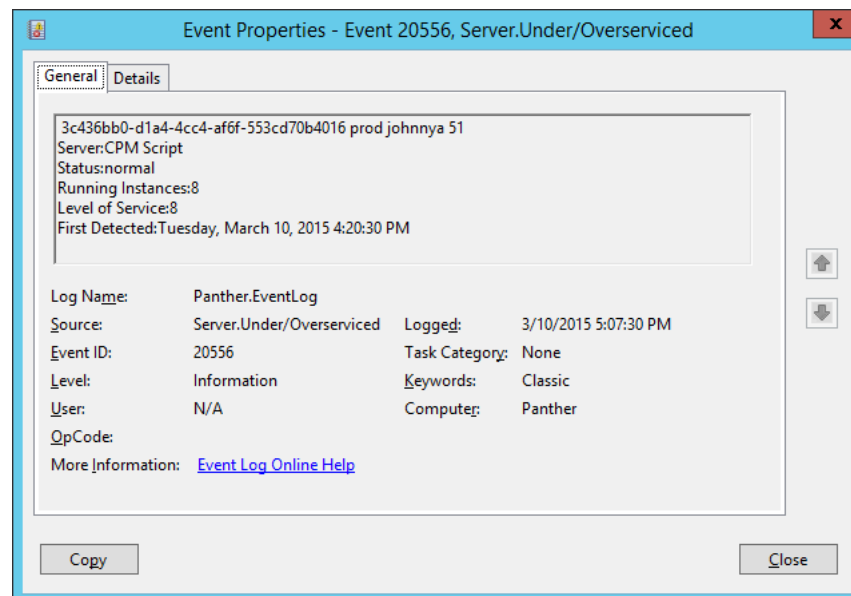


Figure 25: Event Log Example

5.3.6 Foreign System Setup

Items under the Foreign System Setup menu are used to define how Panther connects to foreign systems for monitoring and configuration purposes. It is accessed from the *Tools* option in the Panther Menu.

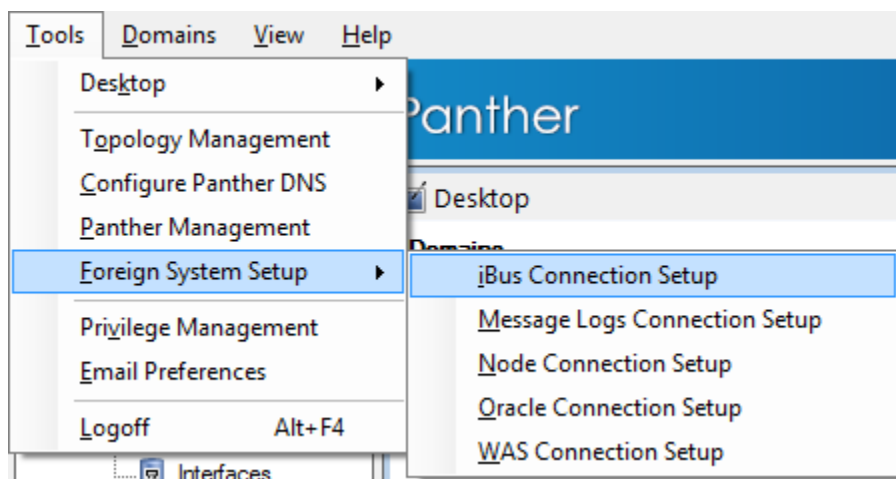


Figure 26: Foreign System Setup

The options under Foreign System Setup cover several different systems. iBus Connection Setup allows you to configure the credentials and servers for viewing iBus log files. Message Log Connection Setup allows you to configure the credentials use to connect to a domain's nodes when fetching message log data. Node Connection Setup allows you to configure the credentials used to connect to a domain's nodes in order to access their RTMS timer data. Oracle® Connection Setup allows you to configure the connection string used by Panther to access the Oracle® database on a per-domain basis. Rules Engine Setup allows you to configure which posted flags are used in rule evaluation. WAS Connection Setup allows you to configure the credentials and servers for monitoring WAS environments.



Attention: Not all users have access to Foreign System Setup.

If a user does not have the necessary privileges to access at least one of the items in the Foreign System Setup sub-menu, Foreign System Setup will be hidden.

iBus Connection Setup

The iBus Connection Setup dialog allows you to specify the credentials and iBus servers for each domain, which Panther will use to access the iBus servers.

To access iBus Connection Setup, select the "Foreign System Setup" option in the Tools menu, and look for iBus Connection Setup in its sub-menu.

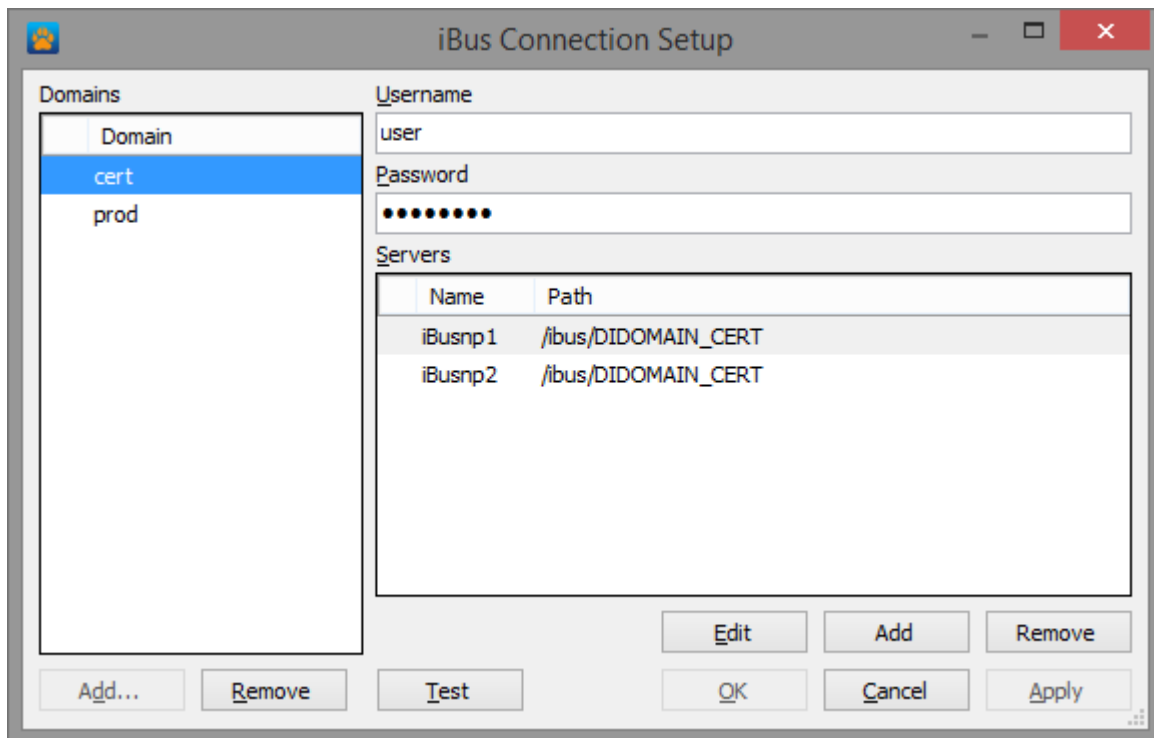


Figure 27: iBus Connection Setup

If there are any domains Panther is monitoring which are available to assign connection information to, the “Add...” button in the lower-left corner of the dialog will be enabled. Each domain can be assigned only one username and password. If you click “Add...”, the resulting dialog will have a list of the available domains.

Panther requires the iBus servers to be listed for each domain. Click the “Add” button below the Servers grid to add a server. The Path field for each server is the path to the iBus files. After one server is added, the add dialog pre-populates the Path field with the most common path. Once the credentials and at least one server are populated for the domain, it can be saved. Clicking the “Edit” button or pressing the F2 key when a server is selected allows the Path for the server to be modified.

The “Test” button will test the current username and password against each iBus server for the selected domain. It will launch a dialog showing the results of the connection attempt for each server. The dialog may take a moment to display as the Panther server tests the connection to each iBus server.

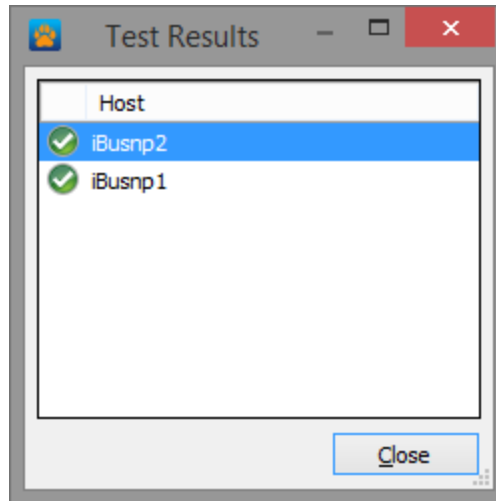


Figure 28: Test Results

Image	Meaning
	Authentication was successful.
	Authentication failed.
	Connection failed.

Table 9: Test Result Images

Message Log Connection Setup

The Message Log Connection Setup dialog allows you to specify the credentials for each domain, which Panther will then use to connect to that domain's back-end nodes when gathering message log data.

To access Message Log Connection Setup, select the "Foreign System Setup" option in the Tools menu, then look for Message Log Connection Setup in its sub-menu.

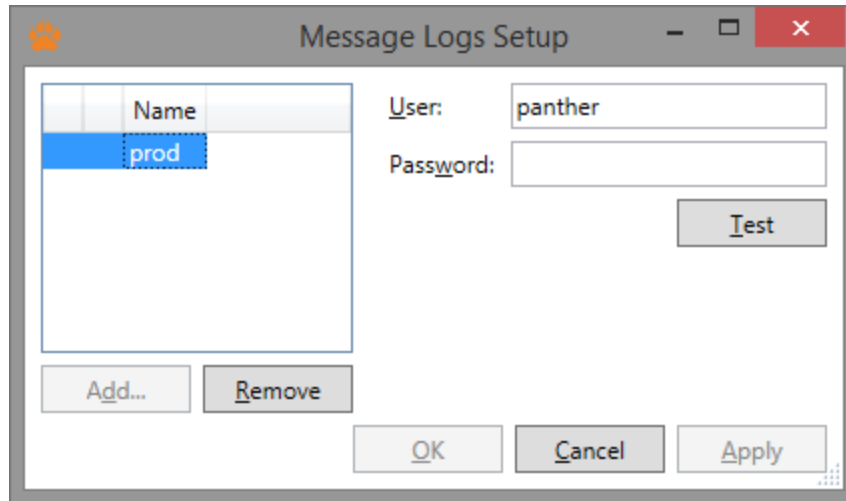


Figure 29: Message Log Connection Setup

If there are any domains Panther is monitoring which are available to assign connection information to, the “Add...” button in the lower-left corner of the dialog will be enabled. Each domain can be assigned only one username and password. If you click “Add...”, the resulting dialog will have a list of the available domains.

The “Test” button will test the username and password currently entered for the selected domain. It will launch a dialog showing the results of the connection attempt for each of the domain’s nodes. The dialog may take a moment to display as the Panther server attempts to connect to each of the nodes.

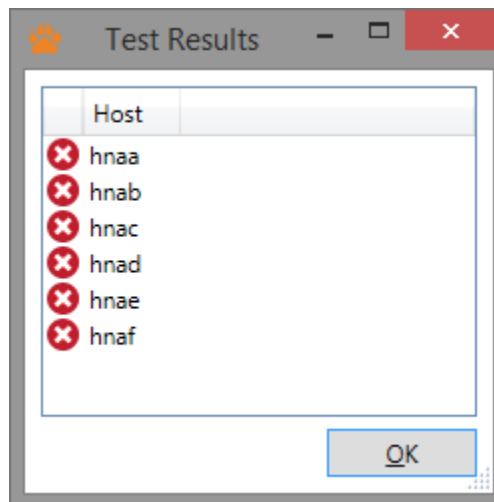


Figure 30: Test Results

Node Connection Setup

The Node Connection Setup dialog allows you to specify the credentials for each domain, which Panther will use to connect to that domain’s backend nodes to gather RTMS data.

To access Node Connection Setup, select the “Foreign System Setup” option in the Tools menu, and look for Node Connection Setup in its sub-menu.

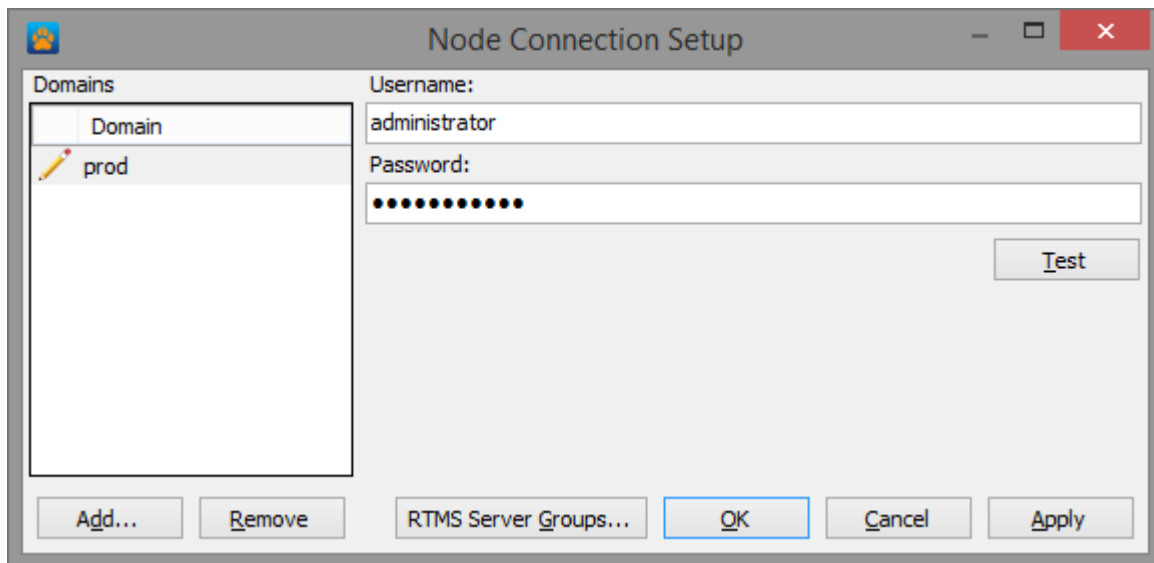


Figure 31: Node Connection Setup

If there are any domains Panther is monitoring which are available to assign connection information to, the “Add...” button in the lower-left corner of the dialog will be enabled. Each domain can be assigned only one username and password. If you click “Add...”, the resulting dialog will have a list of the available domains.

The “Test” button will test the username and password currently entered for the selected domain. It will launch a dialog showing the results of the connection attempt for each of the domain’s nodes. The dialog may take a moment to display as the Panther server attempts to connect to each of the nodes.

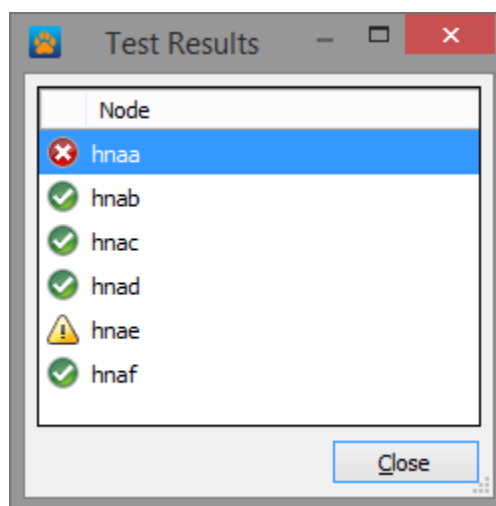


Figure 32: Test Results

RTMS Server Groups

The RTMS Server Groups dialog allows you to group servers found in the RTMS data. This will improve the effectiveness of reports generated with the RTMS data.

To start classifying RTMS Servers click the “RTMS Server Groups...” button in [Figure 31](#). Clicking this will open a dialog showing the total number servers, groups, and how many servers are unclassified. (See [Figure 33](#)).

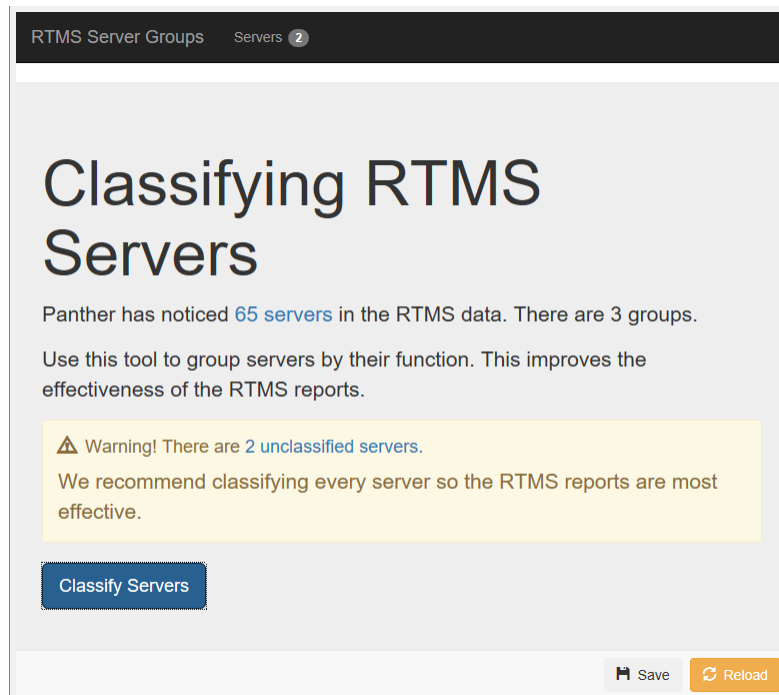


Figure 33: RTMS Server Groups Home Page

Clicking the “Classify Servers” button in [Figure 33](#) will take you to a page where you can create groups and classify servers.

You can classify a server by clicking its row under the header for the group it should be classified as. Clicking and dragging will allow you to classify multiple servers at once. An example of classified servers can be seen in [Figure 34](#).

RTMS Server Groups

Servers 2

⚠ Warning! There are 2 unclassified servers.

We recommend classifying every server so the RTMS reports are most effective.

+ Pro Tip: Mouse Magic

You can click and drag to rapidly classify several servers at once.

Server

Unclassified 2

app 3

cis 1

ctx 59

NewGroup1 0

softekacis02		✓
softekapp1	✓	
softekctx02		✓
softekctx03	✗	
softekctx04	✗	
softekctx05		✓
softekctx06		✓

Save

Reload

Figure 34: RTMS Server Groups Classification Page

You can create and name new groups by clicking on “NewGroup#”. This will open a dialog where you can name the group. (See [Figure 35](#)). Existing groups can be renamed by clicking on their header.

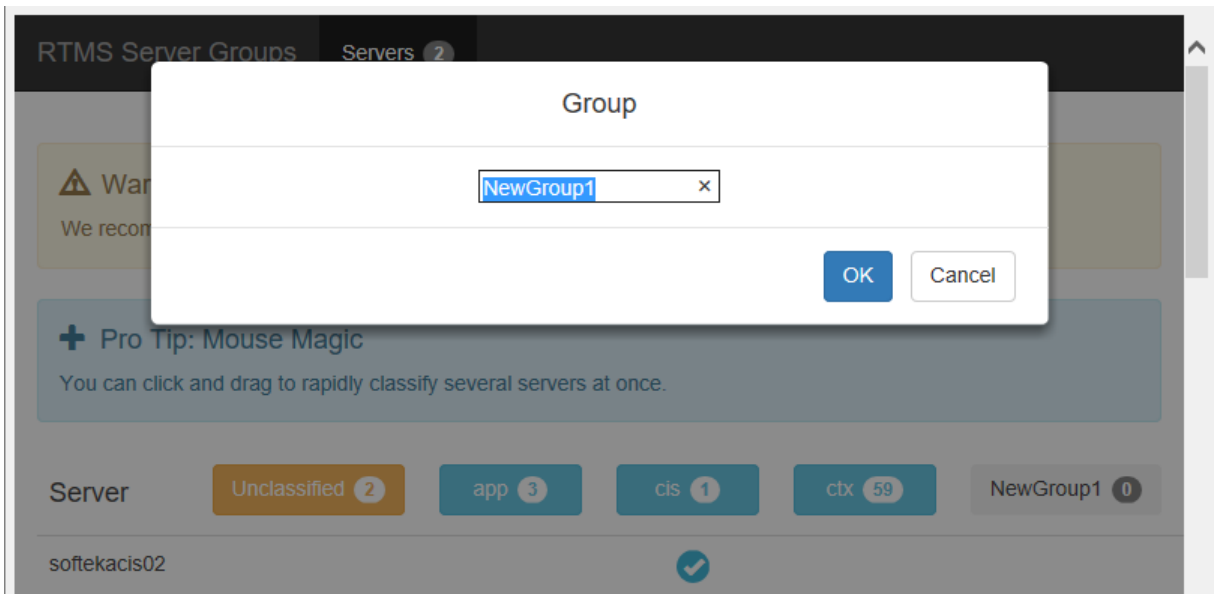


Figure 35: RTMS Server Groups Rename Dialog

Group names must be unique. If you create multiple groups with the same name the header will be styled red. If you try to save before fixing the name conflict you will see the error in [Figure 36](#). To remove groups, re-classify all servers in that group so there are no servers under that classification, click “Save”, and then click “Reload”.

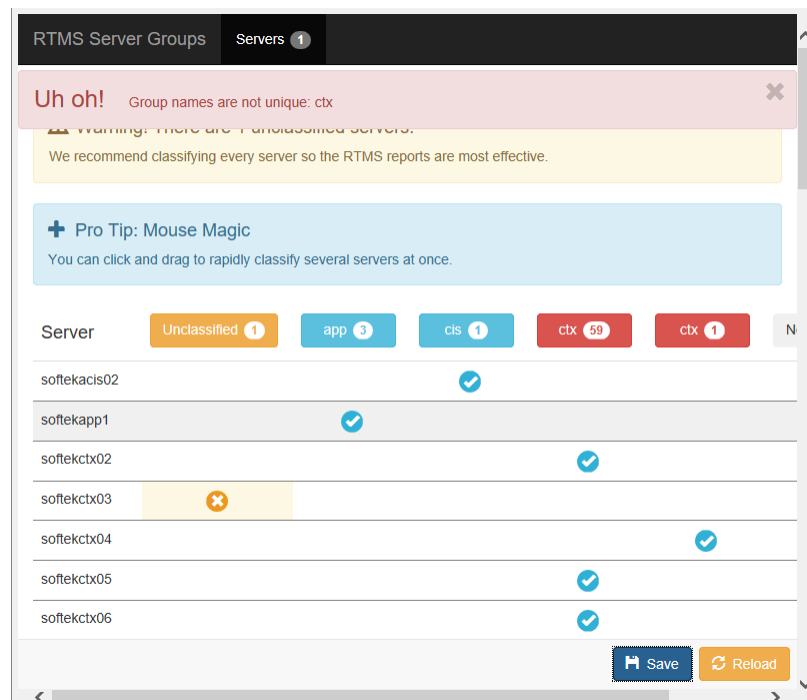


Figure 36: RTMS Server Group Name Conflict

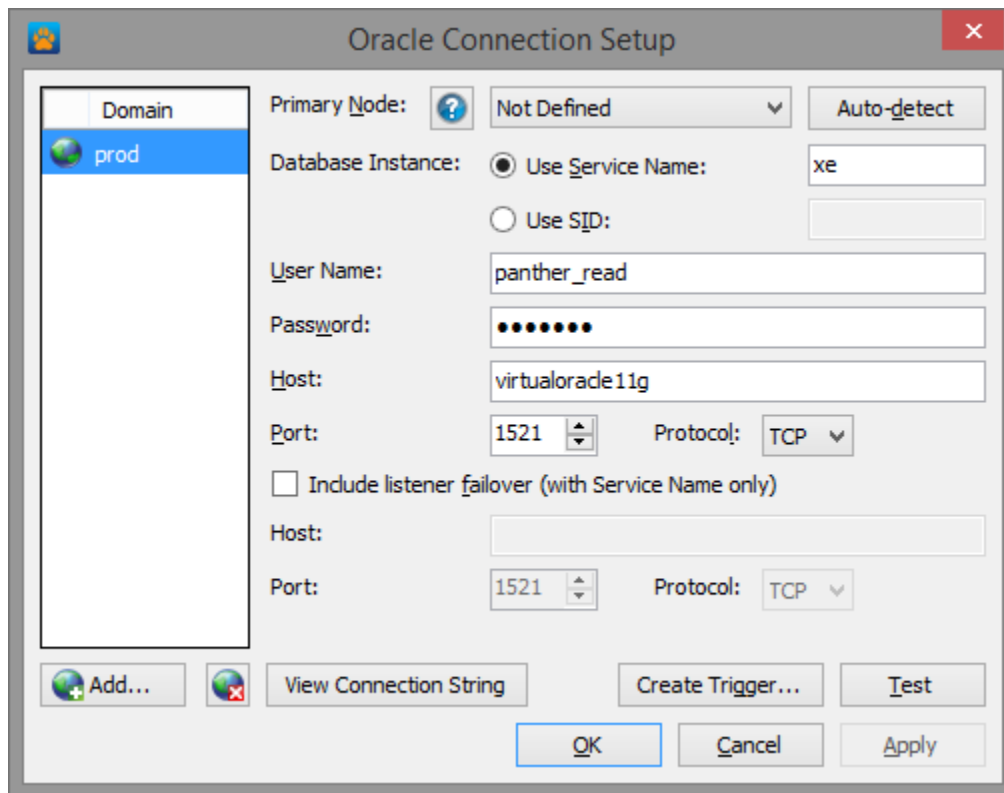


Figure 37: Oracle® Connectivity

Oracle® Connectivity

The Oracle® Connection Setup dialog allows you to configure the connection to the Oracle database for each domain and create the sequence, table, and trigger required for the Oracle® Alerts Sensor.

Several of Panther's capabilities require Oracle® connectivity, including:

- Database Controls and Alerts (required)
- Interfaces Controls and Alerts (required)
- Cycling Interface Servers (recommended)
- Server Under/Over-service Alert (recommended)

To access Oracle® Connectivity, select the "Foreign System Setup" option in the Tools drop-down for the Panther Menu, and select "Oracle® Connection Setup" in its sub-menu (Figure 26).

When a connection string has been set up, you can verify the connection information by clicking the *Test* button.

When defining the connection settings for a domain, you may identify the *Primary Node*, which should be set to whichever node is intended to host the Open Engine servers. If you click the *Auto-Detect* button, Panther will scan nodes on the domain, looking for a node with a server that hosts the service named "oen.routerservice". If this service is found running on a node, it will be automatically selected as the *Primary Node*. If the *Primary Node* is left as "Not Defined", the same auto-detect logic will be used upon startup to select a node to use as the primary; however, it will not be saved as a setting, so it is possible that another node may be detected and used as the *Primary Node* in the future unless it is specifically defined.

Users who modify the *Primary Node* setting should be aware of the following details regarding the behavior:

- If a domain has only one node, that node is treated as the *Primary Node* when users cycle servers.
- When a user [Cycles](#) an Open Engine server with default cycling behavior, Panther uses the primary node setting to help determine the number of instances to run for the server being cycled, unless the node is configured in the `OEN_PROCINFO` table:
 - servers on the *Primary Node*: 1 running instance
 - servers on other nodes: 0 running instances
- The Interfaces control will also use this setting to determine what the preferred node is for actions like quick-starting a server and viewing configuration properties. Without a *Primary Node* or configuration in the `OEN_PROCINFO` table, no default is assumed (See [Configured Node](#)).



Attention: panther_read

On the Oracle® Connection Setup dialog ([Figure 37](#)), the `panther_read` user credentials must be used in order to successfully use the trigger creation wizard.

The *Create Trigger* button provides a wizard that will assist in creating the required items for the Oracle® Alerts Sensor.

Figure 38: Oracle® Trigger Creation Wizard

The wizard will allow users to specify which tablespace the table will reside in and display the SQL for review before any changes are made.

The trigger will capture the operating system (OS) and database usernames associated with ORA- errors (Figure 38).



Attention: Trigger permissions

Only SYSDBAs (System DataBase Administrators) on the Oracle® database being used are allowed to create triggers. Other users will see the final SQL that would be used, but cannot actually create triggers. (See Figure 38).

Rules Engine Setup

The Rules Engine Setup dialog allows you to specify which process flags are used during rule evaluation.

To access Rules Engine Setup, select the “Foreign System Setup” option in the Tools menu, then look for Rules Engine Setup in its sub-menu.

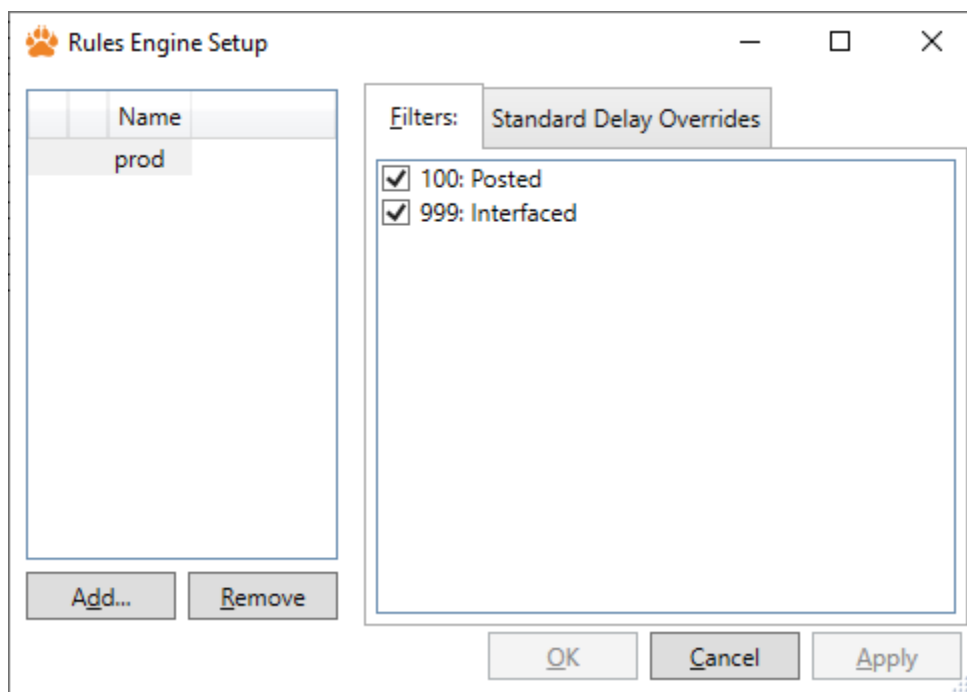


Figure 39: Rules Engine Setup

If there are any domains Panther is monitoring which are available for assignment of process flag filters, the “Add...” button in the lower-left corner of the dialog will be enabled. The prompt upon clicking “Add...” will include the list of available domains.

Users can also optionally define standard delay values for organizations (Figure 40), used for the MAX_CHARGE_DATE column¹. These standard delay values will be used when standard delay values are not defined in the Millennium® database or to override the values that are.

¹Rules Engine Columns

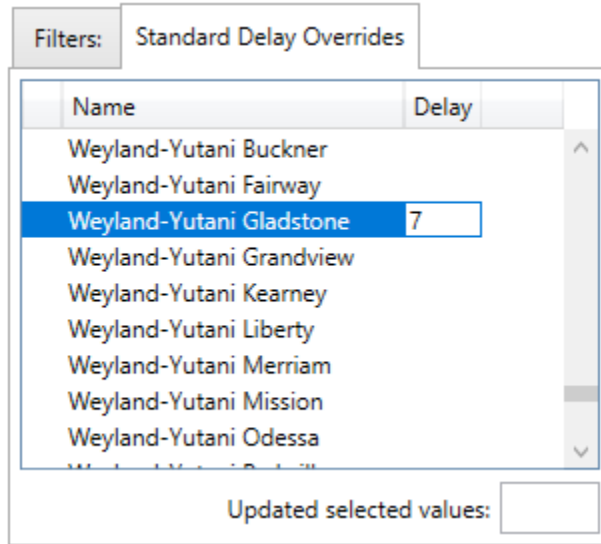


Figure 40: Standard Delay Overrides

Values can be defined one-by-one by clicking in the *Delay* cell next to an organization and adding/removing a value or done in batches by multi-selecting organizations and entering a value into the text box below (Figure 41).

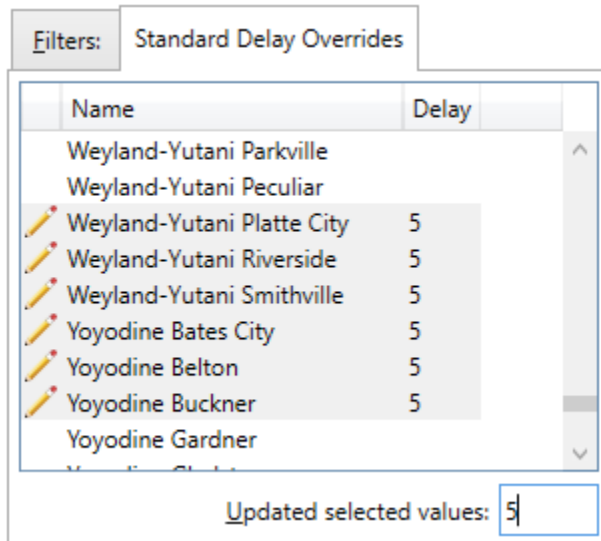


Figure 41: Standard Delay Overrides - Batch Changes

WAS Connection Setup

The WAS Connection Setup dialog allows you to specify the connection information for one or more WebSphere Application Server (WAS) environments. This allows Panther to connect to WAS environments and gather data for Panther sensors and alerting.

To access WAS Connection Setup, select the “Foreign System Setup” option in the Tools menu, and look

for “WAS Connection Setup” in its sub-menu.

The screenshot shows the 'WAS Connection Setup' dialog box. On the left, there is a list box with a header 'Name' and one entry 'ODRPROD1CELL1'. Below this list are 'Add...' and 'Remove' buttons. To the right of the list box is a 'Suspended' checkbox. Further right are input fields for 'User:' (containing 'operator'), 'Password:', and 'Hosts:' (containing 'https://odrprod1:8878/'). Below the 'Hosts' field are 'Test', 'Add...', and 'Remove' buttons. At the bottom, there is a 'Domains:' section with a list box containing a checked item 'prod'. At the very bottom of the dialog are 'Add...', 'Remove', 'Detect', 'OK', 'Cancel', and 'Apply' buttons.

Figure 42: WAS Connection Setup

Unlike other “Foreign System Setup” screens that list Millennium domains on the left, “WAS Connection Setup” lists WAS environments or cells on the left. A WAS environment is defined by providing credentials for the operator account that Panther will use to connect. One or more hosts or nodes needs to be supplied so Panther knows what to communicate with. By default, hosts that are added will default to port 8878 but can be configured to use other ports.

The test button will test the credentials against each of the hosts and display whether Panther was able to connect to each host. Once the credentials are in place, they can be saved and changed as needed.

At the bottom of the screen is the domain association for the WAS environment. Each WAS environment can be configured to map to one or more Millennium domains so that Panther can map the WAS data for alerting purposes. This allows users to choose which domains Panther uses for sensor alerts for the WAS environment. This gives Panther administrators the flexibility to choose which domain WAS alerts should show up for. It also allows for multiple WAS environments to go to a single domain. For example, a production WAS environment and a Millennium Mobile WAS environment could both be assigned to a production Millennium domain, and the alerts for both would be managed in one place in Panther.

When credentials and at least one host are provided, clicking the ‘Detect’ button results in the screen checking the domain boxes based on the applications in the WAS environment. This button may check more than one domain depending on what applications are detected. This is best used as a starting point followed by manual inspection to ensure the domain association is correct.

5.3.7 Privilege Management

Panther's 'Manage Users' privilege allows you to define what users have access to the various components of Panther. Some privileges are global, and others are domain specific.

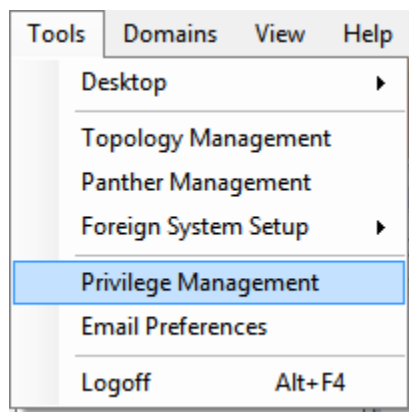


Figure 43: Privilege Management

General Information

The Panther Privilege management will give you access to Users and Groups as well as the Privileges and Memberships of those Users and Groups.

By checking or un-checking the *Show Groups* or *Show Users* checkboxes in the lower left corner of the Panther Privilege Management window, you determine whether the Panther Accounts list includes only users, only groups or both users and groups. The (👤) icon below the checkboxes gives you the ability to add groups to Panther. The (👤) icon gives the ability to add users and the (👤) icon gives the ability to delete both users and groups. The context menu in the list of users and groups also gives the ability to view a user's record in the PRSNL table, or view the list of Organizations the user has access to, provided there is an Oracle® connection to the domain that hosts the user.

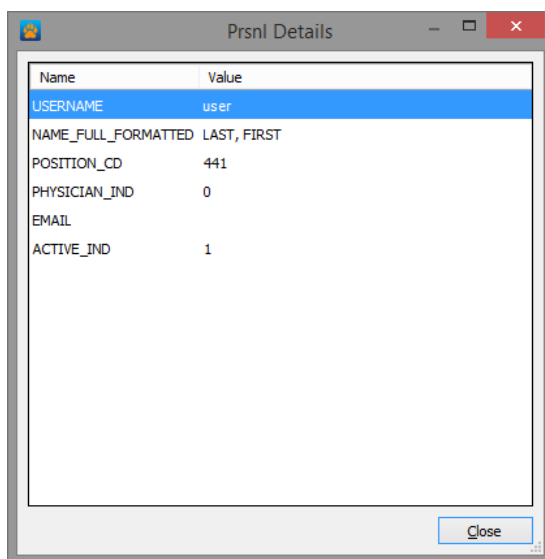


Figure 44: Prsnl Dialog

Privileges Tab

Default User Group

The settings defined for this group will identify the privileges that all new users will have when they are first added to Panther. Unless someone grants the global privilege, 'Access Panther', to the Default User Group, new users will not be able to sign in until their settings are manually altered by someone with the 'Manage Users' privilege.

The dialog on the following page opens when the *User Management* option in the *Tools* menu is selected. In [Figure 45](#) the Default User Group is selected. This group can be renamed or replaced with a group that automatically adds new users by making sure the corresponding group has the *Add new Panther users to this group when they sign in for the first time* checkbox checked ([Figure 46](#)).



How do users get added to Panther?

Users can be added to Panther using the Panther User Privilege Management dialog. Users are also automatically added to Panther when they login for the first time with a username/password combination that is authenticated through Millennium. Users added automatically will have the same privileges as the Default User Group.

The (default) Domain

The settings for the *default* domain are applied to all domains unless they are explicitly overridden by changing the privilege under the desired domain.

The settings defined for this domain will identify the privileges that the selected user will have on all new domains when they are first added to Panther.



Attention: Not all users have access to User Management.

Only users with the Panther 'Manage Users' privilege are allowed to access user management.

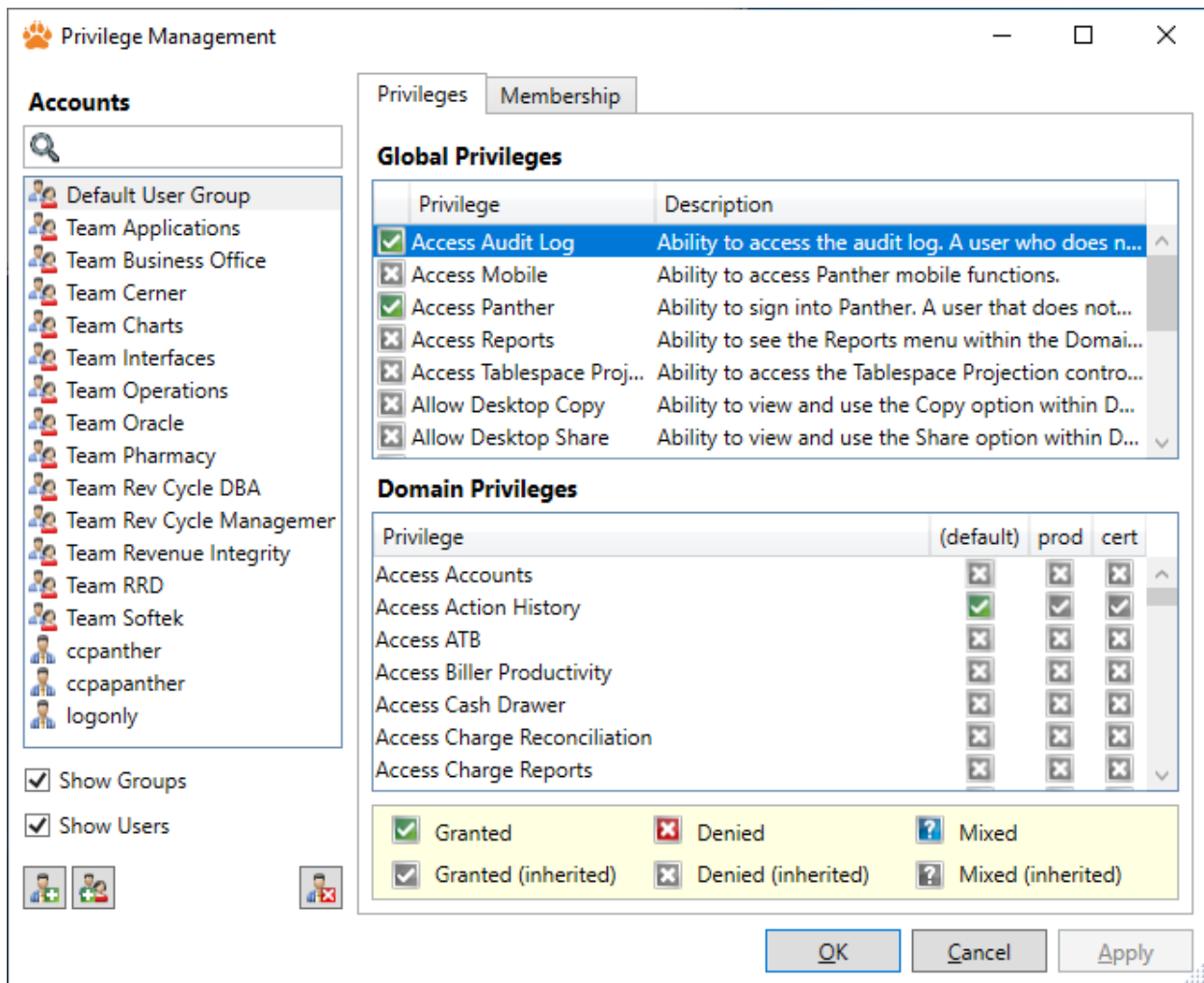


Figure 45: Privilege Management

Global Privileges

Global privileges apply across all domains

Privilege	Description
Access Audit Log	Causes the Audit Log option to appear in the Domain Explorer for the selected user.
Access Mobile	Gives the ability to access Panther mobile application functions.
Access Panther	Defines whether a user can sign into Panther. Denying this privilege to the (<i>New User Template</i>) will keep accounts that are not defined within Panther from accessing Panther.
Access Reports	Causes the Reports option to appear in the Domain Explorer for the selected user.
Access Tablespace Projection	Causes the Tablespace Projection option to appear in the Domain Explorer for the selected user.

Table 10: Global Access Privileges

Privilege	Description
Allow Desktop Copy	The selected user can give copies of their custom desktops to other Panther users. Once the copy is received, the user can make edits to their copy of the desktop without making changes to the original desktop.
Allow Desktop Share	The selected user can allow other users to view one or more of their custom desktops and, if they choose, allow those users to make changes to their desktop. Any edits will make changes to the master desktop.
Manage iBus Logs Connectivity	Ability to create, modify, and remove information that allows Panther to load iBus logs.
Manage Panther	Causes the Panther Management option to appear in the Tools menu. Panther Management dialog is where sensors, events, and notifications can be disabled or enabled for the entire Panther environment.
Manage Reports	Gives the ability to add, edit, or remove scheduled reports, and to edit the recipient lists for scheduled reports in the Reports control.
Manage RTMS Connectivity	Ability to create, modify, and remove information that allows Panther to load RTMS timer information.
Manage Users	Causes the Manage Users option to appear in the Tools menu and exposes additional options in the Email Preferences dialog. This grants users the ability to alter user groups, Panther user privileges, and email preferences for all Panther users.

Table 11: Global Manage Privileges

Domain Privileges

Domain privileges can be used to give you finer-grained control over what components of Panther users have access to on individual Millennium domain ([Table 12](#) and [Table 15](#)).

Privilege	Description
Access Accounts	Displays the User Accounts and System Accounts controls.
Access Action History	Displays the Action History control.
Access ATB	Displays the ATB controls.
Access Biller Productivity	Displays the Biller Productivity control.
Access Cash Drawer	Displays the Cash Drawer control.
Access Charge Reconciliation	Displays the Charge Reconciliation control.
Access Charge Reports	Displays the Charge Reports control.
Access Claim Denials	Displays the Claim Denials control.
Access Configurations	Displays the Configurations control. A user without this ability cannot access server configuration properties from other controls.
Access Current Events	Displays the Current Events control.
Access Cycle Groups	Displays the Cycle Groups control.
Access Cycle Schedules	Displays the Cycle Schedules control.
Access Encounter Holds	Displays the Encounter Holds control.
Access ESI Logs	Displays the ESI Log control.
Access Form Integrity	Displays the Form Integrity control.
Access Formulary Compliance	Displays the Formulary Compliance control.
Access General Ledger Build	Displays the General Ledger Build control.
Access HIM Productivity	Displays the HIM Productivity control.
Access iBus Logs	Displays the iBus Logs control.
Access Implant Recall	Displays the Implant Recall control.
Access Interface Tx Loader	Displays the Interface Tx Loader control.
Access Interfaces	Displays the Interfaces control. By default these users will not be able to view any interfaces that have not been assigned to them using interface views.
Access Notification History	Displays the Notification History control.
Access OHPA ATB	Displays the ATB (OHPA) control.
Access OHPA Charge Reconciliation	Displays the Charge Reconciliation (OHPA) control.
Access OHPA DNFB	Displays the DNFB (OHPA) control.
Access Oracle Query	Displays the Oracle Query control.
Access Oracle Session Monitor	Displays the Oracle Session Monitor control.
Access Order Integrity	Displays the Order Integrity control.

Table 12: Domain Access Privileges

Privilege	Description
Access Patient Accounting Reports	Displays the Patient Accounting Reports control.
Access Payor Report Card	Displays the Payor Report Card control.
Access Pharmacy Integrity	Displays the Pharmacy Integrity control.
Access Physician Documentation	Displays the Physician Documentation control.
Access Printers	Displays the Printers control.
Access Queue Message Contents	Ability to view the contents (raw data) of an IBM MQ message in the Queues control. A user that does not have this ability will not be allowed to view the contents of IBM MQ messages in the Queues control.
Access Queues	Displays the IBM MQ Queues control.
Access Rules Engine	Displays the Rules Engine control.
Access Scheduled Revenue Reports	Offers the ability to view scheduled Charge Reports and Patient Accounting reports, if the user also has the necessary privileges to access the respective report controls.
Access SCP Recommendations	Displays the SCP Recommendations control.
Access Server Logs	Displays the Millennium Server Logs via the Message Logs controls. A user without this ability cannot access server logs from other controls.
Access Servers	Displays the Servers control.
Access Services	Displays the Services control.
Access Summary Revenue Reports	Displays the Summary Revenue Reports controls (7-day Rolling Average, Inpatient/Outpatient, Revenue By Category, Revenue By Cost Center, and Revenue By Health Plan.
Access Supply Charging	Displays the Supply Charging control.
Access Work Queue Assignments	Displays the Work Queue Assignments control.
Allow Account Info Retrieval	Ability to view users Organization access, Billing Entity access, and view records from the PRSNL table.
Allow Application Context Retrieval	Allows the user to search for Application Context records.

Table 13: Domain Access Privileges

Privilege	Description
Allow Server Control Panel (SCP) –All operations	Ability to view and use the “Start –All”, “Stop –All”, and “Kill –All” operations in the Servers and Configurations controls.
Allow SCP Kill operations	Ability to view and use the “Kill server” and “Kill instance” operations in the Servers and Configurations controls. A user without this privilege will not be able to view or access this functionality.
Manage Chart Server Sensors	Displays Chart Job sensors under Sensor Setup.
Manage Cycle Groups	Ability to add, edit or remove cycle groups within the Cycle Groups control. A user with this privilege may also view all existing Cycle Groups.
Manage Form Integrity	Ability to manage the Form Integrity control.
Manage Formulary Compliance	Ability to manage the Formulary Compliance control.
Manage IBM MQ Sensors	Displays IBM MQ sensors under Sensor Setup.
Manage IBM WAS Sensors	Displays IBM WAS sensors under Sensor Setup.
Manage Interface Views	Ability to manage views in the Interfaces control. This includes access to the View Management screen and the ability to use no view in the list of interfaces. A user that does not have this ability is only allowed to use views he/she is assigned to and will not be able to access the View management screen.
Manage Millennium Sensors	Displays Millennium sensors under Sensor Setup.
Manage NDC Sensoprs	Displays NDC sensors under Sensor Setupl.
Manage Open Engine Sensors	Displays Open Engine sensors under Sensor Setup.
Manage Ops Job Sensors	Displays Ops Job sensors under Sensor Setup.
Manage Oracle® Connectivity	Ability to create, modify, and remove information that allows Panther to connect to the Oracle® database.
Manage Oracle® Sensors	Displays Oracle® sensors under Sensor Setup.
Manage Order Integrity	Ability to manage the Order Integrity control.
Manage Physician Documentation	Ability to manage the Physician Documentation control.
Manage Queue Views	Ability to manage views in the Queues control. This includes access to the View Management screen and the ability to use no view in the list of servers. A user that does not have this ability is only allowed to use views he/she is assigned to and will be able to access the View Management screen.

Table 14: Domain Access Privileges

Privilege	Description
Manage Remote Report Distribution Sensors	Displays RRD sensors under Sensor Setup.
Manage Rules Engine Configuration	Ability to manage the Rules Engine configuration for a domain.
Manage Scheduled Revenue Reports	Ability to manage Revenue Report schedules.
Manage Server Views	Ability to create, modify, and remove server views. Users without this privilege will only be able to use the server views that have been created and assigned to them.
Manage Topology	Ability to remove domains and suspend event detection, actions, and notifications.
Manage Work Queue Assignments	Ability to manage the Change Tracking in the Work Queue Assignments control for a domain.
Manage XR Sensors	Displays XR sensors under Sensor Setup.

Table 15: Domain Manage Privileges

Membership Tab

Groups

Groups can be utilized in signing people up for event notifications sent out by the sensors, and the assignment of privileges.

Privileges explicitly defined for a user will override any group privileges. Privileges that are not defined for a user will be inherited from the group(s) of which the user is a member. If a user is a member multiple groups that have conflicting privilege assignments, privileges explicitly denied by one group and explicitly granted by another group will be inherited as a denials.

Example

Privilege	Millennium Admins	Default User Group	UserA	Result
Access Interfaces				
Manage Server Views				
Access Servers				
Access Cycle Schedules				
Access Mobile				

Table 16: Privilege Inheritance

UserA is in the Default User Group and the Millennium Admins group. The Default User Group grants the Access Mobile privilege, and denies the Manage Server Views and Access Cycle Schedules privileges. The Millennium Admins group grants the Manage Server Views, Access Servers, Access Cycle Schedules, and Access Mobile privileges. User A has been directly granted the Access Cycle Schedules privilege and directly denied the Access Mobile privilege.

Since neither UserA nor its groups have granted the Access Interfaces privilege, the privilege is denied.

UserA has not had the Manage Server Views privilege defined, so it inherits it from the groups it is a member of. The Millennium Admins group has been granted Manage Server Views, but the Default Users Group has been denied Manage Server Views, so the privilege is denied.

Likewise, Access Servers is not defined for UserA. Millennium Admins has been granted it, and the Default Users Group does not have it defined, so the privilege is granted.

UserA has been explicitly granted the Access Cycle Schedules privilege, which overrides the denial of that privilege to the Default User Group, so the privilege is granted.

UserA has been explicitly denied the Access Mobile privilege, which overrides the grants from both Millennium Admins and Default User Group, so the privilege is denied.

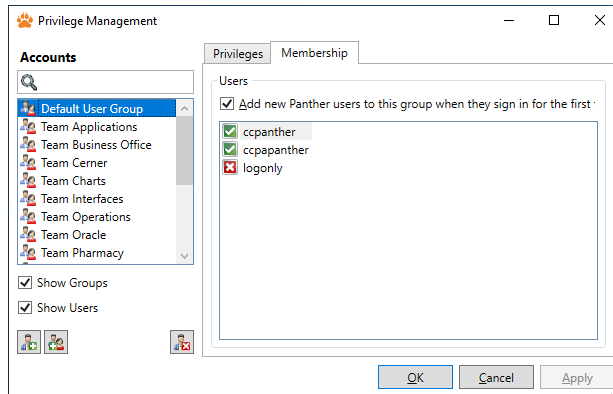


Figure 46: Privilege Mangement

When a group is selected, such as the Default User Group, all users will be listed within the Membership tab. Users are included or excluded from a group by toggling between a green check mark and red x to the left of the username.

If a user is selected, a list of the existing groups will display in the Membership list. Users are included or excluded from a group by toggling between a green check mark and red x to the left of the group name.

5.3.8 Email Preferences

Email Preferences is used to establish user's email and pager addresses. The email address will be used for both notifications and reports.

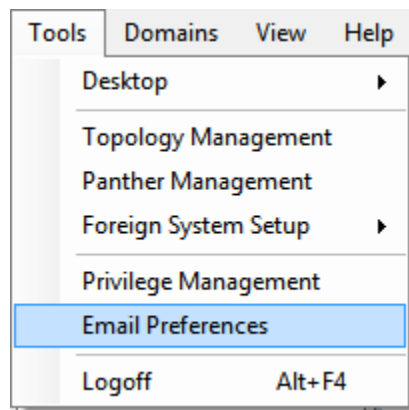


Figure 47: Email Preferences

This dialog also provides a quick list of all notifications the selected user is currently signed up to receive. To review the notifications you or others are signed up for, click the [View Notification Subscriptions](#) link.

All users have access to the Email Preferences menu item, however not all users have the privilege to manage groups and other users. If you do not have the 'Manage Users' privilege, you will only see the 'Your Preferences' side of the Panther Email Preferences dialog.



Attention: Receiving notifications and reports

It is not enough to enter an email address and/or a pager address. If the *May Receive Notifications* checkbox is not checked, the user will not receive notifications from Panther.

The figure below shows a user configured to only receive email notifications.

Panther Email Preferences

Panther Users

- alice
- bob
- carol
- logonly
- pantherweb

☒ **May Receive Notifications**

Email

Email Address: **Test**

Email notifications from Panther can be sent at any time of the day.

Paging Schedule

Pager Address: **Test**

Maximum pager notification length (characters):

Personal

☐ **On Call** (When on call, you receive pages 24/7)

Midnight 6:00 am Noon 6:00 pm Midnight

Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday

Group

On Call Schedules

Group	Start Date	End Date

[View Notification Subscriptions](#) [Manage On Call Groups](#)

OK **Cancel** **Apply**

Figure 48: Email Preferences

Adding Users

- Right-click in the *Users* section.
- Select *Create User* from the [Context Menu](#).
- Enter a user name matching a *Millennium* user name.
- The new user will be added to the list of users on the left.

Icon	Email	Pager	On Call	May Receive
	X	X	X	X
	X	X	X	
	X	X		X
	X	X		
		X	X	X
		X	X	
	X		X	X
	X		X	
		X		X
		X		
	X			X
	X			
				X
				

Table 17: Translating User Icons

Test Notifications

To verify that an email address or pager address is correct, or that Panther can send email to a provided address, the *Test* button next to the *Email Address* or *Pager Address* fields should be used. Clicking this button sends a brief Test Notification message to the associated address and displays the dialog shown in [Figure 49](#) to the sender.

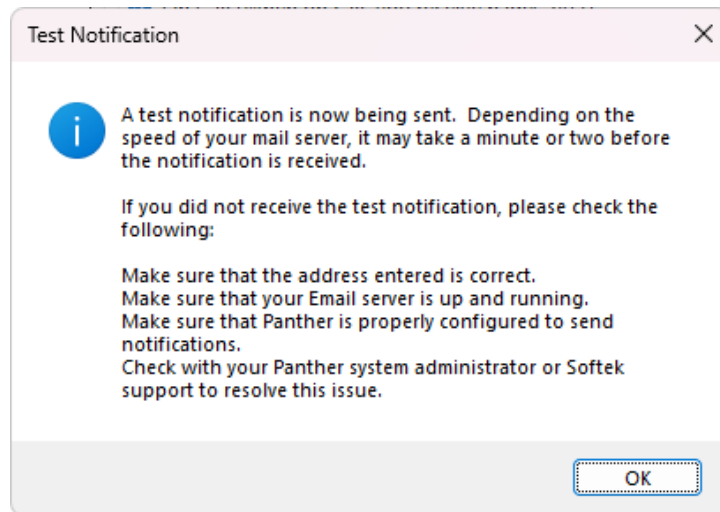


Figure 49: Test Notification

Pager Notifications

Panther only supports SMS and Alpha Text.

☒ May Receive Notifications

Email

Email Address:

Email notifications from Panther can be sent at any time of the day.

Paging Schedule

Pager Address:

Maximum pager notification length (characters):

Personal

☒ On Call (When on call, you receive pages 24/7)

Midnight 6:00 am Noon 6:00 pm Midnight

Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Monday - Friday, 1:00 PM to 5:00 PM

Figure 50: Paging Schedule On Call

Scheduling Options

After providing a pager address and optionally setting a maximum notification length, you need to set up a schedule to receive pages.

There are three options for scheduling:

1. On Call [Figure 50](#). For users that wish to receive pager notifications at any time of day (or night), the *On Call* checkbox can be checked. With this option, Panther will ignore any specified schedule and send pager notifications whenever they are initiated.
2. Create a schedule [Figure 52](#). Users who only wish to receive pager notifications at specific times of the week should set up a custom paging schedule instead of selecting the *On Call* option.
3. Create group schedules [Figure 51](#). This is ideal for teams with a pager rotation. The schedules are set in advance by a user with the 'Manage Users' privilege. Users without the 'Manage Users' privilege can view their group schedules. See [On Call groups](#) for more information.

Group On Call Schedules		
Group	Start Date	End Date
Team Applications	2018-10-02 13:00	2018-10-09 13:00
Team Applications	2018-10-09 13:00	2018-10-16 13:00
Team Applications	2018-10-16 13:00	2018-10-23 13:00

Figure 51: Group Pager Schedules



Attention: On-call and emails

Email notifications are sent at all times, regardless of the paging schedule that has been set up (if the *On Call* checkbox has been checked or not).

Creating Custom Paging Schedules

Click-and-drag to make selections in the Schedule Grid and toggle whether or not time spans are included in the paging schedule. The scheduler also supports the use of Enter, Space, and Shift keys for multi-selection of days and times.

☒ May Receive Notifications

Email

Email Address:

Email notifications from Panther can be sent at any time of the day.

Paging Schedule

Pager Address:

Maximum pager notification length (characters):

Personal

☐ On Call (When on call, you receive pages 24/7)

Midnight 6:00 am Noon 6:00 pm Midnight

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Monday - Friday, 1:00 PM to 5:00 PM

Figure 52: Paging Schedule

Figure 52 demonstrates the following paging schedule for “example@address.net”:

Monday - Friday

8:00 am to 12:00 pm

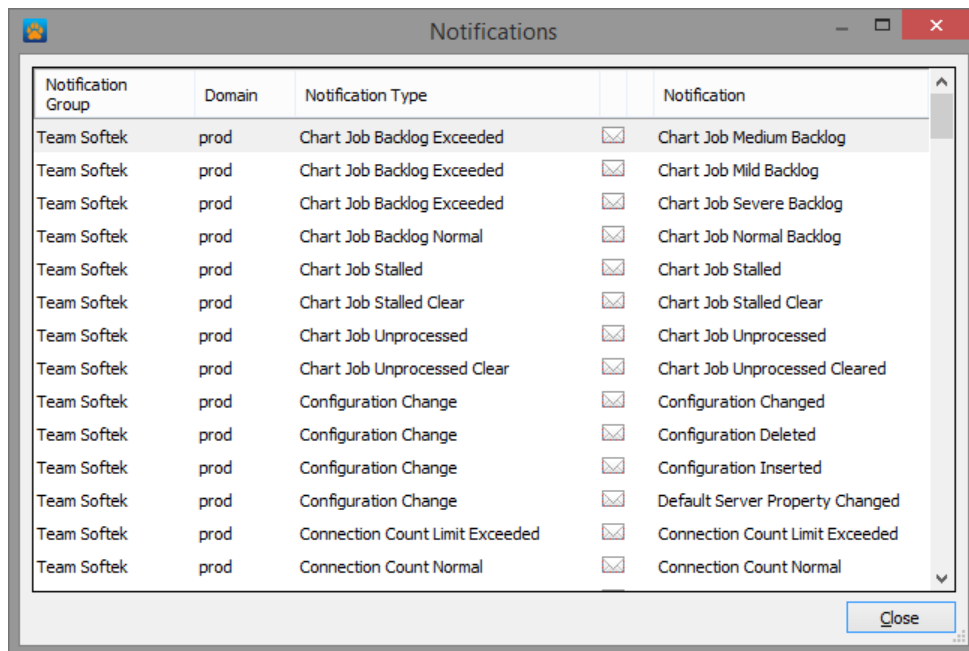
1:00 pm to 5:00 pm

Newly selected cells display as light gray while previously selected cells appear as blue. To remove a time span that has already been selected, simply re-select the time span. The selection that is being removed displays in dark gray. The colors mentioned are the ones seen on a Windows 8 machine with the standard theme; different operating systems and themes may use different colors.

Viewing Notification Subscriptions

The Notifications dialog allows you to see what notifications a user is signed up to receive. The dialog will indicate a notification group if the notification is received because of a membership to a group. The dialog also indicates the domain, notification type (e.g., Chart Job Backlog Exceeded), the specific notification (e.g., Chart Job Mild Backlog), and the method of notification (an email and/or pager icon).

The figures below show the same subscriptions in the two available views.



The screenshot shows a window titled "Notifications" with a table of subscription data. The table has four columns: "Notification Group", "Domain", "Notification Type", and "Notification". Each row represents a specific notification subscription, with icons indicating the notification method (email and/or pager). A "Close" button is located at the bottom right of the dialog.

Notification Group	Domain	Notification Type		Notification
Team Softek	prod	Chart Job Backlog Exceeded		Chart Job Medium Backlog
Team Softek	prod	Chart Job Backlog Exceeded		Chart Job Mild Backlog
Team Softek	prod	Chart Job Backlog Exceeded		Chart Job Severe Backlog
Team Softek	prod	Chart Job Backlog Normal		Chart Job Normal Backlog
Team Softek	prod	Chart Job Stalled		Chart Job Stalled
Team Softek	prod	Chart Job Stalled Clear		Chart Job Stalled Clear
Team Softek	prod	Chart Job Unprocessed		Chart Job Unprocessed
Team Softek	prod	Chart Job Unprocessed Clear		Chart Job Unprocessed Cleared
Team Softek	prod	Configuration Change		Configuration Changed
Team Softek	prod	Configuration Change		Configuration Deleted
Team Softek	prod	Configuration Change		Configuration Inserted
Team Softek	prod	Configuration Change		Default Server Property Changed
Team Softek	prod	Connection Count Limit Exceeded		Connection Count Limit Exceeded
Team Softek	prod	Connection Count Normal		Connection Count Normal

Figure 53: Notification Subscriptions

On Call Groups

The On Call Groups feature of Email Management allows configuring per-group pager schedules. The typical use for this is in setting up a pager rotation so that users who are on call receive pager notification from Panther.

Figure 54: On Call Groups



Attention: On Call Groups

Group Pager notifications configured in the Manage On Call Groups are independent of personal pager settings in Email Management. It is possible to receive pager notifications by configuring the personal settings, the group settings, or both. If a user does not have 24/7 On Call checked and does not have a personal schedule configured, Panther will still send pager notifications when there is a group schedule defined for that user.

To configure schedules, open the dialog by clicking the 'Manage On Call Groups' button in Email Preferences. The Manage On Call Groups dialog consists of a list of Panther user groups on the left and the details for each group on the right.

To configure a group, select it in the grid on the left. Pager notifications for the group can be turned on or off by checking the 'Use On Call Groups' checkbox. When 'Use On Call Groups' is checked, a pager icon will appear next to the group to indicate that pager group notifications are active.

Schedules

The schedules grid shows all of the pager schedules defined for the selected group. A schedule consists of the user and the start and end dates of the schedule.

Schedules for the group can be added and removed by clicking the buttons below the schedule grid. By default, new schedules start at the end of the last schedule and end a week later. To set up a bunch of week long schedules with the same start time, create a single schedule and set the times. Once the first schedule is configured, subsequently added schedules will have the desired start time and a duration of one week.

To edit a schedule, double click the row and cell to be edited. Double click the name to bring up a dropdown of all of the users in the currently selected group.

By default, the schedules grid only shows current and future schedules. To view old schedules, check the 'Show old schedules' checkbox.

On Call Coverage

The On Call Coverage calendar on the bottom right of the Manage On Call Groups dialog displays a high level view of calendar coverage for the group. The purpose of the calendar is to give an at-a-glance view of when the schedules are defined and to indicate any gaps. Calendar days that are green represent days that are fully covered by schedules. Orange represents days that are partially covered. When schedules end in the middle of the day, it is typical for the last schedule in the list to have its last day be orange because it the day is partially covered until another schedule is added.

The left and right buttons beside the calendar allow changing the months that are displayed in the calendar.

5.3.9 Domains Menu

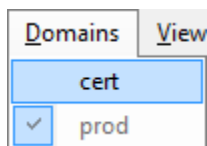


Figure 55: Domains Menu

From the *Domains* menu, you may select any available domain. Available domains include those that have been added to Panther using the Topology Manager. If a domain is expected to appear in this list but does not, it is possible that the domain has not yet been added to Panther (See the [Adding Domains](#) section of this document for information on adding domains to Panther).

Domains that are checked in this menu are already logged into and should appear in the Domain explorer. When you check a domain that was previously unchecked, Panther will attempt to log you into the selected domain using your authentication information for the current domain (also known as “pass-through” authentication). If your account name and password are not exactly the same for both domains, you will be prompted to sign into the selected domain. Once you have been authenticated on the domain, it will appear in the Domain Explorer ([Figure 10](#)).

Pass-through authentication may be unavailable depending on your organization’s configuration. Specifically, use of DNS segregation or LDAP security will disable “pass-through” authentication.

If “pass-through” authentication fails, Panther will not attempt this again until your next Panther session. This is to protect against your accounts being locked out due to too many invalid password attempts.

5.3.10 View Menu

From the *View* menu, you may choose to hide or show the Domain Explorer. The option to hide the Domain Explorer can come in handy when you are attempting to maximize the available screen space.

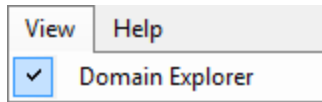


Figure 56: View Menu

5.3.11 Help Menu

The *Help* Menu provides links to visit the Softek University and Panther Support websites, load Panther product documentation, or view details regarding the Panther Client, including the installed version number.

For more information on the Support website, see the [Getting Support](#) section of this document.

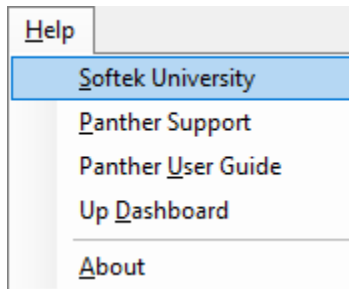


Figure 57: Help Menu

6 Panther Desktops

Panther allows you to build customized desktops that can contain multiple components from the Panther system. You can create desktops at the global level or domain level. Use the instructions below to create new desktops.



Attention: Global vs. Domain desktops

A Global desktop may use controls from any domain, but Domain desktops are only allowed to use controls from their domain.

6.1. Creating Desktops

1. Choose “a” for a Global Desktop or “b” for a Domain Desktop.
 - (a) Select *Desktop* in the Domain Explorer.
 - (b) Select a domain in the Domain Explorer (Examples use prod).

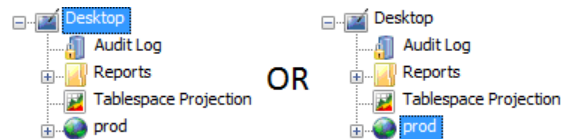


Figure 58: Domain Explorer

2. Select the *Tools* menu.
3. Select *Desktop*.
4. Select *New Desktop...*

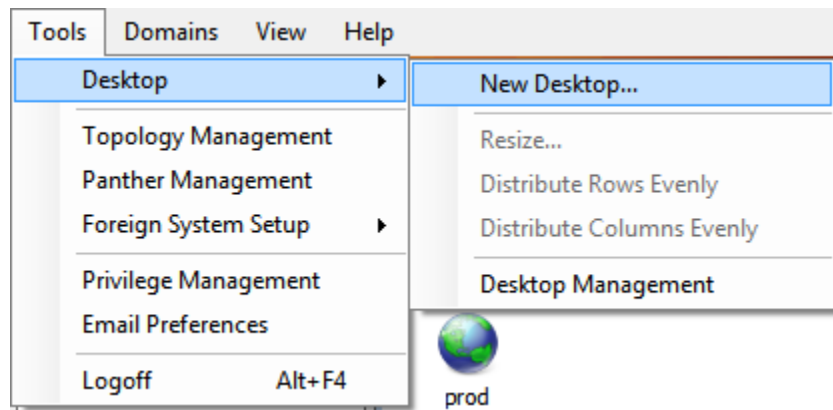


Figure 59: Desktop context menu

5. When choosing to create a new desktop, a grid appears. The cells in this grid represent the dimensions for the new desktop. For instance a 2x2 desktop will be able to show four controls at a time.

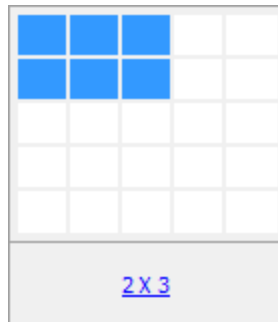


Figure 60: Desktop resize pane

- (a) Move the cursor over the grid so that the blue cells correspond to the layout and dimensions that are desired and click.
- (b) The following figures show the difference between a 2x3 and a 3x2 desktop where: “My First Desktop” is 2x3 and “My Second Desktop” is 3x2.

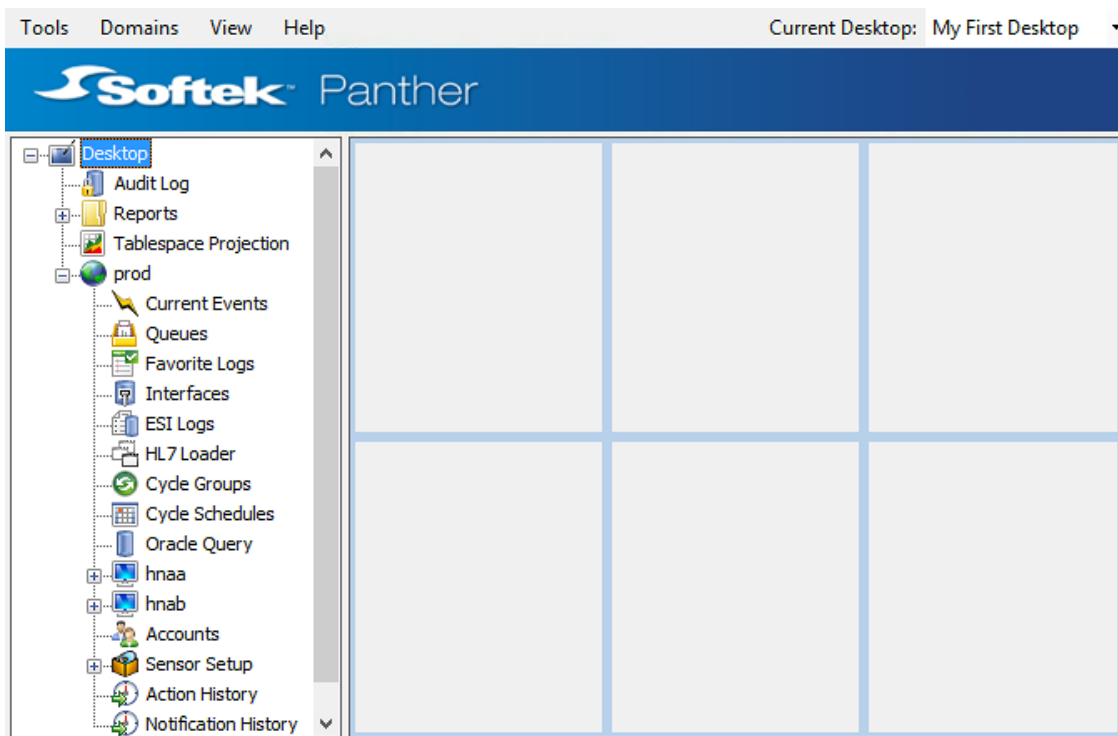


Figure 61: First Desktop

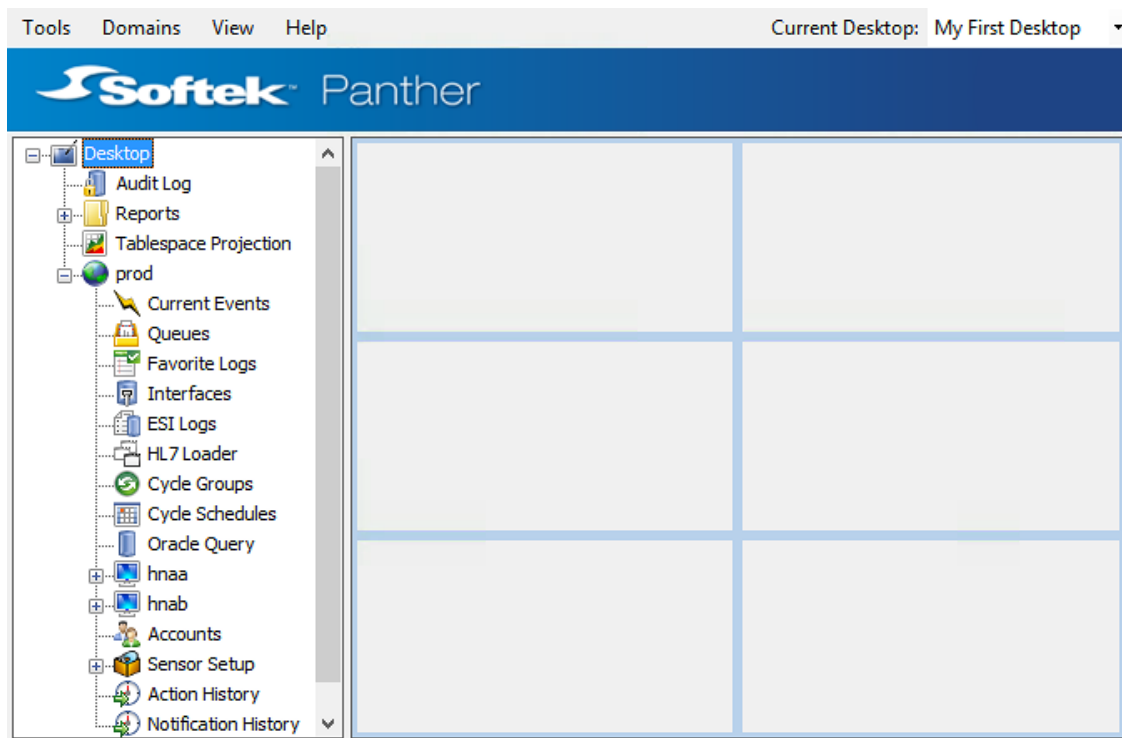


Figure 62: Second Desktop

6. Once the dimensions for the desktop have been chosen, a unique name will need to be provided with clicking OK to follow.

No two desktops on the same level (also called scope) are allowed to have the same name.

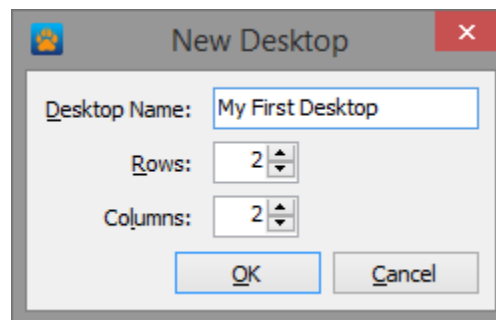


Figure 63: New Desktop dialog

7. Now there is a blank desktop, ready to be filled with Panther controls.

6.2. Adding Desktop Controls

1. To add a control to a desktop, click and drag it from the Domain Explorer to the desired cell on the desktop (Figure 64).

2. A control can be dragged and dropped for each cell on the desktop.

Example:

- Add a Servers control to the desktop by dragging its icon from the Domain Explorer to a cell on the desktop.
- The Servers will populate the pane of the desktop where it was dropped.

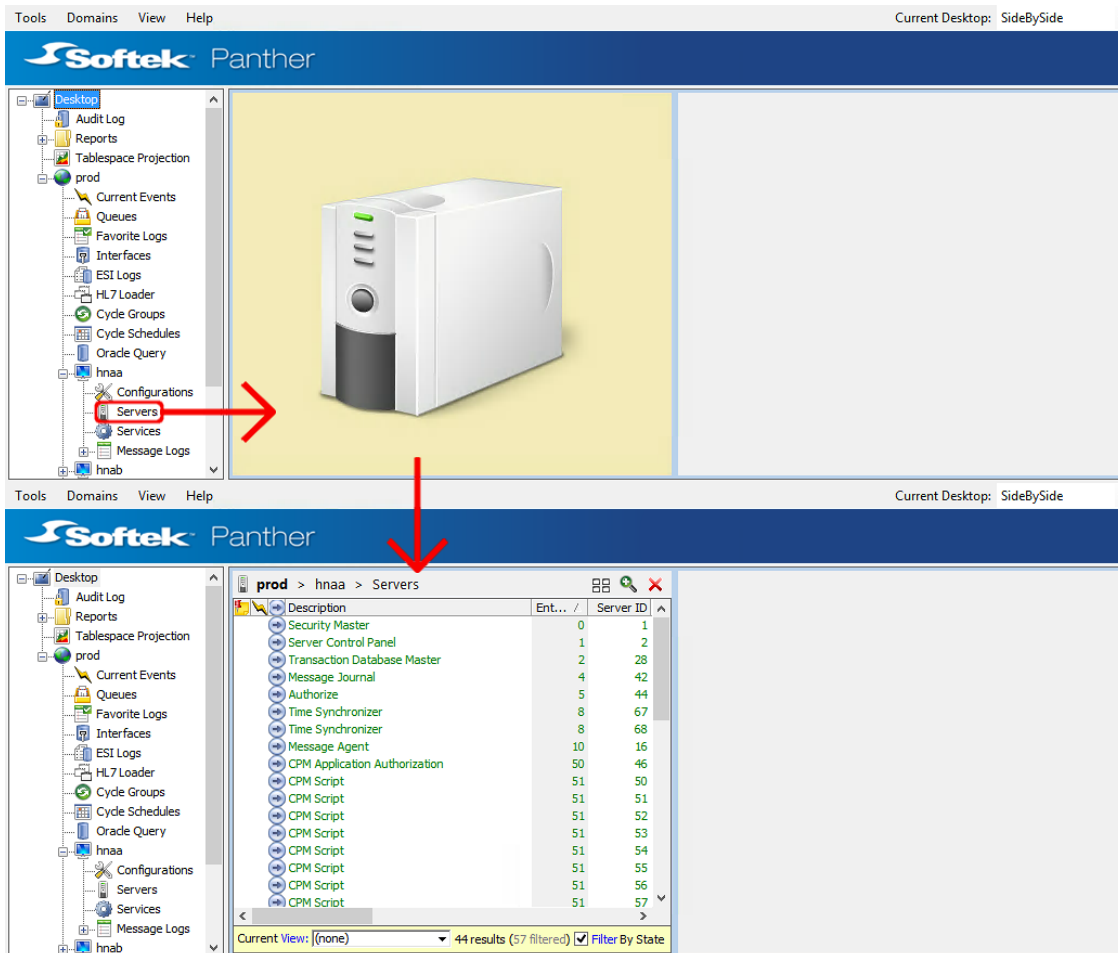


Figure 64: Dragging a control onto the desktop

6.3. Resizing Desktop Components

6.3.1 Merging Component Panels

A control can span or stretch across multiple cells in a desktop by hovering over the  in the top right corner of the control and clicking a cell that represents the spanning of the control. The following figures provide visual examples of spanning controls. Cells will appear blue when hovered over if it is a valid cell for spanning. Gray cells are already occupied and do not allow spanning.

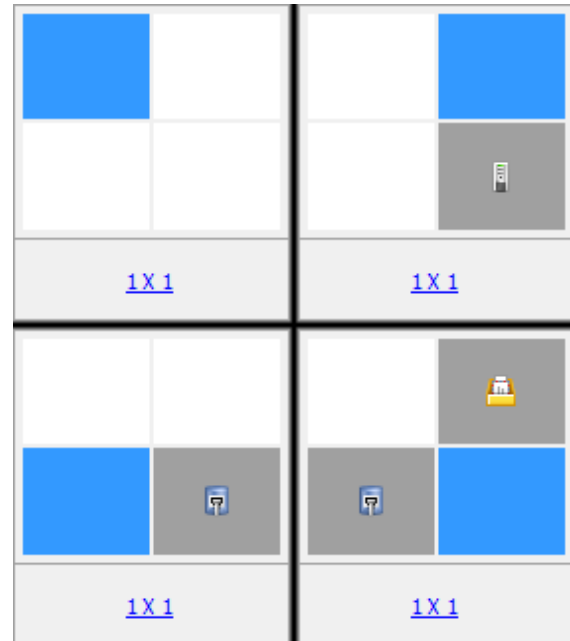


Figure 65: Resize control

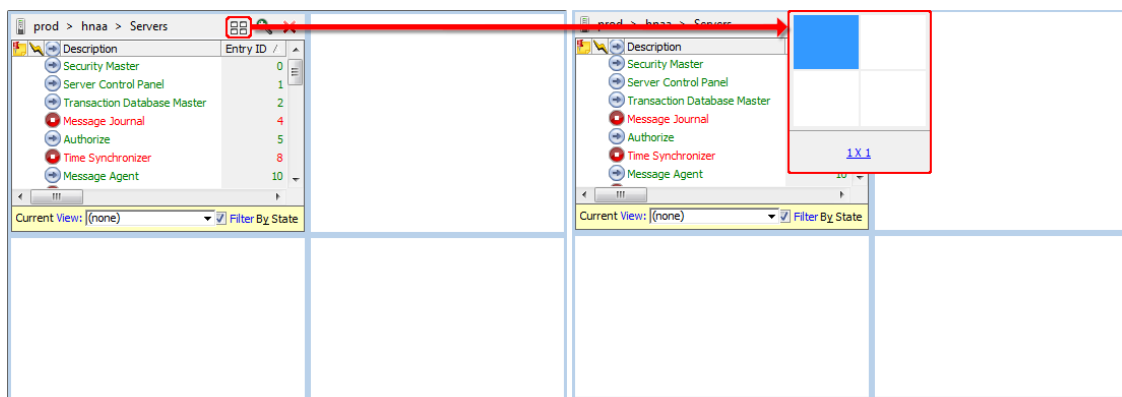


Figure 66: Displaying the resize control

6.3.2 Resizing Rows and Columns

Clicking and dragging the gray border between cells on the desktop will move the divider, changing the cell's size. A desktop can also be resized using the *Desktop* menu ([Figure 67](#)).

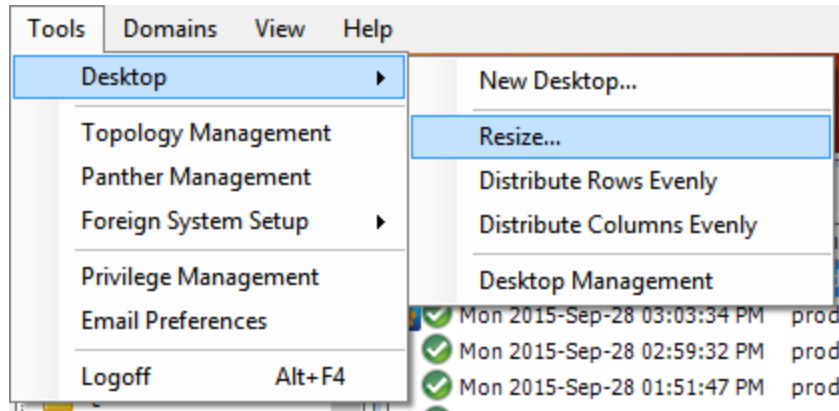


Figure 67: Desktop resize menu

6.3.3 Maximizing/Restoring Components

A control can be zoomed into, to take up the entire desktop by clicking on the zoom in icon (🔍) at the top right of the control. To return the cell to its original size, click the zoom out icon (🔍) in the upper right of the control.

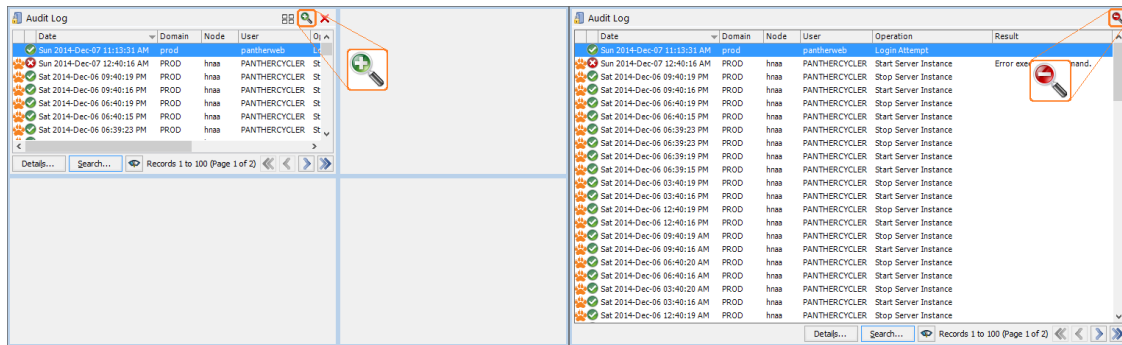


Figure 68: Maximizing a control

6.4. Removing Desktop Components

To remove an item from the desktop, drag and drop another control on top of it, or click the X in the top right corner of the control in the desktop (Figure 69).

Description	Ent...	Server ID	Start Date
CPM Script	51	42	3/10/2015 4:18
CPM Script	51	46	3/6/2015 1:46:
CPM Script	51	48	3/6/2015 1:46:
CPM Script	51	50	3/6/2015 1:46:
CPM Script	51	52	3/6/2015 1:46:
CPM Script	51	54	3/6/2015 1:46:
CPM Script	51	82	3/6/2015 1:45:
CPM Code Cache Manager	52	56	11/30/2012 11:
CPM Code Cache Manager	52	58	11/30/2012 11:
CPM Script Private	53	59	11/30/2012 11:
CPM Script Private	53	60	11/30/2012 11:
CPM Async Script	54	77	3/3/2015 3:01:
CPM Async Script	54	78	3/3/2015 3:01:
CPM Async Script	54	79	3/3/2015 3:01:
CPM Process	55	64	3/6/2015 1:54:
CPM Process	55	65	3/6/2015 1:54:
CPM Process	55	66	3/6/2015 1:54:

Current View: (none) 47 results (59 filtered) ☒ Filter By State

Figure 69: Desktop cell



The Domain Explorer can be hidden.

To hide the Domain Explorer for more desktop space, click the *View* menu, and then click *Domain Explorer* to hide it. It can be made visible again by re-checking *Domain Explorer*.

6.5. Switching Between Desktops

More than one desktop is often desired to group things that are commonly looked at. For example, one may wish to have a desktop monitoring prod, and one for monitoring build and test. Or, perhaps, a user would want a desktop that displays *Favorite Logs* for all domains.

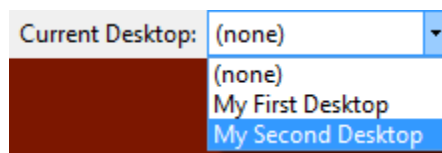


Figure 70: Desktop drop-down

To switch to a different desktop, select the desired desktop's name from the *Current Desktop* drop-down list. Note that this drop-down list only appears when the *Desktop* or a domain is selected in the Domain Explorer. To see the default desktop, select *(none)*.

6.6. Desktop Management

Renaming or removing desktops can be done by accessing the 'Desktop Management' screen. To access this screen, go to:

Tools → Desktop → Desktop Management ([Figure 71](#))

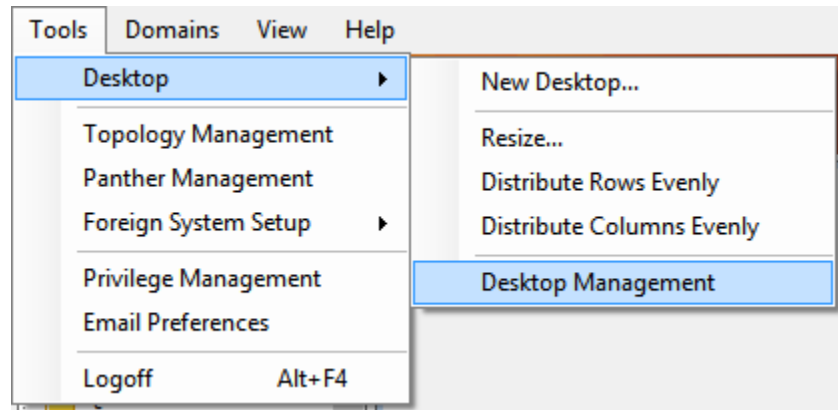


Figure 71: Desktop Management menu

The Desktop Management dialog allows a user to add, edit, and remove desktops based on the Scope (global or domain level of the desktop).

The desktop that is seen when on domain's main page or to the Desktop is known as the Default Desktop for that Scope, and it appears in the Desktop Management dialog with a green check-mark beside it (Prod Desktop in [Figure 72](#)).

Users with sufficient privileges may also copy and/or share desktops to other users which will be covered later in this chapter.

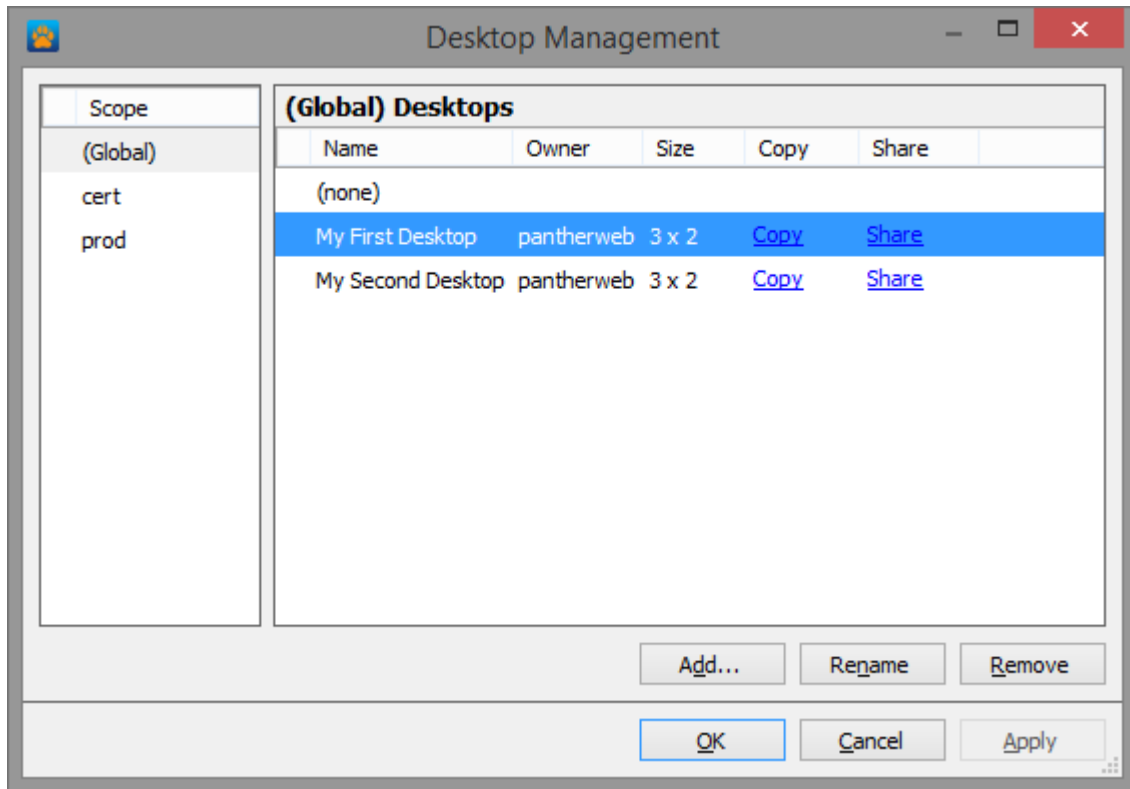


Figure 72: Desktop Management dialog

6.6.1 Copying Desktops

Users with the Panther 'Desktop – Copy' privilege are able to copy desktops to other users. This can be done by clicking the *Copy...* link associated with a desktop in the Desktop Management dialog (Figure 72). This will open the Copy Desktops dialog (Figure 73).

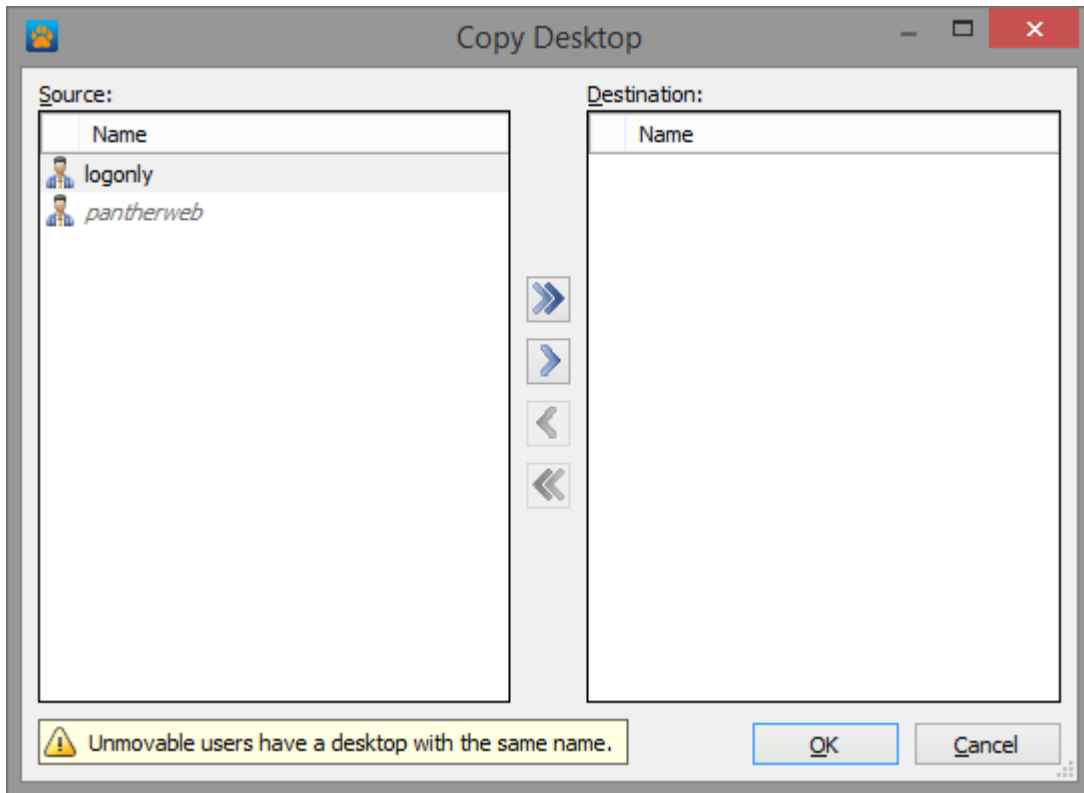


Figure 73: Copy Desktop dialog

When copying a desktop to other users, a warning indicator (⚠️) is shown if a user currently has a desktop with the same name. To avoid overwriting the other user's desktop, a user cannot copy a desktop to these users with the warning icon.

6.6.2 Sharing Desktops

Users with the Panther Desktop – Share privilege are able to share desktops with other users. This can be done by clicking the *Share...* link associated with a desktop in the Desktop Management dialog (Figure 72). This will open the Share Desktops dialog (Figure 74).

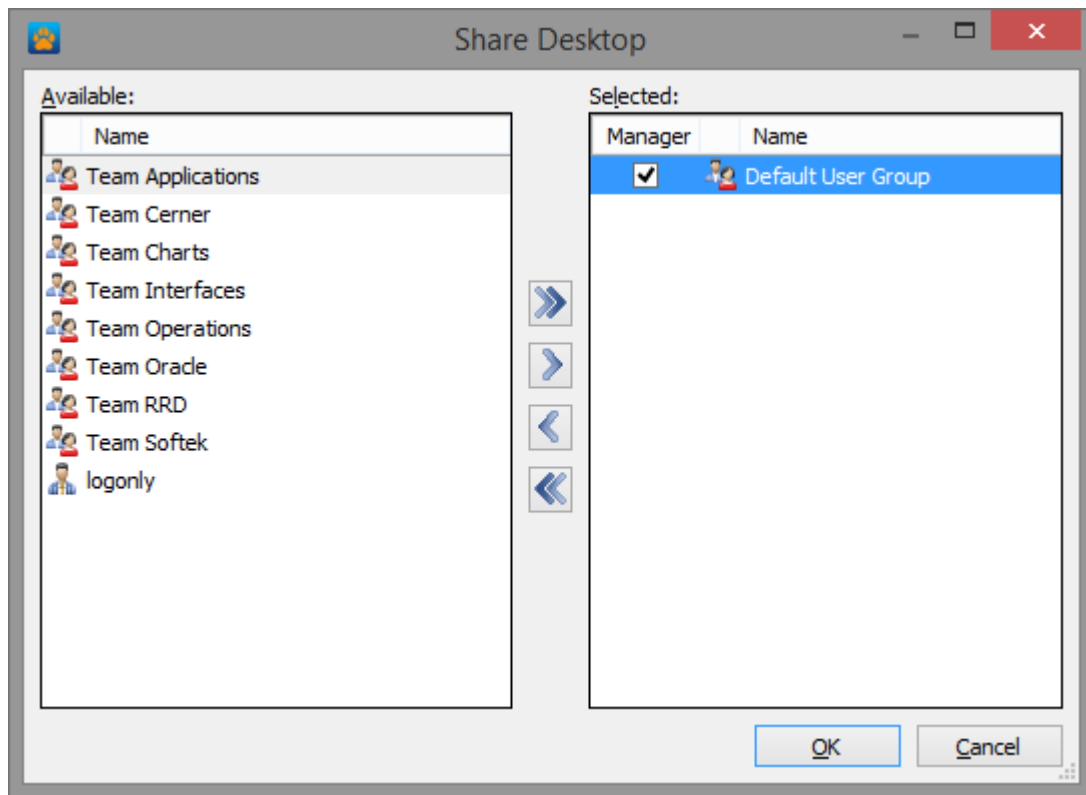


Figure 74: Share Desktops dialog

When sharing a desktop with other users, the user is given the option to allow other users to manage the shared desktop. Selecting this option will allow the selected user (or manager) to make permanent changes to the shared desktop. These changes will be applied for all other users sharing the desktop.

7 Getting Support

If you are experiencing a problem with Panther, have a question, would like to provide Softek with information about upcoming system changes, etc., please contact us by logging into the Softek Panther Support website (<http://support.softekpanther.com>) and creating a new “point”.

This is the preferred method for contacting Softek for several reasons:

1. You will know that we know about the issue because it is in our system.
2. It allows us to more accurately track issues and therefore create a better product in the future.
3. It allows you to view the status of the issue at any time, add more notes or comments, and see any notes that Softek has added to the issue.
4. It allows us to ensure a higher quality in our support and escalate issues without having to send you updated lists of support phone numbers.

If you prefer to call us, a support engineer can be reached at (913) 981-5234 from 8AM to 5PM, Central Time, Monday through Friday (excluding most U. S. Federal holidays).

Figure 75: Panther support page



Creating a support account

If you have never used the Softek Panther Support website before, you will need to click the *Create a new account* link, fill in your name and contact information, and an email will be sent to you with a password. You are then ready to log in to the support site.

8 Panther Controls

Panther provides the capability to search and browse sensor and audit history. History tracked by Panther sensors includes actions taken and notifications sent by Panther.

8.1. Action History Control

The Action History control shows all actions on the system. Actions are either IBM MQ Message Replay actions or Server Cyclers actions. To view the Action History for a given domain, locate the *Action History* item under *Sensor History* of the desired domain in the Domain Explorer (Figure 10).

After clicking on the *Action History* item, the Action History control will be loaded into the Application Workspace (Figure 77). By default, only actions taken in the last 24 hours are displayed.

Image	Meaning
	See the Windshield Wiper section for details
	Successful Action
	Failed Action
	Cycle attempt in progress
	Automated Action (Scheduled)
	Manual Action (Unscheduled)

Table 18: Action History Images

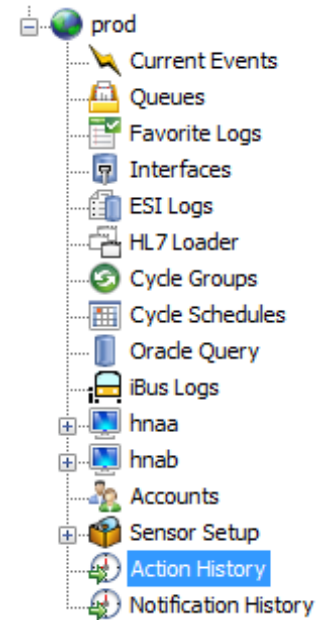


Figure 76: Domain Explorer

prod > Action History						
	Date	Action	User	Status	Message	Result
	Thu 2014-Dec-04 10:57:01 AM	Cycle Server	pantherweb	Cycle Success	CPM Script (51) cycled on hnac.	Success.
	Thu 2014-Dec-04 10:57:01 AM	Cycle Server	pantherweb	Cycle Success	CPM Script (51) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:56:28 AM	Cycle Server	pantherweb	Cycle Success	CPM Process (55) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:56:24 AM	Cycle Server	pantherweb	Cycle Success	CPM Script Cache (80) cycled on hnaf.	Success.
	Thu 2014-Dec-04 10:56:24 AM	Cycle Server	pantherweb	Cycle Success	CPM Script Cache (80) cycled on hnae.	Success.
	Thu 2014-Dec-04 10:56:24 AM	Cycle Server	pantherweb	Cycle Success	CPM Script Cache (80) cycled on hnad.	Success.
	Thu 2014-Dec-04 10:56:24 AM	Cycle Server	pantherweb	Cycle Success	CPM Script Cache (80) cycled on hnac.	Success.
	Thu 2014-Dec-04 10:56:24 AM	Cycle Server	pantherweb	Cycle Success	CPM Script Cache (80) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:56:19 AM	Cycle Server	pantherweb	Cycle Success	Clinical Event Server (200) cycled on hnaf.	Success.
	Thu 2014-Dec-04 10:56:19 AM	Cycle Server	pantherweb	Cycle Success	Clinical Event Server (200) cycled on hnae.	Success.
	Thu 2014-Dec-04 10:56:19 AM	Cycle Server	pantherweb	Cycle Success	Clinical Event Server (200) cycled on hnad.	Success.
	Thu 2014-Dec-04 10:56:19 AM	Cycle Server	pantherweb	Cycle Success	Clinical Event Server (200) cycled on hnac.	Success.
	Thu 2014-Dec-04 10:56:19 AM	Cycle Server	pantherweb	Cycle Success	Clinical Event Server (200) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:56:13 AM	Cycle Server	pantherweb	Cycle Success	OP_RT_EDT_HDX_OUT (996) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:56:09 AM	Cycle Server	pantherweb	Cycle Success	OP_RT_PENDRES_HNAM_IN (1005) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:55:15 AM	Cycle Server		Cycle Success (Scheduled)	OP_OEN.Controller (240) cycled on hnaa.	Success.
	Thu 2014-Dec-04 10:45:27 AM	Cycle Server	pantherweb	Cycle Success	CPM Script (51) cycled on hnaa.	Success.

Figure 77: Action History Control

Option	Description
Refresh	Reloads the Action History records, displaying any new records
Details	Opens the Action History Details for the selected record
Search...	Opens the Search dialog for Action History
Load Preset	Expands a sub-menu containing all saved searches, selecting a search runs it
Copy	Copies selected records to the system clipboard
Select All	Highlights all records currently being displayed
About	Opens an About dialog containing version information for this control
Preferences	Opens the Action History Preferences dialog where appearance and behavior changes can be made

Table 19: Action History Context Menu

8.1.1 Viewing Action Details

You can view the details of an action in one of two ways:

1. Double-click on the record you wish to view.
2. Select the record you wish to view, and then click the *Details* button in the lower left.

After loading the details, you will see a dialog similar to [Figure 78](#).

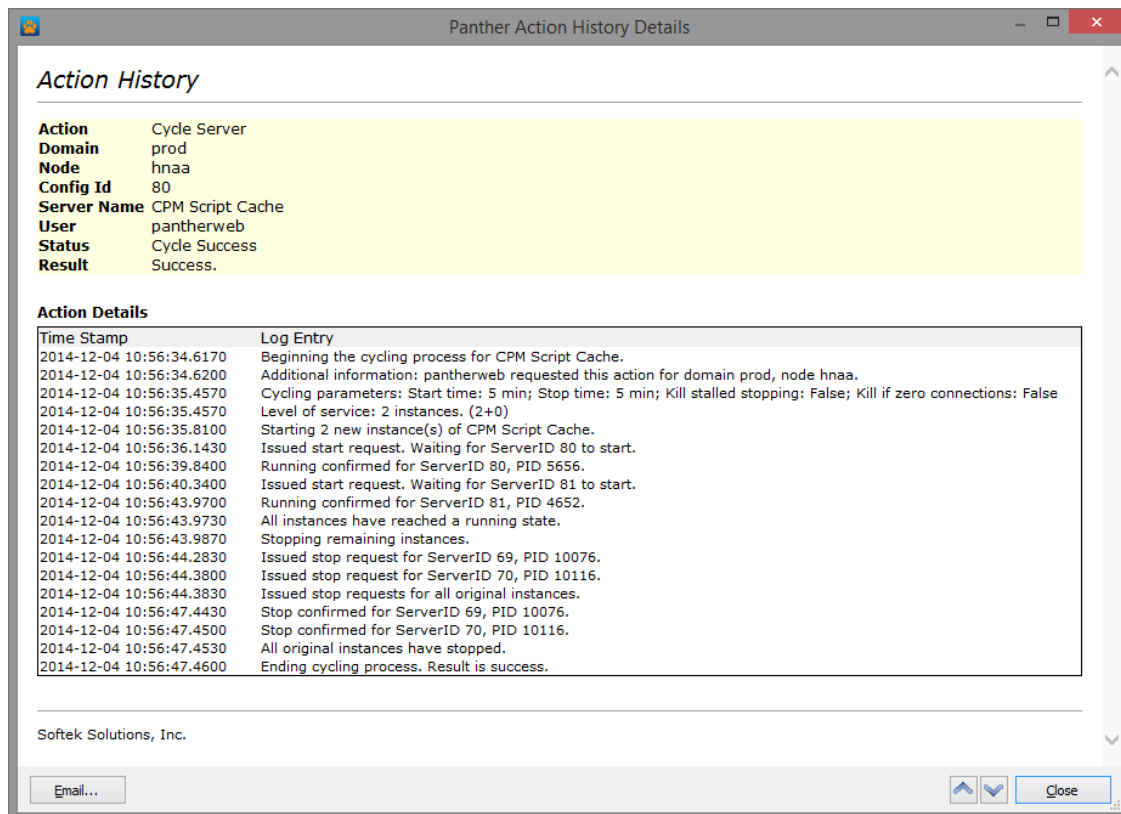


Figure 78: Action History Details Dialog

When you are finished viewing details, click the *Close* button to return to the Action History control.

Viewing Details of Adjacent Actions

To view the details of the next action, click the down arrow (▼). To view the details of the previous action, click the up arrow (▲).

8.1.2 Emailing Action Details

From the Action History Details dialog (Figure 78), you have the ability to email the details to one or more individuals.

To send the details of this action to another party, click the *Email...* button at the bottom of the dialog.

This will open the Email Details dialog (Figure 10.1-4). From this dialog, you are required to provide one or more recipients for the email in the *To* field. Separate multiple email addresses with commas.

You may also provide additional comments. These will be placed in the body of the email above the action details.

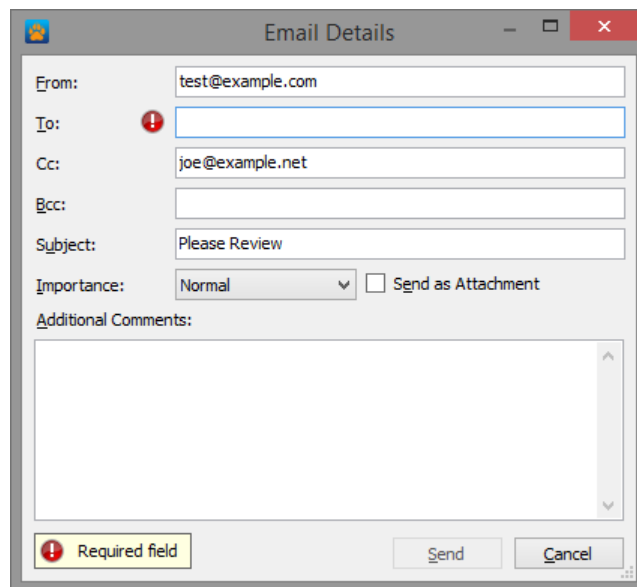
The image shows a software dialog box titled "Email Details". It contains several input fields: "From:" with the value "test@example.com", "To:" which is empty and has a red exclamation mark icon next to it, "Cc:" with the value "joe@example.net", and "Bcc:" which is empty. The "Subject:" field contains the text "Please Review". Below these fields is an "Importance:" dropdown menu set to "Normal" and a checkbox labeled "Send as Attachment" which is unchecked. At the bottom of the main content area is a large text box labeled "Additional Comments:". At the very bottom of the dialog, there is a yellow warning box on the left that says "Required field" with a red exclamation mark icon, and two buttons on the right labeled "Send" and "Cancel".

Figure 79: Email Details dialog

8.1.3 Windshield Wiper

The *Windshield Wiper* button (🧼) is a specialized search. This button will clear the log and only show new operations that are audited. This button takes your current search criteria (default criteria if no search was done) and modifies the Date Range of the search. It will use a custom search and set the *from* date to the time the button was clicked.

8.1.4 Searching Action History

You can search all action history for specific records by pressing the *Search...* button (Figure 80).

Search

Date Range
 Custom...
 2/19/2014 9:58:59 AM to 2/20/2015 9:59:01 AM

Action Initiated By
☒ Event
☒ Schedule
☒ User

Available: Selected:
 Cycle Server
 QCP Message Replay

Common Attributes	Value
Node	

Result:

☐ Use these search options by default Presets

Reset OK Cancel

Figure 80: Action History search dialog

The *Use these search options by default* checkbox can be checked to save default search behavior, which is used each time the control is loaded.

The *Presets* button allows users to save, load, and remove predefined searches that are commonly used.

The *Reset* button resets the form to the default search. Once you have entered the search criteria, press the *OK* button and the results will be displayed in the main window.

Criteria	Description
Date Range	By default, the Date Range is set to “Last 24 Hours”. You can use one of the other predefined date ranges or select a custom date range.
Actions	You can double-click or use the arrows to select specific actions. Panther allows you to select only specific states for each action. All are selected by default.
Initiator	The procedure by which an action is initiated. You can select one or more. The options are event, schedule or user. An action is initiated by an event if Panther automatically performed the event as a result of a situation detected by Panther. An example of an event-initiated action is automatic replaying of an MQ message. If User is checked, you may also specify a user in the text field to the right. Wildcard characters (* or ?) are supported for the user.
Attributes	Each action has a set of known attributes. The attributes common for all the selected actions will be displayed allowing a more specific search.
Result	The result of the action. Wildcard characters (* or ?) are supported.

Table 20: Action History Search Criteria

8.1.5 Action History Preferences

Panther provides preferences related to the viewing of action records. Right-clicking in the list of action records and selecting the *Preferences* option from the Action History [Context Menu](#) will open the Action History Preferences dialog (Figure).

These preferences allow you to turn auto-refresh on and off. The auto refresh feature automatically reloads the current page of data on the provided time interval. This may be useful when you want to always view the most recent records matching the search criteria.

If another match is found on a refresh, it will be added to the list. You can also control how often a refresh occurs by providing a larger or smaller number of seconds.

The Results per page preference allows you to define how many results will appear in the control after a search is executed. Smaller numbers result in quicker searches but require flipping between more pages.

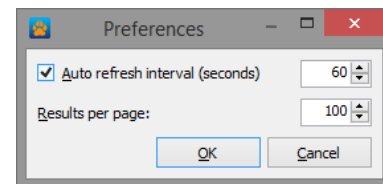


Figure 81: Action History Preferences

8.2. Audit Log Control

The Audit Log shows an electronic audit trail of user interactions with the system. All interactions with IBM WebSphere® MQ, Millennium Server Control, Panther Management, and Open Engine are audited. Additionally, any login attempts are recorded and Panther User Management privilege changes.

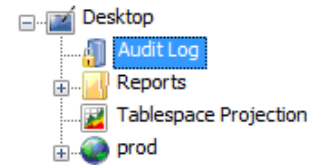


Figure 82: Domain Explorer

To view the Audit Log, select the *Audit Log* item in the Domain Explorer (Figure 82), this will load the control into the Application Workspace (Table 83). To view the Audit Log [Context Menu](#), select a log and right-click it (Table 22). Initially, only audits from the last 24 hours will be displayed. For information on how to view older audits, see [Searching Audit Records](#).

Image	Meaning
	Success Log
	Failure Log
	Operation performed by Panther
	Operation performed by user
	Clears out old logs (logs can still be accessed by searching, see the Windshield Wiper Button for details)

Table 21: Audit Log Images

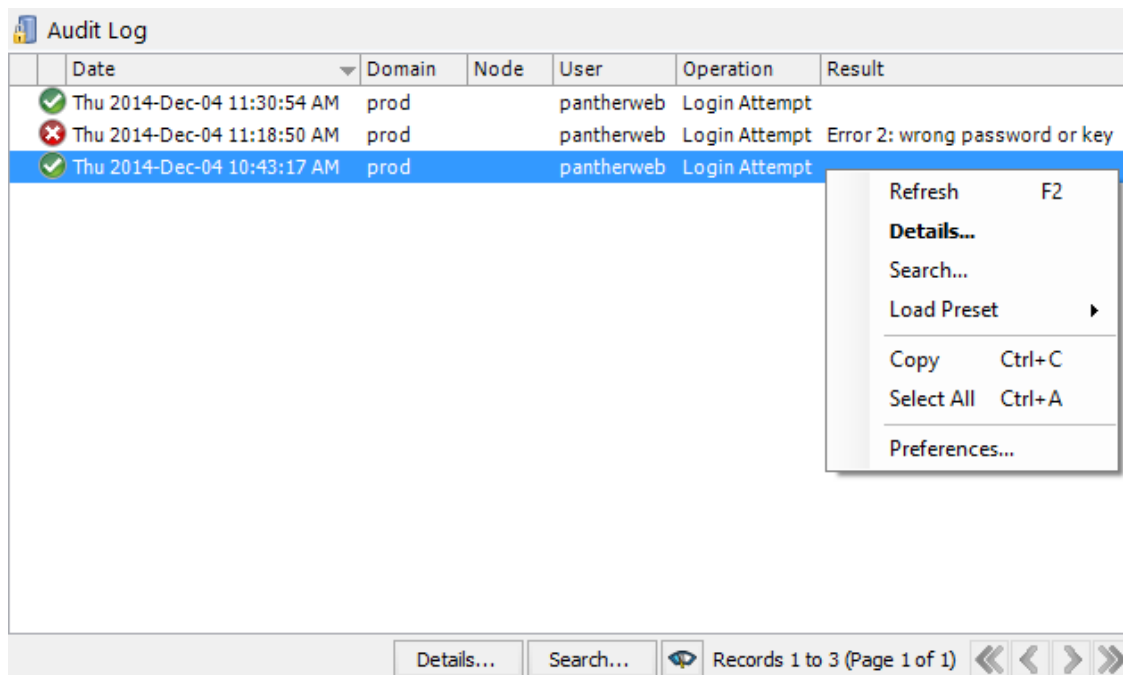


Figure 83: Audit Log Control

Menu Option	Description
Refresh	Refreshes the list of audit log entries.
Details	Displays a dialog with the audit log entry details (See Viewing Audit Record Details).
Search...	Displays the search dialog (See Searching Audit Records).
Load Preset	Allows you to select and run a saved search (See Searching Audit Records).
Copy	Copies the selected audit records to the system clipboard.
Select All	Selects all of the currently displayed audit records.
Preferences	Displays the preferences dialog.

Table 22: The Audit Log Context Menu

8.2.1 Viewing Audit Record Details

You can view the details of an audit record in one of three ways.

1. Double-click on the record you wish to view.
2. Select the record you wish to view then click the *Details* button in the lower left of the control.
3. Select the record you wish to view, then right-click and select *Details* from the context menu.

After loading the details, you will see the details dialog ([Figure 84](#)).

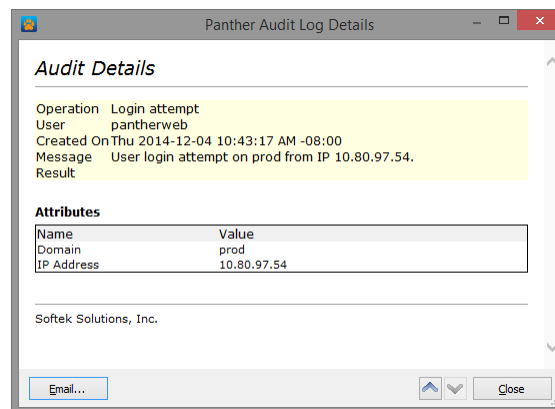


Figure 84: Audit Log Details

From the Audit Details dialog, you have the ability to email the details to one or more individuals, view the previous audit record, and view the next audit record.

If you click the *Email...* button, you will see an Email Details dialog ([Figure 85](#)).

Panther requires you to provide one or more email addresses in the *To:* field. Separate multiple email addresses with commas.

You may also change the *From* address, provide a *Cc* or *Bcc* address list, change the subject, or provide additional comments. Additional comments are placed in the body of the email above the audit details.

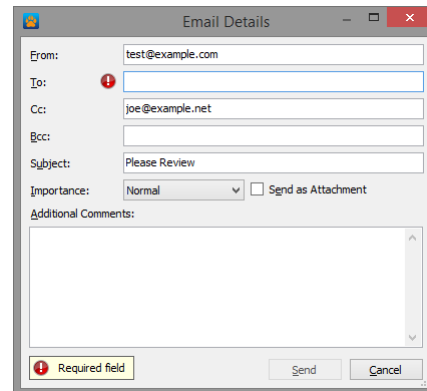
The 'Email Details' dialog box is a standard Windows-style window. It contains several input fields: 'From:' with 'test@example.com', 'To:' with a red exclamation mark icon indicating a required field, 'Cc:' with 'joe@example.net', 'Bcc:', 'Subject:' with 'Please Review', 'Importance:' with a dropdown set to 'Normal', and a checkbox for 'Send as Attachment'. Below these is a large text area for 'Additional Comments:'. At the bottom, there is a 'Required field' error message next to the 'To:' field, and 'Send' and 'Cancel' buttons.

Figure 85: Email Details Dialog

8.2.2 Searching Audit Records

You can search all audit history for specific records in one of three ways.

1. Click the *Search...* button in the lower left of the control.
2. Right-click and select *Search* from the context menu.
3. Right-click and select *Load Preset* and choose a preset search from the context menu (see [Search Presets](#)).

Options 1 and 2 will open a dialog similar to [Figure 86](#).

Option 3 will run the preset search immediately without opening the Search dialog.

Options available when searching Audit Log Records are explained in [Table 23](#).

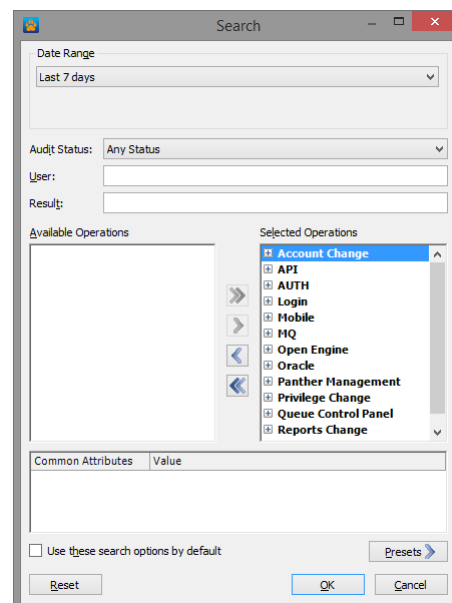
The 'Search' dialog box features a 'Date Range' dropdown set to 'Last 7 days', an 'Audit Status' dropdown set to 'Any Status', and input fields for 'User:' and 'Result:'. It has two main panes: 'Available Operations' on the left and 'Selected Operations' on the right. The 'Selected Operations' list includes 'Account Change', 'API', 'AUTH', 'Login', 'Mobile', 'MQ', 'Open Engine', 'Oracle', 'Panther Management', 'Privilege Change', 'Queue Control Panel', and 'Reports Change'. At the bottom, there is a 'Common Attributes' table with a 'Value' column, a checkbox for 'Use these search options by default', and 'Reset', 'OK', and 'Cancel' buttons.

Figure 86: Audit Log Search

Criteria	Description
Date Range	Determines limits the logs being displayed to those that were written within the period of time indicated. Last 24 hours is the default.
Audit Status	Determines what audit statuses will display in the log. All Statuses is the default.
User	Limits the results based on the user performing the operation that triggered the audit. Wildcard characters (* and ?) are supported.
Result	The result of the operation. Wildcard characters (* or ?) are supported.
Operations	You can double-click or use the arrows to select specific operations. All are selected by default (See Available and Selected Operations).
Common Attributes	Each operation has a set of known attributes. The attributes common for all the selected operations will be displayed here, allowing you to enter a value related to listed attributes.

Table 23: Audit Log Search Options

Wildcards

Wildcards are supported within areas of the Audit Log Record Search. Supported wildcards and their implementation are explained in [Table 24](#).

Character	Use
*	Replaces a series of letters or numbers. Example: J* Doe will find results with John Doe, Jane Doe, and all users whose first name begins with J and last name is Doe.
?	Replaces a single letter or number. Example: Ashle? will find results with Ashley, Ashlee, or Ashlei but not Ashleah. Ashleah will not be in the results because it has an additional letter shown after the wildcard character

Table 24: Wildcards

Setting a Default Search

The *Use these search options by default* checkbox at the bottom of the search dialog ([Figure 86](#)) can be checked to save current search settings. From the time this checkbox is checked until a new default search is set, this search will be run each time the control is loaded.

Search Presets

Search Presets are shortcuts to common searches, and like all shortcuts, you have to define them before they can be used. Presets can only be created from the associated Search dialog using the *Save Current As...* option under the *Presets* button ([Figure 87](#)).

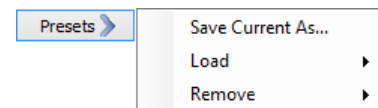


Figure 87: Presets Menu

Each Preset must have a unique name to distinguish it from other presets.

Once saved, these searches can be quickly accessed using the Audit Log context menu's *Load Presets* option ([Figure 89](#)) or the *Load* option under the *Presets* button on the Search dialog ([Figure 90](#)).

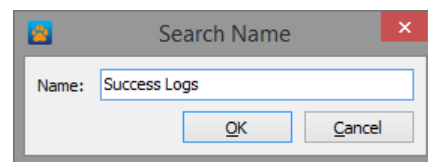


Figure 88: Save Preset

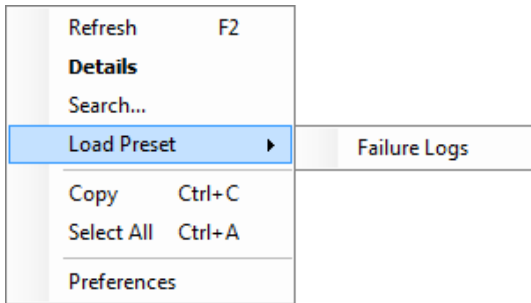


Figure 89: Preset Context Menu

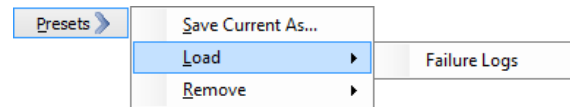


Figure 90: Preset Context Menu

Restoring Panther Search Settings

The *Reset* button towards the bottom of the Search dialog (Figure 86) resets the form to the default search. Once you have entered the search criteria, press the *OK* button and the results will be displayed in the [Application Workspace](#).

Available and Selected Operations

By choosing only the selected operation, you can limit the results to specific operations.

(Figure 91 and Figure 92 show the same part of the search dialog in Figure 86)

The example to the right will limit the audit log results to show only *Kill server instance* operations.

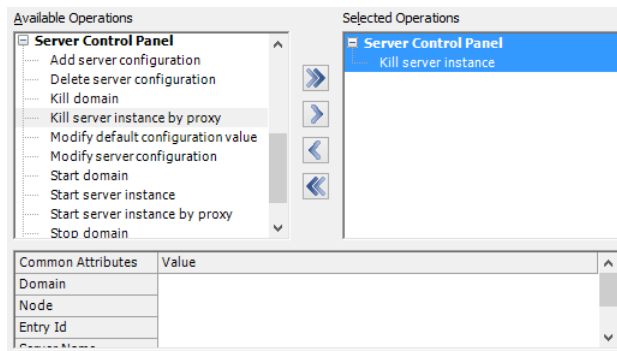


Figure 91: Available and Selected Operations

Searches can be further refined by providing specific values for attributes of the operation.

The example to the right will limit the audit log results to servers with an Entry ID of 200 (Clinical Event Server).

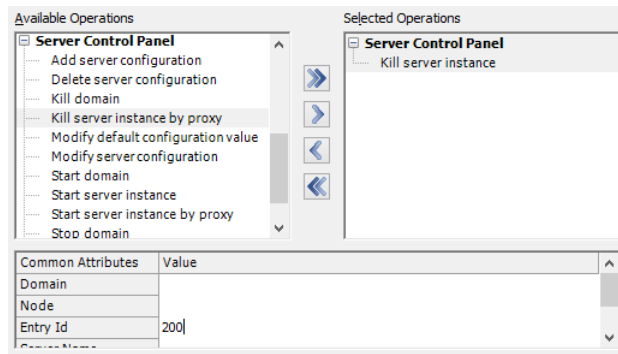


Figure 92: Common Attributes

8.2.3 Windshield Wiper Button

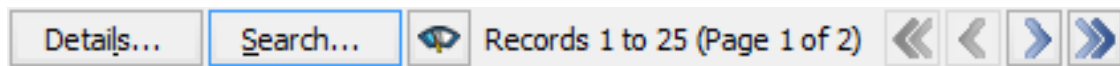


Figure 93: Audit Log button bar

The *Windshield Wiper* button (next to the search button) runs a specialized search. This button will clear the log and only show new operations that are audited. This button takes your current search criteria (default criteria if no search was done) and modifies the *Date Range* of the search. It will use a custom search and set the, *from* date to the time the button was clicked.

8.2.4 Audit Log Preferences

Panther provides preferences related to viewing Audit Logs. Selecting *Preferences* from the context menu will show a dialog similar to [Figure 94](#).

Audit Log Preferences allow you to turn on/off auto-refresh, which automatically reloads the current page of data. This may be useful when viewing the most recent logs matching the current search criteria. If another match is found on a refresh, it will be added to the list. You also have the ability to change how often the refresh occurs. More frequent refreshes will result in more database traffic.

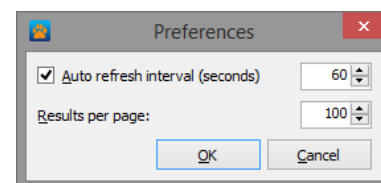


Figure 94: Preferences

Using the *Results per page* option, you can define the maximum number of results that can appear on each page of the control.

8.3. Current Events Control

The Current Events control provides a view of ongoing events Panther has detected within a domain.

To view the Current Events control, select the *Current Events* item in the Domain Explorer, (Figure 95). This will load the control into the Application Workspace (Figure 96). To view the Current Events Context Menu, select an event and right-click it (Table 26).

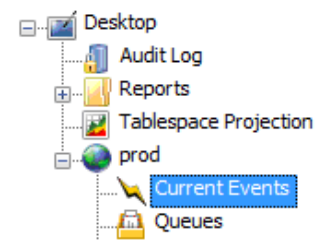


Figure 95: Domain Explorer

The Panther Current Events control allows you to view all of the open events across all nodes, the details for an event, and any notifications sent for an event. To see the notification count, hover the cursor over the notification column.

Sensor Name	Event Name	Created On	Scope
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 2 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 10 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 502 on Node: hnaa
Server Under/Overserviced	Server Underserviced	12/5/2014 4:24 AM	Server: 51 on Node: hnaa
Server Under/Overserviced	Server Overserviced	12/5/2014 4:24 AM	Server: 80 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 280 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 283 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 286 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 289 on Node: hnaa
Server Under/Overserviced	Server Overserviced Severe	12/5/2014 4:24 AM	Server: 55 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 282 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 285 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 288 on Node: hnaa
Server Under/Overserviced	Server Underserviced	12/5/2014 4:24 AM	Server: 54 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 666 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 281 on Node: hnaa
Server Under/Overserviced	Absence of Service	12/5/2014 4:24 AM	Server: 284 on Node: hnaa
Oracle Orphan Process	Oracle Orphan Process Alarm	12/5/2014 4:25 AM	Oracle PID: 23

Details... Notifications... Search... Refresh 426 results Refreshed on: 2/20/2015 3:37:43 PM

Figure 96: Current Events control

Image	Meaning
	At least one email and one page has been sent about this event.
	One or more pages, but no emails, have been sent about this event.
	One or more emails, but no pages, have been sent about this event.
	No emails or pages have been sent about this event.

Table 25: Current Event Notification Images

Option	Description
Refresh	Refreshes the list of events and their associated information.
Details	Brings up the details for that event.
Notifications	Loads the list of notifications about the selected event, if applicable.
Search	Brings up the Search dialog.
Load Preset	Brings up a sub-menu of preset searches you have saved.
Copy	Copies the displayed information for the selected events to the clipboard.
Select All	Selects all of the displayed events.
Preferences	Allows you to define refresh and appearance preferences.

Table 26: Current Events Context Menu

8.3.1 Viewing Event Details

You can view the details for an event by double-clicking on it, or right-clicking the event, and selecting the *Details* option in the Current Events context menu.

When this option is selected a dialog similar to the Queue Messages dialog shown below will open with a list of all the messages in the queue. From this dialog you may view a selected message's details using the *Details* button at the bottom left of the dialog. You also have the option to re-queue selected messages (if you are looking at messages in the exception queue) or delete selected messages from the queue. The *Refresh* button at the bottom of the dialog allows you to refresh the list to show the most up-to-date list of messages.

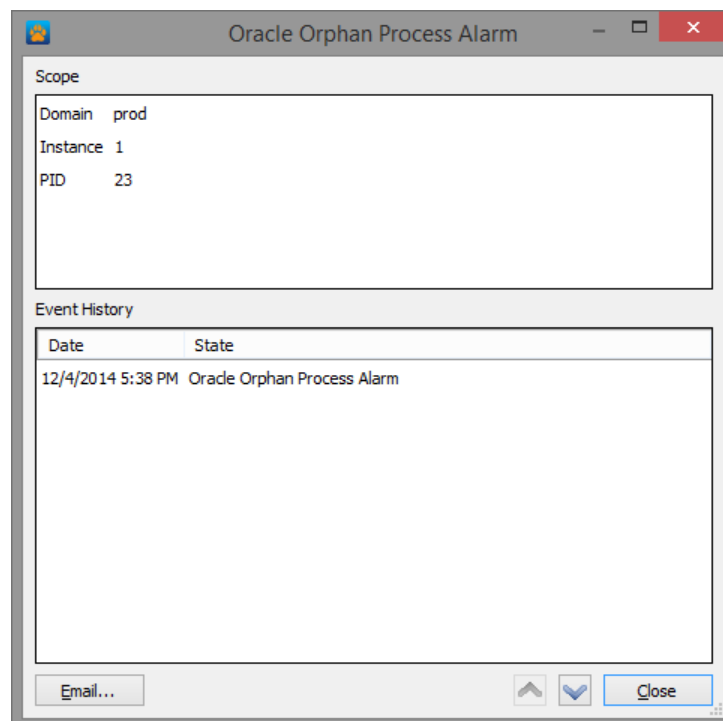


Figure 97: Event Details dialog

8.3.2 Emailing Event Details

To send the details of an event via email, bring up the Event Details dialog, then click the *Email...* button in the lower left corner. This will open the Email Details dialog (Figure 98) with the *From* field populated with your user email address (if you have set one up in [Email Preferences](#)) and the Subject filled in as "Event Details". In order to send the email you are required to provide one or more email addresses in the *To* field. Separate multiple addresses with commas.

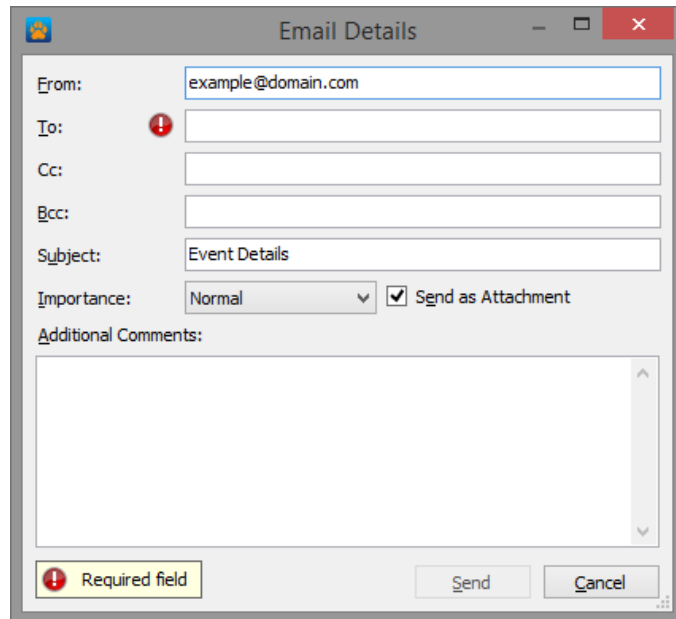


Figure 98: Email Details

8.3.3 Viewing Notifications

On the main control, there is an icon indicating whether any notifications were sent for an event (see [Table 25](#) for what the icons indicate). If you double-click on an icon indicating the presence of emails, or right-click on an event with notifications and select "Notifications" from the [Context Menu](#), it will bring up the Event Notifications dialog, similar to the one shown in [Figure 99](#).

From this dialog you can view the notifications that have been sent about an event, whether the notification was a page or an email, the subject line of the notification, what time the notification was sent, the size of the notification, and what type of event it was.

To view the body of an individual notification and who it was sent to, select it, and it will appear in the pane at the bottom of the dialog. Click *Email...* to send the body of an individual notification in an email, or *Closed* to return to the Current Events control.

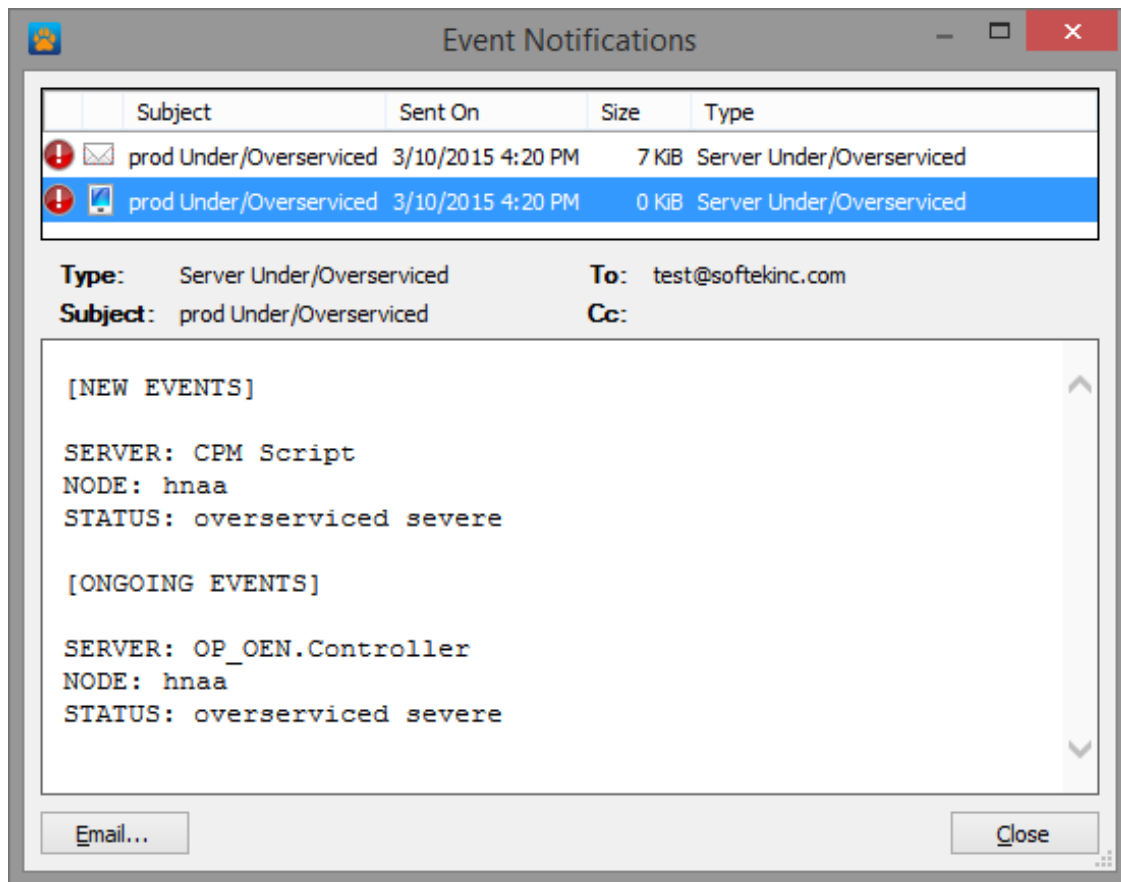


Figure 99: Event Notifications dialog



Attention: Not all users may access notification history.

In order to view the list of notifications which were sent, or their contents, a user must have the 'Access Notification History' privilege.

8.3.4 Emailing Notifications

If, from the [Event Notification Details](#) dialog, you click the *Email...* button, it will bring up the Email Details dialog ([Figure 100](#)).

The *From* field will be filled in with your users email address ((if you have set one up in [Email Preferences](#)), the Subject filled in with the same subject line as the original notification, and the *Importance* drop down set to the same importance level as the original notification.

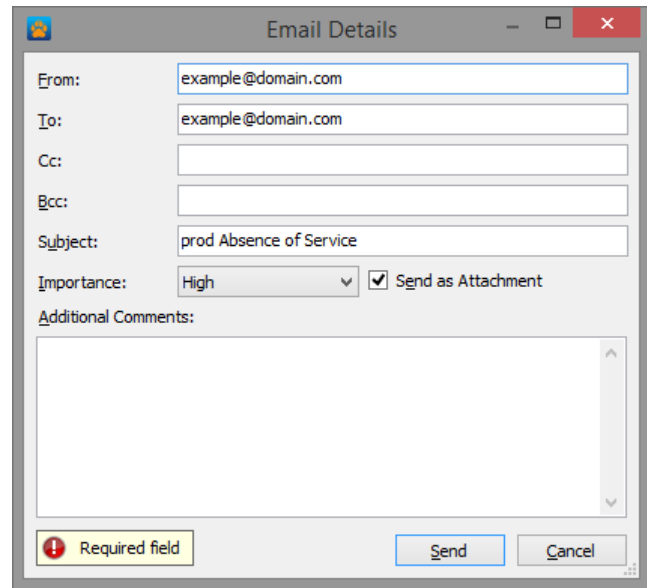
The image shows a screenshot of a software window titled "Email Details". It contains several input fields: "From:" with the value "example@domain.com", "To:" with "example@domain.com", "Cc:" (empty), "Bcc:" (empty), and "Subject:" with "prod Absence of Service". Below these is an "Importance:" dropdown menu set to "High" and a checked checkbox labeled "Send as Attachment". A large text area labeled "Additional Comments:" is empty. At the bottom left is a red warning icon and the text "Required field". At the bottom right are "Send" and "Cancel" buttons.

Figure 100: Email Details dialog

8.3.5 Searching for Events

The search dialog ([Figure 101](#)) allows you to narrow down the displayed events by the sensor that generated them. The sensors are organized by the sensor group that they belong to.

You can transfer sensors from the Available to the Selected list, or the reverse, by either double clicking on them, or clicking one of the arrow buttons. The arrows with a dashed line, seen at the top and bottom of the column, will move all of the sensors from one list to the other.

You can select an individual sensor or multiple sensors to transfer from one list to the other. If you select a sensor group from the list and transfer it, all of its constituent sensors will be transferred.

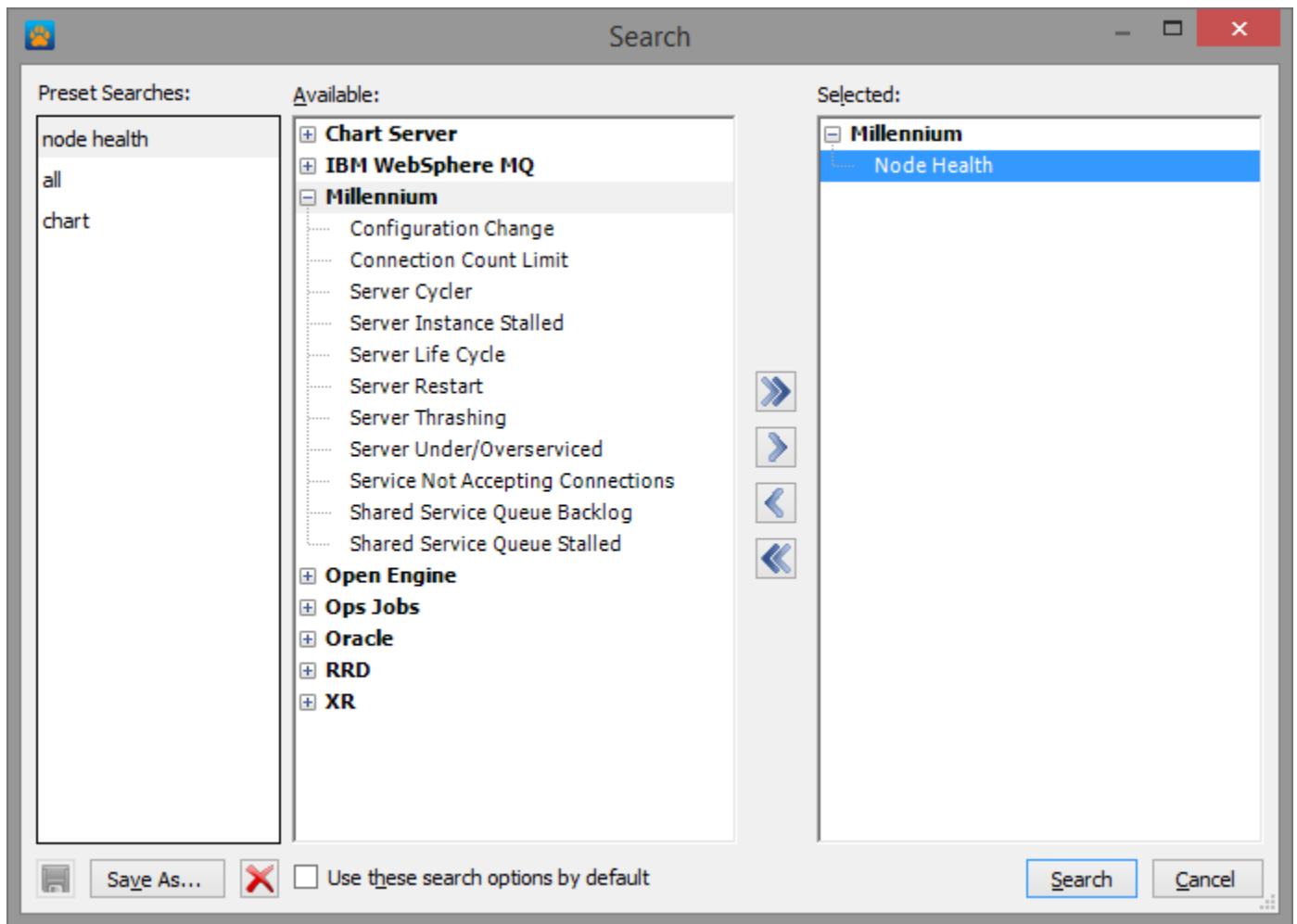


Figure 101: Search dialog

8.3.6 Preferences

The Preferences control has two options. The first checkbox is for whether you want the control to auto-refresh. If so, you can also adjust how frequently it auto-refreshes.

The second checkbox will cause every other row to be colored. This helps improve at-a-glance readability of the control by making it easier to see which line a certain piece of information is on.

The precise colors will vary depending on your system settings.

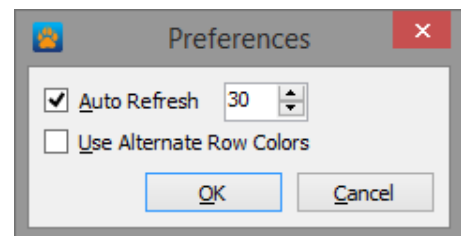


Figure 102: Preferences



All preferences are yours alone.

Preferences for refresh interval, default search, and whether to alternate row colors are all specific to your account. No one else can change or reset them.

8.4. Notification History Control

The Notification History control shows all notifications sent by Panther. To view Notification History for a given domain, locate the *Notification History* item under the *Sensor History* tree item in the Domain Explorer (Figure 103) for the desired domain.

Selecting the *Notification History* item loads the list of notifications into the Application Workspace (Figure 104). Initially, only notifications sent in the last 24 hours will be displayed.

Image	Meaning
	See the Windshield Wiper section for details
	Notification sent to Email
	Notification sent to Pager
	Alert Notification

Table 27: Notification History Images

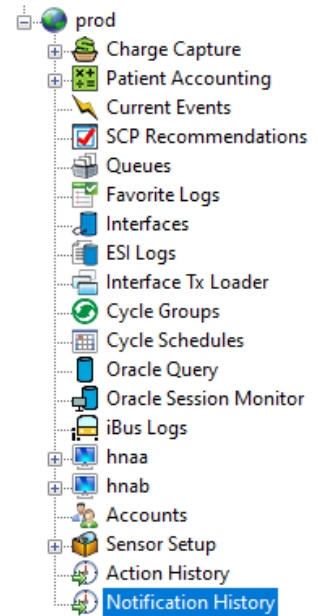


Figure 103: Domain Explorer

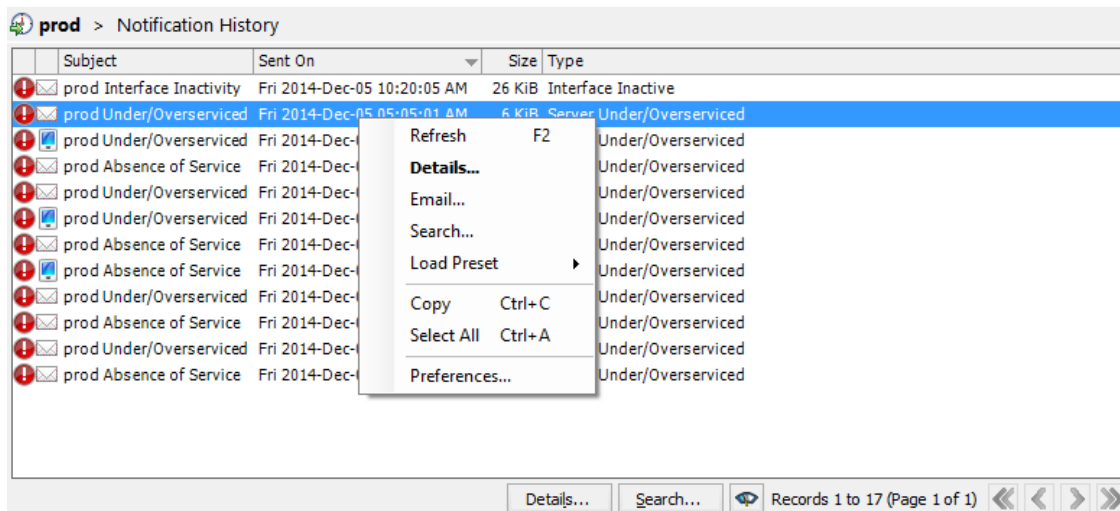


Figure 104: Notification History Control

Option	Description
Refresh	Reloads the Notification History records, displaying any new records
Details	Opens the Notification History Details for the selected record
Email...	Allows you to send the currently selected notification in an email
Search...	Opens the Search dialog for Notification History
Load Preset	Expands a sub-menu containing all saved searches, selecting a search runs it
Copy	Copies selected records to the system clipboard
Select All	Highlights all records currently being displayed
About	Opens an About dialog containing version information for this control
Preferences	Opens the Notification History Preferences dialog where appearance and behavior changes can be made

Table 28: Notification History Context Menu

8.4.1 Viewing Notification Details

You can view the details of a notification in one of three ways:

1. Double-click on the record you wish to view.
2. Select the record you wish to view, right-click and select *Details* from the Notifications context menu (Table 28).
3. Select the record you wish to view, and then click the *Details* button in the lower left.

A dialog will open, displaying the notification body (Figure 105).

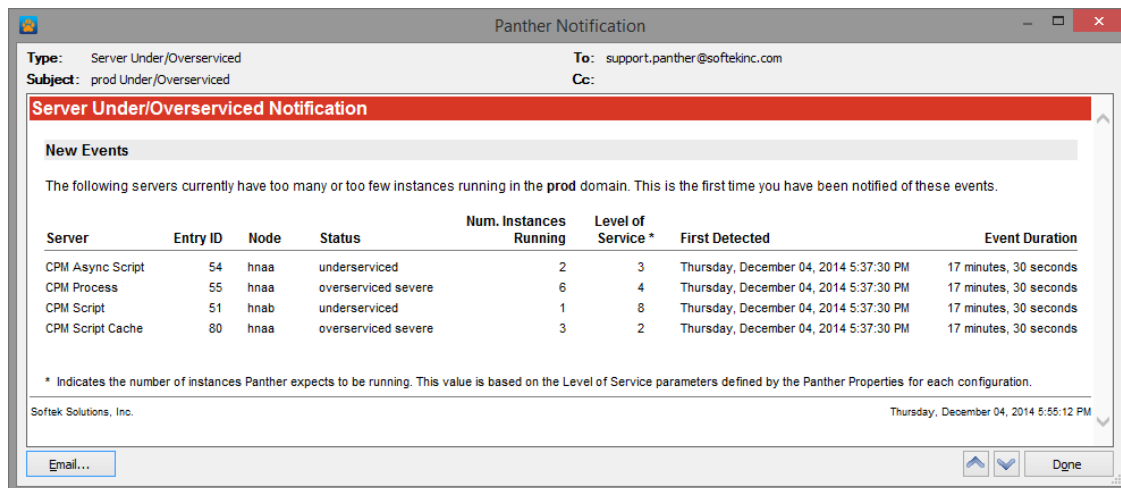


Figure 105: Notification details dialog

When you are finished viewing details, click the *Close* button to return to the Notification History control.

Viewing Details of Adjacent Notification

To view the details of the next notification, click the down arrow (▼). To view the details of the previous notification, click the up arrow (▲).

8.4.2 Emailing Notification Details

From the Notification History Details dialog (Figure 105), you have the ability to email the details to one or more individuals.

To send the details of this notification to another party, click the *Email...* button at the bottom of the dialog.

This will open the Email Details dialog (Figure 106). From this dialog, you are required to provide one or more recipients for the email in the *To* field. Separate multiple email addresses with commas.

You may also provide additional comments. These will be placed in the body of the email above the action details.

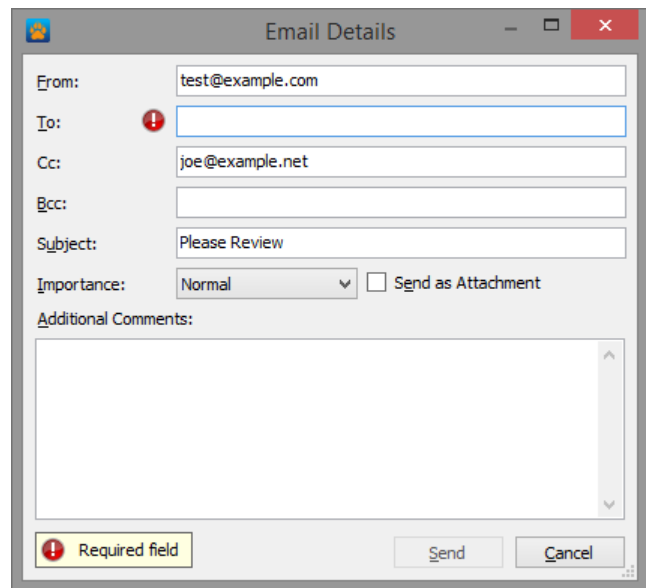
The image shows a software dialog box titled "Email Details". It contains several input fields: "From:" with the value "test@example.com", "To:" which is empty and has a red exclamation mark icon next to it, "Cc:" with the value "joe@example.net", and "Bcc:" which is empty. The "Subject:" field contains the text "Please Review". Below these is an "Importance:" dropdown menu set to "Normal" and a checkbox labeled "Send as Attachment" which is unchecked. At the bottom of the main content area is a large text area labeled "Additional Comments:". At the very bottom of the dialog, there is a yellow warning box on the left that says "Required field" with a red exclamation mark icon, and two buttons on the right labeled "Send" and "Cancel".

Figure 106: Email details dialog

8.4.3 Windshield Wiper

The *Windshield Wiper* button (🧽) is a specialized search. This button will clear the log and only show new operations that are audited. It takes your current search criteria (default criteria if no search was done) and modifies the Date Range of the search. It will use a custom search and set the *from* date to the time the button was clicked.

8.4.4 Searching Notification History

You can search all Notification History for specific records by pressing the *Search...* button.

The *Use these search options by default* checkbox can be checked to save default search behavior, which is used each time the control is loaded.

The *Presets* button allows users to save, load, and remove predefined searches that are commonly used.

The *Reset* button resets the dialog to the default search. Once you have entered the search criteria, press the *OK* button and the results will be displayed in the Notification History control.

The screenshot shows a 'Search' dialog box with the following fields and controls:

- Date Range:** A dropdown menu set to 'Custom...'. Below it, a date/time picker shows '2/22/2013 4:53:20 PM' and a 'to' field with a checked checkbox and date/time '4/22/2013 4:53:20 PM'.
- Notification Type:** A dropdown menu set to '<ALL>'.
- Sent To:** A dropdown menu set to '<ALL>'.
- Subject:** A text input field.
- Available:** A large empty list box on the left.
- Selected:** A list box on the right containing the following items: 'Chart Job Backlog', 'Chart Job Stalled', 'Chart Job Unprocessed', 'Configuration Change', 'Connection Count Limit', 'Cycle Server', 'ESO Queue Backlog', 'ESO Queue Stalled', 'IBM MQ Backlog', 'IBM MQ Capacity Alarm', 'Interface Activity', and 'Interface Backlog'. Arrows between the 'Available' and 'Selected' boxes allow for moving items.
- Common Attributes:** A table with two columns: 'Common Attributes' and 'Value'. The table is currently empty.
- Delivery:** A dropdown menu set to 'All notifications'.
- Use these search options by default:** An unchecked checkbox.
- Buttons:** 'Reset', 'OK', 'Cancel', and 'Presets' (with a right-pointing arrow).

Figure 107: Notification History search dialog

Criteria	Description
Date Range	By default, the Date Range is set to “Last 24 Hours”. You can use one of the other predefined date ranges or select a custom date range.
Notification Type	The method by which notification(s) were sent. The options are “Email”, “Pager” or “All” (default).
Sent To	The recipient of a notification. Wildcard characters (* or ?) are supported.
Subject	The subject of the desired notification(s). Wildcard characters (* or ?) are supported.
Events	You can double-click or use the arrows to select specific events. Panther allows you to select only specific states for each event as well. All are selected by default.
Attributes	Common attributes are determined by the list of identifiers which are shared between entries from each selected notification.
Delivery	Notification delivery with the options “All Notifications” (default), “Only notifications with recipients”, or “Lost notifications only”.

Table 29: Notification History Search Criteria

8.4.5 Notification History Preferences

To modify the appearance or behavior of the Notification History control, right-click in the control and select the *Preferences* option from the Notification History [Context Menu](#). This opens the Notification History Preferences ([Figure 108](#)).

These preferences allow you to turn Auto Refresh on and off. The auto refresh feature automatically reloads the current page of data on the provided time interval. This may be useful when you want to always view the most recent records matching the search criteria. If another match is found on a refresh, it will be added to the list.

You can also control how often a refresh occurs by providing a larger or smaller number of seconds.

Turning on the Notification Preview pane allows you to see a preview of the selected notification in the Application Workspace without having to load the details separately. This preference is turned off by default to allow more notifications to be seen at once.

The *Results per page* preference allows you to define how many results will appear in the control after a search is executed. Smaller numbers result in quicker searches but require flipping between more pages.

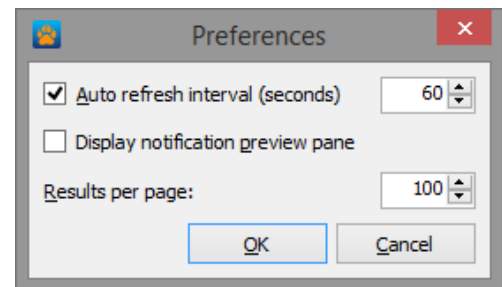


Figure 108: Notification History Preferences

8.5. Reports Control

The Management Reports document high-level metrics concerning the availability of important areas within Cerner Millennium® system. This documentation is offered with both Summary and Event Analysis reports to make identifying trending data easier. The data presented in these reports is based on event data obtained from the Panther sensors, stored in the Panther database.

From the main page for Reports, a list of all available reports is visible. These reports are divided into categories based on the type of information the report provides.

The categories and reports that belong to them are described in [Available Reports](#).

Examples for common reporting features will be demonstrated using the [System Availability Summary Report](#).

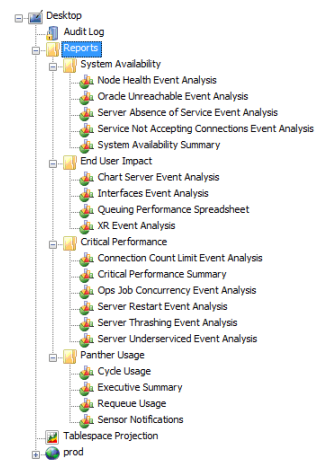


Figure 109: Domain Explorer

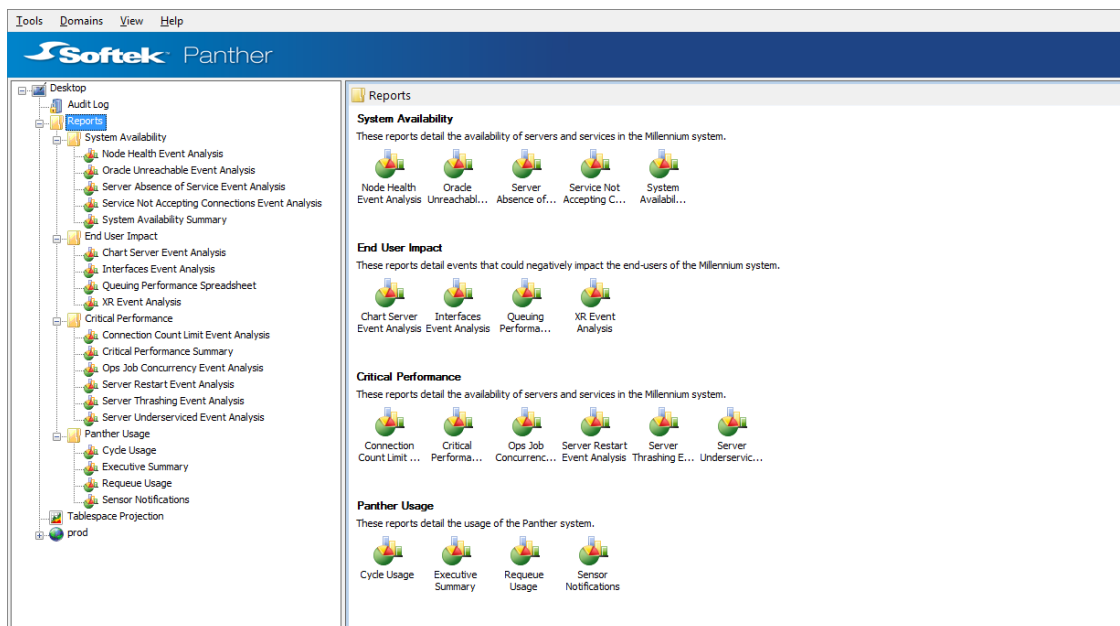


Figure 110: Top-level Reports page

8.5.1 The Reports Control

All reports have the same layout, containing the following elements ([Figure 111](#)):

1. The Report Title
2. The Report Description
3. The Report Generation Options
4. The Report Delivery History Table

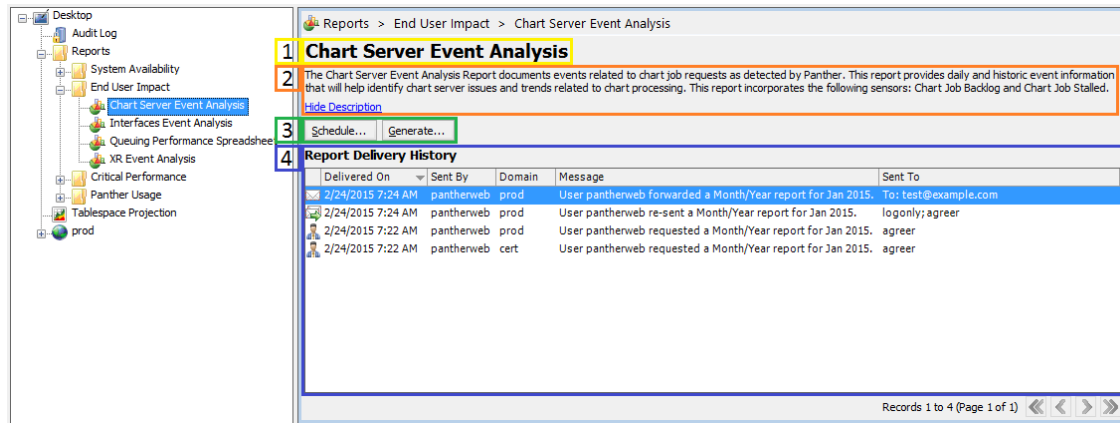


Figure 111: Report control

Report Description

Every report will have a description that can be shown or hidden. This feature can be useful when keeping reports in custom desktops to save space.

Descriptions are shown by default. To hide the description, click the *Hide Description* link underneath the description text (Figure 112).

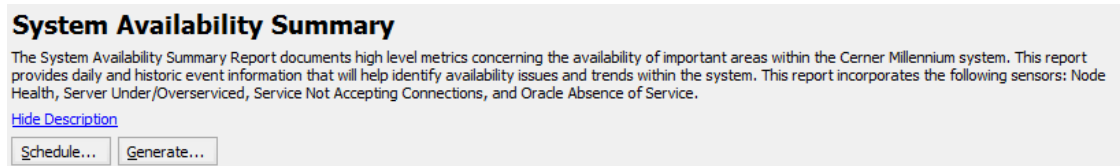


Figure 112: Expanded description

To view a hidden description, click the *Show Description* link below the report title (Figure 113).

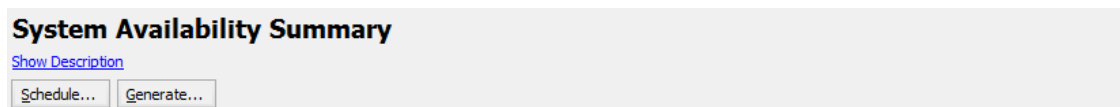


Figure 113: Collapsed description

Report Generation Options

Reports can be generated in two ways:

1. On Demand

The report is generated the same day that it is requested and it contains data related to past system activity.

2. Scheduled

The report is generated on a schedule and will contain data related to the system at a time after the report is scheduled.

Both of these options are made available through the Report Generation Options in each Report's control. For more information on generating reports, see [Reports on Demand](#) and [Scheduling Reports](#).

Report Privileges

There are two privileges needed to be able to view and take action within the Reports control. The privileges can be assigned by someone with the 'Manage Users' privilege, by going to the *User Management* menu within the *Tools* menu. The two privileges and descriptions are listed below.

1. Access Reports

Gives the ability to see the Reports menu within the Domain Explorer, to open Report History, view scheduled reports, and subscribe or unsubscribe to scheduled reports.

2. Manage Reports

Gives the ability to add, change, edit, or remove scheduled reports, and to edit the recipient lists for scheduled reports.

The 'Access Reports' privilege is required at minimum.

Using the Report Delivery History

Each time a report is generated, resent, or emailed, a new entry is added to the Report Delivery History list. This list provides access to several options for interacting with reports that have already been delivered. You can determine how the report came to exist by looking at the icons displayed in ([Table 30](#)).

Image	Meaning
	Scheduled Report
	On Demand Report
	Emailed Report
	Re-sent Report

Table 30: Report Delivery Type Images

These options are all accessible through the Report Delivery History context menu. To access this menu, select a report in the list and right-click. The options available through this menu are listed in detail in ([Table 31](#)).

Menu Option	Description
Refresh	Refreshes the list of audit log entries.
Delivery Properties	Opens the delivery information for the selected report.
View Report	Prompts the user to save the report, then opens the report.
Re-send...	Allows a user to send a previously delivered report to any other Panther user who has provided a valid email address in Email Preferences.
Email...	Allows a user to send a previously delivered report to any individual(s) with an accompanying email priority and additional comments.
Copy	Copies the selected audit records to the system clipboard.
Select All	Selects all of the currently displayed audit records.
About	Displays a dialog with version information about this control.
Columns	Allows individual selection of columns to display in the Delivery History.
Preferences	Displays the Preferences dialog.

Table 31: Report Delivery History Context Menu

Properties of Reports

Each report can have a different set of properties. All reports will have the same four primary properties: Delivery Type, Date Range, Domain, and Recipients. These properties are described in [Table 32](#).

Property	Description
Delivery Type	This property shows if the report will be generated On Demand (only once), every day, every week, or every month.
Date Range	This is the type of date range for which the report will be generated. Possible date ranges include: Month-to-Date, Previous Month, Month/Year, Past N Days, and Custom. These dates are described in Table 33 .
Domain	This property indicates which domain on the system will be reported on.
Recipients	This is where the list of interested users will be kept. Users can be added to this list if they have an email address and are allowed to receive notifications.

Table 32: Report Properties

Property	Description
Month-to-Date	This report is generated by a schedule, and will covers the first of the month to the day it was generated.
Previous Month	This report is generated by a schedule on the first day of the month, and completely covers the previous month.
Month/Year	This report is requested ad-hoc (On Demand), and covers a calendar month (incompletely if requested in the month that it covers).
Past N Days	This report is generated by a schedule or ad-hoc and covers the past 'N' days from the day it was generated.
Custom	This report is generated On Demand and covers the date range specified.

Table 33: Report Date Range Types

Viewing Reports

For detailed information on viewing previously delivered reports, see the section on [Viewing Reports](#).

Resending Reports

Reports can be resent to Panther users who have provided their email information in the Email Preferences under the Tools menu. The difference between resending a report and emailing the report is that when resending, the recipients are limited to Panther users that have provided an email address within the Email Preferences and no additional comments can be added to the report.

To resend a report:

1. Navigate to the control belonging to the desired report using the Domain Explorer.
2. Select the desired report in the *Report Delivery History* list.
3. Right-click the selected report.
4. Select the *Re-send...* option from the context menu. This will open the Recipient Selection dialog.
5. From this dialog select the desired recipients. If a desired recipient does not appear in the list, then they may need to have their email set up in [Email Preferences](#).
6. Click *OK* to resend the report.

Emailing Reports

Any report shown in the Report Delivery History list can be emailed to anyone desired. Emailing a report from the delivery history will make a new entry in the Report Delivery History.

To email a report:

1. Navigate to the control belonging to the desired report using the Domain Explorer.
2. Select the desired report in the Report Delivery History list.
3. Right-click the selected report.
4. Select the *Email...* option from the context menu. This will open the Email Details dialog.
5. Enter the intended recipients in the *To* field. Multiple recipients can be entered by putting a comma between their email addresses.

Preferences

For detailed information on setting up user-specific preferences for all reports, see [Report Display Preferences](#).

8.5.2 Scheduling Reports

Reports can be scheduled to be automatically generated and emailed to interested parties. Setting up a report generation schedule can save time in the future. All scheduled report features can be accessed from the Scheduled Reports Manager. This dialog only shows schedules for the type of report that is appearing in the [Application Workspace](#).

To access the Scheduled Reports Manager:

1. Navigate to the control for the report for which you wish to create a schedule.
2. Click the *Schedule...* button to open the [Scheduled Reports dialog](#).
This dialog will show all existing schedules for this type of report.

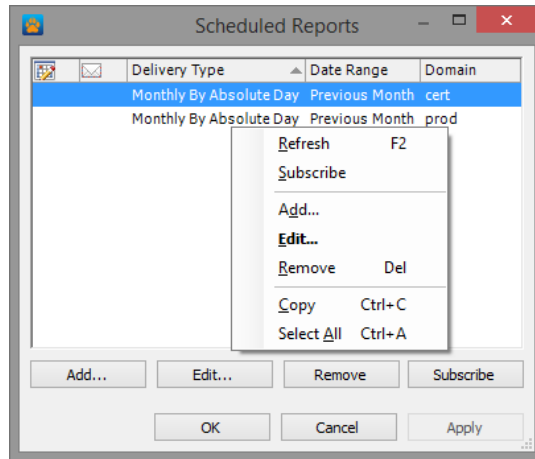


Figure 114: Scheduled Reports dialog



Attention: Schedule changes are audited.

All changes made to report schedules are audited by Panther. To view the audit history for report schedules, go to the [Audit Log](#) control.

Creating Schedules

1. Open the Scheduled Reports Manager (instructions above).
2. Click the *Add* button, or right-click and select the *Add* option from the context menu (this opens the [Report Properties](#) dialog).
3. Click the down arrow to select one of the listed *Date Ranges*.
4. Click the down arrow and select a domain from the drop-down.
5. Additional parameters may be required depending on the type of the report.
6. Add recipients to this report by either double-clicking on an Available User name or selecting a name and using the arrow keys in the middle.
7. If no users appear in the Available Users list, then users will need to be set up with email information in [Email Preferences](#).

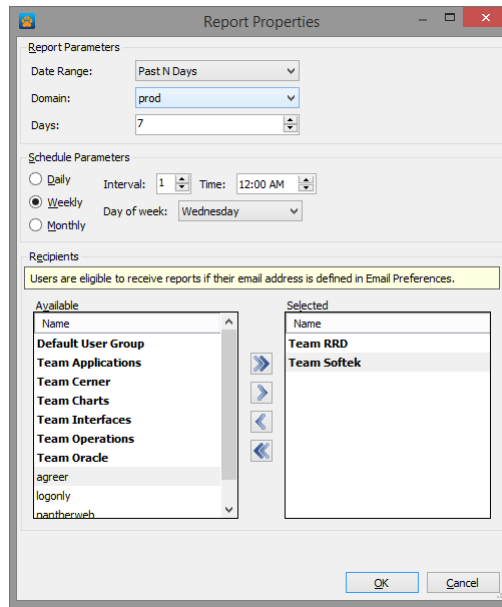


Figure 115: Report Properties dialog

Editing Schedules

There are four ways to edit a scheduled report from the [Scheduled Reports](#) dialog:

1. Double-click the schedule.
2. Select the desired schedule and press the *Enter* key.
3. Select the desired schedule and click the *Edit* button.
4. Right-click the desired schedule and select the *Edit* option from the context menu.

Taking any of these actions will open the [Report Properties](#) dialog. This dialog shows the current parameters for the selected schedule as well as the recipients.

Removing Schedules

There are two ways to remove a schedule from the list in the [Scheduled Reports](#) dialog:

1. Select the schedule to remove and click the *Remove* button.
2. Right-click the schedule to be removed and select the *Remove* option from the context menu.

Performing either of these actions will flag the schedule to be removed. If a schedule has been flagged for removal by mistake, click the *Cancel* button to close the dialog without saving the changes, and the schedule will not be removed.

Managing Schedule Subscriptions

It is important when setting up schedules to make sure that the proper parties are included in the list of selected users. The following actions are performed from the [Report Properties](#) dialog.

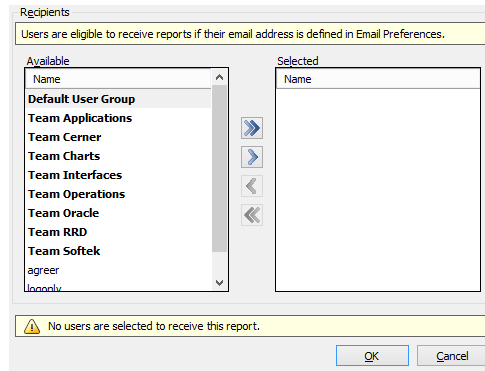


Figure 116: Report recipients control

Adding Recipients

To add recipients to a scheduled report:

1. Double-click an existing schedule or select a schedule and click the *Edit...* button.
2. Select the desired user(s) in the *Available Users* list (Ctrl+click can be used to select multiple users at once).
3. Click the ➤ button or double-click to move the selected user(s) to the *Selected Users* list.
4. Click the *OK* button to save the selection.
5. Click the *OK* button on the [Scheduled Reports](#) dialog to save the changes and close the dialog or click the *Apply* button to save the scheduled report but keep the dialog open.

Adding Yourself

There are two ways to add yourself to a scheduled report:

1. Follow the method outlined above in the [Adding Recipients](#) section.
2. Click the *Schedule...* button from the Report Control.
 - (a) Select an existing schedule within the [Scheduled Reports](#) dialog.
 - (b) Click the *Subscribe Me* button.

If you are already a recipient of the report, the *Subscribe Me* button will be titled *Unsubscribe Me*. An envelope will appear next to any report you are scheduled to receive.

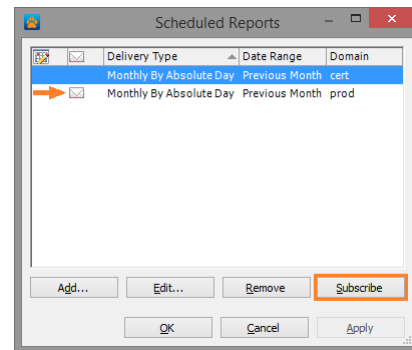


Figure 117: Scheduled Reports

Removing Recipients

To remove recipients from a scheduled report:

1. Double-click an existing schedule.

2. Click the Edit button.
3. Select the desired user(s) in the Available Users list (Ctrl+click can be used to select multiple users at once).
4. Click the  button or double-click to move the selected user(s) to the *Selected Users* list.
5. Click the OK button to save the selection.
6. Click the OK button on the [Report Properties](#) dialog to save the changes to the scheduled report.

Reports on Demand

To generate an On Demand report:

1. Navigate to the desired report's control using the Domain Explorer.
2. Click the *Generate* button to open the Report Properties dialog.

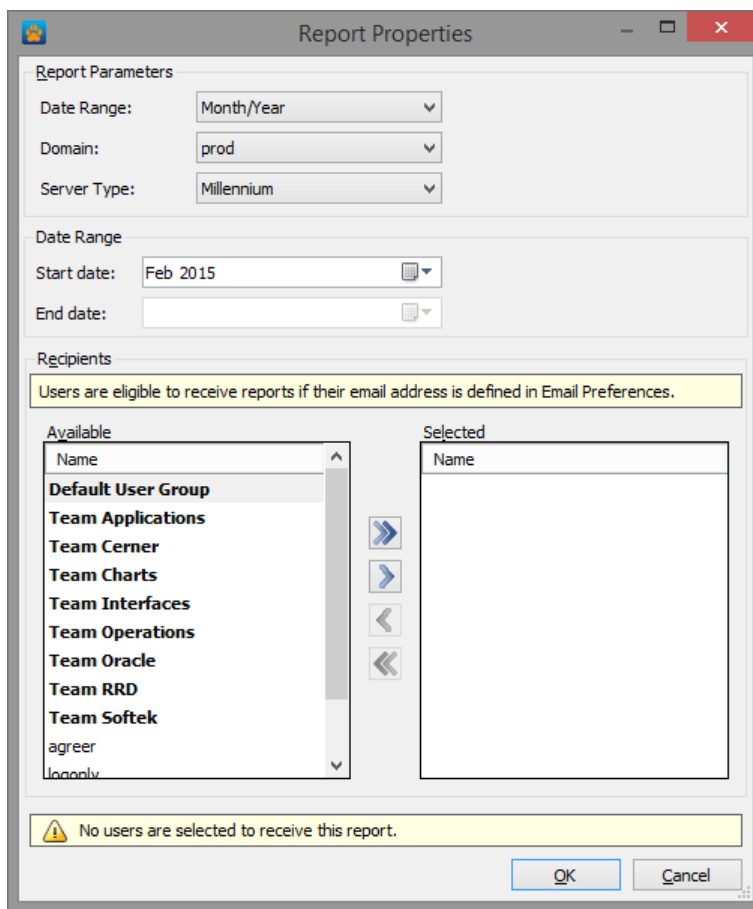


Figure 118: Report Properties dialog

3. Select the Date Range desired. Possible Date Range types are described in [Table 33](#).
4. Select the desired Domain for the report.

The image shows a 'Report Parameters' dialog box. It contains three fields: 'Date Range' with a dropdown menu showing 'Month/Year', 'Domain' with a dropdown menu showing 'cert', and 'Server Type' with a dropdown menu showing 'prod'. The 'Domain' dropdown is currently open, showing 'cert' and 'prod' as options.

Figure 119: Domain parameter drop-down

5. Click the down arrow and select a domain from the drop-down.
6. Additional Report Parameters may be required depending on the type of report.
7. Select the date range you want the report to cover.
8. Double click a user name, or select a user and use the arrow keys in the middle to add an Available User to the Selected Users list.

The image shows a 'Recipients' dialog box. It has a title bar 'Recipients' and a subtitle 'Users are eligible to receive reports if their email address is defined in Email Preferences.' Below this, there are two lists: 'Available' and 'Selected'. The 'Available' list contains the following items: 'Name', 'Default User Group', 'Team Applications', 'Team Cerner', 'Team Charts', 'Team Interfaces', 'Team Operations', 'Team Oracle', 'Team RRD', 'Team Softek', 'agreer', and 'looolu'. The 'Selected' list is empty. Between the two lists are four arrow buttons: a right-pointing arrow, a left-pointing arrow, a double right-pointing arrow, and a double left-pointing arrow. At the bottom, there is a yellow warning box with a triangle icon and the text 'No users are selected to receive this report.' Below the warning box are 'OK' and 'Cancel' buttons.

Figure 120: Recipients list

9. If no users appear in the Available Users list, then users will need to be set up with email information in [Email Preferences](#).
10. Once all of the information has been provided, click the *OK* button to generate the report. It may take some time for Panther to generate the report.

8.5.3 Viewing Reports

Any report that has been sent by Panther can be viewed using the Report control of the same type. For example, to view a System Availability Summary Report that was generated last week:

1. Go to the System Availability Summary Report control.
2. Locate the desired report and double-click it.

OR

1. Locate the desired report and select it.
2. Right-click the selected report (only one report can be viewed at a time).
3. Select the *View Report* option from the context menu.

A save file dialog will appear after you double-click the report or select *View Report*. Panther will then attempt to open the report. If your machine can open the file generated by the report, it will be opened in a new window immediately after taking the above steps (Figure 121).

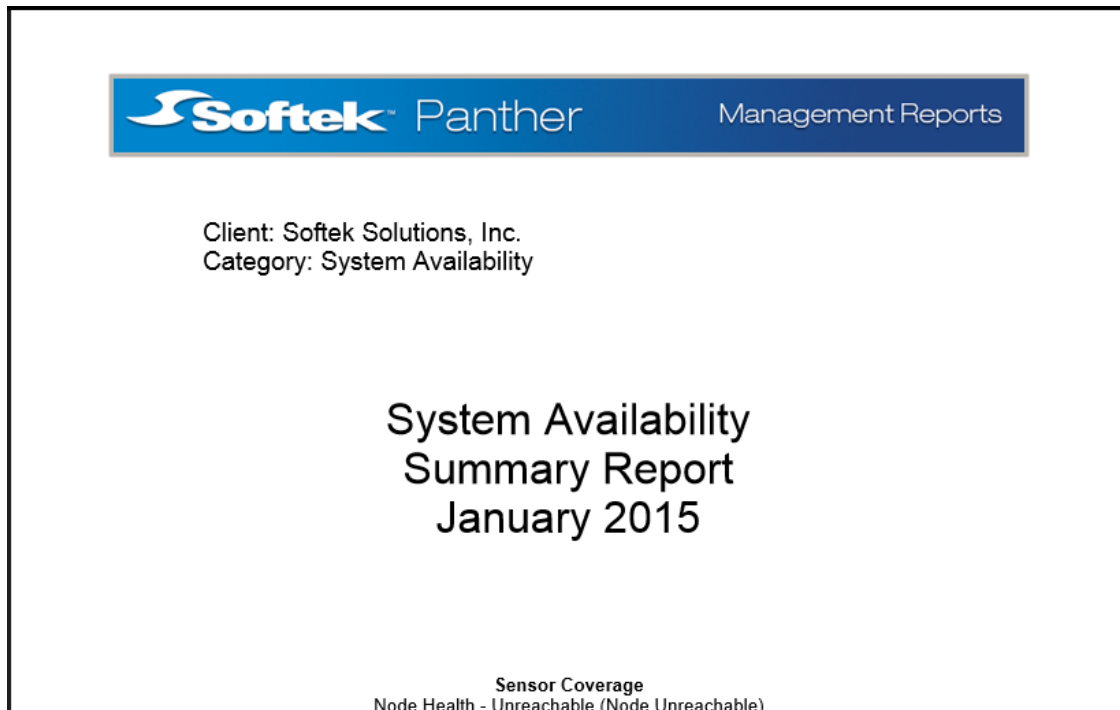


Figure 121: Opened report

If your machine cannot open the report that was generated a system dialog similar to Figure 122 will be displayed. The report will still get saved to your computer, so when software that can open the file is installed you can open the local copy.

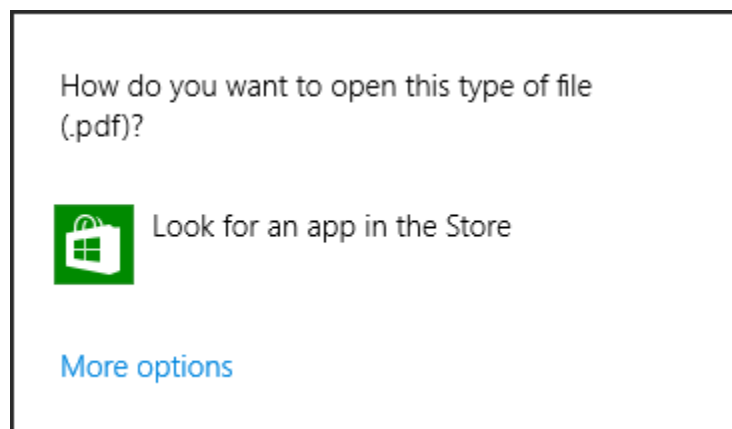


Figure 122: Unknown file type dialog

8.5.4 Report Display Preferences

To access the Report History Preferences dialog:

1. Navigate to any report control using the Domain Explorer.
2. Right-click inside of the Report Delivery History table.
3. Select the *Preferences* option at the bottom of the context menu.

Reports have three settings that can be customized for individual users. Setting the Preferences from any report control will also set the preferences for all of the other report controls with the exception of controls that have been placed on a custom desktop.

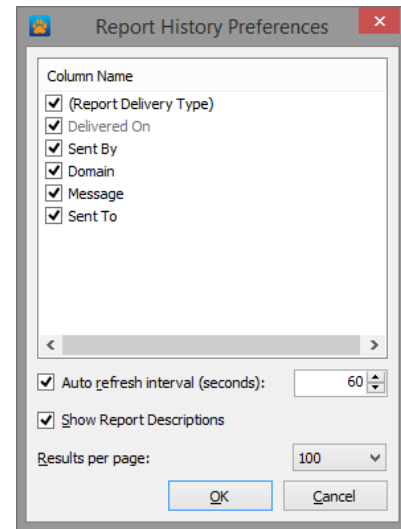


Figure 123: Preferences

Auto Refresh

Due to the dynamic nature of the Report Delivery History, an auto refresh option has been made available. This option is enabled by default and will cause all new report deliveries to appear on the first page of the history as they are sent. The refresh interval is measured in seconds and can be set to any value between 10 and 999 seconds.

While viewing any pages other than the first page of the history, the Report Delivery History will not refresh. Auto refresh is designed to function in this way to prevent interruptions and changes in the reports shown in the history while viewing later pages. Refreshing from any page other than the first page will return to the first page because this is where the newest records are shown.

Show Report Descriptions

Each report has a description that can be shown or hidden based on the preferences of the current user. All descriptions are shown by default, but they can be hidden at any time by either un-checking the *Show Report Descriptions* checkbox on the Report History Preferences dialog or by clicking the up arrow at the end of the report's title. This will hide the descriptions of all reports.

Results per Page

The Report Delivery History will show 100 records per page by default, but this number can be changed at any time from the Report History Preferences dialog. Setting the Results Per Page for any report will result in all reports having the configured number of Results Per Page.

8.5.5 Available Reports

System Availability

Reports found under *System Availability* will provide graphical information indicating how consistently different parts of the system, to which Panther is connected, are available to perform their intended function. Because it is more often the case that systems are on-line and working, these graphs focus on when a system is off-line or unavailable at a time it is expected to be running. This information can provide insight into the trends of availability in both Millennium and Oracle® at your location, which may aid in development of new solutions to increase the system's stability in the future.

Node Unreachable Event Analysis

Node Unreachable events represent situations where the node is off-line or network connectivity issues exist between the Panther server and the node. This report provides daily and historic event information that will help identify these node issues and trends. This report is summarized in the [System Availability Summary](#).

Reports > System Availability > Node Health Event Analysis

Node Health Event Analysis

The Node Health Event Analysis Report documents high level metrics concerning the availability of nodes within the Cerner Millennium system. This report provides daily and historic event information that will help identify availability issues and trends within the system. This report incorporates the following sensors: Node Health - Unreachable, Node Health - SCP Down.

[Hide Description](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 7:57 AM	pantherweb	prod	User pantherweb forwarded a Month/Year report for Jan 2015.	To: test@example.com
2/24/2015 7:57 AM	pantherweb	prod	User pantherweb re-sent a Month/Year report for Jan 2015.	logonly; agreer
2/24/2015 7:56 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Jan 2015.	agreer
2/24/2015 7:56 AM	pantherweb	cert	User pantherweb requested a Month/Year report for Jan 2015.	agreer

Records 1 to 4 (Page 1 of 1) << < > >>

Figure 124: Node Unreachable Event Analysis page

Oracle® Unreachable Event Analysis

Oracle® Unreachable events represent situations where Panther could not communicate with the Oracle® instance due to a network issue or the instance being off-line. This report provides daily and historic event information that will help identify these issues and trends related to the inability of Panther to communicate with Oracle®. This report is summarized in the [System Availability Summary](#).

Reports > System Availability > Oracle Unreachable Event Analysis

Oracle Unreachable Event Analysis

The Oracle Unreachable Event Analysis Report documents high level metrics concerning the availability of the Oracle instance within the Cerner Millennium system. This report provides daily and historic event information that will help identify availability issues and trends within the system. This report incorporates the following sensors: Oracle Unreachable.

[Hide Description](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 8:13 AM	pantherweb	prod	User pantherweb forwarded a Month/Year report for Jan 2015.	To: test@example.com
2/24/2015 8:13 AM	pantherweb	cert	User pantherweb re-sent a Month/Year report for Jan 2015.	logonly
2/24/2015 8:12 AM	pantherweb	cert	User pantherweb requested a Month/Year report for Jan 2015.	agreer
2/24/2015 8:12 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Jan 2015.	logonly; agreer

Records 1 to 4 (Page 1 of 1) << < > >>

Figure 125: Oracle® Unreachable Event Analysis page

Server Absence of Service (AOS) Event Analysis

The Server AOS Event Analysis has three categories to choose from: Millennium, Ops Exec Server, and Open Engine Server. Server AOS events represent situations where servers had no running instances on

a node to which they were configured to run. This report provides daily and historic event information that will help identify AOS events and trends related to Millennium servers. This report is summarized in the [System Availability Summary](#).

Reports > System Availability > Server Absence of Service Event Analysis

Server Absence of Service Event Analysis

The Server Absence of Service Event Analysis Report documents high level metrics concerning the availability of servers within the Cerner Millennium system. This report provides daily and historic event information that will help identify availability issues and trends within the system. This report incorporates the following sensors: Server Under/Overserved.

[Hide Description](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 7:21 AM	pantherweb	prod	User pantherweb forwarded a Month/Year report for Jan 2015.	To: test@example.com
2/24/2015 7:21 AM	pantherweb	prod	User pantherweb re-sent a Month/Year report for Jan 2015.	logonly; agreer
2/24/2015 7:20 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Jan 2015.	agreer
2/24/2015 7:20 AM	pantherweb	cert	User pantherweb requested a Month/Year report for Jan 2015.	agreer

Records 1 to 4 (Page 1 of 1) << < > >>

Figure 126: Server Absence of Service (AOS) Event Analysis page

Service Not Accepting Connections Event Analysis

Service Not Accepting Connections events represent situations where services were no longer accepting any connections. This report provides daily and historic event information that will help identify these issues and trends related to service connectivity. This report is summarized in the [System Availability Summary](#).

Reports > System Availability > Service Not Accepting Connections Event Analysis

Service Not Accepting Connections Event Analysis

The Service Not Accepting Connections Event Analysis Report documents high level metrics concerning services inability to accept connections within the Cerner Millennium system. This report provides daily and historic event information that will help identify availability issues and trends within the system. This report incorporates the following sensors: Service Not Accepting Connections.

[Hide Description](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 8:06 AM	pantherweb	prod	User pantherweb forwarded a Month/Year report for Jan 2015.	To: test@example.com
2/24/2015 8:06 AM	pantherweb	prod	User pantherweb re-sent a Month/Year report for Jan 2015.	logonly; agreer
2/24/2015 8:06 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Jan 2015.	logonly; agreer
2/24/2015 8:06 AM	pantherweb	cert	User pantherweb requested a Month/Year report for Jan 2015.	logonly; agreer

Records 1 to 4 (Page 1 of 1) << < > >>

Figure 127: Service Not Accepting Connections Event Analysis page

System Availability Summary Report

As a summary report, this report provides a high-level view of the system over a period of time. The report provides data related to nodes going off-line, absences of service from servers, servers not accepting connections, and absences of service from Oracle®.

Reports > System Availability > System Availability Summary

System Availability Summary

The System Availability Summary Report documents high level metrics concerning the availability of important areas within the Cerner Millennium system. This report provides daily and historic event information that will help identify availability issues and trends within the system. This report incorporates the following sensors: Node Health, Server Under/Overserved, Service Not Accepting Connections, and Oracle Absence of Service.

[Hide Description](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 8:14 AM	pantherweb	prod	User pantherweb forwarded a Month/Year report for Dec 2014.	To: test@example.com
2/24/2015 8:14 AM	pantherweb	prod	User pantherweb re-sent a Month/Year report for Dec 2014.	logonly;agreer
2/24/2015 7:50 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Dec 2014.	agreer
2/24/2015 7:49 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Jan 2015.	agreer
2/24/2015 7:49 AM	pantherweb	cert	User pantherweb requested a Month/Year report for Jan 2015.	agreer

Records 1 to 5 (Page 1 of 1) << < > >>

Figure 128: System Availability Summary page

End User Impact

The idea behind any software system is to make everyday tasks easier in some way for general users. End User Impact Reports have been created as a means of preventing inconvenience to general users. These reports are intended to provide insight into trends in the system that could result in user dissatisfaction or frustration so that they can be prevented in the future.

Interfaces Event Analysis Report

Millennium interacts with foreign systems using interfaces. Any time that these interfaces fail to perform properly can result in long wait times for Millennium users. By providing trend graphs of backlogs and stalls experienced by Millennium Interfaces, the Interface Event Analysis Report provides valuable data which can be used to prevent future interface backlogs and stalls.

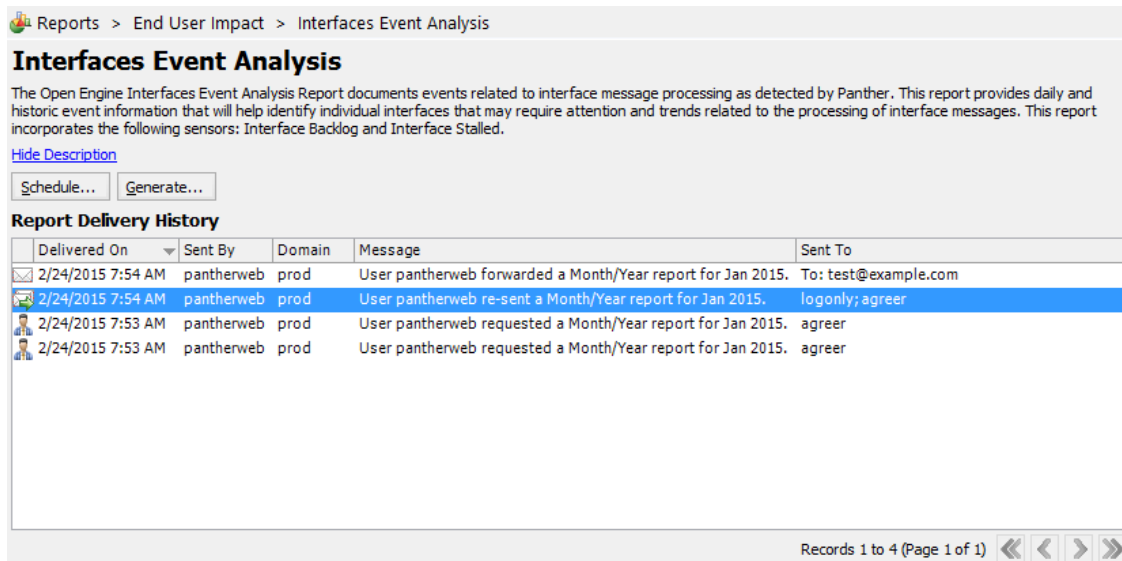


Figure 129: Interfaces Event Analysis page

Chart Server Event Analysis Report

The Chart system is Millennium's way of producing patient information in printed form. The Chart Event Analysis Report provides trend graphs of backlogs and stalls experienced by Millennium Chart Servers. This information may prove invaluable in diagnosing the causes of issues and preventing slowdowns in the system in the future.

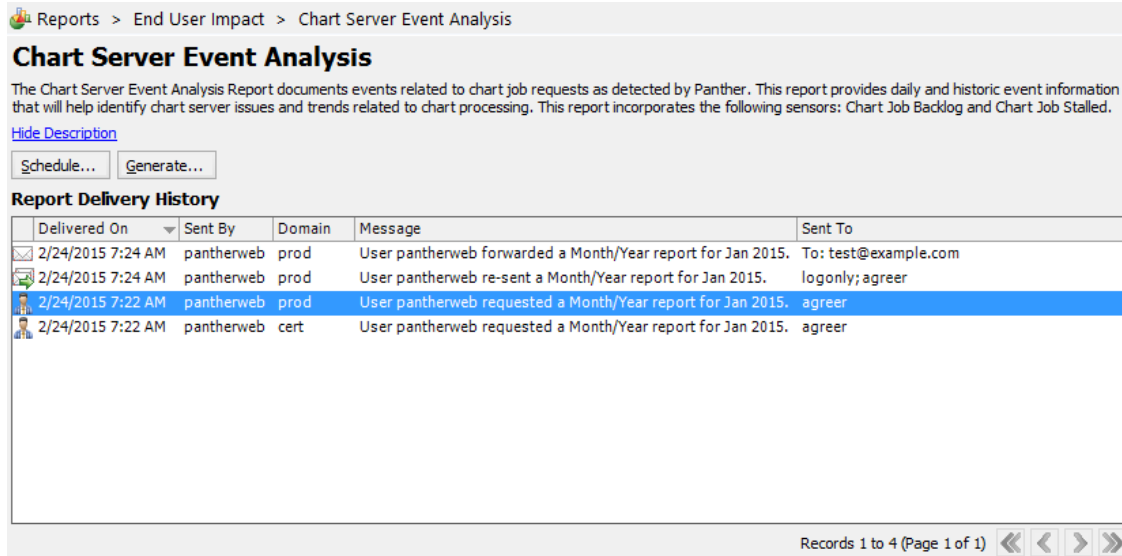


Figure 130: Chart Event Analysis page

Queuing Performance Spreadsheet

The Queuing Performance Spreadsheet (QPS) Report gives an analysis of the amount of queuing that is happening within the Cerner Millennium® system. The QPS spreadsheets will provide granular information

that will help identify issues and trends that may affect the performance of the Millennium system and the impact of the system on end users.

Reports > End User Impact > Queuing Performance Spreadsheet

Queuing Performance Spreadsheet

The QPS Report documents queuing statistics concerning the amount of queuing that is happening within the Cerner Millennium system. This report provides granular information that will help identify issues and trends that may critically affect the performance of the system and the impact of the system on end users.

[Hide Description](#)

[Schedule...](#) [Generate...](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 8:01 AM	pantherweb	cert	User pantherweb forwarded a Past N Days report for 16 Feb 2015 to 23 Feb 2015.	To: test@example.com
2/24/2015 8:01 AM	pantherweb	cert	User pantherweb re-sent a Past N Days report for 16 Feb 2015 to 23 Feb 2015.	logonly;agreer
2/24/2015 8:01 AM	pantherweb	cert	User pantherweb requested a Past N Days report for 16 Feb 2015 to 23 Feb 2015.	agreer
2/24/2015 8:01 AM	pantherweb	prod	User pantherweb requested a Past N Days report for 16 Feb 2015 to 23 Feb 2015.	agreer

Records 1 to 4 (Page 1 of 1)

Figure 131: Queuing Performance page

Critical Performance

On a large system, many things are happening at once, making it difficult to track all of the behaviors in the system. It is often the case that such systems suffer from inefficiency as their managers work to keep more serious issues under control. To make the process of improving system performance easier for system administrators, Panther provides Critical Performance reports.

Connection Count Limit Event Analysis

Connection Count Limit documents events related to services that Panther monitored as having a greater number of connections than the defined threshold. This could indicate that additional instances of a server will have the effect of distributing the number of connections across the instances or reducing the number of connections any single service will receive. This report provides daily and historic event information that will help identify when connection counts are exceeded.

Critical Performance Summary Report

As a summary report, this report provides a high-level view of the system over a period of time. The report provides data related to Connection Count Limits, Underserviced Servers, Server Restarts, Thrashing Servers, and Concurrent Ops Jobs.

Reports > Critical Performance > Critical Performance Summary

Critical Performance Summary

The Critical Performance Summary Report documents high level metrics of events that may impact the performance of the Cerner Millennium system. This report provides daily and historic event information that will help identify critical performance issues and trends within the system. This report incorporates the following sensors: Connection Count Limit, Server Under/Overserviced, Server Restart, Server Thrashing, and Ops Job Concurrency.

[Hide Description](#)

Report Delivery History

Delivered On	Sent By	Domain	Message	Sent To
2/24/2015 7:44 AM	pantherweb	prod	User pantherweb forwarded a Month/Year report for Jan 2015.	To: test@example.com
2/24/2015 7:44 AM	pantherweb	prod	User pantherweb re-sent a Month/Year report for Jan 2015.	logonly; agreer
2/24/2015 7:39 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Jan 2015.	agreer
2/24/2015 7:39 AM	pantherweb	prod	User pantherweb requested a Month/Year report for Dec 2014.	agreer

Records 1 to 4 (Page 1 of 1) << < > >>

Figure 132: Critical Performance Summary page

Ops Job Concurrency Event Analysis

Ops Job Concurrency events represent situations where ops jobs running concurrently for the same template ID or within the same domain exceed the defined threshold. This report provides daily and historic event information that will help identify when these template IDs or domains were exceeding their concurrency thresholds.

Server Restart Event Analysis

Server Restart events are related to servers that restarted following an abnormal termination. This report provides daily and historic event information that will help identify these issues and trends. Building on the Server Restart sensor, found under the Millennium sensors, which generates short term reports of no more than one week, this report will capture the restart activity on going.

Server Thrashing Event Analysis

The Server Thrashing sensor assesses when the number of times that a server crashes and restarts exceeds the parameter value and time defined in the Event Detection of the sensor. This report provides daily and historic event information that will help identify thrashing events and trends related to servers.

Server Underserviced Event Analysis

Service Underserviced events represent situations where a node's servers had fewer than the configured number of running instances but had more than zero. This report provides daily and historic event information that will help identify **Underserviced** events and trends related to servers.

8.6. Tablespace Projection Control

The Tablespace Projection control allows you to see data previously collected by Panther regarding the amount of space used by and allocated to Oracle® tablespaces.

To view the Tablespace Projection control, select the *Tablespace Projection* item in the Domain Explorer (Figure 133). This will load the control into the Application Workspace (Figure 134).

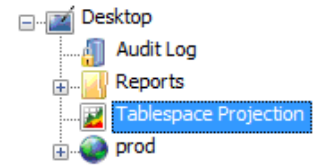


Figure 133: Domain Explorer

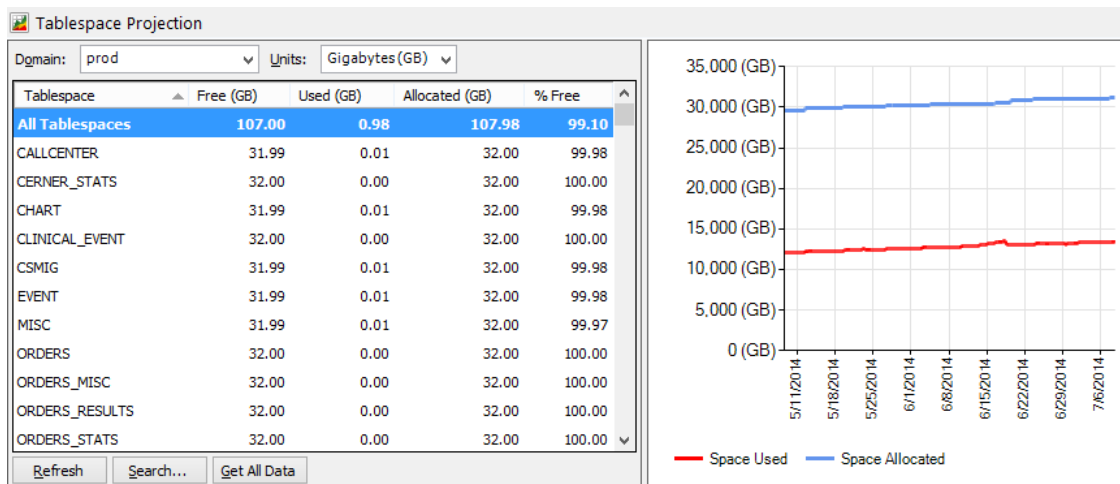


Figure 134: Tablespace Projection Control

In the left panel of the control are the options for selecting the data to view. First, select the domain, using the domain drop-down.

The domain drop-down contains a list of all domains Panther is currently monitoring, and all domains for which it has recorded tablespace data. Domains which do not have any tablespace data will be grayed out, and have the text “(no data)” after their names.

When a domain has been selected, Panther will load the list of tablespaces for which we have recorded data.

The Units drop-down configures the unit in which numeric values are displayed. Changes will affect both the grid and the chart.



Units of Measurement

Sizes displayed in the Tablespace Projection control are calculated using binary rather than metric units; i.e., they follow the same method of calculation that is traditionally used in computing, with each unit being 1024 of the preceding unit, rather than 1000 as in the metric system. This is the same method of calculation used by Oracle®. However, Oracle® uses the more familiar metric prefixes: “mega-” rather than “mebi-”, “giga-” rather than “gibi-”, etc. The Oracle® Tablespace control follows the same convention.

After the list of tablespaces has been populated, click on one to select it. Its most recent recorded used and allocated space will be populated in the grid, along with the amount of free space remaining, and the percentage of space used. These values are not influenced by the search range.

When a tablespace is selected, a chart is automatically generated using the data that Panther has previously recorded for that tablespace within the search range. It will be displayed in the right panel of the control.

If the Oracle® server associated with a domain was unavailable for some time, or Panther services were brought down for maintenance, there may be a gap between measured values (Figure 135). If present, this gap will be represented by a dashed line, which stays at the level of the last known value.

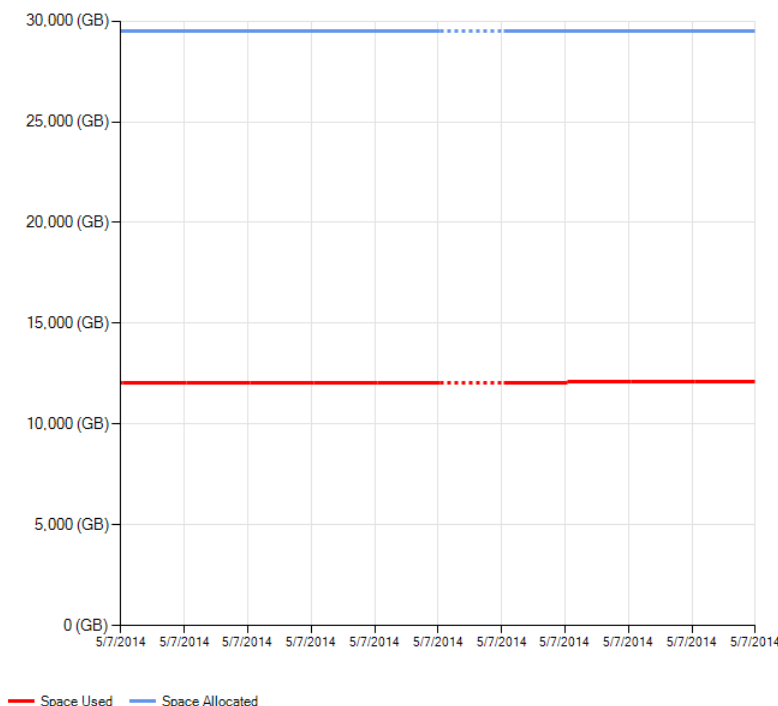


Figure 135: Tablespace Data Across Maintenance Period

The *Refresh* button will update the list of domains and whether they have data. If a domain is selected, that domain's list of tablespaces will be updated, and if a tablespace is selected, the chart will be redrawn.



Data Update Schedule

In order to minimize load on the Oracle® servers being monitored, tablespace data is only gathered once every hour. If a new tablespace is introduced, a tablespace's allocated space is changed, or the data used by a tablespace is cleaned up, it may not be immediately reflected in the control.

The *Search* button will bring up a dialog which allows you to adjust the range of data shown on the chart.

The *Get All Data* button will cause the *Used Space*, *Allocated Space*, *Free Space*, and *% Free* columns to be populated for all tablespaces.

Once a chart is displayed, right-click on it to view its context menu.

Menu Option	Description
Refresh	Refreshes the available domains, and the data for the selected domain/tablespace.
Save Data. . .	Allows you to save the data used to build the chart to a CSV file.
Save Image. . .	Allows you to save the currently displayed chart to a PNG-format image file.

Table 34: The Tablespace Projection Chart Context Menu

8.6.1 Search

You can change the range of data displayed in the chart by clicking the *Search* button to bring up the Search dialog.

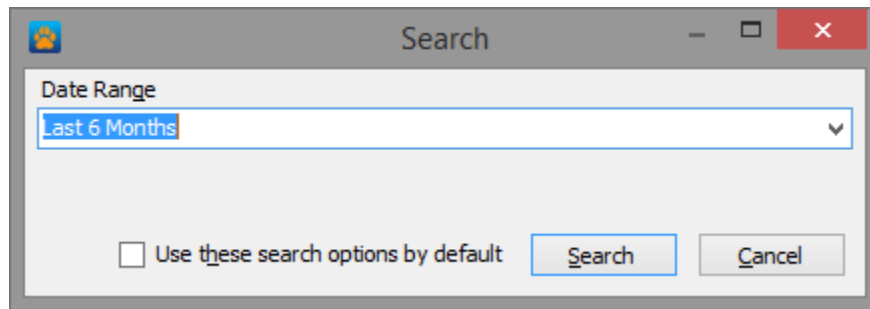


Figure 136: Search Dialog

The Date Range drop-down provides options to use the default search range of 6 months into the past or a custom date range.

Selecting the *Custom. . .* option enables controls to specify start and end dates for the search.

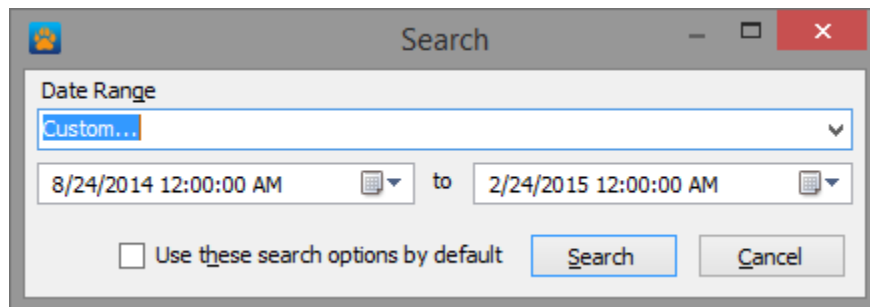


Figure 137: Search Dialog With Custom Date Range

To set a search range as the preferred default search, click the checkbox marked *Use these search options by default*.

9 Charge Capture

Panther charge capture controls provide Cerner clinical clients instant visibility into clinically driven charging issues. The components listed below represent a growing collection of functionality.

For more detailed information about the Panther Charge Capture controls, you may visit their respective section(s).

9.1. Charge Reconciliation Control

The Charge Reconciliation control allows users to reconcile charges on a regular basis. Each user can set up worklists for the charges they are interested in, so they can easily review charges as necessary. The control also allows the user to search for charges for a particular patient by using their FIN number. This control does not make any modifications to the data in Millennium, and does not interact with the billing system. Which charges are marked as reviewed is only saved in the Panther system.

To view the Charge Reconciliation control, select the *Charge Reconciliation* item, under the *Charge Capture* item, in the Domain Explorer (Figure 138).

There are two icons that commonly appear in the upper right-hand corner of the Charge Reconciliation control. These are the Export button, and the Help icon.

The Export button allows you to save the currently displayed data in a [Comma-Separated Value \(CSV\)](#) or Excel® format. When the Export button is clicked, the Windows “Save As” dialog will appear, prompting the user to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

The Help icon provides additional information about the data currently being viewed. Hover the mouse cursor over the question mark icon to see an informational tooltip describing the data displayed.

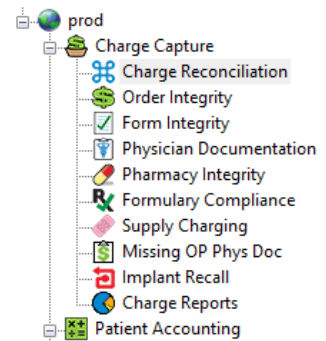


Figure 138: Domain Explorer

9.1.1 Charge Reconciliation Main Control

When the control is loaded, the Search All Charges section will be selected by default. The tree view on the left-hand side of the control can be used to navigate to other sections of the control. Data will not be automatically refreshed on this control.

Searches may take time to load; please note the spinning blue loading icon which will appear in the upper left-hand corner of the control, where the Charge Reconciliation icon normally is.

prod > Charge Capture > Charge Reconciliation

Search All Charges
Search by FIN
Search by MRN
Reviewer Performance
Charge Review Worklists
dfsd

Search All Charges

Search

Date Range
Yesterday

Encounter Status(es): All
Encounter Type(s): All

Organization Facility Medical Service Ordering Physician Performing Physician Verifying Physician IP Nurse Unit OP Nurse Unit

☐ Filter By Organization

Excluded:

Organization
ACME Bates City
ACME Belton
ACME Fairway
ACME Gladstone
ACME Grandview
ACME...

Included:

Organization

☒ Summarize Results

Search

Filter

☐ Status (0)
☐ ABN (Advanced Beneficiary Notice) Status
☐ Absorbed
☐ Adjusted
☐ Bundled
☐ Bundled - interfaced
☐ Combined
☐ Grouped

☐ Charge Type (0)
☐ BILL ONLY
☐ CHARGE NOW
☐ COLLECTION
☐ CREDIT
☐ CREDIT NOW
☐ DEBIT
☐ NO CHARGE

☐ Offset Charges (0)
☐ Offset Charges
☐ Non Offset Charges

☐ Tier Group (0)
☐ Client Tier
☐ Professional Clinic Tier
☐ Professional Tier
☐ Research Tier
☐ Technical Clinic Tier
☐ Technical Tier

☐ Activity Type (0)
☐ Activities Consult
☐ Activity Daily Living
☐ Activity Restrictions
☐ Admit/Transfer/Discharge
☐ AFC BILL ITEM SPECIFIC ADD-ON
☐ AFC DEFAULT BILL ITEM ADD-ON
☐ AFC GENERIC ADD-ON

☐ Cost Center (0)
☐ <Not Found>
☐ - Black Mesa Grain Valley
☐ - Zorg Industries Raytown
☐ - ACME Grain Valley
☐ - Black Mesa Grain Valley
☐ - ACME Grain Valley

Group By: ☒ FIN ☐ Activity Type ☐ Cost Center

Patients with Charges

Reviewed	FIN	Patient Name	Unreviewed Charges	Unreviewed Price	Unfiltered Charges	Percent Reviewed	Total Price
☐	1300004292	Hartmann, Rico	324	\$39,560.11	324	0.00%	\$39,560.11
☐	1300005855	Waelchi, Schuyler	280	\$86,311.78	280	0.00%	\$86,311.78
☐	1300005342	Mueller, Ruby	265	\$31,463.46	265	0.00%	\$31,463.46
☐	1300001504	Pagac, Delta	265	\$26,202.16	265	0.00%	\$26,202.16
☐	1300000837	Stracke, Casey	247	\$30,475.46	247	0.00%	\$30,475.46
☐	1300000500	Langosh, Laurel	246	\$20,330.00	246	0.00%	\$20,330.00
☐	1300005414	Rice, Alyson	217	\$27,496.11	217	0.00%	\$27,496.11
☐	1300004260	Dickens, Gwendolyn	212	\$26,076.25	212	0.00%	\$26,076.25
☐	1300004348	Kovacek, Crawford	210	\$31,944.35	210	0.00%	\$31,944.35
☐	1300005044	Gutmann, Alia	202	\$12,385.50	202	0.00%	\$12,385.50

Including 47211 of 47211 charges | Displaying 2993 of 2993 patients

[Create charge review worklist from this search](#)

Data no older than: 02/25/22 2:42:01 PM

Figure 139: Charge Reconciliation Control

9.1.2 Search All Charges

The Search All Charges section allows the user to search for all charges meeting the specified search criteria. When this section is selected, no search will be automatically performed. The user must select the appropriate criteria in the *Search* area and then click the *Search* button to perform the search. The maximum date range a user can search is 31 days. The user can choose as part of the search criteria whether or not the results will be summarized. When results are returned, they will be displayed in the grid at the bottom of the screen. The *Filter* section can be used to set filter criteria before or after performing a search. If summarizing results, how the results are grouped can also be changed before or after performing a search. Under the grid, the *Create charge review worklist from this search* link can be clicked to open the *Create Charge Review Worklist* dialog prepopulated with the currently selected search and filter criteria. See [Section 9.1.8](#) for more information regarding the create charge review worklist dialog.



Searching Locations

When searching encounters for charges, the current locations are considered as well as the location history for the encounter.

Search All Charges

Search

Date Range
Yesterday

Encounter Status(es): All
Encounter Type(s): All

Organization Facility Medical Service Ordering Physician Performing Physician Verifying Physician IP Nurse Unit OP Nurse Unit

☐ Filter By Organization

Excluded:

Organization
ACME Bates City
ACME Belton
ACME Fairway
ACME Gladstone
ACME Grandview
ACME K...

Included:

Organization

☒ Summarize Results

Search

Filter

☐ Status (0)
☐ ABN (Advanced Beneficiary Notice) Status
☐ Absorbed
☐ Adjusted
☐ Bundled
☐ Bundled - Interfaced
☐ Combined

☐ Charge Type (0)
☐ BILL ONLY
☐ CHARGE NOW
☐ COLLECTION
☐ CREDIT
☐ CREDIT NOW
☐ DEBIT

☐ Offset Charges (0)
☐ Offset Charges
☐ Non Offset Charges

☐ Tier Group (0)
☐ Client Tier
☐ Professional Clinic Tier
☐ Professional Tier
☐ Research Tier
☐ Technical Clinic Tier
☐ Technical Tier

☐ Activity Type (0)
☐ Activities Consult
☐ Activity Daily Living
☐ Activity Restrictions
☐ Admit/Transfer/Discha
☐ AFC BILL ITEM SPECIFI
☐ AEC DEFAULT BILL ITEM

Group By: ☒ FIN ☐ Activity Type ☐ Cost Center

Patients with Charges

Reviewed	FIN	Patient Name	Unreviewed Charges	Unreviewed Price	Unfiltered Charges	Percent Reviewed	Total Price
☐	1300004292	Hartmann, Rico	324	\$39,560.11	324	0.00%	\$39,560.11
☐	1300005855	Waelchi, Schuyler	280	\$86,311.78	280	0.00%	\$86,311.78
☐	1300005342	Mueller, Ruby	265	\$31,463.46	265	0.00%	\$31,463.46
☐	1300001504	Pagac, Delta	265	\$26,202.16	265	0.00%	\$26,202.16
☐	1300000837	Stracke, Casey	247	\$30,475.46	247	0.00%	\$30,475.46
☐	1300000500	Langosh, Laurel	246	\$20,330.00	246	0.00%	\$20,330.00
☐	1300005414	Rice, Alysson	217	\$27,496.11	217	0.00%	\$27,496.11
☐	1300004260	Dickens, Gwendolyn	212	\$26,076.25	212	0.00%	\$26,076.25

Including 47211 of 47211 charges | Displaying 2993 of 2993 patients

Data no older than: 02/25/22 2:42:01 PM

[Create charge review worksheet from this search](#)

Figure 140: Search All Charges

Changing the group by option updates the results shown in the grid, as well as the actions available.

Group by FIN

When the *FIN* option is selected, the grid will display the FIN and Patient Name for each group. The *Reviewed* column indicates whether all unfiltered charges for the FIN are reviewed. Selecting the checkbox will mark all unfiltered charges for the FIN as being reviewed. Deselecting the checkbox will mark all unfiltered charges for the FIN as unreviewed. Right-clicking the mouse in the *Patients with Charges* grid will open the [Context Menu](#). See [Figure 141](#).



Figure 141: Group by FIN Context Menu

Menu Option	Description
Patient Details	Navigates to the charge details for the patient.
Mark Reviewed	Marks the charge as reviewed within Panther.
Mark Unreviewed	Marks the charge as unreviewed within Panther.
Copy FIN	Copies the selected FIN to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 35: Group by FIN Context Menu

Details for each FIN can be viewed in the *Patient Charge Details* dialog by double-clicking on the row, or using the *View Patient Details* option in the [Context Menu](#).

Patient Charge Details Dialog

The *Patient Charge Details* dialog is opened using the previously selected filters. However, the filters can be changed at this level to further filter the charges. Under the filter section, information about the specific patient encounter is displayed, followed by a grid containing the unfiltered charges for the patient. Charges can be reviewed and unreviewed at this level. At the top, right-hand corner of the *Charges* grid there are previous and next navigation buttons located next to the export button. These buttons allow the user to view details for the next patient in the list on the previous screen without closing the dialog. The lower half of the dialog is used to show the *Orders* grid which includes all orders for the encounter. Orders are not filtered using any search or filter criteria.

Patient Charge Details

Filter

Patient Information

FIN: 1300006080 Patient Name: Kessler, Braulio Total Price: \$8,627.97
 Encounter Type: Patient Status: Medical Center Medical Service: loc3 Nurse Unit: ED ADMIT HOLD
 Organization: Facility: Medical Center Medical Service: loc3 Nurse Unit: ED ADMIT HOLD

Charges

Reviewed	Status	Service Date	Activity Type	Description	Medical Service	Item Quantity	Price	Tier Group	Charge Type	Financial Class	Performing Location
☐	Posted	2020-08-25 11:31 PM	Pharmacy		loc3	1	\$209.50	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 11:31 PM	Pharmacy		loc3	1	\$25.75	Technical Tier	DEBIT	Medicare Advantage	
☐	Pending	2020-08-25 11:31 PM	Pharmacy		loc3	1	\$235.25	Technical Tier	NO CHARGE	Medicare Advantage	
☐	Posted	2020-08-25 10:33 PM	Blood Bank		loc3	1	\$227.00	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 10:33 PM	Blood Bank		loc3	1	\$227.00	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 10:33 PM	General Lab		loc3	1	\$32.00	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 10:33 PM	General Lab		loc3	1	\$64.00	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 10:33 PM	General Lab		loc3	1	\$137.00	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 10:33 PM	General Lab		loc3	1	\$90.00	Technical Tier	DEBIT	Medicare Advantage	
☐	Posted	2020-08-25 8:52 PM	Person Management		loc3	1	\$1,204.00	Technical Tier	DEBIT	Medicare Advantage	ED ADMIT HOLD

Including 99 of 99 charges

Orders

Order ID	Activity Type	Orderable Name	Original Order Date	Requested Start Date	Order Status	Status Date	Clinical Display Line	Catalog Code
800774954	Pharmacy	polyethylene glycol 3350	2020-08-25 11:50 PM	2020-08-25 4:09 AM	Completed	2020-08-25 11:51 AM		800152228
800181328	Pharmacy	polyethylene glycol 3350	2020-08-25 11:50 PM	2020-08-26 5:59 PM	Ordered	2020-08-25 10:31 AM		800152228
800168656	Pharmacy	polyethylene glycol 3350	2020-08-25 11:50 PM	2020-08-25 5:13 AM	Completed	2020-08-25 12:16 PM		800152228
800185571	Pharmacy	polyethylene glycol 3350	2020-08-25 11:50 PM	2020-08-26 8:06 AM	Ordered	2020-08-25 6:12 AM		800152228
800766198	Pharmacy	polyethylene glycol 3350	2020-08-25 11:50 PM	2020-08-25 4:09 AM	Ordered	2020-08-25 10:31 AM		800152228
800316267	General Lab	HIV 1,2 Antigen/Antibody Combo	2020-08-25 11:39 PM	2020-08-25 3:04 PM	Ordered	2020-08-25 3:24 AM		800433107
800547748	General Lab	Complement Component 3-ARUP	2020-08-25 11:18 PM	2020-08-25 8:00 AM	Ordered	2020-08-25 6:27 AM		800230560
800499311	Radiology	CT NECK SOFT TISSUE W CONTRAST	2020-08-25 10:43 PM	2020-08-25 10:00 AM	Ordered	2020-08-25 11:34 AM		800162394
800434604	Pharmacy	pantoprazole	2020-08-25 10:01 PM	2020-08-25 6:56 AM	Completed	2020-08-25 10:01 PM		800215640
800720626	Radiology	US ABDOMEN RIGHT UPPER QUADRANT	2020-08-25 9:54 PM	2020-08-25 3:20 PM	Ordered	2020-08-25 7:19 PM		800159217
800936249	General Lab	Urinalysis with Microscopic if Indicated	2020-08-25 9:49 PM	2020-08-25 3:04 PM	Completed	2020-08-25 3:16 PM		800271871
800564735	General Lab	Ferritin	2020-08-25 9:46 PM	2020-08-25 8:00 AM	Canceled	2020-08-25 2:07 AM		800598294
800029126	General Lab	Complement Component 4-ARUP	2020-08-25 8:46 PM	2020-08-25 8:00 AM	Ordered	2020-08-25 6:27 AM		800873612
800511598	Pharmacy	vortioxetine	2020-08-25 8:17 PM	2020-08-25 11:57 AM	Ordered	2020-08-25 8:17 PM		800223713
800053347	General Lab	Urinalysis Microscopic	2020-08-25 8:15 PM	2020-08-25 12:25 AM	Completed	2020-08-25 9:43 PM		800823000

Displaying 172 result(s)

Data no older than: 2020-09-01 11:49:09 AM

Figure 142: Patient Details Dialog

Right-clicking the mouse in the *Charges* grid will open the [Context Menu](#). See [Figure 143](#).

Mark Reviewed	
Mark Unreviewed	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 143: Patient Details Charges Context Menu

Menu Option	Description
Mark Reviewed	Marks the charge as reviewed within Panther.
Mark Unreviewed	Marks the charge as unreviewed within Panther.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 36: Patient Details Charges Context Menu

Right-clicking the mouse in the *Orders* grid will open the [Context Menu](#). See [Figure 144](#).

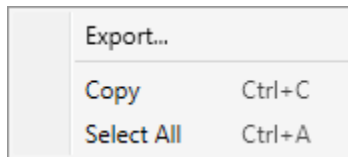


Figure 144: Patient Details Orders Menu

Menu Option	Description
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 37: Patient Details Orders Context Menu

Group by Activity Type

When the *Activity Type* option is selected, the grid will display the activity type for each group. Right-clicking the mouse in the *Activity Types with Charges* grid will open the [Context Menu](#). See [Figure 145](#).

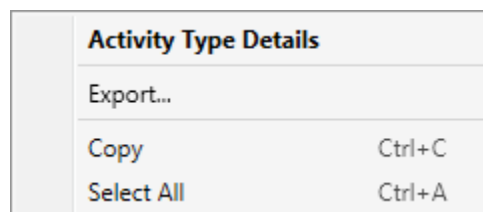


Figure 145: Group by Activity Type Context Menu

Menu Option	Description
Activity Type Details	Navigates to the patient summaries for the activity type.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 38: Group by Activity Type Context Menu

Details for each activity type can be viewed in the *Activity Type Details* dialog by double-clicking on the row, or using the *View Activity Type Details* option in the [Context Menu](#). See [Activity Type Details Dialog](#).

Above the grid on the right-hand side of the screen, there is a *View graph* link. When clicked, this link will open the Activity Type Summary dialog. This dialog will graph charges for each activity type with data by either charge count, or charge amount.

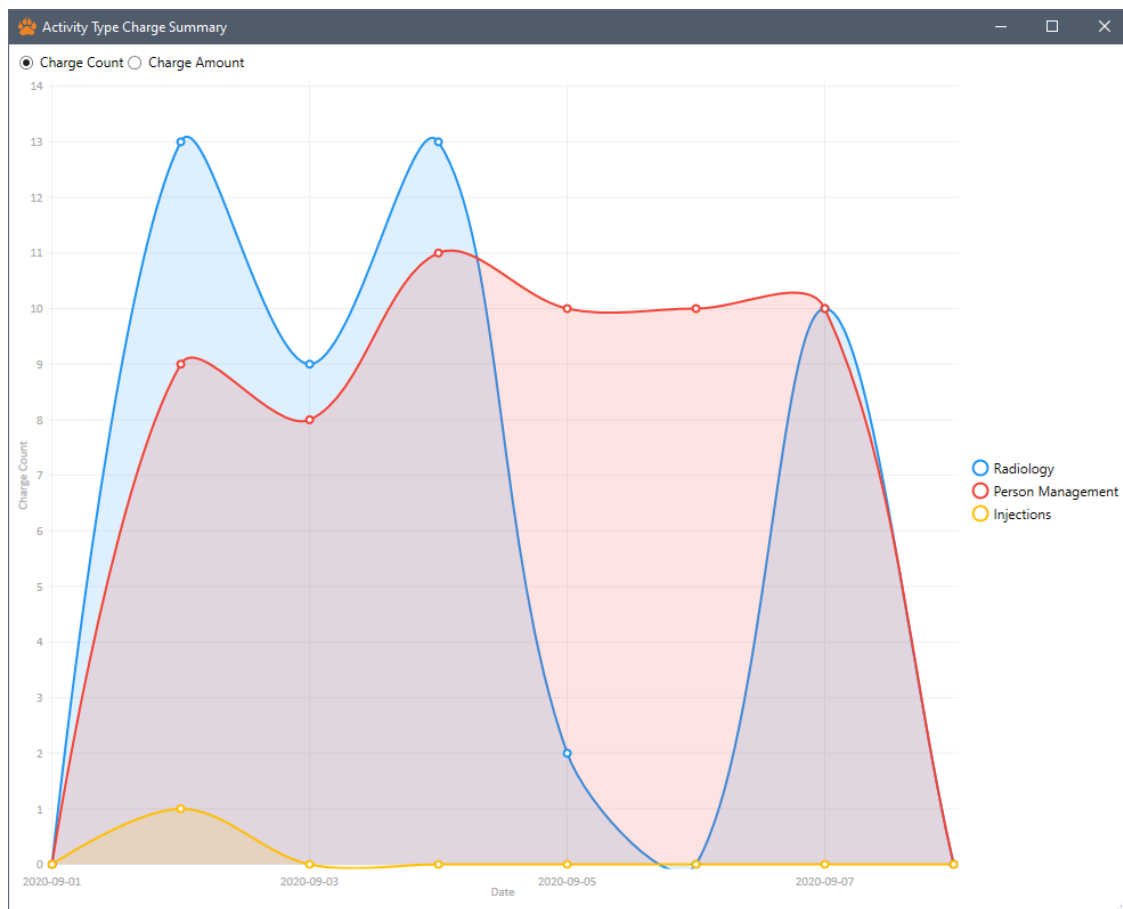


Figure 146: Activity Type Summary Dialog

Activity Type Details Dialog

The *Activity Type Details* dialog is opened using the previously selected filters, however the filters can be changed at this level to further filter the charges. Under the filter section, a graph is displayed showing the

charge statuses by day for the unfiltered charges. At the bottom of the dialog, the *Patients with Charges* grid contains patient summaries for the unfiltered charges. The *Reviewed* column indicates whether all unfiltered charges for the FIN are reviewed. Selecting the checkbox will mark all unfiltered charges for the FIN as being reviewed. Deselecting the checkbox will mark all unfiltered charges for the FIN as unreviewed.

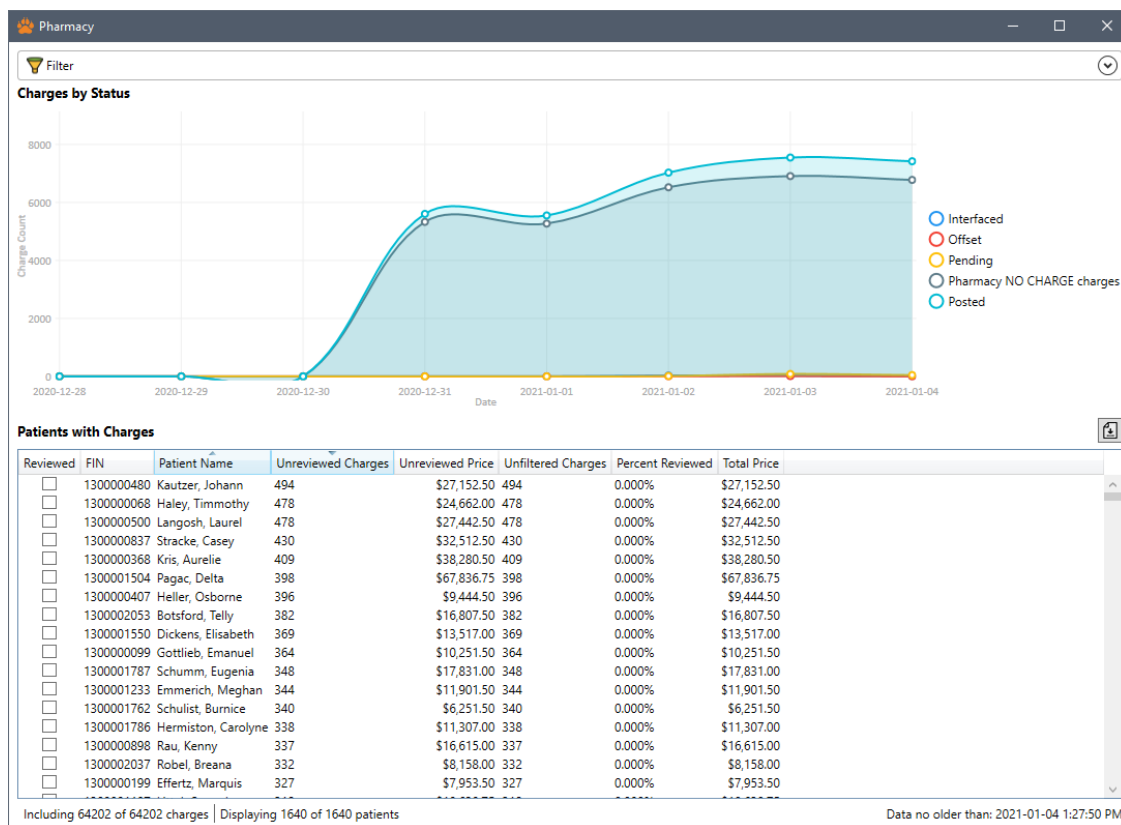


Figure 147: Activity Type Details Dialog

Details for each patient can be accessed by double-clicking on the row, or using the *View Patient Details* option in the [Context Menu](#). See [Figure 148](#). See the [Patient Charge Details Dialog](#) section for more information.



Figure 148: Activity Type Details Context Menu

Menu Option	Description
Patient Details	Navigates to the patient charges.
Mark Reviewed	Marks the charge as reviewed within Panther.
Mark Unreviewed	Marks the charge as unreviewed within Panther.
Copy FIN	Copies the FIN of the selected row to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 39: Activity Type Details Context Menu

Group by Cost Center

When the *Cost Center* option is selected, the grid will display the company unit and company unit alias for each group. Right-clicking the mouse in the *Cost Centers with Charges* grid will open the [Context Menu](#). See [Figure 149](#).

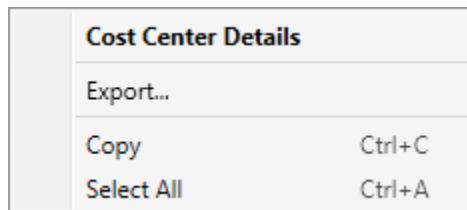


Figure 149: Group by Cost Center Context Menu

Menu Option	Description
Cost Center Details	Navigates to the patient summaries for the cost center.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 40: Group by Cost Center Context Menu

Details for each cost center can be viewed in the *Cost Center Details* dialog by double-clicking on the row, or using the *View Cost Center Details* option in the [Context Menu](#). See [Cost Center Details Dialog](#).

Above the grid on the right-hand side of the screen, there is a *View graph* link. When clicked, this link will open the Cost Center Summary dialog. This dialog will graph charges for each cost center with data by either charge count, or charge amount.

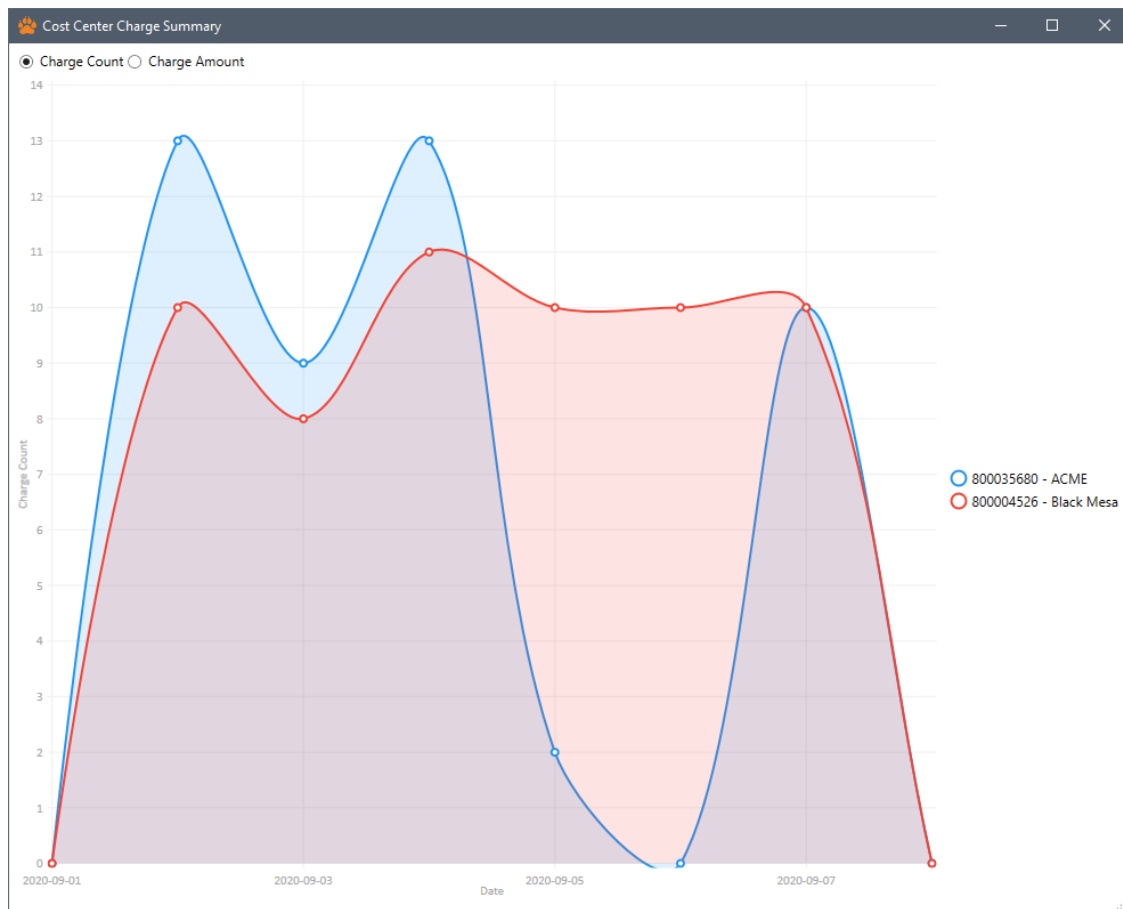


Figure 150: Cost Center Summary Dialog

Cost Center Details Dialog

The *Cost Center Details* dialog is opened using the previously selected filters, however the filters can be changed at this level to further filter the charges. Under the filter section, a graph is displayed showing the charge statuses by day for the unfiltered charges. At the bottom of the dialog, the *Patients with Charges* grid contains patient summaries for the unfiltered charges. The *Reviewed* column indicates whether all unfiltered charges for the FIN are reviewed. Selecting the checkbox will mark all unfiltered charges for the FIN as being reviewed. Deselecting the checkbox will mark all unfiltered charges for the FIN as unreviewed.

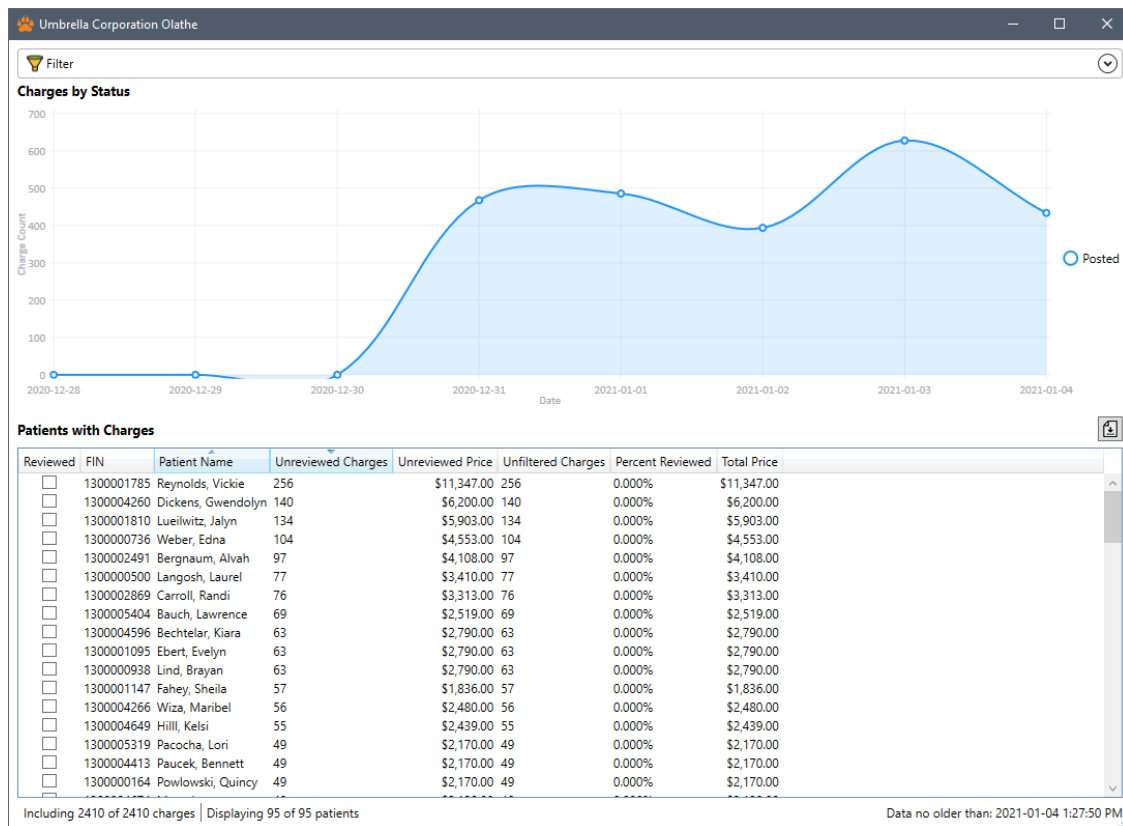


Figure 151: Cost Center Details Dialog

Details for each patient can be accessed by double-clicking on the row, or using the *View Patient Details* option in the [Context Menu](#). See [Figure 152](#). See the [Patient Charge Details Dialog](#) section for more information.

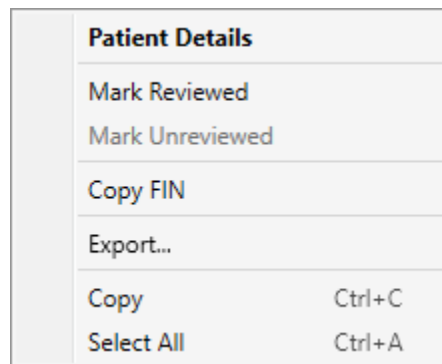


Figure 152: Cost Center Details Context Menu

Menu Option	Description
Patient Details	Navigates to the patient charges.
Mark Reviewed	Marks the charge as reviewed within Panther.
Mark Unreviewed	Marks the charge as unreviewed within Panther.
Copy FIN	Copies the FIN of the selected row to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 41: Cost Center Details Context Menu

No Grouping

When the *Summarize Results* option is unchecked and a search is completed, the grid will display the charge details for all charges matching the search and filter criteria. Right-clicking the mouse in the *Charges* grid will open the [Context Menu](#). See [Figure 154](#).

Search All Charges

Search

Date Range
Yesterday

Encounter Status(es): All

Encounter Type(s): All

Organization Facility Medical Service Ordering Physician Performing Physician Verifying Physician IP Nurse Unit OP Nurse Unit

☐ Filter By Organization

Excluded:

Organization

ACME Bates City
ACME Belton
ACME Fairway
ACME Gladstone
ACME Grandview
ACME K...

Included:

Organization

☐ Summarize Results

Search

Filter

☐ Status (0)

☐ ABN (Advanced Beneficiary Notice) Status
☐ Absorbed
☐ Adjusted
☐ Bundled
☐ Bundled - Interfaced
☐ Combined
☐ Grouped

☐ Charge Type (0)

☐ BILL ONLY
☐ CHARGE NOW
☐ COLLECTION
☐ CREDIT
☐ CREDIT NOW
☐ DEBIT
☐ NO CHARGE

☐ Offset Charges (0)

☐ Offset Charges
☐ Non Offset Charges

☐ Tier Group (0)

☐ Client Tier
☐ Professional Clinic Tier
☐ Professional Tier
☐ Research Tier
☐ Technical Clinic Tier
☐ Technical Tier

☐ Activity T

☐ Acitivite
☐ Activity
☐ Activity
☐ Admit/T
☐ AFC BILL
☐ AFC DEF
☐ AFC GE

Charges

Reviewed	FIN	Patient Name	Encounter Type	Encounter Status	Organization	Facility	Encounter Medical Service	Nu
☒	1300000004	Hermann, Kayley		Discharged		MEDICAL CENTER	EMERGENCY ROOM	Ler
☒	1300000004	Hermann, Kayley		Discharged		MEDICAL CENTER	EMERGENCY ROOM	Ler
☒	1300000004	Hermann, Kayley		Discharged		MEDICAL CENTER	EMERGENCY ROOM	Ler
☒	1300000004	Hermann, Kayley		Discharged		MEDICAL CENTER	EMERGENCY ROOM	Ler
☐	1300000005	Johns, Eliane		Active		KCI SH - UH	KCMO CANCER INSTITUTE	We
☐	1300000005	Johns, Eliane		Active		KCI SH - UH	KCMO CANCER INSTITUTE	We
☒	1300000005	Johns, Eliane		Active		KCI SH - UH	KCMO CANCER INSTITUTE	We
☐	1300000005	Johns, Eliane		Active		KCI SH - UH	KCMO CANCER INSTITUTE	We
☐	1300000012	O'Keefe, Gage		Active		KCI FH - UH	KCMO CANCER INSTITUTE	Eas

Including 25769 of 25769 charges

Data no older than: 02/25/22 12:12:29 PM

[Create charge review worklist from this search](#)

Figure 153: No Grouping



Figure 154: Charge Details Context Menu

Menu Option	Description
Mark Reviewed	Marks the selected charge(s) as reviewed.
Mark Unreviewed	Marks the selected charge(s) as not reviewed.
Copy FIN	Copies the FIN number of the charge.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 42: Charge Details Context Menu

9.1.3 Search by FIN

The Search by FIN section allows the user to search for all charges for a specified FIN. The entered FIN must be an exact match. The Date Range defaults to None, but the user may select a more specific date range to search. The *Filter* section can be used to set filter criteria before or after performing a search.

When results are returned, information about the patient's encounter will be displayed above the *Charges* grid. Details of each charge for the FIN will be displayed in the grid, along with the ability to mark these charges as reviewed.

Search by FIN

Search

Date Range

None

FIN: 1300005342

Search

Filter

Patient Information

FIN: 1300005342

Patient Name: Mueller, Ruby

Encounter Type: Inpatient

Encounter Status: Active

Organization: Black Mesa Merriam

Facility: MEDICAL CENTER

Total Price: \$42,806.14

Medical Service: INPATIENT

Nurse Unit: Liberty PT

Charges

View order details

Reviewed	Status	Service Date	Activity Type	Description	Medical Service	Item Quantity	Price	Tier Group	
☐	Posted	2021-01-19 13:26	Pharmacy		INPATIENT	1	\$134.25	Technical Tier	⌵
☐	Pharmacy NO CHARGE charges	2021-01-19 13:26	Pharmacy		INPATIENT	1	\$134.25	Technical Tier	⌵
☐	Posted	2021-01-19 13:26	Pharmacy		INPATIENT	300	\$0.00	Technical Tier	⌵
☐	Posted	2021-01-18 23:24	General Lab		INPATIENT	1	\$77.00	Technical Tier	⌵
☐	Posted	2021-01-18 23:24	General Lab		INPATIENT	1	\$66.00	Technical Tier	⌵
☐	Posted	2021-01-18 23:15	Pharmacy		INPATIENT	2	\$184.50	Technical Tier	⌵
☐	Pharmacy NO CHARGE charges	2021-01-18 23:15	Pharmacy		INPATIENT	1	\$228.50	Technical Tier	⌵
☐	Posted	2021-01-18 23:15	Pharmacy		INPATIENT	1	\$44.00	Technical Tier	⌵
☐	Posted	2021-01-18 23:08	Person Management		INPATIENT	1	\$1,853.00	Technical Tier	⌵
☐	Posted	2021-01-18 23:07	Pharmacy		INPATIENT	2	\$184.50	Technical Tier	⌵
☐	Posted	2021-01-18 23:07	Pharmacy		INPATIENT	1	\$34.00	Technical Tier	⌵

Displaying 343 of 343 results

Data no older than: 2021-01-18 13:18:11

Figure 155: Search by FIN

Right-clicking the mouse in the *Charges* grid will open the [Context Menu](#). See [Figure 156](#).

Order Details

Mark Reviewed

Mark Unreviewed

Export... Ctrl+S

Copy Ctrl+C

Select All Ctrl+A

Figure 156: Search by FIN Context Menu

Menu Option	Description
Order Details	Opens order details dialog for selected FIN.
Mark Reviewed	Marks the charge as reviewed within Panther.
Mark Unreviewed	Marks the charge as unreviewed within Panther.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 43: Search by FIN Context Menu

9.1.4 Search by MRN

The Search by MRN section allows the user to search for all charges for a specified MRN. The entered MRN must be an exact match. The Date Range defaults to None, but the user may select a more specific date range to search. The *Filter* section can be used to set filter criteria before or after performing a search.

When results are returned, information about the patient will be displayed above the *Charges* grid. The results are grouped by FIN by default, but the user can use the radio buttons above the grid to choose to *Show All Charges* instead.

Search by MRN

Search

Date Range
None

MRN: 800748694

Search

Filter

☒ Group by FIN ☐ Show All Charges

Patient Information
MRN: 800748694 Patient Name: Wunsch, Ella Total Price: \$9,484.00

Charges

Reviewed	FIN	Patient Name	Unreviewed Charges	Unreviewed Price	Unfiltered Charges	Percent Reviewed	Total Price
☐	1300012037	Wunsch, Ella	29	\$6,402.00	29	0.000%	\$6,402.00
☐	1300009430	Wunsch, Ella	6	\$3,082.00	6	0.000%	\$3,082.00

Including 35 of 35 charges | Displaying 2 of 2 patients

Data no older than: 2021-01-18 13:55:04

Figure 157: Search by MRN

Group by FIN

When the *Group by FIN* option is selected, the grid will display the FIN and Patient Name for each group. Right-clicking the mouse in the *Charges* grid will open the [Context Menu](#). See [Figure 158](#).

Patient Details	
Mark Reviewed	
Mark Unreviewed	
Copy FIN	
Export...	
Copy	Ctrl+C
Select All	Ctrl+A

Figure 158: Group by FIN Context Menu

Menu Option	Description
Patient Details	Navigates to the charge details for the patient.
Mark Reviewed	Marks all unfiltered charges for the selected row(s) as reviewed.
Mark Unreviewed	Marks all unfiltered charges for the selected row(s) as unreviewed.
Copy FIN	Copies the selected FIN to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 44: Group by FIN Context Menu

Details for each FIN can be viewed in the *Patient Charge Details* dialog by double-clicking on the row, or using the *View Patient Details* option in the [Context Menu](#).

Show All Charges

When the *Show All Charges* option is selected, the grid will display all of the charges for the MRN. Right-clicking the mouse in the *Charges* grid will open the [Context Menu](#). See [Figure 159](#).

Mark Reviewed	
Mark Unreviewed	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 159: Show All Charges Context Menu

Menu Option	Description
Mark Reviewed	Marks the selected charges as reviewed.
Mark Unreviewed	Marks the selected charges as unreviewed.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 45: Show All Charges Context Menu

9.1.5 Reviewer Performance

The Reviewer Performance section allows the user to see how many changes have been reviewed by each user over the specified time. The Date Range defaults to Today, but the user may select a more specific date range to search.

When results are returned, counts of charges and FINs reviewed are shown per-user. (Encounters with more than one FIN associated with a patient will count as only one FIN.) The results are listed per-user by default, but using the ratio buttons the user can optionally group the results by the Action Type of the charge, or the Cost Center. If one of the grouping options are selected, there will be rows showing the totals per-reviewer. The “Include Totals” checkbox allows the total rows to be hidden if desired, for example if one does not wish the exported data to include the total rows.

The Export button to the upper-right will allow the user to download whatever is shown in the grid, in .xlsx or .csv format.

If the “User Information” feature is enabled and configured on the Panther server, there will be a “Show usernames” checkbox at the bottom of the grid. If this checkbox is checked, the grid will show the usernames of the reviewers. If the checkbox is not checked, it will show the name of the user if available, and the username if not. This checkbox reflects the “Show usernames” global Panther privilege, and toggling the checkbox will alter the global privilege.

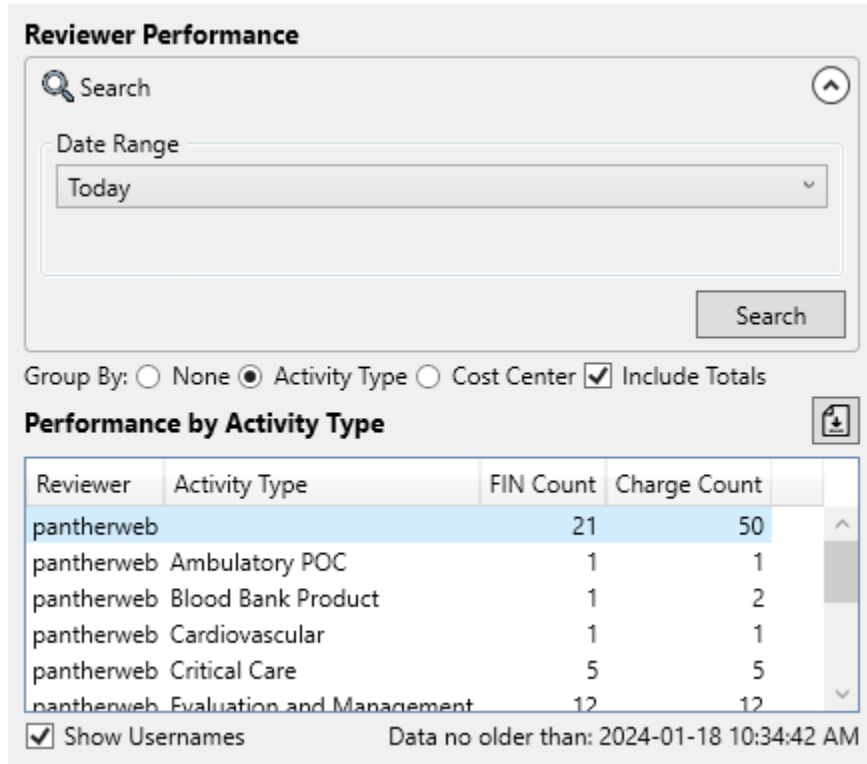


Figure 161: Reviewer Performance Grouped by Activity Type

Group by Cost Center

When the *Group by Cost Center* option is selected, the grid further splits a user's review counts by the Cost Center of the reviewed charges.

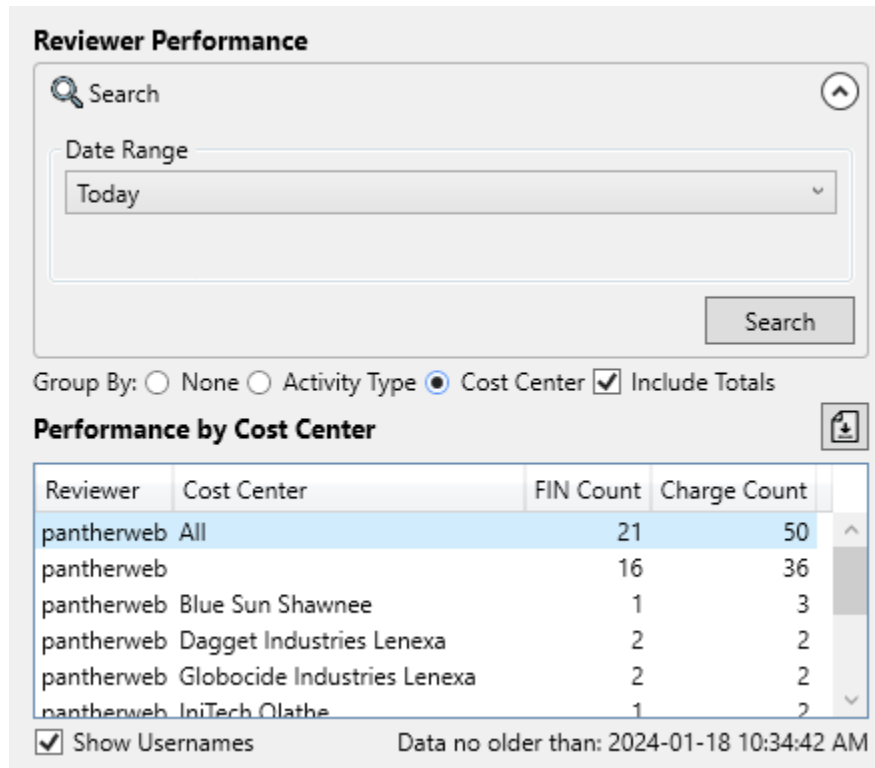


Figure 162: Group by Cost Center

9.1.6 Charge Review Worklists

The *Charge Review Worklists* section allows a user to manage their charge review worklists. This section can be used to add, edit, delete, or view charge review worklists. Existing worklists will also appear in the tree view under the *Charge Review Worklists* node. The worklist can also be viewed by selecting the appropriate node in the tree view. See [Section 9.1.8](#) for more information regarding the create/edit charge review worklist dialog.

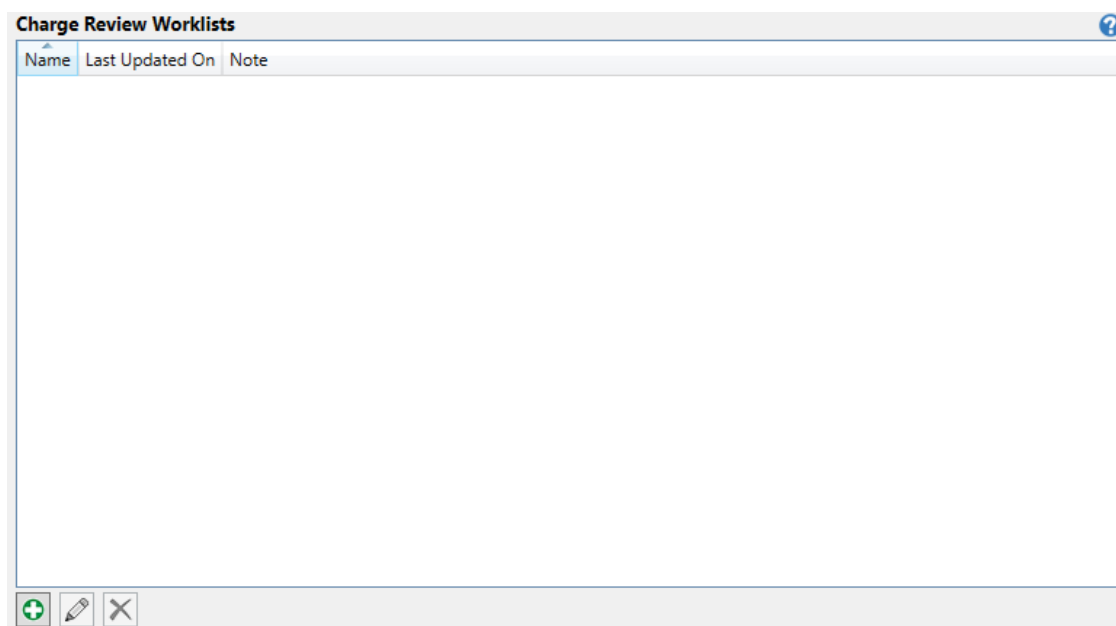


Figure 163: Charge Review Worklists

Right-clicking the mouse in the grid will open the [Context Menu](#). See [Figure 164](#).

Add...	Ctrl+N
Edit...	Ctrl+O
Delete	Del
View Worklist	
Copy	Ctrl+C
Select All	Ctrl+A

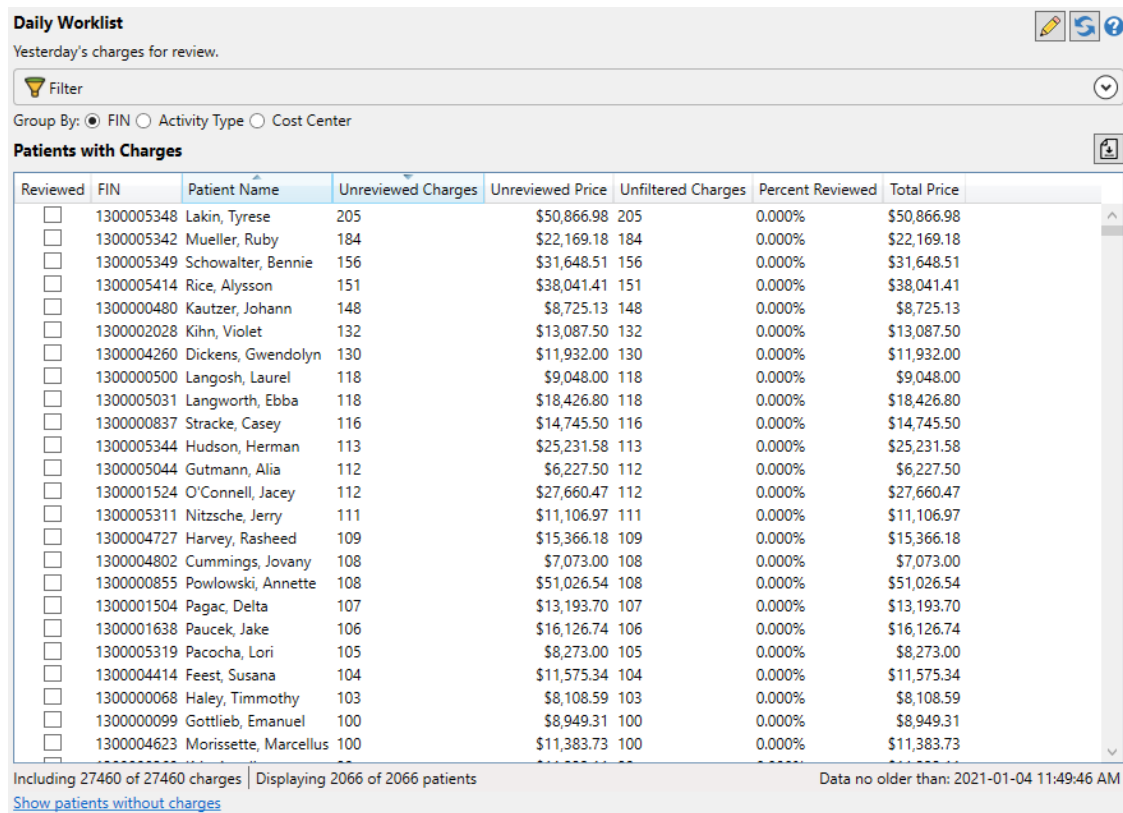
Figure 164: Charge Review Worklists Context Menu

Menu Option	Description
Add	Opens the Create Charge Review Worklist dialog.
Edit	Opens the Edit Charge Review Worklist dialog.
Delete	Deletes the selected charge review worklists.
View Worklist	Navigates to the appropriate worklist in the tree view.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 46: Charge Review Worklists Context Menu

9.1.7 Viewing a Charge Review Worklist

When viewing a Charge Review Worklist, the saved search and filter criteria is used to automatically perform a search when the charge review worklist is selected. The filter criteria can be manipulated while viewing a worklist, but will not be saved as part of the worklist unless the worklist is edited. The user can edit the loaded worklist to change the name, note, search or filter criteria by selecting the edit (pencil) button in the upper right-hand corner of the screen. See [Section 9.1.8](#) for more information regarding editing a charge review worklist. The refresh button is located next to the edit button and will refresh all data displayed by the worklist. The top grid behaves like the *Search All Charges* section of the control. Please see [Section 9.1.2](#) for more information regarding grouping options and context menus.



Daily Worklist

Yesterday's charges for review.

Filter

Group By: ☒ FIN ☐ Activity Type ☐ Cost Center

Patients with Charges

Reviewed	FIN	Patient Name	Unreviewed Charges	Unreviewed Price	Unfiltered Charges	Percent Reviewed	Total Price
☐	1300005348	Lakin, Tyrese	205	\$50,866.98	205	0.000%	\$50,866.98
☐	1300005342	Mueller, Ruby	184	\$22,169.18	184	0.000%	\$22,169.18
☐	1300005349	Schowalter, Bennie	156	\$31,648.51	156	0.000%	\$31,648.51
☐	1300005414	Rice, Alysson	151	\$38,041.41	151	0.000%	\$38,041.41
☐	1300000480	Kautzer, Johann	148	\$8,725.13	148	0.000%	\$8,725.13
☐	1300002028	Kihn, Violet	132	\$13,087.50	132	0.000%	\$13,087.50
☐	1300004260	Dickens, Gwendolyn	130	\$11,932.00	130	0.000%	\$11,932.00
☐	1300000500	Langosh, Laurel	118	\$9,048.00	118	0.000%	\$9,048.00
☐	1300005031	Langworth, Ebba	118	\$18,426.80	118	0.000%	\$18,426.80
☐	1300000837	Stracke, Casey	116	\$14,745.50	116	0.000%	\$14,745.50
☐	1300005344	Hudson, Herman	113	\$25,231.58	113	0.000%	\$25,231.58
☐	1300005044	Gutmann, Alia	112	\$6,227.50	112	0.000%	\$6,227.50
☐	1300001524	O'Connell, Jacey	112	\$27,660.47	112	0.000%	\$27,660.47
☐	1300005311	Nitzsche, Jerry	111	\$11,106.97	111	0.000%	\$11,106.97
☐	1300004727	Harvey, Rasheed	109	\$15,366.18	109	0.000%	\$15,366.18
☐	1300004802	Cummings, Jovany	108	\$7,073.00	108	0.000%	\$7,073.00
☐	1300000855	Powlowski, Annette	108	\$51,026.54	108	0.000%	\$51,026.54
☐	1300001504	Pagac, Delta	107	\$13,193.70	107	0.000%	\$13,193.70
☐	1300001638	Paucek, Jake	106	\$16,126.74	106	0.000%	\$16,126.74
☐	1300005319	Pacocha, Lori	105	\$8,273.00	105	0.000%	\$8,273.00
☐	1300004414	Feest, Susana	104	\$11,575.34	104	0.000%	\$11,575.34
☐	1300000068	Haley, Timmothy	103	\$8,108.59	103	0.000%	\$8,108.59
☐	1300000099	Gottlieb, Emanuel	100	\$8,949.31	100	0.000%	\$8,949.31
☐	1300004623	Morisette, Marcellus	100	\$11,383.73	100	0.000%	\$11,383.73

Including 27460 of 27460 charges | Displaying 2066 of 2066 patients | Data no older than: 2021-01-04 11:49:46 AM

[Show patients without charges](#)

Figure 165: Loaded Charge Review Worklist

At the bottom of the charge review worklist screen, there is a link to *Show patients without charges*. This link will load an additional grid displaying the patient encounters which match the search criteria but have no charges associated with them. Depending on the search criteria, this section can take a long time to load. Once loaded an additional *Patients without Charges* grid will be populated with these patients. Order details for the patient can be viewed by double-clicking the patient row, or using the [Context Menu](#). Right-clicking the mouse in the *Patients without Charges* grid will open the [Context Menu](#). See [Figure 166](#).

Refresh	F5
Order Details	
Copy FIN	
Export...	
Copy	Ctrl+C
Select All	Ctrl+A

Figure 166: Patients without Charges Context Menu

Menu Option	Description
Refresh	Refreshes data for both grids in the worklist.
Order Details	Opens the Order Details dialog.
Copy FIN	Copies the selected rows FIN to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 47: Patients without Charges Context Menu

Order Details Dialog

The *Order Details* dialog shows encounter level information at the top, followed by a grid containing all of the order details for the patient's encounter. This can be used to help determine if a patient should have received charges.

Order Details

Patient Information

FIN: 1300117063, 1300117063 Patient Name: Abbott, Ewald
 Encounter Type: Clinic Encounter Status: Discharged
 Organization: MomCorp Facility: CARDIOLOGY Medical Service: Nurse Unit: CARDIOLOGY

Orders

Order ID	Activity Type	Orderable Name	Original Order Date	Requested Start Date	Order Status	Status Date	Clinical Display Line	Catalog Code
800337318	Ambulatory POC	Manual Entry - INR POC	2020-09-07 10:56 PM	2020-09-07 2:37 AM	Ordered	2020-09-07 1:57 PM		800761228
800181545	Pharmacy	warfarin	2020-09-07 8:18 AM	2020-09-07 4:09 AM	Ordered	2020-09-07 7:26 AM		800547554

Displaying 2 result(s) Data no older than: 2020-09-08 1:23:59 PM

Figure 167: Order Details Dialog

Right-clicking the mouse in the grid will open the [Context Menu](#). See [Figure 168](#).

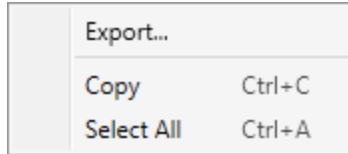


Figure 168: Order Details Context Menu

Menu Option	Description
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 48: Patients without Charges Context Menu

9.1.8 Create/Edit Charge Review Worklist

The *Create/Edit Charge Review Worklist* dialog allows the user to create or edit a charge review worklist. A charge review worklist is a saved set of search and filter criteria that can be given a name as well as a note for the user. This allows the user to quickly navigate to searches that should be performed and reviewed on a regular basis.

9.2. Charge Reports Control

The Charge Reports control displays a variety of reports that review and analyze the technical aspects of the Millennium system that can impact performance and stability related to charging.

To view the Charge Reports control, select the *Charge Reports* item in the domain explorer (Figure 170).

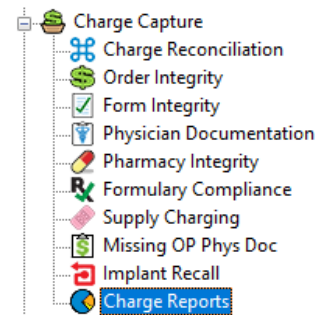


Figure 170: Domain Explorer

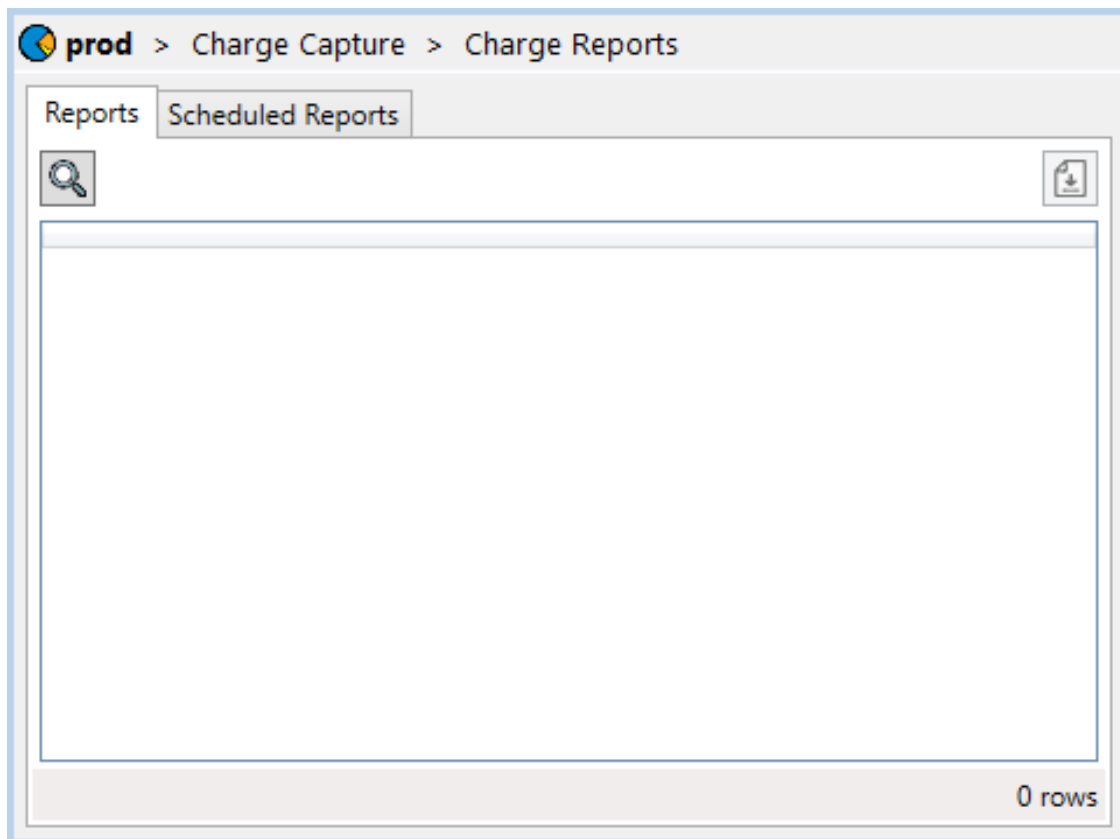


Figure 171: Charge Reports Control

9.2.1 Executing reports

To select a report for execution, click the search button. This will bring up a dialog that displays the list of available reports ([Figure 172](#)). It also includes a date range control which is enabled or disabled based upon whether the currently-selected report supports date range criteria.

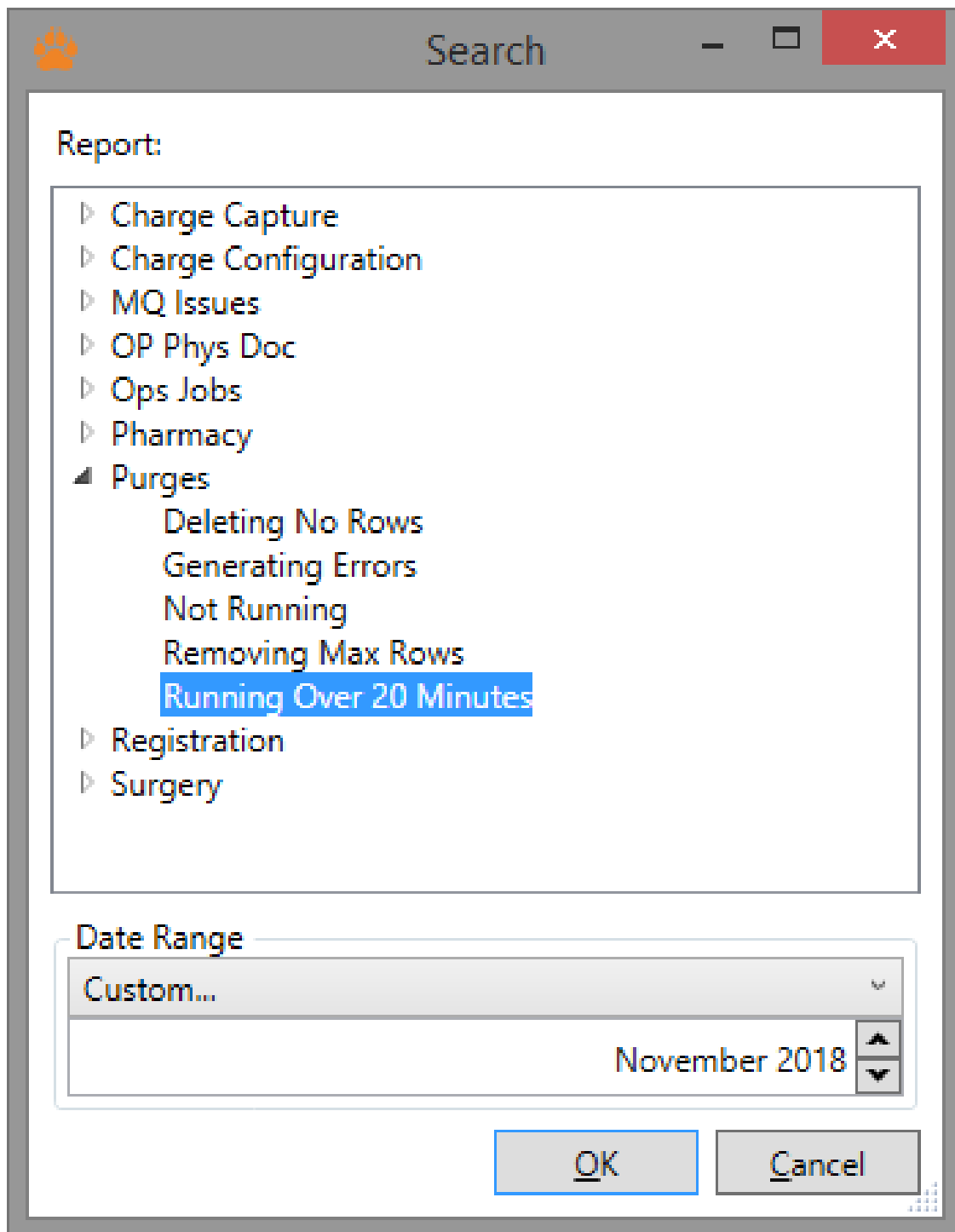


Figure 172: Search Dialog

Upon confirming the search dialog, the control will execute the report and display its results (Figure 173).

 **prod** > Charge Capture > Charge Reports

 Category: Charge Capture Report: Discharged Encounters Without Charges 

ORG_NAME	NAME_FULL_FORMATTED	FIN	DISCH_DT_TM	ORDE
SOFTEK ORTHOPEDIC ASSOCIATES	Schaden, Ilene	1300466901	2018-09-06 02:59:59	421775 ^
SOFTEK ORTHOPEDIC ASSOCIATES	Bosco, Alfonso	1300844339	2018-09-06 02:59:59	421445
SOFTEK ORTHOPEDIC ASSOCIATES	Gleason, Shaun	1300356198	2018-09-06 02:59:59	421753
SOFTEK ORTHOPEDIC ASSOCIATES	Smith, Candelario	1300551778	2018-09-06 02:59:59	421451
SOFTEK ORTHOPEDIC ASSOCIATES	Smith, Candelario	1300551778	2018-09-06 02:59:59	421759
SOFTEK ORTHOPEDIC ASSOCIATES	Dickens, Angel	1300304292	2018-09-06 02:59:59	421445
SOFTEK ORTHOPEDIC ASSOCIATES	Torp, Tessie	1300418753	2018-09-06 02:59:59	421445
SOFTEK ORTHOPEDIC ASSOCIATES	Torp, Tessie	1300418753	2018-09-06 02:59:59	421451
SOFTEK ORTHOPEDIC ASSOCIATES	Torp, Tessie	1300418753	2018-09-06 02:59:59	421451
SOFTEK ORTHOPEDIC ASSOCIATES	Considine, Viviane	1300390975	2018-09-06 02:59:59	421451
SOFTEK ORTHOPEDIC ASSOCIATES	Toy, Veronica	1300421791	2018-09-06 02:59:59	421445
SOFTEK ORTHOPEDIC ASSOCIATES	Lueilwitz, Meaghan	1300662878	2018-09-06 02:59:59	421451 v

< >

Figure 173: Charge Reports - With Data

The figure also displays the *No Results* overlay that appears when a query does not return any data [Figure 174](#).

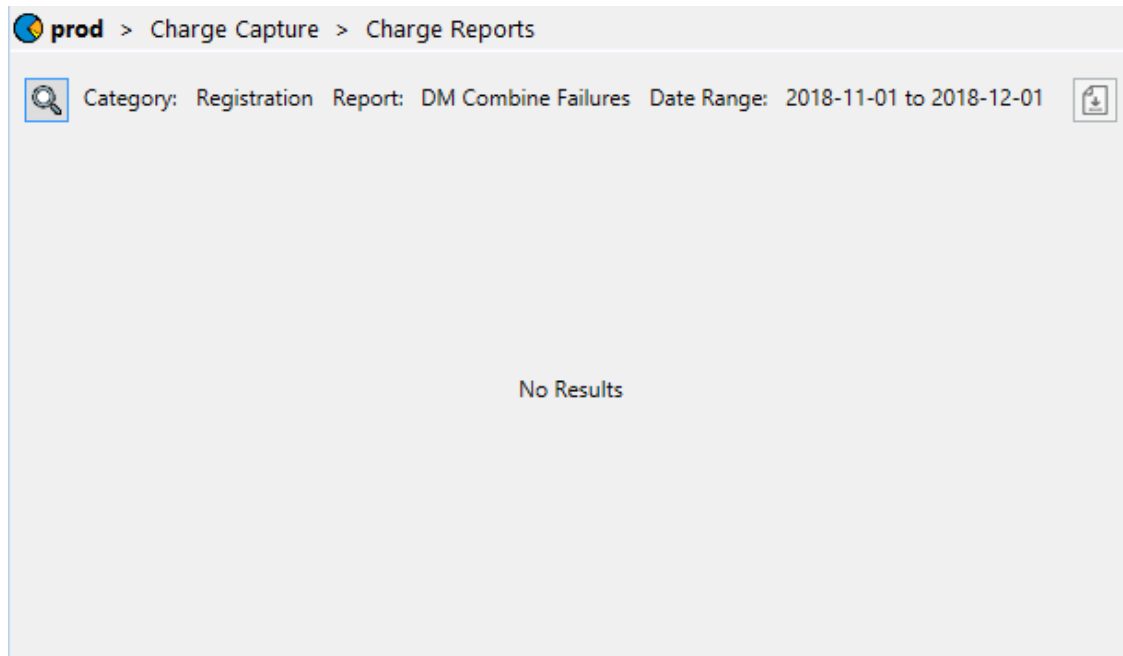


Figure 174: Charge Reports - No Results

Exporting Data

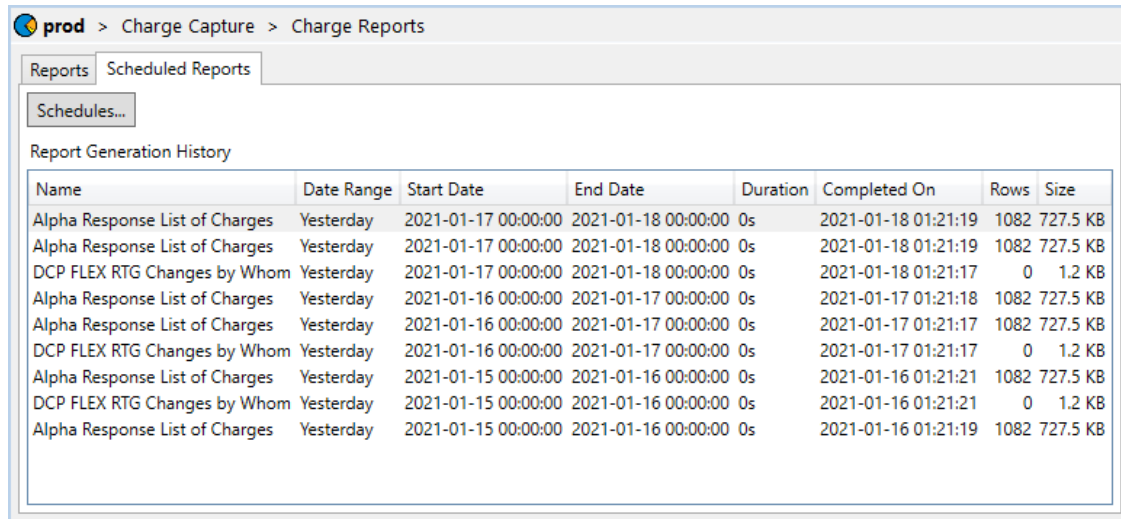
The Charge Reports control also allows the export of currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

9.2.2 Scheduled Reports

Reports can be executed on a schedule. This makes the report data available without having to manually run a report and wait for the results. Click the “Scheduled Reports” tab to access schedules and reports generated by schedules.

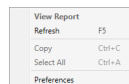
The “Scheduled Reports” tab shows the list of reports generated by schedules. The grid provides the ability to view the results of a report.

The grid of reports will automatically refresh. The refresh settings can be configured in the preferences dialog.



Name	Date Range	Start Date	End Date	Duration	Completed On	Rows	Size
Alpha Response List of Charges	Yesterday	2021-01-17 00:00:00	2021-01-18 00:00:00	0s	2021-01-18 01:21:19	1082	727.5 KB
Alpha Response List of Charges	Yesterday	2021-01-17 00:00:00	2021-01-18 00:00:00	0s	2021-01-18 01:21:19	1082	727.5 KB
DCP FLEX RTG Changes by Whom	Yesterday	2021-01-17 00:00:00	2021-01-18 00:00:00	0s	2021-01-18 01:21:17	0	1.2 KB
Alpha Response List of Charges	Yesterday	2021-01-16 00:00:00	2021-01-17 00:00:00	0s	2021-01-17 01:21:18	1082	727.5 KB
Alpha Response List of Charges	Yesterday	2021-01-16 00:00:00	2021-01-17 00:00:00	0s	2021-01-17 01:21:17	1082	727.5 KB
DCP FLEX RTG Changes by Whom	Yesterday	2021-01-16 00:00:00	2021-01-17 00:00:00	0s	2021-01-17 01:21:17	0	1.2 KB
Alpha Response List of Charges	Yesterday	2021-01-15 00:00:00	2021-01-16 00:00:00	0s	2021-01-16 01:21:21	1082	727.5 KB
DCP FLEX RTG Changes by Whom	Yesterday	2021-01-15 00:00:00	2021-01-16 00:00:00	0s	2021-01-16 01:21:21	0	1.2 KB
Alpha Response List of Charges	Yesterday	2021-01-15 00:00:00	2021-01-16 00:00:00	0s	2021-01-16 01:21:19	1082	727.5 KB

Figure 175: Scheduled Reports



View Report	FS
Refresh	
Copy	Ctrl+C
Select All	Ctrl+A
Preferences	

Figure 176: Scheduled Reports Context Menu

Option	Description
View Report	Opens a dialog to view the report data.
Refresh	Reloads the list of reports generated by schedules.
Copy	Copies selected records to the system clipboard.
Select All	Highlights all records currently being displayed.
Preferences	Opens the Preferences dialog where autorefresh can be configured.

Table 49: Scheduled Reports Context Menu

Preferences

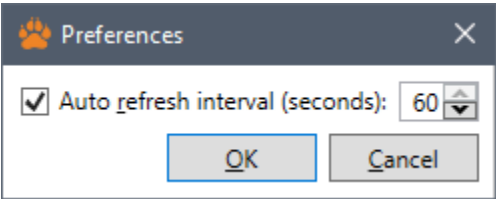


Figure 177: Preferences

Schedules

The “Schedules” button opens the [Schedules](#) dialog used to configure schedules. Schedules are only available to users with the “Manage Scheduled Revenue Reports” privilege.

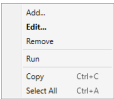


Figure 178: Schedules Menu

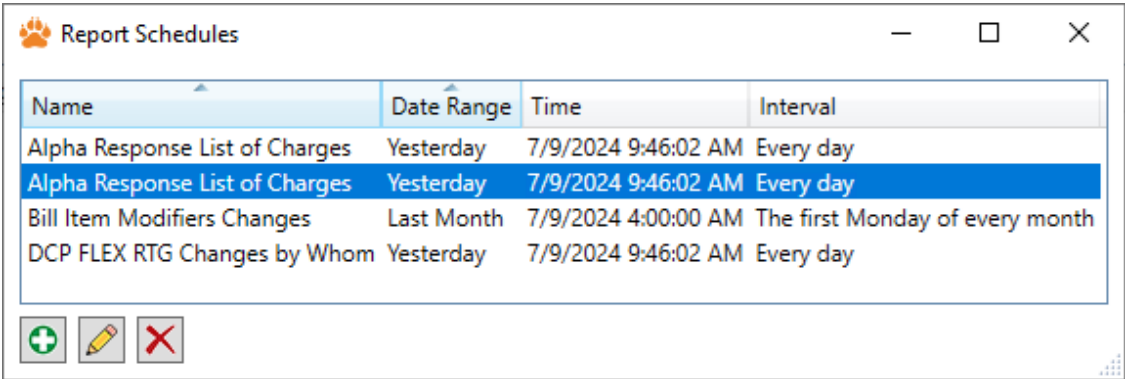


Figure 179: Schedules

Option	Description
Add	Opens the Edit Schedule dialog to create a new schedule.
Edit	Opens the Edit Schedule dialog to edit the selected schedule.
Remove	Flags the selected schedule for removal.
Run	Runs the schedule immediately to generate a report as soon as possible.
Copy	Copies selected records to the system clipboard.
Select All	Highlights all records currently being displayed.

Table 50: Schedules Context Menu

Edit Schedule

The “Edit Schedule” dialog is used to create and modify schedules. The Report Parameters section contains the name of the report, the date range, and the author of the schedule. The Date Range describes the time range used whenever the report schedule is executed. The author of the schedule is the account name used for organizational security and can impact which data is included in the report. The Start Date is the earliest date the schedule will run. The time component of the Start Date is the time of the day the report will execute.

The Recurrence Pattern describes the frequency when the report schedule will be executed.

The Recipients section defines which users can view the report. Recipients configured to receive Panther emails will receive an email when report completes that allows them to login and download the report.

 Edit Schedule — □ ×

Author: pantherweb

Report Parameters

Name:

Date Range: Yesterday

Start Date:

Recurrence Pattern

☒ Daily Interval: day(s)

☐ Weekly

☐ Monthly

Recipients

Available:

-  Default User Group
-  Team Applications
-  Team Business Office
-  Team Cerner
-  Team Charts
-  Team Interfaces
-  Team Operations
-  Team Oracle
-  Team Pharmacy
-  Team Rev Cycle DBA
-  Team Rev Cycle Management

Selected:

-  pantherweb

 This report uses the report author's organizational security. Sending the report to underprivileged recipients allows them to see data they cannot access.

Figure 180: Edit Schedule

9.3. Form Integrity Control

The Form Integrity control shows the recent form activity in Millennium and helps to identify workflow and build issues with forms. This control does not make any modifications to the data in Millennium and does not interact with the billing system.

To view the Form Integrity control, select the *Form Integrity* item in the Domain Explorer (Figure 181).

On the Form Integrity Control's main screen, and on its dialogs, there is a export icon. This allows you to save the currently displayed data in CSV or Excel® format.

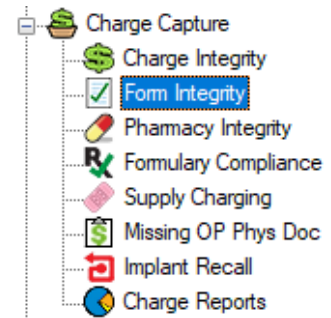


Figure 181: Domain Explorer

The screenshot shows the Form Integrity Control interface. On the left is a list of forms with columns for Form, Activity, Charges, and Charge Total. The 'OT Acute Evaluation' form is selected. On the right is a detailed view of this form, showing a table with columns for Input Field, Alpha Response, Total Completed, Posted, No Charge, Average Price, and Potential Loss. The table contains various data points for the 'OT Acute Evaluation' form, including evaluation units, cognitive skills development units, and various clinical assessment summary items.

Form	Activity	Charges	Charge Total
AMB Clinic Level Of Service Tool	3717	5351	\$649,703.00
PT Acute Daily Documentation	606	1309	\$182,041.00
Facility Infusion Charge Entry Form	527	1245	\$632,413.00
PT Acute Evaluation	302	580	\$139,500.00
OT Acute Daily Documentation	203	447	\$70,262.00
Perfusion Charges	58	419	\$120,395.00
PT Inpatient Daily Documentation	84	397	\$100,575.00
OT Acute Evaluation	159	302	\$73,540.00
Outpatient Cardiac/Pulmonary Rehab Charges	244	299	\$46,808.00
OT Inpatient Daily Documentation	91	278	\$98,142.00
PT Outpatient Daily Documentation	146	245	\$83,620.00
OB Triage Charging Code Sheet	80	236	\$310,923.00
Cardiac/Pulmonary Rehab Phase 1	242	200	\$0.00
Pulmonary Function Test	43	143	\$69,584.00
Dysphagia Evaluation Acute	58	113	\$36,914.00
OT Therapy Cancellation Note	130	106	\$0.00
SLP Acute Daily Documentation	62	106	\$20,722.00
PT Outpatient Evaluation	30	69	\$17,323.00
SLP Therapy Cancellation Note	68	68	\$0.00
EEG/EMG Assessment	54	67	\$32,027.00
PT Inpatient Time Spent With Patient	41	66	\$9,311.00
OT Inpatient Time Spent With Patient	44	65	\$8,152.00
Audiology Charging	14	64	\$6,141.00
PT Therapy Cancellation Note	317	61	\$0.00
Respiratory Therapy Testing/Screening	75	57	\$14,224.00
OT Outpatient Daily Documentation	40	49	\$21,672.00
Wound Charges	27	39	\$10,716.00
AMB CAMIC Gen Rehab Tool	23	39	\$4,347.00
SLP Inpatient Daily Documentation	23	38	\$7,598.00
PT Inpatient Evaluation	12	33	\$7,278.00
PT Acute Time Spent With Patient	36	32	\$2,448.00
Blood Gas Collection	362	31	\$3,968.00
OT Inpatient Evaluation	12	30	\$6,894.00
Wound Care Daily Documentation	11	30	\$6,432.00
FRIC Childbirth Education	11	29	\$39.00
Smoking Cessation	45	27	\$1,081.00

Input Field	Alpha Response	Total Completed	Posted	No Charge	Average Price	Potential Loss
OT Evaluation Units, Moderate Complexity		76	73	3	\$408.00	\$1,224.00
OT Evaluation Units, Low Complexity		64	62	2	\$385.00	\$770.00
OT Evaluation Units, High Complexity		21	20	1	\$429.00	\$429.00
OT Self Care, Home Management Units		19	17	2	\$171.00	\$342.00
OT Therapeutic Exercise Units		2	1	1	\$272.00	\$272.00
OT Cognitive Skills Development Units		2	1	1	\$171.00	\$171.00
Goal		769	0	769	\$0.00	\$0.00
Living Environment		318	0	318	\$0.00	\$0.00
Status	Initial	229	0	229	\$0.00	\$0.00
Precautions RTF		159	0	159	\$0.00	\$0.00
Responsible Learner's Present		159	0	159	\$0.00	\$0.00
Clinical Assessment Summary OT		159	0	159	\$0.00	\$0.00
Time Out		159	0	159	\$0.00	\$0.00
Time In		159	0	159	\$0.00	\$0.00
Shower Transfer	Does not occur	159	0	159	\$0.00	\$0.00
OT Total Timed Code Treatment Minutes		159	0	159	\$0.00	\$0.00
OT Total Individual Therapy Time		159	0	159	\$0.00	\$0.00
Occupational Therapy Orders		159	0	159	\$0.00	\$0.00
OT Treatment Time Comment		159	0	159	\$0.00	\$0.00
OT Total Untimed Code Treatment Minutes		159	0	159	\$0.00	\$0.00
Chart Review 15min Minutes		159	0	159	\$0.00	\$0.00
Tub Transfer	Does not occur	158	0	158	\$0.00	\$0.00
Number of Stairs		157	0	157	\$0.00	\$0.00
OT Additional Information		156	0	156	\$0.00	\$0.00
OT Duration Rehab		145	0	145	\$0.00	\$0.00
OT Acute POC Frequency		145	0	145	\$0.00	\$0.00
OT Duration Unit Rehab	Weeks	145	0	145	\$0.00	\$0.00
Continue/Discontinue OT Tx	Start/Continue Occupational Therapy Services	145	0	145	\$0.00	\$0.00
OT Plan Status	Initial plan	144	0	144	\$0.00	\$0.00
OT Total Timed Code Treatment Units		141	0	141	\$0.00	\$0.00
Planned Treatments	Mobility training	140	0	140	\$0.00	\$0.00
Planned Treatments	Basic Activities of Daily Living	140	0	140	\$0.00	\$0.00
Orientation Assessment	Oriented x 4	139	0	139	\$0.00	\$0.00

Figure 182: Form Integrity

The grid on the left displays a list of forms with their form activity, charge count, and charge amount. By default, this list is filtered to forms that have charges based on the search criteria. Forms with charges are denoted by a posted icon. The 'Show all forms' checkbox below the grid toggles the filter to display forms that have no associated charges based on the search criteria. Selected a form in the grid will load the data for the form to the right of the grid. Clicking the magnifying glass icon in the top left opens the Search dialog.

9.3.1 Search

The Form Integrity control provides the ability to search by date range, facility, medical service, and position. Search criteria will be remembered and used on subsequent visits to Form Integrity. To filter by facility, medical service, or position select the corresponding tab, check the filter checkbox, and move the desired items to the right side.

Search

Date Range
Yesterday

Facility Medical Service Position

☐ Filter by Facility

Excluded:

Name
ADULT CARE - SFTK
Adult Care - SFTKS
After Hour SFTK
Allied Health
AP Lab
AUTOPSY CONSULTS
AUTOPSY FORENSICS
AUTOPSY HOSPITAL
BP MEDICAL - SFTK
BP Medical - SFTKS
BPM Radiology
CAP SFTK 1
CAP SFTK 2
CAP SFTK 3
Cardiology
CLINICAL RESEARCH GROUP - SFTK
Clinical Reserch Group - SFTKS
County Road

Included:

Name

OK Cancel

Figure 183: Form Integrity Search

9.3.2 Event Summary

The Event Summary tab in Form Integrity shows the summary of clinical events for a form and whether those events have corresponding charges. The grid shows the event data grouped by the Input Field of the clinical event and by the Alpha Response. The first icon column shows the state of the charging for the event. The second icon column indicates whether Panther detects a build issue with the reference data for the form element. To view build details for any grid row in Event Summary, right click on the row and click 'Build Details'. The third icon column indicates the input type for the row. The details for the row can be viewed by double clicking the row, pressing the enter key, or clicking on Event Details in the context menu.

Filtering

Filter toggle buttons are positioned above the grid. Clicking a filter button will include or exclude rows from the grid based on the charge data for the row.

OT Acute Evaluation

Event Summary (968/968)		All Activity (159)		Clinical Summary (15)		Build		
								
	Input Field	Alpha Response	Total Completed	Posted	No Charge	Average Price	Potential Loss	
	 OT Evaluation Units, Moderate Complexity		76	73	3	\$408.00	\$1,224.00	
	 OT Evaluation Units, Low Complexity		64	62	2	\$385.00	\$770.00	
	 OT Evaluation Units, High Complexity		21	20	1	\$429.00	\$429.00	
	 OT Self Care, Home Management Units		19	17	2	\$171.00	\$342.00	
	 OT Therapeutic Exercise Units		2	1	1	\$272.00	\$272.00	
	 OT Cognitive Skills Development Units		2	1	1	\$171.00	\$171.00	
	 Goal		769	0	769	\$0.00	\$0.00	
	 Living Environment		318	0	318	\$0.00	\$0.00	
	 Status	Initial	229	0	229	\$0.00	\$0.00	
	 Precautions RTF		159	0	159	\$0.00	\$0.00	
	Responsible Learner/s Present		159	0	159	\$0.00	\$0.00	

Figure 184: Event Summary

Menu Option	Description
Event Details	Opens the Event Details dialog for the selected row.
Build Details	Navigates to the Build Tab and selects the matching Form Components tree node for the selected row.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 51: Event Summary Context Menu

The Event Summary State icons in the first column follow the filter buttons. The summary icons show the summary for the input field for the selected form for the current search criteria.

Image	Indication	Description
	No Charge	None of the events for the input field posted a charge.
	Inconsistent	The input field has both events that posted a charge and events that did not post a charge.
	Posted	All of the events for the input field posted a charge.

Table 52: Event Summary State Icons

The Incomplete Build icons in the second column indicate if there are build issues related to the input field. The icon indicates the highest level of severity that is present. No icon is displayed for input fields that have no detected issues.

Image	Indication	Description
	Error	The associated build item is not correctly configured and will affect charging.
	Warning	The associated build item is not correctly configured but may not affect charging. The charge point is either missing or is inconsistently defined.
	Information	The associated build item is not configured to charge but has either price schedule items or bill codes associated with it.

Table 53: Incomplete Build Icons

The Input Type icons in the third column indicate what the input type on the form that is associated with the event summary row. The Input Type indicates the build configuration. More information about the Input Type and how it relates the build of the form is available on the Build Tab.

Image	Indication	Description
	Alpha Response	The input field uses an alpha response (nomenclature).
	Default Bill Item	The event is tied to the default bill item for the task.
	Task Specific Bill Item	There is a specific bill item for the task.

Table 54: Input Type Icons

Event Details

Event Details displays a combination of form activity for events and charge data. Some rows will have blank data when the event does not have a corresponding charge.

The Charge Comparison tree on the left highlights differences between No Charge events and the rest of the visible events. All values for No Charge events are displayed under each field. If none of the other events have the same value it will be denoted by bold, red text.

Item attributes in the main grid which match one of the bolded attributes in the Charge Comparison tree will also be bolded.

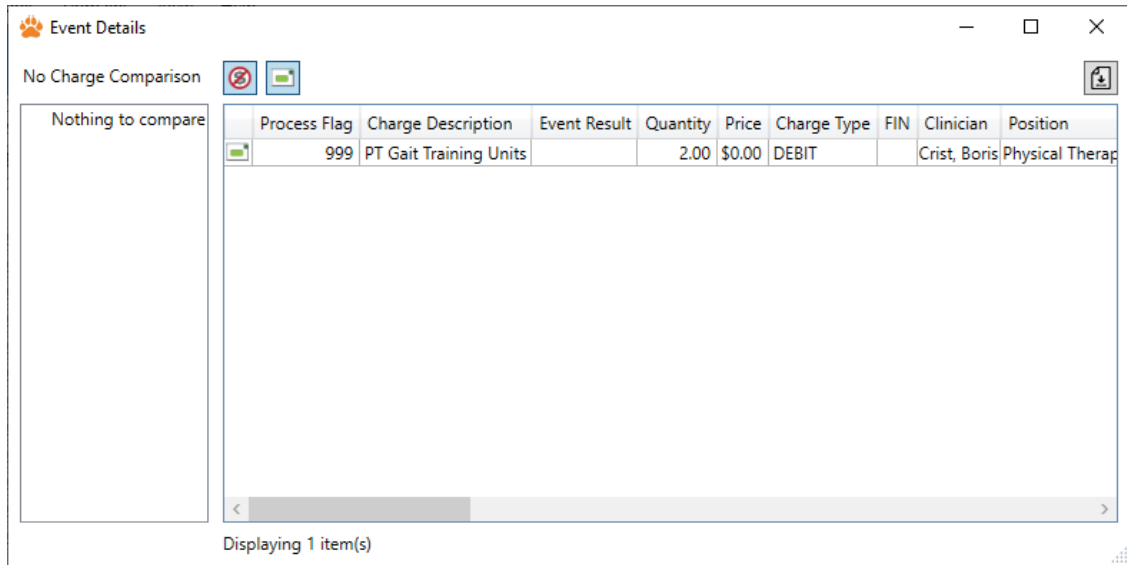


Figure 185: Event Details

Menu Option	Description
Copy Charge Description	Copies the charge description of the selected row to the clipboard.
Copy Bill Item ID	Copies the bill item ID of the selected row to the clipboard.
Copy Fin	Copies the Fin number of the selected row to the clipboard.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 55: Event Details Context Menu

9.3.3 All Activity

The All Activity tab shows form activity for each FIN and whether or not there are charges for the activity. The charges for the row can be viewed by double clicking the row, pressing the enter key, or clicking Charge Details in the context menu. Details can only be viewed for rows that have charges.

OT Acute Evaluation						
Event Summary		All Activity		Clinical Summary		Build
FIN	Organization	Facility	Charge Count	Charge Total	Form Date Time	
1300000229	Soylent Corporation	NS ATLANTA	4	\$0.00	2/16/2020 11:49:00 AM	
1300000360	Soylent Corporation	NS ATLANTA	3	\$0.00	2/16/2020 4:40:00 PM	
1300000397	Soylent Corporation	NS ATLANTA	3	\$0.00	2/16/2020 6:06:00 PM	
1300001286	Soylent Corporation	NS ATLANTA	3	\$0.00	2/16/2020 3:00:00 PM	
1300000569	Soylent Corporation	NS ATLANTA	3	\$0.00	2/16/2020 1:29:00 PM	
1300000574	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 6:14:00 PM	
1300000185	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 9:53:00 PM	
1300000218	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 8:35:00 PM	
1300000069	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 5:20:00 PM	
1300000028	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 12:31:00 PM	
1300000139	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 2:00:00 PM	
1300000232	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 2:26:00 PM	
1300000228	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 5:07:00 PM	
1300000845	Soylent Corporation	NS ATLANTA	2	\$0.00	2/16/2020 11:37:00 AM	
1300000519	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 9:01:00 PM	
1300000137	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 2:31:00 PM	
1300001236	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 8:13:00 PM	
1300000224	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 2:28:00 PM	
1300000825	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 5:27:00 PM	
1300000797	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 2:56:00 PM	
1300001145	Soylent Corporation	NS ATLANTA	1	\$0.00	2/16/2020 1:16:00 PM	
1300000003	Soylent Corporation	NS ATLANTA	0	\$0.00	2/3/2020 1:23:00 PM	
1300000662	Yoyodine	NS FORSYTH	3	\$0.00	2/16/2020 1:31:00 PM	

Figure 186: All Activity

Menu Option	Description
Charge Details	Opens the Charge Details dialog for the selected row.
Copy Fin	Copies the Fin number of the selected row to the clipboard.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 56: All Activity Context Menu

Charge Details

The Charge Details dialog shows all of the relevant charges for the selected activity. Charges with an offset are displayed with gray text.

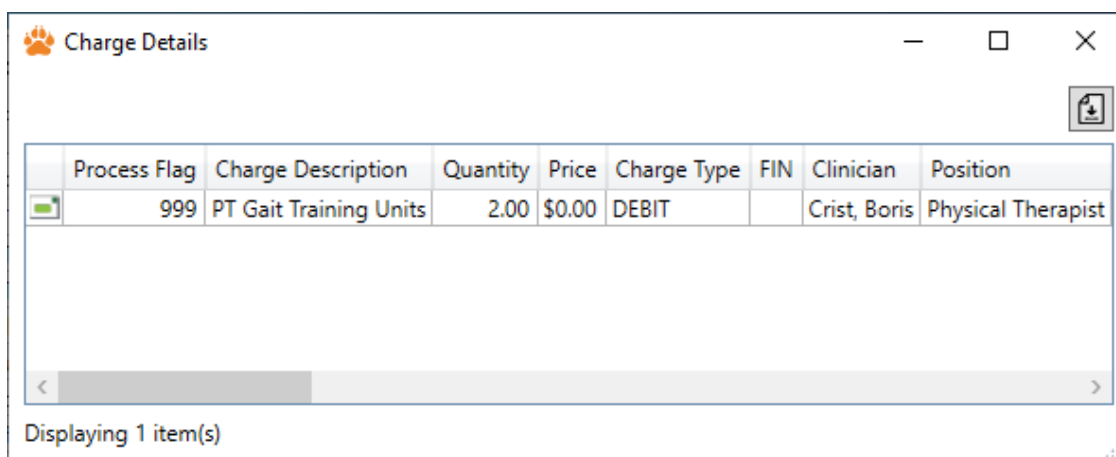


Figure 187: Charge Details

Menu Option	Description
Copy Charge Description	Copies the charge description of the selected row to the clipboard.
Copy Bill Item ID	Copies the bill item ID of the selected row to the clipboard.
Copy Fin	Copies the Fin number of the selected row to the clipboard.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 57: Charge Details Context Menu

9.3.4 Clinical Summary

The Clinical Activity tab shows form activity grouped by clinician. The grid provides a breakdown of the number of form activity entries per clinician and how many of the activity entries had charges. Activity No Charged is the number of activity entries that did not have any corresponding charges. Charge Count is the total number charges for the clinician's activity. There can be multiple charges per activity so the Charge Ratio column is the Charge Count divided by Form Activity. The charges for the row can be viewed by double clicking the row, pressing the enter key, or clicking Charge Details in the context menu. Details can only be viewed for rows that have charges.

OT Acute Evaluation

Event Summary		All Activity		Clinical Summary		Build	
							
Clinician	Position	Form Activity	Activity Charged	Activity No Charged	Charge Count	Charg	
Abernathy, Rupert	Occupational Therapist	1	1	0	1	1.00	
Bechtelar, Dina	Occupational Therapist	1	1	0	2	2.00	
D'Amore, Brock	Occupational Therapist	5	5	0	7	1.40	
Durgan, Charles	Occupational Therapist	2	1	1	1	0.50	
Erdman, Dayton	Occupational Therapist	4	4	0	11	2.75	
Gerhold, Cindy	Occupational Therapist	3	3	0	5	1.67	
Haley, Fidel	Occupational Therapist	4	4	0	8	2.00	
Hintz, Otto	Occupational Therapist	2	2	0	3	1.50	
Kohler, Abigale	Occupational Therapist	3	3	0	5	1.67	
Langosh, Elaina	Occupational Therapist	3	3	0	6	2.00	
Macejkovic, Nathanael	Occupational Therapist	2	2	0	5	2.50	
Moen, Savanna	Occupational Therapist	4	4	0	11	2.75	
Murazik, Cristian	Occupational Therapist	2	2	0	3	1.50	
Olson, Rudy	Occupational Therapist	1	1	0	2	2.00	
Prosacco, Kieran	Occupational Therapist	2	2	0	3	1.50	
Reinger, Nestor	Occupational Therapist	4	4	0	9	2.25	
Rogahn, Savanah	Occupational Therapist	4	4	0	6	1.50	
Stanton, Roslyn	Occupational Therapist	3	3	0	6	2.00	
Toy, Adele	Occupational Therapist	3	3	0	6	2.00	
Walter, Federico	Occupational Therapist	1	1	0	2	2.00	
Weissnat, Arlie	Occupational Therapist	5	5	0	12	2.40	
							< >

Figure 188: Clinical Summary

Menu Option	Description
Charge Details	Opens the Charge Details dialog for the selected row.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 58: Clinical Summary Context Menu

9.3.5 Build

The Build tab shows the hierarchy of the form based on the way it is built. The left side has a tree with the Form Components. Clicking on a node in tree will display the details for that node on the right side. Selecting a parent node on the left side results in the right side showing a grid of all bill items for that node and descendant nodes. Selecting a leaf node on the left side results in the right side showing the details of that node. This includes bill codes, charge points, and price schedules.

Dysphagia Evaluation Acute

Event Summary (338/338) All Activity (58) Clinical Summary (9) Build

Form Components

- SLP Eval Lang Comprehension, Express Time
- SLP Auditory Processing Tx Units
- SLP Auditory Processing Tx Time
- SLP Swallow Dysfunction Oral Feed Units
- SLP Swallow Dysfunction Oral Feed Time
- SLP Pharyngeal Swallow Eval Units
- SLP Pharyngeal Swallow Eval Time
- SLP Fluoroscopic Evaluation Units
- SLP Fluoroscopic Evaluation Time
- SLP Use, Fit Speech Prosthetic Eval Units
- SLP Use, Fit Speech Prosthetic Eval Time
- SLP Tx Generating Device Units
- SLP Treatment Generating Device Time
- SLP Group Therapy Units
- SLP Group Therapy Time
- SLP Double Therapy Units
- SLP Double Therapy Time
- Refuse/Hold/III/Screen
- Refuse/Hold/III/Screen Minutes
- SLP Voice and Resonance Units
- SLP Voice and Resonance Time
- SLP FEES SCOPE EVAL SWALLOW Units
- SLP FEES SCOPE EVAL SWALLOW Time
- SLP Fees Report Writing Units
- SLP Fees Report Writing Time
- SLP Develop Test w/ Interp/Report Units**
 - SLP Develop Test w/ Interp/Report Units**
 - SLP Develop Test w/ Interp/Report Units [SLP Develop]
 - SLP Develop Test w/ Interp/Report Units [SLP Develop]
 - SLP Develop Test w/ Interp/Report Units [SLP Develop]
 - SLP Develop Test w/ Interp/Report Time
 - SLP Cognitive Testing Units
 - SLP Cognitive Testing Time
 - SLP Laryngoscopy with Stroboscopy Units

SLP Develop Test w/ Interp/Report Units

Bill Item ID: 3810935
Parent: 0 Task Assay CD: 0
Child: 31969371 Task Assay CD: 3453

☐ Statistics Only
☐ Workload Only
☐ Exclude from late charge processing

Bill Codes (0)

Schedule	Code	Description	Priority	QCF

Charge Processing (2)

Charge Point Schedule	Charge Level/Point	Manual	Diagnosis Req	PhysicianReq	Result is Quantity
Ambulatory Charge Point Tech	Alpha/VERIFIED	☐	☐	☐	☒
Charge Point Standard	Alpha/VERIFIED	☐	☐	☐	☒

Price Schedules (1)

Price Schedule	Price
Base Price Schedule	\$229.00

Form Issues (3)

Bill Item ID	Source	Message
751484	Orientation Assessment	No Price Schedule Items defined for a bill item with a 'charge' charge point.
3810935	SLP Develop Test w/ Interp/Report Units	No Bill Codes defined for a bill item with a 'charge' charge point.
9203978	SLP Therapeutic Interv Cog Func Units	No Price Schedule Items defined for a bill item with a 'charge' charge point.

Tasks (3)

Figure 189: Build Tab

Image	Indication	Description
	Form	This root node of the tree is the Form.
	Section	A form is made up of sections.
	Input	A section is made up of Inputs.
	Discrete Task Assay	An input is made up of Discrete Task Assays (DTA) This is the parent for the leaf nodes of this form hierarchy. The child nodes to a DTA are the Bill Items and Nomenclatures associated with the DTA.
	Default Bill Item	This Bill Item is the default bill item for the Discrete Task Assay and does not have a reference task id.
	Alpha Response	This represents an Alpha Response that is properly configured.
	Alpha Response Bill Item	This represents an Bill Item defined for a Discrete Task Assay and Nomenclature that is not defined as an Alpha Response for the Discrete Task Assay. There will always be a corresponding issue in the Form Issues tab when this tree node is present.
	Task Specific Bill Item	This is the Task Specific Bill Item for this Discrete Task Assay.

Table 59: Build Tree Icons

Style	Description
Black Text	This item is configured to charge.
Gray, Thin Text	The item is not configured to charge.
Red Text	One or more children have errors.
Bold Text	This item required.

Table 60: Build Tree Styles

Form Issues

At the bottom of the Build Tab is the Form Issues tab which contains a list of issues that Panther detected for the form. The source of a row in the Form Issues grid can be viewed by double clicking the row, pressing the enter key, or clicking on 'Locate in tree' in the context menu. This will navigate the tree to the corresponding tree node and select it, showing the details on the right side. When a selected tree node has an issue, the right side may show an icon to highlight the affected area(s) that cause the issue.

Menu Option	Description
Locate in tree	Selects the corresponding node in the Form Components tree.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 61: Form Issues Context Menu

The following table lists all of the possible form issues that are shown in the Form Issues tab.

Form Issue	Description
Bill Codes For No Charge Charge Point	Bill Codes defined for a bill item with a 'no charge' charge point.
Bill Codes Without Charge Point	Bill Codes defined for a bill item without a charge point.
Bill Item Nomenclature Is Not An Alpha Response	Bill Item defined for a DTA/nomenclature combination that is not defined as an alpha response for that DTA.
Incomplete Charge Point	Incomplete charge point build for bill item.
Inconsistent Charge Points	Inconsistent charge points defined for bill item.
Missing No Bill Codes	No Bill Codes defined for a bill item with a 'charge' charge point.
Missing Price Schedule Items	No Price Schedule Items defined for a bill item with a 'charge' charge point.
Price Schedule Items For No Charge Charge Point	Price Schedule Items defined for a bill item with a 'no charge' charge point.
Price Schedule Items Without Charge Point	Price Schedule Items defined for a bill item without a charge point.
Task Charge Point Is Preventing Form Charges	Task's charge point is preventing items on this form from creating charges.

Table 62: Form Issues List

Tasks

The Tasks tab at the bottom of the Build tab contains a grid that contains the tasks associated with the form. These tasks are at the form level and may sometimes be referred to as Order Tasks. Each task row has a bill item.

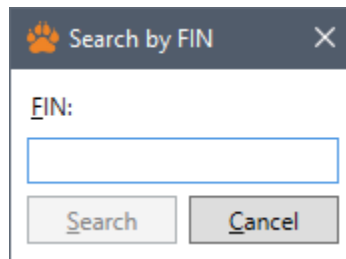
These tasks are for the form itself and do not correspond to a single input in the build tree. Unlike the Form Issues tab, there is no 'Locate in tree' functionality for a task.

Form Issues (7)			Tasks (3)					
Reference Task ID	Task Description	Ignore Required Indicator	Bill Item ID	Parent	Child	Bill Codes	Charge Points	Price Schedule Items
22022489	Dysphagia Evaluation Acute	☐	1393763	22022489	0		Ambulatory Charge Point Tech [Detail]/[clear] Charge IP Glancy Day Program [Detail]/[clear] Charge Point Alpharetta [Detail]/[clear] Charge Point Atlanta [Detail]/[clear] Charge Point Atlanta Inpatient [Detail]/[clear] Charge Point Atlanta Neonatal [Detail]/[clear] Charge Point Cherokee [Detail]/[clear] Charge Point Cherokee Inpatient [Detail]/[clear] Charge Point Forsyth [Detail]/[clear] Charge Point Forsyth Inpatient [Detail]/[clear] Charge Point Forsyth Neonatal [Detail]/[clear] Charge Point GSH Sports Rehab [Detail]/[clear] Charge Point Gwinnett [Detail]/[clear] Charge Point Gwinnett [Detail]/[clear] Charge Point SLP 575 [Detail]/[clear] Charge Point Sports Medicine [Detail]/[clear] Charge Point Standard ProFee [Detail]/[clear] Charge Point Tower [Detail]/[clear]	
3883680	SLP Bedside Swallow Evaluation Acute	☐	675809	3883680	0		Ambulatory Charge Point Tech [Detail]/[clear] Charge Point Alpharetta [Detail]/[clear] Charge Point Atlanta [Detail]/[clear] Charge Point Atlanta Inpatient [Detail]/[clear] Charge Point Atlanta Neonatal [Detail]/[clear] Charge Point Cherokee [Detail]/[clear] Charge Point Cherokee Inpatient [Detail]/[clear] Charge Point Forsyth [Detail]/[clear] Charge Point Forsyth Inpatient [Detail]/[clear] Charge Point Forsyth Neonatal [Detail]/[clear] Charge Point Standard ProFee [Detail]/[clear]	
273653993	Adult Clinical Swallowing Evaluation Acute	☐	7480541	273653993	0		Charge Point Standard ProFee [Detail]/[clear]	

Figure 190: Build Tasks

9.3.6 FIN Lookup

FIN Lookup will search for all form activity for a FIN. Results will be displayed in the [FIN Activity](#) dialog.

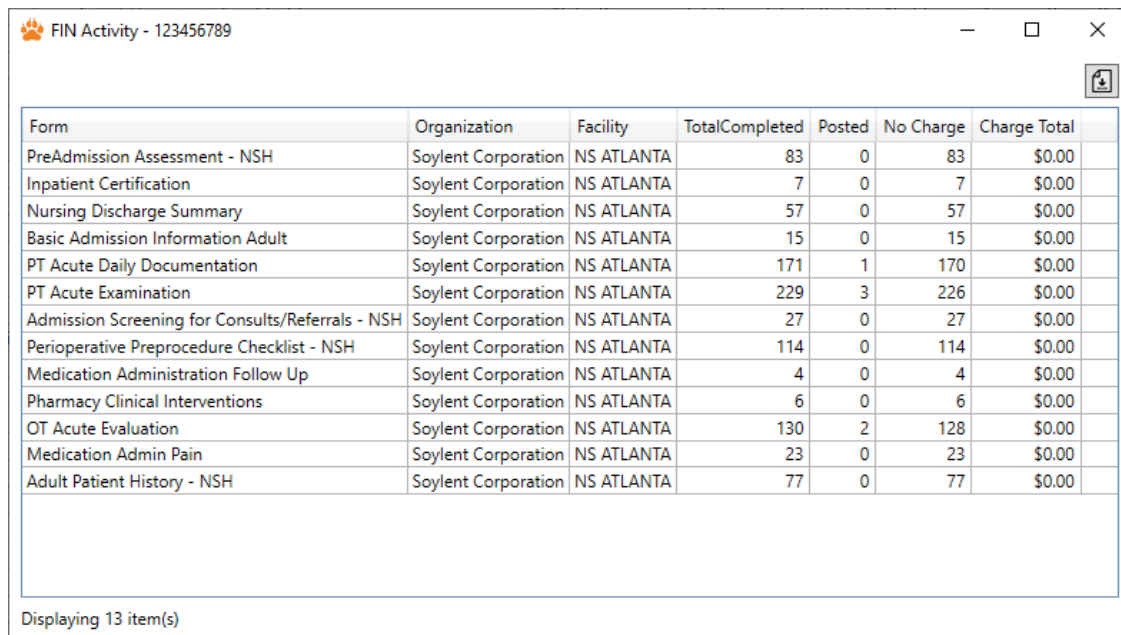
A small dialog box titled "Search by FIN" with a paw print icon and a close button. It contains a label "FIN:" followed by a text input field. Below the input field are two buttons: "Search" and "Cancel".

Search by FIN	
FIN:	
Search	Cancel

Figure 191: FIN Lookup

FIN Activity

The FIN Activity dialog shows a summary of all form activity for the searched FIN, grouped by form. Displayed activity is not limited to the current date range. Double click a row or use the context menu to view the charges in the [FIN Charges](#) dialog.

A dialog box titled "FIN Activity - 123456789" with a paw print icon and window controls. It contains a table with 8 columns: Form, Organization, Facility, TotalCompleted, Posted, No Charge, Charge Total, and an empty column. The table lists 13 items. Below the table is a status bar that says "Displaying 13 item(s)".

Form	Organization	Facility	TotalCompleted	Posted	No Charge	Charge Total	
PreAdmission Assessment - NSH	Soylent Corporation	NS ATLANTA	83	0	83	\$0.00	
Inpatient Certification	Soylent Corporation	NS ATLANTA	7	0	7	\$0.00	
Nursing Discharge Summary	Soylent Corporation	NS ATLANTA	57	0	57	\$0.00	
Basic Admission Information Adult	Soylent Corporation	NS ATLANTA	15	0	15	\$0.00	
PT Acute Daily Documentation	Soylent Corporation	NS ATLANTA	171	1	170	\$0.00	
PT Acute Examination	Soylent Corporation	NS ATLANTA	229	3	226	\$0.00	
Admission Screening for Consults/Referrals - NSH	Soylent Corporation	NS ATLANTA	27	0	27	\$0.00	
Perioperative Preprocedure Checklist - NSH	Soylent Corporation	NS ATLANTA	114	0	114	\$0.00	
Medication Administration Follow Up	Soylent Corporation	NS ATLANTA	4	0	4	\$0.00	
Pharmacy Clinical Interventions	Soylent Corporation	NS ATLANTA	6	0	6	\$0.00	
OT Acute Evaluation	Soylent Corporation	NS ATLANTA	130	2	128	\$0.00	
Medication Admin Pain	Soylent Corporation	NS ATLANTA	23	0	23	\$0.00	
Adult Patient History - NSH	Soylent Corporation	NS ATLANTA	77	0	77	\$0.00	

Displaying 13 item(s)

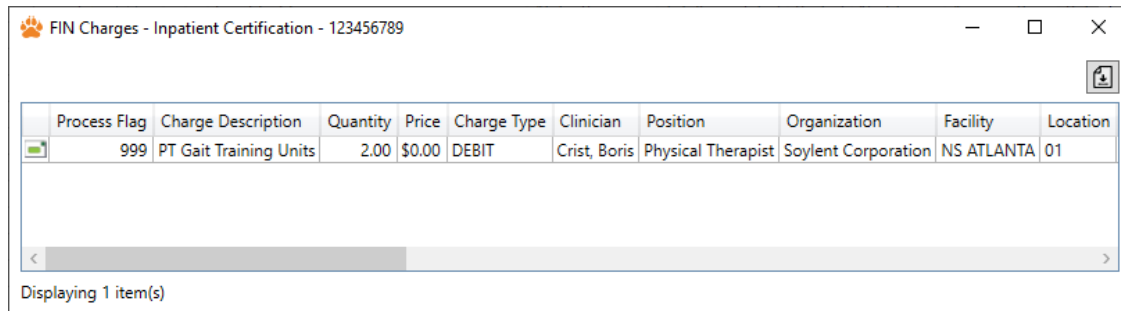
Figure 192: FIN Activity

Menu Option	Description
Charge Details	Navigates to the FIN Charges dialog for the form and FIN.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 63: FIN Activity Context Menu

FIN Charges

The FIN Activity dialog shows all of the charges for the FIN and the selected form. Charges with an offset are displayed with gray text.



Process Flag	Charge Description	Quantity	Price	Charge Type	Clinician	Position	Organization	Facility	Location
999	PT Gait Training Units	2.00	\$0.00	DEBIT	Crist, Boris	Physical Therapist	Soylent Corporation	NS ATLANTA	01

Displaying 1 item(s)

Figure 193: FIN Charges

Menu Option	Description
Copy Charge Description	Copies the charge description of the selected row to the clipboard.
Copy Bill Item ID	Copies the bill item ID of the selected row to the clipboard.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 64: FIN Charges Context Menu

9.4. Formulary Compliance Control

The Formulary Compliance control analyzes active pharmacy bill items for build issues, HCPCS and QCF issues, and analyzes related NDCs for validity and obsolescence. The control then displays the issues found by category. This control uses the Multum™ database as the source for comparison data. This control does not make any modifications to the data in Millennium, and does not interact with the billing system.

To view the Formulary Compliance control, select the *Formulary Compliance* item, under the *Charge Capture* item, in the Domain Explorer (Figure 194).

There are two icons in the upper right-hand corner of the Formulary Compliance control. These are the Export button, and the Help icon.

The Export button allows you to save the currently displayed data in a CSV or Excel® format. When the Export button is clicked, the Windows “Save As” dialog will appear, prompting the user to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

The Help icon provides additional information about the data currently being viewed. Hover the mouse cursor over the question mark icon to see an informational tooltip describing the data displayed.

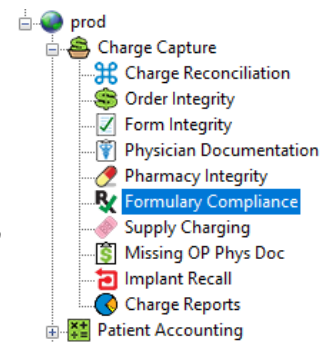


Figure 194: Domain Explorer



Bill Item Price

The price for a bill item is calculated using the default price schedule for the item. If the price for each product associated with a bill item is not the same, the max price will be shown.

9.4.1 Formulary Compliance Main Control

When the control is loaded, the Pharmacy Bill Item Summary will be selected by default. This summary will show all active pharmacy bill items analyzed. For HCPCS/QCF Issues, the selected HCPCS Schedule will be analyzed. The analyzed HCPCS schedule can be changed by selecting a different value from the drop-down above the tree view. The tree view on the left-hand side of the control can be used to navigate to other sections of the control, and is broken down by issue type. During analysis, if a bill item is determined to have a build issue, tests for other sections will not be performed. This control may take time to load; please note the spinning blue loading icon which will appear in the upper left-hand corner of the control, where the Formulary Compliance icon normally is. The status bar at the bottom of the control will display information about the Multum™ database being used for comparison.

Due to facility differences and the accuracy of data contained in Multum™, some recommendations may not be applicable. In this case, some issues can be reviewed and then ignored by users with the *Manage Formulary Compliance* privilege. To ignore an issue, or stop ignoring an issue, use the [Context Menu](#) on the grid. Multi-select may be used to ignore/stop ignoring multiple issues at once.

By default, Panther excludes Revenue Codes 0250, 0258, and 0637. If you need Panther to include those Revenue Codes, or to exclude additional Revenue Codes, please contact Panther Support.



Investigational Drugs

If investigational drugs are flagged by the control, use the ability to ignore bill item issues to note that these are investigational drugs and therefore the HCPCS and QCF do not apply. If they are appearing in the Invalid NDC section, they can also be moved to the Facility Driven NDC section by updating the Facility Driven NDC settings. See [Figure 207](#).

prod > Charge Capture > Formulary Compliance

HCPCS Schedule: HCPCS

Pharmacy Bill Item Summary

Bill Item ID	Description	Price	Dispense Quantity	HCPCS	SI	Expected HCPCS
8210620	(MAALOX-BENADRYL-CARAFATE)					
8210725	99999-0000-01 - _space compound template for gram		1000 MG			
8210726	99999-0000-02 - _space compound template for milliliters		1 mL			
8210727	99999-0000-03 - _space template compound for each		1 EA			
8483215	abacavir 20 mg/mL oral solution 10 mL UD	\$25.75	200 mg/10 mL			
8209712	abacavir 20 mg/mL oral solution 240 mL	\$509.25	4800 mg/240 mL			
8205598	abacavir 300 mg tablet	\$29.50	300 mg/1 tabs			
8209713	abacavir/lamivudine/zidovudine 300 mg/150 mg/300 mg tablet	\$86.50	1 tabs			
8205976	abatacept 125 mg/mL SubCutaneous injection	\$1,995.50	125 mg/1 mL	J0129	K	J0129
8205664	abatacept 250 mg injection	\$1,995.50	250 mg	J0129	K	J0129
8206984	abiximab 2 mg/mL injection 5 mL	\$41.50		J0130		
8204958	acarbose 50 mg tablet	\$4.00	50 mg/1 tabs			
8274551	ACD-A Solution 1,000 mL Bag	\$16.00	1000 mL			
8349027	ACD-A Solution 250 mL Bag		250 mL			
8205330	acetabulol 200 mg capsule	\$6.25				
8209356	acetam-codeine 120 mg-12 mg/5 mL oral liquid 12.5 mL	\$10.25	30 mg/12.5 mL			
8205548	acetaminophen 10 mg/mL injection 100 mL	\$251.25	1000 mg/100 mL	J0131	N	J0131
8549831	acetaminophen 10 mg/mL injection 100 mL bag			J0131		
8210566	acetaminophen 10 mg/mL injection syringe	\$125.75	500 mg/50 mL	J0131	N	J0131
8545244	acetaminophen 10 mg/mL IVPB (PDS)		10 mg/1 mL	J0131	N	J0131
8474910	acetaminophen 10 mg/mL syringe (NICU)		10 mg/1 mL	J0131	N	J0131
8204184	acetaminophen 120 mg rectal suppository	\$3.25	120 mg/1 supp			
8459629	acetaminophen 160 mg chew Tab UD	\$3.25	160 mg/1 tabs			
8205953	acetaminophen 160 mg tablet ODT					
8204411	acetaminophen 160 mg/5 mL oral solution 120 mL	\$3.25	160 mg/5 mL			

Manufacturer Item ID | Manufacturer | Med Product ID | Dispense Quantity | NDC | NDC Obsolete Date | SI | Expected HCPCS | Expected Payment Rate

Multum Version: 190115 - August 2021 | Published on: 2021-06-30 5:00:00 AM | Applied on: 2021-07-30 9:48:11 AM

Figure 195: Formulary Compliance Control

To refresh the data on this control, right-click in the navigational tree view on the left-hand side of the control to access the context menu and select the Refresh option. Data will not be automatically refreshed on this control.



Recent Charges and Disposes

The Formulary Compliance control searches the last seven days when determining recent charges and disposes within the control.

The Formulary Compliance control uses several icons to help indicate the types of issues found as well as other information. Please refer to [Table 65](#) for more details.

Image	Indication	Description
	Improper/Incomplete Build	The control is unable to fully analyze this bill item due to issues with the build. This may be caused by an improper build, or may just mean that the build of the bill item is in progress and not yet complete.
	HCP/PC/QCF Issue	The HCP/PC or QCF defined for this bill item either could not be validated or does not match the value the control expects.
	NDC Validation Issue	On bill item - The bill item has products associated with it that have invalid, obsoleting, or obsolete NDCs. On product - The NDC defined for the product is invalid, obsoleting or obsolete.
	Recent Charges	The bill item has recent charges.
	Recent Dispenses	The product has recently been dispensed.
	Ignored Issue	The issue for the bill item or NDC has been ignored by a user. Hover over the icon to see a tooltip with information about who ignored the issue and why.

Table 65: Indicator Icons

There are several columns that commonly occur throughout the Formulary Compliance control. Please refer to [Table 66](#) for more details about the source for the data displayed in each column.

Client Build	Derived from Multum™
Bill Item ID	Expected HCP/PC
Description	Expected HCP/PC Volume
Dispense Volume	Expected QCF (calculated)
HCP/PC	NDC Obsolete Date
QCF	
Other HCP/PC Schedules	
Manufacturer Item ID	
Manufacturer	
Med Product ID	
NDC	
Price (calculated using default price schedule)	

Table 66: Common Columns

9.4.2 Pharmacy Bill Item Summary

The Pharmacy Bill Item Summary displays all active pharmacy bill items analyzed by the control. It will show which types of issues were detected for each bill item as well as indicate if there were recent charges for the bill item. If the bill item has a HCP/PC/QCF issue, the issue can be ignored or stop being ignored from the summary using the [Context Menu](#). See [Figure 197](#).

When a bill item is selected, the lower right-hand panel will display all products associated with the bill item, as well as indicate if any NDC validation issues were detected for the displayed products. NDC validation issues can be ignored or stop being ignored from this section using the [Context Menu](#). See [Figure 198](#).

Pharmacy Bill Item Summary						
	Bill Item ID	Description	Price	Dispense Quantity	HCPCS	Expect
	8205976	abatacept 125 mg/mL SubCutaneous injection	\$1,995.50	125 mg/1 mL	J0129	J0129
	8205664	abatacept 250 mg injection	\$1,995.50	250 mg	J0129	J0129
	8206984	abciximab 2 mg/mL injection 5 mL	\$41.50	10 mg/5 mL	J0130	J0130
	8204958	acarbose 50 mg tablet	\$4.00	50 mg/1 tabs		
	8274551	ACD-A Solution 1,000 mL Bag	\$16.00	1000 mL		
	8349027	ACD-A Solution 250 mL Bag		250 mL		
	8205330	acetabulolol 200 mg capsule	\$6.25	200 mg/1 cap		
	8209356	acetam-codeine 120 mg-12 mg/5 mL oral liquid 12.5 mL	\$10.25	30 mg/12.50 mL		
	8205548	acetaminophen (Ofirmev) 10 mg/mL injection 100 mL	\$251.25	1000 mg/100 mL	J0131	J0131
	8210566	acetaminophen (Ofirmev) 10 mg/mL injection syringe 50 mL	\$125.75	500 mg/50 mL	J0131	J0131
	8204184	acetaminophen 120 mg rectal suppository	\$3.25	120 mg/1 supp		
	8459629	acetaminophen 160 mg chew Tab UD	\$3.25	160 mg/1 tabs		
	8205953	acetaminophen 160 mg tablet ODT				
	8204411	acetaminophen 160 mg/5 mL oral solution 120 mL	\$3.25	160 mg/5 mL		
	8204916	acetaminophen 160 mg/5 mL soln-oral UD	\$3.25	160 mg/5 mL		
	8210309	acetaminophen 250 mg tablet (1/2 of 500 mg)		250 mg/1 tabs		

8205976 - abatacept 125 mg/mL SubCutaneous injection						
	Manufacturer Item ID	Manufacturer	Med Product ID	Dispense Quantity	NDC	Expected HCPCS
	2051959	Bristol-Myers Squibb	199666	125 mg/1 mL	00003-2188-31	J0129
	11894474	Bristol-Myers Squibb	1529114	125 mg/1 mL	00003-2188-11	J0129

Figure 196: Pharmacy Bill Item Summary

Right-clicking the mouse in the Pharmacy Bill Item Summary grid will open the [Context Menu](#). See [Figure 197](#).

Item Details	
Ignore Bill Item Issue...	
Stop Ignoring Bill Item Issue	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 197: Pharmacy Bill Item Summary Context Menu

Menu Option	Description
Item Details	Navigates to the charge details for the bill item.
Ignore Bill Item Issue	Ignores the selected bill items, or updates the reason if the bill item is already ignored. Only HCPCS/QCF issues can be ingored from the summary.
Stop Ignoring Bill Item Issue	Stops ignoring the selected bill items. Only HCPCS/QCF issues can be uningored from the summary.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 67: Pharmacy Bill Item Summary Context Menu

Right-clicking the mouse in the Med Products grid will open the [Context Menu](#). See [Figure 198](#).

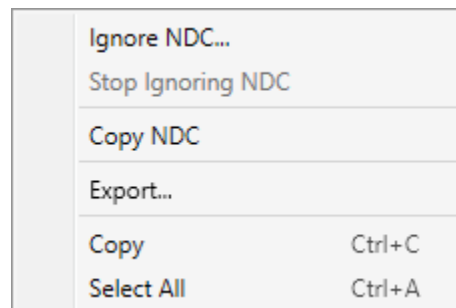


Figure 198: Med Product Context Menu

Menu Option	Description
Ignore NDC	Ignores the NDCs for the selected products, or updates the reason if the NDC is already ignored.
Stop Ignoring NDC	Stops ignoring the NDCs for the selected products.
Copy NDC	Copies the selected item's NDC to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 68: Med Product Context Menu

9.4.3 Improper/Incomplete Build

The Improper/Incomplete Build section is broken down by build issue analyzed with counts of the number of bill items found with the issue. When selecting the *Improper/Incomplete Build* node, the righthand side will display a breakdown of issues and bill item counts. It is possible for a bill item to have more than one build issue.

To view the details for a build issue, select it in the tree view, or right-click the issue in the *Improper/Incomplete Build* view and select *Item Details*. Double-clicking the row will also display the details for the issue. For more information about the types of build issues detected, please refer to [Table 69](#).

Improper/Incomplete Build Issue	Description
Discontinued Bill Items	These bill items are no longer attached to active/effective manufacturer items or med def flex records, but begin with zzz indicating they are intended to be inactive.
Disconnected Bill Items	These bill items are no longer attached to active/effective manufacturer items or med def flex records.
Multiple Bill Item Modifiers	There is more than one Medicare HCPCS code associated with this bill item.
Missing Med Product	The med product related to this manufacturer item does not exist.
Missing NDC	Either there is no NDC defined for the med product, or there are no NDCs for the med def flex id.
Missing Med Dispense	A product associated with this bill item does not have a med dispense record associated with it. Therefore, the tool cannot determine the dispense volume for the bill item.
Multiple Med Dispense	A product is associated with multiple Med Dispense records. Therefore, the tool is unable to determine the correct dispense volume for the product.
Inconsistent Dispense Volume	The inconsistent dispense volume issue indicates that there are multiple products associated with this bill item and they do not have the same dispense volume.

Table 69: Improper/Incomplete Build Issues

When viewing a specific build issue, the top portion of the right-hand panel will display the details available for this bill item. When a bill item is selected, with the exception of the Discontinued and Disconnected Bill Items views, the lower right-hand panel will display all products associated with the bill item, as well as indicate if any NDC validation issues were detected for the displayed products. NDC validation issues can be ignored or stop being ignored from this section using the [Context Menu](#). See [Figure 198](#).

Due to facility differences, some build issues may not be of concern. In this case, issues can be reviewed and then ignored by users with the *Manage Formulary Compliance* privilege. To ignore an issue, or stop ignoring an issue, use the [Context Menu](#) on the bill item grid. Build issues are ignored for all HCPCS schedules. See [Figure 201](#). Multi-select may be used to ignore/stop ignoring multiple issues at once.

Ignored issues are hidden from view by default, but can be viewed by selecting the *View ignored issues* checkbox at the bottom of the bill item grid.

Discontinued Bill Items	
Bill Item ID	Description
8206116	zzabacavir-lamivudine 600 mg-300 mg Tab
8209660	zzabobotulinumtoxinA (Dysport-cosmetic) 10 units syringe
8207367	zzacetaminophen 160 mg/5 mL soln-oral 480 mL
8209400	zzacetaminophen 160mg/ 5 mL suspension 120 mL (ED only pkg)
8207110	zzacetaminophen 80 mg ODT tablet
8207459	zzacetaminophen 80 mg tab chew
8206605	zzacetaminophen-butalbital 325 mg-50 mg oral tablet
8207166	zzacetaminophen-codeine 120 mg-12 mg/5 mL (alcohol-free) 480 mL
8208120	zzacetaminophen-codeine 300 mg-15 mg oral tablet
8205403	zzacetaminophen-codeine 300 mg-60 mg Tab
8207728	zzacetaminophen/diphenhydramine 500 mg-25 mg tablet
8207896	zzacetaminophen/diphenhydramine/phenylephrine 160 mg-6.25 mg-2.5 mg/5 mL Liq
8208555	zzacetaZOLAMIDE 125 mg/5mL Cpd Oral Susp
8208554	zzacetaZOLAMIDE 25 mg/mL Cpd Oral Susp
8209152	zzacetic acid 0.25% irrigation solution 250 mL
8209196	zzacetic acid-aluminum acetate 2%-0.79% otic solution 60 mL
8208615	zzacetylcysteine 10% 100 mg/mL compounded ophthalmic solution 10 mL
8208622	zzacetylcysteine 20% 200 mg/mL compounded ophthalmic solution 10 mL
8208281	zzacetylcysteine 20% 200 mg/mL soln-oral 10 mL vial
8208282	zzacetylcysteine 20% 200 mg/mL soln-oral 30 mL vial
8206060	zzacitretin 10 mg oral capsule
☐ View ignored issues (7 ignored issues)	

Figure 199: Improper/Incomplete Build Issue - Discontinued Bill Items

Missing Med Dispense							
Bill Item ID	Description	Price	Dispense Quantity	HCPCS	QCF	Other HCPCS Schedules	
8208110	acetylcysteine 200 mg/mL injection 30 mL	\$1,035.95		J132	60		
8208124	acetylcysteine 200 mg/mL injection 30 mL	\$1,035.95		J132	60		

8208124 - acetylcysteine 200 mg/mL injection 30 mL							
Manufacturer Item ID	Manufacturer	Med Product ID	Dispense Quantity	NDC	NDC Obsolete Date	Expected HCPCS	
2238436	Cumberland Pharm	2624594	Missing	66220-0207-30		J0132	
3893611	Paddock	952079	6000 mg/30 mL	00574-0805-30		J0132	

Figure 200: Improper/Incomplete Build Issue - Missing Med Dispense

Right-clicking the mouse in the bill item grids will open the [Context Menu](#). See [Figure 201](#).

Item Details	
Ignore Bill Item Issue...	
Stop Ignoring Bill Item Issue	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 201: Improper/Incomplete Build Context Menu

Menu Option	Description
Item Details	Navigates to the charge details for the bill item.
Ignore Bill Item Issue	Ignores the selected bill items, or updates the reason if the bill item is already ignored.
Stop Ignoring Bill Item Issue	Stops ignoring the selected bill items. All selected bill items must be ignored for this option to be enabled.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 70: Improper/Incomplete Build Context Menu

Right-clicking the mouse in the Med Products grid will open the [Context Menu](#). See [Figure 198](#).

9.4.4 HCPCS/QCF Issues

The HCPCS/QCF Issues section is broken down by issue analyzed with counts of the number of bill items found with the issue. When selecting the *HCPCS/QCF Issues* node, the righthand side will display a breakdown of issues and bill item counts. Issues that have been ignored will not be included in the counts. Each bill item will be analyzed for HCPCS/QCF issues in the order of the issues listed. For example, if a bill item has an incorrect HCPCS and QCF, it will only appear in the HCPCS Mismatch section.

To view the details for an issue, select it in the tree view, or right-click the issue in the *HCPCS/QCF Issues* view and select *Item Details*. Double-clicking the row will also display the details for the issue. For more information about the types of HCPCS/QCF issues detected, please refer to [Table 71](#).

HCPCS/QCF Issue	Description
Multiple Expected HCPCS	The NDCs associated with the bill item have varying expected HCPCS codes. All products within a bill item should use the same HCPCS code.
Unit of Measure Mismatch	The dispense volume units and the units of the expected HCPCS do not match. Therefore, an expected QCF cannot be determined.
Missing HCPCS	The bill item does not have a HCPCS code defined, but there is an expected HCPCS based on the NDCs associated with this bill item.
Unexpected HCPCS	There is a HCPCS code defined for the bill item, however based on the NDCs associated with the bill item, there should not be a HCPCS code defined.
HCPCS Mismatch	There is a HCPCS code defined for the bill item, but it does not match the expected HCPCS code.
Incorrect QCF	The HCPCS code is correct, however the QCF does not match the expected QCF.
CMS Billing Unit Mismatch	The CMS Billing Units are inconsistent across multiple med products, or the CMS Billing Unit does not match the Expected HCPCS Volume.

Table 71: HCPCS/QCF Issues

When viewing a specific issue, the top portion of the right-hand panel will display the details available for this bill item. When a bill item is selected, the lower right-hand panel will display all products associated

with the bill item, as well as indicate if any NDC validation issues were detected for the displayed products. NDC validation issues can be ignored or stop being ignored from this section using the [Context Menu](#).

Due to facility differences and the accuracy of data contained in Multum™, some recommendations may not be applicable. In this case, issues can be reviewed and then ignored by users with the *Manage Formulary Compliance* privilege. To ignore an issue, or stop ignoring an issue, use the [Context Menu](#) on the bill item grid. HCPCS/QCF Issues are only ignored for the currently selected HCPCS schedule. See [Figure 203](#). Multi-select may be used to ignore/stop ignoring multiple issues at once.

Ignored issues are hidden from view by default, but can be viewed by selecting the *View ignored issues* checkbox at the bottom of the bill item grid.

Incorrect QCF

Bill Item ID	Description	Price	Dispense Qu
8210419	aminophylline 1 mg/mL NS syringe	\$16.00	50 mg/50 mL
8210418	aminophylline 3 mg/mL NS syringe	\$21.00	150 mg/50 m
8210422	amiodarone 1 mg/mL D5W syringe	\$16.00	50 mg/50 mL
8210423	amiodarone 100 mg/50 mL D5W syringe	\$18.50	100 mg/50 m
8210514	amphotericin B 0.5 mg/mL D5W syringe	\$64.00	25 mg/50 mL
8210538	ampicillin-sulbactam 25 mg/mL (Unasyn) NS syringe	\$39.25	1000 mg/40 i
8207466	antihemophilic factor recombinant (Recombine) 220-400 units injection	\$4.00	400 U
8206560	aprepitant 125 mg-80 mg-80 mg oral kit	\$480.50	285 mg
8469120	avelumab 20 mg/mL Inj	\$3,409.25	200 mg/10 m
8311178	bendamustine (Bendeka) 25 mg/mL injection 4 mL		25 mg/1 mL
8209483	bendamustine 90 mg/mL injection 0.5 mL	\$2,111.50	45 mg/0.50 n
8207066	benzathine penicillin-procaine penicillin 600,000-600,000 units/2 mL IntraMuscular injection syringe	\$334.00	1200000.00 L
8204643	butorphanol 1 mg/mL injection	\$28.00	1 mg/1 mL
8204644	butorphanol 2 mg/mL injection	\$29.75	2 mg/1 mL
8205586	calcium gluconate 100 mg/mL injection 50 mL BULK	\$70.75	5000 mg/50 m

☐ View ignored issues (0 ignored issues)

8209483 - bendamustine 90 mg/mL injection 0.5 mL

Manufacturer Item ID	Manufacturer	Med Product ID	Dispense Quantity	NDC	NDC Obsolete Date	Expected HCP
17882969	Teva Pharmaceuticals USA	1848629	45 mg/0.50 mL	63459-0395-02	4/30/2017	J9033

Figure 202: HCPCS/QCF Issues - Incorrect QCF

Right-clicking the mouse in the bill item grid will open the [Context Menu](#). See [Figure 203](#).

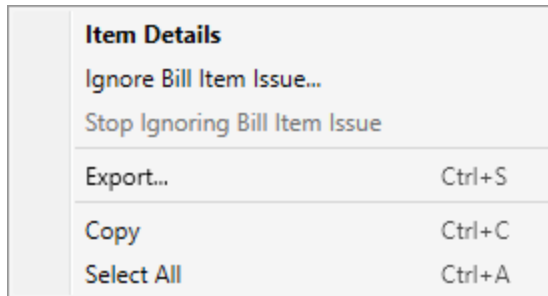


Figure 203: HCP/PCS/QCF Issues Context Menu

Menu Option	Description
Item Details	Navigates to the charge details for the bill item.
Ignore Bill Item Issue	Ignores the selected bill items, or updates the reason if the bill item is already ignored.
Stop Ignoring Bill Item Issue	Stops ignoring the selected bill items. All selected bill items must be ignored for this option to be enabled.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 72: HCP/PCS/QCF Issues Context Menu

Right-clicking the mouse in the Med Products grid will open the [Context Menu](#). See [Figure 198](#).

The Incorrect QCF view is slightly different than the other HCP/PCS/QCF Issues views. It contains a *Percent Billed* column, as well as access to setting a deviation allowed for the Percent Billed. The settings icon appears in the top right of the control before the export icon if the user has the *Manage Formulary Compliance* privilege. Clicking the icon will open a dialog that will allow the user to set the allowed deviation, ranging from 0 to 100. See [Figure 204](#). Items with a percent billed within the range will not be counted as Incorrect QCF issues. When this setting is updated, the control will automatically refresh.

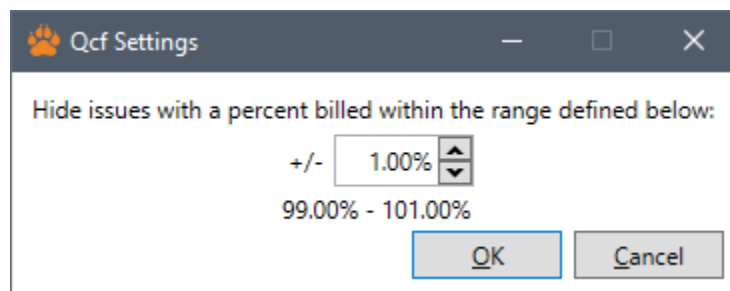


Figure 204: QCF Settings Dialog

9.4.5 NDC Validation

The NDC Validation section is broken down by issue analyzed with counts of the number of bill item products found with the issue. When selecting the *NDC Validation* node, the righthand side will display a breakdown

of issues and bill item product counts. Issues that have been ignored will not be included in the counts. All products for each bill item will be analyzed for NDC validation issues. Since there can be multiple products for each bill item, a bill item ID may appear more than once. In addition, since a product can be associated with multiple bill items, an NDC may appear more than once.

To view the details for an issue, select it in the tree view, or right-click the issue in the *NDC Validation* view and select *Item Details*. Double-clicking the row will also display the details for the issue. For more information about the types of NDC Validation issues detected, please refer to [Table 73](#).

NDC Validation Issue	Description
Invalid NDC	The NDC is not valid, and is not defined as a facility driven NDC.
Facility Driven NDC	The NDC is not valid, but was defined by the facility.
Obsolete NDC	The NDC has become obsolete.
Obsoleting NDC	The NDC will become obsolete within the next 30 days.

Table 73: NDC Validation Issues

When viewing a specific issue, the right-hand panel will display the details available for the product and bill item.

Due to facility differences and the accuracy of data contained in Multum™, some recommendations may not be applicable. In this case, issues can be reviewed and then ignored by users with the *Manage Formulary Compliance* privilege. To ignore an issue, or stop ignoring an issue, use the [Context Menu](#) on the grid. See [Figure 206](#). Multi-select may be used to ignore/stop ignoring multiple issues at once.

Ignored issues are hidden from view by default, but can be viewed by selecting the *View ignored issues* checkbox at the bottom of the grid.

	NDC	Bill Item ID	Description	Manufacturer It
	00942-0641-04	8274551	ACD-A Solution 1,000 mL Bag	7935
	00942-9505-10	8349027	ACD-A Solution 250 mL Bag	8009
	46122-0322-26	8204411	acetaminophen 160 mg/5 mL oral solution 120 mL	9073
	68094-0015-59	8204916	acetaminophen 160 mg/5 mL soln-oral UD	8602
	63323-0963-21	8208109	acetylcysteine 200 mg/mL injection 30 mL	8895
	16963-0002-09	8209614	acetylcysteine 600 mg capsule	7484
	00074-4399-71	8206333	adalimumab 40 mg/0.8 mL SubCutaneous injection syringe	8818
	68516-5216-50	8342517	albumin human 25% (5 g/20 mL) injection 20 mL	8745
	00093-3174-31	8206586	albuterol (Proair HFA) 90 mcg/inh MDI 8.5 g	9210
	57074-0017-74	8204795	aluminum sulfate-calcium acetate topical powder packet	6507
	26974-0410-17	8307506	amino acids-protein hydrolysate (Pro-Stat SF) 15 gram-100 kcal/30 mL oral liquid pkt	7967
	39822-9900-02	8207868	ammonia aromatic 0.33 mL Amp	214
	00409-3726-10	8205495	ampicillin 1,000 mg injection	8626
	00409-3719-10	8205493	ampicillin 250 mg injection	8621
	71288-0006-30	8205489	ampicillin-sulbactam 3,000 mg injection	9172
	59781-0666-88	8209134	arginine/glutamine/calcium hmb (Juven) packet	8652
	59781-0579-35	8209134	arginine/glutamine/calcium hmb (Juven) packet	1233
	59781-0208-64	8209134	arginine/glutamine/calcium hmb (Juven) packet	7810
	59781-0564-30	8209134	arginine/glutamine/calcium hmb (Juven) packet	8782
	00536-0016-97051	8210631	ascorbic acid 500 mg/5 mL oral liquid 30 mL	8004
	71414-0115-01	8204635	ascorbic acid 500 mg/mL injection 50 mL	9212
	70000-0102-01	8207963	aspirin 81 mg tablet, chewable	9007
	51079-0209-01H1	8204399	atorvastatin 10 mg tablet	8003
	66689-0062-01	8210249	atovaquone 150 mg/mL oral suspension 5 mL	9035
	71019-0011-08	8395901	atropine 0.4 mg/mL injection syringe 2 mL	8437

☐ View ignored issues (0 ignored issues)

Figure 205: NDC Validation - Invalid NDC

Right-clicking the mouse in the grid will open the [Context Menu](#). See [Figure 206](#).

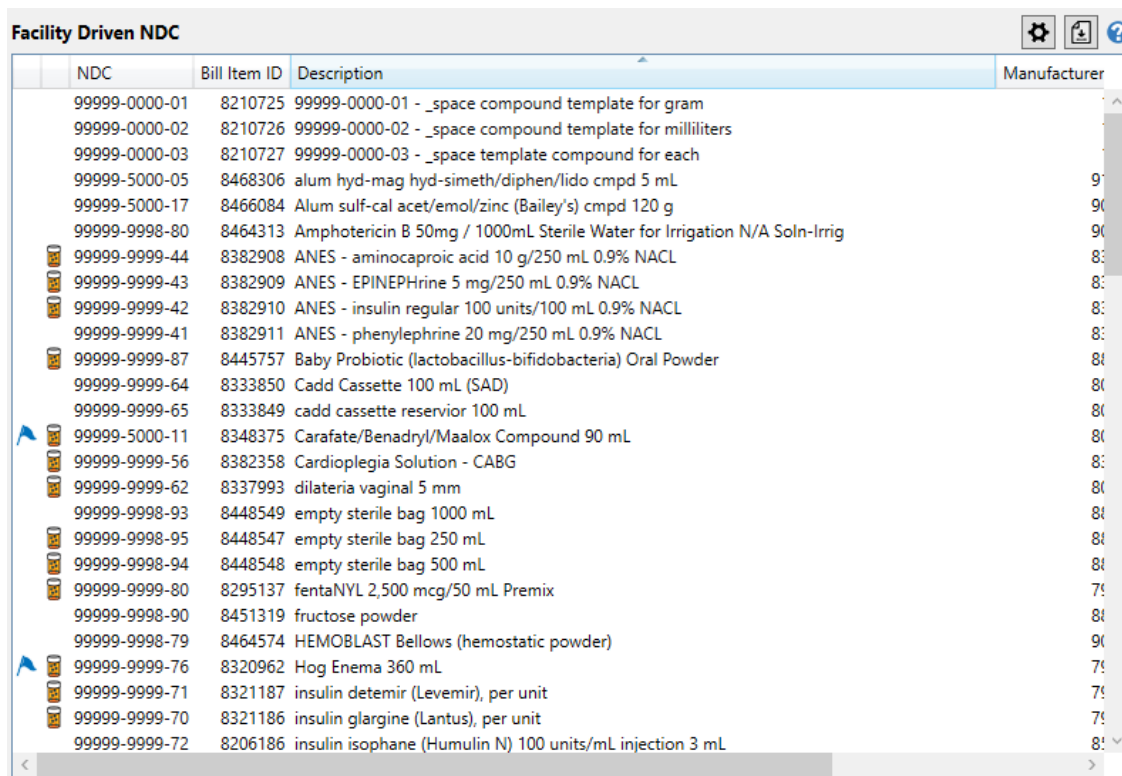
Item Details	
Ignore NDC...	
Stop Ignoring NDC	
Copy NDC	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 206: NDC Validation Context Menu

Menu Option	Description
Item Details	Navigates to the dispense details for the product.
Ignore NDC	Ignores the NDCs for the selected products, or updates the reason if the NDC is already ignored.
Stop Ignoring NDC	Stops ignoring the NDCs for the selected products.
Copy NDC	Copies the selected item's NDC to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 74: NDC Validation Context Menu

The *Facility Driven NDC* section is slightly different. This section separates NDCs that have been determined by the control to be invalid, but the control settings indicate that they have been defined by the facility. These issues cannot be ignored.



NDC	Bill Item ID	Description	Manufacturer
99999-0000-01	8210725	99999-0000-01 - _space compound template for gram	
99999-0000-02	8210726	99999-0000-02 - _space compound template for milliliters	
99999-0000-03	8210727	99999-0000-03 - _space template compound for each	
99999-5000-05	8468306	alum hyd-mag hyd-simeth/diphen/lido compd 5 mL	99
99999-5000-17	8466084	Alum sulf-cal acet/emol/zinc (Bailey's) compd 120 g	90
99999-9998-80	8464313	Amphotericin B 50mg / 1000mL Sterile Water for Irrigation N/A Soln-Irrig	90
99999-9999-44	8382908	ANES - aminocaproic acid 10 g/250 mL 0.9% NACL	83
99999-9999-43	8382909	ANES - EPINEPHrine 5 mg/250 mL 0.9% NACL	83
99999-9999-42	8382910	ANES - insulin regular 100 units/100 mL 0.9% NACL	83
99999-9999-41	8382911	ANES - phenylephrine 20 mg/250 mL 0.9% NACL	83
99999-9999-87	8445757	Baby Probiotic (lactobacillus-bifidobacteria) Oral Powder	84
99999-9999-64	8333850	Cadd Cassette 100 mL (SAD)	84
99999-9999-65	8333849	cadd cassette reservoir 100 mL	84
99999-5000-11	8348375	Carafate/Benadryl/Maalox Compound 90 mL	84
99999-9999-56	8382358	Cardioplegia Solution - CABG	83
99999-9999-62	8337993	dilatelia vaginal 5 mm	84
99999-9998-93	8448549	empty sterile bag 1000 mL	84
99999-9998-95	8448547	empty sterile bag 250 mL	84
99999-9998-94	8448548	empty sterile bag 500 mL	84
99999-9999-80	8295137	fentaNYL 2,500 mcg/50 mL Premix	79
99999-9998-90	8451319	fructose powder	84
99999-9998-79	8464574	HEMOBLAST Bellows (hemostatic powder)	90
99999-9999-76	8320962	Hog Enema 360 mL	79
99999-9999-71	8321187	insulin detemir (Levemir), per unit	79
99999-9999-70	8321186	insulin glargine (Lantus), per unit	79
99999-9999-72	8206186	insulin isophane (Humulin N) 100 units/mL injection 3 mL	84

Figure 207: NDC Validation - Facility Driven NDC

For users with the *Manage Formulary Compliance* privilege, a settings icon will appear in the upper right-hand corner of the control next to the export icon. These settings are how the control determines if an invalid NDC was defined by the facility. Users with access to the settings can add, edit, and remove these settings. When these settings are updated, the main control will automatically refresh.

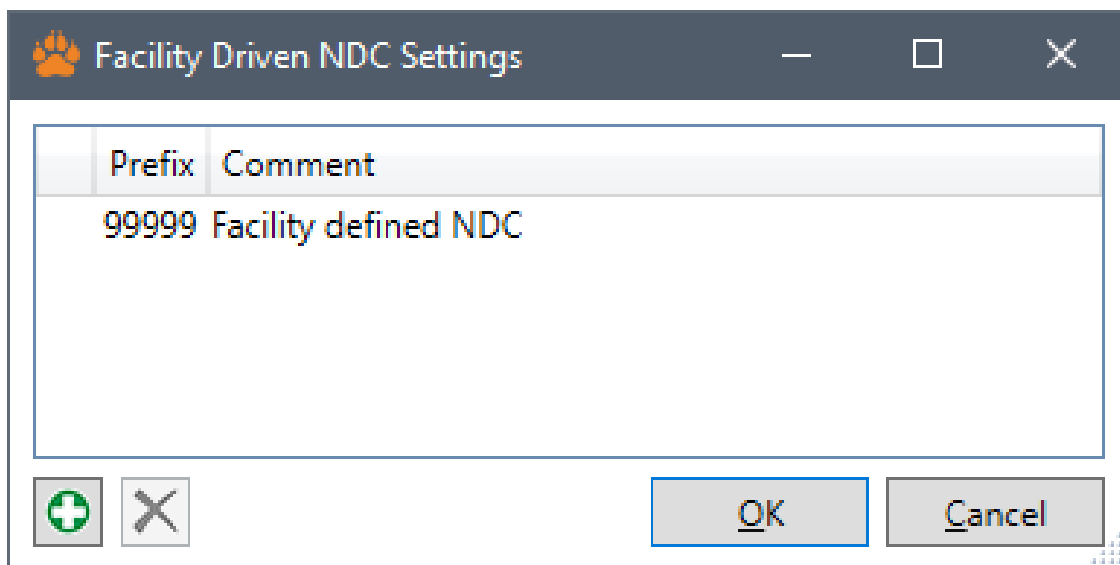


Figure 208: Facility Driven NDC Settings

Right-clicking the mouse in the grid will open the [Context Menu](#). See [Figure 209](#).

Item Details	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 209: Facility Driven NDC Context Menu

Menu Option	Description
Item Details	Navigates to the dispense details for the product.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 75: Facility Driven NDC Context Menu

9.4.6 Bill Item Details Dialog

The selected items bill item ID is displayed in the title bar of the dialog. The charge details for the last seven days are then displayed in the grid with totals being displayed under the grid. This data may take some time to retrieve; please note the loading icon in the lower right-hand corner of the dialog.

Details for Bill Item ID 8205548

Charge Details

Service Date	FIN	Order ID	Item Quantity	Price	Charge Type	Process Flag	Charge Status	Encounter Type
2019-01-21 2:48:00 AM	1200000712	600021168	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 3:54:00 AM	1200000184	600001522	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 4:15:00 AM	1200000320	600019390	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 4:39:00 AM	1200000654	600020393	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 4:47:00 AM	1200000506	600021638	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 8:43:00 AM	1200000656	600021812	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 8:43:00 AM	1200000656	600021812	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 11:51:00 AM	1200000654	600020393	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 11:52:00 AM	1200000184	600001522	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 11:57:00 AM	1200000712	600021168	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 12:34:00 PM	1200000019	600001653	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 12:48:00 PM	1200000320	600019390	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 1:10:46 PM	1200001508	600029986	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 3:15:53 PM	1200001563	600007426	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 3:23:23 PM	1200001562	600007405	1.00	\$240.00	DEBIT	100	Posted	
2019-01-21 3:28:00 PM	1200000542	600020374	1.00	\$240.00	DEBIT	100	Posted	

Charge Count: 611 | Total Item Quantity: 614.00 | Total Price: \$146,559.38

Figure 210: Bill Item Details Dialog

The search icon allows the user to adjust the date range of the search. The maximum search range is 3 months.

Right-clicking the mouse in the grid will open the [Context Menu](#).

Copy FIN	
Copy Order ID	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

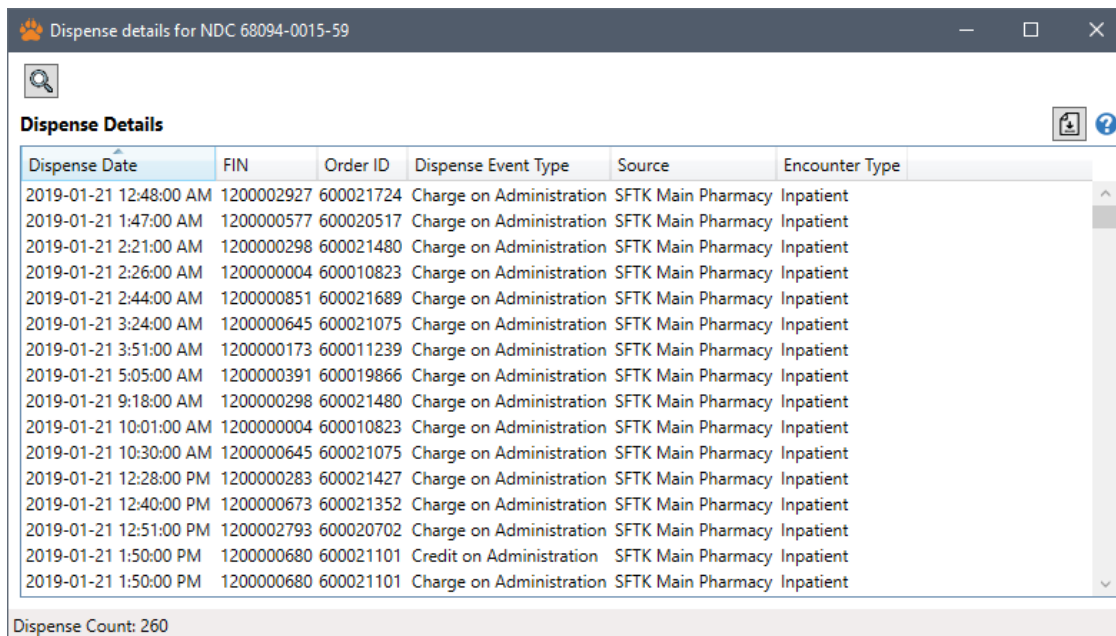
Figure 211: Formulary Compliance Details Context Menu

Menu Option	Description
Copy FIN	Copies the FIN to the clipboard.
Copy Order ID	Copies the order ID to the clipboard.
Export	Saves all items to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 76: Formulary Compliance Details Context Menu

9.4.7 Dispense Details Dialog

The NDC for the selected product is displayed in the title bar of the dialog. The dispense details for the last seven days are then displayed in the grid with totals being displayed under the grid. This data may take some time to retrieve; please note the loading icon in the lower right-hand corner of the dialog.



Dispense Date	FIN	Order ID	Dispense Event Type	Source	Encounter Type
2019-01-21 12:48:00 AM	1200002927	600021724	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 1:47:00 AM	1200000577	600020517	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 2:21:00 AM	1200000298	600021480	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 2:26:00 AM	1200000004	600010823	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 2:44:00 AM	1200000851	600021689	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 3:24:00 AM	1200000645	600021075	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 3:51:00 AM	1200000173	600011239	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 5:05:00 AM	1200000391	600019866	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 9:18:00 AM	1200000298	600021480	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 10:01:00 AM	1200000004	600010823	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 10:30:00 AM	1200000645	600021075	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 12:28:00 PM	1200000283	600021427	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 12:40:00 PM	1200000673	600021352	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 12:51:00 PM	1200002793	600020702	Charge on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 1:50:00 PM	1200000680	600021101	Credit on Administration	SFTK Main Pharmacy	Inpatient
2019-01-21 1:50:00 PM	1200000680	600021101	Charge on Administration	SFTK Main Pharmacy	Inpatient

Dispense Count: 260

Figure 212: Dispense Details Dialog

The search icon allows the user to adjust the date range of the search. The maximum search range is 3 months.

Right-clicking the mouse in the grid will open the [Context Menu](#). See [Figure 211](#).

9.4.8 NDC Lookup

The NDC Lookup section allows the user to search the data contained in Multum™ to see the expected HCPCS information. A full or partial NDC may be searched with or without dashes.

NDC Lookup					
NDC: 3883				Search	
NDC	NDC Obsolete Date	SI	Expected HCPCS	Expected Payment Rate	Expected HCPCS Quantity
00247-1388-30	2010-07-17				
00338-8302-69	2008-01-01	N	A4216		10 ML
00338-8303-70	2008-01-01	N	A4216		10 ML
00338-8303-72	2008-01-01	N	A4216		10 ML
00603-3883-02	2014-12-13				
00603-3883-20	2014-12-13				
00603-3883-21	2014-12-13				
00603-3883-22	2014-12-13				
00603-3883-28	2014-12-13				
00603-3883-32	2014-12-13				
00781-7138-83					
00904-3883-80	2001-01-01				
11917-0038-83					
12280-0388-30	2010-05-01				
24200-0388-36	2012-11-11				
49999-0388-30	2018-12-31				
50458-0388-30					
52569-0438-83	2006-02-09				
52959-0388-30					
54569-3883-00	2014-06-10				
58016-0388-30	2014-06-10				
60760-0388-30					
63874-0388-30	2014-06-10				
66993-0038-83		K	J1729	\$21.54	1 INJ HYDROXYPROGST CAPOAT NOS
67544-0388-30					
68115-0388-30	2010-05-01				

Figure 213: NDC Lookup

Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 214: Formulary Compliance NDC Lookup Menu

Menu Option	Description
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 77: Formulary Compliance NDC Lookup Context Menu

9.5. Implant Recall Control

The Implant Recall control provides a means for the user to search for usages of specific implants, to aid in the process of identifying surgeries involving recalled implants.

To view the Implant Recall control, select the *Implant Recall* item in the Domain Explorer (Figure 215).

In the upper left corner is the [Search button](#), which will launch the Search dialog. You must first define search criteria using the Search dialog in order to perform a search.

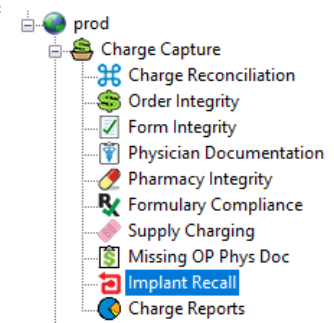


Figure 215: Domain Explorer

The image shows the 'Implant Recall' window with a search bar and an 'Email...' button. Below is a table with the following data:

Organization Name	Department	Surgical Area	Surgical Case	FIN	Manufacturer	Item Number	Catalog Number	Lot Nun
SFTK	Surgery	SURG	SURG-2012-1356	1300000001137	Depuy Joint Venture		3122040	3109356
SFTK	Surgery	SURG	SURG-2012-136	1300000001198	Synthes, Ltd. (usa)		214.832	
SFTK	Surgery	SURG	SURG-2012-136	1300000001222	Synthes, Ltd. (usa)		214.834	
SFTK	Surgery	SURG	SURG-2012-136	1300000001230	Synthes, Ltd. (usa)		242.808	
SFTK	Surgery	SURG	SURG-2012-136	1300000001229	Synthes, Ltd. (usa)		02.207.485	
SFTK	Surgery	SURG	SURG-2012-1410	1300000001853	Smith & Nephew Richards		71129240	
SFTK	Surgery	SURG	SURG-2012-1410	1300000001852	Smith & Nephew Richards		71129248	
SFTK	Surgery	SURG	SURG-2012-1410	1300000001831	Smith & Nephew Richards		124136	05bt872
SFTK	Surgery	SURG	SURG-2012-1410	1300000001854			7112-9242	
SFTK	Surgery	SURG	SURG-2012-1454	1300000001809	Synthes, Ltd. (usa)		204.85	
SFTK	Surgery	SURG	SURG-2012-1454	1300000001816	Synthes, Ltd. (usa)		202.84	
SFTK	Surgery	SURG	SURG-2012-1457	1300000001933	Atrium		85418	1067482
SFTK	Surgery	SURG	SURG-2012-1457	1300000001935	COOK MEDICAL		G10411	2460646
SFTK	Surgery	SURG	SURG-2012-1463	1300000001974	Synthes, Ltd. (usa)		204.828	
SFTK	Surgery	SURG	SURG-2012-1463	1300000001976	Synthes, Ltd. (usa)		214.84	

Figure 216: Implant Recall Control

To the upper right, there is an *Email...* button, which will launch a dialog allowing you to email the selected rows.

To the right of that is a *Export* icon. This allows you to save the currently displayed data in [CSV](#) or Excel® format.

When the Export button is clicked, the Windows “Save As” dialog will appear, prompting the user to select a name and location for the file. The grid data can also be selected and copied by using keyboard shortcuts or the context menu.

To view the context menu, select an item in the grid and right-click.

Menu Option	Description
Email...	Launches the Email Details dialog .
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 78: Implant Recall Context Menu

9.5.1 Search

The Search dialog allows the user to limit implant results by providing one or more [Universal Device Identifier \(UDI\)](#)s.

There can be at most one [Device Identifier](#) defined by the search criteria. Multiple [Production Identifiers](#) can be defined, and each should be placed on a separate line. At least one field must contain text.

The screenshot shows a window titled "Implant Recall" with a paw print icon. Inside, there are two input sections. The first is labeled "Device Identifier:" and contains a single text box with the value "42". The second is labeled "Production Identifiers:" and contains a multi-line text box with the values "645", "2342", and "3463" on separate lines. Both labels have a blue question mark icon to their right. At the bottom of the window are two buttons: "OK" and "Cancel".

Figure 217: Search dialog

9.5.2 Email Details

To send any number of records via email, select the records you wish to send, and click the *Email...* button or right-click and select *Email...* from the context menu.

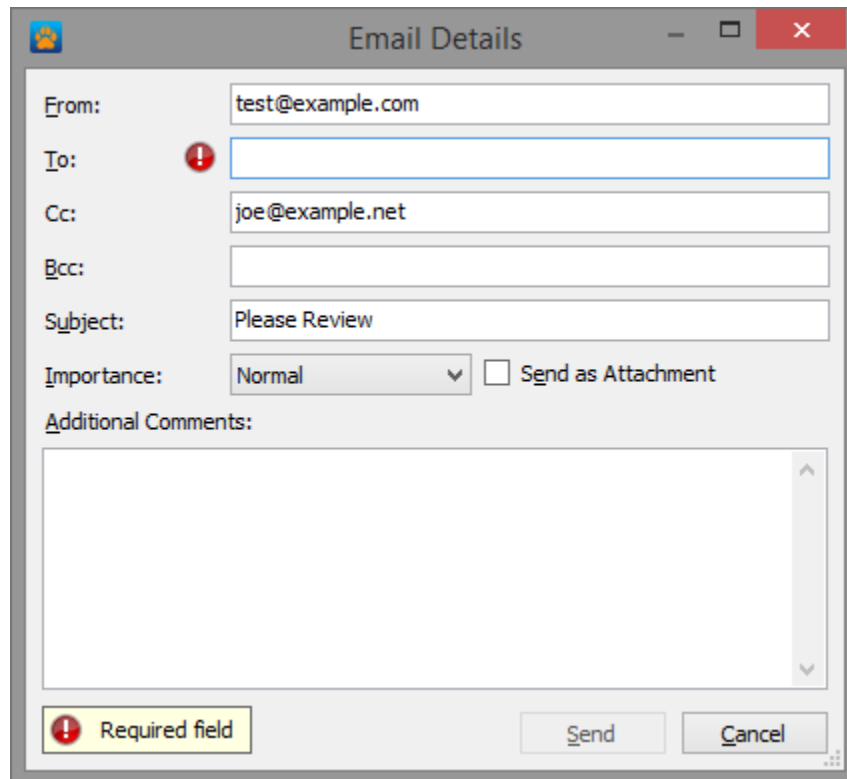
The image shows a Windows-style dialog box titled "Email Details". It has a standard title bar with a minimize button, a maximize button, and a close button (a red square with a white 'X'). The dialog contains several input fields: "From:" with the text "test@example.com", "To:" which is empty and has a red circular warning icon with a white exclamation mark to its left, "Cc:" with the text "joe@example.net", "Bcc:" which is empty, and "Subject:" with the text "Please Review". Below these is an "Importance:" dropdown menu set to "Normal" and a checkbox labeled "Send as Attachment" which is unchecked. At the bottom is a large text area labeled "Additional Comments:". In the bottom-left corner, there is a yellow rectangular warning box with a red circular icon and the text "Required field". In the bottom-right corner, there are two buttons: "Send" and "Cancel".

Figure 218: Email Details dialog

This will open the Email Details dialog ([Figure 218](#)) with the *From* field populated with your user email address (if you have set one up in Email Preferences) and the Subject filled in as "Recalled Implant Details".

In order to send the email, you are required to provide one or more email addresses in the *To* field separated by commas.

9.6. Missing OP Phys Doc Control

The Missing OP Phys Doc control shows the outpatient encounters in Millennium that have no documentation from physicians. This control does not make any modifications to the data in Millennium and does not interact with the billing system.

To view the Missing OP Phys Doc control, select the *Missing OP Phys Doc* item in the Domain Explorer (Figure 219).

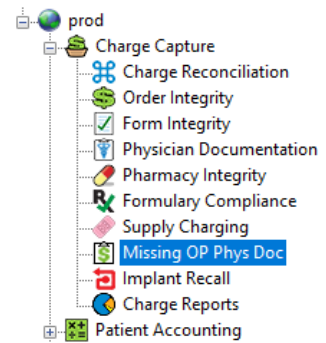


Figure 219: Domain Explorer

Facilities

The facilities view allows undocumented encounters to be viewed by facility. Clicking a tree on the left will show the [encounter list](#) for the selected item. The top level of the tree shows facilities. The second level of the tree shows med services. The third level of the tree shows nurse units. Each item in the tree shows the number of encounters without documentation in parenthesis.

The screenshot shows the 'prod > Charge Capture > Missing OP Phys Doc' view. The left pane shows a tree structure with 'Downtown (12)' expanded, showing 'Emergency Medicine (10)', 'E01 - Triage (1)', 'E10 (1)', 'E12 - Fast Trac (8)', and 'Physical Therapy (2)'. The 'E12 - Fast Trac (8)' item is selected. The right pane shows a table of encounters for 'Downtown > Emergency Medicine > _E12 - Fast Trac'. The table has columns: Facility, Med Service, Nurse Unit, Patient Name, Clinical Event Count, and Order. The table lists three encounters for 'Downtown' facility, 'Emergency Medicine' med service, and '_E12 - Fast Trac' nurse unit. Each encounter has a 'Reason for visit' of 'x' and 'Physicians Related' information.

Facility	Med Service	Nurse Unit	Patient Name	Clinical Event Count	Order
Downtown	Emergency Medicine	_E12 - Fast Trac	BUSTOS, SHIRLEY NICOLE	124	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					
Downtown	Emergency Medicine	_E12 - Fast Trac	IRVING, CHRISTINE JOY	103	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					
Downtown	Emergency Medicine	_E12 - Fast Trac	ROBERTSON, MICHELLE AJA	129	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					

Figure 220: Facilities

Med Services

The med service view allows undocumented encounters to be viewed by med service. Clicking a tree on the left will show the [encounter list](#) for the selected item. The top level of the tree shows med services. The second level of the tree shows Facilities. The third level of the tree shows nurse units. Each item in the tree shows the number of encounters without documentation in parenthesis.

prod > Charge Capture > Missing OP Phys Doc

Encounters Discharged: Yesterday

Facilities

Med Services

Physicians

Emergency Medicine (10)

Downtown (10)

_E01 - Triage (1)

_E10 (1)

_E12 - Fast Trac (8)

Physical Therapy (2)

Emergency Medicine > Downtown > _E12 - Fast Trac

Facility	Med Service	Nurse Unit	Patient Name	Clinical Event Count	Order
Downtown	Emergency Medicine	_E12 - Fast Trac	BUSTOS, SHIRLEY NICOLE	124	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					
Downtown	Emergency Medicine	_E12 - Fast Trac	IRVING, CHRISTINE JOY	103	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					
Downtown	Emergency Medicine	_E12 - Fast Trac	ROBERTSON, MICHELLE AJA	129	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					

Figure 221: Med Services

Physicians

The physician view allows undocumented encounters to be viewed by physician. Clicking a physician will show the [encounter list](#) containing encounters the physician is related to.

prod > Charge Capture > Missing OP Phys Doc

Encounters Discharged: Yesterday

Facilities		Med Services		Physicians			
Physician	Encounters	PADILLA, JOCELYN					
PADILLA, JOCELYN	10	Facility	Med Service	Nurse Unit	Patient Name	Clinical Event Count	Order C
SADLER MD, JESSICA	2	Downtown	Emergency Medicine	_E10	DELATORRE, WILLIAM KRIS	94	
CASH MD, DAVID	1	Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN ED Physician CASH MD, DAVID					
DUNHAM MD, SANDY	1	Downtown	Emergency Medicine	_E12 - Fast Trac	BUSTOS, SHIRLEY NICOLE	124	
FLEMING MD, LINDA	1	Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN					
MOHR, MARCEL	1	Downtown	Emergency Medicine	_E12 - Fast Trac	IRVING, CHRISTINE JOY	103	
THOMAS, MATTHEW	1	Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN					

Figure 222: Physicians

9.6.1 Encounter List

The encounter list shows outpatient encounters with no physician documentation for the selected item.

[Downtown](#) > [Emergency Medicine](#) > [_E12 - Fast Trac](#)

Facility	Med Service	Nurse Unit	Patient Name	Clinical Event Count	Order Count	Professional Charge Count	Technical
Downtown	Emergency Medicine	_E12 - Fast Trac	BUSTOS, SHIRLEY NICOLE	124	8	0	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN							
Downtown	Emergency Medicine	_E12 - Fast Trac	IRVING, CHRISTINE JOY	103	5	0	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN							
Downtown	Emergency Medicine	_E12 - Fast Trac	ROBERTSON, MICHELLE AJA	129	5	0	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician PADILLA, JOCELYN							
Downtown	Emergency Medicine	_E12 - Fast Trac	ROBINSON, WILLIAM EUGENE	143	6	0	
Reason for visit: x Physicians Related: Admitting Physician PADILLA, JOCELYN Attending Physician FLEMING MD, LINDA Attending Physician PADILLA, JOCELYN Physician Assistant MOHR, MARCEL							
Downtown	Emergency Medicine	_E12 - Fast Trac	CAREY, CYNTHIA ERICA	126	6	0	
Reason for visit: X Physicians Related: Admitting Physician PADILLA, JOCELYN							

Figure 223: Encounters

Links shown above the encounter list can be clicked to change the current view. (Figure 224).

[Downtown](#) > [Emergency Medicine](#) > [_E12 - Fast Trac](#)

Facility	Med Service	Nurse Unit	Patient Na

Figure 224: Bread Crumbs

The duration of an encounter may be highlight to indicate problems with the encounter. See table 79 for more details.

prod > Charge Capture > Missing OP Phys Doc

Encounters Discharged: Yesterday

Facilities

▲ Downtown (12)

▲ Emergency Medicine (10)

_E01 - Triage (1)

_E10 (1)

_E12 - Fast Trac (8)

▲ Physical Therapy (2)

PT (2)

Med Services

Downtown > Physical Therapy > PT

	FIN	Reg Date	Disch Date	Duration
48	40083607	2018-10-21 2:35:00 PM	2019-01-09 6:43:00 PM	80d 4h 8m 0s
73	40119981	2018-11-18 4:14:00 PM	2019-01-09 2:14:00 PM	51d 22h 0m 0s

Physicians

Figure 225: Highlighted Encounter Durations

Color	Description
Yellow	The duration for the was below 15 minutes. The patient may have left against medical advice and not received treatment.
Reds	The duration exceeded 24 hours. The encounter may need to be classified as inpatient.

Table 79: Missing OP Phys Doc Duration Highlighting Rules

From the encounter list, additional information for the encounter can be retrieved by clicking links in the count columns or by selecting an item from the context menu.

Right-clicking the mouse in the encounter list table will open the [Context Menu](#). See [figure 226](#).

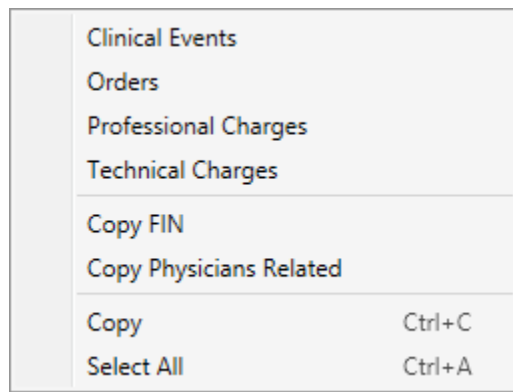


Figure 226: Missing OP Phys Doc Encounter List Context Menu

Menu Option	Description
Clinical Events	Navigates to the clinical events view for the selected row.
Orders	Navigates to the orders view for the selected row.
Professional Charges	Navigates to the professional charges view for the selected row.
Technical Charges	Navigates to the technical charges view for the selected row.
Copy FIN	Copies the FIN number of the selected row to the clipboard.
Copy Physicians Related	Copies the related physicians and relationships of the selected row to the clipboard.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed Departments.

Table 80: Missing OP Phys Doc Encounter List Context Menu

Clinical Events

The clinical event view displays all clinical events for the encounter.

Downtown > Physical Therapy > PT > SCHNEIDER, DAWN ALMA (40083607) Clinical Events									
Event ID	Order ID	Catalog Code	Event Title Text	Task Assay	Event Tag	Result Units	Result Time Units	Norma	
3376302485	0		PT Referring Physician	PT Referring Physician					
3376302491	0		PT Referring Physician Phone	PT Referring Physician Phone					
3376302495	0		PT Referring Physician Fax	PT Referring Physician Fax					
3376302497	0		OP PT Secondary Insurance Types	OP PT Secondary Insurance Types					
3376302503	0		PT Insurance Type	PT Insurance Type					
3376302505	0		PT Authorization Eval Required	PT Authorization Eval Required					
3376302511	0		PT Authorization Comments	PT Authorization Comments					
3376302513	0		PT Authorization Follow Up Required	PT Authorization Follow Up Required					
3376302517	0		OP PT need POC signed for auth	OP PT need POC signed for auth					
3376302483	0		PT Outpatient Authorization						
3376302479	0		OP Rehab PT Insurance						

Figure 227: Clinical Events

Orders

The orders view displays orders for the encounter with the status of *Complete*, *In Process*, *Ordered*, *Pending Complete*, or *Pending Review*.

Downtown > Physical Therapy > PT > SCHNEIDER, DAWN ALMA (40083607) Orders									
Order ID	Contributor System	Catalog Type	Catalog Code	Order Status	Order Mnemonic	Ordered as Mnemonic	HNA Order Mnemonic	Ori	
3459761027	PowerChart	Patient Care	OP PT POC Signature	Pending Complete	OP PT POC Signature	OP PT POC Signature	OP PT POC Signature	201	
3467083099	PowerChart	Patient Care	OP PT POC Signature	Ordered	OP PT POC Signature	OP PT POC Signature	OP PT POC Signature	201	
3500943379	PowerChart	Patient Care	OP PT Call to Schedule	Ordered	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3518135197	PowerChart	Patient Care	OP PT POC Signature	Ordered	OP PT POC Signature	OP PT POC Signature	OP PT POC Signature	201	
3474358099	PowerChart	Patient Care	OP PT Call to Schedule	Completed	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3474358053	PowerChart	Patient Care	OP PT Call to Schedule	Completed	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3474445579	PowerChart	Patient Care	OP PT Call to Schedule	Pending Complete	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3487065119	PowerChart	Patient Care	OP PT Call to Schedule	Completed	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3487065125	PowerChart	Patient Care	OP PT Call to Schedule	Completed	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3495348279	PowerChart	Patient Care	OP PT Call to Schedule	Completed	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	
3507945571	PowerChart	Patient Care	OP PT Call to Schedule	Completed	OP PT Call to Schedule	OP PT Call to Schedule	OP PT Call to Schedule	201	

Figure 228: Orders

Professional Charges

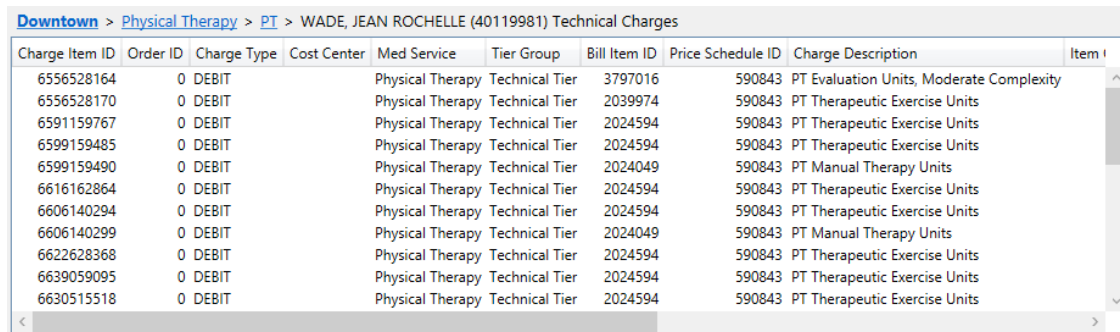
The professional charge view displays professional charges for the encounter. Professional charges are identified as any charge from a tier group with *PRO* in the tier group's name.

Downtown > Physical Therapy > PT > SCHNEIDER, DAWN ALMA (40083607) Professional Charges								
Charge Item ID	Order ID	Charge Type	Cost Center	Med Service	Tier Group	Bill Item ID	Price Schedule ID	Charge Description
6459629940	0	DEBIT		Physical Therapy	Professional Tier	3797016	590843	PT Evaluation Units, Moderate Comple
6459629945	0	DEBIT		Physical Therapy	Professional Tier	2039974	590843	PT Therapeutic Exercise Units
6501144550	0	DEBIT		Physical Therapy	Professional Tier	2024594	590843	PT Therapeutic Exercise Units
6501144555	0	DEBIT		Physical Therapy	Professional Tier	2024049	590843	PT Manual Therapy Units
6501144560	0	DEBIT		Physical Therapy	Professional Tier	2024439	590843	PT Hot, Cold Pack Units

Figure 229: Professional Charges

Technical Charges

The technical charge view displays technical charges for the encounter. Technical charges are identified as any charge from a tier group without *PRO* in the tier group's name.



Charge Item ID	Order ID	Charge Type	Cost Center	Med Service	Tier Group	Bill Item ID	Price Schedule ID	Charge Description	Item ID
6556528164	0	DEBIT		Physical Therapy	Technical Tier	3797016	590843	PT Evaluation Units, Moderate Complexity	
6556528170	0	DEBIT		Physical Therapy	Technical Tier	2039974	590843	PT Therapeutic Exercise Units	
6591159767	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	
6599159485	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	
6599159490	0	DEBIT		Physical Therapy	Technical Tier	2024049	590843	PT Manual Therapy Units	
6616162864	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	
6606140294	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	
6606140299	0	DEBIT		Physical Therapy	Technical Tier	2024049	590843	PT Manual Therapy Units	
6622628368	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	
6639059095	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	
6630515518	0	DEBIT		Physical Therapy	Technical Tier	2024594	590843	PT Therapeutic Exercise Units	

Figure 230: Technical Charges

9.6.2 Search

The Physician Documentation control provides the ability to provide search criteria to restrict its data by date range, encounter type, facility, and med service. The search icon displays a dialog that will allow the user to change the search criteria. (figure 231).

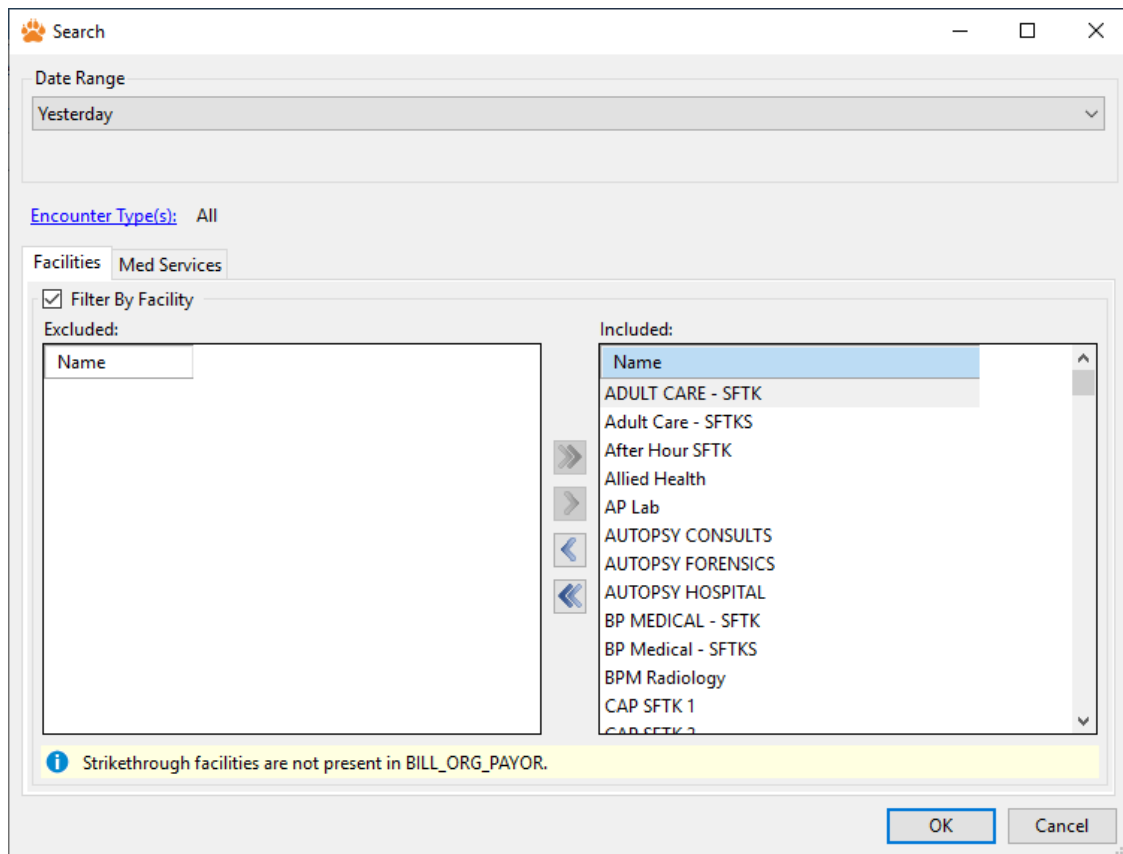


Figure 231: Search Dialog

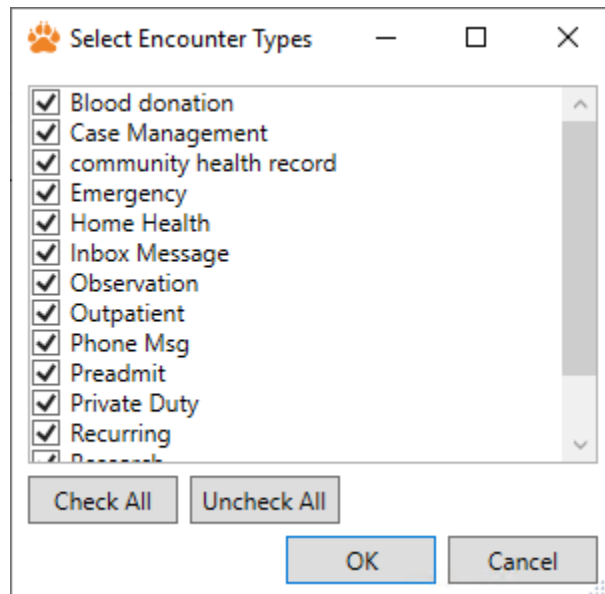


Figure 232: Select Encounter Types Dialog

In addition to preset data ranges, a custom date range can also be selected. However, due to the volume of data being analyzed, date ranges are limited to 31 days.

When a Facility is present in the “organization” table but not in the “BILL_ORG_PAYOR” table, it is denoted by a strikethrough.

The search criteria will apply to all tabs in the main control.



Search Hover help

The OP Phys Doc control provides additional information in the form of hover tooltips. Hover the mouse cursor over the Search Button to see the tooltip. See [figure 233](#).

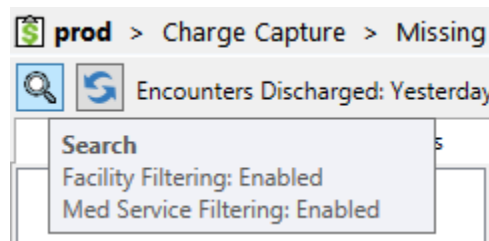


Figure 233: Hover criteria

9.7. Order Integrity Control

The Order Integrity control shows the recent orders and charges in Millennium and helps to ensure that orders result in charges. This control does not make any modifications to the data in Millennium and does not interact with the billing system.

To view the Order Integrity control, select the *Order Integrity* item in the Domain Explorer (Figure 234).

On the Order Integrity Control's main screen, and on its primary dialogs, there is an export icon. This allows you to save the currently displayed data in CSV or Excel® format.

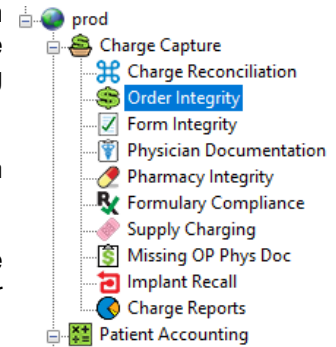


Figure 234: Domain Explorer



Patient Discharge Timing

Often times charges are held until the patient is discharged from the hospital. This is why, by default, the Order Integrity control only analyzes orders that have a “Completed” status for encounters that have a “Discharged” status. The search criteria can be changed to analyze “Completed” orders for “Active” encounters.

9.7.1 Orderable Summaries

Three orderable summary views are available at the top of the tree: Inconsistent, No Charge, and Posted. These views summarize the data within each department over the currently selected date range. If a department has no orderables in the summary category, that department will not show up in the grid. Ignored orderables are not included in the summary category counts. Double-clicking or selecting *View Department* from the context menu will select the department in the tree and select the view corresponding to the summary.

Inconsistent Orderable Summary

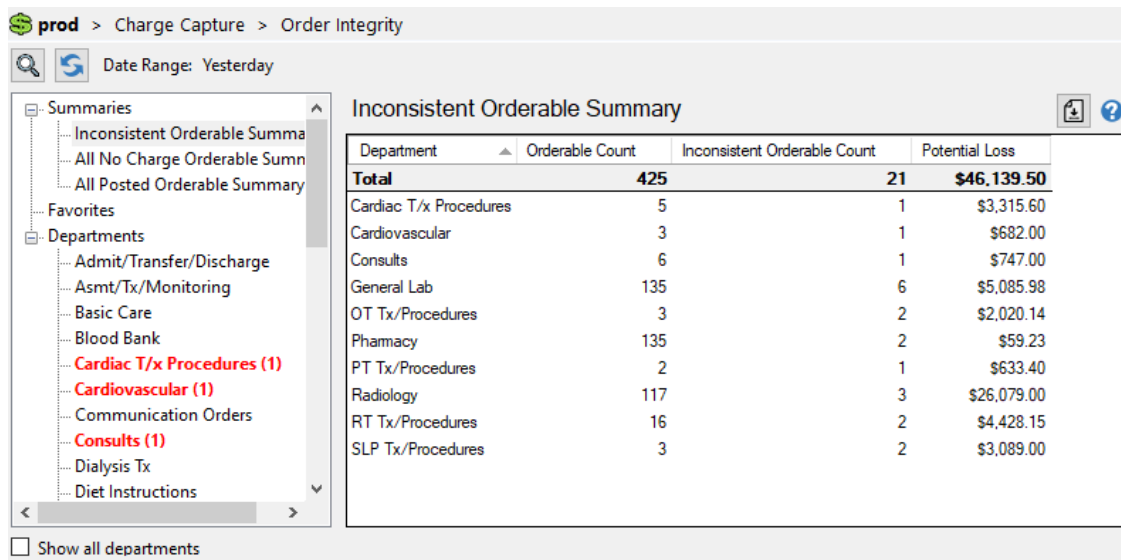


Figure 235: Inconsistent Orderable Summary

All No Charge Orderable Summary

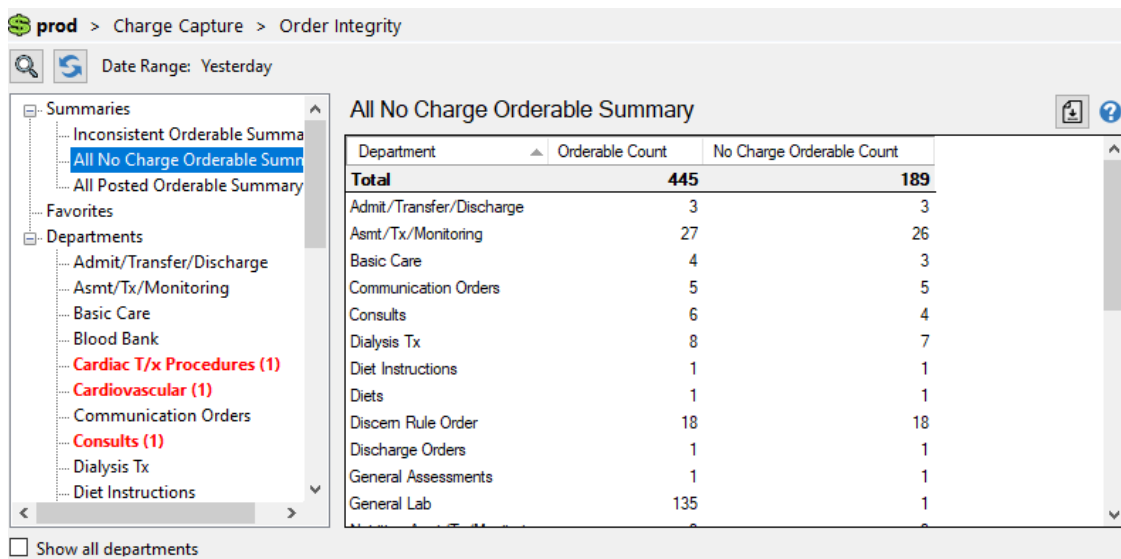
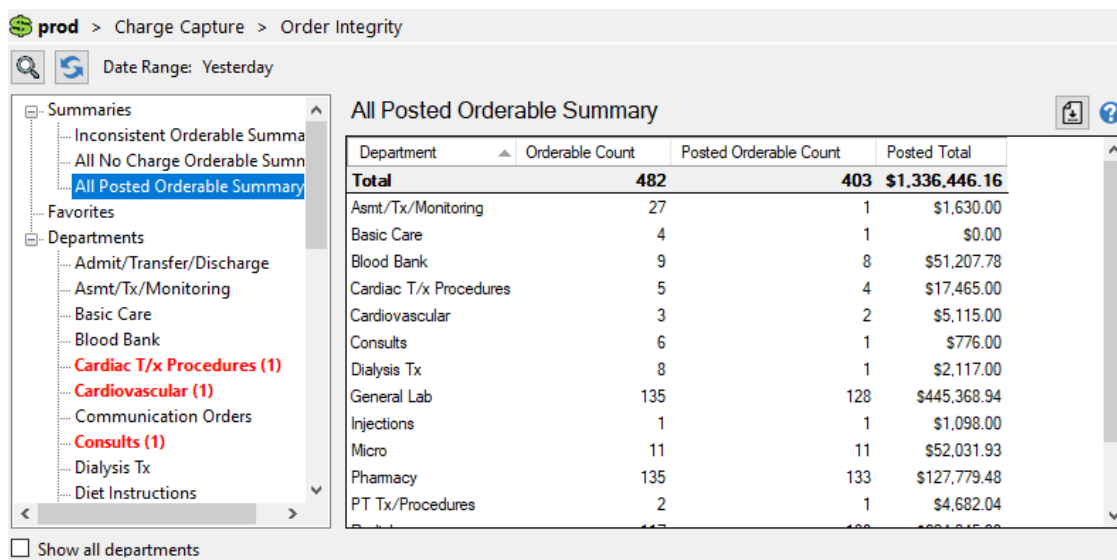


Figure 236: All No Charge Orderable Summary

All Posted Orderable Summary



Department	Orderable Count	Posted Orderable Count	Posted Total
Total	482	403	\$1,336,446.16
Asmt/Tx/Monitoring	27	1	\$1,630.00
Basic Care	4	1	\$0.00
Blood Bank	9	8	\$51,207.78
Cardiac T/x Procedures	5	4	\$17,465.00
Cardiovascular	3	2	\$5,115.00
Consults	6	1	\$776.00
Dialysis Tx	8	1	\$2,117.00
General Lab	135	128	\$445,368.94
Injections	1	1	\$1,098.00
Micro	11	11	\$52,031.93
Pharmacy	135	133	\$127,779.48
PT Tx/Procedures	2	1	\$4,682.04

Figure 237: All Posted Orderable Summary

Right-clicking the mouse in the Summary tables will open the Summary [Context Menu](#). See [figure 238](#).

Department	
Export...	Ctrl+S
Export All Departments...	Ctrl+Shift+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 238: Order Integrity Summary Context Menu

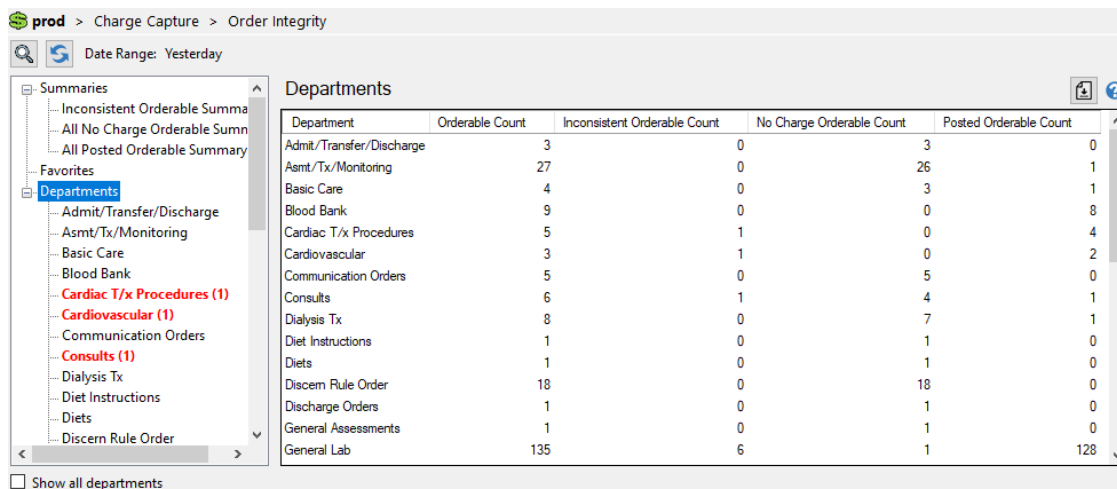
Menu Option	Description
Department	Navigates to the Department Summary table.
Export	Exports the data shown in the grid to a user-selected file.
Export All Departments	Exports all Orderables from all Departments that match the Orderable Status of the table. See table 82 for more details.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed Departments.

Table 81: Order Integrity Orderable Summary Context Menu

9.7.2 Department Summary

The *Departments* item in the tree shows a summary of orderable counts for each department as well as how many were classified as Inconsistent, No Charge, and Posted. Ignored orderables do not count toward the different categories but are still included in the overall orderable count for each department.

From the department summary view, more information about a single department can be retrieved by double-clicking the department or by selecting the *Department* context menu item. This will navigate to the Department Detail view.



Department	Orderable Count	Inconsistent Orderable Count	No Charge Orderable Count	Posted Orderable Count
Admit/Transfer/Discharge	3	0	3	0
Asmt/Tx/Monitoring	27	0	26	1
Basic Care	4	0	3	1
Blood Bank	9	0	0	8
Cardiac T/x Procedures	5	1	0	4
Cardiovascular	3	1	0	2
Communication Orders	5	0	5	0
Consults	6	1	4	1
Dialysis Tx	8	0	7	1
Diet Instructions	1	0	1	0
Diets	1	0	1	0
Discern Rule Order	18	0	18	0
Discharge Orders	1	0	1	0
General Assessments	1	0	1	0
General Lab	135	6	1	128

Figure 239: Order Integrity Department Summary

9.7.3 Department Detail

The tree contains a list of all of the departments. Selecting a department in the tree will show a summary of that department, containing all of the orderables for that department with orders matching the search criteria. Ignored orderables will not be shown in this view by default. A user may select the *View ignored orderables* checkbox to see any ignored orderables matching the other filter criteria.

Orders that only have offset charges will appear in the *Offset Charge* column and orders that only have statistics only charges will appear in the *Stats Only Count* column. These orders will not affect the status of the orderable unless all orders are offset or stats only, in which case the orderable will be considered posted.

From the department view, more information about a single orderable can be retrieved by double-clicking the orderable or by selecting the *Orders* context menu item. This will open the Orderable Details dialog.

prod > Charge Capture > Order Integrity

Date Range: Yesterday

Radiology

View: [Icons]

Orderable Name	Total Completed	Posted	No Charge	Offset Charge	Stats Only Count	Other	Average Price	Potential Loss
Total	462	443	19	0	0	0		\$26,079.00
BD BONE DENSITY DEXA HIPS/PELVIS/SPINE	8	8	0	0	0	0	\$692.00	\$0.00
CT ABDOMEN AND PELVIS W/ CONTRAST	17	15	2	0	0	0	\$7,928.00	\$15,856.00
CT ABDOMEN AND PELVIS W/O CONTRAST	11	10	1	0	0	0	\$6,863.00	\$6,863.00
CT ABDOMEN W/ + W/O CONTRAST	2	2	0	0	0	0	\$4,760.00	\$0.00
CT CERVICAL SPINE W/O CONTRAST	6	6	0	0	0	0	\$3,454.00	\$0.00
CT HEAD/BRAIN W/O CONTRAST	26	26	0	0	0	0	\$3,093.00	\$0.00
CT HEART W/O CON W/CORONARY CA EVAL	1	1	0	0	0	0	\$142.00	\$0.00
CT LOW DOSE LUNG WITHOUT CONTRAST	1	1	0	0	0	0	\$348.00	\$0.00
CT LOWER EXTREM W/ CONTRAST RT	1	1	0	0	0	0	\$3,396.00	\$0.00
CT MAXILLOFACIAL W/O CONTRAST	6	6	0	0	0	0	\$3,083.00	\$0.00
CT OUTSIDE IMAGE	4	0	4	0	0	0	\$0.00	\$0.00
CT PELVIS W/ CONTRAST	1	1	0	0	0	0	\$3,990.00	\$0.00
CT SOFT TISSUE NECK W/ CONTRAST	3	2	1	0	0	0	\$3,360.00	\$3,360.00

☐ Show all departments Displaying 117 of 117 item(s) ☐ View ignored orderables (0 ignored) Data no older than: 2020-10-28 11:50:18 AM

Figure 240: Order Integrity Department

By default, departments without orders are hidden from the tree. They can be shown by checking the *Show All Departments* checkbox. See [figure 241](#).

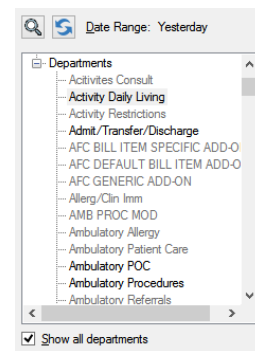


Figure 241: Show all departments

Users can use the context menu to *Ignore Orderable Status* and *Stop Ignoring Orderable Status*. Only users with the *Manage Order Integrity* privilege may perform these actions. Ignoring an orderable only ignores the current status. For example, if the orderable is in an All No Charge status when it is ignored, but is an Inconsistent status for a different date range, then it will not show as ignored when it has an Inconsistent status.

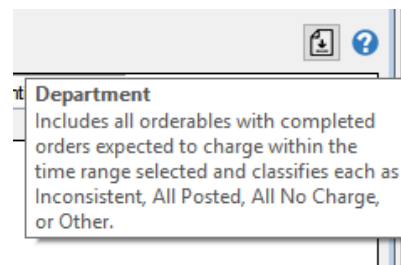
Department Views

The orderables grid for a department can be filtered using the *View* buttons above the orderables grid. The views filter on the status of each orderable row in the grid. See [table 82](#) for more details.

Image	Status	Description
	Inconsistent	An orderable is inconsistent when some of the orders resulted in Posted or Offset Charge charges and some resulted in No Charge.
	All No Charge	An order is classified as No Charge if there is not a corresponding charge. An orderable is classified as All No Charge when all orders are No Charge.
	All Posted	An order is classified as Posted when all corresponding charges have a posted status, or have been offset. An order is classified as Offset Charge when all corresponding charges for the order indicate that they have been offset. An orderable is classified as All Posted when all orders are Posted or Offset Charge.
	Other	An order is classified as Other when any of the corresponding charges that have not been offset, have a status that is not Posted. An orderable is classified as Other when it is not Inconsistent, and there is at least one order classified as Other.

Table 82: Orderable Statuses


Hover help
 The Order Integrity control provides additional information in the form of hover tooltips. Hover the mouse cursor over the question mark icon to see the tooltip. See [figure 242](#).



Favorites

The Order Integrity tree contains a section for favorites where departments can be pinned for easy access. Right click on a department in the tree to add or to remove it from favorites. Favorited departments will be visible regardless of whether they have any orders.

Figure 242: Hover help

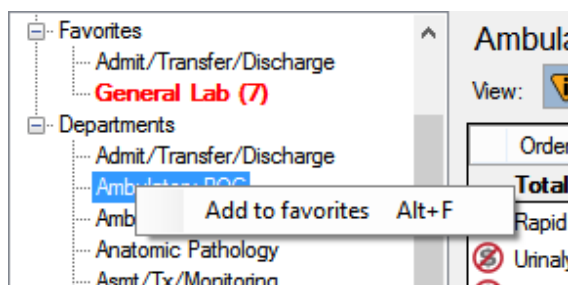


Figure 243: Add Favorite

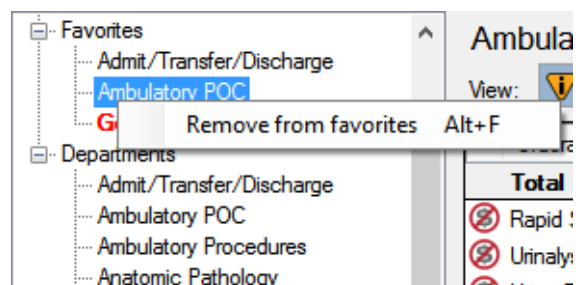
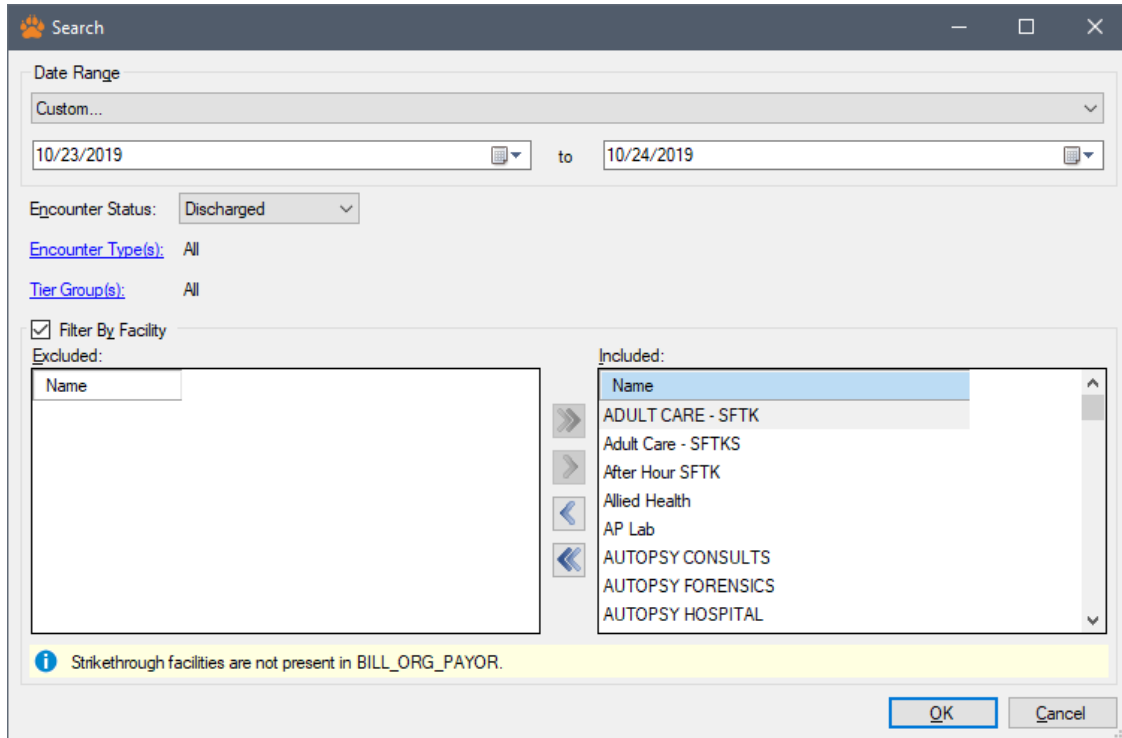


Figure 244: Remove Favorite

9.7.4 Searching

The Order Integrity control provides the ability to search by date range, encounter status, encounter type, tier group, and facility. The search icon displays a dialog that will allow the user to change these criteria. (figure 245).



The image shows a 'Search' dialog box with the following fields and options:

- Date Range:** A dropdown menu set to 'Custom...'. Below it, two date pickers show '10/23/2019' and '10/24/2019' with a 'to' separator.
- Encounter Status:** A dropdown menu set to 'Discharged'.
- Encounter Type(s):** A dropdown menu set to 'All'.
- Tier Group(s):** A dropdown menu set to 'All'.
- Filter By Facility:** A checked checkbox.
- Excluded:** A list box with a header 'Name' and an empty list.
- Included:** A list box with a header 'Name' and a list of facilities: ADULT CARE - SFTK, Adult Care - SFTKS, After Hour SFTK, Allied Health, AP Lab, AUTOPSY CONSULTS, AUTOPSY FORENSICS, and AUTOPSY HOSPITAL.
- Message:** A yellow banner at the bottom states: 'Strikethrough facilities are not present in BILL_ORG_PAYOR.'
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Figure 245: Search Filters Dialog

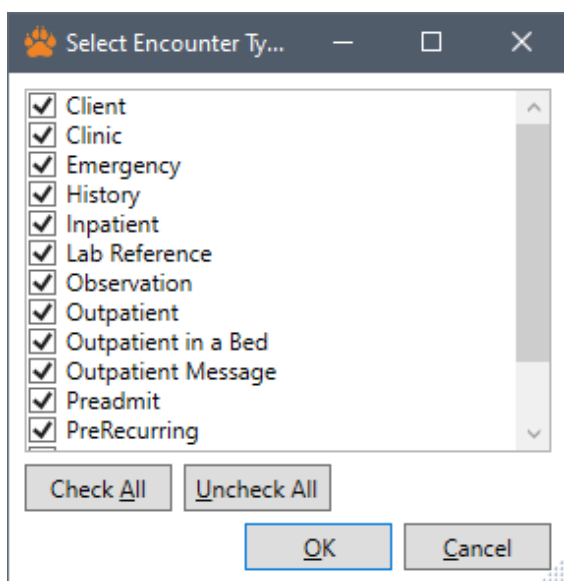


Figure 246: Select Encounter Types Dialog

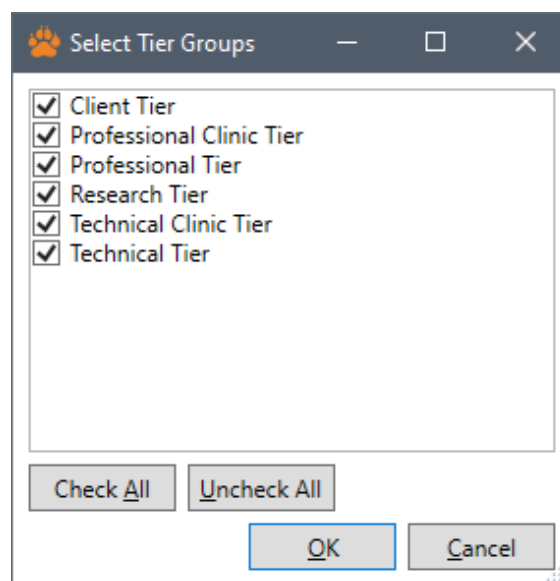


Figure 247: Select Tier Groups Dialog

In addition to preset data ranges, a custom date range can also be selected. However, due to the volume of data being analyzed, date ranges are limited to 31 days.

When a Facility is present in the “organization” table but not in the “BILL.ORG.PAYOR” table, it is denoted by a strikethrough.

The search criteria used will apply to the summary data seen in the main control as well as the data seen within the Orderable Details dialog.



Search Hover help

The Order Integrity control provides additional information about the current search in the form of hover tooltips. Hover the mouse cursor over the Search Button to see the tooltip. See [figure 248](#).

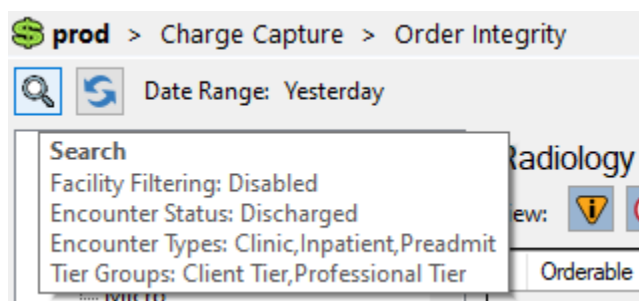


Figure 248: Hover criteria

9.7.5 Orderable Details

The top grid shows a breakdown of the statuses for the orders that match the search criteria.

The Charge Comparison tree on the left highlights differences between No Charge orders and the rest of the visible orders. All values for No Charge orders are displayed under each field. If none of the other orders have the same value it will be denoted by bold, red text. If a Facility is present in the “organization” table, but is absent from the “bill_org_payor” table, it is denoted with a strikethrough. This can be used to help identify build issues.

Item attributes in the main grid which match one of the bolded attributes in the Charge Comparison tree will also be bolded.

Flag icons indicate the order has offset charges. Stats Only icons indicate the order has statistics only charges. Offset and Stats Only charges are not reflected in the *Charge Count* column. Additional details about these orders/charges can be viewed in the Order Details or Encounter Order Details dialog.

The Order Details dialog is accessible from the Orderable Details screen by double-clicking on an order row in the grid or by selecting *View Details For Order* in the context menu.

The Encounter Details dialog is accessible by selecting *View Orders For Encounter ID* in the context menu, see [figure 250](#).

General Lab Orderable Details - Potassium, Whole Blood

Status Breakdown

Total	No Charge	Posted	Other
156	2	154	0

Order Details

No Charge Comparison ? View: [Icons]

Location: LOC5 - 1 (50%)
LOC1 - 1 (50%)

Charge Count	Order Price	Original Order Date	Organization
0	\$0.00	2019-02-25 7:57:00 PM	Medical Cer
0	\$0.00	2019-02-25 9:02:00 PM	Medical Cer
0	\$0.00	2019-02-25 12:06:28 AM	Medical Cer
0	\$0.00	2019-02-25 12:15:26 AM	Medical Cer
0	\$0.00	2019-02-25 12:17:58 AM	Medical Cer
0	\$0.00	2019-02-25 12:20:56 AM	Medical Cer
0	\$0.00	2019-02-25 12:35:23 AM	Medical Cer
0	\$0.00	2019-02-25 12:47:28 AM	Medical Cer
0	\$0.00	2019-02-25 12:48:22 AM	Medical Cer
0	\$0.00	2019-02-25 1:21:11 AM	Medical Cer
0	\$0.00	2019-02-25 1:30:33 AM	Medical Cer
0	\$0.00	2019-02-25 1:33:26 AM	Medical Cer
0	\$0.00	2019-02-25 1:41:48 AM	Medical Cer
0	\$0.00	2019-02-25 1:44:09 AM	Medical Cer

Displaying 156 of 156 item(s) Data no older than: 2019-02-26 9:26:11 AM

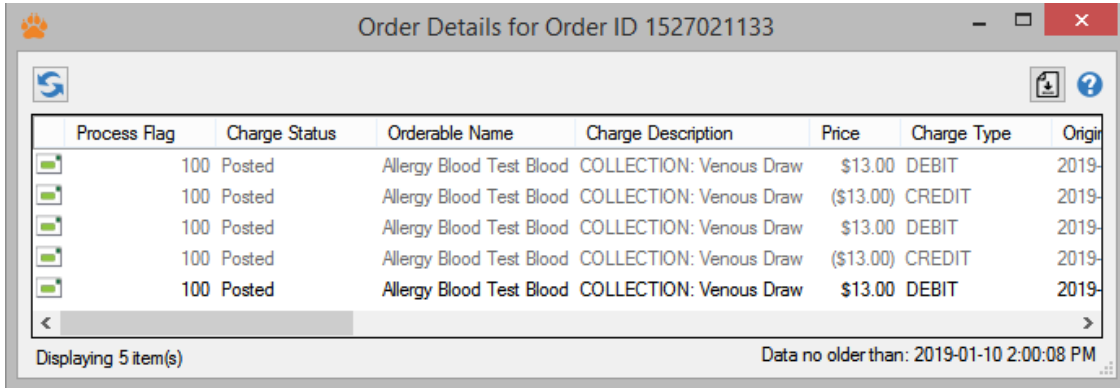
Figure 249: Orderable Details

Details for Order	
Orders for Encounter	
Copy FIN	
Copy Order ID	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 250: Order Integrity Department Context Menu

9.7.6 Order Details

The Order Details dialog shows all charges for the order selected from the Orderable Details dialog. Gray text indicates an offset or stats only charge.



Process Flag	Charge Status	Orderable Name	Charge Description	Price	Charge Type	Origin
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	\$13.00	DEBIT	2019-
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	(\$13.00)	CREDIT	2019-
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	\$13.00	DEBIT	2019-
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	(\$13.00)	CREDIT	2019-
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	\$13.00	DEBIT	2019-

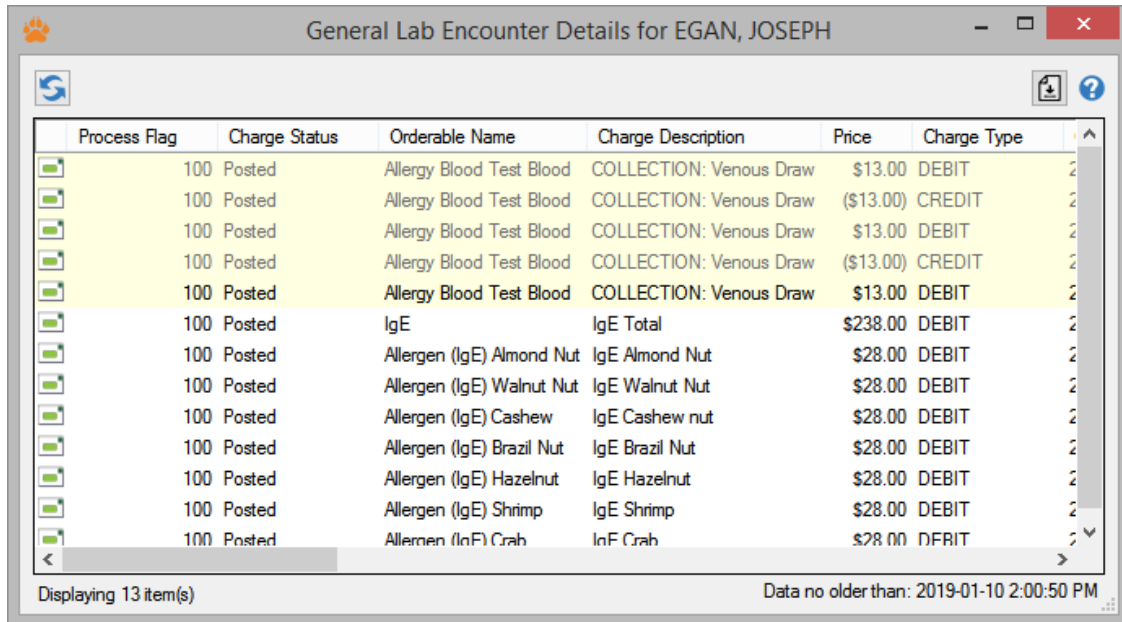
Displaying 5 item(s) Data no older than: 2019-01-10 2:00:08 PM

Figure 251: Order Details

9.7.7 Encounter Order Details

The Encounter Order Details dialog shows all orders/charges for a patient within the department and date range that match the Encounter ID of the order selected from the Orderable Details dialog.

The colored rows indicate which order was selected when the dialog was launched. Gray text indicates an offset or stats only charge.



Process Flag	Charge Status	Orderable Name	Charge Description	Price	Charge Type
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	\$13.00	DEBIT
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	(\$13.00)	CREDIT
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	\$13.00	DEBIT
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	(\$13.00)	CREDIT
100	Posted	Allergy Blood Test Blood	COLLECTION: Venous Draw	\$13.00	DEBIT
100	Posted	IgE	IgE Total	\$238.00	DEBIT
100	Posted	Allergen (IgE) Almond Nut	IgE Almond Nut	\$28.00	DEBIT
100	Posted	Allergen (IgE) Walnut Nut	IgE Walnut Nut	\$28.00	DEBIT
100	Posted	Allergen (IgE) Cashew	IgE Cashew nut	\$28.00	DEBIT
100	Posted	Allergen (IgE) Brazil Nut	IgE Brazil Nut	\$28.00	DEBIT
100	Posted	Allergen (IgE) Hazelnut	IgE Hazelnut	\$28.00	DEBIT
100	Posted	Allergen (IgE) Shrimp	IgE Shrimp	\$28.00	DEBIT
100	Posted	Allergen (IgE) Crab	IgE Crab	\$28.00	DEBIT

Displaying 13 item(s) Data no older than: 2019-01-10 2:00:50 PM

Figure 252: Patient Order Details

9.8. Pharmacy Integrity Control

The Pharmacy Integrity control shows charge discrepancies, documentation discrepancies, and shrinkage for pharmacy. The control analyzes all encounters discharged within the specified date range which have associated pharmacy orders. This control does not make any modifications to the data in Millennium, and does not interact with the billing system.

For in depth information about how calculations are done, see [Appendix F](#).

To view the Pharmacy Integrity control, select the *Pharmacy Integrity* item, under the *Charge Capture* item, in the Domain Explorer ([Figure 253](#)).

There are two icons in the upper right-hand corner of the Pharmacy Integrity control. These are the Export button, and the Help icon.

The Export button allows you to save the currently displayed data in a CSV (comma-separated values) or XLSX (Microsoft Excel® workbook) format. When the Export button is clicked, the Windows “Save As” dialog will appear, prompting the user to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

The Help icon provides additional information about the data currently being viewed. Hover the mouse cursor over the question mark icon to see an informational tooltip describing the data displayed.

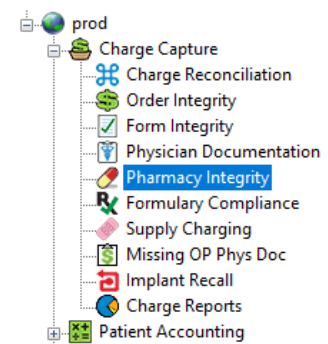


Figure 253: Domain Explorer



Rounding Information

The Pharmacy Integrity control rounds costs, prices, and quantities to two decimal places. Therefore, if a value is less than 0.005 it will show as 0.00.

9.8.1 Pharmacy Integrity Main Control

When the control is loaded, the default date range will be “Yesterday,” and the other criteria used will be based on user preferences. The main control will show the Pharmacy Summary once data is retrieved and analyzed. This control may take time to load; please note the spinning blue loading icon which will appear in the upper left-hand corner of the control, where the Pharmacy Integrity icon normally is.

To determine whether an order is administered or not administered, and whether a drug is dispensed or returned, Panther references a list of defined codes, which can be configured by Panther Support.

By default, all orders with a status of Administered are counted as Administered.

By default, the following codes are considered to be Dispensed:

- Cart Doses
- Device Ad Hoc
- Device Dispense
- Device Dispense
- Device Override

- Device Override
- Dispense
- Dispense Count
- Dispense update
- Dispenses / Day
- Early Refill
- Extra Dose
- Extra Refill
- Fill List
- First Doses
- Initial Doses
- Late Refill
- Next Dose

By default, the following codes are considered to be Not Administered:

- Early/Late Reason
- Expired Medication
- Form/Form Match
- Inactive Order Found
- Incompatible Drug Form
- Incompatible Drug Form Route
- Incompatible Ingredients
- Incorrect Volume
- Med Interval Alert
- Med Interval Override
- Med Not Identified
- Medication Scan Override
- Missing Diluent
- No Order In System
- No Route Form Checking Performed
- No Task in Time Range
- Not Administered/Task Purged
- Not Done
- Not Given
- Overdose

- Past Task Match
- Patient Mismatch
- Patient Not Identified
- PPID Override
- Pump Program and Documentation mismatch
- Synonym Mismatch
- Task Not Found
- Underdose

By default, the following codes are considered to be Returned:

- Cancel Fill
- Device Empty Return
- Device Return
- Fill Credit
- Manual Reverse
- Pharmacy Return
- Void Fill

Pharmacy Summary

The Pharmacy Summary breaks the data down by drug class, and shows how many drugs within each class have charge discrepancies, documentation discrepancies, and shrinkage. The Total row will show the total of each column. Each link will show the drug detail for the drug class and type of discrepancy selected. If a link is selected in the Total row, it will show drugs within all drug classes for the type of discrepancy selected.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary

Drug Class	Charge Discrepancy Count	Charge Discrepancy	Documentation Discrepancies	Shrinkage Count	Shrinkage
Total	61	(\$111,286.68)	416	342	\$613,856.51
0	59	(\$111,236.93)	391	321	\$611,349.91
2	1	(\$19.75)	9	9	\$781.62
3	0	\$0.00	3	2	\$11.83
4	1	(\$30.00)	11	9	\$1,699.30
5	0	\$0.00	2	1	\$13.85

Encounters Discharged: Last 7 Days Data no older than: 2019-01-08 9:44:42 AM

Figure 254: Pharmacy Summary

Right-clicking the mouse in the Pharmacy Summary grid will open the Summary [Context Menu](#). See [Figure 255](#).

Charge Discrepancy Summary	
Documentation Discrepancy Summary	
Shrinkage Summary	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 255: Pharmacy Integrity Summary Context Menu

Menu Option	Description
Charge Discrepancy Summary	Navigates to the Charge Discrepancy Summary grid.
Documentation Discrepancy Summary	Navigates to the Documentation Discrepancy Summary grid.
Shrinkage Summary	Navigates to the Shrinkage Summary grid.
Export	Saves the data displayed in the grid to a user-specified file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 83: Pharmacy Integrity Summary Context Menu

Charge Discrepancy Summary

The Charge Discrepancy Summary lists all drugs for the selected drug class which have charge discrepancies, and how many encounters there are with discrepancies per drug. A charge discrepancy occurs when the actual number of charges or the actual charge total vary from what the tool calculates as the expected charge count and the expected charge total. The last column is the Charge Discrepancy, which is the difference between the actual and expected charge totals. To see details about the encounters for a drug, double-click the row, or right-click on the row and select and “*Mnemonic Charges*” in the context menu. Both of these options will navigate to the Charge Details for the selected drug.

prod > Charge Capture > Pharmacy Integrity						
Pharmacy Summary > Charge Discrepancy Summary						
Mnemonic	Encounters with Discrepancies	Expected Charges	Actual Charges	Expected Charge Total	Actual Charge Total	Charge Discrepancy
Total	747	380	1624	\$217,393.11	\$116,831.43	(\$100,561.68)
albuterol	8	0	9	\$0.00	\$27.00	\$27.00
azaCITIDine	1	35	25	\$44,409.15	\$32,374.15	(\$12,035.00)
bendamustine	1	14	4	\$70,429.82	\$86.00	(\$70,343.82)
ceftriaXone	9	28	45	\$1,134.75	\$1,615.75	\$481.00
chlorhexidine topical	1	7	7	\$40.25	\$28.75	(\$11.50)
CisPlatin	1	15	14	\$1,534.00	\$2,873.50	\$1,339.50
cyanocobalamin	1	0	2	\$0.00	\$41.00	\$41.00
dexamethasone	22	0	36	\$0.00	\$720.00	\$720.00
Dextrose 10% in Water	1	3	2	\$72.75	\$43.50	(\$29.25)
diphth/tetanus/pertussis/polio/haemophilus (DTaP-IPV/Hib)	21	3	35	\$600.00	\$945.43	\$345.43
diphtheria/tetanus/pertussis (DTaP) vaccine	10	0	20	\$0.00	\$489.11	\$489.11
diphtheria/tetanus/pertussis/hepB/polio (DTaP-HepB-IPV)	33	0	66	\$0.00	\$1,721.07	\$1,721.07
diphtheria/tetanus/pertussis/hepB/polio (DTaP-IPV)	6	0	12	\$0.00	\$370.74	\$370.74

Figure 256: Charge Discrepancy Summary

Right-clicking the mouse in the grid will open the Charge Discrepancy Summary [Context Menu](#). See [Figure 257](#).

Drugs with one or more encounters for which there was an administration of a drug with a funding source marked as ignored will be indicated with an icon in the “Has Administration(s) from Ignored Funding Sources” column, and the said administrations will not be included in the Expected Charge Count or Expected Charge Total calculations.

Mnemonic Charges	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 257: Pharmacy Integrity Charge Discrepancy Summary Context Menu

Menu Option	Description
Mnemonic Charges	Navigates to the details grid for mnemonic's charge discrepancies.
Export	Saves the data displayed in the grid to a user-specified file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 84: Pharmacy Integrity Summary Context Menu

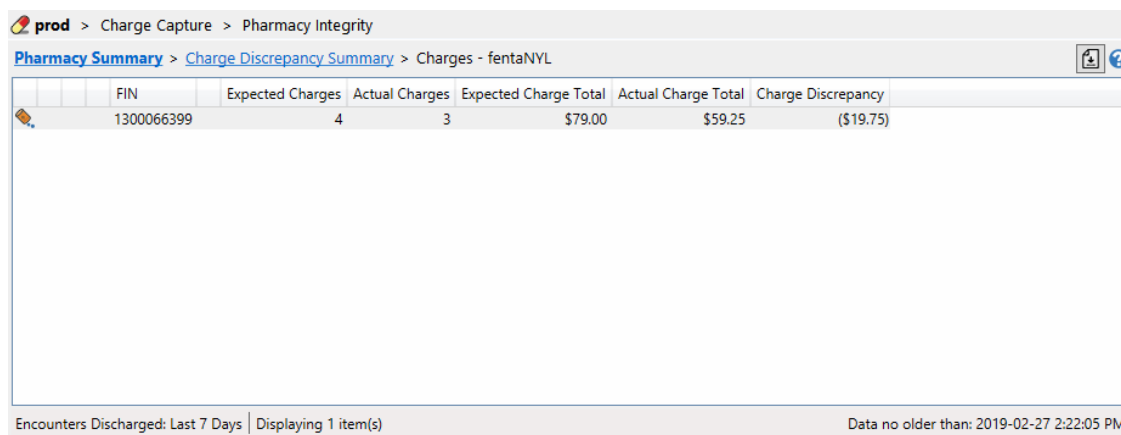
Charge Details

When viewing the charge details for a drug, the breadcrumb bar just above the grid will be updated to include the drug name selected. The grid will be updated to show all of the encounters with charge discrepancies for the selected drug and the breakdown of charges and totals for each. The first four columns indicate whether the same encounter also has each type of documentation discrepancy.

Image	Discrepancy Type	Description
	Unaccounted	This type of discrepancy occurs when the net quantity dispensed exceeds the quantity administered.
	Invalid	This type of discrepancy usually occurs when the quantity administered exceeds the quantity dispensed. Not administered and returned also affect this calculation. This type of discrepancy can also occur if the quantity returned exceeds the quantity dispensed.
	Undocumented Return	When a drug is returned, there should be corresponding documentation in the patient's chart indicating that the drug was not given to the patient. This type of discrepancy indicates that this documentation was not completed.
	Calculation Error	When our tool is unable to determine if the quantities dispensed and administered are equivalent, then the encounter is marked as having a calculation error. For example, this can happen if the dispense is documented in mg, but the administration is documented in puffs.

Table 85: Documentation Discrepancy Types

To see details about a specific encounter, double-click the row, or right-click on it and select “*Encounter Detail*” from the context menu (Figure 259). See [Section 9.8.2](#) for more information about the Encounter Details dialog.



prod > Charge Capture > Pharmacy Integrity						
Pharmacy Summary > Charge Discrepancy Summary > Charges - fentaNYL						
	FIN	Expected Charges	Actual Charges	Expected Charge Total	Actual Charge Total	Charge Discrepancy
	1300066399	4	3	\$79.00	\$59.25	(\$19.75)

Encounters Discharged: Last 7 Days | Displaying 1 item(s) | Data no older than: 2019-02-27 2:22:05 PM

Figure 258: Charge Details

Right-clicking the mouse in the detail grids will open the Detail [Context Menu](#).

Encounter Detail	
Copy FIN	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 259: Pharmacy Integrity Detail Context Menu

Menu Option	Description
Encounter Detail	Navigates to the <i>Encounter Details</i> dialog.
Copy FIN	Copies the FIN to the clipboard.
Export	Saves the data displayed in the grid to a user-specified file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 86: Pharmacy Integrity Detail Context Menu

Documentation Discrepancy Summary

The Documentation Discrepancy Summary lists all drugs with documentation discrepancies for the selected drug class, and the number of encounters with each type of documentation discrepancy. There are four types of documentation discrepancies. See [Table 85](#) for more details.

prod > Charge Capture > Pharmacy Integrity					
Pharmacy Summary > Documentation Discrepancy Summary					
Mnemonic	Drug Class	Encounters with Unaccounted for Disposes	Encounters with Invalid Administrations	Encounters with Undocumented Returns	Encounters with Calculation Issues
dexmedetomidine	0	1	0	0	0
Dextrose 10% in Water	0	0	2	0	0
Dextrose 10% with 0.225% NaCl	0	1	0	0	0
dextrose 5% with 0.45% NaCl and potassium chloride 10 mEq/L	0	1	0	0	0
dextrose 5% with 0.45% NaCl and potassium chloride 20 mEq/L	0	4	2	0	0
diatrizoate	0	0	13	0	0
diltiazem	0	1	0	0	1
diphenhydramine	0	6	1	2	0
diphth/tetanus/pertussis/polio/haemophilus (DTaP-IPV/HiB)	0	0	8	0	0
diphtheria/tetanus/pertussis (DTaP) vaccine	0	0	2	0	0
diphtheria/tetanus/pertussis/hepB/polio (DTaP-HepB-IPV)	0	0	6	0	0
diphtheria/tetanus/pertussis/polio (DTaP-IPV)	0	0	2	0	0
DOBUTamine	0	1	0	0	0

Encounters Discharged: Yesterday | Displaying 181 item(s) | Drug Class: 0

Data no older than: 2019-02-27 2:39:27 PM

Figure 260: Documentation Discrepancy Summary for Drug Class 2

To get more detail, click the link for the drug and discrepancy type of interest to show the encounters with that type of discrepancy.

Right-clicking the mouse in the grid will open the Documentation Discrepancy Summary [Context Menu](#). See [Figure 261](#).

Calculation Issues	
Invalid Administrations	
Unaccounted for Dispenses	
Undocumented Returns	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 261: Pharmacy Integrity Documentation Discrepancy Summary Context Menu

Menu Option	Description
Calculation Issues	Navigates to the Calculation Issues details grid.
Invalid Administrations	Navigates to the Invalid Administrations details grid.
Unaccounted for Dispenses	Navigates to the Unaccounted for Dispenses details grid.
Undocumented Returns	Navigates to the Undocumented Returns details grid.
Export	Saves the data displayed in the grid to a user-specified file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 87: Pharmacy Integrity Documentation Discrepancy Summary Context Menu

Documentation Discrepancy Details

When viewing the discrepancy details for the selected drug and type of documentation discrepancy, the grid will be updated to show all of the encounters for the selected drug with the selected type of discrepancy. The FIN for each encounter will be shown, along with the total quantities dispensed and administered for each encounter. Dispense columns are grouped by a blue background, and administration columns are grouped by a yellow background. If there is an additional grouping of columns about the discrepancy, they will have a pink background. The last column indicates whether the encounter also has a charge discrepancy. To see details about a specific encounter, the row can be double-clicked, or the row can be right-clicked and "Encounter Detail" can be selected ([Figure 253](#)). See [Section 9.8.2](#) for more information about the Encounter Details dialog.

Encounters with Unaccounted

When viewing the encounters with unaccounted dispenses, the grid will contain the quantity which is unaccounted for, and the cost of the unaccounted drugs. These columns are grouped by a pink background. The Unaccounted Cost is the amount it would cost the hospital to replace the unaccounted quantity based on the price schedules defined. Additionally, there will be an Anesthesia Administered column displaying the quantity of the drug which was administered during anesthesia. This does not affect the unaccounted calculation as anesthesia drugs should be dispensed from a special cart and the dispenses will not be visible in this control.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary > Documentation Discrepancy Summary > Encounters with Unaccounted - LORazepam

FIN	Dispensed	Returned	Net Dispensed	Administered	Administered on Dispense	Total Administered	Not Administered	Unaccounted	Unaccounted Cost	Anesthesia Administered	Charge Discrepancy
1300157921	14.00 mg		14.00 mg	7.50 mg		7.50 mg	0.50 mg	6.00 mg	\$5.79		\$0.00
1300828812	6.00 mg	6.00 mg	2.00 mg			2.00 mg		4.00 mg	\$3.86		\$28.00
1300063437	2.00 mg	2.00 mg	0.50 mg			0.50 mg		1.50 mg	\$1.45		\$0.00
1300225809	2.00 mg	2.00 mg	0.50 mg			0.50 mg		1.50 mg	\$1.45		\$28.00
1300422100	4.00 mg	4.00 mg	2.00 mg			2.00 mg		2.00 mg	\$1.93		\$0.00
1300291269	2.00 mg	2.00 mg	1.00 mg			1.00 mg		1.00 mg	\$0.96		\$0.00
1300515200	2.00 mg	2.00 mg						2.00 mg	\$1.93		\$0.00
1300129234	2.00 mg	2.00 mg						2.00 mg	\$1.93		\$0.00

Encounters Discharged: Last 14 Days | Displaying 8 item(s) Data no older than: 2021-11-02 11:44:34 AM

Figure 262: Encounters with Unaccounted - LORazepam

Encounters with Invalid Administrations

When viewing the encounters with invalid administrations, the grid will contain the quantity considered to be invalid. This column will have a pink background.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary > Documentation Discrepancy Summary > Encounters with Invalid Administrations - fentaNYL

FIN	Dispensed	Returned	Net Dispensed	Administered	Administered on Dispense	Total Administered	Not Administered	Invalid	Charge Discrepancy
1300546234	1400.00 mcg	300.00 mcg	1100.00 mcg	400.00 mcg	700.00 mcg	1200.00 mcg	1900.00 mcg	1600.00 mcg	\$0.00
1300828812	2200.00 mcg	300.00 mcg	1900.00 mcg	1250.00 mcg	700.00 mcg	1950.00 mcg		50.00 mcg	\$0.00

Encounters Discharged: Last 7 Days | Displaying 2 item(s) Data no older than: 2019-02-27 2:45:30 PM

Figure 263: Encounters with Invalid Administrations - fentaNYL

Encounters with Undocumented Returns

When viewing the encounters with undocumented returns, there are no additional columns added to the grid.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary > Documentation Discrepancy Summary > Encounters with Undocumented Returns - fentaNYL

FIN	Dispensed	Returned	Net Dispensed	Administered	Administered on Dispense	Total Administered	Not Administered	Charge Discrepancy
1300828812	2200.00 mcg	300.00 mcg	1900.00 mcg	1250.00 mcg	700.00 mcg	1950.00 mcg		\$0.00
1300900686	200.00 mcg	100.00 mcg	100.00 mcg	50.00 mcg		50.00 mcg		\$0.00
1300772257	100.00 mcg	100.00 mcg	0.00 0					\$0.00
1300228942	200.00 mcg	100.00 mcg	100.00 mcg		100.00 mcg	100.00 mcg		\$0.00
1300267648	400.00 mcg	100.00 mcg	300.00 mcg		200.00 mcg	200.00 mcg		\$0.00
1300359315	1550.00 mcg	100.00 mcg	1450.00 mcg	600.00 mcg	250.00 mcg	850.00 mcg		\$0.00
1300276602	100.00 mcg	100.00 mcg	0.00 0					\$0.00
1300917876	1100.00 mcg	100.00 mcg	1000.00 mcg	600.00 mcg		600.00 mcg		\$0.00
1300391203	200.00 mcg	100.00 mcg	100.00 mcg					\$0.00
1300846528	100.00 mcg	100.00 mcg	0.00 0					\$0.00
1300259093	200.00 mcg	100.00 mcg	100.00 mcg					\$0.00

Encounters Discharged: Last 7 Days | Displaying 11 item(s) | Data no older than: 2019-02-27 2:45:30 PM

Figure 264: Encounters with Undocumented Returns - fentaNYL

Encounters with Calculation Issues

When viewing the encounters with calculation issues, the grid will not include the net and total columns as these calculations may not be able to be performed depending on the type of calculation issue.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary > Documentation Discrepancy Summary > Encounters with Calculation Issues - fentaNYL

FIN	Dispensed	Returned	Administered	Not Administered	Charge Discrepancy
1300116558	8350.00 mcg; 1250.00 mcg/275.00 mL		1100.00 mL; 1000.00 mcg		\$0.00
1300257546	9800.00 mcg; 2500.00 mcg/550.00 mL	200.00 mcg	1050.00 mcg; 2200.00 mL		\$0.00
1300622245	2200.00 mcg/550.00 mL; 100.00 mcg		133.30 mL; 3.50 mcg		\$0.00
1300194663	2500.00 mcg/300.00 mL; 1500.00 mcg		825.00 mL		\$0.00
1300036344	13550.00 mcg; 15000.00 mcg/1800.00 mL	100.00 mcg	450.00 mcg; 3350.00 mL		\$0.00
1300487597	23750.00 mcg; 2500.00 mcg/550.00 mL		5225.00 mL		\$0.00
1300070889	450.00 mcg; 5000.00 mcg/600.00 mL		150.00 mcg; 275.00 mL		\$0.00

Encounters Discharged: Last 7 Days | Displaying 7 item(s) | Data no older than: 2019-02-27 2:12:09 PM

Figure 265: Encounters with Calculation Issues - fentaNYL

Shrinkage Summary

The Shrinkage Summary lists all drugs with shrinkage for the selected drug class. Shrinkage is the total amount of drugs that are unaccounted for or wasted. The Shrinkage Summary also shows the cost to the hospital for these drugs. This can be used to determine if there is potential training or stocking changes that can be completed to result in less shrinkage. The summary will also show how many encounters have shrinkage for each drug. To see details about the encounters for a drug, double-click the row, or right-click it and select "Mnemonic Shrinkage" from the context menu.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary > Shrinkage Summary

Mnemonic	Drug Class	Encounters with Shrinkage	Shrinkage Cost	Shrinkage	Wasted Cost	Wasted	Unaccounted Cost	Unaccounted
Total		314	\$781.62		\$21.13		\$760.49	
fentaNYL	2	122	\$176.37	10725.85 mcg	\$1.68	137.45 mcg	\$174.69	10588.40 mcg
HYDROcodone-acetaminophen	2	18	\$66.72	8.00 tabs; 147.64 mg	\$0.00		\$66.72	8.00 tabs; 147.64 mg
HYDROmorphine	2	4	\$26.84	60.00 mg/150.00 mL; 2.00 mg	\$0.00		\$26.84	60.00 mg/150.00 mL; 2.00 mg
methadone	2	2	\$7.27	15.78 mg	\$1.49	10.00 mg	\$5.78	5.78 mg
morphine	2	136	\$377.84	2929.76 mg	\$8.69	76.00 mg	\$369.15	2853.76 mg
oxyCODONE	2	14	\$71.94	372.50 mg	\$9.27	50.00 mg	\$62.67	322.50 mg
oxyCODONE-acetaminophen	2	11	\$19.55	15.00 tabs	\$0.00		\$19.55	15.00 tabs
Premix Sodium Chloride 0.9%	2	1	\$4.15	300.00 mL	\$0.00		\$4.15	300.00 mL
SUFentanil	2	6	\$30.95	400.00 mcg	\$0.00		\$30.95	400.00 mcg

Encounters Discharged: Last 7 Days | Displaying 10 item(s) | Drug Class: 2

Data no older than: 2019-02-27 2:45:30 PM

Figure 266: Shrinkage Summary Drug Class 2

Right-clicking the mouse in the summary grids will open the Shrinkage Summary [Context Menu](#). See [Figure 267](#).

Mnemonic Shrinkage	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 267: Pharmacy Integrity Shrinkage Summary Context Menu

Menu Option	Description
Mnemonic Shrinkage	Navigates to the Shrinkage Details grid.
Export	Saves the data displayed in the grid to a user-specified file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 88: Pharmacy Integrity Shrinkage Summary Context Menu

Shrinkage Details

When viewing the shrinkage details for a drug, the grid will be updated to show all of the encounters with shrinkage for the selected drug, and the breakdown of unaccounted and wasted for each. To see details about a specific encounter, double-click the row, or right-click the row and select "Encounter Detail" ([Figure 253](#)). See [Section 9.8.2](#) for more information about the Encounter Details dialog.

prod > Charge Capture > Pharmacy Integrity

Pharmacy Summary > Shrinkage Summary > Shrinkage - fentaNYL

FIN	Shrinkage Cost	Shrinkage	Wasted Cost	Wasted	Unaccounted Cost	Unaccounted
1300117905	\$1.30	125.85 mcg	\$0.13	12.45 mcg	\$1.17	113.40 mcg
1300570548	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300215007	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300406637	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300622489	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300645686	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300660698	\$0.45	50.00 mcg	\$0.00		\$0.45	50.00 mcg
1300361149	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300023397	\$3.30	300.00 mcg	\$0.00		\$3.30	300.00 mcg
1300818831	\$0.45	50.00 mcg	\$0.00		\$0.45	50.00 mcg
1300440436	\$1.34	100.00 mcg	\$0.00		\$1.34	100.00 mcg
1300078471	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300512408	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg
1300248022	\$0.67	50.00 mcg	\$0.00		\$0.67	50.00 mcg

Encounters Discharged: Last 7 Days | Displaying 122 item(s) | Data no older than: 2019-02-27 2:45:30 PM

Figure 268: Shrinkage Details

Search Criteria

Search criteria can only be changed when viewing the top-level Pharmacy Summary grid and affects all data shown in the control. To open the Search Filters dialog, click the search button in the upper left corner of the control. The available criteria are Date Range, Encounter Types, and Facilities. The Date Range criteria specifies the discharge dates to be searched. There are several preconfigured options, or a Custom option to allow a user configured date range. The maximum date range allowed is 14 days. The control will automatically adjust start and end dates to not exceed this constraint. The default date range when the control is loaded is Yesterday. The currently selected date range is shown in the lower-left corner of the main control.

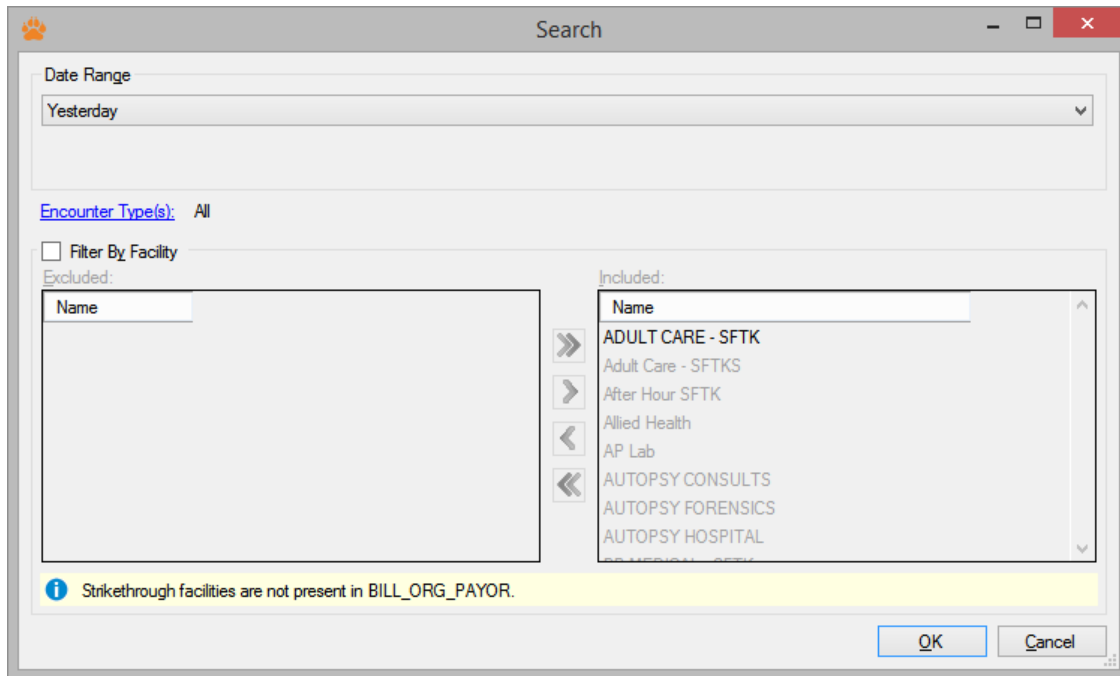


Figure 269: Pharmacy Integrity Search Dialog

The Encounter Types criteria initially defaults to All. Once a user changes this criteria, it will be saved as a user preference, and will be used each time the user loads the control. To change the encounter types selected, click the “Encounter Type(s)” link to open the Select Encounter Types dialog. The Check All and Uncheck All buttons select all and deselect all encounter types respectively. Selecting the box next to an encounter type will select or deselect the specific encounter type. At least one encounter type must be selected. To apply changes, click OK. To leave the Encounter Type(s) criteria unchanged, click Cancel.

There are two components to the facility search criteria. The first is the Filter by Facility checkbox. This indicates whether or not the include/exclude lists should be included in the search criteria. The default is for the Filter by Facility checkbox to be unchecked. Once a user changes this criteria, it will be saved as a user preference and will be used each time the user loads the control, along with the facilities specified in the include/exclude list. The second is the actual selection of facilities. By default, all facilities will appear in the Included list, which means they will be included in the search criteria. To exclude or include specific facilities adjust the Excluded and Included lists appropriately. The single right arrow will move the selected item(s), and the double right arrow, all items, from the Excluded list to the Included list. The single left arrow will move the selected item(s), and the double left arrow, all items, from the Included list to the Excluded list. When a facility is present in the “ORGANIZATION” table, but is not in the “BILL_ORG.PAYOR” table, it is denoted by a strikethrough.

To apply the new search criteria, click the OK button; to discard changes to the search criteria, select Cancel. When OK is selected, the control will begin loading data using the newly specified search criteria. The loading icon will appear in the upper left-hand corner of the control while new data is loaded. While data is loading, search and refresh icons are disabled.



Search Criteria Hover

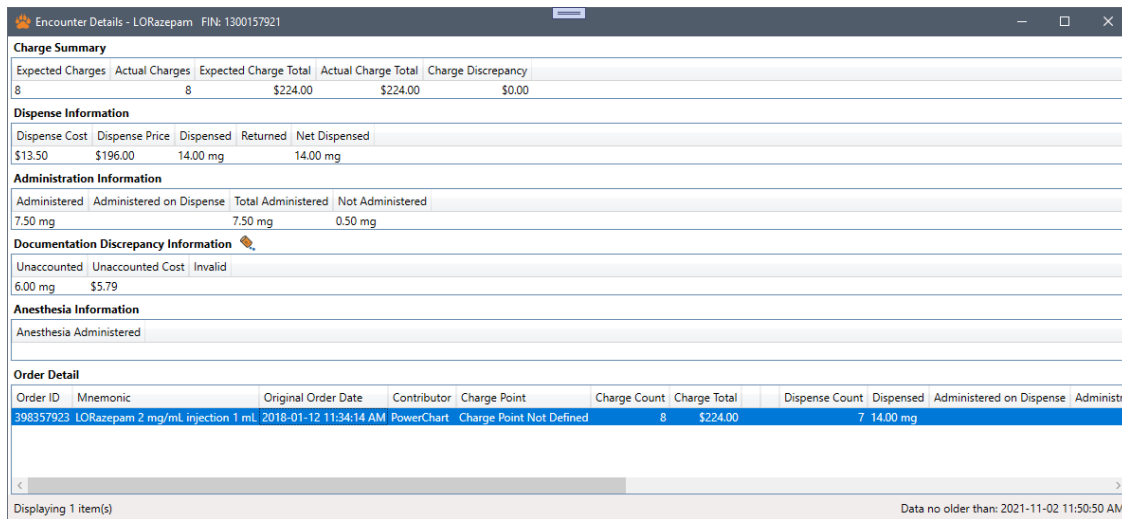
Hover the mouse over the search icon instead of clicking it to see a tooltip with some detail about the current search criteria.

Refresh

The refresh icon can be used at the Pharmacy Summary level to update the data displayed in the control using the defined search criteria. Depending on the criteria, this may take a while. Please note the loading icon in the upper left-hand corner of the control. Data will not be automatically refreshed on this control.

9.8.2 Encounter Details Dialog

The selected encounter's drug mnemonic and FIN are displayed in the title bar of the dialog. The content of the dialog is broken down into six sections. When the dialog loads, the first five sections will be populated. However, the Order Details section must acquire more data before being populated. Please note the loading icon in the upper right-hand corner. This indicates the *Order Detail* section is still loading. The first section is the *Charge Summary* which gives a summary of the charges for the encounter and will indicate if there is a charge discrepancy. The *Dispense Information* gives a high level aggregate of the dispenses for the encounter. The *Administration Information* section gives a high level aggregate of the administrations for the encounter. The *Documentation Discrepancy Information* section identifies any documentation discrepancies on the encounter. The *Anesthesia Information* section gives a high level aggregate of the anesthesia administrations for the encounter. These administrations are not included in any calculations and are presented for informational purposes only. The *Order Detail* section lists all the orders for the selected mnemonic for the encounter and a breakdown of charges, dispenses, and administrations for each order. To view more detail about a specific order, double-click the row, or right-click and select "Order Detail" in the context menu. See [Figure 271](#).



Encounter Details - LORazepam FIN: 1300157921										
Charge Summary										
Expected Charges	Actual Charges	Expected Charge Total	Actual Charge Total	Charge Discrepancy						
8	8	\$224.00	\$224.00	\$0.00						
Dispense Information										
Dispense Cost	Dispense Price	Dispensed	Returned	Net Dispensed						
\$13.50	\$196.00	14.00 mg		14.00 mg						
Administration Information										
Administered	Administered on Dispense	Total Administered	Not Administered							
7.50 mg		7.50 mg	0.50 mg							
Documentation Discrepancy Information										
Unaccounted	Unaccounted Cost	Invalid								
6.00 mg	\$5.79									
Anesthesia Information										
Anesthesia Administered										
Order Detail										
Order ID	Mnemonic	Original Order Date	Contributor	Charge Point	Charge Count	Charge Total	Dispense Count	Dispensed	Administered on Dispense	Administered
398357923	LORazepam 2 mg/mL injection 1 mL	2018-01-12 11:34:14 AM	PowerChart	Charge Point Not Defined	8	\$224.00	7	14.00 mg		
Displaying 1 item(s)										
Data no older than: 2021-11-02 11:50:50 AM										

Figure 270: Encounter Details Dialog

Order Detail	
Copy Order ID	
Copy	Ctrl+C
Select All	Ctrl+A

Figure 271: Pharmacy Integrity Encounter Detail Context Menu

Menu Option	Description
Order Detail	Navigates to the <i>Order Details</i> dialog.
Copy Order ID	Copies the order ID to the clipboard.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 89: Pharmacy Integrity Encounter Detail Context Menu

9.8.3 Order Details Dialog

The Order Details Dialog contains the Order ID and the drug mnemonic in the title bar. The content of the dialog is broken into four sections. The *Charge Details* section shows all actual charges counted for the specific order and their detail. The *Dispense Details* section shows all dispenses and returns counted for the order and their detail. To see more detail about the ingredients dispensed, select the row for a dispense. An additional detail row will appear to show details about the ingredients dispensed. To hide the detail row, CTRL + Click the row to deselect it. The *Administration Details* section lists all administrations counted for the order, including administered and not administered events and details about these events. The *Anesthesia Administration Details* section lists all anesthesia administrations for the order.

Order ID: 398357923Mnemonic: LORazepam 2 mg/mL injection 1 mL

Charge Details

Process Flag	Charge Description	Price	Posted Date	Service Date	HCPCS
100	LORazepam 2 mg/mL injection 1 mL	\$28.00	2018-01-12 5:35:28 PM	2018-01-12 5:35:00 PM	J2060
100	LORazepam 2 mg/mL injection 1 mL	\$28.00	2018-01-12 9:43:10 PM	2018-01-12 9:43:00 PM	J2060
100	LORazepam 2 mg/mL injection 1 mL	\$28.00	2018-01-13 10:04:24 AM	2018-01-13 10:04:00 AM	J2060

Dispense Details

Dispense History ID	Dispense Type	Dispense Event Type	Date	Quantity	Location	Source	Dispensed By
7867920	Dispense	Device Dispense	2018-01-12 5:00:19 PM	2.00 mg	CT45	CT45	SYSTEM, SYSTEM
7884130	Dispense	Device Dispense	2018-01-13 9:59:47 AM	2.00 mg	CT45	CT45	SYSTEM, SYSTEM
7896511	Dispense	Device Dispense	2018-01-14 3:41:47 AM	2.00 mg	CT45	CT45	SYSTEM, SYSTEM
7912894	Dispense	Device Dispense	2018-01-14 8:40:57 PM	2.00 mg	CT45	CT45	SYSTEM, SYSTEM

Administration Details

Med Admin Event ID	Administration Type	Begin Date	End Date	Event Tag	Quantity	Nurse Unit	Administered By
12812957	Administered		2018-01-12 5:35:00 PM	0.5 mg	0.50 mg	PEDS 4 SOUTH	JOHNSON, RODNEY
12817833	Administered		2018-01-12 9:43:00 PM	0.5 mg	0.50 mg	PEDS 4 SOUTH	CATRON, MARK
12821365	Administered		2018-01-13 4:36:00 AM	0.5 mg	0.50 mg	PEDS 4 SOUTH	CATRON, MARK

Anesthesia Administration Details

Begin Date	End Date	Event Tag	Quantity	Administered By

Data no older than: 2021-11-02 11:50:50 AM

Figure 272: Order Details Dialog

9.9. Physician Documentation Control

The Physician Documentation control is an interactive tool to help reconcile physician notes and professional fees. The tool attempts to automatically associate physician notes with charges then allows you to manually correct the associations.

To view the Physician Documentation control, select the *Physician Documentation* item in the domain explorer ([Figure 273](#)).

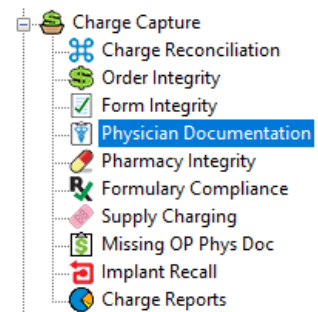


Figure 273: Domain Explorer

To the upper left of the control is the Search button, and the Refresh button. The first time you load the control, you will need to specify the search criteria before any data will load. On subsequent visits to the control, if you have set a default search it will automatically populate the Search dialog with those settings, and all you need to do to run that same search will be click the Refresh button. Click the Search button to load the [Search dialog](#) and set the search criteria. The Refresh button will only be enabled after data has been loaded. Clicking on it will cause the a new search to be issued using the current search criteria.

There is an input box and two icons in the upper right-hand corner of the Physician Documentation control. These are the FIN search box, Export button, and the Help icon.

The FIN search box will limit the data displayed to only encounters with a FIN that contains the specified number.

The Export button allows you to save the currently displayed data in a [CSV](#) or Excel® format. When the Export button is clicked, the Windows “Save As” dialog will appear, prompting you to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

The Help icon provides additional information about the data currently being viewed. Hover the mouse cursor over the question mark icon to see an informational tooltip describing the data displayed.

9.9.1 Searching

The Physician Documentation Control provides the ability to search based on selected date range, clinical documentation type (a.k.a. note type), facility, physician group, physician, tier matrix, activity type, entry mode, and encounter type. The lists of selected facilities, and physician groups are empty by default. If there is a warning icon on a tab, that means that criteria needs to be selected on that tab before the search can be performed. ([Figure 274](#)) The search type will affect how the date range is applied. ([Table 90](#))

Search Type	Description
Discharged Encounters	Filters data to only include patient encounters that were discharged in the selected date range.
Notes	Filters data to only show physician notes that were performed in the selected date range.
Charges	Filters data to only show charges with a service date in the selected date range.

Table 90: Physician Documentation Search Types



Search Displays the Current Criteria

When opened, the Search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.

The Physician Documentation Control supports Preset Searches, where you can save sets of search criteria. To load a saved search preset, click on the name of the preset in the list along the left side of the dialog. To save changes to the current preset search, click the “Save” button. To save the current criteria as a new search preset, click the “Save As...” button. To delete a preset search, click the “Delete” button.

To set the current search criteria as your default search, check the “Use these search options by default” checkbox before performing the search. Even if the default search criteria has been set, you will need to click the “Refresh” button after loading the Physician Documentation control. This allows for a chance to change the search criteria if the default search criteria is taking a long time to load.

Figure 274: Search Dialog

The Encounter Types criteria initially defaults to All. Once a user changes this criteria, it will be saved as a user preference and will be used each time the user loads the control. To change the encounter types selected, click the “Encounter Type(s)” link to open the Select Encounter Types dialog. (Figure 275) The Check All and Uncheck All buttons select all and deselect all encounter types respectively. Selecting the box next to an encounter type will select or deselect the specific encounter type. At least one encounter type must be selected. To apply changes, click OK. To leave the Encounter Type(s) criteria unchanged, click Cancel.

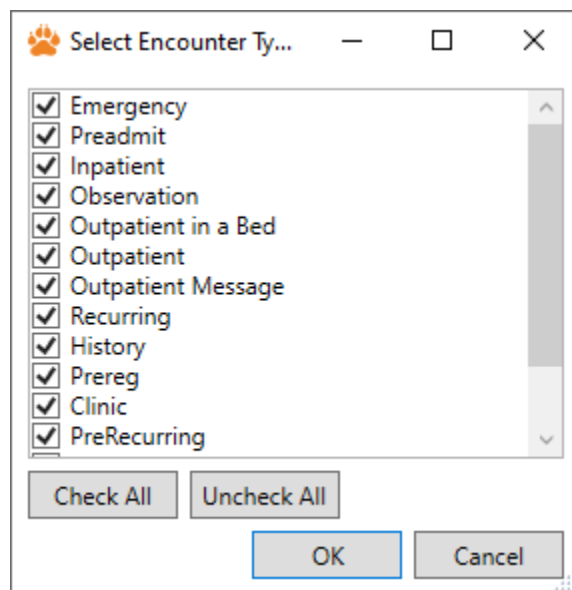


Figure 275: Select Encounter Types Dialog

The Clinical Documentation Types are all included by default. Once a user changes this criteria, it will be saved as a user preference and will be used each time the user loads the control. To change the Clinical Documentation Types selected, click the “Clinical Documentation Types” link to open the Clinical Documentation Types dialog. (Figure 276)

The Clinical Documentation Types dialog contains a tree of the documentation types and sub-types. Within the Millennium database, types may be defined as being an event. Types which are not marked as events are indicated with folders. Types which are marked as events are indicated with a note icon. A Note’s type could be defined by either an event type or a non-event type. For that reason, a type with sub-types may be included in the search criteria independently from the types beneath them in the tree. If you uncheck everything beneath a type, it will remain checked until you purposefully uncheck it as well.

Some hospitals may on occasion create a new Note with a Clinical Documentation Type that is not currently marked as Active. For that reason, all Clinical Documentation Types are shown as options for the search criteria. If a Clinical Documentation Type is not marked as Active, it will be shown in grey, italicized text.

Typing in the textbox at the top of the dialog will filter the Clinical Documentation Types shown in the dialog to those which have a matching name, or have a type descending from them which has a matching name. The Check All and Uncheck All buttons select all and deselect all Clinical Documentation Types, visible and non-visible. The Hide Checked checkbox, if checked, will hide all types in the tree where their sub-types are all checked, or they have no sub-types. If a type is checked, but has at least one unchecked sub-type, it will still be down. The Hide Unchecked checkbox does the opposite, and will hide all types that are unchecked. Checking the box next to a type within the tree will select or deselect it. At least one Clinical Documentation Type must be selected. To apply changes and exit the dialog, click OK. To leave the Clinical Documentation Types criteria unchanged, click Cancel.

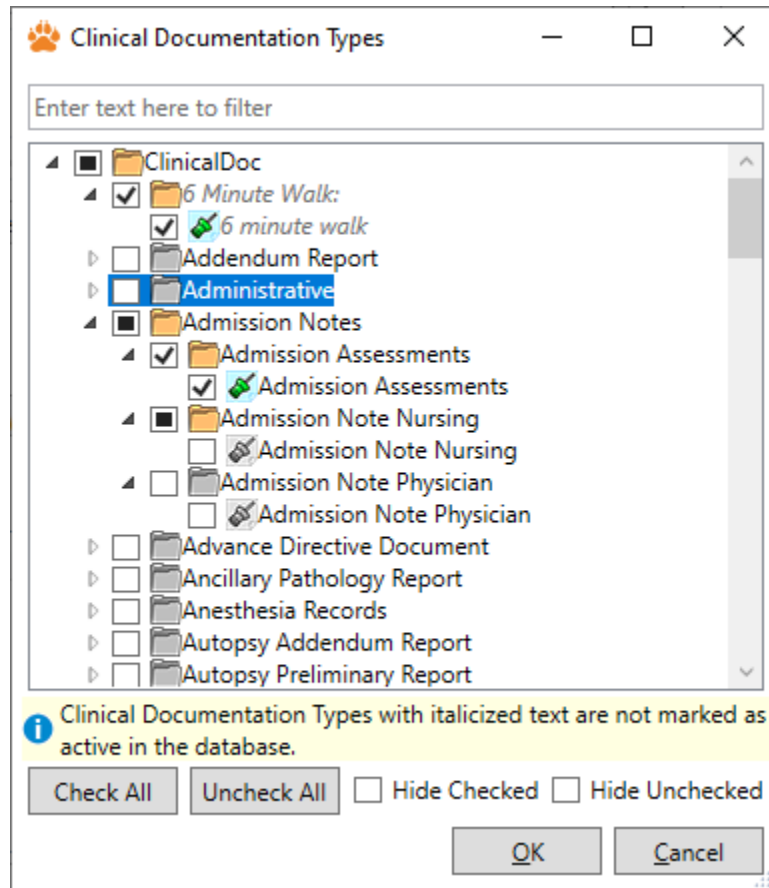


Figure 276: Clinical Documentation Types Dialog

9.9.2 Search Presets

Search criteria can be saved to presets using the save buttons in the bottom left. Presets allow setting up search criteria one time. The buttons are disabled until the criteria is complete. This prevents saving presets that will always be empty. Clicking on a preset will load its criteria into the search dialog. This criteria can then be used for a search, modified before the search (with or without saving the changes to the saved preset), or set as the default search.

Search presets can be copied to other users and groups. Because these presets can take a long time to configure, it may be useful to set up searches one time and make them available to other users. To copy a search, right click on the preset and click “Copy Preset...”.

Option	Description
Delete	Removes the selected preset.
Save	Saves changes to the selected preset.
Save As...	Saves the current criteria to a new preset. This can be used to duplicate a preset.
Copy Preset...	Copies the selected preset to other users. This requires the “Copy Preferences” global privilege.

Table 91: Physician Documentation Presets Context Menu

9.9.3 Documented Charge Summary

The Documented Charge Summary view ([Figure 277](#)) displays a list of note types and the number of each type of associated charge. To launch the [Summary Details](#) dialog and view the details for all charges of that description, associated with that note type, you can either double-click on a row, or right-click and select “Details...” from the context menu.

Note Type	Charge Description	Count
Admission Note Physician	ABO/RH Add On	6
Admission Note Physician	ABO/Rh Echo	6
Admission Note Physician	Amnisure Rom	1
Admission Note Physician	Antibody Screen Echo	6
Admission Note Physician	Basic Metabolic Panel	1
Admission Note Physician	Biofire Respiratory panel 2.1	3
Admission Note Physician	Blood Culture	2
Admission Note Physician	Blood Gas Cord Blood Arterial	1
Admission Note Physician	Blood Gas Cord Blood Venous	1
Admission Note Physician	Cardiac Marker Profile	12
Admission Note Physician	Chlamydia Trachomatis rRNA Amp	3
Admission Note Physician	Complete Blood Count w/Differential	9
Admission Note Physician	Comprehensive Metabolic Panel	3

Figure 277: Documented Charge Summary

9.9.4 Summary Details Dialog

The Summary Details dialog ([Figure 278](#)) lists the physician notes and/or charges that were counted in the summary. Double-clicking a row will open the Encounter Details dialog. ([Section 9.9.5](#)) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting “Encounter Details...”.

Notes can be ignored or unignored if the Summary Details dialog was launched for Uncharged or Ignored notes. To ignore a note right-click the note and select “Ignore Uncharged Note”. To unignore a note right-click the note and select “Stop Ignoring Uncharged Note”.

Rows with grey text are associated with a note of a type that is not marked as “Active”. They are also indicated with a flag in the “Inactive” column. If you hover the cursor over an inactive flag, you can see the specific state of the note type.

Actions By HALE, JOHNNY

FIN	Community MRN Name	Community MRN	Encounter Type	Patient Name	Birth Date	Facility	Discha
1300001588	Umbrella Corporation		Outpatient	PUSKARICH, EUGENE	1977-05-05	MEDICAL CENTER	2020-1
1300001588	Umbrella Corporation		Outpatient	PUSKARICH, EUGENE	1977-05-05	MEDICAL CENTER	2020-1
1300001588	Umbrella Corporation		Outpatient	PUSKARICH, EUGENE	1977-05-05	MEDICAL CENTER	2020-1
1300001589	Umbrella Corporation		Outpatient	BELL, RICHARD	1967-01-09	MEDICAL CENTER	2020-1
1300001589	Umbrella Corporation		Outpatient	BELL, RICHARD	1967-01-09	MEDICAL CENTER	2020-1
1300001589	Umbrella Corporation		Outpatient	BELL, RICHARD	1967-01-09	MEDICAL CENTER	2020-1
1300001589	Umbrella Corporation		Outpatient	BELL, RICHARD	1967-01-09	MEDICAL CENTER	2020-1
1300001625	Umbrella Corporation		Outpatient	JACOB, RYAN	1955-07-13	MEDICAL CENTER	2020-1
1300001625	Umbrella Corporation		Outpatient	JACOB, RYAN	1955-07-13	MEDICAL CENTER	2020-1
1300001625	Umbrella Corporation		Outpatient	JACOB, RYAN	1955-07-13	MEDICAL CENTER	2020-1
1300003695	Umbrella Corporation		Outpatient	COX, GEORGE	1963-08-27	MEDICAL CENTER	2020-1
1300004588	Umbrella Corporation		Outpatient	CASSAR, WILLIAM	1937-03-17	MEDICAL CENTER	2020-1
1300005017	Umbrella Corporation		Observation	HAHN, AARON	1953-02-24	MEDICAL CENTER	2020-1

23 rows

Figure 278: Summary Details Dialog

9.9.5 Encounter Details Dialog

The Encounter Details dialog allows for the correlation of charges and notes to be modified. This does not modify data in Millennium, only Panther's correlations of charges and notes. (Figure 279)

Notes are displayed on the left side. Charges are displayed on the right. If a note and a charge are linked they will be displayed on the same line. If a note or charge is not correlated it will be indicated by a blank line in the neighboring list.

To unlink a note and charge select the row in both the Notes and Charges grids and click the Unlink button. To link a note and charge select the note in the Notes grid and charge in the Charges grid and click the Link button.

Notes with gray text have been ignored and will not show up in lists of uncharged notes. To ignore a note right-click the note and select "Ignore Uncharged Note". To unignore a note right-click the note and select "Stop Ignoring Uncharged Note".

Data in the rest of the control will be refreshed when the Encounter Details dialog is closed.

Double-clicking a row containing data in the Notes grid will open the [Clinical Event Activity](#) dialog, or you can right-click to access the context menu and click "Clinical Event Activity".

If a row in the Notes grid has an indicator in the "Document Indicator" column, that means the Note has one or more Clinical Documents in a format viewable within Panther. Selecting "Clinical Document(s)" in the context menu will bring up the [Clinical Documents](#) dialog.



Notes may be associated with more than one charge

Charges may only be associated with one note, but notes may be associated with more than one charge. There are some cases where Panther's logic will associate a note with multiple charges, or you can manually link a note to multiple charges. If a note is associated with multiple charges, the note's information will show up multiple times, on the same line as each associated charge.

Encounter Details

FIN: 1300000081 **Umbrella Corporation:** **Patient:** ROBBINS, RONNIE **Birth Date:** 2020-07-21 **Discharge Date:** 5/25/2020 9:22:26 AM

Notes:

Performing Name	Performing Group	Verifying Name
SIMONS, CHRIS	Oral Facial Partners	SIMONS, CHRIS
SIMONS, CHRIS	Oral Facial Partners	SIMONS, CHRIS
SIMONS, CHRIS	Oral Facial Partners	SIMONS, CHRIS
JOHNSON, TIMOTHY		JOHNSON, TIMOTHY
BUTLER, ALEXANDER	Oral Facial Partners	BUTLER, ALEXANDER
HARRISON, ROSS		HARRISON, ROSS
HARRISON, ROSS		HARRISON, ROSS
PERRY, JARED		PERRY, JARED

Charges:

Original Order Time	Service Time	Charging Name
2020-04-29 9:54:17 AM	2020-04-29 10:04:00 AM	MANSFIELD, ARN
2020-04-29 9:54:17 AM	2020-04-29 10:04:00 AM	MANSFIELD, ARN
2020-04-28 4:18:18 PM	2020-04-29 10:04:00 AM	SIMONS, CHRIS
2020-04-29 7:19:26 PM	2020-04-29 7:19:00 PM	CHAMBERLAIN, F
2020-04-28 4:18:26 PM	2020-04-29 10:04:00 AM	SIMONS, CHRIS
2020-04-29 1:48:00 PM	2020-04-30 1:48:00 PM	GRAHAM, STEVE
2020-02-07 3:05:12 PM	2020-04-30 3:58:00 PM	PENDERGAST, JAI
2020-04-30 2:41:54 PM	2020-04-30 2:41:00 PM	CHAMBERLAIN, F
	2020-04-30 6:20:00 PM	HARRISON, ROSS
	2020-04-30 6:20:00 PM	HARRISON, ROSS
	2020-05-01 6:51:00 PM	PERRY, JARED
2020-05-01 7:52:05 PM	2020-05-01 7:52:00 PM	SHAW, RILEY

Link **Unlink**

Close

Figure 279: Encounter Details Dialog

9.9.6 Clinical Event Activity Dialog

The Clinical Event Activity dialog lists the actions that were performed on the specified event. (Figure 280)

Clinical Event Activity 800274204

Action	Status	Acting Person	Action Time	Requesting Person	Request Time
VERIFY	Completed	TOMLINSON, FREDRICK	5/30/2020 3:08:00 PM		5/30/2020 3:08:00 PM
Sign	Completed	TOMLINSON, FREDRICK	5/30/2020 3:08:00 PM		5/30/2020 3:08:00 PM
Perform	Completed	TOMLINSON, FREDRICK	5/30/2020 3:08:00 PM		5/30/2020 3:08:00 PM
VERIFY	Completed	TOMLINSON, FREDRICK	5/30/2020 3:08:00 PM		5/30/2020 3:08:00 PM
Sign	Completed	TOMLINSON, FREDRICK	5/30/2020 3:08:00 PM		5/30/2020 3:08:00 PM
Perform	Completed	TOMLINSON, FREDRICK	5/30/2020 3:08:00 PM		5/30/2020 3:08:00 PM

6 rows

Close

Figure 280: Clinical Event Activity Dialog

9.9.7 Clinical Documents Dialog

The Clinical Documents dialog provides the ability to view Clinical Documents of supported file types which are associated with a given note. Panther currently supports viewing TIFF, RTF, and XHTML documents. If there are multiple associated documents, there will be a list of the documents along the left side of the dialog

with an icon indicating the file type, and the document's title. If there is only one associated document, the list will be hidden to allow for more room to view the document. (Figure 281)

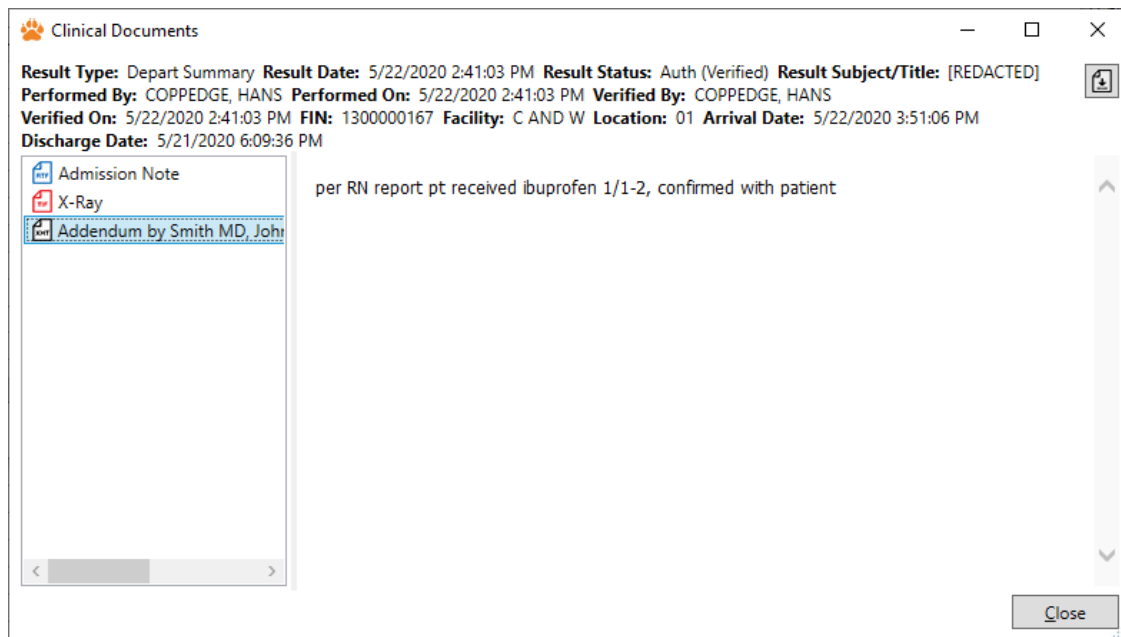


Figure 281: Clinical Documents Dialog

9.9.8 Physician Summary

The Physician Summary view (Figure 282) displays a summary of activity for each physician in the selected time period. This includes the number of notes written, notes verified, and charges for the physician. Clicking the physician's name will open the [Summary Details](#) dialog, listing all notes and charges which match the search criteria and are associated with that physician. Clicking a number will open the same dialog, listing the notes and/or charges included in that count. You can also launch the Summary Details dialog by right-clicking on a row to access the context menu, and clicking on one of the detail options listed in the context menu.

prod > Charge Capture > Physician Documentation					
Yesterday Documented Charge Summary Physician Summary Physician Group Summary Uncharged Notes Undocumented Charges Charged Notes with Incomplete Ac Documented Charges Needing Ver	Physician Summary		FIN:		
	Name	Physician Group	Notes Written	Notes Verified	Charges C
	<no physician documented>		3	0	
	AASEN, JEROME		0	0	
	ABBOTT, JOSEPH		0	0	
	ABNEY, ROBERT	Colon and Rectal Specialists	260	327	
	ABRAMS, ANTHONY	Colon and Rectal Specialists	0	0	
	ACKLEY, RYAN		0	0	
	ADAMS, RANDY	Colon and Rectal Specialists	0	0	
	ADAMS, WILLIAM		4	0	
	AESCHLIMAN, ROBERT	Colon and Rectal Specialists	69	89	
	AGUILAR, RICHARD		0	0	
	AHART, THOMAS		3	3	
	ALEXANDER, RONALD		0	2	
696 rows					
Data no older than: 7/22/2020 3:25:17 PM					

Figure 282: Physician Summary

9.9.9 Physician Group Summary

The Physician Group Summary view (Figure 283) displays a summary of activity for each physician group in the selected time period. This includes the number of notes written, notes verified, and charges for the physician group. Clicking the physician group's name will open the [Trending Details](#) dialog, listing all notes and charges which match the search criteria and are associated with that physician group. Clicking a number will open the same dialog, listing the notes and/or charges included in that count. You can also launch the Trending Details dialog by right-clicking on a row to access the context menu, and clicking on one of the detail options listed in the context menu.

prod > Charge Capture > Physician Documentation					
Yesterday Documented Charge Summary Physician Summary Physician Group Summary Uncharged Notes Undocumented Charges Charged Notes with Incomplete Ac Documented Charges Needing Ver	Physician Group Summary		FIN:		
	Physician Group	Notes Written	Notes Verified	Charges Dropped	Uncharged
		5,147	732	7,423	
	Advanced Colon and Rectal	33	15	63	
	Advanced Eye	293	162	163	
	Advanced OB/GYN	159	128	191	
	Advanced Pain	545	238	603	
	Arthritis & Rheumatology Partners	282	137	125	
	Arthritis & Rheumatology Specialists	154	133	154	
	Cancer Care Specialists	0	48	45	
	Cardiology Partners	50	20	25	
	Cardiology Specialists	0	0	5	
	Colon and Rectal Specialists	26,522	29,030	36,955	
	Foot and Ankle Specialists	598	384	741	
24 rows					
Data no older than: 7/22/2020 3:25:17 PM					

Figure 283: Physician Group Summary

9.9.10 Trending Details Dialog

The Trending Details dialog (Figure 284) shows the number of physician notes and/or charges that were counted in the summary by discharged date. Double-clicking a row will open the Summary Details dialog. (Section 9.9.4) You can also access the Summary Details dialog by right-clicking to bring up the context menu, and selecting “Details. . .”.

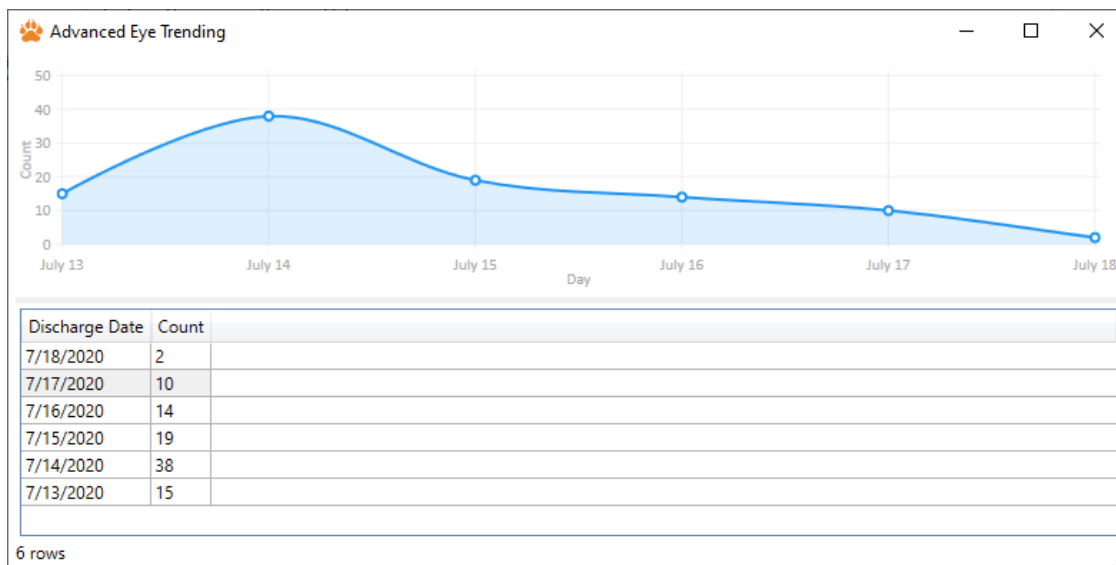


Figure 284: Trending Details Dialog

9.9.11 Uncharged Notes

The Uncharged Notes view (Figure 285) shows a list of notes that did not have a corresponding charge. Double-clicking a row will open the Encounter Details dialog where the note can be manually associated with a charge. (Section 9.9.5) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting “Details. . .”.

Notes with grey text are of a type that is not marked as “Active”. They are also indicated with a flag in the “Inactive” column. If you hover the cursor over an inactive flag, you can see the specific state of the note type.

If a note will not have a charge associated with it the note can be ignored. To ignore a note right-click the note and select “Ignore Uncharged Note”. Ignored notes can be access from the Physician Summary view (Section 9.9.8) by clicking the numbers in the Ignored Notes column.



Exclude note types that don't generate charges

If there is a note type listed under Uncharged Notes that you wish to exclude from your search criteria, for instance if the note type is not expected to charge, you can right-click the row and choose *Exclude Note Type(s) From Search* from the context menu to alter your search criteria to exclude the selected note type(s). The control will refresh with all instances of those note type(s) removed.

prod > Charge Capture > Physician Documentation

Yesterday

Uncharged Notes

FIN:

Documented Charge Summary
Physician Summary
Physician Group Summary
Uncharged Notes
Undocumented Charges
Charged Notes with Incomplete Actions
Documented Charges Needing Verification

FIN	Community MRN Name	Community MRN	Patient Name	Birth Date	Facility
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000007	LexCorp		DOBBS, ROBERT	3/28/1960	KCI RA
1300000008	LexCorp		STRACK, EDDIE	8/27/1948	KCI RA
1300000009	LexCorp		ESCOBAR, DARRELL	11/5/1967	KCI RA
1300000010	LexCorp		CANTU, DAVID	12/4/1939	KCI FH
1300000011	LexCorp		HARRIS, JOHN	9/20/1944	KCI FH
1300000011	LexCorp		HARRIS, JOHN	9/20/1944	KCI FH
1300000020	LexCorp		EWING, MICHAEL	4/17/1961	KCI FH
1300000026	LexCorp		BARKER, JAMES	3/1/1957	KCI MO
1300000026	LexCorp		BARKER, JAMES	3/1/1957	KCI MO
1300000031	LexCorp		MCCAFFREY, ROBERT	2/6/1966	KCI MO
1300000031	LexCorp		MCCAFFREY, ROBERT	2/6/1966	KCI MO

10,130 rows

Data no older than: 7/22/2020 3:25:17 PM

Figure 285: Uncharged Notes

9.9.12 Undocumented Charges

The Undocumented Charges view (Figure 286) shows a list of charges that did not have a corresponding note. Double-clicking a row will open the Encounter Details dialog where the charge can be manually associated with a note. (Section 9.9.5) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting “Details. . .”.

prod > Charge Capture > Physician Documentation

Yesterday

Undocumented Charges

FIN:

Documented Charge Summary
Physician Summary
Physician Group Summary
Undocumented Charges
Undocumented Charges
Charged Notes with Incomplete Actions
Documented Charges Needing Verification

FIN	Community MRN Name	Community MRN	Patient Name	Birth Date	Facility
1300000004	LexCorp		RICHERSON, CLARENCE	2/25/1958	KCI SH
1300000004	LexCorp		RICHERSON, CLARENCE	2/25/1958	KCI SH
1300000004	LexCorp		RICHERSON, CLARENCE	2/25/1958	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000006	LexCorp		BRANYAN, DAVID	5/7/1972	KCI SH
1300000007	LexCorp		DOBBS, ROBERT	3/28/1960	KCI RA

30,687 rows

Data no older than: 7/22/2020 3:25:17 PM

Figure 286: Undocumented Charges

9.9.13 Charged Notes with Incomplete Actions

The Charged Notes with Incomplete Actions view (Figure 287) shows charges that are associated with notes that are still flagged as requested. Double-clicking a row will open the Encounter Details dialog where

the charge's association with notes can be changed manually. (Section 9.9.5) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting “Details. . .”.

Rows with grey text are associated with a note of a type that is not marked as “Active”. They are also indicated with a flag in the “Inactive” column. If you hover the cursor over an inactive flag, you can see the specific state of the note type.

FIN	Community MRN Name	Community MRN	Patient Name	Birth Date	Facility
1300000169	LexCorp		PARK, LIONEL	3/7/1940	MEDICAL
1300000216	LexCorp		MILANESI, EDWARD	12/15/1930	MEDICAL
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000308	LexCorp		RANGEL, JAMES	12/7/2005	C AND V
1300000392	LexCorp		LEWIS, ARTHUR	7/12/1962	GI CLINIC
1300000451	LexCorp		ROUNTREE, HILTON	2/13/1984	C AND V

Figure 287: Charged Notes With Incomplete Actions

9.9.14 Documented Charges Needing Verification

The Documented Charges Needing Verification view (Figure 288) shows charges that are associated with notes but do not have a verifying physician. Double-clicking a row will open the Encounter Details dialog where the charge's association with notes can be changed manually. (Section 9.9.5) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting “Details. . .”.

Rows with grey text are associated with a note of a type that is not marked as “Active”. They are also indicated with a flag in the “Inactive” column. If you hover the cursor over an inactive flag, you can see the specific state of the note type.

prod > Charge Capture > Physician Documentation

Yesterday

Documented Charges Needing Verification

FIN:

FIN	Community MRN Name	Community MRN	Patient Name	Birth Date	Facility
1300000007	LexCorp		DOBBS, ROBERT	3/28/1960	KCI RADO ^
1300000007	LexCorp		DOBBS, ROBERT	3/28/1960	KCI RADO
1300000008	LexCorp		STRACK, EDDIE	8/27/1948	KCI RADO
1300000008	LexCorp		STRACK, EDDIE	8/27/1948	KCI RADO
1300000008	LexCorp		STRACK, EDDIE	8/27/1948	KCI RADO
1300000008	LexCorp		STRACK, EDDIE	8/27/1948	KCI RADO
1300000009	LexCorp		ESCOBAR, DARRELL	11/5/1967	KCI RADO
1300000009	LexCorp		ESCOBAR, DARRELL	11/5/1967	KCI RADO
1300000009	LexCorp		ESCOBAR, DARRELL	11/5/1967	KCI RADO
1300000010	LexCorp		CANTU, DAVID	12/4/1939	KCI FH - U
1300000010	LexCorp		CANTU, DAVID	12/4/1939	KCI FH - U
1300000011	LexCorp		HARRIS, JOHN	9/20/1944	KCI FH - U v

1,044 rows

Data no older than: 7/22/2020 3:25:17 PM

Figure 288: Documented Charges Needing Verification

9.9.15 Scheduled Reports

See [Charge Capture Scheduled Reports](#). Unlike general reports, Scheduled Reports for Physician Documentation use the [search criteria](#) to define scope. The search criteria works the same as the control except that the Custom date range is not allowed for Scheduled Reports.

When selecting search criteria, selecting a search preset will cause that preset name to be populated as the report name. This name can be modified in the [Edit Schedule dialog](#).

9.10. Physician Timing Control

The Physician Timing control is an interactive tool to help identify delays in compensation for professional fees.

To view the Physician Timing control, select the *Physician Timing* item in the domain explorer (Figure 289).

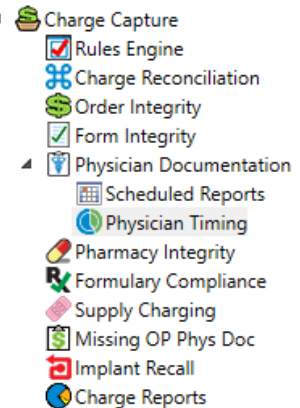


Figure 289: Domain Explorer

To the upper left of the control are the Search and Refresh buttons. The first time you load the control you will need to specify the search criteria before any data will load. On subsequent visits to the control, if a default search has been configured, the Search dialog will be automatically populated with those settings. To run the same search, click the Refresh button. Click the Search button to load the [Search dialog](#) and set the search criteria. The Refresh button will only be enabled after data has been loaded. Clicking on it will issue a new search using the current search criteria.

The Export button allows you to save the currently displayed data in a [CSV](#) or Excel® format. When the Export button is clicked, the Windows “Save As” dialog will appear, prompting you to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

9.10.1 Searching

The Physician Timing Control provides the ability to search based on selected date range, clinical documentation type (a.k.a. note type), facility, physician group, physician, tier matrix, activity type, entry mode, and encounter type. The lists of selected facilities and physician groups are empty by default. If there is a warning icon on a tab, that means that criteria needs to be selected on that tab before the search can be performed. (Figure 290)



Search Displays the Current Criteria

When opened, the Search dialog will display the criteria used for the most recent search, making it easy to modify an existing search.

The Physician Timing Control supports Preset Searches, where you can save sets of search criteria. To load a saved search preset, click on the name of the preset in the list along the left side of the dialog. To save changes to the current preset search, click the “Save” button. To save the current criteria as a new search preset, click the “Save As...” button. To delete a preset search, click the “Delete” button.

To set the current search criteria as your default search, check the “Use these search options by default” checkbox before performing the search. Even if the default search criteria has been set, you will need to

click the “Refresh” button after loading the Physician Documentation control. This allows for a chance to change the search criteria if the default search criteria is taking a long time to load.

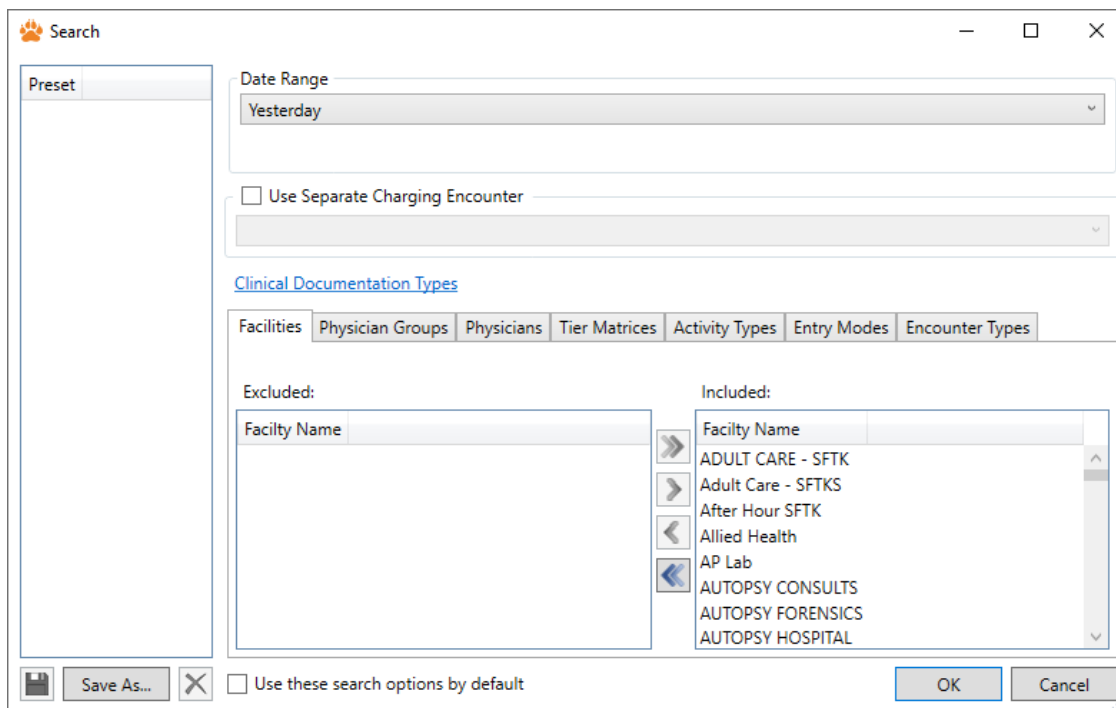


Figure 290: Search Dialog

Use Separate Charging Encounter is disabled by default. If you create a second encounter to handle billing of physician documentation check the box and select the encounter type.

The Clinical Documentation Types are all included by default. Once a user changes this criteria, it will be saved as a user preference and will be used each time the user loads the control. To change the Clinical Documentation Types selected, click the “Clinical Documentation Types” link to open the Clinical Documentation Types dialog. (Figure 291)

The Clinical Documentation Types dialog contains a tree of the documentation types and sub-types. Types may be defined as events within the Millennium database. Types which are not marked as events are indicated with folders. Types which are marked as events are indicated with a note icon. A Note’s type could be defined by either an event type or a non-event type. For that reason, a type with sub-types may be included in the search criteria independently from the types beneath them in the tree. If you uncheck everything beneath a type, it will remain checked until you purposefully uncheck it as well.

Some hospitals may, on occasion, create a new Note with a Clinical Documentation Type that is not currently marked as Active. For that reason, all Clinical Documentation Types are shown as options for the search criteria. If a Clinical Documentation Type is not marked as Active, it will be shown in grey, italicized text.

Typing in the textbox at the top of the dialog will filter the Clinical Documentation Types shown in the dialog to those which have a matching name, or have a type descending from them which has a matching name. The Check All and Uncheck All buttons select all and deselect all Clinical Documentation Types, visible and non-visible. The Hide Checked checkbox, if checked, will hide all types in the tree where their sub-types are all checked, or they have no sub-types. If a type is checked, but has at least one unchecked sub-type, it will still be shown. The Hide Unchecked checkbox does the opposite, and will hide all types that are unchecked.

Checking the box next to a type within the tree will select or deselect it. At least one Clinical Documentation Type must be selected. To apply changes and exit the dialog, click OK. To leave the Clinical Documentation Types criteria unchanged, click Cancel.

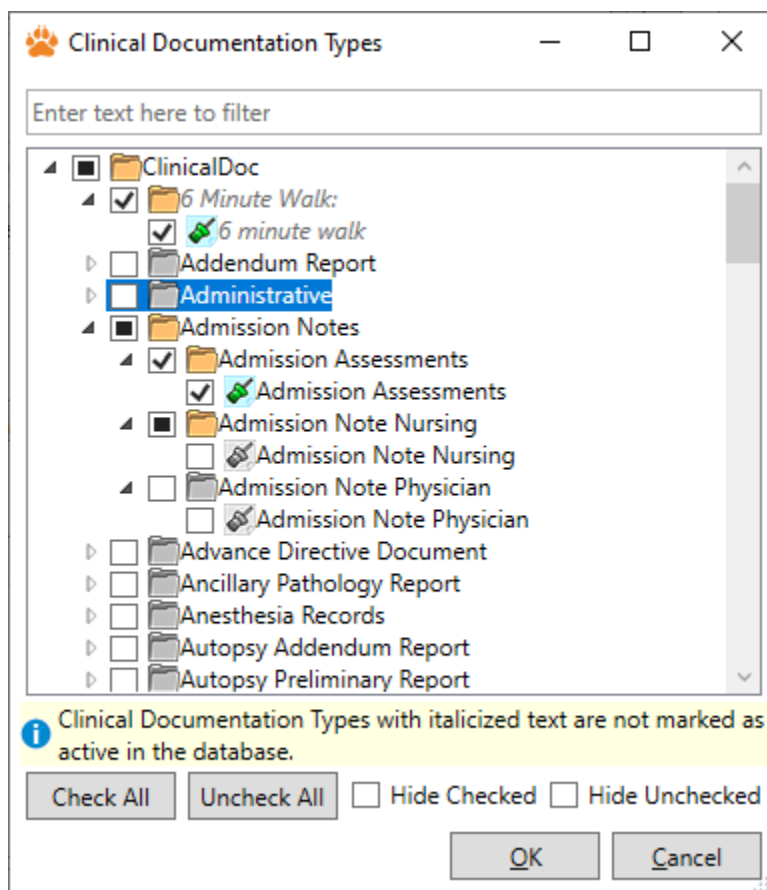


Figure 291: Clinical Documentation Types Dialog

9.10.2 Search Presets

Search criteria can be saved to presets using the save buttons in the bottom left, so that the user only has to configure the specific criteria once. The buttons are disabled until criteria configuration is complete. This prevents saving presets that will always be empty. Clicking on a preset will load its criteria into the search dialog. This criteria can then be used for a search, modified before the search (with or without saving the changes to the saved preset), or set as the default search.

Search presets can be copied or shared to other users and groups. Because these presets can take a long time to configure, it may be useful to set up searches one time and make them available to other users. To copy a search, right click on the preset and click "Copy Preset...". To share a search, right click on the preset and click "Share Preset...".

Option	Description
Delete	Removes the selected preset.
Save	Saves changes to the selected preset.
Save As...	Saves the current criteria to a new preset. This can be used to duplicate a preset.
Copy Preset...	Copies the selected preset to other users. This requires the “Copy Preferences” global privilege.
Share Preset...	Shares the selected preset to other users. This requires the “Allow Preset Share” global privilege.

Table 92: Physician Timing Presets Context Menu

9.10.3 Timing Summary

The Physician Timing Summary view ([Figure 292](#)) displays a list of physicians with a summary of the progress their notes have made towards compensation and the average time notes are spending in each step. To view the notes in a given state for a physician click the total link to launch the [Summary Details](#) dialog. Previously generated summaries can be viewed by selecting one from the Report Generation History at the top.

7/8/2024 to 7/9/2024											
Physician	# Performed	# Verified	Average Verification Time	% Verification Time Over 72 Hours	Average Verification Time Over 72 Hours	# Unverified	% Unverified	# Not Discharged	# Without Charges	Verified to Released by Coding	
Abbott MD, Billy	35	32	8h 23m	0%		3	9%	0	35	0	
Abbott MD, Brenden	4	4	0m	0%		0	0%	0	4	0	
Abbott MD, Brisa	14	14	0m	0%		0	0%	0	14	0	
Abbott MD, Ettie	5	3	0m	0%		0	0%	0	5	0	
Abbott MD, Gilbert	66	0				0	0%	0	66	0	
Abbott MD, Jada	122	76	1d 21h 27m	26%	5d 8h 38m	46	38%	0	122	0	
Abbott MD, Jerry	22	0				0	0%	0	22	0	
Abbott MD, Lilliana	1	1	0m	0%		0	0%	0	1	0	
Abbott MD, Manuel	0	2	10d 20h 33m	50%	19d 8h 54m	0	0%	0	2	0	
Abbott MD, Reuben	2	2	0m	0%		0	0%	0	2	0	
Abbott MD, Tyra	5	5	0m	0%		0	0%	0	5	0	
Abbott MD, Vena	59	48	0m	0%		11	19%	0	57	0	
Abernathy MD, Addison	4	3	0m	0%		0	0%	0	4	0	
Abernathy MD, Archibald	31	0				0	0%	0	31	0	

4,986 rows Data no older than: 7/9/2024 10:41:52 AM

Figure 292: Documented Charge Summary

9.10.4 Timing Summary Details Dialog

The Summary Details dialog ([Figure 293](#)) lists the physician notes counted in the summary with timing information on their progress towards bill transmission.

Notes Written By Stamm MD, Roxane

Organization	Note MRN	Note FIN	Encounter Type	Performing Physician	Performed Date Time	Verifying Physician
Arasaka	809636850	1300006027	Clinic	Stamm MD, Roxane	12/6/2022 1:17:36 PM	Stamm MD, Roxane
Tyrell Corporation	801850069	1300007810	Telehealth	Stamm MD, Roxane	12/3/2022 10:34:56 PM	Stamm MD, Roxane
Arasaka	808149345	1300009460	Telehealth	Stamm MD, Roxane	12/3/2022 11:50:54 PM	Stamm MD, Roxane
Arasaka	804567911	1300010754	Telehealth	Stamm MD, Roxane	12/4/2022 10:26:20 AM	Stamm MD, Roxane
Tyrell Corporation	805647137	1300010933	Clinic	Stamm MD, Roxane	12/4/2022 4:41:05 AM	Stamm MD, Roxane
Zik-Zak Corporation	808705956	1300013957	Clinic	Stamm MD, Roxane	12/6/2022 3:18:54 AM	Stamm MD, Roxane
Tyrell Corporation	805768137	1300018174	Telehealth	Stamm MD, Roxane	12/4/2022 8:21:31 AM	Stamm MD, Roxane
Arasaka	800845299	1300022842	Telehealth	Stamm MD, Roxane	12/4/2022 5:57:12 AM	Stamm MD, Roxane
Arasaka	807623757	1300024125	Clinic	Stamm MD, Roxane	12/3/2022 8:04:24 PM	Stamm MD, Roxane
Arasaka	802632956	1300027470	Clinic	Stamm MD, Roxane	12/4/2022 7:24:16 AM	Stamm MD, Roxane
Zik-Zak Corporation	800244927	1300029319	Clinic	Stamm MD, Roxane	12/6/2022 7:47:40 AM	Stamm MD, Roxane
Arasaka	807447393	1300030371	Telehealth	Stamm MD, Roxane	12/4/2022 9:31:46 AM	Stamm MD, Roxane

21 rows

Figure 293: Summary Details Dialog

9.10.5 Scheduled Reports

See [Charge Capture Scheduled Reports](#). Unlike general reports, Scheduled Reports for Physician Documentation use the [search criteria](#) to define scope. The search criteria works the same as the control except that the Custom date range is not allowed for Scheduled Reports.

When selecting search criteria, selecting a search preset will cause that preset name to be populated as the report name. This name can be modified in the [Edit Schedule dialog](#).

9.11. Rules Engine Control

The Rules Engine control allows users to define and execute rules against charge data in Millennium® to identify issues. This can include simple things such as ensuring the correct matching CPT® and HCPCS codes are used for a charge to something more complex like ensuring co-dependent charges for CT scans and contrast occur on the same day for a given encounter.

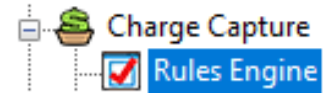


Figure 294: Domain Explorer

To view the Rules Engine control, select the *Rules Engine* item under *Charge Capture* item in the Domain Explorer (Figure 294).

9.11.1 Copyright Notice

As per AMA requirements, upon first loading the control, the user is presented with a CPT copyright notice (Figure 295).

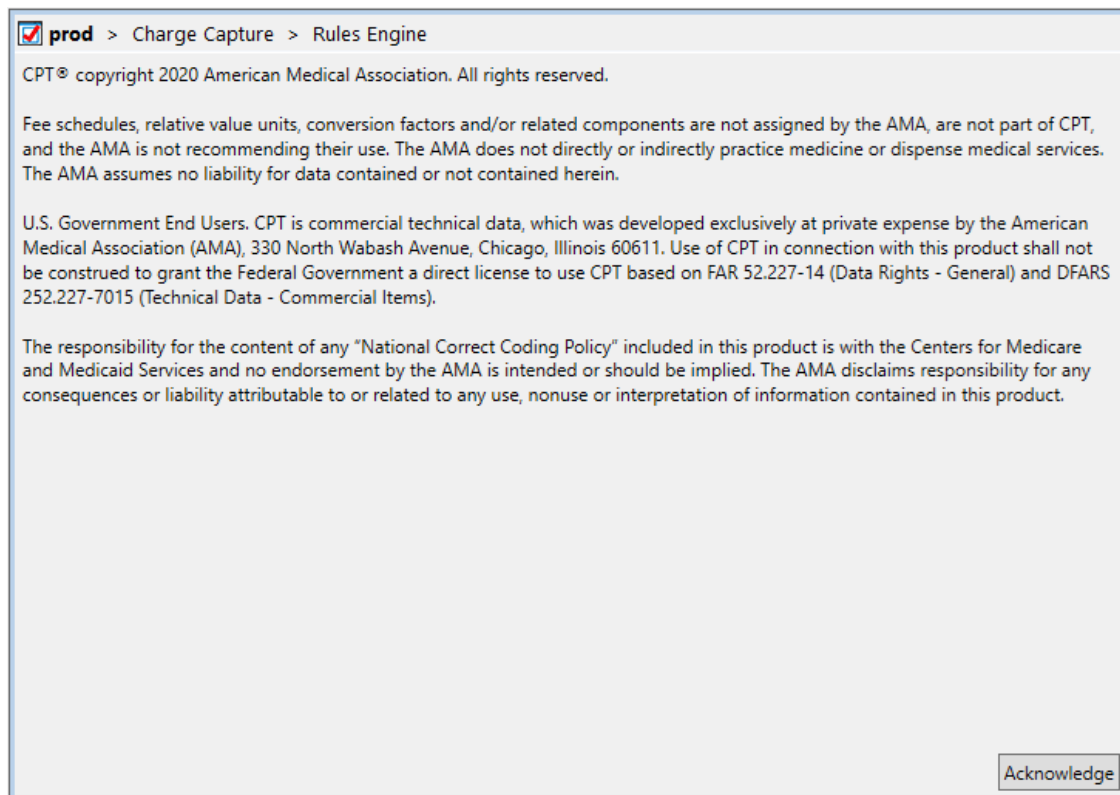


Figure 295: Copyright Notice

Clicking *Acknowledge* closes the notice, making the rest of the control available. The notice is automatically closed on subsequent visits to the control once acknowledged. It can, however, be re-opened for review by clicking on the *CPT® Copyright Notice* link.

9.11.2 Rules Engine Main Control

The main control (Figure 296) focuses on management and execution of rules. The current set of rules are displayed in a list on the left, details for the currently-selected rule are shown in the middle, and a list of tags attached to the visible rules is shown on the right. Filtering can be done using the search bar above, while the actual management and execution functions are provided as buttons at the very top (Table 93).

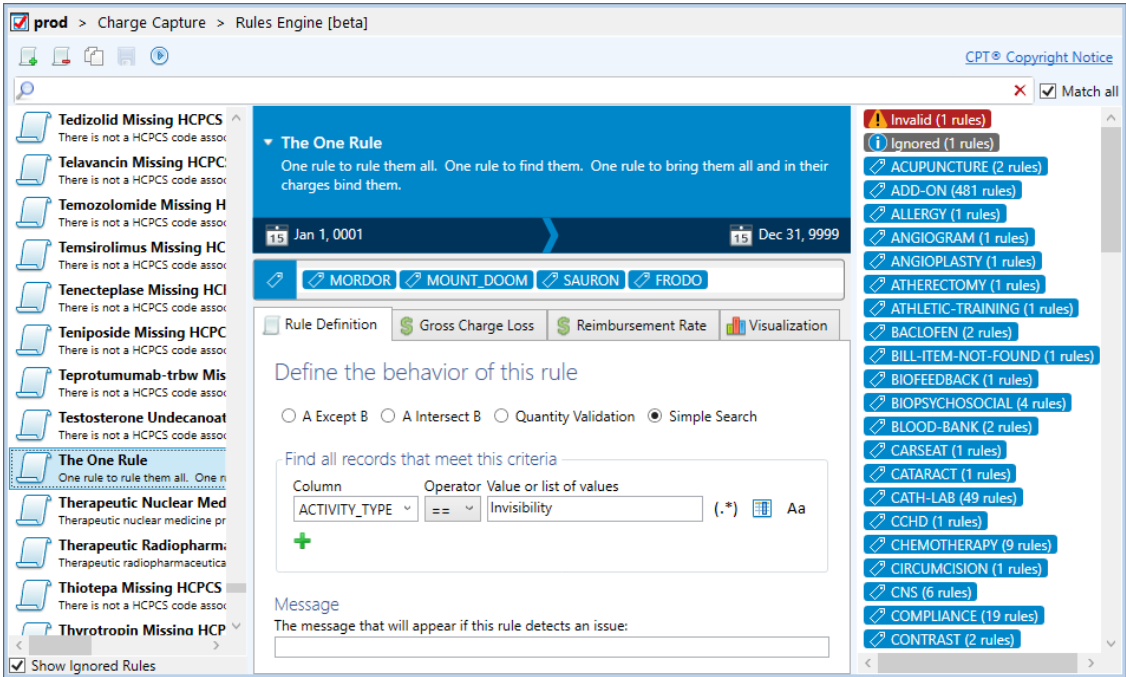


Figure 296: Rules Engine Control

Button	Operation
	Add
	Remove
	Copy
	Save
	Execute

Table 93: Rules Engine Button Legend

Rules List

The list of current rules are displayed alphabetically on the left, including their names, descriptions, and a status icon (Table 94). This status icon can indicate whether a rule has pending changes (add/modify/remove) and whether it is valid. The list also includes a Context Menu to perform operations on the rules (Table 95).



Unsaved Changes

If there are unsaved rule changes when leaving the control, the user will be asked whether to discard them or remain in the control.

Image	Meaning
	Rule is valid.
	Rule is valid and new, awaiting save.
	Rule is valid and has been modified, awaiting save.
	Rule is valid and marked for removal, awaiting save.
	Rule is valid and ignored.
	Rule is valid, ignored, and has been modified, awaiting save.
	Rule is invalid.
	Rule is invalid and new, awaiting save.
	Rule is invalid and has been modified, awaiting save.
	Rule is invalid and marked for removal, awaiting save.
	Rule is invalid and ignored.
	Rule is invalid, ignored, and has been modified, awaiting save.

Table 94: Rule Icon Legend

Menu Option	Description
Create New Rule	Creates a new rule and selects it.
Delete Rule	Deletes the selected rule (if not locked).
Copy Rule	Copies the selected rule (if not locked).
Ignore Selected Rules...	Ignores the selected rules (if not pending addition or removal).
Stop Ignoring Rules	Stops ignoring the selected rules.
Save Rules	Saves all pending rule changes.
Run Visible Rules	Executes all rules in the list. This is affected by the current rule filter.
Run Selected Rules	Executes the selected rules.
Select All	Selects all visible rules.

Table 95: Rules List context menu

Ignoring Rules

If one or more rules should be excluded from execution (e.g., they fail to account for hospital-specific workflows), this can be done by selecting the target rules, clicking *Ignore Selected Rules...*, and supplying a reason to the prompt.

The *Show Ignored Rules* check box below the [rules list](#) controls whether ignored rules will appear in the list (unchecked by default). If checked, excluded rules will reappear in the list, displaying a note in the top-left of their status images. Hovering over the status image will display a tool tip containing the time and reason the rule was ignored, as well as the user who ignored it ([Figure 297](#)).

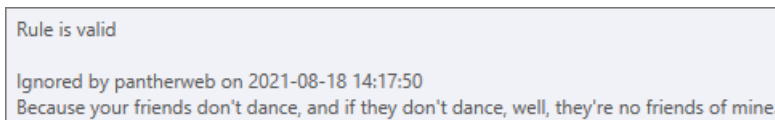


Figure 297: Ignored Rule Tooltip

Rules can be restored by selecting them and clicking *Stop Ignoring Rules*.

Rule Details

The rule detail control on the right allows users to modify a rule's definition, cost of failure behavior, or whether it should include chart visualization in its execution results.

Locked Rules

Panther will include a number of pre-packaged rules which will appear with a padlock icon (🔒). These rules are locked for modification by users, as they are maintained by Softek and its partners. The exceptions are the [Gross Charge Loss](#), [Reimbursement Rate](#), and [Visualization](#) sections.

Name and Description

The rule's name and description are the first items displayed within rule details. When a rule is unlocked, hovering over the name or description will display a pencil icon (✎) to the left, and clicking the text will allow modification.

Effective Dates

The begin effective and end effective dates for a rule are listed under the rule's title. A rule will only apply to charges with a SERVICE_DT_TM within the effective date range of the rule. Clicking these dates will open a date picker that can be used to select a different date. The begin and end effective dates default to Jan 1, 0001 and Dec 31, 9999 respectively.

Tags

The rule's tags appear immediately below the effective dates. Here, users can add one or more tags to aid in categorization and filtering rules ([Figure 298](#)).



Figure 298: Tags

Tags will also appear in locked rules. Users are allowed to add tags to locked rules if they wish; however, the rule may also contain one or more predefined tags which cannot be modified. These locked tags will always appear first, and they will use a darker color to make them distinguishable from user tags (Figure 299).



Figure 299: Mixed Tags

When adding a tag, it will appear as normal text while in edit mode (Figure 300). To finish editing a tag, press *Enter* or *Space*. Once completed, the tag will change to the standard tag appearance (Figure 301).

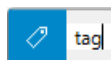


Figure 300: Tag in Edit Mode



Figure 301: Completed Tag

Rule Definition

The Rule Definition tab is where the rule's type, criteria, and failure message are specified. There are four types of rules supported:

- A Except B (Figure 302)
- A Intersect B (Figure 303)
- Quantity Validation (Figure 304)
- Simple Search (Figure 305)

Define the behavior of this rule

☒ A Except B ☐ A Intersect B ☐ Quantity Validation ☐ Simple Search

If there is a charge for —

Column	Operator	Value or list of values		
ACTIVITY_TYPE	==	Invisibility	(.*)	Aa
				

Then there should also be a charge for —

Column	Operator	Value or list of values		
ORGANIZATION_NAME	==	Fellowship of the Rule	(.*)	Aa
				
☐ On the same day				

Message

The message that will appear if this rule detects an issue:

Figure 302: A Except B

A Except B rules find all charges meeting the search criteria, then look for other charges matching the validation criteria, optionally limiting the scope to charges within the same day. For example, one can define a rule to verify that any charge for a CT scan is accompanied by a charge for contrast on the same day. If the matching charge is not found, the rule will trigger a failure.

Define the behavior of this rule

☐ A Except B ☒ A Intersect B ☐ Quantity Validation ☐ Simple Search

If there is a charge for

Column	Operator	Value or list of values		
ACTIVITY_TYPE	==	Invisibility	(.*)	Aa
				

There should not be a charge for

Column	Operator	Value or list of values		
ORGANIZATION_NAME	==	Fellowship of the Rule	(.*)	Aa
				

☐ On the same day

Message

The message that will appear if this rule detects an issue:

Figure 303: A Intersect B

Similar to A Except B rules, A Intersect B rules find all charges meeting the search criteria, then look for other charges matching the validation criteria, optionally limiting the scope to charges within the same day. However, the rule will trigger a failure if the matching charge *is* found.

Define the behavior of this rule

☐ A Except B ☐ A Intersect B ☒ Quantity Validation ☐ Simple Search

If there is a charge for

Column	Operator	Value or list of values		
ACTIVITY_TYPE	==	Invisibility	(.*)	Aa
				

Then the following field(s) on that record should meet this criteria

Column	Operator	Value or list of values		
ORGANIZATION_NAME	==	Fellowship of the Rule	(.*)	Aa
				

Message

The message that will appear if this rule detects an issue:

Figure 304: Quantity Validation

Quantity Validation rules find all charges meeting the search criteria, then trigger a failure for each one which does not also meet the validation criteria.

Define the behavior of this rule

☐ A Except B ☐ A Intersect B ☐ Quantity Validation ☒ Simple Search

Find all records that meet this criteria

Column	Operator	Value or list of values		
ACTIVITY_TYPE	==	Invisibility	(.*)	Aa
				

Message

The message that will appear if this rule detects an issue:

Figure 305: Simple Search

Simple Search rules trigger failures for any charges that meet the search criteria.

Criteria Definition

Panther supports several different types of criteria ([Table 97](#)), chosen based upon the value provided and the toggle options selected ([Table 96](#)).

Button	Option
	Use Regular Expression
	Use Column
	Case Insensitive

Table 96: Rules Engine Criteria Options

Unless specified otherwise, valid characters include alphanumeric and whitespace characters as well as !@#\$%^&() ' [] | \ - ,

Type	Format	Toggle	Example
Range	Groups of numeric characters, separated by hyphen		1 - 100
List	Groups of characters, separated by semicolon		abc; def; ghi
Wildcard	Characters followed by an asterisk		abc*
Regular Expression	A valid regular expression ¹		abc\d+
Column	A valid column name ²		ITEM.PRICE
Value	Any combination of characters not covered by the other types		abc

Table 97: Rules Engine Criteria Types

Column is a special criteria type that compares the value of the selected column with the column specified by *Value* within the same row.

The *Case Insensitive* toggle can be used with all criteria types.

Non-empty *Operator* values can only be used with *Value* and *Column* criteria types.

¹ [Regular Expression Language Quick Reference](#)

² [Rules Engine Columns](#)

Multiple Criteria

Panther also supports the use of multiple criteria chained together with AND or OR operators (Figure 306). Operators are left-associative¹.

Column Operator Value or list of values
ACTIVITY_TYPE == Invisibility (.) (*) Aa

☒ AND ☐ OR

Column Operator Value or list of values
ORGANIZATION_NAME == Fellowship of the Rule (.) (*) Aa

+

Figure 306: Multiple Criteria

Gross Charge Loss

The Gross Charge Loss tab (Figure 307) controls how the rules engine tallies gross charge losses as it encounters rule failures. This includes both the loss for an individual failure and the scope of failure.

Gross Charge Loss

If the rule detects a problem, specify the gross charge loss of the problem identified by this rule.

Gross Charge Loss:

When a failure is detected, it applies to

- ☐ All Records
- ☐ One Record per Account
- ☒ One Record per Account per Day

Figure 307: Gross Charge Loss tab

Here, the gross charge loss can be specified directly as a dollar amount. In the case of A Except B rules, the option to automatically calculate loss based on charges matching the validation criteria is also available (Figure 308).

☒ Calculate the gross charge loss from the data being analyzed. If no appropriate data can be found, the gross charge loss specified below will be used.

Gross Charge Loss:

Figure 308: Auto Calculate Loss

Failure scope defines whether the loss for each failure should count toward the total, whether it should only

¹Operator associativity

count one failure per account, or whether it should count one failure per account each day. This cannot be modified for [locked rules](#), and its value is shared with the failure scope defined in the [Reimbursement Rate](#) tab.

Reimbursement Rate

The Reimbursement Rate tab ([Figure 309](#)) controls how the rules engine tallies reimbursement losses as it encounters rule failures. This includes both the loss for an individual failure and the scope of failure.

Reimbursement Rate

If the rule detects a problem, specify the reimbursement rate of the problem identified by this rule.

Reimbursement Rate:

When a failure is detected, it applies to

- ☐ All Records
- ☐ One Record per Account
- ☒ One Record per Account per Day

Figure 309: Reimbursement Rate tab

Here, the reimbursement rate can be specified directly as a dollar amount. In the case of A Except B rules, the option to automatically calculate loss based on charges matching the validation criteria is also available ([Figure 310](#)).

☒ Calculate the reimbursement rate from the data being analyzed. If no appropriate data can be found, the reimbursement rate specified below will be used.

Reimbursement Rate:

Figure 310: Auto Calculate Loss

Failure scope defines whether the loss for each failure should count toward the total, whether it should only count one failure per account, or whether it should count one failure per account each day. This cannot be modified for [locked rules](#), and its value is shared with the failure scope defined in the [Gross Charge Loss](#) tab.

Visualization

The Visualization tab (Figure 311) can be used to define settings for a chart which will then be displayed in the [Run Results](#) view.

Rule Results Visualization

Visualization of the data can help identify the root cause of the issue. To include a visualization of the identified issues, select a column by which to group records.

Title:

Group Records By:

Order By

☒ Selected 'Group Records By' Column

☐ Issue Count Descending

X-Axis Title:

Figure 311: Visualization tab

To remove a visualization, clear the *Group Records By* field and save.

Tags List

The list of tags for all visible rules is displayed alphabetically on the right, including each tag's name and a count of visible rules including said tag. If any visible rules are invalid, there will also be a special tag for *Invalid* placed at the top of the list. Additionally, if *Show Ignored Rules* is checked and any rules are ignored, there will be a special tag for *Ignored* placed at the top of the list, appearing just below *Invalid* if there are invalid rules as well.

Double-clicking a tag will automatically append it to the current filter.

Filtering Rules

The search bar at the top of the control allows users to filter the list of rules based upon the entered terms. The filter will perform a case-insensitive match of terms against a rule's name, description, failure message, criteria values, and tags. Tags must be prefixed with a hash symbol (#) and require an exact match, while the other fields will also match substrings. Additionally, an exclamation point (!) can be used as a term to filter for invalid rules, and a tilde (~) can be used as a term to filter for ignored rules.

#mordor

☒ Match all

The One Rule

One rule to rule them all. One rule to

The One Rule

Jan 1, 0001

Dec 31, 9999

MORDOR MOUNT_DOOM SAURON FRODO

FRODO (1 rules)

MORDOR (1 rules)

MOUNT_DOOM (1 rules)

SAURON (1 rules)

Figure 312: Filtering Rules

When multiple terms are provided, the *Match all* box determines whether rules must match all terms or any term.

The current filter can be cleared by clicking on the clear button (X).

9.11.3 Run Results

The Run Results view displays the results of all rules which were executed, providing an overall summary broken down by activity type, summaries for each activity type broken down by rule, and result details for each rule within a given activity type. Estimated reimbursement loss is displayed next to each item in the tree, and items at each level in the tree are ordered by descending reimbursement loss.

Summary Results

The Summary view (Figure 313) provides a high-level view of losses broken down by activity type. Double-clicking an activity type in the summary table will select it in the tree. Clicking the export button will export an executive summary of results in Microsoft Word® and open it.

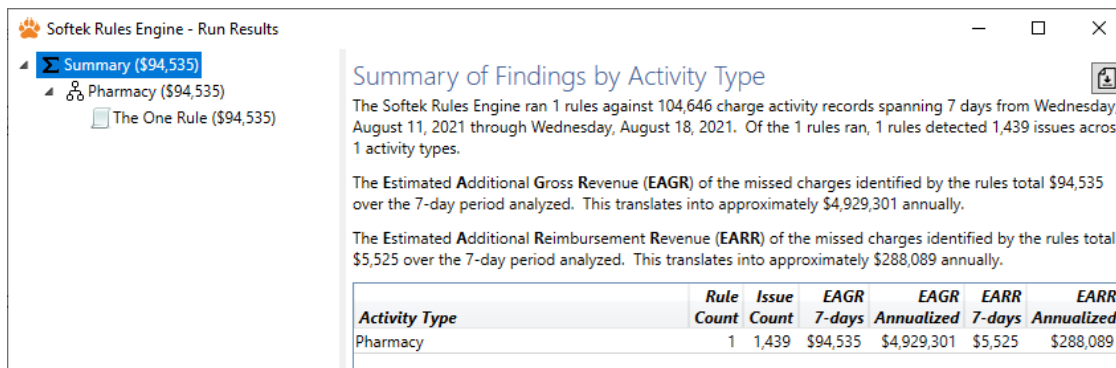


Figure 313: Summary Results

Activity Type Results

The Activity Type view (Figure 314) displays a summary of losses by rule. Double-clicking a rule will select it in the tree. Clicking the export button will export the current view to Microsoft Excel® and open it.

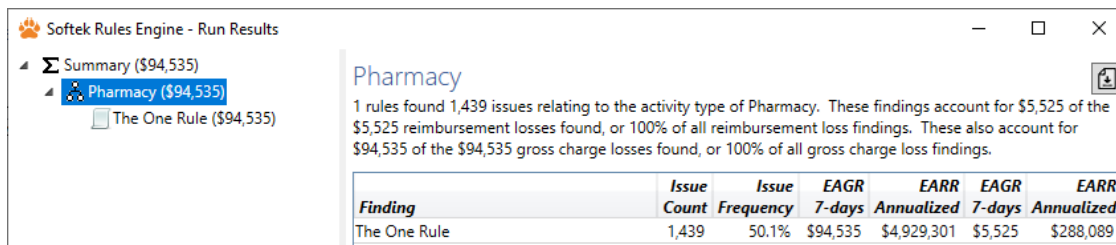


Figure 314: Activity Type Results

Rule Results

The Rule Results view (Figure 315) displays a summary of failures for the rule within its parent activity type, a breakdown of distinct values for several fields along with their failure rates, and a table including all charges with issues detected by the rule, and (optionally) a chart based upon the visualization settings of said rule. The export button at the top-right will export the summary and table to Microsoft Excel® and open it. The export button immediately above the table will export only the table. The chart button allows a user to modify the visualization settings for the rule, which will immediately update (or hide) the chart.

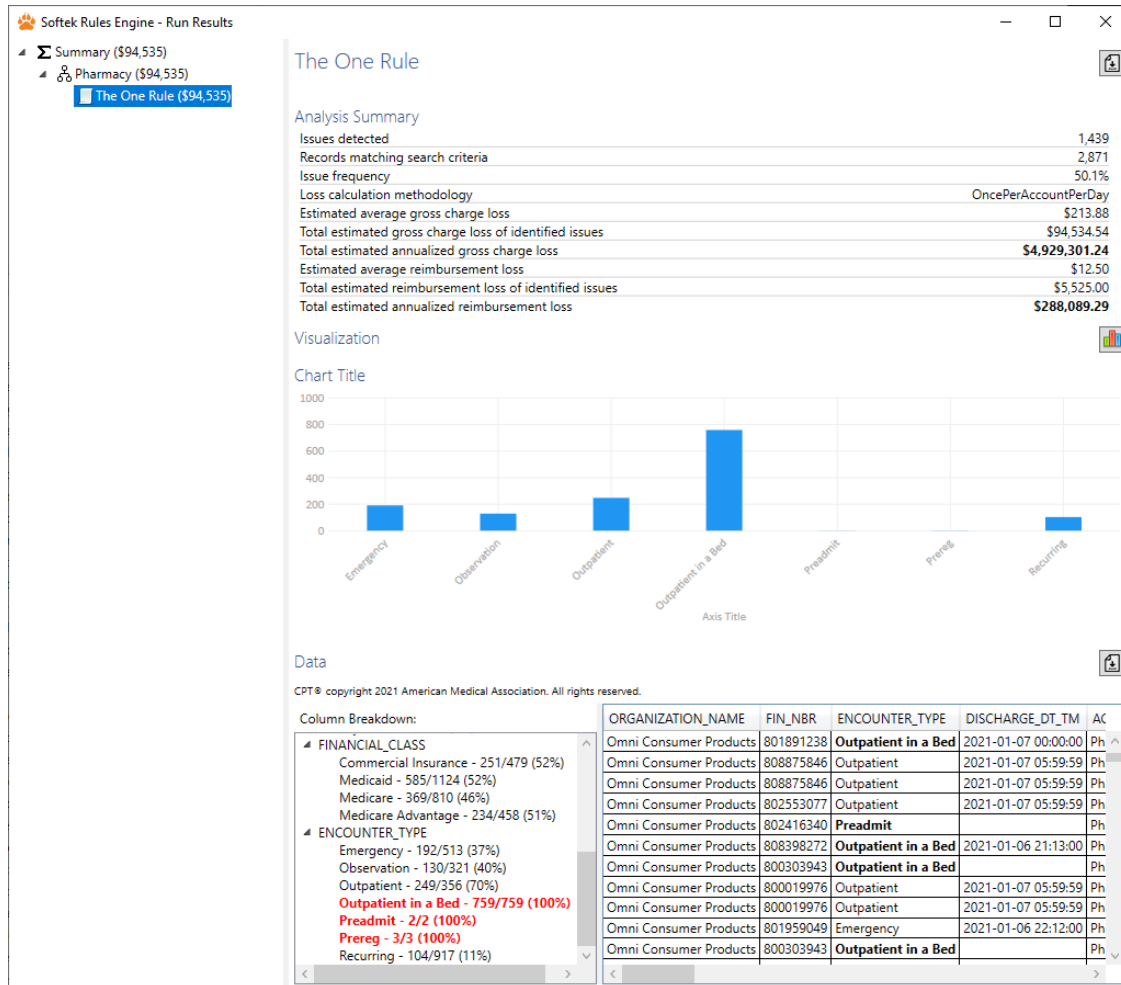


Figure 315: Rule Results

Column Breakdown

The column breakdown displays the distinct values found for each [breakdown column](#) among the records matching the search criteria and their failure rates.

Breakdown Columns:

- ADMIT_TYPE
- ORGANIZATION_NAME
- FACILITY
- BUILDING
- NURSE_UNIT
- LOCATION
- FINANCIAL_CLASS
- MEDICAL_SERVICE
- ENCOUNTER_TYPE
- ENCOUNTER_TYPE_CLASS

Data Table

The table includes all charges with issues for the given rule and activity type. The table provides some basic operations in its [Context Menu](#) to select and copy data, export the data out to a document, or even [search all charges](#) for the FIN of the selected row ([Table 98](#)).

Menu Option	Description
View all Charges	Searches all charges for the FIN of the selected row.
Copy FIN	Copies the FIN of the selected row.
Copy Charge Item ID	Copies the charge item ID of the selected row.
Copy Bill Item ID	Copies the bill item ID of the selected row.
Copy CDM	Copies the CDM of the selected row.
Copy HCPCS	Copies the HCPCS of the selected row.
Copy CPT	Copies the CPT of the selected row.
Export...	Exports the data in the table to an Excel® or CSV file.
Copy	Copies the selected rows to the system clipboard.
Select All	Selects all rows.

Table 98: Rule Results grid context menu

Values with 100% failure rates in the [column breakdown](#) are bolded in the table.

9.11.4 Charges for Fin

The Charges for Fin view displays all charges for a given Fin, allowing a deeper look at what charges occurred for a particular Fin, which may aid in determining why a charge issue from the [Rule Results view](#) may have occurred. The table provides some basic operations in its [Context Menu](#) to select and copy data or export the data out to a document ([Table 99](#)). Additionally, there are fields that can be used to filter the displayed charges by HCPCS, CDM, CPT, Revenue Code, or Charge Description.

ORGANIZATION_NAME	FIN_NBR	ENCOUNTER_TYPE	DISCHARGE_DT_TM	ACTIVITY_TYPE	CHARGE_ITEM_ID	CHARGE_DESCRIPTION
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	800433479	Acid Fast Bacilli Cul
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	800748658	Calcofluor Stain Rep
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	803369906	Gram Stain Report
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	805896033	Sputum Culture
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Pharmacy	803494780	ondansetron PF 2 r
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	807233167	Calcofluor Stain Rep
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	803927025	Fungus Culture
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	805012624	Acid Fast Bacilli Cul
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	802804659	Acid Fast Stain Rep
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	807990905	CULT TISSUE ANA
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	801479598	Tissue Culture
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Pharmacy	808942208	rocuronium 10 mg,
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Micro	808508425	Gram Stain Report
Omni Consumer Products	801891238	Outpatient in a Bed	2021-01-07 00:00:00	Pharmacy	808746677	rocuronium 10 mg,

Figure 316: Charges for FIN

Menu Option	Description
Copy Charge Item ID	Copies the charge item ID of the selected row.
Copy Bill Item ID	Copies the bill item ID of the selected row.
Copy CDM	Copies the CDM of the selected row.
Copy HCPCS	Copies the HCPCS of the selected row.
Copy CPT	Copies the CPT of the selected row.
Export. . .	Exports the data in the table to an Excel® or CSV file.
Copy	Copies the selected rows to the system clipboard.
Select All	Selects all rows.

Table 99: Charges for Fin grid context menu

The row matching the charge used to open Charges for Fin is highlighted and brought into view when the window appears.

9.12. Supply Charging Control

The Supply Charging control shows charging and usage information pertaining to supplies. This control does not make any modifications to the data in Millennium and does not interact with the billing system.

To view the Supply Charging control, select the *Supply Charging* item in the Domain Explorer (Figure 317).

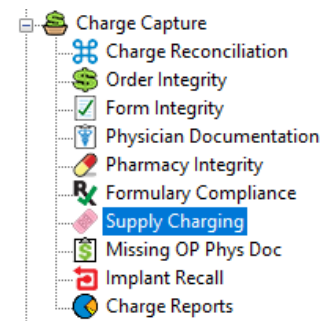


Figure 317: Domain Explorer

9.12.1 Surgical Cases

Surgical Cases Summary

The Surgical Cases Summary view displays an overview of surgical cases within the selected date range, providing the number of procedures, items, and implants related to each case. Clicking the procedures, items, and implant records links will display the list of procedures, items, or implant records for the selected surgical case.

The screenshot shows the 'Surgical Supplies > Surgical Cases' view. On the left is a tree view with categories like 'Surgical Cases (374)', 'Missing Orders (78)', 'Implants (238)', 'By Surgeon (259)', 'Average Usage (9418)', 'High Supply Usage (218)', 'All Supplies', 'Encounters (17)', 'With Charging Issues (5)', 'Items (207)', 'With Charging Issues (9)', 'Zero Cost (158)', 'No Cost (7)', 'With CDM (111)', 'No CDM (96)', 'With HCPCS (5)', 'No HCPCS (202)', 'With Revenue Code (72)', 'No Revenue Code (135)', 'Reference Data (9522)', 'Zero Cost (1068)', 'No Cost (1785)', 'No Price (307)', 'No Price (4469)', 'With CDM (6991)', 'No CDM (2531)', 'With HCPCS (2969)', 'No HCPCS (6553)', 'With Revenue Code (3662)', and 'No Revenue Code (5860)'. The main area is a table with columns: Surgical Case Number, FIN, Organization, Encounter Type Class, Medical Service, Facility, and Surgeon. The table contains 20 rows of data. At the bottom, it shows the date range: 12/10/2019 12:00:00 AM to 12/11/2019 12:00:00 AM.

Surgical Case Number	FIN	Organization	Encounter Type Class	Medical Service	Facility	Surgeon
CWEN-2019-167	1300000035	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-192	1300000059	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-199	1300000069	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-207	1300000076	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-214	1300000081	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-215	1300000082	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	MOWERY, WILLIAM
CWEN-2019-230	1300000096	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-236	1300000111	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	MOWERY, WILLIAM
CWEN-2019-245	1300000125	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-249	1300000129	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-251	1300000132	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-260	1300000148	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	JOHNSON, FRANK
CWEN-2019-264	1300000152	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	HEMBREE, JAMES
CWEN-2019-265	1300000153	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	NAJERA, JAMES
CWEN-2019-275	1300000200	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-278	1300000216	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-279	1300000221	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-293	1300000250	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	<no physician doc
CWEN-2019-298	1300000313	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient	Outpatient in a Bed	C AND W	<no physician doc
CWEN-2019-299	1300000312	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Observation	Observation	C AND W	<no physician doc
CWLD-2019-418	1300000063	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	ANDREWS, KENT
CWLD-2019-42	1300000003	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	ANDREWS, KENT
CWLD-2019-537	1300000134	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	ALEX, ERNEST
CWLD-2019-555	1300000156	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	ALEX, ERNEST
CWLD-2019-557	1300000158	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	MASON, CHARLES
CWLD-2019-573	1300000207	SOFTTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	Inpatient	C AND W	HORTON, DAVID

Figure 318: Surgical Cases Summary View

Right-clicking the mouse in the surgical case summary grid will open the Context Menu. See Figure 319.

Implants	
Items	
Procedures	
Copy FIN	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 319: Surgical Cases Summary Context Menu

Without Items

The Without Items view displays the same information available in the Surgical Cases View [\(Figure 319\)](#) but only for cases that no supply usage associated with any of the procedures for the case. Double-clicking an item will show its details. Clicking the procedures, items, and implant records links will display the list of procedures, items, or implant records for the selected surgical case.

Missing Orders

The Missing Orders view displays the same information available in the Surgical Cases View [\(Figure 319\)](#) but only for cases that do not have an order linked to the primary procedure for the case. Double-clicking an item will show its details. Clicking the procedures, items, and implant records links will display the list of procedures, items, or implant records for the selected surgical case.

Procedures by Case

The Procedures by Case view displays all procedures related to a surgical case. Clicking an items link will display the items used during the procedure.

prod > Charge Capture > Supply Charging

Surgical Supplies > Surgical Cases > Procedures - Surgical Case: MCOR-2019-1780

Primary Procedure	Procedure ID	Procedure Code	Procedure Name	Location	Items
☐	135927377	278872861	Femur Intramedullary Nail Insertion	KC MAIN OR	27
☐	135927773	273637273	Hip Manipulation	KC MAIN OR	0
☐	135929721	273627539	Irrigation and Debridement Extremity Low	KC MAIN OR	10
☒	135908360	273639905	Thoracic Aorta Aneurysm Repair Endovascu	KC MAIN OR	190
☐	135937978	278872869	Tibia Intramedullary Nail Insertion	KC MAIN OR	2

Date Range: 12/3/2019 12:00:00 AM to 12/4/2019 12:00:00 AM

Figure 320: Procedures by Case View

Right-clicking the mouse in the procedures by case grid will open the [Context Menu](#). See [Figure 321](#).

Items	
Copy Procedure Code	
Copy Procedure Id	
Copy Procedure Name	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 321: Procedures by Case Context Menu

Items by Procedure

The Items by Procedure view displays details for all items used during a procedure. Double-clicking an item will show the charge details view for that item.

prod > Charge Capture > Supply Charging

Surgical Supplies > Surgical Cases > Procedures - Surgical Case: MCOR-2019-1780 > Items - Procedure: Thoracic Aorta Aneurysm Repair Endovascu

☐ Show Equipment

Equipment	Item Number	Item Description	Used Quantity	Charged Quar
☐	010051	ALCOHOL RUB ETHYL 16 OZ.	1	
☐	014281	BANDAGE ACE STER 4"	2	
☐	014283	BANDAGE ACE STER 6"	1	
☐	016515	BETADINE SOLUTION 4 OZ	1	
☐	010283	BLADE 15 RB BCK DSGN BP CRBNSTL SURG STRL LF	0	
☐	016929	BLADE CLIPPER DISP (PURPLE)	1	
☐	015432	BOOT SUTURE YELLOW	1	
☐	327806	BRACKET CANISTER SUCTION HARDWARE RING W/ON-OFF VALVE	1	
☐	014858	CANNULA VESSEL 1 WAY BLNT 3MM 40P 17L	1	
☐	017291	CATH ANGIOCATH 16G	1	
☐	333887	CATHETER ANGIO .035IN PIGTAIL 5FR .052IN 100CM SZNG NONBRD 2 SDPRT 20 BND PERF	1	
☐	304609	CATHETER ANGIOGRAPHIC .035 IN BERN CURVE OD5 FR L100 CM CEREBRAL BRAIDED IMAGER II	1	
☐	210384	CATHETER DIAGNOSTIC 5 FR 65CM BERN SEL .035IN CRV CRBRL IMGR2	1	
☐	210386	CATHETER DIAGNOSTIC 5 FR 65CM PIG TAIL FLUSH	1	
☐	326720	CATHETER MARKER PIGTAIL 65CM 5FR 20 BAND	1	
☐	014867	CAUTERY TIP E-Z CLEAN	0	
☐	017008	CHLORAPREP 2% ONE STEP 26ML	6	
☐	323812	CHLORAPREP WITH TINT 10.5 ML	3	
☐	014303	CLIP LIGATING MED	1	
☐	335251	CLOTH CHLORHEXIDINE GLUCONATE 96PK/CS	4	
☐	325658	CONNECTING TUBE 180CM	2	
☐	310379	CONNECTING TUBE HIGH PRESSURE BRAIDED VINYL	2	
☐	327547	COVER BOOT XL FULLY IMPERVIOUS FOR ARTHROSCOPY CASES	0	
☐	304177	COVER KAPS 22"	2	
☐	303917	DEVICE INFLATION ENCORE 26 SYRINGE	1	

Date Range: 12/3/2019 12:00:00 AM to 12/4/2019 12:00:00 AM

Figure 322: Items by Procedure View

Right-clicking the mouse in the Items by Procedure grid will open the [Context Menu](#). See [Figure 323](#).

Charge Info	
Reference Info	
Copy Item Description	
Copy Item Number	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 323: Items by Procedure Context Menu

Item Charge Details

The Item Charge Details view displays details for all charges on an item used during a procedure.

prod > Charge Capture > Supply Charging

Surgical Supplies > Surgical Cases > Procedures - Surgical Case: MCOR-2019-1780 > Items - Procedure: Thoracic Aorta Aneurysm Repair Endovascu >

Charge Details - Item ID: 77356418

- ▲ Surgical Supplies
 - ▲ Surgical Cases (374)
 - Without Items (3)
 - Missing Orders (78)
 - Implants (238)
 - By Surgeon (259)
 - ▲ Average Usage (9418)
 - High Supply Usage (218)
 - ▲ All Supplies
 - Encounters (17)
 - With Charging Issues (5)
 - ▲ Items (207)
 - With Charging Issues (9)
 - Zero Cost (158)
 - No Cost (7)
 - With CDM (111)
 - No CDM (96)
 - With HCPCS (5)
 - No HCPCS (202)
 - With Revenue Code (72)
 - No Revenue Code (135)
 - ▲ Reference Data (9522)
 - Zero Cost (1068)
 - No Cost (1785)
 - Zero Price (307)
 - No Price (4469)
 - With CDM (6991)
 - No CDM (2531)
 - With HCPCS (2969)
 - No HCPCS (6553)
 - With Revenue Code (3662)
 - No Revenue Code (5860)

Surgical Case Number: MCOR-2019-1780 Item Number: 017008

Charge Description	Pick List Net Used	Pick List Charged	Actual Charged	Activity Type	Charge Type	Item Price	Item Extended Price
CHLORAPREP 2% ONE STEP 26ML	6.0000	6.0000	6.0000	Supplies	DEBIT	\$51.77	\$310.62

Date Range: 12/3/2019 12:00:00 AM to 12/4/2019 12:00:00 AM

Figure 324: Item Charge Details View

Right-clicking the mouse in the Item Charge Details grid will open the [Context Menu](#). See [Figure 325](#).

Reference Info	
Copy Item Number	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 325: Item Charge Details Context Menu

Items by Case

The Items by Case view displays all items related to a surgical case. Double-clicking an item will show the charge details view for that item.

prod > Charge Capture > Supply Charging

Surgical Supplies > Surgical Cases > Items - Surgical Case: MCOR-2019-1780

☐ Show Equipment

Equipment	Item Number	Item Description	Used Quantity	Charged Quantity
☐	300502	10MM TI CANN RETRO/ANTEGRADE FEMORAL NAIL-EX/360MM-STERILE	1	
☐	300453	5.0MM TI LOCKING SCREW W/T25 STARDRIVE 38MM FOR IM NAILS	1	
☐	300468	5.0MM TI LOCKING SCREW W/T25 STARDRIVE 60MM FOR IM NAILS	1	
☐	300473	5.0MM TI LOCKING SCREW W/T25 STARDRIVE 70MM FOR IM NAILS	1	
☐	010051	ALCOHOL RUB ETHYL 16 OZ.	1	
☐	014281	BANDAGE ACE STER 4"	2	
☐	014283	BANDAGE ACE STER 6"	1	
☐	016515	BETADINE SOLUTION 4 OZ	1	
☐	010280	BLADE 10 RB BCK DSGN BP CRBNSTL SURG STRL LF	4	
☐	010283	BLADE 15 RB BCK DSGN BP CRBNSTL SURG STRL LF	0	
☐	016929	BLADE CLIPPER DISP (PURPLE)	1	
☐	015432	BOOT SUTURE YELLOW	1	
☐	327806	BRACKET CANISTER SUCTION HARDWARE RING W/ON-OFF VALVE	1	
☐	014858	CANNULA VESSEL 1 WAY BLNT 3MM 40P 17L	1	
☐	017291	CATH ANGIOCATH 16G	1	
☐	333887	CATHETER ANGIO .035IN PIGTAIL 5FR .052IN 100CM SZNG NONBRD 2 SDPRT 20 BND PERF	1	
☐	304609	CATHETER ANGIOGRAPHIC .035 IN BERN CURVE OD5 FR L100 CM CEREBRAL BRAIDED IMAGER II	1	
☐	210384	CATHETER DIAGNOSTIC 5 FR 65CM BERN SEL .035IN CRV CRBRL IMGR2	1	
☐	210386	CATHETER DIAGNOSTIC 5 FR 65CM PIG TAIL FLUSH	1	
☐	326720	CATHETER MARKER PIGTAIL 65CM 5FR 20 BAND	1	
☐	014867	CAUTERY TIP E-Z CLEAN	0	
☐	017008	CHLORAPREP 2% ONE STEP 26ML	6	
☐	323812	CHLORAPREP WITH TINT 10.5 ML	3	
☐	014303	CLIP LIGATING MED	1	
☐	335251	CLOTH CHLORHEXIDINE GLUCONATE 96PK/CS	4	
☐	325658	CONNECTING TUBE 180CM	2	

Date Range: 12/3/2019 12:00:00 AM to 12/4/2019 12:00:00 AM

Figure 326: Items by Case View

Right-clicking the mouse in the Items by Case grid will open the [Context Menu](#). See [Figure 327](#).

Charge Info	
Reference Info	
Copy Item Description	
Copy Item Number	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 327: Items by Case Context Menu

Item Charge Details

The Item Charge Details view displays details for all charges on an item used for a surgical case.

prod > Charge Capture > Supply Charging

Surgical Supplies > Surgical Cases > Items - Surgical Case: MCOR-2019-1780 > Charge Details - Item ID: 77306037

Surgical Case Number: MCOR-2019-1780 Item Number: 300502

Charge Description	Pick List Net Used	Pick List Charged	Actual Charged	Activity Type	Charge Type
10MM TI CANN RETRO/ANTEGRADE FEMORAL NAIL-EX/360MM-STERILE	1.0000	1.0000	1.0000	Supplies	DEBIT

Date Range: 12/3/2019 12:00:00 AM to 12/4/2019 12:00:00 AM

Figure 328: Item Charge Details View

Right-clicking the mouse in the Item Charge Details grid will open the [Context Menu](#). See [Figure 329](#).

Reference Info	
Copy Item Number	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 329: Item Charge Details Context Menu

Implants by Case

The Implants by Case view displays all implants related to a surgical case. Double-clicking an implant will show the charge details view for that implant.

prod > Charge Capture > Supply Charging

Surgical Supplies > Surgical Cases > Implants - Surgical Case: MCOR-2019-1741

Organization	Medical Service	Facility	Surgeon	Catalog Number	Item ID	Item Number	Item Description
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	202.826	77312319	300580	2.7MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	202.830	77312346	300581	2.7MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.018	77313880	305348	2.7MM VA LCKNG SCREW SLF-TI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.032	77313907	306347	2.7MM VA LCKNG SCREW SLF-TI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.034	77313934	306348	2.7MM VA LCKNG SCREW SLF-TI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.038	77314177	306482	2.7MM VA LOCKING SCREW SEL
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.824	77315754	300608	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.824	77315754	300608	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.826	77315781	300609	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.828	77315808	300610	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.834	77315889	300613	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.836	77315916	300614	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	204.840	77315970	300616	3.5MM CORTEX SCREW SELF-TAI
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.127.170	77319600	325484	3.5MM VARIABLE ANGEL LOCKIN
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.127.160	77319708	325719	3.5MM VARIABLE ANGEL LOCKIN
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.028	77405170	305071	SCREW 2.7 VAL
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.012	77407927	304823	SCREW BONE 2.7MM 12MM LCP
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.118.544	77416081	326801	SCREW METAPHYSEAL 2.7MM S
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.211.036	77417161	304883	SCREW VA 36MM
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.118.003	77438246	327597	TIBIA PLATE 4 HOLES LEFT 2.7/3
SOFTEK MEDICAL CENTER	Inpatient	MEDICAL CENTER	HACKER, JOSHUA	02.127.241	85957690	356975	PLATE 177MM STAINLESS STEEL

Date Range: 12/4/2019 12:00:00 AM to 12/5/2019 12:00:00 AM

Figure 330: Implants by Case View

Right-clicking the mouse in the Implants by Case grid will open the [Context Menu](#). See [Figure 331](#).

Charge Info	
Reference Info	
Copy Catalog Number	
Copy Item Description	
Copy Item Number	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 331: Implants by Case Context Menu

Implant Charge Details

The Implant Charge Details view displays details for all charges on an implant used for a surgical case.

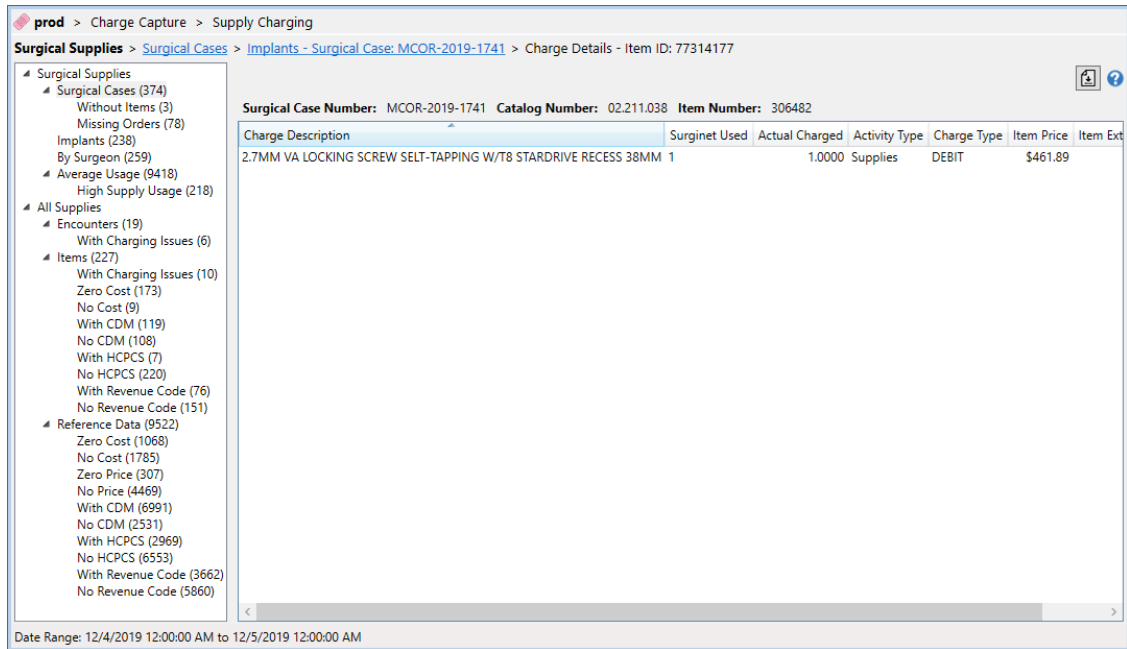


Figure 332: Implant Charge Details View

Right-clicking the mouse in the Implant Charge Details grid will open the [Context Menu](#). See [Figure 333](#).

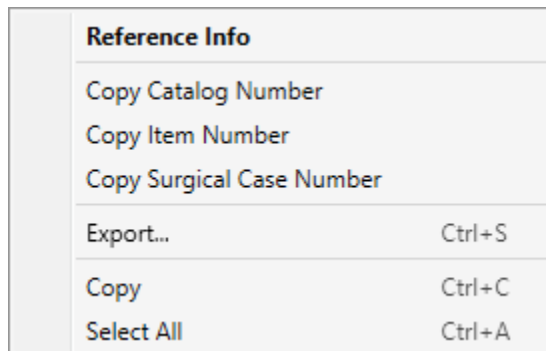


Figure 333: Implant Charge Details Context Menu

9.12.2 Implants

Implants Summary

The Implants Summary view displays an overview of implants used within the selected date range. Double-clicking an implant will show the charge details view for that implant.

prod > Charge Capture > Supply Charging

Surgical Supplies > Implants

- Surgical Supplies
 - Surgical Cases (374)
 - Without Items (3)
 - Missing Orders (78)
 - Implants (238)**
 - By Surgeon (259)
 - Average Usage (9418)
 - High Supply Usage (218)
- All Supplies
 - Encounters (19)
 - With Charging Issues (6)
 - Items (227)
 - With Charging Issues (10)
 - Zero Cost (173)
 - No Cost (9)
 - With CDM (119)
 - No CDM (108)
 - With HCPCS (7)
 - No HCPCS (220)
 - With Revenue Code (76)
 - No Revenue Code (151)
 - Reference Data (9522)
 - Zero Cost (1068)
 - No Cost (1785)
 - Zero Price (307)
 - No Price (4469)
 - With CDM (6991)
 - No CDM (2531)
 - With HCPCS (2969)
 - No HCPCS (6553)
 - With Revenue Code (3662)
 - No Revenue Code (5860)

Surgical Case Number	Organization	Medical Service	Facility	Surgeon	Catalog Number	Item ID	Qty
CWOR-2019-1106	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W PARKER, FRANCIS	8140-12-0.8	77370708	30	
CWOR-2019-1106	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W PARKER, FRANCIS	3.5 NEO	78015453	01	
CWOR-2019-1109	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient in a Bed	C AND W KERR, ALEX	1706060	77399618	30	
CWOR-2019-1124	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient in a Bed	C AND W COOK, JAMES	1808060	77399564	32	
CWOR-2019-1180	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W SCHECHTER, DAVID	475.935	0		
CWOR-2019-1181	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W ALMEIDA, BRUCE	315.29	77314903	30	
CWOR-2019-1181	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W ALMEIDA, BRUCE	475.930	79021398	30	
CWOR-2019-1184	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient in a Bed	C AND W COCHRAN, ED	519650	77419383	32	
CWOR-2019-1197	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient in a Bed	C AND W SCHECHTER, DAVID	128032	86830654	35	
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	.062	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	292.72	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	na	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	310.67	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	03.108.005	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	na	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	207.744	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	207.750	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	207.750	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	310.28	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	310.65	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	292.622	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	NA	0		
CWOR-2019-1203	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Interfacility	C AND W SCHECHTER, DAVID	214.760	0		
CWOR-2019-1237	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W GODBY, WM	91101	77355913	32	
CWOR-2019-703	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Inpatient	C AND W GODBY, WM	80-1475US	77358571	30	
CWOR-2019-887	SOFTEK CHILDREN'S AND WOMEN'S HOSPITAL	Outpatient in a Bed	C AND W TORRES, ROBERT	na	77443957	30	

Date Range: 12/4/2019 12:00:00 AM to 12/5/2019 12:00:00 AM

Figure 334: Implants Summary View

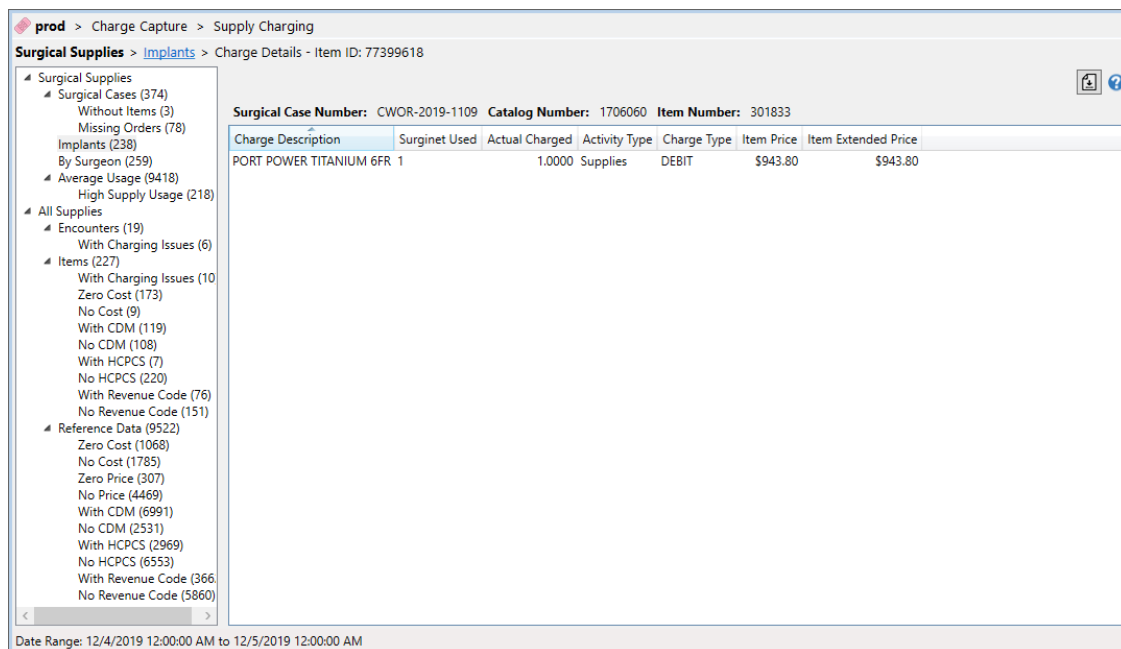
Right-clicking the mouse in the encounter summary grid will open the [Context Menu](#). See [Figure 335](#).

Charge Info	
Reference Info	
Procedures	
Copy Catalog Number	
Copy Item Number	
Copy Surgical Case Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

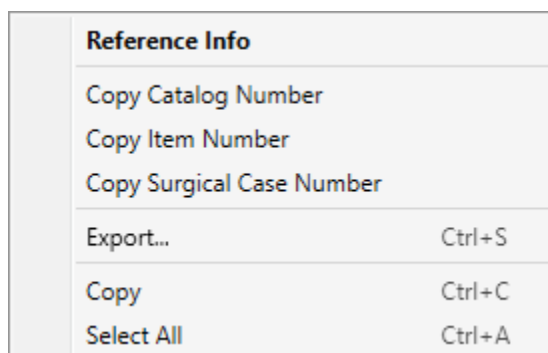
Figure 335: Implants Summary Context Menu

Implant Charge Details

The Implant Charge Details view displays details for all charges on an implant.



Right-clicking the mouse in the Implant Charge Details grid will open the [Context Menu](#). See [Figure 337](#).



9.12.3 By Surgeon

By Surgeon Summary

The By Surgeon Summary view displays an overview of average primary procedure supply costs per surgeon within the selected date range. Clicking a surgeon's name will show the surgeon's average usage for individual supplies for the primary procedure compared to other surgeons. Clicking the surgeon total will show the cases performed by the surgeon the averages were calculated from. Clicking the case total will show the cases from all surgeons used to calculate the averages.

prod > Charge Capture > Supply Charging

Surgical Supplies > By Surgeon

- Surgical Supplies
 - Surgical Cases (374)
 - Without Items (3)
 - Missing Orders (78)
 - Implants (238)
 - By Surgeon (259)**
 - Average Usage (9418)
 - High Supply Usage (218)
 - All Supplies
 - Encounters (0)
 - With Charging Issues (0)
 - Items (0)
 - With Charging Issues (0)
 - Zero Cost (0)
 - No Cost (0)
 - With CDM (0)
 - No CDM (0)
 - With HCPCS (0)
 - No HCPCS (0)
 - With Revenue Code (0)
 - No Revenue Code (0)
 - Reference Data (9522)
 - Zero Cost (1068)
 - No Cost (1785)
 - Zero Price (306)
 - No Price (4482)
 - With CDM (6991)
 - No CDM (2531)
 - With HCPCS (2969)
 - No HCPCS (6553)
 - With Revenue Code (3662)
 - No Revenue Code (5860)

Surgeon	Procedure Code	Primary Procedure	Average Primary Procedure Cost Per Surgeon	Surgeon Average Duration
MASON, CHARLES	0		\$0.00	0m
ROGERS, THEODORE	277974851	Abdominoplasty w/Liposuction	\$2.12	3h 5m
REED, EDWARD	273636881	Achilles Tendon Lengthening	\$13.36	34m
WILHITE, WALTER	273498423	Adenoidectomy	\$59.64	11m
HYNEMAN, ANTHONY	317094411	Anal Sphincter Botox Injection - OR	\$12.96	2m
PEAK, JEFFREY	317094411	Anal Sphincter Botox Injection - OR	\$4.45	12m
SIMMONS, JEREMY	273621333	Ankle Arthroplasty Replacement Total	\$114.18	2h 26m
CHA, ALEX	273637913	Ankle Open Reduction Internal Fixation	\$84.95	2h 19m
FAULKNER, DAVID	273637913	Ankle Open Reduction Internal Fixation	\$14.30	3h 22m
<no physician documented>	282542433	Anorectal Manometry - Endo	\$70.33	10m
PEAK, JEFFREY	273621053	Appendectomy Laparoscopic	\$447.62	31m
SOTO, DAVID	273628459	Arteriovenous Fistula Thrombectomy	\$1,783.91	2h 6m
SOTO, DAVID	282530351	Arteriovenous Graft Creation	\$1,486.72	1h 22m
SHIN, CHRISTOPHER	317248277	Arteriovenous Graft Revision	\$3,214.36	1h 1m
DEWITT, VERNON	273642001	Bladder Sling Placement	\$69.05	11m
BRIGHT, ALEXANDER	273621925	Breast Biopsy	\$0.00	29m
BRIGHT, ALEXANDER	279794103	Breast Biopsy Excisional	\$96.64	31m
VENTURA, BARRY	273635585	Breast Incision and Drainage	\$100.53	19m
NAJERA, JAMES	273622781	Bronchoscopy - Endo	\$22.03	11m
JOHNSON, FRANK	273622789	Bronchoscopy Flexible - OR	\$0.00	1h 17m
TAGUE, JESUS	282527675	Bronchoscopy w/Bronchoalveolar Lavage -	\$37.63	1h 3m
ENGLISH, PAUL	303668199	CANCELLED CASE-OR	\$55.91	1m
FAULKNER, DAVID	303668199	CANCELLED CASE-OR	\$143.74	0m
OLDHAM, THOMAS	273627763	Carpal Tunnel Release	\$139.63	26m
ROGERS, THEODORE	273627763	Carpal Tunnel Release	\$126.65	25m
GRANT, JEREMY	273634721	Cervical Spine Fusion Anterior	\$2,137.39	1h 51m

Date Range: 2019-12-09 12:00:00 AM to 2019-12-10 12:00:00 AM

Figure 338: By Surgeon Summary View

Right-clicking the mouse in the by surgeon summary grid will open the [Context Menu](#). See [Figure 339](#).

Surgeon Cases	
Primary Procedure Cases	
Surgeon Average Usage	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 339: By Surgeon Summary Context Menu

Average Usage by Surgeon

The Average Usage by Surgeon view displays the average usage of supplies by a surgeon for a primary procedure compared to other surgeons that performed that primary procedure.

prod > Charge Capture > Supply Charging

Surgical Supplies > By Surgeon > Average Usage - Procedure: Cesarean Section - OR, Surgeon: WARE, PATRICK

Item Number	Item Description	Surgeon Average Usage For Procedure	Average Usage For Procedure
016515	BETADINE SOLUTION 4 OZ	0.00	0.00
EQU0030	BOVIE	1.00	1.00
017008	CHLORAPREP 2% ONE STEP 26ML	1.00	1.00
016860	DRESS TELFA ISLAND ADHESIVE 4 X 10	0.00	0.00
016861	DRESS TELFA ISLAND ADHESIVE 4 X 14	0.00	0.00
016705	GLOVE PROTEXIS P&L/F 6-1/2(2D72PT60)	0.00	0.00
016706	GLOVE PROTEXIS P&L/F 6-1/2(2D72PT65X)	0.00	0.00
016707	GLOVE PROTEXIS P&L/F 7-1/2(2D72PT70X)	0.00	0.00
016708	GLOVE PROTEXIS P&L/F 7-1/2(2D72PT75X)	0.00	0.00
016709	GLOVE PROTEXIS P&L/F 8-1/2(2D72PT80X)	0.00	0.00
016710	GLOVE PROTEXIS P&L/F 8-1/2(2D72PT85X)	0.00	0.00
323474	GLOVE STERILE POLYISOPRENE W/NEU-THERA 6.5	0.00	0.00
306406	GLOVE STERILE POLYISOPRENE W/NEU-THERA 7.0	0.00	0.00
323412	GLOVE STERILE POLYISOPRENE W/NEU-THERA 7.5	0.00	0.00
325529	GLOVE STERILE POLYISOPRENE W/NEU-THERA 8.0	0.00	0.00
016994	GOWN SURG IMPER SMART LG-39015	0.00	0.00
016993	GOWN SURG IMPER SMART XL-39045	0.00	0.00
016992	GOWN SURG IMPER SMART XXL-39079	0.00	0.00
010205	GOWN SURG LG ST IN SLV STRL ASTND DISP LF	0.00	0.00
014306	GOWN SURG NON-REINF XL-9545	2.00	2.00
INST0338	GYN MC C-SECTION INST	1.00	1.00
017221	PACK CUSTOM (C-SECTION)	1.00	1.00
016688	PAD GROUND VALLEYLAB(RED)-E7507	1.00	1.00
100550	SOL IRRIGATION AQUALITE 0.9% SODIUM CHLORIDE 1 L	1.00	1.00
010256	SOLUTION PRP 10% PVP IOD 4OZ BTL	0.00	0.00
015310	SOLUTION PRP BCTSHLD 4% CHG 4OZ ANMC LO FRSCNT SKN AMBR	1.00	1.00

Date Range: 12/4/2019 12:00:00 AM to 12/5/2019 12:00:00 AM

Figure 340: Average Usage by Surgeon

Right-clicking the mouse in the Average Usage by Surgeon grid will open the [Context Menu](#). See [Figure 341](#).

Copy Item Description	
Copy Item Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 341: Average Usage by Surgeon Context Menu

9.12.4 Average Usage

Average Usage Summary

The Average Usage Summary view displays an overview of average usage of each supply item, per primary procedures and per surgeon within the selected date range. Clicking a surgeon's name will show the surgeon's average usage for the primary procedure compared to other surgeons.

prod > Charge Capture > Supply Charging

Surgical Supplies > Average Usage

Surgeon	Procedure Code	Primary Procedure	Surgical Area	Item Number	Item Description
VENTURA, BARRY	273623485	Cholecystectomy Laparoscopic	KC MAIN OR	EQU0030	BOVIE
MYERS, ALAN	273623485	Cholecystectomy Laparoscopic	KC MAIN OR	EQU0030	BOVIE
PEAK, JEFFREY	273623485	Cholecystectomy Laparoscopic	SFTK MAIN OR	EQU0030	BOVIE
WILHITE, WALTER	273498423	Adenoidectomy	SFTK MAIN OR	EQU0030	BOVIE
PRICE, MICHAEL	279940245	Wide Excision Melanoma	KC MAIN OR	EQU0030	BOVIE
PUTNAM, MARCO	279940245	Wide Excision Melanoma	KC MAIN OR	EQU0030	BOVIE
PEAK, JEFFREY	273640361	Inguinal Hernia Repair Laparoscopic	SFTK MAIN OR	EQU0030	BOVIE
VENTURA, BARRY	273635585	Breast Incision and Drainage	KC MAIN OR	EQU0030	BOVIE
MYERS, ALAN	273498487	Knee Amputation Below	KC MAIN OR	EQU0030	BOVIE
SOTO, DAVID	273498487	Knee Amputation Below	KC MAIN OR	EQU0030	BOVIE
BACA, KEVIN	273640337	Paraesophageal Hiatal Hernia Repair Robo	KC MAIN OR	EQU0030	BOVIE
FAULKNER, DAVID	273637905	Hip Acetabular Open Reduction Internal F	KC MAIN OR	EQU0030	BOVIE
MAGEE, DENNIS	273624157	Cranioplasty	KC MAIN OR	EQU0030	BOVIE
MYERS, ALAN	273635713	Incision and Drainage Rectal Abscess	KC MAIN OR	EQU0030	BOVIE
CHA, ALEX	273638641	Finger Pinning Percutaneous	SFTK MAIN OR	EQU0102	HAND TABLE
FAULKNER, DAVID	273639905	Thoracic Aorta Aneurysm Repair Endovascu	KC MAIN OR	EQU0024	JACKSON FLAT TOP TABLE
MAGEE, DENNIS	273624141	Lumbar Spine Corpectomy	KC MAIN OR	INST0354	CVT MC CV THORACOTOMY TRAY
DAWSON, ERIC	273641169	Dental Restoration	SFTK MAIN OR	INST0166	DEN CW PEDIATRIC DENTAL TRAY
KIPP, TOMMY	273640761	Strabismus Repair	SFTK MAIN OR	INST0072	EYE CW EYE MUSCLE TRAY
ROACH, REUBEN	273627419	Debridement Abdominal Wall	KC MAIN OR	INST0130	GEN CW MINOR LAPAROTOMY TR
REED, EDWARD	279955093	Femur Distal Epiphysiodesis	SFTK MAIN OR	INST0219	ORT CW SYNTHES 6.5/7.3 CANNUL
HOLBROOK, MATTHEW	273636737	Laparotomy Exploratory	SFTK MAIN OR	015441	BLADE BOVIE TIP ELECTRODE 6"
REED, EDWARD	279955093	Femur Distal Epiphysiodesis	SFTK MAIN OR	011341	DRAPE UNIV X-RAY (C-ARM)
GRANT, JEREMY	281519589	Lumbar Spine Laminectomy Decompression w	SFTK MAIN OR	011341	DRAPE UNIV X-RAY (C-ARM)
REED, EDWARD	279955093	Femur Distal Epiphysiodesis	SFTK MAIN OR	016708	GLOVE PROTEXIS P&L/F 7-1/2(2D7
FISHER, MICHAEL	273627443	Irrigation and Debridement Soine Wound	KC MAIN OR	016708	GLOVE PROTEXIS P&L/F 7-1/2(2D7

Date Range: 12/4/2019 12:00:00 AM to 12/5/2019 12:00:00 AM

Figure 342: Average Usage Summary View

Right-clicking the mouse in the average usage summary grid will open the [Context Menu](#). See [Figure 343](#).

Surgeon Average Usage	
Copy Item Description	
Copy Item Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 343: Average Usage Summary Context Menu

High Supply Usage

The High Supply Usage view displays the same information available in the Average Usage Summary View ([Figure 334](#)) but only for surgeons with supply usage of a given item in a primary procedure that exceeds that exceeds the average usage by other surgeons for that item and primary procedure by 25%. Clicking a surgeon's name will show the surgeons average usage for the primary procedure compared to other surgeons.

9.12.5 Encounters

Encounters Summary

The Encounters Summary view displays an overview of encounters completed within the selected date range. Double-clicking an encounter will show the details view for that encounter.

prod > Charge Capture > Supply Charging

All Supplies > Encounters

Facility FIN Used Quantity Returned Quantity Charged Quantity Total Cost Total Charged Fill Location

SFTKHC	1300496079	89	47	6	\$7,195.00	\$9,829.00	CONSIGNMENT, EQUIPMENT, GS, SPD
SFTKHC	1300612504	21	2	2	\$126.00	\$182.00	EQUIPMENT, SPD, SURGERY SUPPLIES
SFTKHC	1300162910	9	1	0	\$226.00	\$0.00	EQUIPMENT, SPD, SURGERY SUPPLIES
SFTKHC	1300588892	3	0	1	\$0.00	\$1,395.00	SPD
SFTKHC	1300134914	8	2	1	\$454.00	\$185.00	EQUIPMENT, GS, SPD, SURGERY SUPPLIES
SFTKHC	1300581277	33	6	2	\$818.00	\$797.00	EQUIPMENT, SPD, SURGERY SUPPLIES
SFTKHC	1300482957	16	2	0	\$37.00	\$0.00	EQUIPMENT, SPD, SURGERY SUPPLIES
SFTKHC	1300483436	22	9	0	\$26.00	\$0.00	EQUIPMENT, SPD, SURGERY SUPPLIES
SFTKHC	1300168425	0	0	0	\$0.00	\$0.00	EQUIPMENT, SPD, SURGERY SUPPLIES
SFTKHC	1300903055	20	6	2	\$694.00	\$319.00	EQUIPMENT, GS, SURGERY SUPPLIES
SFTKHC	1300447598	3	0	0	\$20.00	\$0.00	EQUIPMENT, SPD
SFTKHC	1300915050	15	1	1	\$12.00	\$123.00	EQUIPMENT, SPD
SFTKHC	1300928199	0	0	0	\$0.00	\$0.00	
SFTKHC	1300556511	0	0	0	\$0.00	\$0.00	
SFTKHC	1300481463	0	0	0	\$0.00	\$0.00	
SFTKHC	1300001699	0	0	0	\$0.00	\$0.00	
SFTKHC	1300672843	45	40	1	\$559.00	\$63.00	EQUIPMENT, SPD, SURGERY SUPPLIES

Date Range: 12/10/2019 12:00:00 AM to 12/11/2019 12:00:00 AM

Figure 344: Encounters Summary View

Right-clicking the mouse in the encounter summary grid will open the [Context Menu](#). See [Figure 345](#).

Encounter Info	
Copy FIN	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 345: Encounter Summary Context Menu

Encounters With Charging Issues

The With Charging Issues view displays the same information available in the Encounters Summary View ([Figure 344](#)) but only for encounters that have charges which are inconsistent with supply usage. Double-clicking an item will show its details.

Encounter Info

The Encounter Info view displays details about supply usage over an encounter. Double-clicking an item row will open the Item Info view for that item's usage within the context of the this encounter.

Item ID	Item Description	Used Quantity	Returned Quantity	Charged Quantity	Unit Cost	Price	Total Charged	Fill Location
78000630	AQUAMANTYS 6.0 HANDPIECE	2	0	1	\$540.00	\$3,414.00	\$3,414.00	SPD
77793356	BINDER ABD 30-45IN	4	4	0	\$3.02		\$0.00	GS
77793382	BINDER ABD 46-62IN	4	2	3	\$4.67	\$80.00	\$240.00	GS
77904715	BL BP OSC TIP SAW 6525-127-10	4	2	3	\$131.38	\$1,346.00	\$4,038.00	SPD
77945736	BLADE ULTRACLEAN 4" 60-7524-	4	4	0	\$2.50		\$0.00	SPD
79930512	CANAL FINDER PROXIMA	4	2	0	\$0.00		\$0.00	EQUIPMENT
78067156	C-ARM	4	2	0	\$0.00		\$0.00	EQUIPMENT
78067176	CAUTERY UNIT	4	2	0	\$0.00		\$0.00	EQUIPMENT
77764684	CEMENT MIX SYSTEM	4	4	0	\$42.00		\$0.00	SPD
77885643	CEMENT PALACOS	8	8	0	\$34.00		\$0.00	SPD
77878473	CEMENT PALACOS W/GENTAMIK	8	8	0	\$130.00		\$0.00	SPD
77782858	COVER TABLE	4	2	0	\$20.67		\$0.00	SPD
77974314	DERMABOND SKIN ADHESIVE	4	2	3	\$31.33	\$429.00	\$1,287.00	SPD
77781396	DRAPE HALF	8	6	0	\$0.00		\$0.00	SPD

Figure 346: Encounter Info View

Right-clicking the mouse in the encounter info grid will open the [Context Menu](#). See [Figure 347](#).

Item Info	
Copy FIN	
Copy Item ID	
Copy Item Number	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 347: Encounter Info Context Menu

9.12.6 Items

Items Summary

The Items Summary view displays an overview of items used within the selected date range. Double-clicking an item will show its details.

prod > Charge Capture > Supply Charging

All Supplies > Items

FIN:

Facility	FIN	Item ID	Item Number	Item Description	HCPCS	CDM	Revenue Code	Used Quantity	Returned Quantity
SFTKHC	1300612504	78067056	70001	ALLEN STIRRUPS/YELLOW FINS		70001		0	0
SFTKHC	1300672843	78067056	70001	ALLEN STIRRUPS/YELLOW FINS		70001		2	0
SFTKHC	1300581277	78067076	70002	ARTHROSCOPY PUMP				1	0
SFTKHC	1300915050	78008635	0001759	BANDAGE SPONGE STRL 4X4 10 12P			0272	0	0
SFTKHC	1300915050	78042932	60261	BASIN CYSTO PKG		60261		2	0
SFTKHC	1300672843	78043792	60335	BASIN SINGLE				2	0
SFTKHC	1300612504	78043812	60336	BASIN SUTURE		60336		2	0
SFTKHC	1300581277	78043812	60336	BASIN SUTURE		60336		1	0
SFTKHC	1300496079	77793382	0001838	BINDER ABD 46-62IN			0270	2	0
SFTKHC	1300903055	77817378	0003983	BLADE ENT TURBINATE 18-82040 F			0272	1	1
SFTKHC	1300496079	77945736	0028645	BLADE ULTRACLEAN 4" 60-7524-00			0272	2	4
SFTKHC	1300581277	77821410	0004313	BLANKET WARMING UPPER BODY				1	0
SFTKHC	1300483436	77769940	0000556	BLD SCALPEL 11			0272	1	0
SFTKHC	1300134914	77769966	0000557	BLD SCALPEL 12		0000557		0	0
SFTKHC	1300482957	77769966	0000557	BLD SCALPEL 12		0000557		1	0
SFTKHC	1300672843	77769966	0000557	BLD SCALPEL 12		0000557		0	1
SFTKHC	1300612504	77769992	0000558	BLD SCALPEL 15			0272	2	0
SFTKHC	1300903055	77769992	0000558	BLD SCALPEL 15			0272	1	0
SFTKHC	1300672843	77770018	0000559	BLD SCALPEL 21		0000559		0	1
SFTKHC	1300496079	79930512		CANAL FINDER PROXIMA				0	1
SFTKHC	1300162910	77770792	0000604	CATH SUCTION 14FR		0000604	0272	1	0
SFTKHC	1300482957	77770792	0000604	CATH SUCTION 14FR		0000604	0272	2	0
SFTKHC	1300915050	77789830	0001635	CATH URETERAL WHISTLE TIP 5FR	C1758	0001635		1	0
SFTKHC	1300162910	77764450	0000234	CAUTERY LECTRO FOOT 10FR			0272	1	0
SFTKHC	1300134914	77764450	0000234	CAUTERY LECTRO FOOT 10FR			0272	2	0
SFTKHC	1300162910	77764450	0000234	CAUTERY LECTRO FOOT 10FR			0272	1	0

Date Range: 12/10/2019 12:00:00 AM to 12/11/2019 12:00:00 AM

Figure 348: Items Summary View

Right-clicking the mouse in the item summary grid will open the [Context Menu](#). See [Figure 349](#).

Item Info	
Copy CDM	
Copy FIN	
Copy HCPCS	
Copy Item ID	
Copy Item Number	
Copy Revenue Code	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 349: Item Summary Context Menu

Items With Charging Issues

The Items With Charging Issues view displays the same information available in the Items Summary View (Figure 348) but only for items that have charges which are inconsistent with supply usage. Double-clicking an item will show its details.

Items With Zero Cost

The Zero Cost view displays the same information available in the Items Summary View (Figure 348) but only for items that have at least one usage instance where the unit cost is zero. Double-clicking an item will show its details.

Items With No Cost

The No Cost view displays the same information available in the Items Summary View (Figure 348) but only for items that have no costs configured in Millennium for any location. Double-clicking an item will show its details.

Items With CDM

The Items With CDM view displays the same information available in the Items Summary View (Figure 348) but only for items that have an associated CDM code. Double-clicking an item will show its details.

Items With No CDM

The Items With No CDM view displays the same information available in the Items Summary View (Figure 348) but only for items that do not have an associated CDM code. Double-clicking an item will show its details.

Items With HCPCS

The Items With HCPCS view displays the same information available in the Items Summary View (Figure 348) but only for items that have an associated HCPCS code. Double-clicking an item will show its details.

Items With No HCPCS

The Items With No HCPCS view displays the same information available in the Items Summary View (Figure 348) but only for items that do not have an associated HCPCS code. Double-clicking an item will show its details.

Items With Revenue Code

The Items With Revenue Code view displays the same information available in the Items Summary View (Figure 348) but only for items that have an associated Revenue code. Double-clicking an item will show its details.

Items With No Revenue Code

The Items With No Revenue Code view displays the same information available in the Items Summary View (Figure 348) but only for items that do not have an associated Revenue code. Double-clicking an item will show its details.

Item Info

The Item Info view displays details about a single item's usage within the context of a single encounter. Reference Data about the item can be reached through the right-click context menu.

Item Description: SUT VICRYL 1 J353H CT F Item Number: 0001202 HCPCS: Revenue Code: 0272 CDM: 0001202									
Charge Description	Charge Type	Process Flag	Reason	Item Quantity	Unit Cost	Item Price	Item Extended Price	Price Schedule Description	Fill Locat
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Return	2	\$0.00	\$63.00	\$126.00	Base Price	
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Fill	2	\$1.00	\$63.00	\$126.00	Base Price	SPD
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Return	2	\$0.00	\$63.00	\$126.00	Base Price	
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Fill	2	\$1.00	\$63.00	\$126.00	Base Price	SPD
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Return	2	\$0.00	\$63.00	\$126.00	Base Price	
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Fill	2	\$1.00	\$63.00	\$126.00	Base Price	SPD
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Return	2	\$0.00	\$63.00	\$126.00	Base Price	
SUT VICRYL 1 J353H CT F DEBIT		Posted	Case Fill	2	\$1.00	\$63.00	\$126.00	Base Price	SPD

Figure 350: Item Info View

Right-clicking the mouse in the item info grid will open the [Context Menu](#). See [Figure 351](#).

Reference Info	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 351: Item Details Context Menu

9.12.7 Reference Data

Reference Data Summary

The Reference Data view displays an overview of all supply items configured in Millennium that match the search criteria. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Item ID	Item Number	Item Description	HCPCS	CDM	Revenue Code	Configured Costs	Configured Prices
77761156				0000070	0270	0	0
77761520				0000085		0	0
77761672				0000103		0	0
77761892				0000117		0	0
77761980				0000121		0	0
77762568				0000147		0	0
77765178				0000290		0	0
77765278				0000295	0272	0	0
77766570				0000376		0	0
77767562				0000423		0	0
77768980				0000493		0	0
79012659				0000519	0272	0	0
77770268				0000571		0	0
77770532				0000591		0	0
77773578				0000783		0	0
77774998				0000860		0	0
77775292				0000881		0	0
77775794				0000923		0	0
77777376				0001024		0	0
77782386				0001295	0272	0	0
77782762				0001312		0	0
77782812				0001314		0	0
77783012				0001323	0272	0	0
77783064				0001326		0	0
77783602				0001348		0	0
77784692				0001393		0	0
77785652				0001432		0	0

Figure 352: Reference Data Summary View

Right-clicking the mouse in the reference data summary grid will open the [Context Menu](#). See [Figure 353](#).

Reference Info	
Copy CDM	
Copy HCPCS	
Copy Item ID	
Copy Item Number	
Copy Revenue Code	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 353: Reference Data Summary Context Menu

Reference Data Zero Cost

The Reference Data Zero Cost view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have at least one configuration where its cost is zero. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data No Cost

The Reference Data No Cost view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have no cost configurations in Millennium. Double-clicking an item will show additional details about the price configuration in Millennium.

Reference Data Zero Price

The Reference Data Zero Cost view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have at least one configuration where its price is zero. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data No Price

The Reference Data No Price view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have no price configurations in Millennium. Double-clicking an item will show additional details about the cost configuration in Millennium.

Reference Data With CDM

The Reference Data With CDM view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have an associated CDM code. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data With No CDM

The Reference Data With No CDM view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that do not have an associated CDM code. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data With HCPCS

The Reference Data With HCPCS view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have an associated HCPCS code. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data With No HCPCS

The Reference Data With No HCPCS view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that do not have an associated HCPCS code. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data With Revenue Code

The Reference Data With Revenue Code view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that have an associated Revenue code. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Data With No Revenue Code

The Reference Data With No Revenue Code view displays the same information available in the Reference Data Summary View (Figure 352) but only for items that do not have an associated Revenue code. Double-clicking an item will show additional details about the cost and price configuration in Millennium.

Reference Info

The Reference Info view displays details about a single item's configuration in Millennium. Relevant billing codes (CDM, Revenue, HCPCS, etc.) and any cost and price configurations are displayed here.

9.12.8 Searching

The Supply Charging Control provides the ability to search based on selected date range, Facility, Location, Package Type, and Surgical Area. The date range will default to the last seven days. Facility, Location, Package Type, and Surgical Area are unfiltered by default. (Figure 356).

The image shows a 'Search' dialog box with a paw print icon in the top left corner. It has standard window controls (minimize, maximize, close) in the top right. Below the title bar, there is a 'Date Range' section with a dropdown menu currently set to 'Yesterday'. Underneath, there are four tabs: 'Facilities', 'Fill Locations', 'Package Types', and 'Surgical Areas'. The 'Facilities' tab is selected, and a checkbox labeled 'Filter by facility' is checked. The dialog is divided into two main sections: 'Excluded:' on the left and 'Included:' on the right. Each section contains a list box with a 'Facility Name' header. The 'Excluded' list contains 18 items, including 'CARDIOLOGY', 'CEFP', 'CFP', 'FMC', 'HEALTH DEPT SOFTEK COUNTY', 'KCMO CLINIC', 'KCMO HOME', 'MATT ENT', 'ME CORP', 'PANTHER MANOR NURSING CENTER', 'SFTK', 'SFTKHC', 'SOFTEK CARE CENTER', 'SOFTEK CLINIC', 'SOFTEK CREEK OF SOFTEK', 'SOFTEK ESTATES', 'SOFTEK HEALTH CARE CENTER', and 'SOFTEK VILLAGE'. The 'Included' list contains 5 items: 'COMMUNITY HOME CARE', 'ENT PRAIRIE VILLAGE CLINIC', 'OUTPT KC ADULT', 'OUTPT KC CHILD', and 'PANTHER CLINIC'. Between the two list boxes are four arrow buttons: a blue double arrow pointing right, a grey single arrow pointing right, a grey single arrow pointing left, and a blue double arrow pointing left. At the bottom right of the dialog are 'OK' and 'Cancel' buttons.

Facility Name
CARDIOLOGY
CEFP
CFP
FMC
HEALTH DEPT SOFTEK COUNTY
KCMO CLINIC
KCMO HOME
MATT ENT
ME CORP
PANTHER MANOR NURSING CENTER
SFTK
SFTKHC
SOFTEK CARE CENTER
SOFTEK CLINIC
SOFTEK CREEK OF SOFTEK
SOFTEK ESTATES
SOFTEK HEALTH CARE CENTER
SOFTEK VILLAGE

Facility Name
COMMUNITY HOME CARE
ENT PRAIRIE VILLAGE CLINIC
OUTPT KC ADULT
OUTPT KC CHILD
PANTHER CLINIC

Figure 356: Search Filter Dialog

10 Patient Accounting

Panther patient accounting controls provide Cerner Revenue Cycle clients instant visibility into the status of key financial and billing data. The components listed below represent a growing collection of functionality.

For more detailed information about the Panther Patient Accounting controls, you may visit their respective section(s).

10.1. ATB Control

The ATB control is an interactive tool to view monthly cash flow.

To view the ATB control, select the *ATB* item in the domain explorer (Figure 357).

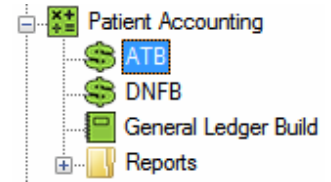


Figure 357: Domain Explorer



Data Is Retrieved Automatically For The Most Recent Search

The ATB control automatically performs a search on load using the most recent criteria defined by the user. If no criteria has been defined, it will use a default set of criteria.

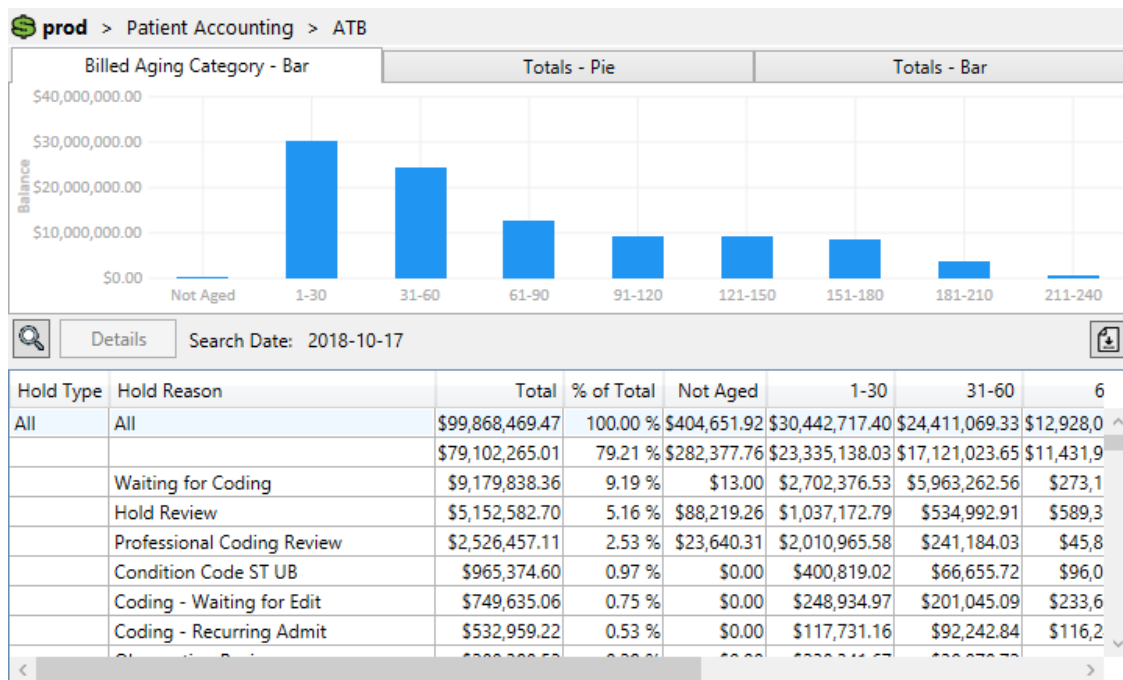


Figure 358: ATB Control

10.1.1 Working With Search Results

Once a search has completed, the data is presented in tabular format as well as several charts.

Billed Aging Category Bar Chart

Initially, a bar chart breaking down totals by aging category index is displayed (Figure 359). This chart displays data for the currently-selected row in the table.

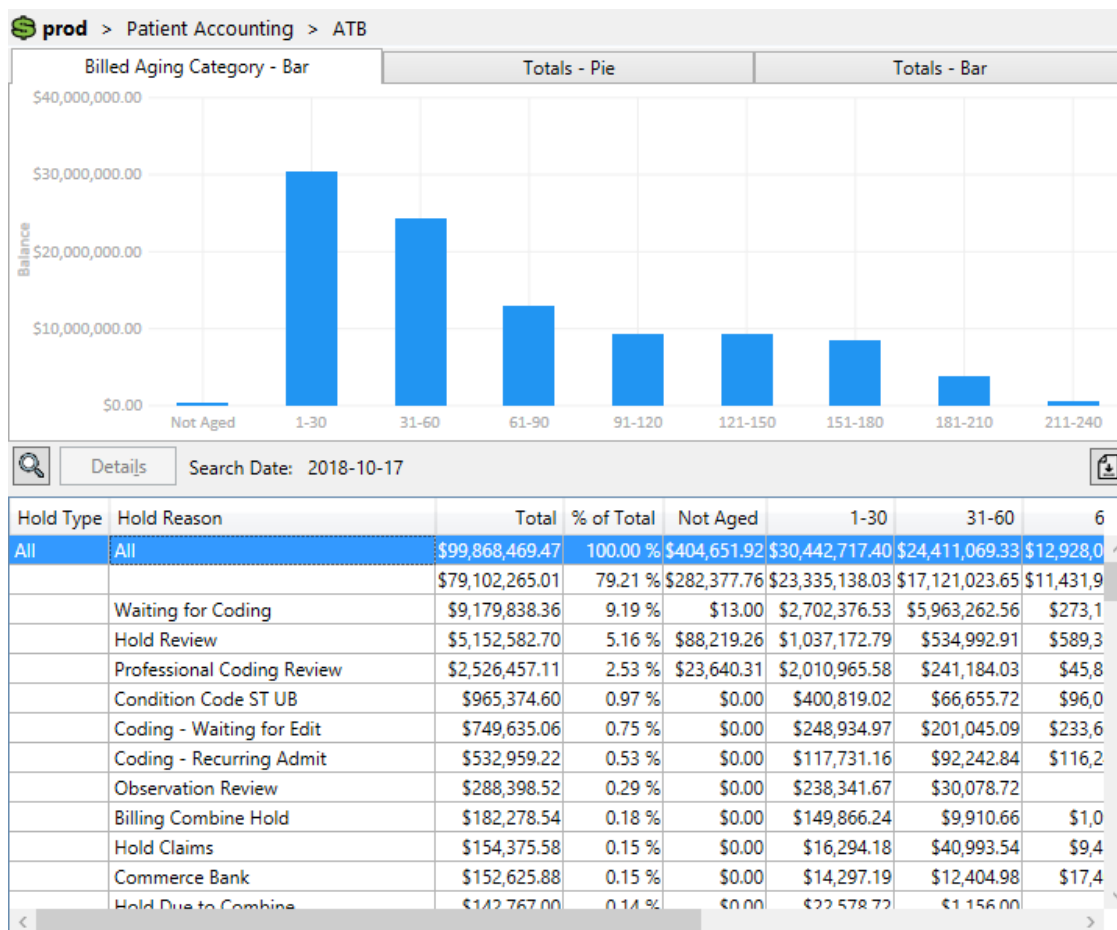


Figure 359: ATB With Data

Totals Pie Charts

There is also a set of pie charts displaying relative totals (Figure 360). The first breaks down totals by the primary identifier while the second breaks them down by the secondary identifier. Within each chart, hovering the mouse over a pie slice will display the identifier, raw total, and percentage of the pie. Additionally, clicking a pie slice will highlight its row in the table below, and double-clicking a slice will load its [encounter details](#).

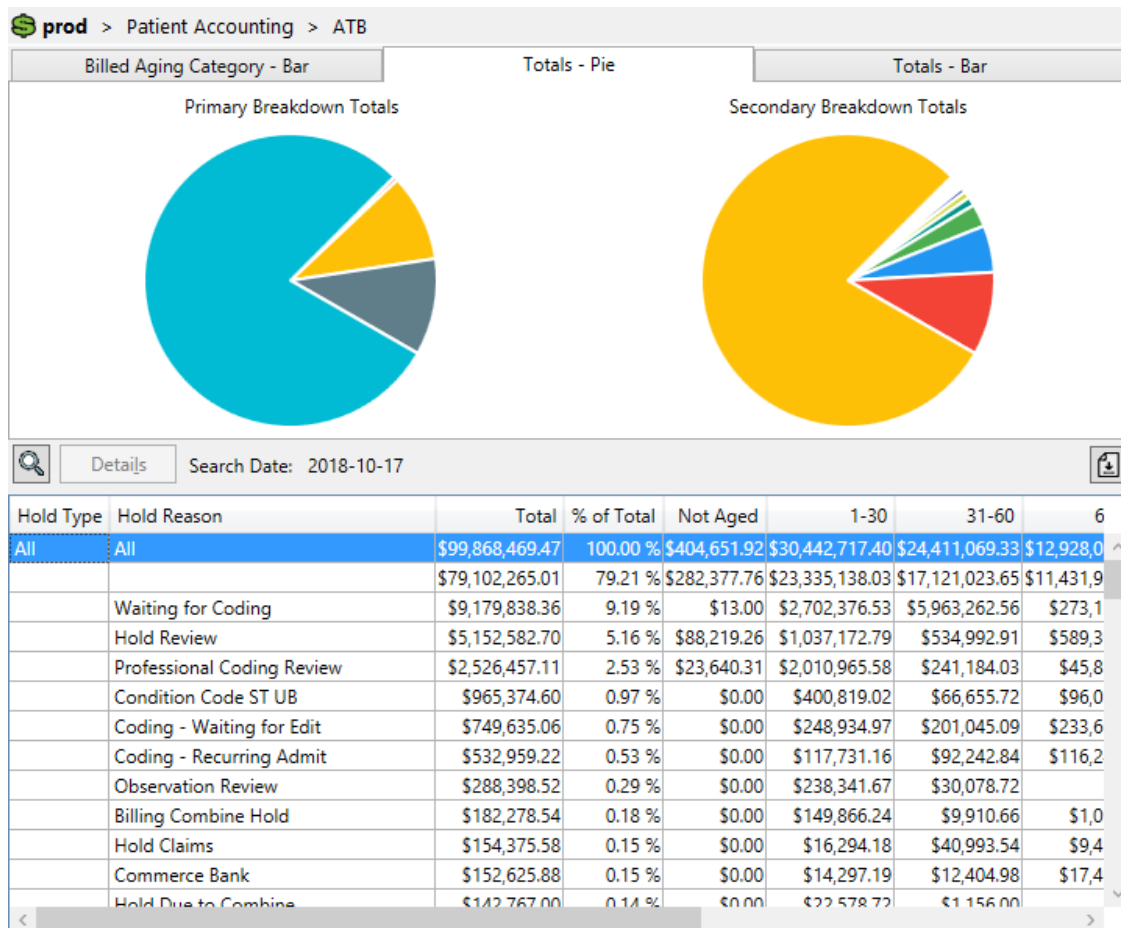


Figure 360: ATB Pie Charts



Pie Slice Percentages May Not Match Table Percentages

The percentages found in the table are calculated by dividing the raw total value for the row by the raw grand total value. When all values are positive or all values are negative, the percentages work as expected. However, pie charts cannot handle negative percentages. As a result, when mixing positive and negative values, the pie charts use absolute values similar to Microsoft Excel®, but the table will display true percentages.

Totals Bar Charts

Lastly, there is a set of bar charts displaying the raw totals (Figure 361). As with the pie charts, the first breaks down totals by the primary identifier, while the second breaks them down by the secondary identifier. Also like the pie charts, hovering the mouse over a bar will display its identifier and raw total, clicking a bar will highlight its row in the table below, and double-clicking a bar will load its [encounter details](#).

Each bar chart is sorted by total in descending order and paginated, displaying ten values at a time. The up and down buttons provide the ability to navigate through each page of data.

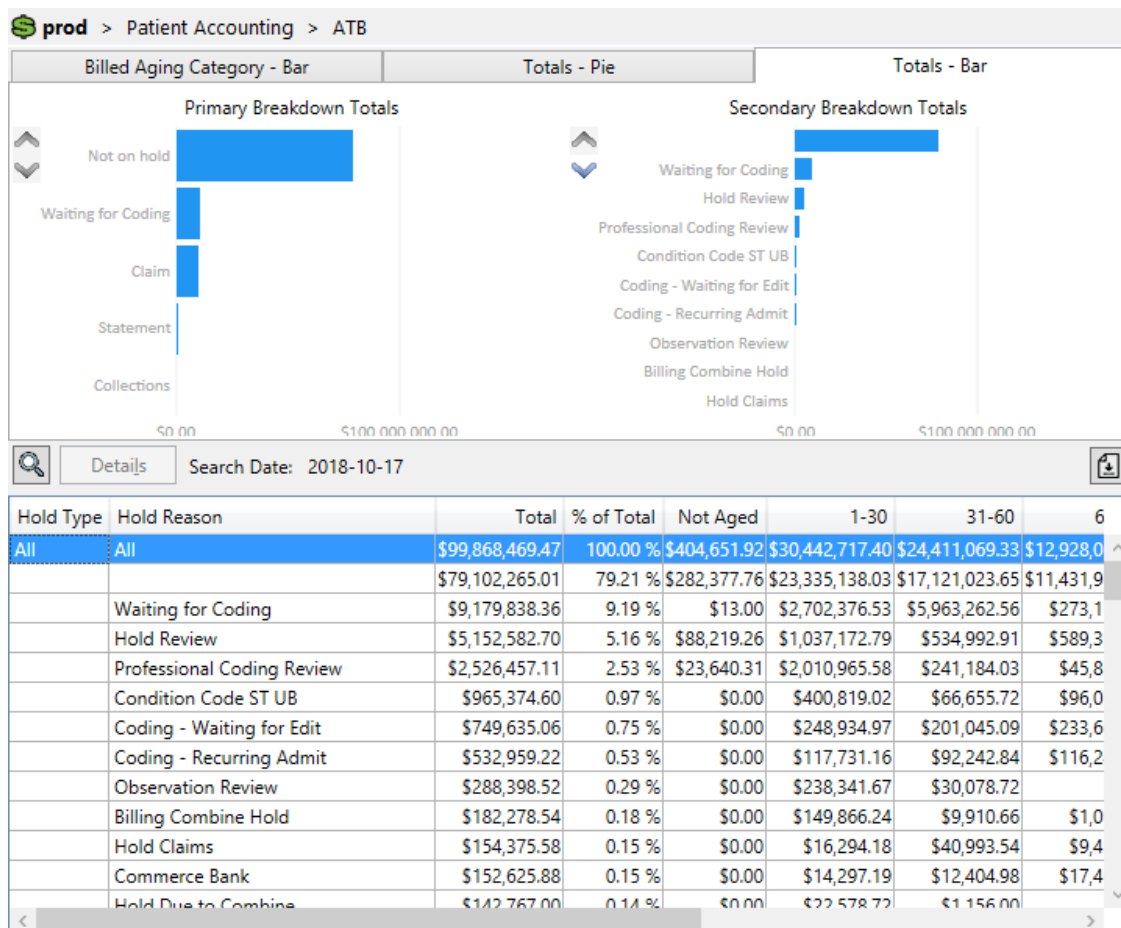


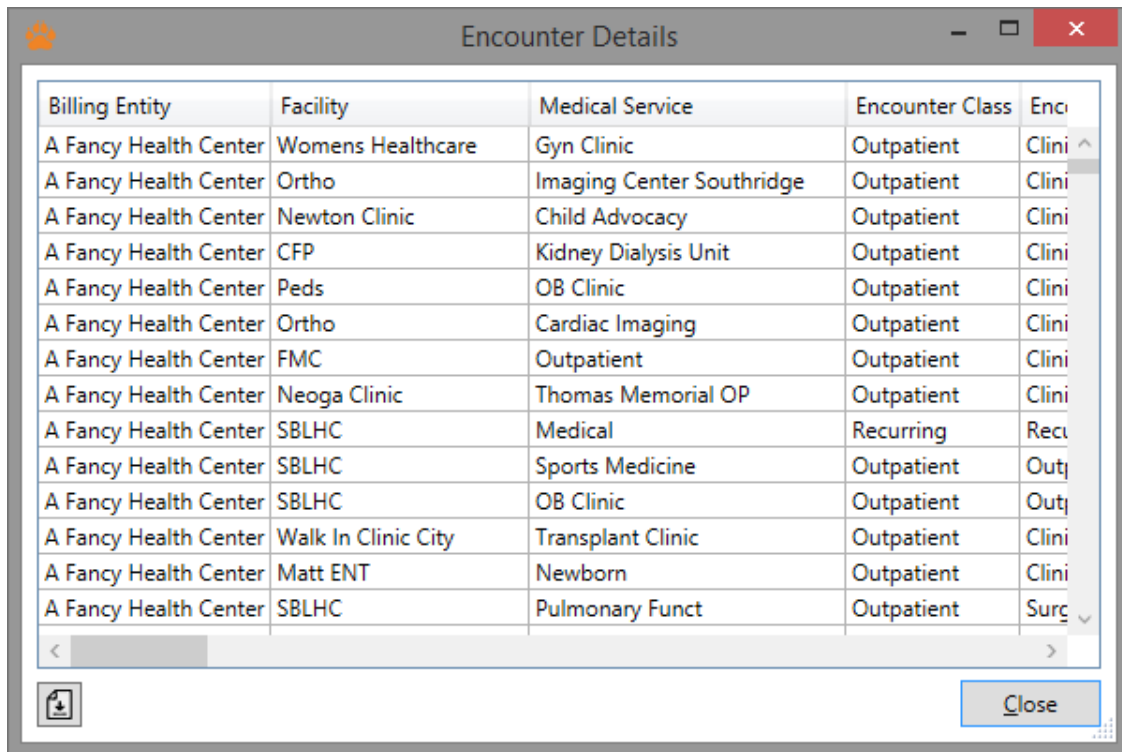
Figure 361: ATB Bar Charts

Exporting Data

The ATB control also allows the export of currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

Viewing Details

Occasionally, it is useful to pull up encounter details for a summary item. This can be done by selecting a row in the table and clicking the *Details* button, clicking the *Details* context menu item, double-clicking the row, or double-clicking a chart slice/bar. This will bring up the details dialog (Figure 362).



Billing Entity	Facility	Medical Service	Encounter Class	Encounter ID
A Fancy Health Center	Womens Healthcare	Gyn Clinic	Outpatient	Clini ^
A Fancy Health Center	Ortho	Imaging Center Southridge	Outpatient	Clini
A Fancy Health Center	Newton Clinic	Child Advocacy	Outpatient	Clini
A Fancy Health Center	CFP	Kidney Dialysis Unit	Outpatient	Clini
A Fancy Health Center	Peds	OB Clinic	Outpatient	Clini
A Fancy Health Center	Ortho	Cardiac Imaging	Outpatient	Clini
A Fancy Health Center	FMC	Outpatient	Outpatient	Clini
A Fancy Health Center	Neoga Clinic	Thomas Memorial OP	Outpatient	Clini
A Fancy Health Center	SBLHC	Medical	Recurring	Recu
A Fancy Health Center	SBLHC	Sports Medicine	Outpatient	Outp
A Fancy Health Center	SBLHC	OB Clinic	Outpatient	Outp
A Fancy Health Center	Walk In Clinic City	Transplant Clinic	Outpatient	Clini
A Fancy Health Center	Matt ENT	Newborn	Outpatient	Clini
A Fancy Health Center	SBLHC	Pulmonary Funct	Outpatient	Surc v

Figure 362: Encounter Details

Like its parent control, this dialog allows for exporting tabular data to [CSV](#) or Excel® format via the export button.

The FIN can be copied out of the selected row by double-clicking or selecting the *Copy FIN* context menu item. Additionally, the MRN can be copied out of the selected row by selecting the *Copy MRN* context menu item.

10.1.2 Search

Upon clicking the search button, a search dialog presenting basic criteria (Figure 363) opens. The search is triggered once *OK* is clicked and the dialog closes.



Search Displays the Current Criteria

When opened, the search dialog will display the criteria used for the most recent search. This makes it easy to modify existing searches.

If more specific, narrowly-focused criteria are known up front, more criteria is supplied upon expanding [Advanced Search](#).

10.1.3 Advanced Search

Upon expanding *Advanced Search*, the search dialog expands to display additional criteria which can be applied (Figure 364). This helps narrow down the search to very specific items when investigating issues.

Certain criteria types are stored as pairs in Millennium (Hold Type with Hold Reason, and Encounter Class with Encounter Type). Panther displays them separately for convenience, but the values selected in one part of the pair can affect which values will be effectively searched on in the other part of the pair.

For instance, there may be a Hold Type of “Waiting for Coding”, associated with Hold Reasons of “Coding - Dept Review” and “Coding - Received Coding Query”. If “Waiting for Coding” is unchecked, the associated Hold Reasons will not be included in results even if they are checked. To make this more apparent, they will not be saved in the Search Preferences.

Conversely, even if “Waiting for Coding” is checked, if neither “Coding - Dept Review” nor “Coding - Received Coding Query” are checked, that pair is effectively excluded from the search results, and so will not be saved as part of the Search Preferences.



Advanced Search Also Displays the Current Criteria

Like the basic search criteria, all advanced criteria for the most recent search is displayed to aid in modifying existing searches. This is true even if *Advanced Search* has not yet been expanded.



Why Do Warning Icons Appear Next To Criteria?

Hold Type and Hold Reason as well as Encounter Class and Encounter Type values are actually stored as pairs in Millennium®. Panther provides them as separate criteria for convenience, but it will warn when combinations of values are incapable of returning any results.

Figure 363: Search Dialog

Figure 364: Advanced Search Dialog

10.2. Balance Holds Control

The Balance Holds control is an interactive tool to view held balances.

To view the Balance Holds control, select the *Balance Holds* item in the domain explorer (Figure 365).

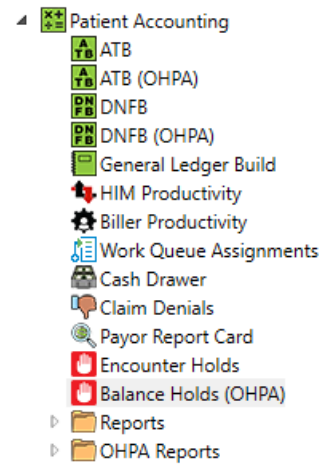


Figure 365: Domain Explorer



Data is Retrieved Automatically for the Most Recent Search

The Balance Holds control automatically performs a search on load using the most recent criteria defined by the user. If no criteria has been defined, it will load data for all active holds.

10.2.1 Hold Summary

The Hold Summary view displays the count and value of balances with active holds, grouped by hold type, hold reason, worklist, and age. Total rows are shown for each hold type, reason, and worklist.

The [Search](#) button allows options for restricting the search. The “Include Totals” checkbox determines whether total rows are shown. The “Export” button allows for the displayed data to be saved to a .csv or .xlsx file.

Clicking any of the linked counts for an aging category or for a total will bring up the [Held Balances](#) dialog.



Show or Hide Total Rows

The ‘Include Totals’ checkbox controls whether total rows are shown. When total rows are hidden, they are not included when the data is exported to a file. This can be useful for performing analytics on exported data.

prod > Patient Accounting > Balance Holds (OHPA)

☒ Include Totals

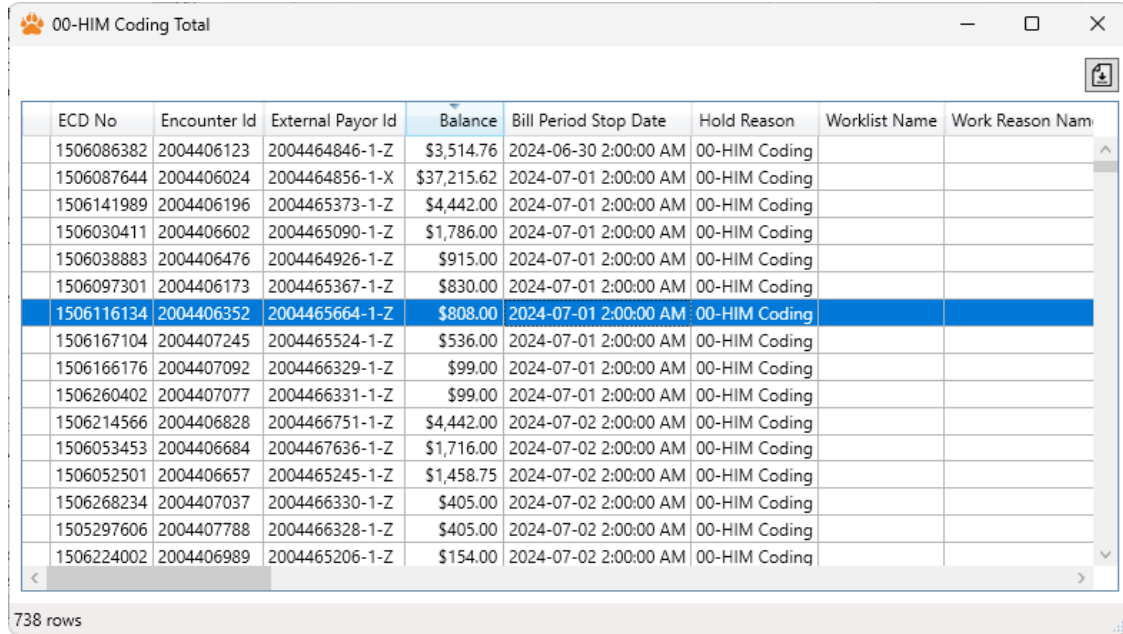
Hold	Reason	Worklist	Total	Total Balance	Not Aged Count	Not Aged Balance	0-5 Count	Bala
14-Insurance Data	All	All	39	\$542,969.06				
14-Insurance Data		All	39	\$542,969.06				
14-Insurance Data			39	\$542,969.06				
17-Other Claim Data	All	All	44	\$957,710.10				
17-Other Claim Data		All	44	\$957,710.10				
17-Other Claim Data			44	\$957,710.10				
93-Wait Pred Cmpl	All	All	863	\$6,569,780.91			33	\$1,443.46
93-Wait Pred Cmpl		All	863	\$6,569,780.91			33	\$1,443.46
93-Wait Pred Cmpl			863	\$6,569,780.91			33	\$1,443.46
96-Wait Hold Days	All	All	539	\$2,475,880.53	35	\$349,480.99	9	\$252.69
96-Wait Hold Days		All	539	\$2,475,880.53	35	\$349,480.99	9	\$252.69
96-Wait Hold Days			539	\$2,475,880.53	35	\$349,480.99	9	\$252.69
97-Manual Hold	All	All	1	\$93,601.38				
97-Manual Hold		All	1	\$93,601.38				
97-Manual Hold			1	\$93,601.38				
98-Excluded From Billing	All	All	8	\$380,343.06				
98-Excluded From Billing		All	8	\$380,343.06				
98-Excluded From Billing			8	\$380,343.06				
99-Billed	All	All	3,402	\$7,200,433.08				
99-Billed		All	3,402	\$7,200,433.08				
99-Billed			3,402	\$7,200,433.08				

Figure 366: Hold Summary

Held Balances

The Held Balances view displays a list of balances currently subject to the selected hold and aging category

Additional details for the encounter associated with a balance can be viewed by double clicking on the row which opens the [Encounter Details](#) view.



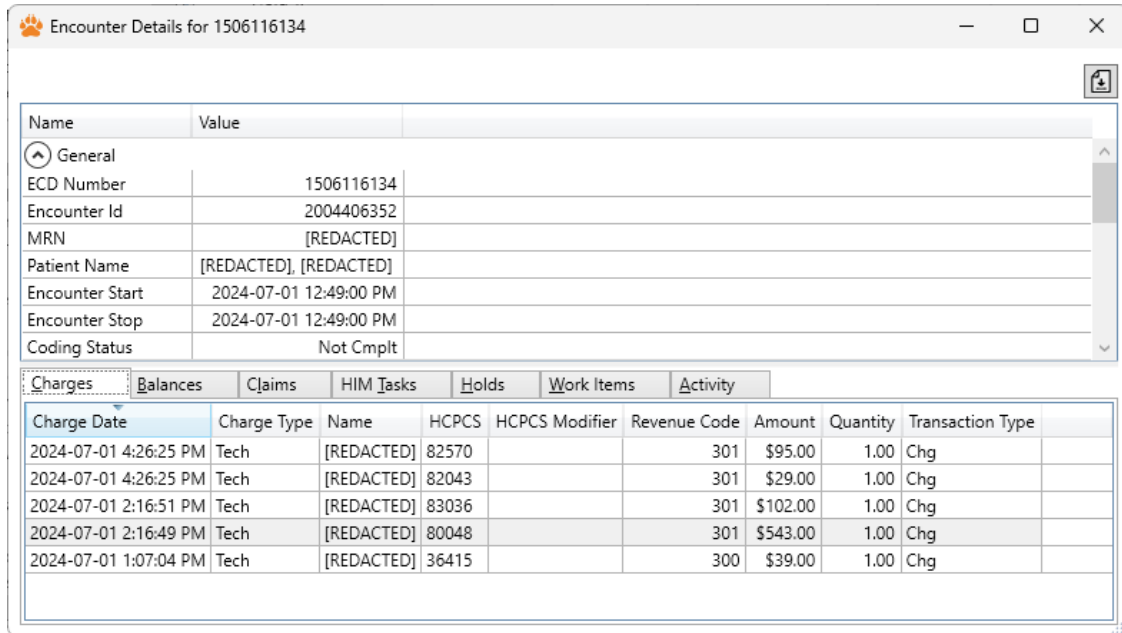
ECD No	Encounter Id	External Payor Id	Balance	Bill Period Stop Date	Hold Reason	Worklist Name	Work Reason Nam
1506086382	2004406123	2004464846-1-Z	\$3,514.76	2024-06-30 2:00:00 AM	00-HIM Coding		
1506087644	2004406024	2004464856-1-X	\$37,215.62	2024-07-01 2:00:00 AM	00-HIM Coding		
1506141989	2004406196	2004465373-1-Z	\$4,442.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506030411	2004406602	2004465090-1-Z	\$1,786.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506038883	2004406476	2004464926-1-Z	\$915.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506097301	2004406173	2004465367-1-Z	\$830.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506116134	2004406352	2004465664-1-Z	\$808.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506167104	2004407245	2004465524-1-Z	\$536.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506166176	2004407092	2004466329-1-Z	\$99.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506260402	2004407077	2004466331-1-Z	\$99.00	2024-07-01 2:00:00 AM	00-HIM Coding		
1506214566	2004406828	2004466751-1-Z	\$4,442.00	2024-07-02 2:00:00 AM	00-HIM Coding		
1506053453	2004406684	2004467636-1-Z	\$1,716.00	2024-07-02 2:00:00 AM	00-HIM Coding		
1506052501	2004406657	2004465245-1-Z	\$1,458.75	2024-07-02 2:00:00 AM	00-HIM Coding		
1506268234	2004407037	2004466330-1-Z	\$405.00	2024-07-02 2:00:00 AM	00-HIM Coding		
1505297606	2004407788	2004466328-1-Z	\$405.00	2024-07-02 2:00:00 AM	00-HIM Coding		
1506224002	2004406989	2004465206-1-Z	\$154.00	2024-07-02 2:00:00 AM	00-HIM Coding		

738 rows

Figure 367: Held Balances

Encounter Details

The Encounter Details view displays information for a given encounter.



Encounter Details for 1506116134

Name	Value
General	
ECD Number	1506116134
Encounter Id	2004406352
MRN	[REDACTED]
Patient Name	[REDACTED], [REDACTED]
Encounter Start	2024-07-01 12:49:00 PM
Encounter Stop	2024-07-01 12:49:00 PM
Coding Status	Not Cmplt

Charge Date	Charge Type	Name	HCPCS	HCPCS Modifier	Revenue Code	Amount	Quantity	Transaction Type
2024-07-01 4:26:25 PM	Tech	[REDACTED]	82570		301	\$95.00	1.00	Chg
2024-07-01 4:26:25 PM	Tech	[REDACTED]	82043		301	\$29.00	1.00	Chg
2024-07-01 2:16:51 PM	Tech	[REDACTED]	83036		301	\$102.00	1.00	Chg
2024-07-01 2:16:49 PM	Tech	[REDACTED]	80048		301	\$543.00	1.00	Chg
2024-07-01 1:07:04 PM	Tech	[REDACTED]	36415		300	\$39.00	1.00	Chg

Figure 368: Encounter Details

Searching

Clicking the search button opens a dialog presenting basic criteria (Figure 369). The search is triggered once *OK* is clicked and the dialog closes.

The *Filter by Receivable Owner* option will limit results to balances associated with the *included* Receivable Owners.



Search Displays the Current Criteria

When opened, the search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.

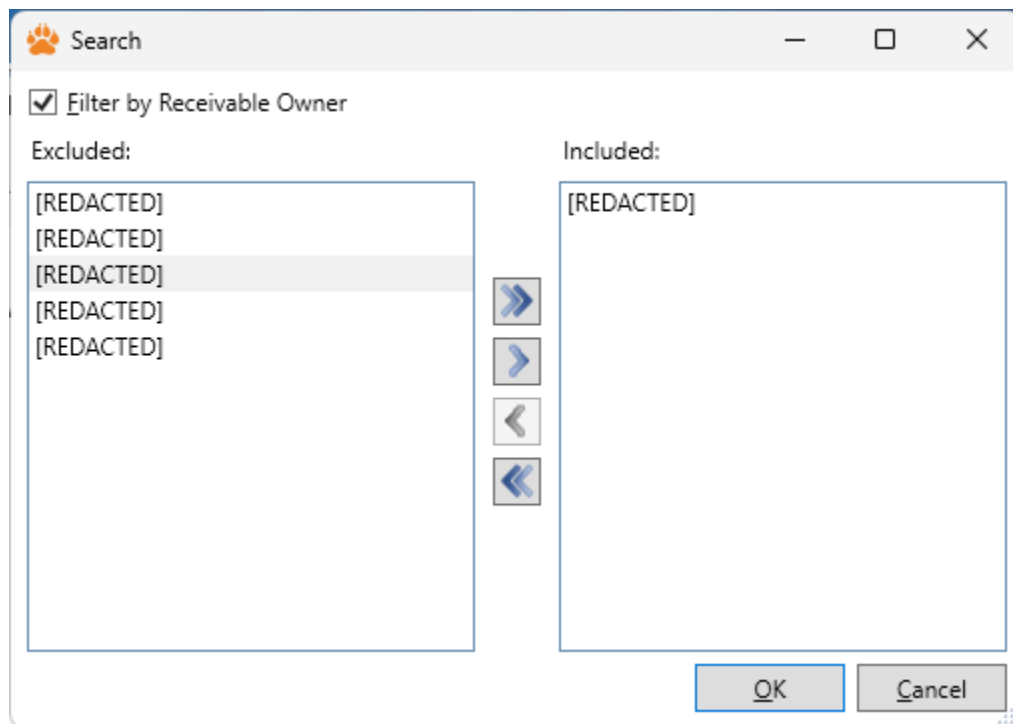
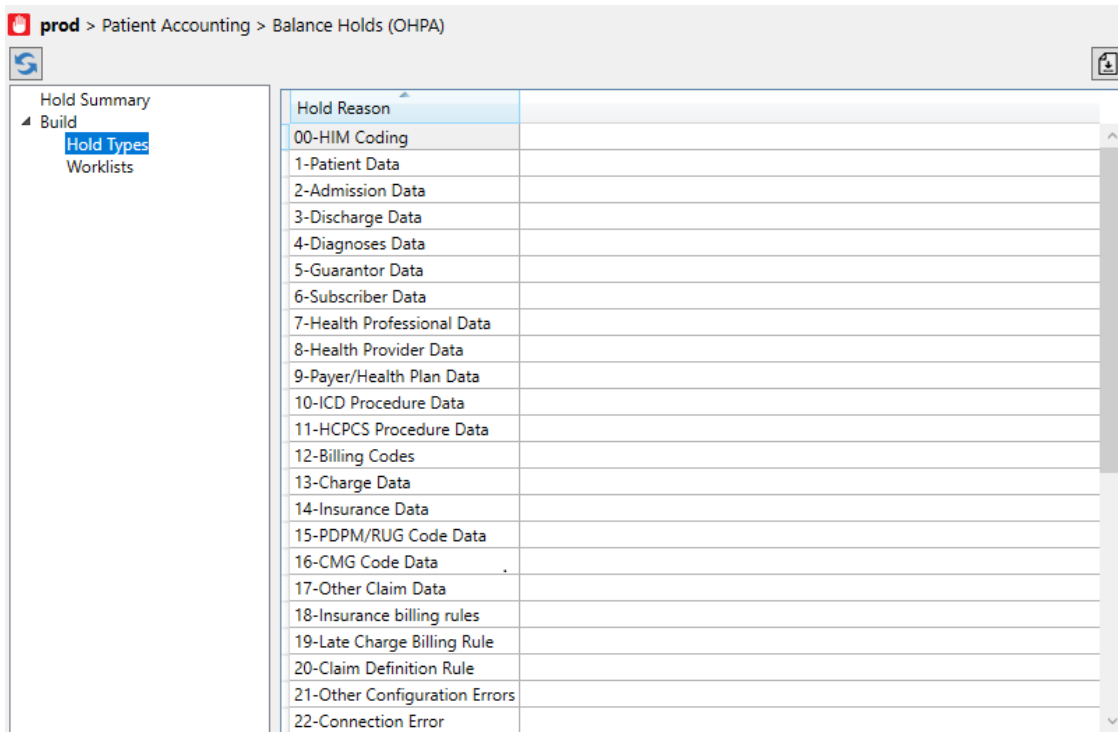


Figure 369: Search Dialog

10.2.2 Hold Types

The Hold Types view displays all of the configured hold types.



prod > Patient Accounting > Balance Holds (OHPA)		
Hold Summary	Hold Reason	
Build	00-HIM Coding	
Hold Types	1-Patient Data	
Worklists	2-Admission Data	
	3-Discharge Data	
	4-Diagnoses Data	
	5-Guarantor Data	
	6-Subscriber Data	
	7-Health Professional Data	
	8-Health Provider Data	
	9-Payer/Health Plan Data	
	10-ICD Procedure Data	
	11-HCPCS Procedure Data	
	12-Billing Codes	
	13-Charge Data	
	14-Insurance Data	
	15-PDPM/RUG Code Data	
	16-CMG Code Data	
	17-Other Claim Data	
	18-Insurance billing rules	
	19-Late Charge Billing Rule	
	20-Claim Definition Rule	
	21-Other Configuration Errors	
	22-Connection Error	

Figure 370: Hold Types

10.2.3 Worklists

The Worklists view displays all defined worklists.

prod > Patient Accounting > Balance Holds (OHPA)					
Hold Summary	Worklist Key	Object Type	Work Reason	List	Priority
Build	2004435017			[REDACTED]	
Hold Types	2004435019			[REDACTED]	
Worklists	2004435022			[REDACTED]	
	2004435072	Ins Bill Per	Denial	[REDACTED]	2004435013
	2004435075	Ins Bill Per	Denial	[REDACTED]	2004435012
	2004435084	Guar RBPB	Refund Request Guar RBPB	[REDACTED]	2004435020
	2004435086	Ins Bill Per	HIM Coding Review	[REDACTED]	2004435020
	2004435092	Ins Bill Per	Denial	[REDACTED]	2004435019
	2004435096	Ins Bill Per	Denial	[REDACTED]	2004435023
	2004435099	Ins Bill Per	Denial	[REDACTED]	2004435022
	2004435124	Ins Bill Per	Pay Variance (SYSTEM)	[REDACTED]	2004435022
	2004435126	Ins Bill Per	Pay Variance (SYSTEM)	[REDACTED]	2004435016
	2004435140			[REDACTED]	
	2004435142			[REDACTED]	
	2004435154	Guar RBPB	Guar Credit Bal (SYSTEM)	[REDACTED]	2004435020
	2004435157			[REDACTED]	
	2004435159			[REDACTED]	
	2004435162	Guar Acct	Guar Unalloc Pmt (SYSTEM)	[REDACTED]	2004435020
	2004435168			[REDACTED]	
	2004435174			[REDACTED]	
	2004435184	Guar RBPB	Adj Request Guar	[REDACTED]	2004435020
	2004435190	Ins Bill Per	Pending Charge	[REDACTED]	2004435020
	2004435194	Master File	MF Bill Except (SYSTEM)	[REDACTED]	2004435020

Figure 371: Worklists

10.3. Biller Productivity Control

The Biller Productivity control is an interactive tool to view Biller Productivity data.

To view the Biller Productivity control, select the *Biller Productivity* item in the domain explorer (Figure 372).

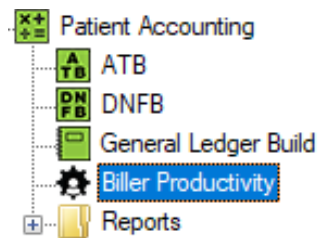


Figure 372: Domain Explorer



Data is Retrieved Automatically for the Most Recent Search

The Biller Productivity control automatically performs a search on load using the most recent criteria defined by the user. If no criteria has been defined, it will wait for the user to initiate a search.

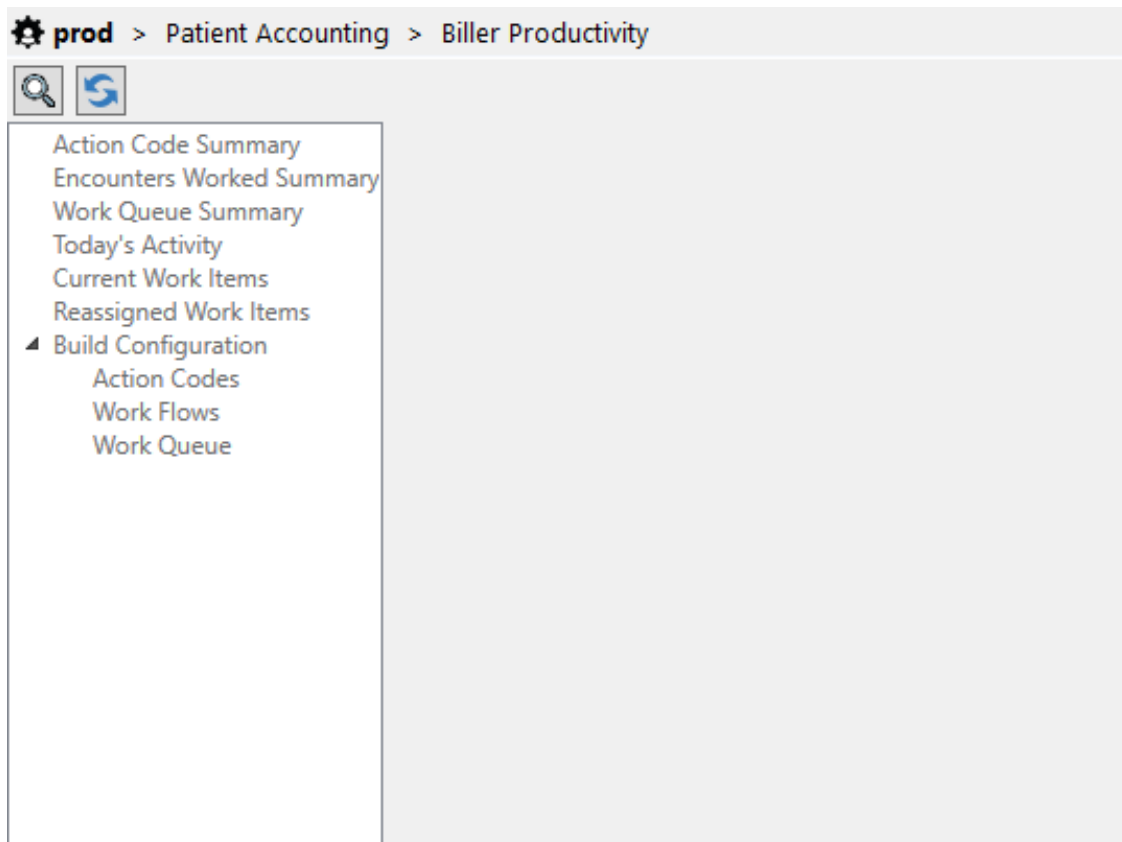


Figure 373: Biller Productivity Control

10.3.1 Searching

Upon clicking the search button, a search dialog presenting basic criteria ([Figure 374](#)) opens. The search is triggered once the *OK* button is clicked and the dialog closes.

Your search criteria will be remembered and used the next time you use the Biller Productivity control.



Search Displays the Current Criteria

When opened, the search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.

The Search Dialog window has a title bar with a paw print icon and the text "Search". It contains a "Date Range" dropdown menu set to "Last 7 Days". Below this are two list boxes: "Excluded:" and "Included:". The "Excluded:" list contains: <none>, Case Manager Supervisor, CDM Manager, HIM: Coders, HIM: Managers, HIM: Specialist, Patient Accounting: Cash Poster, Patient Accounting: Claims Followup Rep, Patient Accounting: Insurance Biller, Patient Accounting: Self-Pay Collector, PharmNet: Pharmacy Management, and Registration Manager. The "Included:" list contains: Patient Accounting: Management. Between the lists are four arrow buttons: a double right arrow, a single right arrow, a single left arrow, and a double left arrow. At the bottom right are "OK" and "Cancel" buttons.

Figure 374: Search Dialog

Once the search criteria is set, the Biller Productivity views are enabled and can be selected. The search criteria can be changed at anytime, this will refresh the displayed data.

10.3.2 Productivity Summary

The Productivity Summary control combines high-level data from the [Action Code Summary](#), [Encounters Worked Summary](#), and [Work Queue Summary](#) views, displaying totals for each broken down by user.

Clicking any of the linked numbers within the Encounters Worked or Action Codes Applied columns will bring up the [Encounters Worked](#) screen, while clicking any of the linked numbers within the Total Balance column will bring up the [Work Queue Details](#) screen.

prod > Patient Accounting > Biller Productivity					
	Name	Position	Encounters Worked	Action Codes Applied	Total Balance
Productivity Summary		<none>	61	0	\$0.00
Action Code Summary	Dickens, Noemie	<none>	8	0	\$0.00
Encounters Worked Summary	Kunze, Shanel	<none>	56,142	0	\$0.00
Work Queue Summary	Schroeder, Ed	<none>	424	7	\$0.00
Daily Activity	Bins, Hollis	Case Manager Supervisor	21	23	\$0.00
Current Work Items	Flatley, Sofia	Case Manager Supervisor	15	15	\$78,311.61
Reassigned Work Items	Hessel, Oleta	Case Manager Supervisor	2	3	\$0.00
Received Cash	Kertzmann, Annie	Case Manager Supervisor	71	80	\$48,279.33
Build Configuration	Kertzmann, Guido	Case Manager Supervisor	13	13	\$242,089.18
Action Codes	Kuvalis, Cristopher	Case Manager Supervisor	3	3	\$0.00
Work Flows	Cassin, Amira	CDM Manager	17	1	\$409,678.87
Work Queue	Legros, Nicolette	CDM Manager	5	5	\$191,096.35
Biller Assignment Rules	Ondricka, Antonia	CDM Manager	13	13	\$533,287.87
State Assignment Rules	Watsica, Stefanie	CDM Manager	6	6	\$233,497.73

Figure 375: Productivity Summary

10.3.3 Action Code Summary

The Action Code Summary control displays work performed each day split out by what action codes were used. The Action Codes Applied column shows the total number of action codes applied during the search period. This view includes calculations for weighted score, when it is configured for an action code.

Clicking any of the linked numbers for a day or for a total will bring up the [Encounters Worked](#) screen.

For more information on the build configuration of action codes and weights, see [Action Codes](#).



Show or Hide Total Rows

The 'Include Totals' checkbox controls whether total rows are shown. When total rows are hidden, they are not included when the data is exported to a file. This can be useful for performing analytics on exported data.

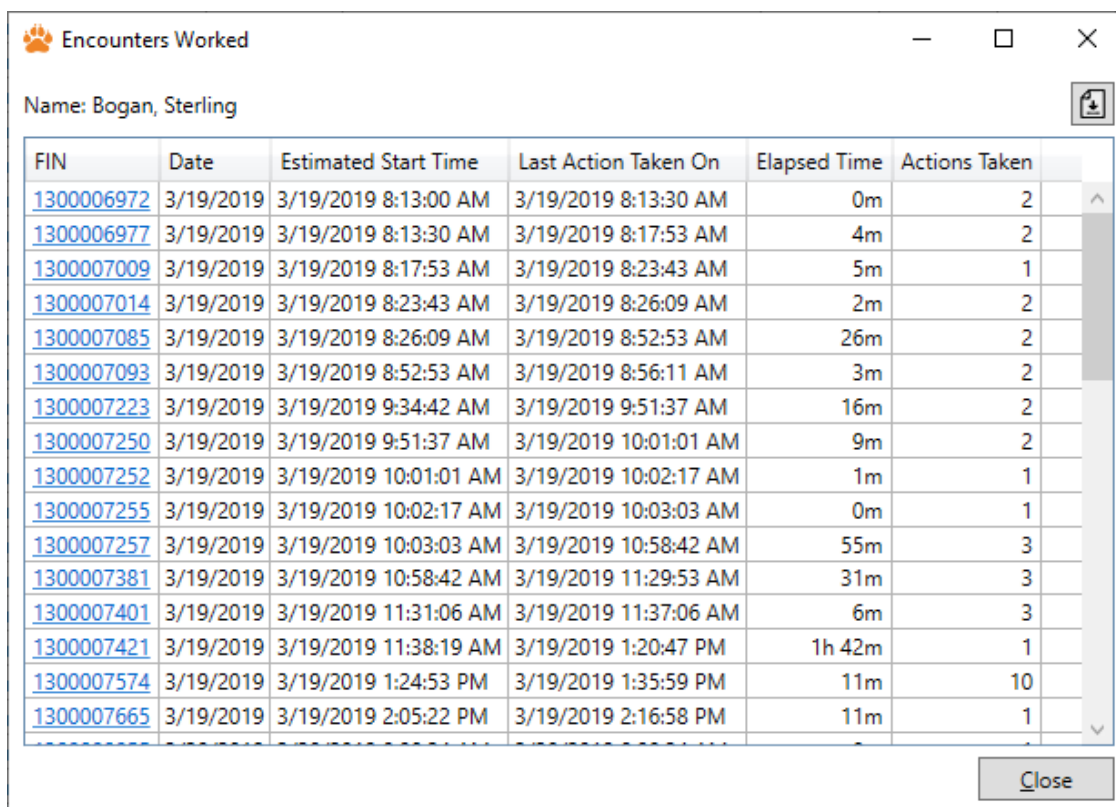
prod > Patient Accounting > Biller Productivity													
☒ Include Totals													
Action Code Summary	Name	Position	Action Code	Description	3/18/2019	3/19/2019	3/20/2019	3/21/2019	3/22/2019	3/23/2019	Action Codes Applied	Tracked	Weighted Score
Encounters Worked Summary	Bogan, Sterling	Patient Accounting: Management	Total	All Activity Codes	19	10	6	15	4		54	0	96
Work Queue Summary	Bogan, Sterling	Patient Accounting: Management	290	Adjustment Approval - Supervisor	2						2	1	2
Today's Activity	Bogan, Sterling	Patient Accounting: Management	291	Adjustment Denied - Supervisor	1						1	1	1
Current Work Items	Bogan, Sterling	Patient Accounting: Management	ADJ1002	Administrative Adjustment Denied Acute -	1						1	1	1
Reassigned Work Items	Bogan, Sterling	Patient Accounting: Management	311	AP Refund Approval, Supervisor	10			1			11	5	55
Build Configuration	Bogan, Sterling	Patient Accounting: Management	313	AP Refund Denial-User Error	1						1	1	1
Action Codes	Bogan, Sterling	Patient Accounting: Management	343	Misc.	4	6	3	12	1		26	1	26
Work Flows	Bogan, Sterling	Patient Accounting: Management	806	Referral	1		3	2	3		9	1	9
Work Queue	Bogan, Sterling	Patient Accounting: Management	000	Release Hold	2						2	0	0
	Bogan, Sterling	Patient Accounting: Management	103	Work Item Resolution Review Complete	1						1	1	1
	Brakus, Amalia	Patient Accounting: Management	Total	All Activity Codes			3		78		81	0	137
	Brakus, Amalia	Patient Accounting: Management	290	Adjustment Approval - Supervisor					1		1	1	1
	Brakus, Amalia	Patient Accounting: Management	292	Adjustment Approved - Manager					47		47	1	47
	Brakus, Amalia	Patient Accounting: Management	312	AP Refund Approval, Manager					28		28	3	84
	Brakus, Amalia	Patient Accounting: Management	313	AP Refund Denial-User Error					2		2	1	2
	Brakus, Amalia	Patient Accounting: Management	HIM1005	HIM Coding Review Req				1			1	1	1
	Brakus, Amalia	Patient Accounting: Management	103	Work Item Resolution Review Complete				1			1	1	1
	Brakus, Amalia	Patient Accounting: Management	102	Work Item Resolved							1	1	1
	Fay, Elisabeth	Patient Accounting: Management	Total	All Activity Codes	1						1	0	0
	Fay, Elisabeth	Patient Accounting: Management	299	Reprocess 835	1						1	0	0
	Kozey, Rosemary	Patient Accounting: Management	Total	All Activity Codes	1		1	3			5	0	7
	Kozey, Rosemary	Patient Accounting: Management	292	Adjustment Approved - Manager			1				1	1	1
	Kozey, Rosemary	Patient Accounting: Management	293	Adjustment Denied - Manager				1			1	1	1
	Kozey, Rosemary	Patient Accounting: Management	312	AP Refund Approval, Manager	1						1	3	3
	Kozey, Rosemary	Patient Accounting: Management	342	Follow-Up							1	1	1
	Kozey, Rosemary	Patient Accounting: Management	102	Work Item Resolved				1			1	1	1
	Mante, Noe	Patient Accounting: Management	Total	All Activity Codes	67	30	38	22	43		200	0	350
	Mante, Noe	Patient Accounting: Management	317	Claim corrected on remote		7	14		13		34	4	136
	Mante, Noe	Patient Accounting: Management	342	Follow-Up		5	6		4		15	1	15
	Mante, Noe	Patient Accounting: Management	HIM1005	HIM Coding Review Req	1	2			3		6	1	6
	Mante, Noe	Patient Accounting: Management	806	Referral		1					1	1	1

Figure 376: Action Code Summary

10.3.4 Encounters Worked

The Encounters Worked screen displays encounters worked by a user and sorted by recent activity. Each entry includes the elapsed time and the number of actions taken.

Additional details for a FIN can be viewed by clicking on the link in the FIN column which opens [Encounter Activity](#) screen.



The screenshot shows a window titled "Encounters Worked" with a paw print icon. Below the title bar, the user name "Name: Bogan, Sterling" is displayed. The main content is a table with the following columns: FIN, Date, Estimated Start Time, Last Action Taken On, Elapsed Time, and Actions Taken. The table contains 15 rows of data, each with a clickable link in the FIN column. A "Close" button is located at the bottom right of the window.

FIN	Date	Estimated Start Time	Last Action Taken On	Elapsed Time	Actions Taken
1300006972	3/19/2019	3/19/2019 8:13:00 AM	3/19/2019 8:13:30 AM	0m	2
1300006977	3/19/2019	3/19/2019 8:13:30 AM	3/19/2019 8:17:53 AM	4m	2
1300007009	3/19/2019	3/19/2019 8:17:53 AM	3/19/2019 8:23:43 AM	5m	1
1300007014	3/19/2019	3/19/2019 8:23:43 AM	3/19/2019 8:26:09 AM	2m	2
1300007085	3/19/2019	3/19/2019 8:26:09 AM	3/19/2019 8:52:53 AM	26m	2
1300007093	3/19/2019	3/19/2019 8:52:53 AM	3/19/2019 8:56:11 AM	3m	2
1300007223	3/19/2019	3/19/2019 9:34:42 AM	3/19/2019 9:51:37 AM	16m	2
1300007250	3/19/2019	3/19/2019 9:51:37 AM	3/19/2019 10:01:01 AM	9m	2
1300007252	3/19/2019	3/19/2019 10:01:01 AM	3/19/2019 10:02:17 AM	1m	1
1300007255	3/19/2019	3/19/2019 10:02:17 AM	3/19/2019 10:03:03 AM	0m	1
1300007257	3/19/2019	3/19/2019 10:03:03 AM	3/19/2019 10:58:42 AM	55m	3
1300007381	3/19/2019	3/19/2019 10:58:42 AM	3/19/2019 11:29:53 AM	31m	3
1300007401	3/19/2019	3/19/2019 11:31:06 AM	3/19/2019 11:37:06 AM	6m	3
1300007421	3/19/2019	3/19/2019 11:38:19 AM	3/19/2019 1:20:47 PM	1h 42m	1
1300007574	3/19/2019	3/19/2019 1:24:53 PM	3/19/2019 1:35:59 PM	11m	10
1300007665	3/19/2019	3/19/2019 2:05:22 PM	3/19/2019 2:16:58 PM	11m	1

Figure 377: Encounters Worked

10.3.5 Encounter Activity

The Encounter Activity screen displays all the activity for an encounter. Above the grid displays how the details screen was reached. Though the name of the user is listed above the grid, Encounter Activity displays all of a FIN's historical activity.

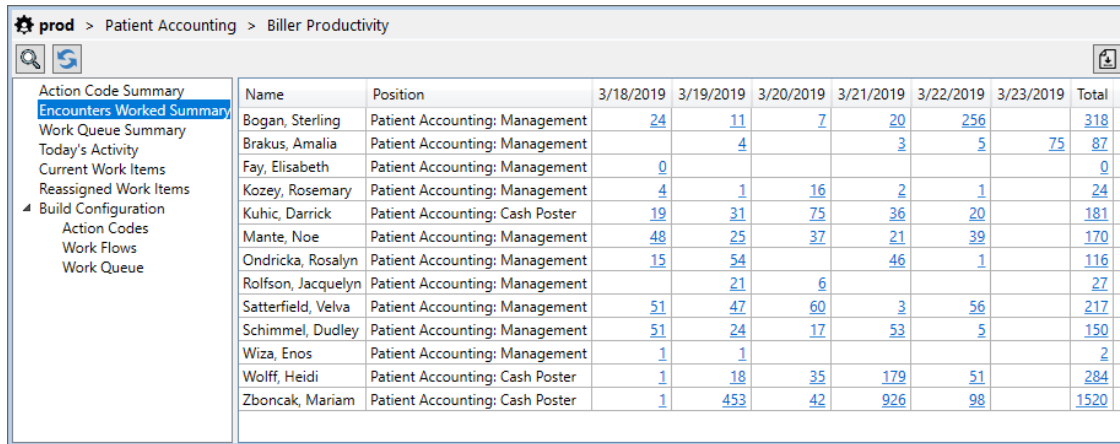
Encounter Activity								
Name: Bogan, Sterling FIN Number: 1300006972								
Responsible User	Acting User	Activity ID	Created On	Action Type	Action Subtype	Action Code	User Comments	Action Description
Zulauf, Gianni	Zulauf, Gianni	800569668	3/27/2019 11:00:54 AM	Comment			[REDACTED]	[REDACTED]
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800461388	3/24/2019 11:31:37 PM	Comment			[REDACTED]	[REDACTED]
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800451371	3/24/2019 10:52:13 AM	Comment	Apply Action Code	3112		[REDACTED]
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800451372	3/24/2019 10:52:13 AM	Comment	Work Item Identified	RF1002		[REDACTED]
Brakus, Amalia	Brakus, Amalia	800451370	3/24/2019 10:52:11 AM	Comment	Apply Action Code	312	[REDACTED]	[REDACTED]
Bogan, Sterling	Bogan, Sterling	800027938	3/19/2019 8:13:30 AM	Comment				
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800027937	3/19/2019 8:13:08 AM	Comment	Work Item Identified	RF1001		[REDACTED]
Bogan, Sterling	Bogan, Sterling	800027936	3/19/2019 8:13:00 AM	Comment	Apply Action Code	311	[REDACTED]	[REDACTED]
Abbott, Jaquan	Abbott, Jaquan	800558573	3/16/2019 10:41:25 AM	Comment	Apply Action Code	102		[REDACTED]
Abbott, Jaquan	Abbott, Jaquan	800558571	3/16/2019 10:41:14 AM	Comment			[REDACTED]	[REDACTED]
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800558569	3/16/2019 10:39:42 AM	Comment	Work Item Identified	RF1000		[REDACTED]
Wilderman, Madelyn	Wilderman, Madelyn	800545279	3/9/2019 9:50:50 AM	Comment			[REDACTED]	[REDACTED]
Cummings, Michael	Cummings, Michael	800527396	2/22/2019 3:13:05 PM	Comment			[REDACTED]	[REDACTED]
Cummings, Michael	Cummings, Michael	800527395	2/22/2019 3:13:05 PM	Comment			[REDACTED]	[REDACTED]
Zboncak, Mariam	Zboncak, Mariam	800521504	2/15/2019 8:30:50 AM	Comment			[REDACTED]	[REDACTED]
Gottlieb, Marlene	Gottlieb, Marlene	800518450	2/12/2019 1:23:44 PM	Comment	Apply Action Code	102	[REDACTED]	[REDACTED]
Gottlieb, Marlene	Gottlieb, Marlene	800516991	2/9/2019 2:07:38 PM	Comment			[REDACTED]	[REDACTED]
Rolfson, Jacquelyn	Rolfson, Jacquelyn	800514129	2/6/2019 3:56:42 PM	Comment			[REDACTED]	[REDACTED]
Wilderman, Madelyn	Wilderman, Madelyn	800504969	1/23/2019 6:05:43 AM	Comment	Apply Action Code	342	[REDACTED]	[REDACTED]
O'Keefe, Frida	SYSTEM, SYSTEM	800504960	1/23/2019 5:17:09 AM	Comment			[REDACTED]	[REDACTED]

Figure 378: Encounter Activity

10.3.6 Encounters Worked Summary

The Encounters Worked Summary control displays the number of encounters worked per user.

Clicking any of the linked numbers for a day or for a total will bring up the [Encounters Worked](#) screen.



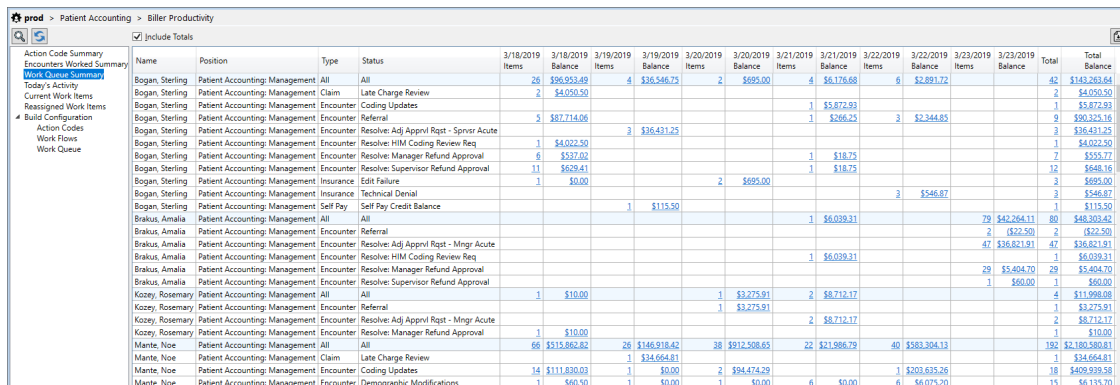
Action Code Summary	Name	Position	3/18/2019	3/19/2019	3/20/2019	3/21/2019	3/22/2019	3/23/2019	Total
Encounters Worked Summary	Bogan, Sterling	Patient Accounting: Management	24	11	7	20	256		318
Work Queue Summary	Brakus, Amalia	Patient Accounting: Management		4		3	5	75	87
Today's Activity	Fay, Elisabeth	Patient Accounting: Management	0						0
Current Work Items	Kozey, Rosemary	Patient Accounting: Management	4	1	16	2	1		24
Reassigned Work Items	Kuhic, Darrick	Patient Accounting: Cash Poster	19	31	75	36	20		181
Build Configuration	Mante, Noe	Patient Accounting: Management	48	25	37	21	39		170
Action Codes	Ondricka, Rosalyn	Patient Accounting: Management	15	54		46	1		116
Work Flows	Rolfson, Jacquelyn	Patient Accounting: Management		21	6				27
Work Queue	Satterfield, Velva	Patient Accounting: Management	51	47	60	3	56		217
	Schimmel, Dudley	Patient Accounting: Management	51	24	17	53	5		150
	Wiza, Enos	Patient Accounting: Management	1	1					2
	Wolff, Heidi	Patient Accounting: Cash Poster	1	18	35	179	51		284
	Zboncak, Mariam	Patient Accounting: Cash Poster	1	453	42	926	98		1520

Figure 379: Encounters Worked Summary

10.3.7 Work Queue Summary

The Work Queue Summary control displays the number of worked items and there balance. This is broken down for the user, queue type, and status. Total rows are shown for each user and have a distinguished background color.

Clicking an item link or a balance link brings up the [Work Queue Details](#) screen.



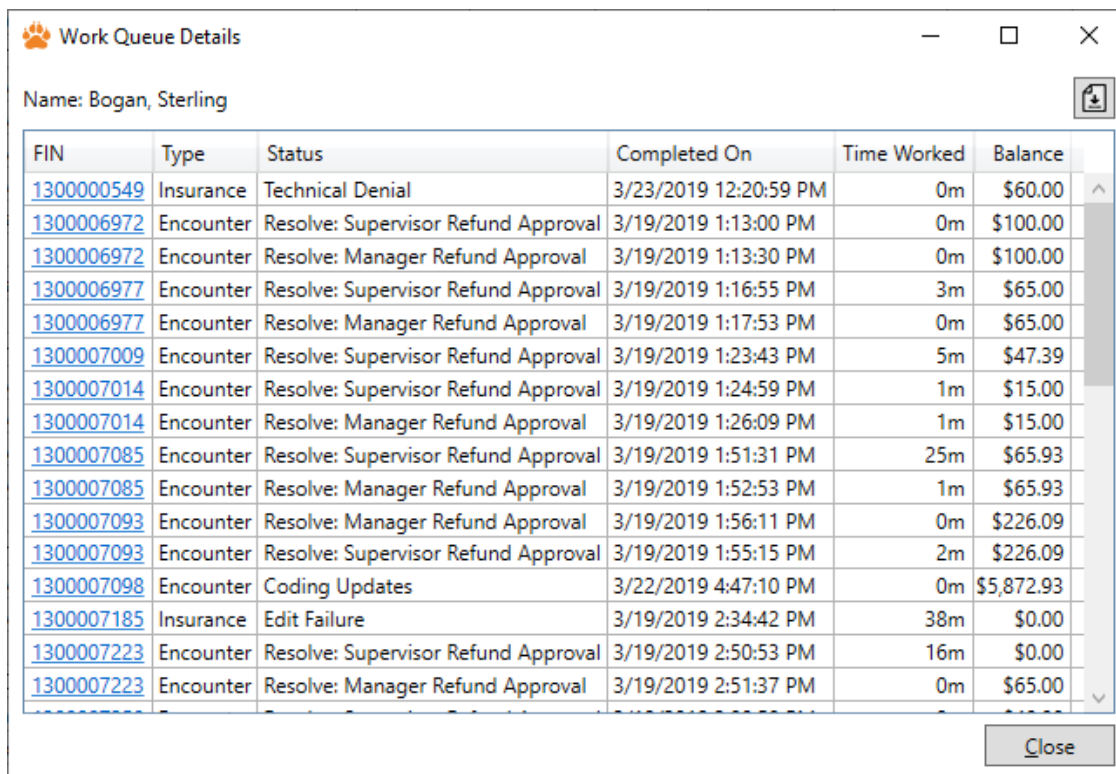
Action Code Summary	Name	Position	Type	Status	3/18/2019 Items	3/18/2019 Balance	3/19/2019 Items	3/19/2019 Balance	3/20/2019 Items	3/20/2019 Balance	3/21/2019 Items	3/21/2019 Balance	3/22/2019 Items	3/22/2019 Balance	3/23/2019 Items	3/23/2019 Balance	Total Items	Total Balance
Work Queue Summary	Bogan, Sterling	Patient Accounting: Management	All	All	28	\$96,953.49	4	\$36,546.75	2	\$695.00	4	\$6,175.68	6	\$2,891.72			42	\$143,263.64
Today's Activity	Bogan, Sterling	Patient Accounting: Management	Claim	Late Charge Review	2	\$4,050.50											2	\$4,050.50
Current Work Items	Bogan, Sterling	Patient Accounting: Management	Encounter	Coding Updates							1	\$5,872.93					1	\$5,872.93
Reassigned Work Items	Bogan, Sterling	Patient Accounting: Management	Encounter	Referral	3	\$87,714.06					1	\$286.25	3	\$2,344.85			9	\$90,325.16
Build Configuration	Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Adj Appnl Rqst - Sprvtr Acute			3	\$36,431.25									3	\$36,431.25
Action Codes	Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: HIM Coding Review Req	1	\$4,022.50					1	\$18.75					1	\$4,022.50
Work Flows	Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Manager Refund Approval	6	\$537.02					1	\$18.75					7	\$555.77
Work Queue	Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Supervisor Refund Approval	11	\$629.41					1	\$18.75					12	\$648.16
	Bogan, Sterling	Patient Accounting: Management	Insurance	Edit Failure	1	\$0.00			2	\$695.00							3	\$695.00
	Bogan, Sterling	Patient Accounting: Management	Insurance	Technical Denial								3	\$546.87				3	\$546.87
	Bogan, Sterling	Patient Accounting: Management	Self Pay	Self Pay Credit Balance			1	\$115.50									1	\$115.50
	Brakus, Amalia	Patient Accounting: Management	All	All							1	\$6,039.31			29	\$42,264.11	80	\$48,303.42
	Brakus, Amalia	Patient Accounting: Management	Encounter	Referral											2	\$52.50	2	\$52.50
	Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Adj Appnl Rqst - Mngtr Acute											47	\$36,821.91	47	\$36,821.91
	Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: HIM Coding Review Req							1	\$6,039.31					1	\$6,039.31
	Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Manager Refund Approval											29	\$5,404.70	29	\$5,404.70
	Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Supervisor Refund Approval											1	\$60.00	1	\$60.00
	Kozey, Rosemary	Patient Accounting: Management	All	All	1	\$10.00			1	\$3,275.91	2	\$8,712.17					4	\$11,998.08
	Kozey, Rosemary	Patient Accounting: Management	Encounter	Referral					1	\$3,275.91							1	\$3,275.91
	Kozey, Rosemary	Patient Accounting: Management	Encounter	Resolve: Adj Appnl Rqst - Mngtr Acute							2	\$8,712.17					2	\$8,712.17
	Kozey, Rosemary	Patient Accounting: Management	Encounter	Resolve: Manager Refund Approval	1	\$10.00											1	\$10.00
	Mante, Noe	Patient Accounting: Management	All	All	66	\$315,862.82	26	\$346,918.42	38	\$912,508.65	22	\$21,988.79	40	\$583,304.13			192	\$2,180,580.81
	Mante, Noe	Patient Accounting: Management	Claim	Late Charge Review			1	\$34,664.81									1	\$34,664.81
	Mante, Noe	Patient Accounting: Management	Encounter	Coding Updates	14	\$111,430.03	1	\$0.00	2	\$94,474.29			1	\$200,635.26			18	\$409,939.58
	Mante, Noe	Patient Accounting: Management	Encounter	Demographic Modifications	1	\$60.50	1	\$0.00	1	\$0.00	6	\$0.00	6	\$6,073.20			15	\$6,135.70

Figure 380: Work Queue Summary

10.3.8 Work Queue Details

The Work Queue Details screen displays individual work items that were acted upon, the time the last change was made, and the balance.

Additional details for a FIN can be viewed by clicking on the link in the FIN column, which opens [Encounter Activity](#) screen.



FIN	Type	Status	Completed On	Time Worked	Balance
1300000549	Insurance	Technical Denial	3/23/2019 12:20:59 PM	0m	\$60.00
1300006972	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 1:13:00 PM	0m	\$100.00
1300006972	Encounter	Resolve: Manager Refund Approval	3/19/2019 1:13:30 PM	0m	\$100.00
1300006977	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 1:16:55 PM	3m	\$65.00
1300006977	Encounter	Resolve: Manager Refund Approval	3/19/2019 1:17:53 PM	0m	\$65.00
1300007009	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 1:23:43 PM	5m	\$47.39
1300007014	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 1:24:59 PM	1m	\$15.00
1300007014	Encounter	Resolve: Manager Refund Approval	3/19/2019 1:26:09 PM	1m	\$15.00
1300007085	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 1:51:31 PM	25m	\$65.93
1300007085	Encounter	Resolve: Manager Refund Approval	3/19/2019 1:52:53 PM	1m	\$65.93
1300007093	Encounter	Resolve: Manager Refund Approval	3/19/2019 1:56:11 PM	0m	\$226.09
1300007093	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 1:55:15 PM	2m	\$226.09
1300007098	Encounter	Coding Updates	3/22/2019 4:47:10 PM	0m	\$5,872.93
1300007185	Insurance	Edit Failure	3/19/2019 2:34:42 PM	38m	\$0.00
1300007223	Encounter	Resolve: Supervisor Refund Approval	3/19/2019 2:50:53 PM	16m	\$0.00
1300007223	Encounter	Resolve: Manager Refund Approval	3/19/2019 2:51:37 PM	0m	\$65.00

Figure 381: Work Queue Details

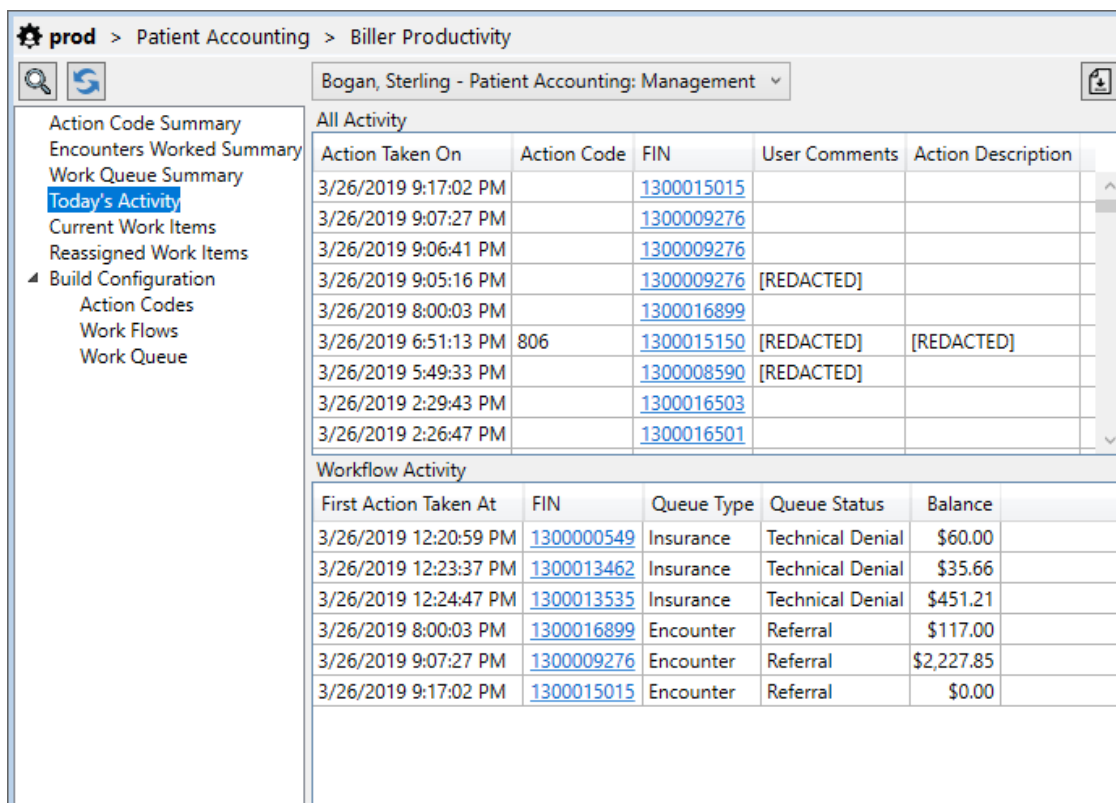
10.3.9 Today's Activity

The Today's Activity control displays all of a user's activity for the current day. Above the grid has a dropdown to load data for a specific user.

The dropdown list shows all users based on the selected positions in the search criteria. If a user is not in the dropdown, the search criteria may need to be changed, refer to [Search Criteria](#).

The data is categorized into 'All Activity' on the top grid and 'Workflow Activity' on the bottom grid.

Additional details for a FIN can be viewed by clicking on the link in the FIN column, which opens [Encounter Activity](#) screen.



prod > Patient Accounting > Biller Productivity

Bogan, Sterling - Patient Accounting: Management

All Activity

Action Taken On	Action Code	FIN	User Comments	Action Description
3/26/2019 9:17:02 PM		1300015015		
3/26/2019 9:07:27 PM		1300009276		
3/26/2019 9:06:41 PM		1300009276		
3/26/2019 9:05:16 PM		1300009276	[REDACTED]	
3/26/2019 8:00:03 PM		1300016899		
3/26/2019 6:51:13 PM	806	1300015150	[REDACTED]	[REDACTED]
3/26/2019 5:49:33 PM		1300008590	[REDACTED]	
3/26/2019 2:29:43 PM		1300016503		
3/26/2019 2:26:47 PM		1300016501		

Workflow Activity

First Action Taken At	FIN	Queue Type	Queue Status	Balance
3/26/2019 12:20:59 PM	1300000549	Insurance	Technical Denial	\$60.00
3/26/2019 12:23:37 PM	1300013462	Insurance	Technical Denial	\$35.66
3/26/2019 12:24:47 PM	1300013535	Insurance	Technical Denial	\$451.21
3/26/2019 8:00:03 PM	1300016899	Encounter	Referral	\$117.00
3/26/2019 9:07:27 PM	1300009276	Encounter	Referral	\$2,227.85
3/26/2019 9:17:02 PM	1300015015	Encounter	Referral	\$0.00

Figure 382: Today's Activity

10.3.10 Current Work Items

The Current Work Items control displays all of the assigned items grouped by follow up time, the type, status, and balance. Total rows are shown for each user and have a distinguished background color.

Clicking on an item or balance link opens the [Active Work Items](#) screen.

prod > Patient Accounting > Biller Productivity		Include Totals																					
		Name	Position	Type	Status	Active Items	Active Balance	0-7 Items	0-7 Balance	8-14 Items	8-14 Balance	15-31 Items	15-31 Balance	32-45 Items	32-45 Balance	46-60 Items	46-60 Balance	> 90 Items	> 90 Balance	Total	Total Balance		
Action Code Summary		VonRueden, Emely	Patient Accounting: Cash Poster	All	All	1	\$0.00													1	\$0.00		
Encounters Worked Summary		VonRueden, Emely	Patient Accounting: Cash Poster	Encounter	Referral	1	\$0.00													1	\$0.00		
Work Queue Summary		Bogan, Sterling	Patient Accounting: Management	All	All	714	\$8,460,893.27	11	\$137,590.32	1	\$10,507.75	2	\$15,937.49					6	(\$72,000)	734	\$8,634,856.83		
Today's Activity		Bogan, Sterling	Patient Accounting: Management	Claim	Late Charge Review	9	\$348,423.95			1	\$10,507.75	2	\$15,937.49							12	\$374,869.19		
Reassigned Work Items		Bogan, Sterling	Patient Accounting: Management	Encounter	Coding Updates	1	\$2,811.96													1	\$2,811.96		
Build Configuration		Bogan, Sterling	Patient Accounting: Management	Encounter	Encounter Combines	1	\$0.00													1	\$0.00		
Action Codes		Bogan, Sterling	Patient Accounting: Management	Encounter	Referral	6	\$163,176.50	1	\$83,233.95											7	\$246,410.45		
Work Flows		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Adj Apprnl Rqst - Mngt Acute													4	(\$72,000)	4	(\$72,000)		
Work Queue		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Adj Apprnl Rqst - Spvr Acute													1	\$0.00	1	\$0.00		
		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: CM Notice for Biller Review	3	\$91,546.61													3	\$91,546.61		
		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Interfacility Financial Combine	1	\$5,079.25													1	\$5,079.25		
		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: NonCovid Rebill Ancillary	4	\$30,525.14													4	\$30,525.14		
		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Spvr Rvw - High Balances	7	\$687,116.11													7	\$687,116.11		
		Bogan, Sterling	Patient Accounting: Management	Encounter	Resolve: Supervisor Refund Approval													1	\$0.00	1	\$0.00		
		Bogan, Sterling	Patient Accounting: Management	Encounter	Review: HIM Coding Review Req Complete	2	\$8,943.35													2	\$8,943.35		
		Bogan, Sterling	Patient Accounting: Management	Insurance	Credit Balance	1	(\$26,428.25)													1	(\$26,428.25)		
		Bogan, Sterling	Patient Accounting: Management	Insurance	EOB Variance			1	\$15,662.32											1	\$15,662.32		
		Bogan, Sterling	Patient Accounting: Management	Insurance	In House	656	\$7,103,665.29	9	\$38,694.05											665	\$7,142,359.34		
		Bogan, Sterling	Patient Accounting: Management	Insurance	Pending Edit Claim	1	\$26,216.60													1	\$26,216.60		
		Bogan, Sterling	Patient Accounting: Management	Insurance	PreRegistration	22	\$19,716.76													22	\$19,716.76		
		Brakus, Amalia	Patient Accounting: Management	All	All	773	\$4,191,854.42	15	\$58,803.12	1	\$219.71	8	\$2,389.97	9	\$15,362.27					806	\$4,268,629.49		
		Brakus, Amalia	Patient Accounting: Management	Claim	Late Charge Review	1	\$20,018.42													1	\$20,018.42		
		Brakus, Amalia	Patient Accounting: Management	Client Account	Unbilled Invoice	1	\$0.00													1	\$0.00		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Coding Updates	2	\$0.00													2	\$0.00		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Demographic Modifications	73	\$0.00	1	\$0.00											74	\$0.00		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Encounter Combines	128	\$2,935.25	2	\$0.00											130	\$2,935.25		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Referral	5	\$60,949.40													5	\$60,949.40		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Adj Apprnl Rqst - Mngt Acute	14	\$60,081.94	3	\$54,177.50											17	\$114,461.44		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Adjustment Request Denied	3	\$30,060.41													3	\$30,060.41		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Attending Physician Missing NPI	32	\$37,800.40													32	\$37,800.40		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Call Back Follow Up	1	\$244.00					1	\$450.00							2	\$694.00		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Encounter Combine Failures	8	\$2,997.77													8	\$2,997.77		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Encounter Uncombine Failures	2	\$2,800.50													2	\$2,800.50		
		Brakus, Amalia	Patient Accounting: Management	Encounter	Resolve: Manager Refund Approval	11	(\$11,216.39)	6	\$2,485.62											17	(\$8,730.77)		
		Brakus, Amalia	Patient Accounting: Management	Insurance	Credit Balance	3	\$1,435.50													3	\$1,435.50		
		Brakus, Amalia	Patient Accounting: Management	Insurance	EOB Variance	18	\$275,330.58													18	\$275,330.58		
		Brakus, Amalia	Patient Accounting: Management	Insurance	Generated Claim	15	\$25,266.32	2	\$1,133.75	1	\$219.71	2	\$416.47	1	\$202.99					21	\$27,239.24		
		Brakus, Amalia	Patient Accounting: Management	Insurance	In House	3	\$370.25													3	\$370.25		
		Brakus, Amalia	Patient Accounting: Management	Insurance	Pending Edit Claim	382	\$2,619,414.51							8	\$15,159.28					390	\$2,634,573.79		
		Brakus, Amalia	Patient Accounting: Management	Insurance	Ready to Bill	71	\$1,057,034.06	1	\$1,006.25			5	\$1,523.50							77	\$1,059,563.81		

Figure 383: Current Work Items

10.3.11 Active Work Items

The Active Work Items screen displays individual work items assigned to a user, the balance and details about the last action taken.

Additional details for a FIN can be viewed by clicking on the link in the FIN column, which opens [Encounter Activity](#) screen.

Active Work Items										
Name: Bogan, Sterling										
FIN	Name	Type	Status	Follow Up Time	Balance	Last Action User	Last Action Taken On	Action Code	Last Action Comment	Last Action Description
1300008731	Bogan, Sterling	Encounter	Referral	3/20/2019 7:24:21 PM	\$18,364.32					
1300008987	Bogan, Sterling	Encounter	Referral	3/20/2019 9:37:59 PM	\$7,267.85					
1300014061	Bogan, Sterling	Encounter	Resolve: Spvr Rvw - High Balances	3/22/2019 7:40:03 AM	\$122,754.78		3/22/2019 7:40:03 AM	SP1002	[REDACTED]	[REDACTED]
1300008447	Bogan, Sterling	Encounter	Resolve: Spvr Rvw - High Balances	3/21/2019 7:08:04 AM	\$194,902.69		3/21/2019 7:08:04 AM	SP1002	[REDACTED]	[REDACTED]
1300008438	Bogan, Sterling	Encounter	Resolve: Spvr Rvw - High Balances	3/21/2019 7:08:04 AM	\$105,005.07		3/21/2019 7:08:04 AM	SP1002	[REDACTED]	[REDACTED]
1300000801	Bogan, Sterling	Encounter	Resolve: Spvr Rvw - High Balances	3/23/2019 7:36:45 AM	\$107,426.22		3/23/2019 7:36:45 AM	SP1002	[REDACTED]	[REDACTED]
1300016633	Bogan, Sterling	Encounter	Resolve: Spvr Rvw - High Balances	3/24/2019 7:05:37 AM	\$61,753.57		3/24/2019 7:05:37 AM	SP1002	[REDACTED]	[REDACTED]
1300018658	Bogan, Sterling	Insurance	In House	3/21/2019 9:54:19 AM	\$623.00					
1300018345	Bogan, Sterling	Insurance	In House	3/21/2019 3:58:26 PM	\$320.00					
1300018947	Bogan, Sterling	Insurance	In House	3/19/2019 4:33:38 PM	\$6,307.25					
1300007945	Bogan, Sterling	Insurance	In House	3/20/2019 12:19:25 AM	\$29,671.76					
1300021754	Bogan, Sterling	Insurance	In House	3/20/2019 10:12:00 AM	\$261.00					
1300021625	Bogan, Sterling	Insurance	In House	3/24/2019 10:26:07 AM	\$303.00					
1300016889	Bogan, Sterling	Insurance	In House	3/23/2019 7:49:08 PM	\$12,478.28					
1300021756	Bogan, Sterling	Insurance	In House	3/23/2019 8:59:40 PM	\$10,398.50					
1300021724	Bogan, Sterling	Insurance	In House	3/22/2019 4:16:51 PM	\$4,410.00					
1300021605	Bogan, Sterling	Insurance	In House	3/20/2019 10:00:09 AM	\$442.00					
1300018509	Bogan, Sterling	Insurance	In House	3/21/2019 9:52:02 AM	\$290.00					
1300021583	Bogan, Sterling	Insurance	In House	3/21/2019 6:56:00 PM	\$13,494.25					
1300018804	Bogan, Sterling	Insurance	In House	3/20/2019 10:18:25 AM	\$116.00					
1300021335	Bogan, Sterling	Insurance	In House	3/24/2019 10:24:42 AM	\$282.00					
1300018235	Bogan, Sterling	Insurance	In House	3/22/2019 10:26:01 AM	\$33.00					
1300033308	Bogan, Sterling	Insurance	In House	3/20/2019 3:13:13 PM	\$6,389.78					

Figure 384: Active Work Items

10.3.12 Reassigned Work Items

The Reassigned Work Items control displays referred work grouped by the person who referred the work. Each group of referrals begins with a colored total row that displays the position of the person who referred the work and the total number of items referred. The rows under each total row indicate the individual referees and how many items were referred to each one.

More information on referrals can be viewed by clicking any of the links in the Items Referred column to open [Reassigned Work Item Details](#) screen.

prod > Patient Accounting > Biller Productivity

Build Configuration

Action Codes

Work Flows

Work Queue

Action Code Summary	Referrer	Referee	Position	Action	Items Referred
Encounters Worked Summary	Bogan, Sterling	All	Patient Accounting: Management	All	264
Work Queue Summary	Bogan, Sterling	Satterfield, Kelsi	HIM: Managers	806 - Referral	5
Today's Activity	Bogan, Sterling	Goyette, Aracely	Patient Accounting: Claims Followup Rep	Forward for Follow Up	1
Current Work Items	Bogan, Sterling	Harvey, Litzy	Patient Accounting: Claims Followup Rep	Forward for Follow Up	120
Reassigned Work Items	Bogan, Sterling	Harvey, Litzy	Patient Accounting: Claims Followup Rep	806 - Referral	1
	Bogan, Sterling	Mills, Pearlie	Patient Accounting: Claims Followup Rep	Forward for Follow Up	107
	Bogan, Sterling	Abbott, Jaquan	Patient Accounting: Insurance Biller	806 - Referral	1
	Bogan, Sterling	Nader, Alvina	Patient Accounting: Insurance Biller	806 - Referral	1
	Bogan, Sterling	Stroman, Merlin	Patient Accounting: Insurance Biller	Forward for Follow Up	24
	Bogan, Sterling	Stroman, Merlin	Patient Accounting: Insurance Biller	Identified - Resolve: Adjustment Request Denied	1
	Bogan, Sterling	Bogan, Sterling	Patient Accounting: Management	Forward for Follow Up	2
	Bogan, Sterling	Satterfield, Velva	Patient Accounting: Management	806 - Referral	1
	Brakus, Amalia	All	Patient Accounting: Management	All	1
	Brakus, Amalia	Greenfelder, Casandra	HIM: Coders	Identified - Resolve: HIM Coding Review Req	1
	Mante, Noe	All	Patient Accounting: Management	All	15
	Mante, Noe	Gleason, Salma	HIM: Coders	Identified - Resolve: HIM Coding Review Req	3
	Mante, Noe	Hayes, Hattie	HIM: Coders	Identified - Resolve: HIM Coding Review Req	1
	Mante, Noe	Kiehn, Wilhelm	HIM: Coders	Identified - Resolve: HIM Coding Review Req	2
	Mante, Noe	Stroman, Merlin	Patient Accounting: Insurance Biller	806 - Referral	1
	Mante, Noe	Schimmel, Dudley	Patient Accounting: Management	Identified - Resolve: Supervisor Refund Approval	8
	Ondricka, Rosalyn	All	Patient Accounting: Management	All	12
	Ondricka, Rosalyn	Grady, Deontae	HIM: Managers	806 - Referral	1
	Ondricka, Rosalyn	Cremin, Jackie	Patient Accounting: Claims Followup Rep	Identified - Resolve: Adjustment Request Denied	1
	Ondricka, Rosalyn	Ebert, Loren	Patient Accounting: Claims Followup Rep	Identified - Resolve: Adjustment Request Denied	1
	Ondricka, Rosalyn	Miller, Blair	Patient Accounting: Claims Followup Rep	Identified - Resolve: Adjustment Request Denied	2
	Ondricka, Rosalyn	O'Conner, Orion	Patient Accounting: Claims Followup Rep	806 - Referral	1
	Ondricka, Rosalyn	Nader, Alvina	Patient Accounting: Insurance Biller	Identified - Resolve: Adjustment Request Denied	4
	Ondricka, Rosalyn	Brakus, Amalia	Patient Accounting: Management	Identified - Resolve: Adjustment Request Denied	2

Figure 385: Reassigned Work Items

Reassigned Work Item Details

The Reassigned Work Item Details screen displays work referred for a single referrer. Depending on which link was clicked, this could show all referrals or just referrals to a single referee.

Individual referrals can be viewed by clicking on the link in the FIN column, which opens [Encounter Activity](#) screen.

Reassigned Work Item Details

Referrer: Bogan, Sterling

Referee	Position	FIN	Action Time	Action	Comment	Description
Abbott, Jaquan	Patient Accounting: Insurance Biller	13000007461	3/22/2019 1:26:50 PM	806 - Referral	[REDACTED]	[REDACTED]
Bogan, Sterling	Patient Accounting: Management	1300009355	3/21/2019 2:36:46 PM	Forward for Follow Up		
Bogan, Sterling	Patient Accounting: Management	1300009356	3/21/2019 2:36:46 PM	Forward for Follow Up		
Goyette, Aracely	Patient Accounting: Claims Followup Rep	1300008140	3/20/2019 1:55:12 PM	Forward for Follow Up		
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000503	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000534	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000637	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000649	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000655	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000804	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000807	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300000932	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001056	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001237	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001309	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001343	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001478	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001531	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001701	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001727	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001743	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	
Harvey, Litzzy	Patient Accounting: Claims Followup Rep	1300001827	3/23/2019 12:24:47 PM	Forward for Follow Up	[REDACTED]	

Close

Figure 386: Reassigned Work Item Details

10.3.13 Received Cash

The Received Cash control displays a summary of billers' work items that had payments on them.

Each group of payments begins with a colored total row that displays the biller name, position, entity type, entity status, the total number of items, and the total balance. The rows under each total row indicate the individual entity type and entity status and how many and how much each had in payments.

Double-clicking on an item or balance cell brings up the [Received Cash Details](#) dialog, filtered to the responsible biller and, if applicable, the date and entity status. You can also bring up the [Received Cash Details](#) dialog by right-clicking on a cell and selecting "Details."

prod > Patient Accounting > Biller Productivity

Data no older than: 2022-03-25 1:12:47 PM

	Biller Name	Biller Position	Entity Type	Entity Status	Total	Total Balance	2022-01-05 Items	2022-01-05 Balance	202
Action Code Summary	Bayer, Shanon	Patient Accounting: Management	All	All	80	\$671,810.07			
Encounters Worked Summary	Bayer, Shanon	Patient Accounting: Management	Insurance	In House	39	\$657,544.17			
Work Queue Summary	Bayer, Shanon	Patient Accounting: Management	Insurance	Pending Reimbursement Claim	40	\$14,128.72			
Today's Activity	Bayer, Shanon	Patient Accounting: Management	Insurance	Past Due	1	\$137.18			
Current Work Items	Beatty, Barney	Patient Accounting: Management	All	All	14	\$47,405.60			
Reassigned Work Items	Beatty, Barney	Patient Accounting: Management	Insurance	Discharged, Not Ready to Bill	13	\$46,835.51			
Build Configuration	Beatty, Barney	Patient Accounting: Management	Insurance	Technical Denial - Non-Covered	1	\$570.09			
Action Codes	Becker, Fabian	Patient Accounting: Claims Followup Rep	All	All	17	\$5,534.01	2	(\$130.41)	
Work Flows	Becker, Fabian	Patient Accounting: Claims Followup Rep	Insurance	Credit Balance	10	(\$431.03)	2	(\$130.41)	
Work Queue	Becker, Fabian	Patient Accounting: Claims Followup Rep	Insurance	Pending Reimbursement Claim	5	(\$269.62)			
Biller Assignment Rules	Becker, Fabian	Patient Accounting: Claims Followup Rep	Insurance	Technical Denial - Authorization	1	\$1,347.23			
State Assignment Rules	Becker, Fabian	Patient Accounting: Claims Followup Rep	Insurance	At Risk Claim	1	\$4,887.43			
	Becker, Kenna	Patient Accounting: Claims Followup Rep	All	All	77	\$86,693.96	4	\$309.40	
	Becker, Kenna	Patient Accounting: Claims Followup Rep	Insurance	Pending Reimbursement Claim	59	\$79,023.83	2	\$0.00	
	Becker, Kenna	Patient Accounting: Claims Followup Rep	Insurance	Technical Denial	7	\$578.66	1	\$440.95	
	Becker, Kenna	Patient Accounting: Claims Followup Rep	Insurance	Past Due	6	\$533.89			
	Becker, Kenna	Patient Accounting: Claims Followup Rep	Insurance	Technical Denial- Pending Biller Resolve	1	\$7,440.00			
	Becker, Kenna	Patient Accounting: Claims Followup Rep	Insurance	Credit Balance	4	(\$882.42)	1	(\$131.55)	
	Christiansen, Marlon	Patient Accounting: Claims Followup Rep	All	All	92	\$369,640.52	26	\$48,262.58	
	Christiansen, Marlon	Patient Accounting: Claims Followup Rep	Insurance	Pending Reimbursement Claim	62	\$146,609.42	17	\$43,839.18	
	Christiansen, Marlon	Patient Accounting: Claims Followup Rep	Insurance	Past Due	12	\$11,642.94	7	\$529.51	
	Christiansen, Marlon	Patient Accounting: Claims Followup Rep	Insurance	Credit Balance	3	(\$598.57)			
	Christiansen, Marlon	Patient Accounting: Claims Followup Rep	Insurance	At Risk Claim	7	\$167,521.14	1	\$2,413.89	

Figure 387: Received Cash

Received Cash Details

The Received Cash Details screen displays payments for a single biller. Depending on which column was clicked, this could show all payments for a specific biller over the whole selected date range or a single day's payments.

The [Encounter Details](#) associated with a payment can be viewed by right-clicking a row and selecting "Encounter Details" from the context menu, or by double-clicking on a payment.

Split Payments can be viewed by right-clicking any row with a green checkmark in the Is Split column and selecting [Split Payment Details](#) from the context menu.

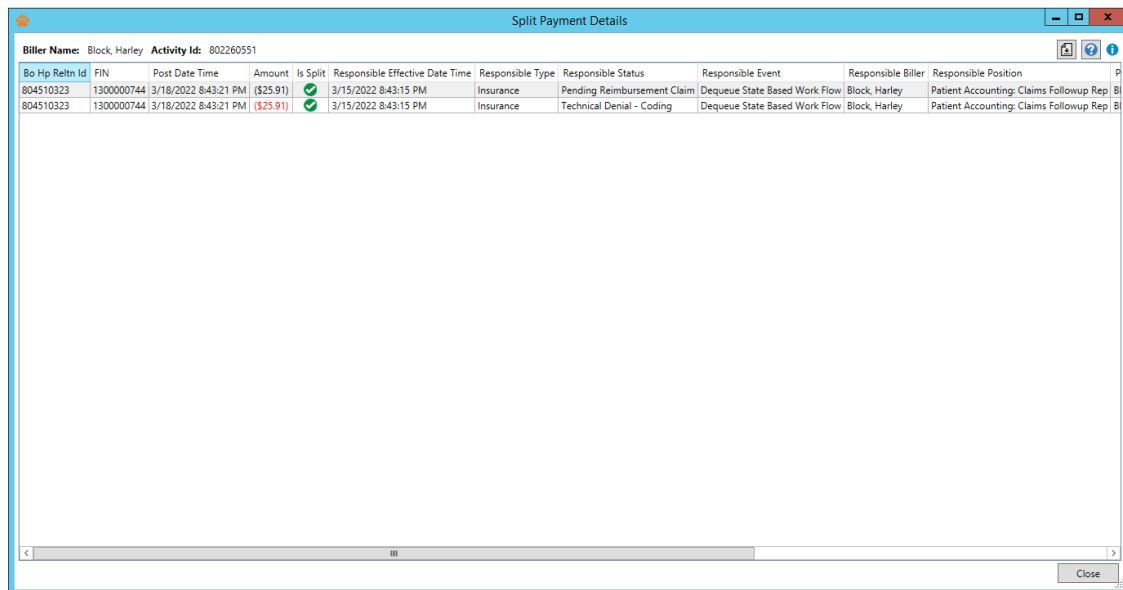
Received Cash Details											
Biller Name: Block, Harley Selected Range: 3/14/2022 to 3/20/2022											
Bo Hp ReIn Id	FIN	Post Date Time	Amount	Is Split	Responsible Effective Date Time	Responsible Type	Responsible Status	Responsible Event	Responsible Biller	Responsible Position	
805351379	1300000012	3/18/2022 5:43:14 PM	\$51.81	✖	3/15/2022 5:43:09 PM	Insurance	Medicaid Patient Responsible Threshold	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
805351379	1300000012	3/18/2022 5:43:14 PM	(\$51.81)	✖	3/15/2022 5:43:09 PM	Insurance	Medicaid Patient Responsible Threshold	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
805351379	1300000013	3/18/2022 5:43:18 PM	\$51.81	✖	3/15/2022 5:43:09 PM	Insurance	Medicaid Patient Responsible Threshold	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
805351379	1300000013	3/18/2022 5:43:18 PM	(\$51.81)	✖	3/15/2022 5:43:09 PM	Insurance	Medicaid Patient Responsible Threshold	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
807543328	1300000116	3/20/2022 2:09:21 PM	(\$1,484.00)	✖	3/17/2022 9:49:51 AM	Insurance	Credit Balance	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
807543328	1300000116	3/17/2022 9:09:20 PM	\$1,484.00	✖	3/9/2022 10:23:49 PM	Insurance	Credit Balance	Release with Follow Up	Block, Harley	Patient Accounting: Claims F	
807543328	1300000116	3/17/2022 9:11:13 PM	\$1,484.00	✖	3/9/2022 10:23:49 PM	Insurance	Credit Balance	Release with Follow Up	Block, Harley	Patient Accounting: Claims F	
801440282	1300000205	3/20/2022 6:35:36 PM	\$839.46	✖	12/24/2021 10:50:23 AM	Insurance	Credit Balance	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
801440282	1300000205	3/20/2022 6:35:36 PM	(\$839.46)	✖	12/24/2021 10:50:23 AM	Insurance	Credit Balance	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
807122873	1300000416	3/17/2022 8:13:38 PM	\$51.81	✖	2/26/2022 10:52:22 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803212534	1300000417	3/17/2022 8:21:39 PM	\$51.81	✖	2/26/2022 10:53:52 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803271279	1300000418	3/17/2022 8:09:20 PM	\$67.45	✖	2/25/2022 10:56:43 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
804581484	1300000419	3/17/2022 8:03:10 PM	\$51.81	✖	3/1/2022 10:51:39 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
801604535	1300000433	3/17/2022 8:42:22 PM	\$51.81	✖	2/22/2022 10:54:59 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803825168	1300000434	3/17/2022 8:19:35 PM	\$51.81	✖	2/23/2022 10:47:12 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
800366404	1300000435	3/17/2022 7:59:17 PM	\$58.79	✖	3/2/2022 10:50:51 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
805119042	1300000436	3/17/2022 8:10:08 PM	\$20.22	✖	3/1/2022 10:51:58 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
806819387	1300000437	3/17/2022 8:28:47 PM	\$115.23	✖	3/1/2022 10:56:34 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803880886	1300000453	3/17/2022 8:20:18 PM	\$131.58	✖	3/1/2022 10:47:33 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803562418	1300000454	3/17/2022 8:03:46 PM	\$145.67	✖	2/26/2022 10:51:14 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
808068571	1300000455	3/17/2022 8:18:18 PM	\$43.09	✖	3/3/2022 10:48:05 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
800582392	1300000456	3/17/2022 8:33:10 PM	\$51.81	✖	2/22/2022 10:55:09 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
806582077	1300000457	3/17/2022 8:33:10 PM	\$51.81	✖	2/22/2022 10:53:13 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
806189724	1300000458	3/17/2022 8:10:14 PM	\$136.06	✖	2/24/2022 10:53:00 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
801388481	1300000459	3/17/2022 8:41:26 PM	\$51.81	✖	3/3/2022 10:50:11 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
801596575	1300000478	3/17/2022 8:34:37 PM	\$122.58	✖	3/3/2022 10:55:23 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
800705271	1300000479	3/17/2022 7:59:38 PM	\$51.81	✖	3/5/2022 10:49:54 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803099111	1300000480	3/17/2022 8:17:32 PM	\$51.81	✖	2/26/2022 10:54:14 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
803362829	1300000481	3/17/2022 8:01:10 PM	\$81.76	✖	3/4/2022 10:50:32 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	
800200051	1300000482	3/17/2022 8:08:04 PM	\$300.63	✖	2/22/2022 10:56:17 AM	Insurance	Pending Reimbursement Claim	Enqueue State Based Work Flow	Block, Harley	Patient Accounting: Claims F	

Figure 388: Received Cash Details

Split Payment Details

The Split Payment Details screen displays a payment and its activities that caused it to be considered a split.

The [Encounter Details](#) associated with a payment can be viewed by right-clicking a row and selecting “Encounter Details” from the context menu, or by double-clicking on a payment.



The screenshot shows a window titled "Split Payment Details". At the top, it displays "Biller Name: Block, Harley" and "Activity Id: 802260551". Below this is a table with the following columns: Bo Hp Reitm Id, FIN, Post Date Time, Amount, Is Split, Responsible Effective Date Time, Responsible Type, Responsible Status, Responsible Event, Responsible Biller, and Responsible Position. The table contains two rows of data. The first row shows a payment of \$25.91 on 3/18/2022 at 8:43:21 PM, which is a split payment (Is Split: green checkmark) for Insurance, with a status of "Pending Reimbursement Claim". The second row shows a payment of \$25.91 on 3/18/2022 at 8:43:21 PM, which is not a split payment (Is Split: red X) for Insurance, with a status of "Technical Denial - Coding". Both payments are associated with the responsible biller "Block, Harley" and the responsible position "Patient Accounting: Claims Followup Rep: Bi".

Bo Hp Reitm Id	FIN	Post Date Time	Amount	Is Split	Responsible Effective Date Time	Responsible Type	Responsible Status	Responsible Event	Responsible Biller	Responsible Position
804510323	1300000744	3/18/2022 8:43:21 PM	(\$25.91)	✓	3/15/2022 8:43:15 PM	Insurance	Pending Reimbursement Claim	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims Followup Rep: Bi
804510323	1300000744	3/18/2022 8:43:21 PM	(\$25.91)	✗	3/15/2022 8:43:15 PM	Insurance	Technical Denial - Coding	Dequeue State Based Work Flow	Block, Harley	Patient Accounting: Claims Followup Rep: Bi

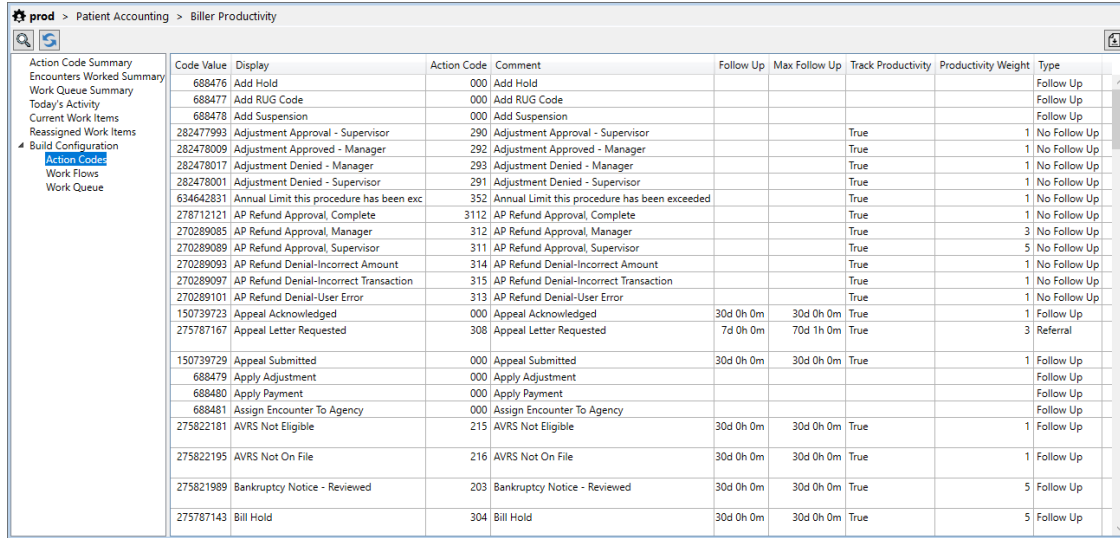
Figure 389: Split Payment Details

10.3.14 Build Configuration

The Build Configuration section displays the reference data of how the system is built.

Action Codes

The Action Codes view displays details for each defined action code, its follow up times and productivity tracking settings.

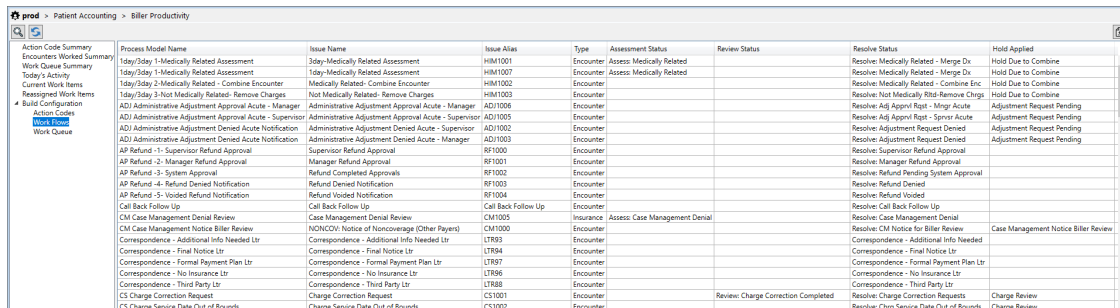


Code Value	Display	Action Code	Comment	Follow Up	Max Follow Up	Track Productivity	Productivity Weight	Type
688476	Add Hold	000	Add Hold					Follow Up
688477	Add RUG Code	000	Add RUG Code					Follow Up
688478	Add Suspension	000	Add Suspension					Follow Up
282477993	Adjustment Approval - Supervisor	290	Adjustment Approval - Supervisor			True	1	No Follow Up
282478009	Adjustment Approved - Manager	292	Adjustment Approved - Manager			True	1	No Follow Up
282478017	Adjustment Denied - Manager	293	Adjustment Denied - Manager			True	1	No Follow Up
282478001	Adjustment Denied - Supervisor	291	Adjustment Denied - Supervisor			True	1	No Follow Up
634642831	Annual Limit this procedure has been exc	352	Annual Limit this procedure has been exceeded			True	1	No Follow Up
278712121	AP Refund Approval, Complete	3112	AP Refund Approval, Complete			True	1	No Follow Up
270289085	AP Refund Approval, Manager	312	AP Refund Approval, Manager			True	3	No Follow Up
270289089	AP Refund Approval, Supervisor	311	AP Refund Approval, Supervisor			True	5	No Follow Up
270289093	AP Refund Denial-Incorrect Amount	314	AP Refund Denial-Incorrect Amount			True	1	No Follow Up
270289097	AP Refund Denial-Incorrect Transaction	315	AP Refund Denial-Incorrect Transaction			True	1	No Follow Up
270289101	AP Refund Denial-User Error	313	AP Refund Denial-User Error			True	1	No Follow Up
150739723	Appeal Acknowledged	000	Appeal Acknowledged	30d 0h 0m	30d 0h 0m	True	1	Follow Up
275787167	Appeal Letter Requested	308	Appeal Letter Requested	7d 0h 0m	70d 1h 0m	True	3	Referral
150739729	Appeal Submitted	000	Appeal Submitted	30d 0h 0m	30d 0h 0m	True	1	Follow Up
688479	Apply Adjustment	000	Apply Adjustment					Follow Up
688480	Apply Payment	000	Apply Payment					Follow Up
688481	Assign Encounter To Agency	000	Assign Encounter To Agency					Follow Up
275822181	AVRS Not Eligible	215	AVRS Not Eligible	30d 0h 0m	30d 0h 0m	True	1	Follow Up
275822195	AVRS Not On File	216	AVRS Not On File	30d 0h 0m	30d 0h 0m	True	1	Follow Up
275821989	Bankruptcy Notice - Reviewed	203	Bankruptcy Notice - Reviewed	30d 0h 0m	30d 0h 0m	True	5	Follow Up
275787143	Bill Hold	304	Bill Hold	30d 0h 0m	30d 0h 0m	True	5	Follow Up

Figure 390: Action Codes

Work Flows

The Work Flows view displays all of the configured work flows.

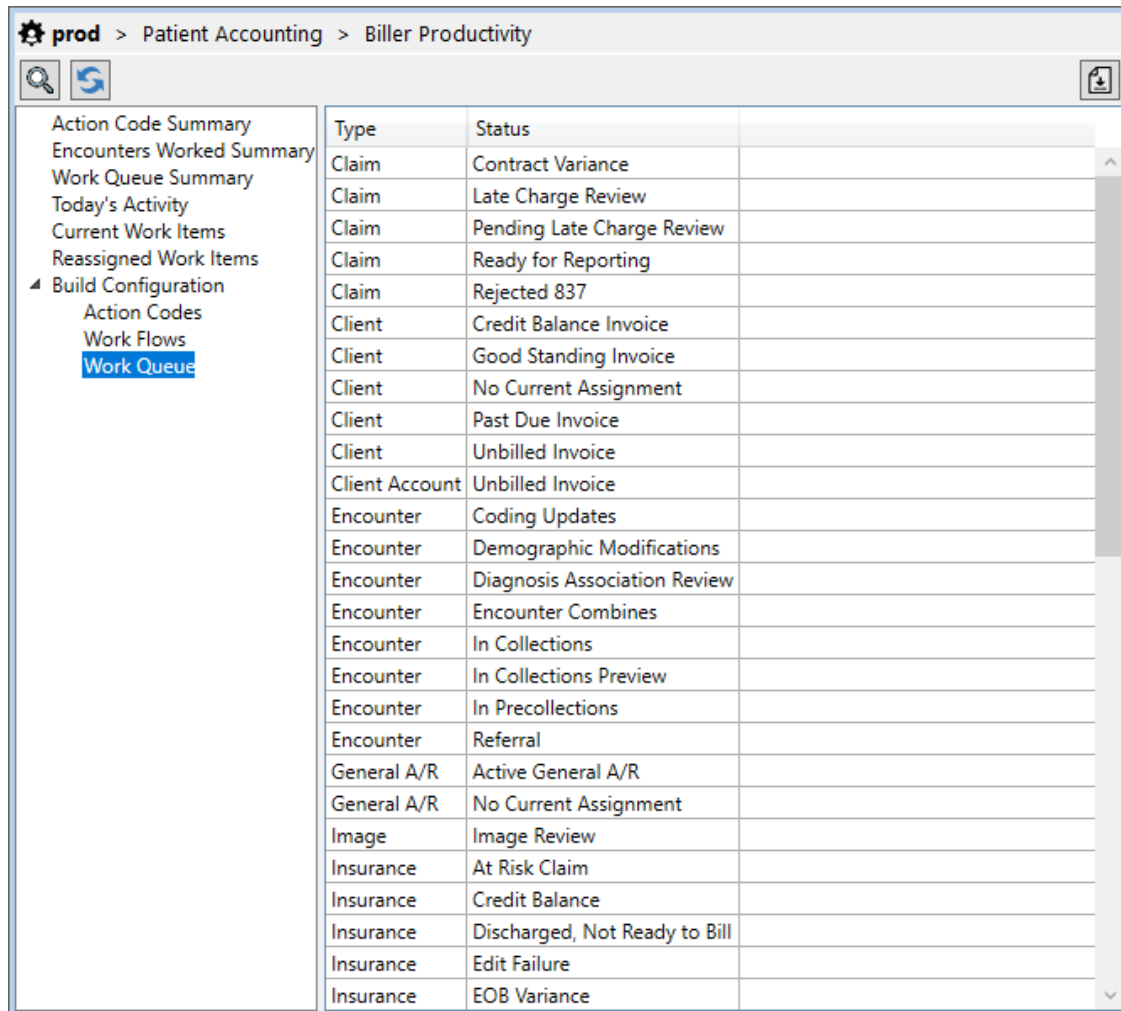


Process Model Name	Issue Name	Issue Alias	Type	Assessment Status	Review Status	Resolve Status	Hold Applied
1day/3day 1-Medically Related Assessment	3day-Medically Related Assessment	HIM1001	Encounter	Assess Medically Related		Resolve: Medically Related - Merge Dx	Hold Due to Combine
1day/3day 1-Medically Related Assessment	1day-Medically Related Assessment	HIM1007	Encounter	Assess Medically Related		Resolve: Medically Related - Merge Dx	Hold Due to Combine
1day/3day 2-Medically Related - Combine Encounter	Medically Related - Combine Encounter	HIM1002	Encounter			Resolve: Medically Related - Combine Enc	Hold Due to Combine
1day/3day 3-Not Medically Related- Remove Charges	Not Medically Related- Remove Charges	HIM1003	Encounter			Resolve: Not Medically Rltd-Remove Chrgs	Hold Due to Combine
ADI Administrative Adjustment Approval Acute - Manager	Administrative Adjustment Approval Acute - Manager	ADI1006	Encounter			Resolve: Adj Apprnl Rpt - Sprnr Acute	Adjustment Request Pending
ADI Administrative Adjustment Approval Acute - Supervisor	Administrative Adjustment Approval Acute - Supervisor	ADI1005	Encounter			Resolve: Adj Apprnl Rpt - Sprnr Acute	Adjustment Request Pending
ADI Administrative Adjustment Denied Acute Notification	Administrative Adjustment Denied Acute - Supervisor	ADI1002	Encounter			Resolve: Adjustment Request Denied	Adjustment Request Pending
ADI Administrative Adjustment Denied Acute Notification	Administrative Adjustment Denied Acute - Manager	ADI1003	Encounter			Resolve: Adjustment Request Denied	Adjustment Request Pending
AP Refund -1- Supervisor Refund Approval	Supervisor Refund Approval	RF1000	Encounter			Resolve: Supervisor Refund Approval	Adjustment Request Pending
AP Refund -2- Manager Refund Approval	Manager Refund Approval	RF1001	Encounter			Resolve: Manager Refund Approval	
AP Refund -3- System Approval	Refund Completed Approvals	RF1002	Encounter			Resolve: Refund Pending System Approval	
AP Refund -4- Refund Denied Notification	Refund Denied Notification	RF1003	Encounter			Resolve: Refund Denied	
AP Refund -5- Voided Refund Notification	Refund Voided Notification	RF1004	Encounter			Resolve: Refund Voided	
Call Back Follow Up	Call Back Follow Up	Call Back Follow Up	Encounter			Resolve: Call Back Follow Up	
CM Case Management Denial Review	Case Management Denial Review	CM1005	Insurance	Assess: Case Management Denial		Resolve: Case Management Denial	
CM Case Management Notice Biller Review	NONCOV: Notice of Noncoverage (Other Payer)	CM1000	Encounter			Resolve: CM Notice for Biller Review	Case Management Notice Biller Review
Correspondence - Additional Info Needed Ltr	Correspondence - Additional Info Needed Ltr	LTR893	Encounter			Correspondence - Additional Info Needed	
Correspondence - Final Notice Ltr	Correspondence - Final Notice Ltr	LTR894	Encounter			Correspondence - Final Notice Ltr	
Correspondence - Formal Payment Plan Ltr	Correspondence - Formal Payment Plan Ltr	LTR897	Encounter			Correspondence - Formal Payment Plan Ltr	
Correspondence - No Insurance Ltr	Correspondence - No Insurance Ltr	LTR896	Encounter			Correspondence - No Insurance Ltr	
Correspondence - Third Party Ltr	Correspondence - Third Party Ltr	LTR888	Encounter			Correspondence - Third Party Ltr	
CC Charge Correction Request	Charge Correction Request	CS1001	Encounter			Resolve: Charge Correction Requests	Charge Review
CS Charge Service Date Out of Bounds	Charge Service Date Out of Bounds	CS1002	Encounter			Resolve: Chm Service Date Out of Bounds	Charge Review

Figure 391: Work Flows

Work Queue

The Work Queue view displays all of the configured types and their possible statuses.



The screenshot shows a software interface with a sidebar on the left and a main table area. The sidebar contains the following items:

- Action Code Summary
- Encounters Worked Summary
- Work Queue Summary
- Today's Activity
- Current Work Items
- Reassigned Work Items
- Build Configuration
 - Action Codes
 - Work Flows
 - Work Queue**

The main table has two columns: Type and Status. The table contains the following data:

Type	Status
Claim	Contract Variance
Claim	Late Charge Review
Claim	Pending Late Charge Review
Claim	Ready for Reporting
Claim	Rejected 837
Client	Credit Balance Invoice
Client	Good Standing Invoice
Client	No Current Assignment
Client	Past Due Invoice
Client	Unbilled Invoice
Client Account	Unbilled Invoice
Encounter	Coding Updates
Encounter	Demographic Modifications
Encounter	Diagnosis Association Review
Encounter	Encounter Combines
Encounter	In Collections
Encounter	In Collections Preview
Encounter	In Precollections
Encounter	Referral
General A/R	Active General A/R
General A/R	No Current Assignment
Image	Image Review
Insurance	At Risk Claim
Insurance	Credit Balance
Insurance	Discharged, Not Ready to Bill
Insurance	Edit Failure
Insurance	EOB Variance

Figure 392: Work Queue

Biller Assignment Rules

The Biller Assignment Rules view displays all the biller in the top grid. After selecting a biller, the bottom grid will populate with all rules that apply to that biller.

prod > Patient Accounting > Biller Productivity		
- Action Code Summary - Encounters Worked Summary - Work Queue Summary - Today's Activity - Current Work Items - Reassigned Work Items - Received Cash - Build Configuration - Action Codes - Work Flows - Work Queue - Biller Assignment Rules - State Assignment Rules	Assignee	Assignee Position
	Crooks, Lia	HIM: Managers
	Rath, Sammy	HIM: Managers
	Schneider, Mellie	HIM: Managers
	Abbott, Javonte	Patient Accounting: Claims Followup Rep
	Batz, Madeline	Patient Accounting: Claims Followup Rep
	Block, Camden	Patient Accounting: Claims Followup Rep
	Funk, Octavia	Patient Accounting: Claims Followup Rep
	Grady, Alycia	Patient Accounting: Claims Followup Rep
	Huel, Titus	Patient Accounting: Claims Followup Rep
	Jacobson, Emmet	Patient Accounting: Claims Followup Rep
	Kemmer, Danielle	Patient Accounting: Claims Followup Rep
	Kihn, Celia	Patient Accounting: Claims Followup Rep
	Kilback, Noel	Patient Accounting: Claims Followup Rep
	Kling, Jazmyn	Patient Accounting: Claims Followup Rep
	Langworth, Sincere	Patient Accounting: Claims Followup Rep
	Maggio, Vince	Patient Accounting: Claims Followup Rep
	Mann, Kamryn	Patient Accounting: Claims Followup Rep
	Rule	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[A to C]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[A to C]/Current Health Plan[Medicare BCBS]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[D to M]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[D to M]/Current Health Plan[Medicare BCBS]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[N to O]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[N to O]/Current Health Plan[Medicare BCBS]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[P to Z]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1450]/Patient Last Name[P to Z]/Current Health Plan[Medicare BCBS]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1500]/Patient Last Name[A to C]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1500]/Patient Last Name[D to M]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1500]/Patient Last Name[N to O]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[Agency]/Bill Type[HCFA 1500]/Patient Last Name[P to Z]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[BCBS OOS]/Bill Type[HCFA 1450]/Patient Last Name[A to C]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[BCBS OOS]/Bill Type[HCFA 1450]/Patient Last Name[D to M]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[BCBS OOS]/Bill Type[HCFA 1450]/Patient Last Name[N to O]	
	/Insurance/Edit Failure/Billing Entity ID[Childrens and Womens]/Current Financial Class[BCBS OOS]/Bill Type[HCFA 1450]/Patient Last Name[P to Z]	

Figure 393: Biller Assignment Rules

State Assignment Rules

The State Assignment Rules view displays all the configured Assignment Rules by State in a tree view. By clicking the arrows on the left side of the screen you can expand out each state to see the rules underneath.

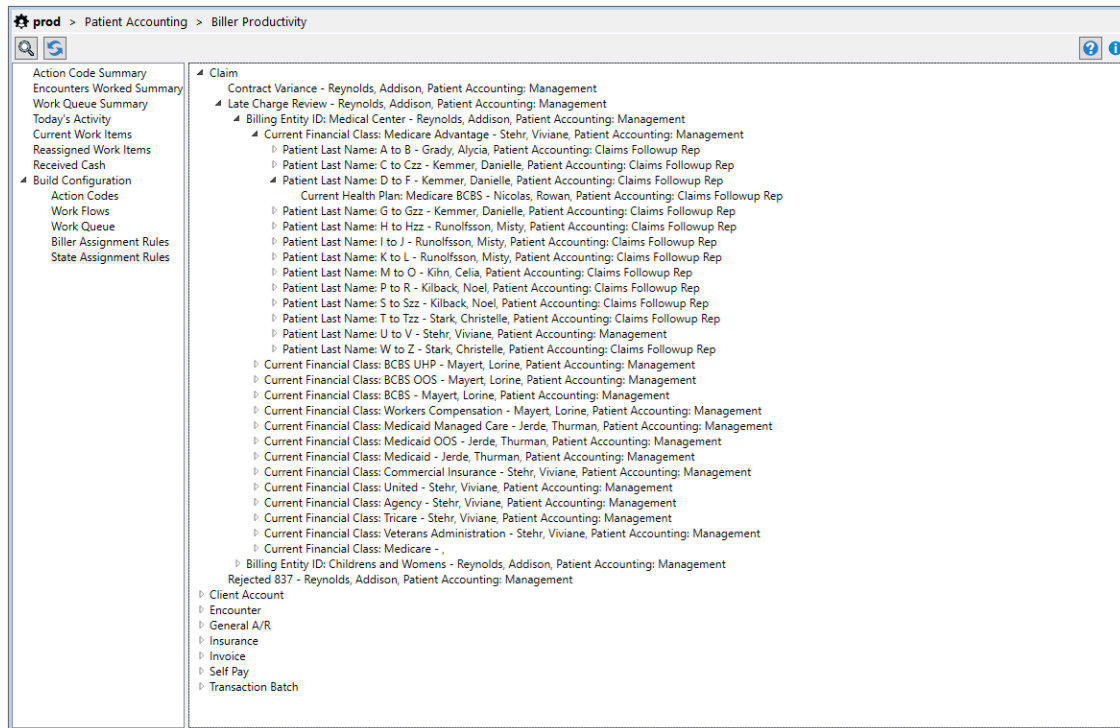


Figure 394: State Assignment Rules

10.3.15 Encounter Details Dialog

The *Encounter Details* dialog is a common dialog displayed by many Panther controls. See [Encounter Details Dialog](#) for more information. Within Biller Productivity, Encounter Details can be launched from the [Received Cash Details](#) dialog and the [Split Payment Details](#) dialog.

10.4. Cash Drawer Control

The Cash Drawer control allows users to track what people, positions, and locations are bringing in the greatest amount of cash. This information can be used to incentivize team members. This control also shows the state of all the batches, helping to identify batches that are "stuck". This control does not make any modifications to the data in Millennium.

To view the Cash Drawer control, select the *Cash Drawer* item, under the *Patient Accounting* item, in the Domain Explorer (Figure 395).

There are two icons that commonly appear in the upper right-hand corner of the Cash Drawer control. These are the Export button, and the Help icon.

The Export button allows users to save the currently displayed data in a [CSV](#) or Excel® format. When the Export button is clicked, the Windows "Save As" dialog will appear, prompting the user to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

The Help icon provides additional information about the data currently being viewed. Hover the mouse cursor over the question mark icon to see an informational tooltip describing the data displayed.

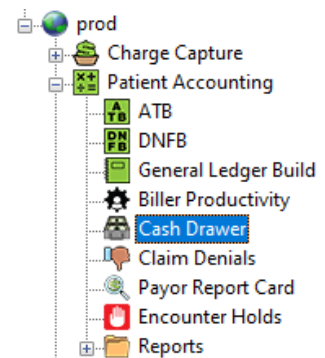


Figure 395: Domain Explorer

10.4.1 Cash Drawer Main Control

When the control is loaded, the Posted Payments by Location section will be selected by default. The tree view on the left-hand side of the control can be used to navigate to other sections of the control. Data will not be automatically refreshed on this control.

Searches may take time to load; please note the spinning blue loading icon which will appear in the upper left-hand corner of the control, where the Cash Drawer icon normally is.

prod > Patient Accounting > Cash Drawer

Posted Payments by Location

☐ Hide total rows

Billing Entity	Facility	Nurse Unit	Posted Total	Posted EFT	Posted Cash	Posted Check	Posted Credit	Posted Other
CHILDRENS AND WOMENS	All	All	\$3,349,287.03	\$3,337,760.48	\$0.00	\$2,527.24	\$8,999.31	\$0.00
CHILDRENS AND WOMENS	C AND W	All	\$3,090,924.36	\$3,081,513.50	(\$75.00)	\$2,387.22	\$7,098.64	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK OPAT	\$47.73	\$47.73	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK SPEC CARE NRSY	\$31,492.02	\$31,492.02	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS HLTHY LIFE SPCC	\$318.24	\$318.24	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	MFM SPCC	\$18,634.86	\$18,634.86	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PROGRESSIV CARE	\$239,885.66	\$236,939.96	\$0.00	\$0.00	\$2,945.70	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS HEMONC	\$1,418.45	\$1,418.45	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK OBGYN EC	\$18,351.84	\$18,326.84	\$0.00	\$0.00	\$25.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS SURG SPCC	\$2,855.85	\$2,855.85	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK LABOR AND DELIV	\$5,037.45	\$5,037.45	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS CARDIOLOGY	\$6,548.04	\$6,548.04	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	2ND FL MTHRBABY	\$278,302.14	\$278,302.14	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK RADIOLOGY	\$22,930.81	\$21,641.97	\$0.00	\$177.06	\$1,111.78	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PEDS 4 NORTH	\$1,730.34	\$1,520.62	\$0.00	\$0.00	\$209.72	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PED INF CTR	\$90,072.13	\$90,012.79	\$0.00	\$59.34	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PDIC SPCC	\$828.96	\$828.96	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS STRADA	\$23,704.78	\$23,704.78	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PED ED	\$99,132.30	\$98,228.90	\$0.00	\$311.15	\$592.25	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK NEWBORN NRSY	\$3,388.04	\$2,999.24	\$0.00	\$0.00	\$388.80	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS INF DIS	\$958.04	\$958.04	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PEDS 3 NORTH	\$328,132.43	\$328,132.43	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS ADOLESCENT	\$510.05	\$510.05	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK WPCU	\$18,177.41	\$17,897.11	(\$75.00)	\$105.30	\$250.00	\$0.00

Data no older than: 2021-07-01 10:30:20 AM

Figure 396: Cash Drawer Control

The *Search* button in the upper left-hand corner of the control can be used to change the date range and billing entities included in the returned data. By default, the date range for the control is Yesterday and all billing entities are included in the results. The maximum date range a user can search is 31 days.



Search Date Range

Some batch views do not use the date range provided in the search criteria to filter data. See the help text for each view to see if the date range is used.

The *Refresh* icon is located to the right of the Search icon and can be used to refresh the current data displayed reusing the same search criteria.

10.4.2 Posted Payments by Location

The Posted Payments by Location section allows the user to view all payments meeting the specified search criteria, grouped by billing entity, facility, and nurse unit. When this section is selected, data will be automatically searched. Summary rows for each billing entity and facility will be included by default. These rows have a blue background. The *Hide total rows* checkbox above the grid can be used to hide these summary rows. The *Filter* button above the grid allows the user to further filter results by facility. If the *Filter by Facility* checkbox is selected, there must be facilities in the *Included* list.

Posted Payments by Location

Hide total rows

Billing Entity	Facility	Nurse Unit	Posted Total	Posted EFT	Posted Cash	Posted Check	Posted Credit	Posted Other
CHILDRENS AND WOMENS	All	All	\$3,349,287.03	\$3,337,760.48	\$0.00	\$2,527.24	\$8,999.31	\$0.00
CHILDRENS AND WOMENS	C AND W	All	\$3,090,924.36	\$3,081,513.50	(\$75.00)	\$2,387.22	\$7,098.64	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK OPAT	\$47.73	\$47.73	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK SPEC CARE NRSY	\$31,492.02	\$31,492.02	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS HLTHY LIFE SPCC	\$318.24	\$318.24	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	MFM SPCC	\$18,634.86	\$18,634.86	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PROGRESSIV CARE	\$239,885.66	\$236,939.96	\$0.00	\$0.00	\$2,945.70	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS HEMONC	\$1,418.45	\$1,418.45	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK OBGYN EC	\$18,351.84	\$18,326.84	\$0.00	\$0.00	\$25.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS SURG SPCC	\$2,855.85	\$2,855.85	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK LABOR AND DELIV	\$5,037.45	\$5,037.45	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS RADIOLOGY	\$6,548.04	\$6,548.04	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	2ND FL MTHRBABY	\$278,302.14	\$278,302.14	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK RADIOLOGY	\$22,930.81	\$21,641.97	\$0.00	\$177.06	\$1,111.78	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PEDS 4 NORTH	\$1,730.34	\$1,520.62	\$0.00	\$0.00	\$209.72	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PED INF CTR	\$90,072.13	\$90,012.79	\$0.00	\$59.34	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PDKC SPCC	\$828.96	\$828.96	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS STRADA	\$23,704.78	\$23,704.78	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PED ED	\$99,132.30	\$98,228.90	\$0.00	\$311.15	\$592.25	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK NEWBORN NRSY	\$3,388.04	\$2,999.24	\$0.00	\$0.00	\$388.80	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS INF DIS	\$958.04	\$958.04	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK PEDS 3 NORTH	\$328,132.43	\$328,132.43	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	PEDS ADOLESCENT	\$510.05	\$510.05	\$0.00	\$0.00	\$0.00	\$0.00
CHILDRENS AND WOMENS	C AND W	SFTK WPCPU	\$18,177.41	\$17,897.11	(\$75.00)	\$105.30	\$250.00	\$0.00

Data no older than: 2021-07-01 10:30:20 AM

Figure 397: Posted Payments by Location

Payment details for each location can be viewed in the [Payment Details Dialog](#) by double-clicking on the row, or using the *Payment Details* option in the [Context Menu](#). See [Figure 398](#).

Payment Details	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 398: Posted Payments by Location Context Menu

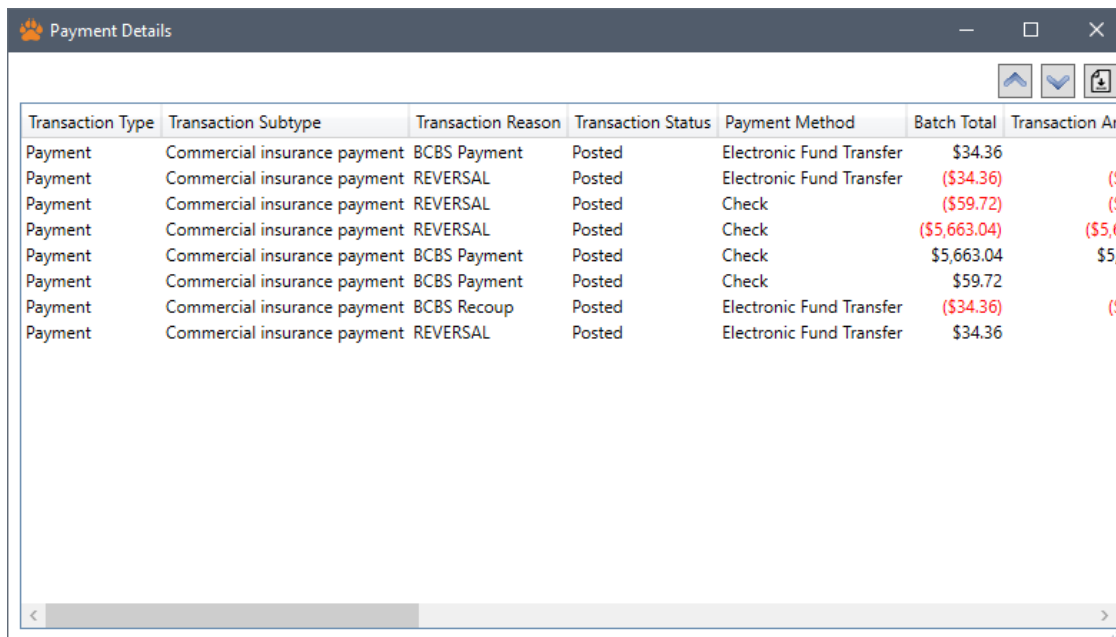
Menu Option	Description
Payment Details	Opens the Payment Details dialog for the selected row.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 100: Posted Payments by Location Context Menu

Payment Details Dialog

The *Payment Details* dialog displays the payment details for the previously selected location or poster. At the top, right-hand corner of the grid there are previous and next navigation buttons located next to the

export button. These buttons allow the user to view details for the next location/poster in the list on the previous screen without closing the dialog.

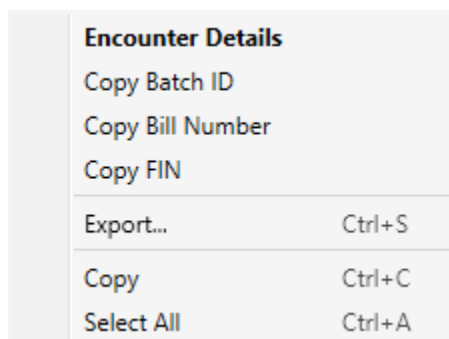


The screenshot shows a window titled "Payment Details" with a table of transaction data. The table has seven columns: Transaction Type, Transaction Subtype, Transaction Reason, Transaction Status, Payment Method, Batch Total, and Transaction Amount. The data is as follows:

Transaction Type	Transaction Subtype	Transaction Reason	Transaction Status	Payment Method	Batch Total	Transaction Amount
Payment	Commercial insurance payment	BCBS Payment	Posted	Electronic Fund Transfer	\$34.36	
Payment	Commercial insurance payment	REVERSAL	Posted	Electronic Fund Transfer	(\$34.36)	(\$34.36)
Payment	Commercial insurance payment	REVERSAL	Posted	Check	(\$59.72)	(\$59.72)
Payment	Commercial insurance payment	REVERSAL	Posted	Check	(\$5,663.04)	(\$5,663.04)
Payment	Commercial insurance payment	BCBS Payment	Posted	Check	\$5,663.04	\$5,663.04
Payment	Commercial insurance payment	BCBS Payment	Posted	Check	\$59.72	\$59.72
Payment	Commercial insurance payment	BCBS Recoup	Posted	Electronic Fund Transfer	(\$34.36)	(\$34.36)
Payment	Commercial insurance payment	REVERSAL	Posted	Electronic Fund Transfer	\$34.36	\$34.36

Figure 399: Patient Details Dialog

Encounter details for the FIN of each payment can be viewed in the [Encounter Details Dialog](#) by double-clicking on the row, or using the *Encounter Details* option in the [Context Menu](#). See [Figure 400](#).



The screenshot shows a context menu titled "Encounter Details" with the following options:

Encounter Details	
Copy Batch ID	
Copy Bill Number	
Copy FIN	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 400: Payment Details Context Menu

Menu Option	Description
Encounter Details	Opens the Encounter Details dialog for the associated FIN.
Copy Batch ID	Copies the Batch ID to the clipboard.
Copy Bill Number	Copies the Bill Number to the clipboard.
Copy Fin	Copies the FIN to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 101: Payment Details Context Menu

Encounter Details Dialog

The *Encounter Details* dialog is a common dialog displayed by many Panther controls. See [Encounter Details Dialog](#) for more information.

10.4.3 Posted Payments by Poster

The Posted Payments by Poster section allows the user to view all payments meeting the specified search criteria, grouped by poster. When this section is selected, data will be automatically searched. The *Show Breakdown* selection at the top of the grid determines if the payments for each poster are broken down further. The default is "None". When "Payment Method" or "Transaction Type" are selected, additional rows will be added to the grid. Summary rows for each poster will have a blue background. Under each summary row the breakdown for the selection will be shown. The *Filter* button above the grid allows the user to further filter results by facility, position, payment method, and transaction subtype.

Posted Payments by Poster					
Show Breakdown: ☒ None ☐ Payment Method ☐ Transaction Type					
Name	Position	Total Payments	Total Balance	2021-06-29 Payments	2021-06-29 Balance
Bahringer, Hudson	DBA	31	\$4,150.40	31	\$4,150.40
Breitenberg, Laury	DBA	2	\$0.00	2	\$0.00
SYSTEM, SYSTEM	DBA	238	\$1,069,239.95	238	\$1,069,239.95
Hansen, Zander	Patient Accounting: Cash Poster	4,548	\$4,267,013.73	4,548	\$4,267,013.73
Balistreri, Bartholome	Patient Accounting: Claims Followup Rep	4	\$0.00	4	\$0.00
Bartell, Rafaela	Patient Accounting: Claims Followup Rep	8	\$0.00	8	\$0.00
Barton, Ross	Patient Accounting: Claims Followup Rep	2	\$0.00	2	\$0.00
Bins, Joshua	Patient Accounting: Claims Followup Rep	4	\$0.00	4	\$0.00
Botsford, Delaney	Patient Accounting: Claims Followup Rep	26	\$0.00	26	\$0.00
Cassin, Grace	Patient Accounting: Claims Followup Rep	16	\$0.00	16	\$0.00
Deckow, Emerson	Patient Accounting: Claims Followup Rep	8	\$0.00	8	\$0.00
Heller, Roman	Patient Accounting: Claims Followup Rep	68	\$57,229.19	68	\$57,229.19
Jacobson, Zena	Patient Accounting: Claims Followup Rep	2	\$0.00	2	\$0.00
Keeling, Austyn	Patient Accounting: Claims Followup Rep	2	\$0.00	2	\$0.00
Kling, Imogene	Patient Accounting: Claims Followup Rep	16	\$0.00	16	\$0.00
Kunze, Chase	Patient Accounting: Claims Followup Rep	14	\$0.00	14	\$0.00
McKenzie, Gretchen	Patient Accounting: Claims Followup Rep	2	\$0.00	2	\$0.00
Schuppe, Kaycee	Patient Accounting: Claims Followup Rep	2	\$0.00	2	\$0.00
Volkman, Alena	Patient Accounting: Claims Followup Rep	14	\$0.00	14	\$0.00
Watsica, Deja	Patient Accounting: Claims Followup Rep	2	\$0.00	2	\$0.00
Bahringer, Cecil	Patient Accounting: Insurance Biller	4	\$0.00	4	\$0.00
Lind, Dewitt	Patient Accounting: Insurance Biller	16	\$2,339.98	16	\$2,339.98
Goyette, Hayley	Patient Accounting: Management	6	\$0.00	6	\$0.00
Krajcik, Anita	Patient Accounting: Management	65	\$256,978.09	65	\$256,978.09

Data no older than: 2021-07-01 10:36:15 AM

Figure 401: Posted Payments by Poster

Payment details for each poster can be viewed in the [Payment Details Dialog](#) by double-clicking on the row, or using the *Payment Details* option in the [Context Menu](#). See [Figure 402](#).

Payment Details	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 402: Posted Payments by Poster Context Menu

Menu Option	Description
Payment Details	Opens the Payment Details dialog for the selected row.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 102: Posted Payments by Poster Context Menu

10.4.4 Batch Views

The batch views provided are Created, Open, In Process, Posted, Posted Pending GL, and With Work Items. These views are very similar and show the batches meeting the criteria for each view. The criteria used is displayed in the help text for each view as well as outlined below. The *Filter* button above the grid allows the user to further filter results by position, and batch type. The position filter applies to both the created by position and posted by position. Filter changes are applied to all batch views.

Batch View	Description
Created	Shows batches created within the date range defined by the search criteria.
Open	Shows batches with a batch status indicating the batch is open. The date range defined by the search criteria is not used for this section.
In Process	Shows batches with a batch status indicating the batch is in process. The date range defined by the search criteria is not used by this section.
Posted	Shows batches with a transaction post date within the date range defined by the search criteria.
Posted Pending GL	Shows batches with a transaction post date within the date range defined by the search criteria, and no GL post date defined.
With Work Items	Shows batches with work items. The date range defined by the search criteria is not used for this section. This view also includes three additional columns: Assigned Biller, Unposted Payment, and Unposted Adjustment.

Table 103: Batch Views

Batch ID	Batch Type	Batch Status	Payment Number	Total Payment	Total Ac
Apply Remarks 1066316	Apply Remarks	Complete without errors		\$0.00	
Cancel/Deny Claim Adjustments 7921079	Cancel/Deny Claim Adjustments	Complete without errors		\$0.00	
TransactionDefault 8639757	TransactionDefault	Complete without errors		\$0.00	(
Adjust for Claim 2848595	Adjust for Claim	Complete without errors		\$0.00	
Apply Self Pay Remittance (Revenue Cycle) 913746	Apply Self Pay Remittance (Revenue Cycle)	Complete without errors		\$752.86	
TransactionDefault 6254349	TransactionDefault	Complete without errors		\$0.00	
EDI 835 7346886	EDI 835	Working	802499506	(\$120.00)	
Cancel/Deny Claim Adjustments 1953774	Cancel/Deny Claim Adjustments	Complete without errors		\$0.00	
Apply Self Pay Remittance (Revenue Cycle) 7548301	Apply Self Pay Remittance (Revenue Cycle)	Complete without errors		\$400.00	
Cancel/Deny Claim Adjustments 3674580	Cancel/Deny Claim Adjustments	Complete without errors		\$0.00	
Adjust for Charge 6694896	Adjust for Charge	Complete without errors		\$0.00	
TransactionDefault 5084679	TransactionDefault	Complete without errors		\$0.00	
Adjust for Claim 5329203	Adjust for Claim	Complete without errors		\$0.00	
Adjust for Claim 495134	Adjust for Claim	Complete without errors		\$0.00	(
TransactionDefault 8672278	TransactionDefault	Complete without errors		\$0.00	
Cancel/Deny Claim Adjustments 3975412	Cancel/Deny Claim Adjustments	Complete without errors		\$0.00	
Reversal 8025658	Reversal	Complete without errors		\$0.00	(\$
Adjust for Charge 8872587	Adjust for Charge	Complete without errors		\$0.00	
Cancel/Deny Claim Adjustments 7020236	Cancel/Deny Claim Adjustments	Complete without errors		\$0.00	(
Cancel/Deny Claim Adjustments 7933982	Cancel/Deny Claim Adjustments	Complete without errors		\$0.00	
Adjust for Claim 663986	Adjust for Claim	Complete without errors		\$0.00	(\$
Adjust for Claim 7824825	Adjust for Claim	Complete without errors		\$0.00	
Adjust for Claim 3857929	Adjust for Claim	Complete without errors		\$0.00	\$

Data no older than: 2021-07-01 10:36:53 AM

Figure 403: Created Batches

Transaction details for each batch can be viewed in the [Batch Details Dialog](#) by double-clicking on the row, or using the *Batch Details* option in the [Context Menu](#). See [Figure 404](#).

Copy Batch ID	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 404: Batch Views Context Menu

Menu Option	Description
Batch Details	Opens the Batch Details dialog for the selected row.
Copy Batch ID	Copies the Batch ID for the selected row to the clipboard.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 104: Batch Views Context Menu

Batch Details Dialog

The *Batch Details* dialog displays the transaction details for the previously selected batch. At the top, right-hand corner of the grid there are previous and next navigation buttons located next to the export button. These buttons allow the user to view details for the next batch in the list on the previous screen without closing the dialog.

Sequence Number	Created Date	Transaction Amount	Error Status	Posting Category Type	Transaction Type
1	2021-06-24 6:37 AM	\$104.98	Posted	Insurance	Payment
2	2021-06-24 6:37 AM	\$225.00	Transaction not posted	Insurance	Adjustment
3	2021-06-24 6:37 AM	\$0.00	Transaction not posted	Insurance	Adjustment
4	2021-06-24 6:37 AM	(\$104.98)	Posted	Insurance	Payment
5	2021-06-24 6:37 AM	(\$724.02)	Posted	Insurance	Adjustment
5	2021-06-24 6:37 AM	\$0.90	Posted	Insurance	Adjustment
5	2021-06-24 6:37 AM	\$104.07	Posted	Insurance	Adjustment
5	2021-06-24 6:37 AM	\$619.04	Posted	Insurance	Adjustment
6	2021-06-24 6:37 AM	\$0.01	Posted	Insurance	Adjustment
7	2021-06-24 6:37 AM	(\$104.08)	Posted	Insurance	Adjustment

Figure 405: Batch Details Dialog

Encounter details for the FIN of each transaction can be viewed in the [Encounter Details Dialog](#) by double-clicking on the row, or using the *Encounter Details* option in the [Context Menu](#). See [Figure 406](#).

Encounter Details	
Export...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 406: Batch Details Context Menu

Menu Option	Description
Encounter Details	Opens the Encounter Details dialog for the associated FIN.
Export	Exports data to .csv or .xlsx file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all of the currently displayed rows.

Table 105: Batch Details Context Menu

10.5. Claim Denials Control

The Claim Denials control shows information regarding denied claims on health plans, giving the user visibility into why claims were denied, and what factors denied claims may have in common. This control does not make any modifications to the data in Millennium and does not interact with the billing system.

To view the Claim Denials control, select the *Claim Denials* item in the Domain Explorer (Figure 407).

In the upper left corner is the [Search button](#), which will launch the Search Dialog. The first time you use the Claim Denials control, you must define the search range and search criteria before it will return any results.

Next to the Search button is the Refresh button. This will cause the control to re-fetch the data currently displayed, using the current search criteria. For example, if the date range for your search is “Today”, and another claim which matches your other search criteria has been denied since you last performed a search, the Refresh button would cause that additional claim to show up.

Above the Claim Denials Control's various grids is a export icon. This allows you to save the currently displayed data in CSV (comma-separated values) or XLSX (Microsoft Excel® workbook) format.

When the Export button is clicked, the Windows “Save As” dialog will appear, prompting the user to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

To the left side of the control, there is a tree containing several different views. Clicking on one of these views will cause the grid(s) in the right half of the screen to change.

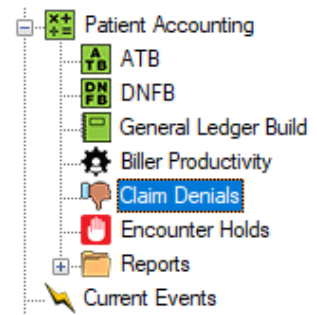


Figure 407: Domain Explorer

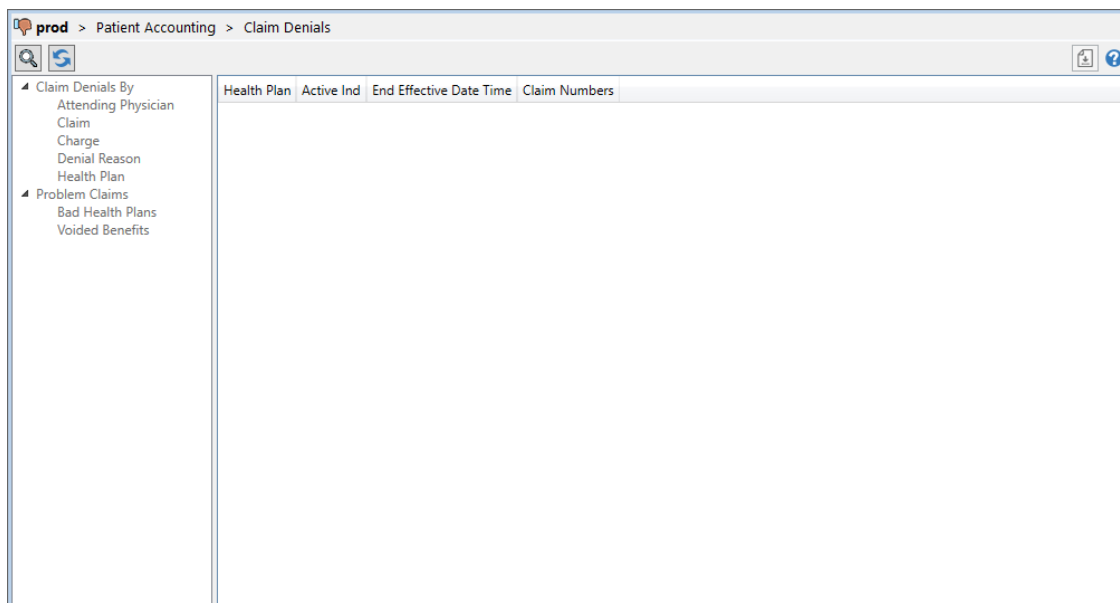


Figure 408: Claim Denials Control

10.5.1 Search Dialog

The Search Dialog allows the user to set several different search criteria to limit the search results.

The Date Range allows you to specify the dates during which claims were denied. There are several pre-defined date ranges, or you may set your own Custom date range.

The Bill Type dropdown lets you select what types of bills you want to see the counts and details for - Pro Fee (HCF 1500), Technical (HCF 1450), or both.

There are tabs listing Billing Entities, Health Plans, and Denial Reasons. Each of these tabs allows you to select which Billing Entities, which Health Plans, and which Denial Reasons should be included in your search. There must be at least one of each selected to perform a search. If the “OK” button is disabled, try checking each tab to make sure you have at least one item selected on each of them.

Search criteria are saved as user preferences. If the Claim Denials control is present in a user-created Desktop, the saved search criteria will only be applied to that specific Claim Denials control in that Desktop cell.

Search

Date Range
Yesterday

Bill Type: Both

Billing Entities Health Plans Denial Reasons

Excluded:

Billing Entity Name
ALLIED HEALTH PROFESSIONS
CHILDRENS AND WOMENS
SOFTEK HEALTH HOSPITAL SERVICES
SOFTEK HEALTH PHYSICIAN SERVICES

Included:

Billing Entity Name
MEDICAL CENTER

OK Cancel

Figure 409: Search Dialog

10.5.2 Claim Denials By Attending Physician

The Claim Denials By Attending Physician view takes the denied claims returned by the search, and sorts them by the Attending Physician involved with the claim.

The grid in the lower half of the screen breaks out the denial reasons for the selected physician.

If you right-click on either the upper or lower grid, the context menu contains an option to launch the [Claim Number Lookup](#) dialog. This will provide more information about the specific claims which were denied.

Menu Option	Description
Claim Number Lookup	Launches the Claim Number Lookup dialog.
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 106: Claim Denials By Attending Physician Context Menu

Attending Physician	Denials	Denial Reasons
Frankenstein MD, Victor	45	(14) CMS chg HICN to MBI.May use HICN or MBI; (13) You may not appeal this decision; (6) Clm info to patient supp
Hirsch MD, J. S.	19	(5) CMS chg HICN to MBI.May use HICN or MBI; (5) You may not appeal this decision; (3) Clm info to patient supplier
Lanyon MD, Hastie	18	(4) Clm info to patient supplemental insurer; (4) CMS chg HICN to MBI.May use HICN or MBI; (4) You may not appea
Jones Jr, MD, Henry	14	(3) CMS chg HICN to MBI.May use HICN or MBI; (3) You may not appeal this decision; (2) Clm info to patient supplier
Zarkov MD, Hans	13	(5) CMS chg HICN to MBI.May use HICN or MBI; (5) You may not appeal this decision; (3) Clm info to patient supplier
Venkman MD, Peter	12	(4) CMS chg HICN to MBI.May use HICN or MBI; (4) You may not appeal this decision; (3) Clm info to patient supplier
Deraad MD, Carl	10	(4) Init Part B Mdcrc you may appeal decision; (4) Non-payable code for reqd report only; (2) CMS chg HICN to MBI.M
Livesey MD, David	10	(2) CMS chg HICN to MBI.May use HICN or MBI; (2) Pmt adjusted-maybe covrd other payer-COB; (2) Pmt adjusted-M
Okun MD, Brackish	10	(3) Non-payable code for reqd report only; (2) CMS chg HICN to MBI.May use HICN or MBI; (2) Init Part B Mdcrc you
Fries MD, Victor	9	(2) CMS chg HICN to MBI.May use HICN or MBI; (2) You may not appeal this decision; (1) Chgs exceed contract/legsl
Loomis CRNP, Samuel	9	(3) Clm info to patient supplemental insurer; (3) CMS chg HICN to MBI.May use HICN or MBI; (3) You may not appea
Yueh MD, Wellington	9	(2) Clm info to patient supplemental insurer; (2) CMS chg HICN to MBI.May use HICN or MBI; (2) Pmt adjusted-May

Denials	Denial Code	Denial Reason
14	N793	CMS chg HICN to MBI.May use HICN or MBI.
13	N211	You may not appeal this decision
6	MA18	Clm info to patient supplemental insurer
5	18	Duplicate claim/service
2	22	Pmt adjusted-maybe covrd other payer-COB
2	29	The time limit for filing has expired
1	A1	Claim denied charges
1	MA01	Init Part B Mdcrc you may appeal decision
1	23	Pmt adjusted-MayHaveBeenPaid-other payer

Figure 410: Claim Denials By Attending Physician

10.5.3 Claim Denials By Claim

The Claim Denials By Claim view takes the denied claims returned by the search, and sorts them by the Claim Number.

There are two text boxes above the grid, labeled “Claim Number” and “FIN”. If you enter text in one or both of these, it will filter the results displayed in the grid.

The grid in the lower half of the screen breaks out the denial reasons for the selected claim.

If you right-click on either the upper or lower grid, the context menu contains options to launch the [Denial Details](#) and [Procedure Codes](#) dialogs. These will provide details about the denial, or a list of the procedure codes involved in the denial, respectively.

Menu Option	Description
Denial Details	Launches the Denial Details dialog.
Copy FIN	Copies the selected row's FIN.
Copy Claim Number	Copies the selected row's Claim Number
Procedure Codes	Launches the Procedure Codes dialog.
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 107: Claim Denials By Claim Context Menu

Figure 411: Claim Denials By Attending Physician

10.5.4 Claim Denials By Charge

The Claim Denials By Charge view takes the denied claims returned by the search, and shows total dollar amounts related to the claim for various balances, balances due, amounts denied, patient liability, and payments made.

The grid beneath splits out individual transactions related to the selected claim, and provides more information about them.

If you right-click on either the upper or lower grid, the context menu contains options to launch the [Denial Details](#) dialog. It will provide more details about the selected denial.

Menu Option	Description
Denial Details	Launches the Denial Details dialog.
Copy FIN	Copies the selected row's FIN.
Copy Claim Number	Copies the selected row's Claim Number
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 108: Claim Denials By Charge Context Menu

Billing Entity	Health Plan	FIN	Claim Number	Claim Version	Claim Status	Claim Balan
CHILDRENS AND WOMENS	Jackson County Board Of Health	1300897253	2013104119	1	Denied Pending Review	\$471.
CHILDRENS AND WOMENS	Medicaid Softek	1300999972	1552359207	1	Denied Pending Review	\$561.
CHILDRENS AND WOMENS	Medicare Missouri	1300913629	1033939116	1	Denied Pending Review	\$132.
CHILDRENS AND WOMENS	Medicare Part A & B	1300726243	1833352275	1	Denied Pending Review	\$2,349.
CHILDRENS AND WOMENS	Medicare Part A & B	1300768022	1881293475	1	Denied Pending Review	\$1,333.
CHILDRENS AND WOMENS	Medicare Part A Only	1300817325	1937867483	1	Denied Pending Review	\$415.
CHILDRENS AND WOMENS	Miscellaneous Agency	1300906027	2039651241	1	Denied Pending Review	\$88,899.
CHILDRENS AND WOMENS	Miscellaneous Commercial	1300977549	2121722354	1	Denied Pending Review	\$291.
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1300793630	1877258116	1	Denied Pending Review	\$415.
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1300467315	1536235976	1	Denied Pending Review	\$269.
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1300291906	1334957687	2	Denied Pending Review	\$12,023.
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1300809204	1910677838	1	Denied Pending Review	\$4,080.

Pft Line Item	Description	Price Line Charge	Charge Item ID	Charge Description	Charge Amount	Batch Trans File ID	Denial Type	Transaction Ty
800347484		(\$293.00)	0		\$499.75	800192645	Patient Liability	Adjustment

Figure 412: Claim Denials By Charge

10.5.5 Claim Denials By Denial Reason

The Claim Denials By Denial Reason view takes the denied claims returned by the search, and groups them by the denial reason. It lists the health plans involved with each denial season, and how many denials of that reason were associated with that health plan.

In the bottom grid, it shows counts of the selected denial for each health plan.

If you right-click on either the upper or lower grid, the context menu contains an option to launch the [Denial Details](#) or [Claim Number Lookup](#) dialogs. They will provide more details about the selected denial or the specific claims which were denied.

Menu Option	Description
Denial Details	Launches the Denial Details dialog.
Claim Number Lookup	Launches the Claim Number Lookup dialog.
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 109: Claim Denials By Denial Reason Context Menu

Billing Entity	Denial Code	Denial Reason	Denials	Health Plans
CHILDRENS AND WOMENS	N793	CMS chg HICN to MBI.May use HICN or MBI.	9	(9) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	N211	You may not appeal this decision	8	(8) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	MA18	Clm info to patient supplemental insurer	3	(3) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	96	Non-covered charge(s)	2	(1) Medicare Part A & B; (1) Miscellaneous Workers C
CHILDRENS AND WOMENS	227	Info req from pt/responsible party incom	2	(1) Jackson County Board Of Health; (1) Medicaid So
CHILDRENS AND WOMENS	MA01	Init Part B Mdcr you may appeal decision	1	(1) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	N448	Drug/svc/supply not incl in fee schedule	1	(1) Miscellaneous Commercial
CHILDRENS AND WOMENS	50	Non-cov svcs not medically necessary	1	(1) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	171	Pmt/pro fac; 835 HC Pol ID Seg loop2110	1	(1) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	258	Not covered when custody; incarcerated	1	(1) Miscellaneous Workers Compensation
CHILDRENS AND WOMENS	204	Not covered under benefit plan	1	(1) Medicare Part A Only
CHILDRENS AND WOMENS	M15	Sptly blld svs/tests bundled components	1	(1) Medicare Missouri

Denial Code: **N793** Denial Reason: **CMS chg HICN to MBI.May use HICN or MBI.** Billing Entity: **CHILDRENS AND WOMENS**

Denials	Health Plan
9	Miscellaneous Workers Compensation

Figure 413: Claim Denials By Denial Reason

10.5.6 Claim Denials By Health Plan

The Claim Denials By Health Plan view takes the denied claims returned by the search, and groups them by the health plan.

In the bottom grid, it breaks out the counts of individual denial reasons for the selected health plan.

If you right-click on either the upper or lower grid, the context menu contains an option to launch the [Denial Details](#) or [Claim Number Lookup](#) dialogs. They will provide more details about the selected denial or the specific claims which were denied.

Menu Option	Description
Denial Details	Launches the Denial Details dialog.
Claim Number Lookup	Launches the Claim Number Lookup dialog.
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 110: Claim Denials By Health Plan Context Menu

Billing Entity	Health Plan	Denied Claims	Claims	Percent Denied	Denials	Denial Reasons
CHILDRENS AND WOMENS	Jackson County Board Of Health	1	1	100.00%	1	(1) Info req from pt/responsible
CHILDRENS AND WOMENS	Medicaid Softek	2	2	100.00%	1	(1) Info req from pt/responsible
CHILDRENS AND WOMENS	Medicare Missouri	1	1	100.00%	1	(1) Sptly bldd svcs/tests bundled
CHILDRENS AND WOMENS	Medicare Part A & B	3	3	100.00%	2	(1) Non-covered charge(s); (1) T
CHILDRENS AND WOMENS	Medicare Part A Only	14	14	100.00%	1	(1) Not covered under benefit p
CHILDRENS AND WOMENS	Miscellaneous Agency	1	1	100.00%	1	(1) Claim/svc lacks info needed
CHILDRENS AND WOMENS	Miscellaneous Commercial	2	4	50.00%	2	(1) Drug/svc/supply not incl in f
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	9	10	90.00%	25	(9) CMS chg HICN to MBL May use HICN or MBL
MEDICAL CENTER	Clay County Board Of Health	3	3	100.00%	1	(1) Non-cov svcs not medically necessary
MEDICAL CENTER	Jackson County Board Of Health	1	1	100.00%	2	(1) Pmt adjusted-maybe covrd c
MEDICAL CENTER	Johnson County Board Of Health	3	4	75.00%	7	(3) CMS chg HICN to MBL May use HICN or MBL
MEDICAL CENTER	Medicaid Kansas	16	16	100.00%	3	(1) Pmt adjusted-MayHaveBeen

Denials	Denial Code	Denial Reason
9	N793	CMS chg HICN to MBL May use HICN or MBL
8	N211	You may not appeal this decision
3	MA18	Clim info to patient supplemental insurer
1	MA01	Init Part B Mdcrc you may appeal decision
1	50	Non-cov svcs not medically necessary
1	96	Non-covered charge(s)
1	258	Not covered when custody, incarcerated
1	171	Pmt/pro fac; 835 HC Pol ID Seg loop2110

Figure 414: Claim Denials By Health Plan

10.5.7 Bad Health Plans

The Bad Health Plans view list health plans which are inactive, or past the effect end date, and have had claims made against them during the search range.

This view is only impacted by the Date Range in the search criteria; the Billing Entity, Health Plan, and Denial Reason criteria do not impact what is displayed here.

To view the context menu, select an item in the grid and right-click.

Menu Option	Description
Copy Claim Number	Copy's the select rows Claim Number
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 111: Claim Denials Bad Health Plans Context Menu

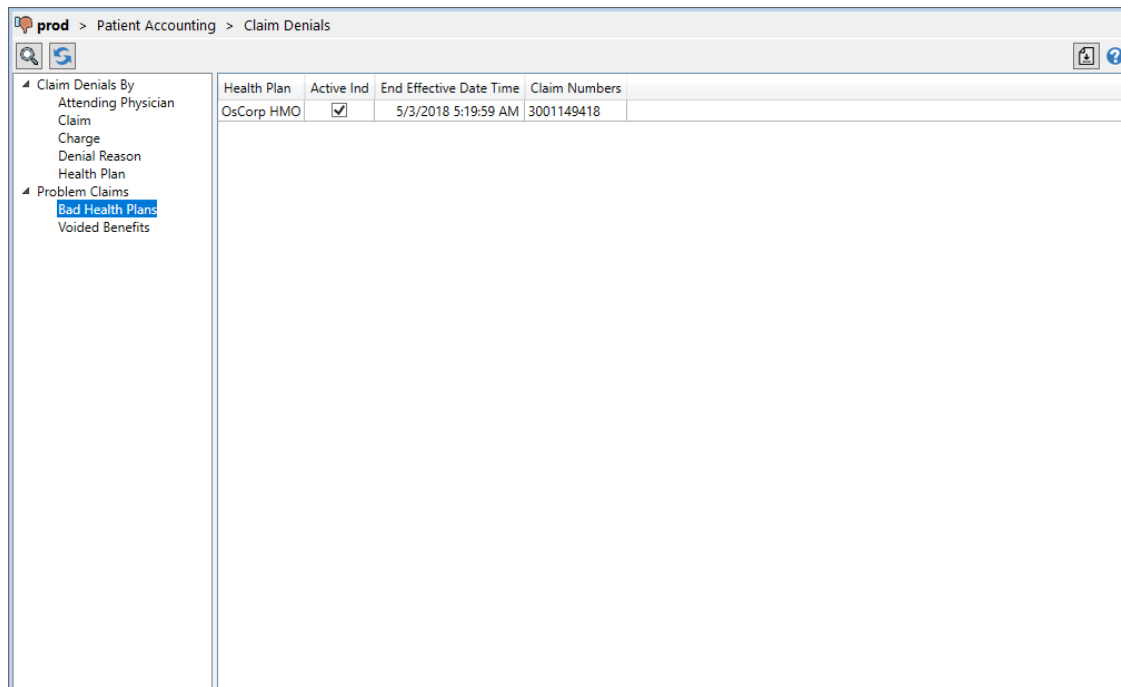


Figure 415: Bad Health Plan

10.5.8 Voided Benefit

The Voided Benefit view lists claims which have had been invalidated. If you right-click on the grid, there is an option to launch the [Activity Details](#) dialog, which will provide information about the account activities related to the denial.

Menu Option	Description
Activity Details	Launches the Activity Details dialog.
Copy FIN	Copies the selected row's FIN.
Copy Claim Number	Copies the selected row's Claim Number
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 112: Voided Benefit Context Menu

prod > Patient Accounting > Claim Denials

	FIN	Billing Entity	Health Plan	Claim Number	Claim Version	Billor	
Claim Denials By	1300612504	CHILDRENS AND WOMENS	Softek Childrens Health Program	1280596191	2	Parker, Hertha	
Attending Physician	1300612504	CHILDRENS AND WOMENS	Softek Childrens Health Program	1391323808	1	Parker, Hertha	
Claim	1300612504	CHILDRENS AND WOMENS	Softek Childrens Health Program	2007388037	1	Parker, Hertha	
Charge	1300651264	CHILDRENS AND WOMENS	Soylent Corporation Employees	1564085256	1	Morissette, Nathaniel	
Denial Reason	1300264833	CHILDRENS AND WOMENS	Tyrell Corporation Employees	1423389392	1	Deckow, Marcos	
Health Plan	1300710872	CHILDRENS AND WOMENS	Cyberdine Systems Employees	1303891610	1	Pouros, Cleora	
Problem Claims	1300255308	MEDICAL CENTER	Umbrella Corporation Employees	1366864519	1	Cronin, Agustina	
Bad Health Plans	1300341028	MEDICAL CENTER	Essex Corporation Employees	1731892153	1	Christiansen, Terrence	
Voiced Benefits	1300341028	MEDICAL CENTER	Cyberdine Systems Employees	1731892153	1	Christiansen, Terrence	
	1300023312	MEDICAL CENTER	Soylent Corporation Employees	2018488838	1	Ortiz, Nakia	
	1300023312	MEDICAL CENTER	Miscellaneous Medicare Managed Care	2018488838	1	Ortiz, Nakia	
	1300341028	MEDICAL CENTER	Essex Corporation Employees	1224797597	1	Christiansen, Terrence	
	1300341028	MEDICAL CENTER	Cyberdine Systems Employees	1224797597	1	Christiansen, Terrence	
	1300877910	MEDICAL CENTER	Cyberdine Systems Employees	1292961365	1	Christiansen, Terrence	
	1300097286	MEDICAL CENTER	Umbrella Corporation Employees	1747315180	1	Cronin, Agustina	
	1300097286	MEDICAL CENTER	Miscellaneous Workers Compensation	1747315180	1	Cronin, Agustina	
	1300023312	MEDICAL CENTER	Soylent Corporation Employees	2023714963	1	Ortiz, Nakia	
	1300023312	MEDICAL CENTER	Miscellaneous Medicare Managed Care	2023714963	1	Ortiz, Nakia	
	1300341028	MEDICAL CENTER	Essex Corporation Employees	1815714387	1	Christiansen, Terrence	
	1300341028	MEDICAL CENTER	Cyberdine Systems Employees	1815714387	1	Christiansen, Terrence	
	1300655619	MEDICAL CENTER	Cyberdine Systems Employees	1111634004	1	Christiansen, Terrence	
	1300559290	MEDICAL CENTER	Weyland-Yutani Employees	1026749277	1	Yundt, Olin	
	1300892139	MEDICAL CENTER	Cyberdine Systems Employees	1543921727	1	Christiansen, Terrence	
	1300133060	MEDICAL CENTER	Softek Healthcare Service	1752312418	1	Pouros, Cleora	

Figure 416: Voiced Benefit

10.5.9 Claim Number Lookup

The Claim Number Lookup dialog shows the individual claim numbers for the specific criteria passed to it from elsewhere in Panther. What criteria will depend on where the dialog was launched from. The current search criteria in use will also limit what is shown here.

The top of the dialog will have labels indicating the specific values which were searched for. In this example, the Claim Number Lookup was launched from the Claims by Denial Reason View, and the Denial Reason it is filtering on is shown at the top of the dialog.

Claim Number Lookup								
Billing Entity: CHILDRENS AND WOMENS Denial Reason: Clm info to patient supplemental insurer								
Billing Entity	Health Plan	Claim Numbers	Claim Version	FIN	Attending Physicians	Location	Med Service	Denials
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1461146304	1	1300742329	Frankenstein MD, Victor	SFTK RADIOLOGY	RADIOLOGY	1
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1584598550	1	1300029577	Hicks MD, Angela	SFTK RADIOLOGY	RADIOLOGY	1
CHILDRENS AND WOMENS	Miscellaneous Workers Compensation	1910677838	1	1300809204	Morgan MD, Robert	MAMMO SPCC	MAMMOGRAPHY	1
Claim Number: 1461146304 Version: 1 Health Plan: Miscellaneous Workers Compensation								
Denials	Denial Code	Denial Reasons						
1	MA18	Clm info to patient supplemental insurer						

Figure 417: Claim Denials Lookup

If you right-click on either the upper or lower grid, the context menu contains options to launch the [Denial Details](#) and [Procedure Codes](#) dialogs. These will provide details about the denial, or a list of the procedure codes involved in the denial, respectively.

Menu Option	Description
Denial Details	Launches the Denial Details dialog.
Procedure Codes	Launches the Procedure Codes dialog.
Copy FIN	Copies the selected row's FIN.
Copy Claim Number	Copies the selected row's Claim Number
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

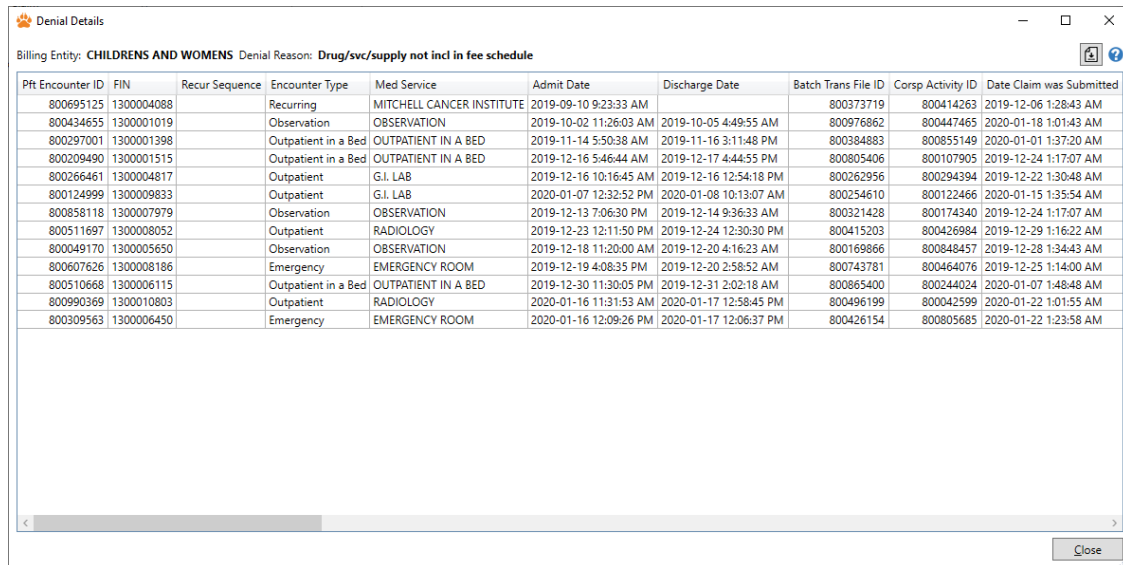
Table 113: Number Lookup Context Menu

10.5.10 Denial Details

This dialog shows additional information regarding denial(s) for the item being examined when the dialog was launched. Depending on where this dialog is launched from, the denials may be limited by one or more factors in addition to the current search criteria, such as Billing Entity, Health Plan, Denial Reason, or Claim Number.

Menu Option	Description
Copy FIN	Copies the selected row's FIN.
Copy Claim Number	Copies the selected row's Claim Number
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 114: Denial Details Context Menu



Denial Details
Billing Entity: CHILDRENS AND WOMENS Denial Reason: Drug/svc/supply not incl in fee schedule

Pft Encounter ID	FIN	Recur Sequence	Encounter Type	Med Service	Admit Date	Discharge Date	Batch Trans File ID	Corsp Activity ID	Date Claim was Submitted
800695125	1300004088		Recurring	MITCHELL CANCER INSTITUTE	2019-09-10 9:23:33 AM		800373719	800414263	2019-12-06 1:28:43 AM
800434655	1300001019		Observation	OBSERVATION	2019-10-02 11:26:03 AM	2019-10-05 4:49:55 AM	800976862	800447465	2020-01-18 1:01:43 AM
800297001	1300001398		Outpatient in a Bed	OUTPATIENT IN A BED	2019-11-14 5:50:38 AM	2019-11-16 3:11:48 PM	800384883	800855149	2020-01-01 1:37:20 AM
800209490	1300001515		Outpatient in a Bed	OUTPATIENT IN A BED	2019-12-16 5:46:44 AM	2019-12-17 4:44:55 PM	800805406	800107905	2019-12-24 1:17:07 AM
800266461	1300004817		Outpatient	G.I. LAB	2019-12-16 10:16:45 AM	2019-12-16 12:54:18 PM	800262956	800294394	2019-12-22 1:30:48 AM
800124999	1300009833		Outpatient	G.I. LAB	2020-01-07 12:32:52 PM	2020-01-08 10:13:07 AM	800254610	800122466	2020-01-15 1:35:54 AM
800858118	1300007979		Observation	OBSERVATION	2019-12-13 7:06:30 PM	2019-12-14 9:36:33 AM	800321428	800174340	2019-12-24 1:17:07 AM
800511697	1300008052		Outpatient	RADIOLOGY	2019-12-23 12:11:50 PM	2019-12-24 12:30:30 PM	800415203	800426984	2019-12-29 1:16:22 AM
800049170	1300005650		Observation	OBSERVATION	2019-12-18 11:20:00 AM	2019-12-20 4:16:23 AM	800169866	800848457	2019-12-28 1:34:43 AM
800607626	1300008186		Emergency	EMERGENCY ROOM	2019-12-19 4:08:35 PM	2019-12-20 2:58:52 AM	800743781	800464076	2019-12-25 1:14:00 AM
800510668	1300006115		Outpatient in a Bed	OUTPATIENT IN A BED	2019-12-30 11:30:05 PM	2019-12-31 2:02:18 AM	800865400	800244024	2020-01-07 1:48:48 AM
800990369	1300010803		Outpatient	RADIOLOGY	2020-01-16 11:31:53 AM	2020-01-17 12:58:45 PM	800496199	800042599	2020-01-22 1:01:55 AM
800309563	1300006450		Emergency	EMERGENCY ROOM	2020-01-16 12:09:26 PM	2020-01-17 12:06:37 PM	800426154	800805685	2020-01-22 1:23:58 AM

Figure 418: Denial Detail

10.5.11 Procedure Codes

This dialog shows a list of what procedures were associated with a particular claim, and the codes for those procedures.

Menu Option	Description
Copy FIN	Copies the FIN the dialog was performing a lookup for.
Copy FIN	Copies the selected row's FIN.
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 115: Procedure Codes Context Menu

Procedure Codes
—
□
×

Billing Entity: **CHILDRENS AND WOMENS**
Health Plan: **Medicare Part A & B**
FIN: **1300768022**

Coding Type	Source Identifier	Codes
ICD-10-CA	M62.81	Other specified disorders of muscle, shoulder region
CPT4	97110	THERAPEUTIC PX 1/> AREAS EACH 15 MIN EXERCISES
CPT4	97161	PHYSICAL THERAPY EVALUATION LOW COMPLEX 20 MINS

Close

Figure 419: Procedure Codes

10.5.12 Voided Benefit Activity Details

This dialog shows information about the activities taken in regards to a particular claim where the benefit was voided. This includes comments, transactions, etc. There is a check box to hide system activity, which will limit the activity shown to those taken by individuals.

Menu Option	Description
Export	Saves the data shown in the grid to a user-selected file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 116: Voided Benefit Activity Details Context Menu

 Voided Benefit Activity Details — □ ×								
FIN: 1300255308 Person: Cronin, Agustina  								
☐ Hide System Activity								
Responsible User	Acting User	Activity ID	Created On	Action Type	Action Subtype	Action Code	User Comments	Action Description
Stark, Vida	Stark, Vida	800008878	11/21/2017 3:59:12 AM	Comment			REDACTED	REDACTED
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800008696	10/20/2017 10:28:50 PM	Charge				Credit 14.75
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800008694	10/20/2017 2:38:08 AM	Charge				Debit 19.75
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800008697	10/20/2017 2:23:51 AM	Charge				Credit 36.00
SYSTEM, SYSTEM	SYSTEM, SYSTEM	800008695	10/20/2017 2:18:05 AM	Charge				Debit 36.00
< >								
								Close

Figure 420: Voided Benefit Activity Details

10.6. DNFB Control

The DNFB control is an interactive tool to view [Discharged Not Final Billed \(DNFB\)](#) data.

To view the DNFB control, select the *DNFB* item in the domain explorer ([Figure 421](#)).

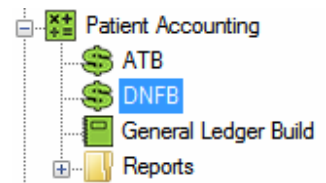


Figure 421: Domain Explorer



Data Is Retrieved Automatically For The Most Recent Search

The DNFB control automatically performs a search on load using the most recent criteria defined by the user. If no criteria has been defined, however, it will wait for the user to initiate a search.

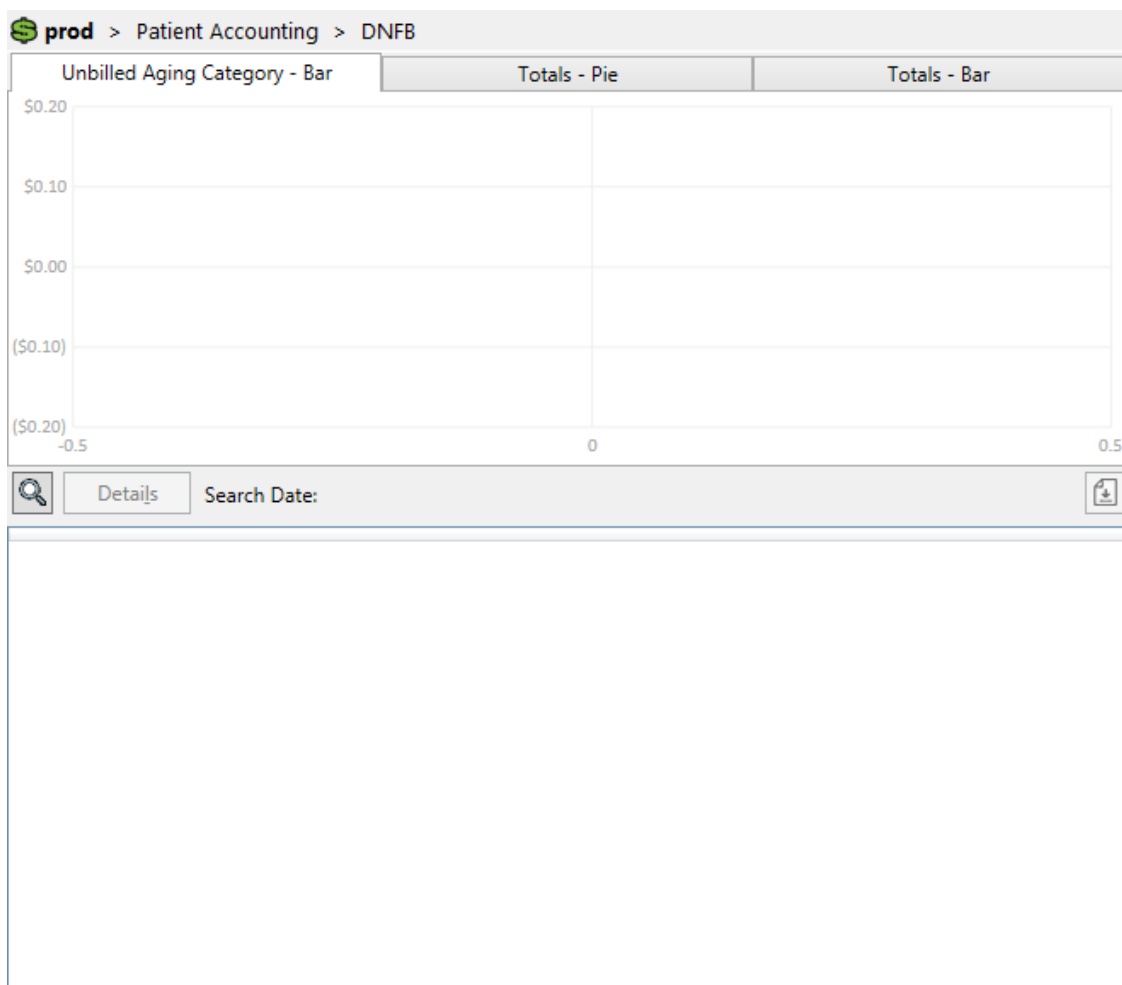


Figure 422: DNFB Control

10.6.1 Searching

Upon clicking the search button, a search dialog presenting basic criteria (Figure 423) opens. The search is triggered once *OK* is clicked and the dialog closes.



Search Displays the Current Criteria

When opened, the search dialog will display the criteria used for the most recent search. This makes it easy to modify existing searches.

If more specific, narrowly-focused criteria are known up front, more criteria is supplied upon expanding [Advanced Search](#).

10.6.2 Advanced Search

Upon expanding *Advanced Search*, the search dialog expands to display additional criteria which can be applied (Figure 424). This helps narrow down the search to very specific items when investigating issues.

Certain criteria types are stored as pairs in Millennium (Hold Type with Hold Reason, and Encounter Class with Encounter Type). Panther displays them separately for convenience, but the values selected in one part of the pair can affect which values will be effectively searched on in the other part of the pair.

For instance, there may be a Hold Type of “Waiting for Coding”, associated with Hold Reasons of “Coding - Dept Review” and “Coding - Received Coding Query”. If “Waiting for Coding” is unchecked, the associated Hold Reasons will not be included in results even if they are checked. To make this more apparent, they will not be saved in the Search Preferences.

Conversely, even if “Waiting for Coding” is checked, if neither “Coding - Dept Review” nor “Coding - Received Coding Query” are checked, that pair is effectively excluded from the search results, and so will not be saved as part of the Search Preferences.



Advanced Search Also Displays the Current Criteria

Like the basic search criteria, all advanced criteria for the most recent search is displayed to aid in modifying existing searches. This is true even if *Advanced Search* has not yet been expanded.



Why Do Warning Icons Appear Next To Criteria?

Hold Type and Hold Reason as well as Encounter Class and Encounter Type values are actually stored as pairs in Millennium®. Panther provides them as separate criteria for convenience, but it will warn when combinations of values are incapable of returning any results.

Figure 423: Search Dialog

Figure 424: Advanced Search Dialog

10.6.3 Working With Search Results

Once a search has completed, the data is presented in tabular format as well as several charts.



Standard Delay Impacts Results

The DNFB control uses the standard delay that is defined for the selected billing entity to combine data for aging categories that fall within this range. The table and aging category chart reflect this aggregation.

Billed Aging Category Bar Chart

Initially, a bar chart breaking down totals by aging category index is displayed ([Figure 425](#)). This chart displays data for the currently-selected row in the table.

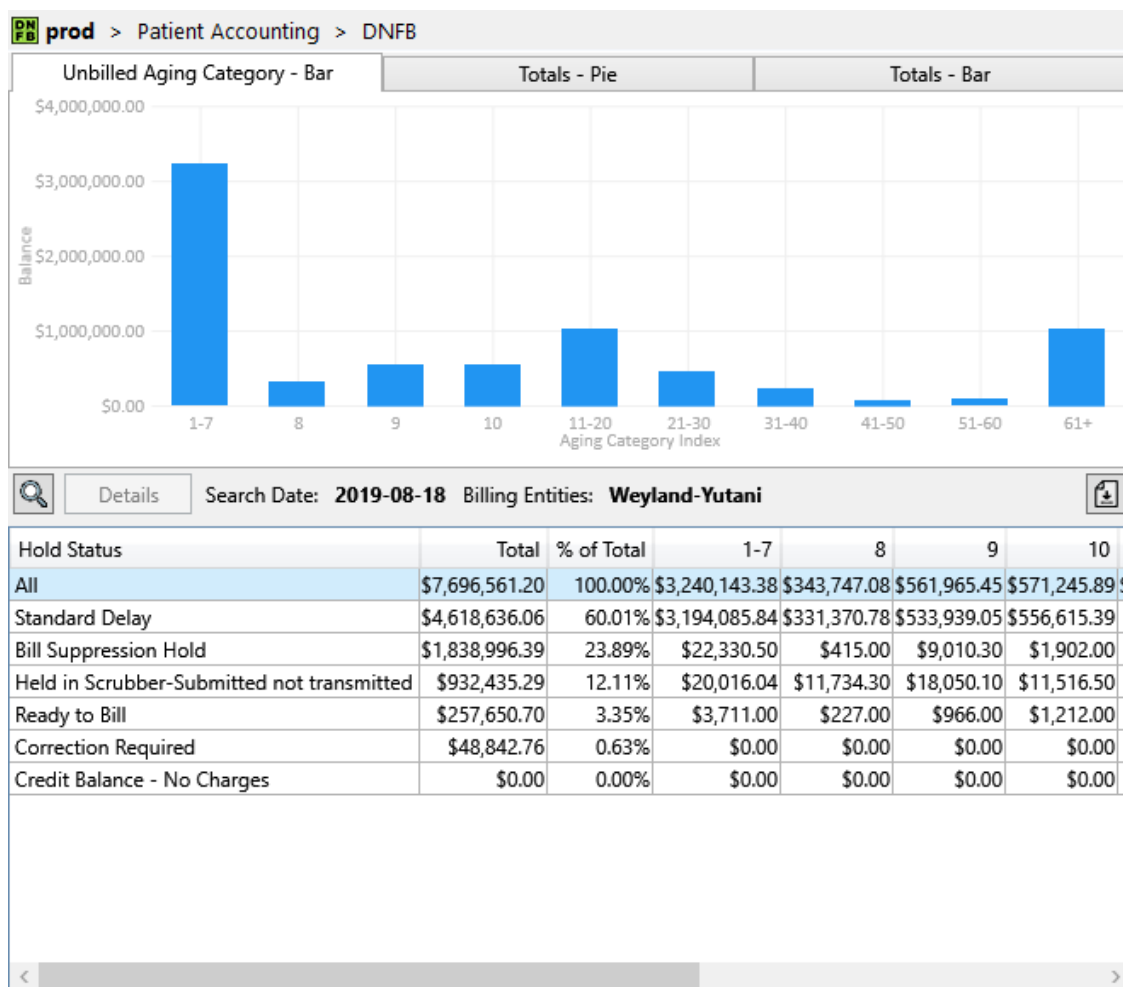


Figure 425: DNFB With Data

Totals Pie Charts

There is also a pie chart displaying relative totals across breakdown identifiers ([Figure 426](#)). Within the chart, hovering the mouse over a pie slice will display the identifier, raw total, and percentage of the pie. Additionally, clicking a pie slice will highlight its row in the table below, and double-clicking a slice will load its [encounter details](#).

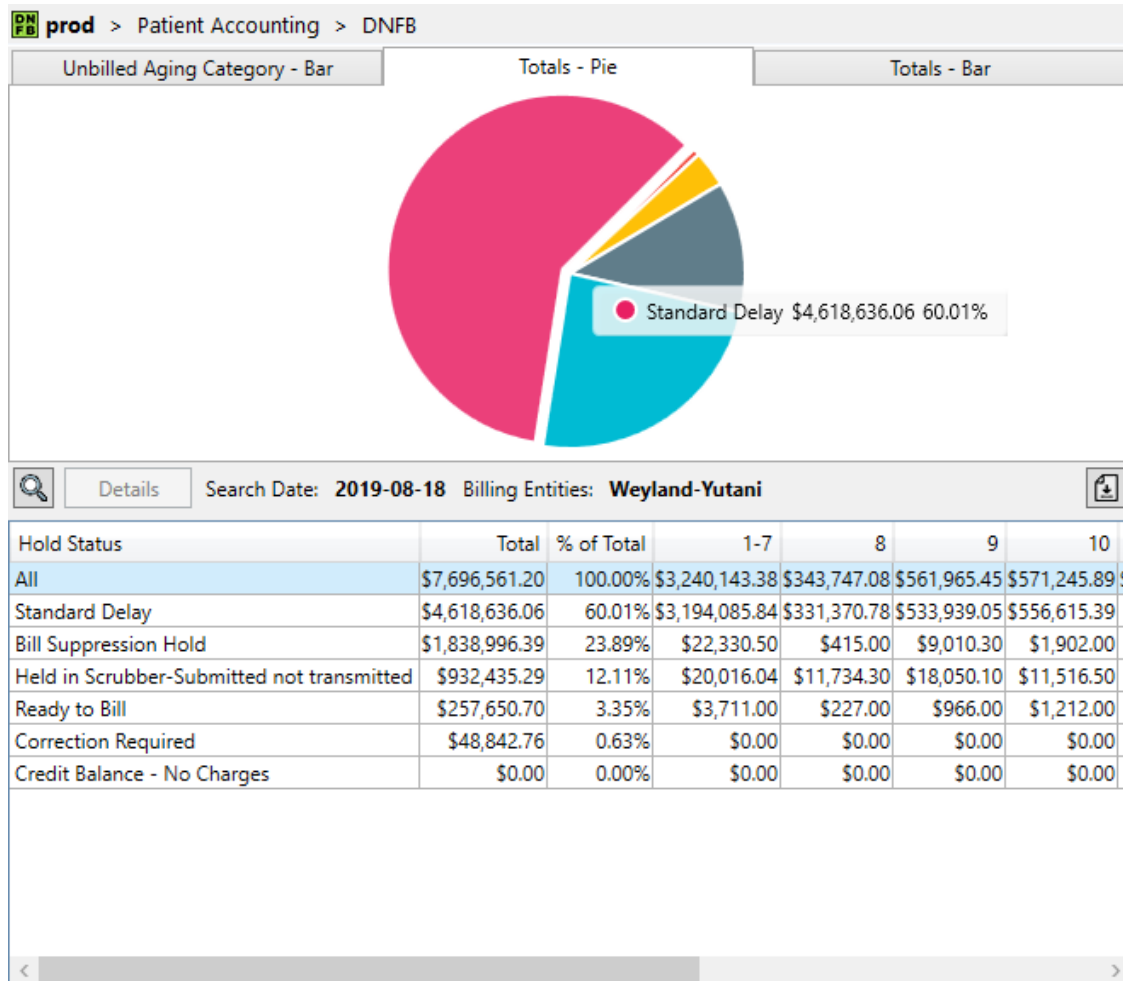


Figure 426: DNFB Pie Chart

Totals Bar Charts

Lastly, there is a bar chart displaying the raw totals (Figure 427). As with the pie chart, it displays relative totals by breakdown identifier. Also like the pie chart, hovering the mouse over a bar will display its identifier and raw total, clicking a bar will highlight its row in the table below, and double-clicking a bar will load its encounter details.

The bar chart is sorted by total in descending order and paginated, displaying ten values at a time. The up and down buttons provide the ability to navigate through each page of data.

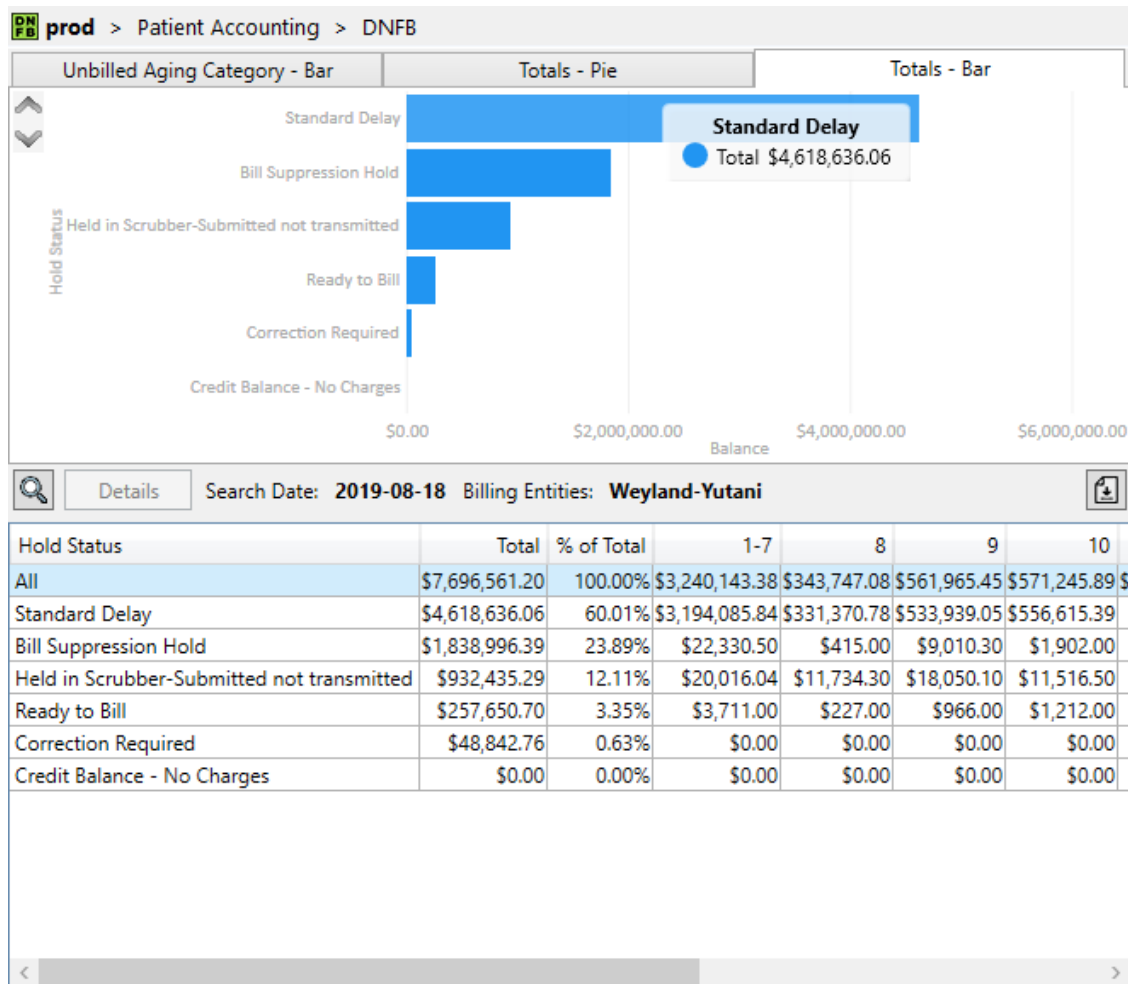


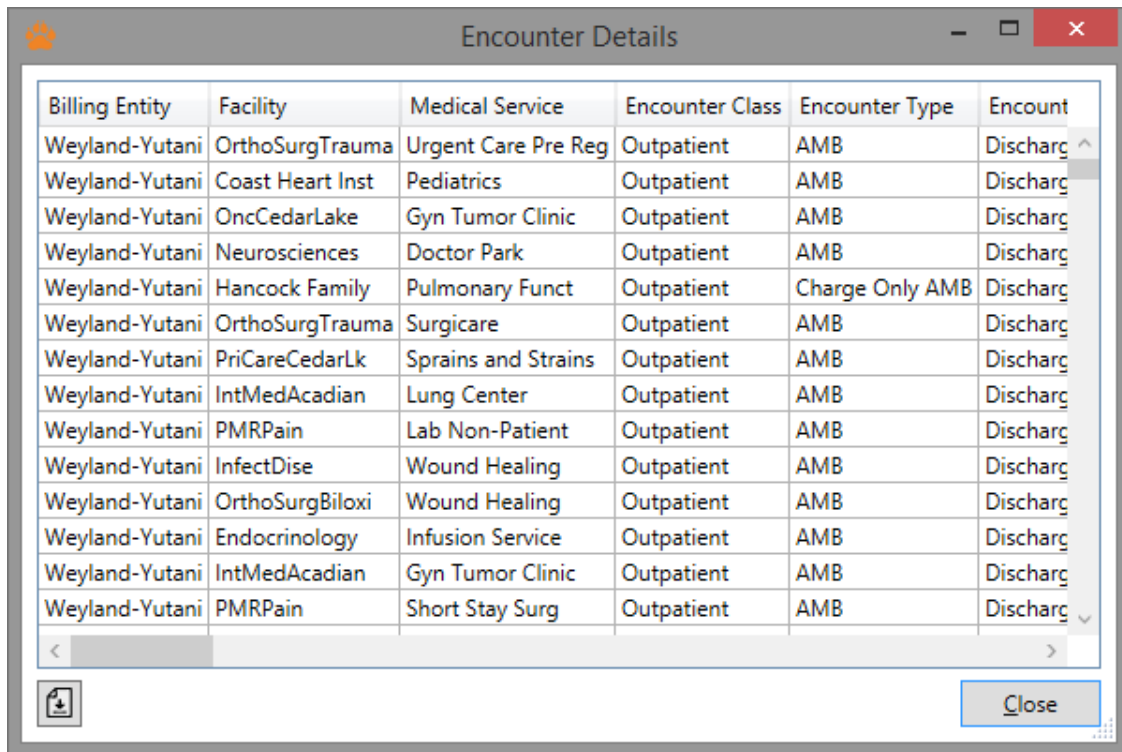
Figure 427: DNFB Bar Chart

Exporting Data

The DNFB control also allows the export of currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in CSV or Excel® format.

Viewing Details

Occasionally, it is useful to pull up encounter details for a summary item. This can be done by selecting a row in the table and clicking the *Details* button, clicking the *Details* context menu item, double-clicking the row, or double-clicking a chart slice/bar. This will bring up the details dialog (Figure 428).



Billing Entity	Facility	Medical Service	Encounter Class	Encounter Type	Encounter
Weyland-Yutani	OrthoSurgTrauma	Urgent Care Pre Reg	Outpatient	AMB	Discharge
Weyland-Yutani	Coast Heart Inst	Pediatrics	Outpatient	AMB	Discharge
Weyland-Yutani	OncCedarLake	Gyn Tumor Clinic	Outpatient	AMB	Discharge
Weyland-Yutani	Neurosciences	Doctor Park	Outpatient	AMB	Discharge
Weyland-Yutani	Hancock Family	Pulmonary Funct	Outpatient	Charge Only AMB	Discharge
Weyland-Yutani	OrthoSurgTrauma	Surgicare	Outpatient	AMB	Discharge
Weyland-Yutani	PriCareCedarLk	Sprains and Strains	Outpatient	AMB	Discharge
Weyland-Yutani	IntMedAcadian	Lung Center	Outpatient	AMB	Discharge
Weyland-Yutani	PMRPain	Lab Non-Patient	Outpatient	AMB	Discharge
Weyland-Yutani	InfectDise	Wound Healing	Outpatient	AMB	Discharge
Weyland-Yutani	OrthoSurgBiloxi	Wound Healing	Outpatient	AMB	Discharge
Weyland-Yutani	Endocrinology	Infusion Service	Outpatient	AMB	Discharge
Weyland-Yutani	IntMedAcadian	Gyn Tumor Clinic	Outpatient	AMB	Discharge
Weyland-Yutani	PMRPain	Short Stay Surg	Outpatient	AMB	Discharge

Figure 428: Encounter Details

Like its parent control, this dialog allows for exporting tabular data to [CSV](#) or Excel® format via the export button.

The FIN can be copied out of the selected row by double-clicking or selecting the *Copy FIN* context menu item. Additionally, the MRN can be copied out of the selected row by selecting the *Copy MRN* context menu item.

10.7. Encounter Holds Control

The Encounter Holds control is an interactive tool to view held encounters.

To view the Encounter Holds control, select the *Encounter Holds* item in the domain explorer (Figure 429).

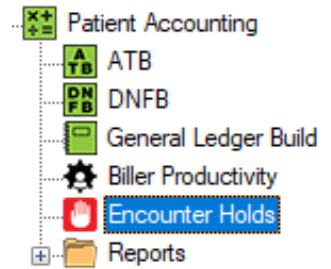


Figure 429: Domain Explorer



Data is Retrieved Automatically for the Most Recent Search

The Encounter Holds control automatically performs a search on load using the most recent criteria defined by the user. If no criteria has been defined, it will load data for all active holds.

10.7.1 Active Holds

The Active Holds view displays encounters with active holds. The summary screen (Figure 430) shows the count and balance of encounters grouped by hold category, hold reason, and age. The age grouping can be modified when (searching). Total rows are shown for each category and have a distinguished background color.

Clicking any of the linked counts for an aging category or for a total will bring up the [Held Encounters](#) view.



Show or Hide Total Rows

The 'Include Totals' checkbox controls whether total rows are shown. When total rows are hidden, they are not included when the data is exported to a file. This can be useful for performing analytics on exported data.

Category	Reason	Total	Total Balance	0-5 Count	0-5 Balance
Waiting For Discharge		639	\$23,125,180.28	322	\$5,717,984.45
Waiting For Discharge	Waiting for Discharge	639	\$23,125,180.28	322	\$5,717,984.45
Standard Delay		3,403	\$19,466,321.15	2,375	\$8,982,246.97
Standard Delay	Standard Delay	3,403	\$19,466,321.15	2,375	\$8,982,246.97
Waiting For Coding		1,571	\$10,300,947.72	1,109	\$2,194,089.81
Waiting For Coding	In Queue	1,187	\$4,279,637.70	1,078	\$1,683,820.00
Waiting For Coding	Coding - Waiting for Other (See Note)	40	\$1,353,464.21	4	\$5,785.75
Waiting For Coding	Coding - Hospital Acquired Condition	2	\$1,198,979.51		
Waiting For Coding	Coding - Waiting for Coding Query	22	\$643,632.94	1	\$189,374.09
Waiting For Coding	Coding - Waiting for Coding Query	21	\$643,632.94	1	\$189,374.09

Figure 430: Active Holds Summary

Held Encounters

The Held Encounters view displays a list of encounters currently subject to the selected hold and aging category.

Additional details for a FIN can be viewed by double clicking on the row which opens the [Encounter Details](#) view.

prod > Patient Accounting > Encounter Holds

Active Holds

Hold Configuration

Active Holds Summary > Held Encounters - Waiting For Coding\In Queue (Age 6-14)



FIN	MRN	Balance	Hold Reason	Hold Category	Hold Applied At	Days Since
1300005577	800086032	\$165,825.48	In Queue	Waiting for Coding	5/7/2019 11:48:39 PM	
1300006144	800086446	\$144,806.76	In Queue	Waiting for Coding	5/13/2019 4:57:27 PM	
1300005775	800086174	\$117,423.51	In Queue	Waiting for Coding	5/8/2019 12:26:49 PM	
1300005362	800085866	\$113,629.00	In Queue	Waiting for Coding	5/6/2019 10:48:18 PM	
1300005484	800085957	\$72,301.44	In Queue	Waiting for Coding	5/6/2019 1:07:47 AM	
1300005696	800086122	\$42,889.24	In Queue	Waiting for Coding	5/8/2019 10:35:36 AM	
1300005839	800086221	\$38,280.24	In Queue	Waiting for Coding	5/8/2019 11:04:40 AM	
1300005583	800086036	\$38,086.73	In Queue	Waiting for Coding	5/7/2019 12:30:40 PM	
1300005586	800086039	\$38,005.47	In Queue	Waiting for Coding	5/7/2019 10:00:41 AM	
1300005514	800085980	\$36,745.52	In Queue	Waiting for Coding	5/7/2019 8:18:52 PM	

Figure 431: Held Encounters

Encounter Details

The Encounter Details view displays information for a given FIN.

prod > Patient Accounting > Encounter Holds

Active Holds Hold Configuration

[Active Holds Summary](#) > [Held Encounters - Waiting For Coding\In Queue \(Age 6-14\)](#) >

Encounter Details for FIN: 1300005577

Name	Value
Encounter Info	
Patient Name	Rice, Nikki
Organization	MomCorp
Billing Entity	MEDICAL CENTER
Facility	MEDICAL CENTER
Location	1
Medical Service	Inpatient
Type	Inpatient

Balances Holds Work Items HIM Tasks Activity

Plan Type	Plan Name	Financial Class	Priority	Status	Reason
Medicare	MEDICARE PART A AND B	Medicare	1	Discharged, Not Ready to Bill	Waiting for C
Medicare	MEDICARE PART A AND B	Medicare	1	Discharged, Not Ready to Bill	Insurance bi
Commercial	MISCELLANEOUS BCBS OOS	BCBS OOS	2		
Self Pay	SELF-PAY	Self Pay	3		

Figure 432: Encounter Details

Searching

Clicking the search button opens a dialog presenting basic criteria (Figure 433). The search is triggered once *OK* is clicked and the dialog closes.

The *Age By* option is used to select which date is used to assign an aging category for the encounter. *Hold* will group encounters by the number of days since the hold was applied. *Discharge* will group encounters by the number of days since their discharge dates.

The *Filter encounters with active charges* option will exclude encounters that have received new charges in the last 24 hours.

The *Filter by Billing Entity* option will limit results to encounters associated with the *selected* billing entities.



Search Displays the Current Criteria

When opened, the search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.

The screenshot shows a 'Search' dialog box with a paw print icon in the title bar. It contains the following elements:

- Age by:** A dropdown menu currently set to 'Hold'.
- Filter encounters with active charges:** A checked checkbox.
- Filter by Billing Entity:** An unchecked checkbox.
- Available:** A list box containing the text: 'ALLIED HEALTH PROFESSION', 'CHILDRENS AND WOMENS', 'MEDICAL CENTER', 'SOFTEK HEALTH HOSPITAL SE', and 'SOFTEK HEALTH PHYSICIAN S'.
- Selected:** An empty list box.
- Navigation buttons:** Four buttons between the 'Available' and 'Selected' lists: a right-pointing double arrow, a right-pointing single arrow, a left-pointing single arrow, and a left-pointing double arrow.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

Figure 433: Search Dialog

FIN Lookup

Clicking the FIN Lookup button opens a search dialog requesting a FIN ([Figure 434](#)). The search is triggered once *OK* is clicked and the dialog closes.

If the search finds one or more encounters for the FIN, the [Encounter Details](#) view will be displayed in a new window.

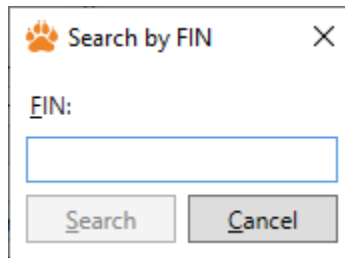
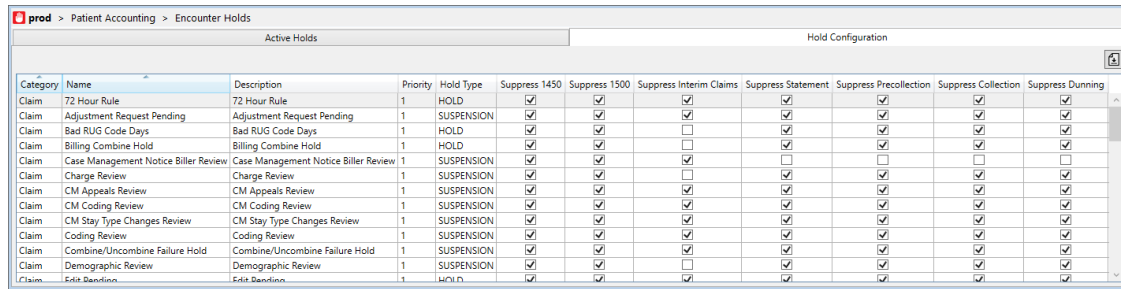


Figure 434: FIN Lookup Dialog

10.7.2 Hold Configuration

The hold configuration control displays all of the configured holds.



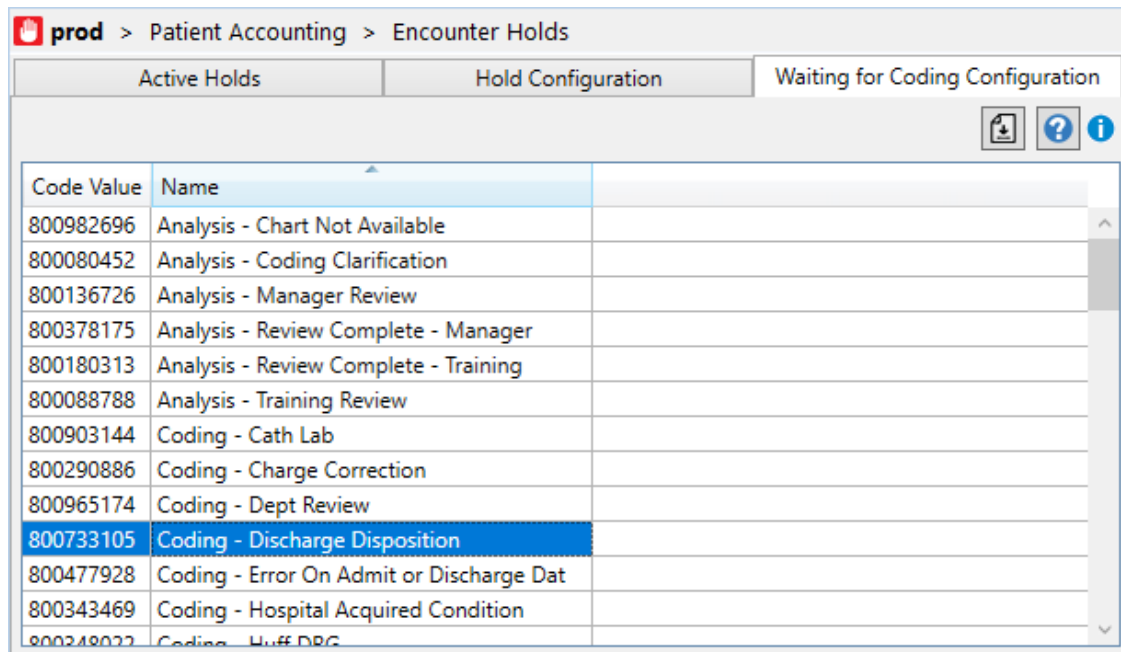
The screenshot shows a web application interface for "Hold Configuration". The breadcrumb trail is "prod > Patient Accounting > Encounter Holds". The interface is divided into two main sections: "Active Holds" and "Hold Configuration". The "Hold Configuration" section contains a table with the following columns: Category, Name, Description, Priority, Hold Type, Suppress 1450, Suppress 1500, Suppress Interim Claims, Suppress Statement, Suppress Precollection, Suppress Collection, and Suppress Dunning. The table lists 15 different hold configurations, each with a "Claim" category and a "1" priority. Most hold types are "HOLD", while others are "SUSPENSION". The suppression checkboxes are mostly checked, indicating that these holds are active.

Category	Name	Description	Priority	Hold Type	Suppress 1450	Suppress 1500	Suppress Interim Claims	Suppress Statement	Suppress Precollection	Suppress Collection	Suppress Dunning
Claim	72 Hour Rule	72 Hour Rule	1	HOLD	☒	☒	☒	☒	☒	☒	☒
Claim	Adjustment Request Pending	Adjustment Request Pending	1	SUSPENSION	☒	☒	☒	☒	☒	☒	☒
Claim	Bad RUG Code Days	Bad RUG Code Days	1	HOLD	☒	☒	☐	☒	☒	☒	☒
Claim	Billing Combine Hold	Billing Combine Hold	1	HOLD	☒	☒	☐	☒	☒	☒	☒
Claim	Case Management Notice Biller Review	Case Management Notice Biller Review	1	SUSPENSION	☒	☒	☒	☐	☐	☐	☐
Claim	Charge Review	Charge Review	1	SUSPENSION	☒	☒	☐	☒	☒	☒	☒
Claim	CM Appeals Review	CM Appeals Review	1	SUSPENSION	☒	☒	☒	☒	☒	☒	☒
Claim	CM Coding Review	CM Coding Review	1	SUSPENSION	☒	☒	☒	☒	☒	☒	☒
Claim	CM Stay Type Changes Review	CM Stay Type Changes Review	1	SUSPENSION	☒	☒	☒	☒	☒	☒	☒
Claim	Coding Review	Coding Review	1	SUSPENSION	☒	☒	☒	☒	☒	☒	☒
Claim	Combine/Uncombine Failure Hold	Combine/Uncombine Failure Hold	1	SUSPENSION	☒	☒	☒	☒	☒	☒	☒
Claim	Demographic Review	Demographic Review	1	SUSPENSION	☒	☒	☐	☒	☒	☒	☒
Claim	Edit Deadline	Edit Deadline	1	HOLD	☒	☒	☒	☒	☒	☒	☒

Figure 435: Hold Configuration Control

10.7.3 Waiting for Coding Configuration

The waiting for coding configuration control displays all active HIM Pass names and code values.



Code Value	Name
800982696	Analysis - Chart Not Available
800080452	Analysis - Coding Clarification
800136726	Analysis - Manager Review
800378175	Analysis - Review Complete - Manager
800180313	Analysis - Review Complete - Training
800088788	Analysis - Training Review
800903144	Coding - Cath Lab
800290886	Coding - Charge Correction
800965174	Coding - Dept Review
800733105	Coding - Discharge Disposition
800477928	Coding - Error On Admit or Discharge Dat
800343469	Coding - Hospital Acquired Condition
800248022	Coding - Huff DRG

Figure 436: Waiting for Coding Configuration Control

10.8. General Ledger Build Control

The General Ledger Build control is an interactive tool to view [General Ledger \(GL\)](#) Build information and identify potential issues.

To view the control, select the *General Ledger Build* item in the domain explorer ([Figure 437](#)).

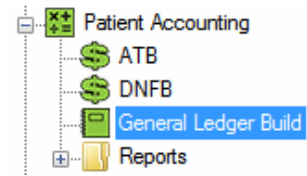


Figure 437: Domain Explorer

Account Type: Cash

Account Type Properties

Property	Value
Account Type Code	11024
Active	True
Effective	True
Company Groups	2
Errors Detected	0
Warnings Detected	2

Code Value Properties

Property	Value
Account Type Code	11024
Active	True
Display	Cash
Begin Effective Date/Time	3/9/1999 5:39:12 PM
End Effective Date/Time	12/30/2100 11:00:00 PM

Figure 438: General Ledger Build Control

10.8.1 Tree

The [GL](#) Build control ([Figure 438](#)) displays the build hierarchy in a tree with the following format:

- Account Type
 - Group
 - Level (i.e., Company, Company Unit, Account, and Account Unit)
 - Alias

The status of any item in the tree is displayed through a combination of icons and text formatting:

	The item or one or more of its children have errors.
	The item or one or more of its children have warnings but no errors.

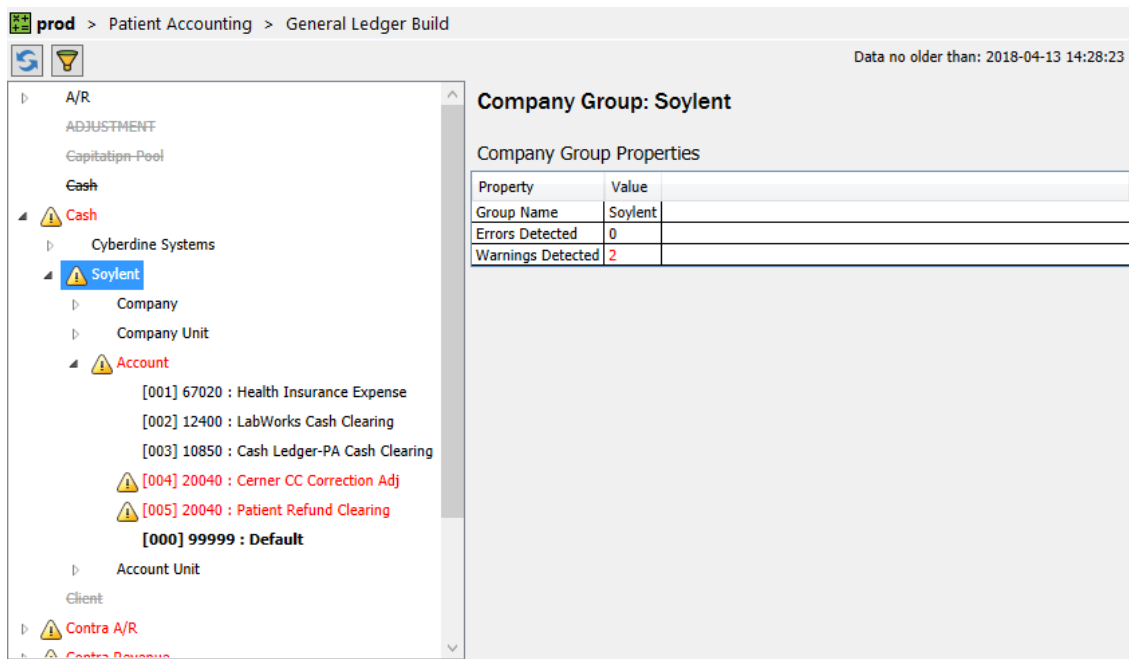
Table 117: Icon Legend

Red	The item or one or more of its children have issues.
Gray	The item is ineffective.
~~Strikethrough~~	The item is inactive.
Bold	The item is a default alias.

Table 118: Text Formatting Legend

10.8.2 Details

Upon selecting an item in the tree, the control will display details (Figures 438, 439, 440, 441). Alias detail (Figure 441) also includes detailed information about the issues that were detected.



prod > Patient Accounting > General Ledger Build

Data no older than: 2018-04-13 14:28:23

Company Group: Soylent

Company Group Properties

Property	Value
Group Name	Soylent
Errors Detected	0
Warnings Detected	2

The tree view on the left shows the following structure:

- A/R
 - ADJUSTMENT
 - Capitation-Pool
 - Cash
 - Cash (Warning icon)
 - Cyberdine Systems
 - Soylent** (Warning icon, selected)
 - Company
 - Company Unit
 - Account (Warning icon)
 - [001] 67020 : Health Insurance Expense
 - [002] 12400 : LabWorks Cash Clearing
 - [003] 10850 : Cash Ledger-PA Cash Clearing
 - [004] 20040 : Cerner CC Correction Adj (Warning icon)
 - [005] 20040 : Patient Refund Clearing (Warning icon)
 - [000] 99999 : Default
 - Account Unit
 - Client
 - Contra A/R (Warning icon)
 - Contra Revenue (Warning icon)

Figure 439: Group Detail

prod > Patient Accounting > General Ledger Build

Data no older than: 2018-04-13 14:28:23

A/R

ADJUSTMENT

Capitation Pool

Cash

Cash

Cyberdine Systems

Soylent

Company

Company Unit

Account

[001] 67020 : Health Insurance Expense

[002] 12400 : LabWorks Cash Clearing

[003] 10850 : Cash Ledger-PA Cash Clearing

[004] 20040 : Cerner CC Correction Adj

[005] 20040 : Patient Refund Clearing

[000] 99999 : Default

Account Unit

Client

Contra A/R

Contra Revenue

Account Aliases

Properties

Property	Value
Aliases	6
Errors Detected	0
Warnings Detected	2

Figure 440: Level Detail

prod > Patient Accounting > General Ledger Build

Data no older than: 2018-04-13 14:28:23

A/R

ADJUSTMENT

Capitation Pool

Cash

Cash

Cyberdine Systems

Soylent

Company

Company Unit

Account

[001] 67020 : Health Insurance Expense

[002] 12400 : LabWorks Cash Clearing

[003] 10850 : Cash Ledger-PA Cash Clearing

[004] 20040 : Cerner CC Correction Adj

[005] 20040 : Patient Refund Clearing

[000] 99999 : Default

Account Unit

Client

Contra A/R

Contra Revenue

Non A/R - GL Only

Account Alias: 20040

Alias Properties

Property	Value
GL Alias ID	147904405
Alias Name	20040
Description	Cerner CC Correction Adj
Active Status	Active
Effective	True
Begin Effective Date/Time	5/1/2017 3:00:00 AM
End Effective Date/Time	12/30/2100 11:00:00 PM
Default	False
Priority Sequence	4

Selected Criteria

Criteria	GL Field Value	Display
Transaction Reason Code	620569939	Cerner CC Correction Adj Debit
	620570251	Cerner CC Correction Adj Credit

Problems

Problem
Duplicate alias name with a different description within the scope of this alias (Account Type \Company Group\Account). This may lead to duplication of GL transaction details in reports.

Aliases:

[005] 20040 : Patient Refund Clearing

Figure 441: Alias Detail

10.8.3 Filtering

There may be some situations where it is useful to focus on a particular [GL](#) build issue. Pursuant to this, Panther provides the ability to filter the tests performed. To do so, click the filter button, and a dialog to control which tests are run will open ([Figure 442](#)). Uncheck any tests that should not be run.

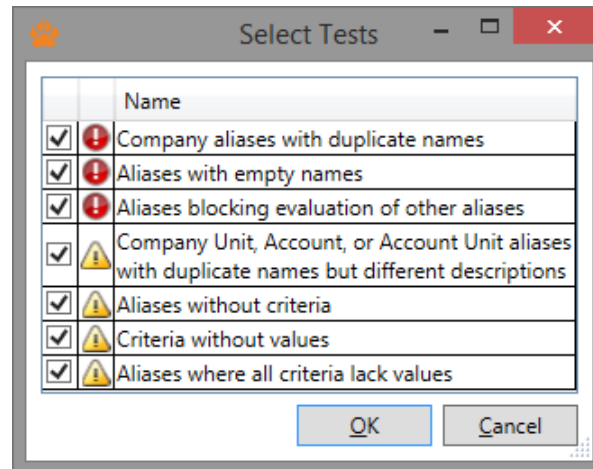


Figure 442: Test Filter

10.9. HIM Productivity

The HIM Productivity control is an interactive tool to help see information regarding HIM tasks, including the actions taken on tasks and who the actions were taken by.

To view the HIM Productivity control, select the *HIM Productivity* item in the domain explorer ([Figure 443](#)).

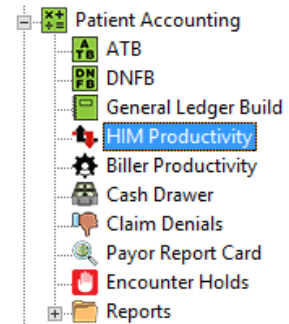


Figure 443: Domain Explorer

In the upper left corner of the control are the Search and Refresh buttons. The first time you load the control, you will need to specify the search criteria before any data will load. On subsequent visits to the control, it will automatically load the data using the saved search criteria. The saved search criteria does not include the date range; that will always default to “Last 7 Days.” Click the Search button to load the [Search dialog](#) and set the search criteria. The Refresh button will only be enabled after data has been loaded. Clicking on it will cause the a new search to be issued using the current search criteria.

10.9.1 Searching

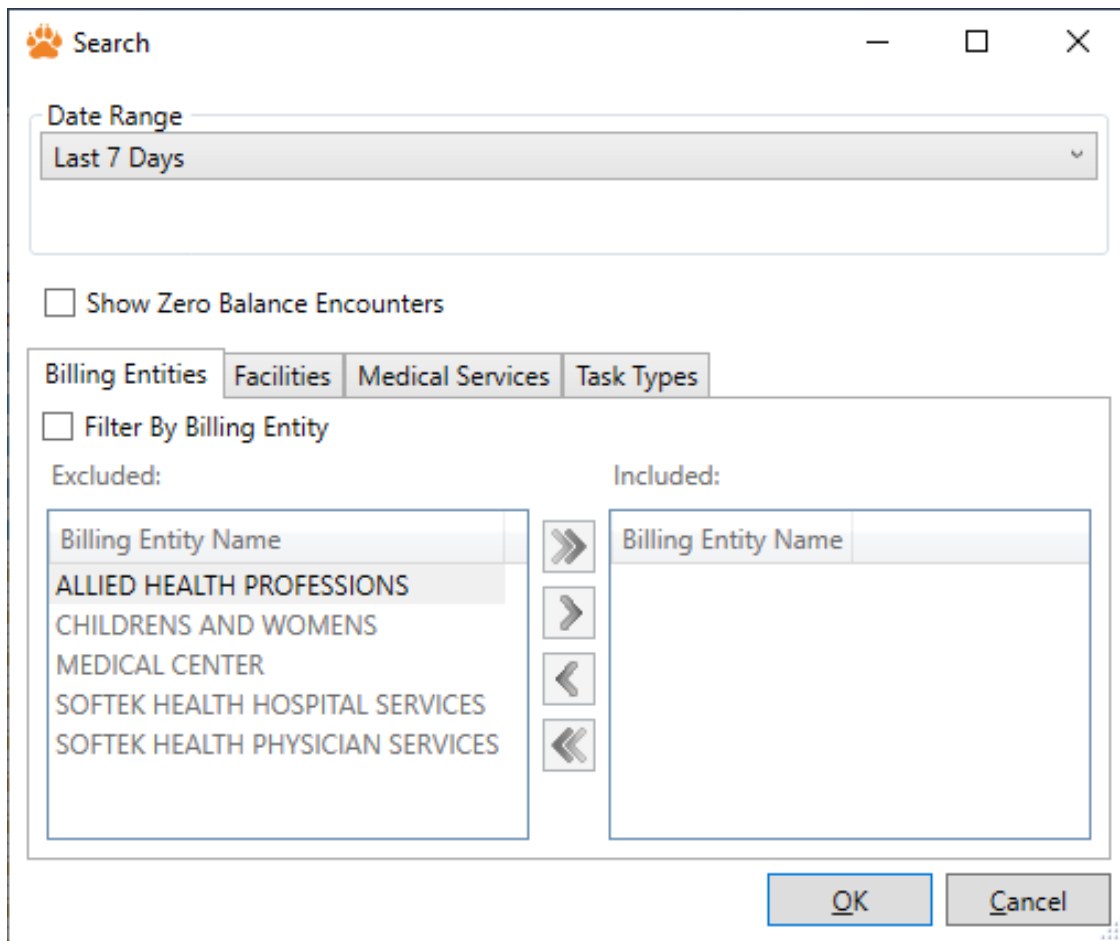
The HIM Productivity Control provides the ability to search based on selected date range, billing entities, facilities, medical services, task types, and whether encounters with Zero Balances are included in the results. Some of the views may have additional search filters for User and Position, and will present a separate search dialog to re-run the search with those additional filters in place. All of the filters are optional, and are not populated by default.

If there is a warning icon on a tab, that means that criteria needs to be selected or the filter disabled on that tab before the search can be performed. ([Figure 444](#))



Search Displays the Current Criteria

When opened, the Search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.



The Search Dialog window features a title bar with a paw print icon and the text "Search". It includes standard window controls (minimize, maximize, close). The main content area contains a "Date Range" dropdown menu currently set to "Last 7 Days". Below this is a checkbox labeled "Show Zero Balance Encounters". A tabbed interface follows, with tabs for "Billing Entities", "Facilities", "Medical Services", and "Task Types". The "Billing Entities" tab is active, showing a checkbox for "Filter By Billing Entity". Under this checkbox are two list boxes: "Excluded:" and "Included:". The "Excluded:" list contains five items: "Billing Entity Name", "ALLIED HEALTH PROFESSIONS", "CHILDRENS AND WOMENS", "MEDICAL CENTER", "SOFTEK HEALTH HOSPITAL SERVICES", and "SOFTEK HEALTH PHYSICIAN SERVICES". The "Included:" list is currently empty. Between the two lists are four arrow buttons: a double right arrow, a single right arrow, a single left arrow, and a double left arrow. At the bottom right are "OK" and "Cancel" buttons.

Figure 444: Search Dialog

10.9.2 Task Aging

The Task Aging view ([Figure 445](#)) shows the available task types, whether aging is enabled for each of them, and their aging configuration.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select "Export. . . " from the context menu.

Task Type	Aging Enabled	Primary Days	Primary Color	Secondary Days	Secondary Color	Tertiary Days	Tertiary Color
CW - CDI Review	✓	3	Green	5	Yellow	7	Red
CW Analysis - ED	✓	3	Green	5	Yellow	7	Red
CW Analysis - IP Discharge	✓	3	Green	5	Yellow	7	Red
CW Analysis - Loose Report	✗	0	Grey	0	Grey	0	Grey
CW Analysis - Manager Review	✓	3	Green	5	Yellow	7	Red
CW Analysis - OP	✓	3	Green	5	Yellow	7	Red
CW Coding - ED	✓	3	Green	5	Yellow	7	Red
CW Coding - IP	✓	3	Green	5	Yellow	7	Red
CW Coding - Manager Review	✓	3	Green	5	Yellow	7	Red
CW Coding - OBS	✓	3	Green	5	Yellow	7	Red
CW Coding - On Hold	✓	3	Green	5	Yellow	7	Red
CW Coding - OP	✓	3	Green	5	Yellow	7	Red
CW Coding - OP Diagnostcs	✓	3	Green	5	Yellow	7	Red
CW Coding - OP in a Bed	✓	3	Green	5	Yellow	7	Red
CW Coding - OPSURG	✓	3	Green	5	Yellow	7	Red
CW Coding - Recurring	✓	3	Green	5	Yellow	7	Red
CW Coding - Training Review	✓	3	Green	5	Yellow	7	Red
CW Documentation Correction	✓	3	Green	5	Yellow	7	Red
Documentation Correction	✓	3	Blue	5	Blue	7	Blue
Expired Patients	✓	3	Green	5	Yellow	7	Red

Figure 445: Task Aging

10.9.3 Held Encounters

The Held Encounters view (Figure 446) shows information about the number of encounters which are currently on hold and their charge balances, grouped by Coding Status. The dropdown menu controls which value is used for a secondary grouping. The “Include Totals” checkbox toggles whether total rows are visible for each Coding Status. Further columns break out the encounters by the number of days since discharge.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

To view the encounters for a particular grouping, double-click on the Count or Balance cell for the desired aging group, coding status, and other grouping elements. (Section 10.9.4) Or, right-click on the desired Count or Balance cell and select “View Held Encounters” from the context menu.

Pass Reason ☒ Include Totals Data no older than: 2021-10-01 11:08:45 AM								
Config Task Aging Active Held Encounters HIM Tasks By Queue By User Historical Task Trending Task Productivity Action Productivity Daily User Activity	Coding Status	Pass Reason	Total	Total Charge Balance	0 Count	0 Charge Balance	1 Count	1 Charge Balance
	Not Started	Coding - Waiting for H&P	2	\$3,710.25				
	Not Started	Coding - Waiting for Imaging Report	27	\$34,604.62				
	Not Started	Coding - Waiting for Office Clinic Note	207	\$73,530.16				
	Not Started	Coding - Waiting for Operative Report	18	\$121,006.61				
	Not Started	Coding - Waiting for Other (See Note)	4	\$4,713.41				
	Not Started	Coding - Waiting for Path Report	7	\$41,452.32				
	Not Started	Coding - Waiting for Procedure Note	10	\$61,586.07				
	Not Started	Coding - Waiting OBGYN EC Provider Note	5	\$2,591.00				
	Not Started	Coding - Working on-not completed	7	\$365,831.87			1	\$
	Not Started	Not in queue	4	\$4,187.50				
	Not Started	Pending	1,645	\$3,424,605.81	26	\$27,360.17	99	\$
	Saved As Draft	All	319	\$8,502,769.84	1	\$4,673.22	5	\$
	Saved As Draft	Analysis - Manager Review	10	\$401,130.51				
	Saved As Draft	Coding - Cath Lab	2	\$51,649.50				
	Saved As Draft	Coding - Error On Admit or Discharge Dat	1	\$1,506.00				
	Saved As Draft	Coding - Intellis DRG	9	\$299,929.71				
	Saved As Draft	Coding - Manager Review	3	\$98,683.55				
	Saved As Draft	Coding - Peer Review	1	\$4,216.00				
	Saved As Draft	Coding - RAC Review For Only One CC/MCC	1	\$46,349.57				
	Saved As Draft	Coding - Received Discharge Summary	1	\$55,713.52				

Figure 446: Held Encounters

10.9.4 Held Encounters Dialog

The Held Encounters dialog (Figure 447) shows details for held encounters. The text along the top of the dialog indicates which grouping these encounters belong to.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

To view details for a specific encounter, double-click on a row, or right-click and select “Encounter Details” from the context menu to bring up the Encounter Details dialog (Section 10.9.22).

Held Encounters						
Coding Status: Saved As Draft Pass Reason: Coding - Waiting for Imaging Report Task Aging Group: 2						
FIN	MRN	Discharge Date Time	Days Since Discharge	Charge Balance	Encounter Type	Billing Entity
1400030759	800004950	2021-09-28 3:01:51 PM	2	\$1,026.22	Outpatient	MEDICAL CENTER
1400033455	806629748	2021-09-28 3:01:51 PM	2	\$1,521.00	Outpatient	MEDICAL CENTER
1400032414	806799528	2021-09-28 3:01:51 PM	2	\$1,374.00	Outpatient	MEDICAL CENTER
1400035914	802785651	2021-09-28 3:01:51 PM	2	\$1,374.00	Outpatient	MEDICAL CENTER
1400027656	800977564	2021-09-28 3:01:51 PM	2	\$1,374.00	Outpatient	MEDICAL CENTER
1400030649	801714457	2021-09-28 3:01:51 PM	2	\$3,407.50	Outpatient	MEDICAL CENTER
1400026708	806227201	2021-09-28 3:01:51 PM	2	\$750.00	Outpatient	MEDICAL CENTER
1400000792	807602399	2021-09-28 3:01:51 PM	2	\$2,748.00	Outpatient	MEDICAL CENTER
1400009544	806640659	2021-09-28 3:01:51 PM	2	\$2,121.22	Outpatient	MEDICAL CENTER
1400017740	801458487	2021-09-28 3:01:51 PM	2	\$1,043.97	Outpatient	MEDICAL CENTER
1400025699	809310705	2021-09-28 3:01:51 PM	2	\$755.00	Outpatient	MEDICAL CENTER
1400004203	805997787	2021-09-28 3:01:51 PM	2	\$25,724.02	Outpatient	MEDICAL CENTER
1400028705	802969165	2021-09-28 3:01:51 PM	2	\$1,043.97	Outpatient	MEDICAL CENTER

Figure 447: Held Encounters Dialog

10.9.5 Active HIM Tasks By Queue

The By Queue view ([Figure 448](#)) shows counts and balances for active tasks, grouped by the Task Queue they belong to, their status, and their Pass Reason. The “Include Totals” checkbox toggles whether total rows are visible for each Task Queue. Further columns break out the tasks by aging category.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

To view the tasks for a particular grouping, double-click on the Count or Balance cell for the desired grouping. ([Section 10.9.12](#)) Or, right-click on the desired Count or Balance cell and select “HIM Tasks” from the context menu.

Task Queue	Status	Pass Reason	Total Count	Total Charge Balance	Not Aged Count
CW Analysis - ED	All		173	\$84,094.73	136
CW Analysis - ED	OnHold	Analysis - Manager Review	10	\$15,961.97	
CW Analysis - ED	Pending		163	\$68,132.76	136
CW Analysis - IP Discharge	All		113	\$4,206,219.58	45
CW Analysis - IP Discharge	OnHold	Analysis - Manager Review	19	\$608,961.28	
CW Analysis - IP Discharge	Opened	Analysis - Manager Review	1	\$129,352.28	
CW Analysis - IP Discharge	Pending		93	\$3,467,906.02	45
CW Analysis - OP	All		168	\$160,403.53	18
CW Analysis - OP	OnHold	Analysis - Manager Review	107	\$123,956.44	6
CW Analysis - OP	Opened		2	\$4,598.87	
CW Analysis - OP	Pending		59	\$31,848.22	12
CW Coding - ED	All		536	\$362,160.38	141
CW Coding - ED	OnHold	Coding - Received DX (Ancillary)	1	\$1,393.75	
CW Coding - ED	OnHold	Coding - Waiting for Dx (Ancillary)	1	\$1,364.00	
CW Coding - ED	OnHold	Coding - Waiting for ED Note-Physician	1	\$725.25	
CW Coding - ED	OnHold	Coding - Waiting for H&P	1	\$2,356.00	
CW Coding - ED	OnHold	Coding - Waiting OB/GYN EC Provider Note	4	\$1,776.25	
CW Coding - ED	Opened		1	\$708.00	
CW Coding - ED	Pending		527	\$353,837.13	141
CW Coding - IP	All		131	\$4,379,136.60	44

Figure 448: By Queue

10.9.6 Active HIM Tasks By User

The By User view ([Figure 449](#)) shows counts and balances for active tasks, grouped by the Acting User, the Task Queue, the Status, and the Pass Reason. The “Include Totals” checkbox toggles whether total rows are visible for each Acting User. Further columns break out the tasks by aging category.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

To view the tasks for a particular grouping, double-click on the Count or Balance cell for the desired grouping. ([Section 10.9.12](#)) Or, right-click on the desired Count or Balance cell and select “HIM Tasks” from the context menu.

		Include Totals		Data no older than: 2021-10-01 1:42:56 PM				
Acting User	Acting Position	Task Queue	Status	Pass Reason	Total Count	Total Charge Balance		
AVRIL, FRANK	HIM: Coders	MC Coding - IP DRG	OnHold	Coding - Waiting for Discharge Summary	1	\$12,918.00		
AVRIL, FRANK	HIM: Coders	MC Coding - IP DRG	OnHold	Coding - Waiting for Operative Report	1	\$22,913.58		
AVRIL, FRANK	HIM: Coders	MC Coding - Manager Review	OnHold	Coding - Review Complete - Manager	1	\$6,542.50		
BEYER, HENRY	HIM: Coders	All	All		2	\$6,081.22		
BEYER, HENRY	HIM: Coders	CW Coding - ED	Opened		1	\$708.00		
BEYER, HENRY	HIM: Coders	CW Coding - ED	Pending		1	\$5,373.22		
BOGLE, ROBERT	HIM: Coders	All	All		35	\$1,043,568.74		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP	OnHold	Coding - Manager Review	3	\$98,683.55		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP	OnHold	Coding - Waiting for Coding Query	14	\$528,168.57		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP	OnHold	Coding - Waiting for Discharge Summary	2	\$44,815.48		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP	OnHold	Coding - Waiting for Operative Report	4	\$108,996.07		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP	Pending		2	\$92,813.08		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP DRG	OnHold	Coding - Intellis DRG	4	\$80,770.53		
BOGLE, ROBERT	HIM: Coders	MC Coding - IP DRG	OnHold	Coding - Waiting for Coding Query	5	\$89,287.46		
BOGLE, ROBERT	HIM: Coders	MC Coding - OBS	Pending		1	\$34.00		
BOISSONNEAULT, MILES	HIM: Coders	All	All		16	\$3,716.48		
BOISSONNEAULT, MILES	HIM: Coders	CW Coding - OP	OnHold	Coding - Waiting for Imaging Report	2	\$961.00		
BOISSONNEAULT, MILES	HIM: Coders	CW Coding - OP	OnHold	Coding - Waiting for Office Clinic Note	12	\$1,302.32		
BOISSONNEAULT, MILES	HIM: Coders	CW Coding - OP	OnHold	Coding - Waiting for Other (See Note)	1	\$79.16		
BOISSONNEAULT, MILES	HIM: Coders	MC Coding - OP Diagnostics	OnHold	Coding - Waiting for Imaging Report	1	\$1,374.00		

Figure 449: By User

10.9.7 Task Trending

The Task Trending view (Figure 450) shows the counts and balances for tasks for each day of the search period, and the changes day over day. The Task Queue Depth chart shows the count of queue tasks, coded by the most commonly configured colors for each of the Task Aging categories. The Daily Task Activity chart shows the number of tasks created, dropped, and completed each day of the search period.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select "Export..." from the context menu.

To view the tasks for a particular day and age, double-click on the Count or Balance cell for the desired grouping. (Section 10.9.12) Or, right-click on the desired Count or Balance cell and select "HIM Tasks" from the context menu.

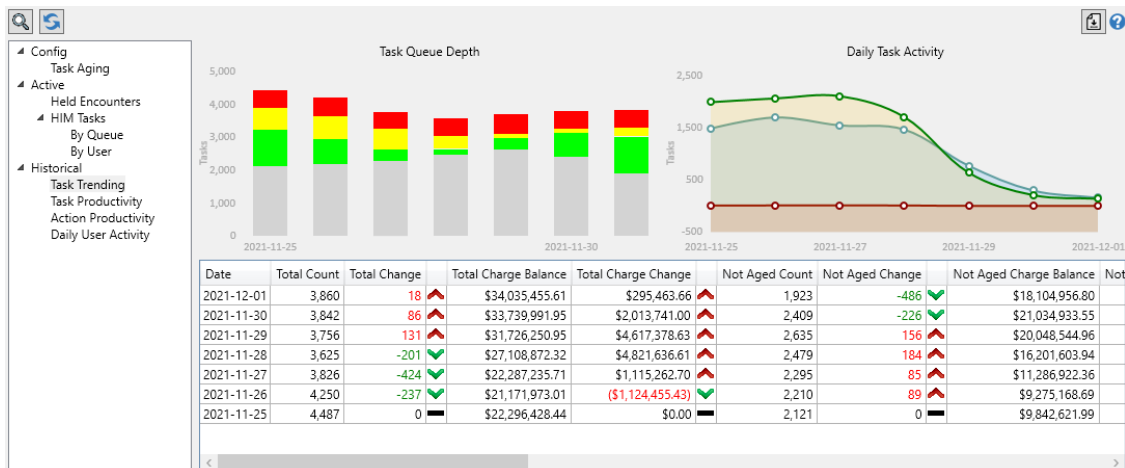


Figure 450: Task Trending

10.9.8 Task Productivity

The Task Productivity view ([Figure 451](#)) shows the counts and balances for tasks grouped by user, action, and task type per day. The “Filter” button will bring up a [Search](#) dialog for limiting the Positions and Users included in the search. If the Search dialog is launched and “OK” is clicked, it will re-issue the search with any changes to the Position and User filters.

The “Include Totals” checkbox toggles whether total rows are visible for each User.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

To view the actions taken on a task for a particular task type and day, double-click on the Count or Balance cell for the desired grouping. ([Section 10.9.13](#)) Or, right-click on the desired Count or Balance cell and select “Details” from the context menu.

User	Position	Action	Task Type	Total	Total Charge Balance	2021-09-24 Actions	2021-09-2
HALBACH, MARK	DBA	All	All	5	\$240,388.61	1	
HALBACH, MARK	DBA	Complete	MC Coding - Manager Review	5	\$240,388.61	1	
AUSTIN, STEVE	HIM: Coders	All	All	417	\$1,485,811.39	96	
AUSTIN, STEVE	HIM: Coders	Coding - Waiting for Office Clinic Note	MC Coding - OP	6	\$0.00	2	
AUSTIN, STEVE	HIM: Coders	Coding - Waiting for Operative Report	MC Coding - OP	1	\$0.00	1	
AUSTIN, STEVE	HIM: Coders	Coding - Waiting for Path Report	MC Coding - OP	4	\$0.00		
AUSTIN, STEVE	HIM: Coders	Coding - Waiting for Procedure Note	MC Coding - OP	24	\$0.00	12	
AUSTIN, STEVE	HIM: Coders	Coding - Waiting for Procedure Note	MC Coding - OP in a Bed	11	\$0.00	3	
AUSTIN, STEVE	HIM: Coders	Complete	MC Coding - OP	272	\$1,054,923.31	52	
AUSTIN, STEVE	HIM: Coders	Complete	MC Coding - OP in a Bed	35	\$403,294.68	9	
AUSTIN, STEVE	HIM: Coders	Dropped	MC Coding - OP in a Bed	1	\$0.00		
AUSTIN, STEVE	HIM: Coders	OnHold	MC Coding - OP	50	\$0.00	14	
AUSTIN, STEVE	HIM: Coders	OnHold	MC Coding - OP in a Bed	13	\$0.00	3	
AVERY, MICHAEL	HIM: Coders	All	All	125	\$6,147,291.06	28	
AVERY, MICHAEL	HIM: Coders	Coding - Intellis DRG	MC Coding - IP DRG	2	\$0.00	1	
AVERY, MICHAEL	HIM: Coders	Coding - Waiting for Coding Query	MC Coding - IP DRG	6	\$0.00		
AVERY, MICHAEL	HIM: Coders	Coding - Waiting for Discharge Summary	MC Coding - IP DRG	6	\$0.00	3	
AVERY, MICHAEL	HIM: Coders	Coding - Waiting for Path Report	MC Coding - IP DRG	2	\$0.00	2	
AVERY, MICHAEL	HIM: Coders	Coding - Working on-not completed	MC Coding - IP DRG	2	\$0.00		
AVERY, MICHAEL	HIM: Coders	Complete	Enrmed Patients	20	\$7,777,913.22	5	

Figure 451: Task Productivity

10.9.9 Action Productivity

The Action Productivity view ([Figure 452](#)) shows the counts and balances for tasks grouped by user and the type of action.

The “Filter” button will bring up a [Search](#) dialog for limiting the Positions and Users included in the search. If the Search dialog is launched and “OK” is clicked, it will re-issue the search with any changes to the Position and User filters.

A single task may be represented multiple times in this grid, as a user may both worked a charge and added a diagnosis to the same task, and it would be reflected in the counts for both that user’s “Charges Worked” and “Diagnoses Added.” It is for this reason that there are no Total Rows available for this view, as they would potentially count a single task multiple times.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

To view the actions taken on a task for a particular action type and day, double-click on the Count or Balance cell for the desired grouping. The dialog launched will depend on the type of action. For “Primary Coder” or “Contributing Coder”, a [Coding Actions](#) dialog will be launched with details. For “DRGs Added”, a [DRG Actions](#) dialog will be launched with details. For “Diagnoses Added”, a [Diagnosis Actions](#) dialog will be

launched with details. For “Procedures Added”, a [Procedure Actions](#) dialog will be launched with details. For “Charges Worked”, a [Charge Actions](#) dialog will be launched with details.

User	Position	Action	Total	Total Charge Balance	2021-09-24 Actions	2021-09-24 Charge Balance	2021-09-25 Actions	2021-09-25
AUSTIN, STEVE	HIM: Coders	Primary Coder	366	\$1,787,208.34	54	\$125,090.71	61	
AUSTIN, STEVE	HIM: Coders	Contributing Coder	28	\$0.00	12	\$0.00	7	
AUSTIN, STEVE	HIM: Coders	DRGs Added	150	\$0.00	17	\$0.00	22	
AUSTIN, STEVE	HIM: Coders	Diagnoses Added	1,855	\$0.00	328	\$0.00	330	
AUSTIN, STEVE	HIM: Coders	Procedures Added	176	\$0.00	34	\$0.00	40	
AUSTIN, STEVE	HIM: Coders	Charges Worked	25	\$5,503.42	4	\$488.50	6	
AVERY, MICHAEL	HIM: Coders	Primary Coder	63	\$3,152,160.88	14	\$522,120.07	10	
AVERY, MICHAEL	HIM: Coders	Contributing Coder	1	\$0.00	1	\$0.00		
AVERY, MICHAEL	HIM: Coders	DRGs Added	100	\$0.00	26	\$0.00	18	
AVERY, MICHAEL	HIM: Coders	Diagnoses Added	1,102	\$0.00	338	\$0.00	151	
AVERY, MICHAEL	HIM: Coders	Procedures Added	165	\$0.00	32	\$0.00	19	
AVERY, MICHAEL	HIM: Coders	Charges Worked						
AVRIL, FRANK	HIM: Coders	Primary Coder	81	\$3,844,151.09	12	\$477,395.60	18	
AVRIL, FRANK	HIM: Coders	Contributing Coder	17	\$0.00	4	\$0.00	2	
AVRIL, FRANK	HIM: Coders	DRGs Added	153	\$0.00	24	\$0.00	29	
AVRIL, FRANK	HIM: Coders	Diagnoses Added	1,359	\$0.00	292	\$0.00	341	
AVRIL, FRANK	HIM: Coders	Procedures Added	254	\$0.00	71	\$0.00	81	
AVRIL, FRANK	HIM: Coders	Charges Worked						
BEYER, HENRY	HIM: Coders	Primary Coder	409	\$308,265.94	108	\$78,908.47	92	
BEYER, HENRY	HIM: Coders	Contributing Coder						

Figure 452: Action Productivity

10.9.10 Daily User Activity

The Daily User Activity view ([Figure 454](#)) shows a user’s activity on the selected day.

When the dialog is loaded, it will bring up a User Selector dialog. To more easily find a specific user, start typing the user’s name or position into the User/Position Filter textbox, and it will hide non-matching users from the grid.

Double-click on a user, or highlight a user and click the “Select” button to select a user and proceed to the main view.

User Selector

User / Position Filter

User	Position
GRAHAM, HAROLD	HIM: Coders
GRAHAM, TYLER	HIM: Managers
GREER, MICHAEL	HIM: Managers

Figure 453: User Selector Dialog

The view will load data for the selected user and the current day. Use the date-picker labeled “Day:” to change what day’s data is displayed.

To change the user, click the “Filter” button, and it will bring back up the User Selector dialog.

Toggleing any of the checkboxes will impact the data displayed in both the grid and the chart, though it will not impact the totals listed beneath the day.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated task or encounter: [Coding Summary](#), [HIM Task Details](#) (if the selected row’s category is Task), and [Encounter Details](#). If you double-click a row, it will launch the [Coding Summary](#) dialog.

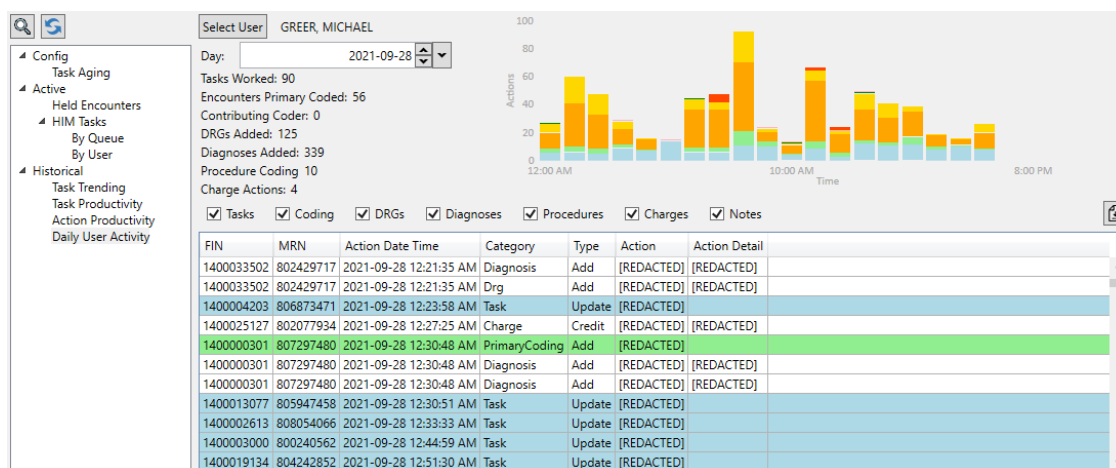


Figure 454: Daily User Activity

10.9.11 Position/User Search

The Search dialog ([Figure 455](#)) allows further filtering of the Task Productivity and Action Productivity views. Any changes made to the search criteria will apply to both views. A filter can contain one or more Positions, and one or more Users. Both filters are optional. If both filters are enabled, the dialog will check that there is an intersection between the selected Positions and Users. If none of the selected Users hold any of the selected Positions, the dialog will show a warning and will not allow the search to proceed with that criteria. To proceed, select more Users or Positions until there is an intersection, or disable one of the filters.

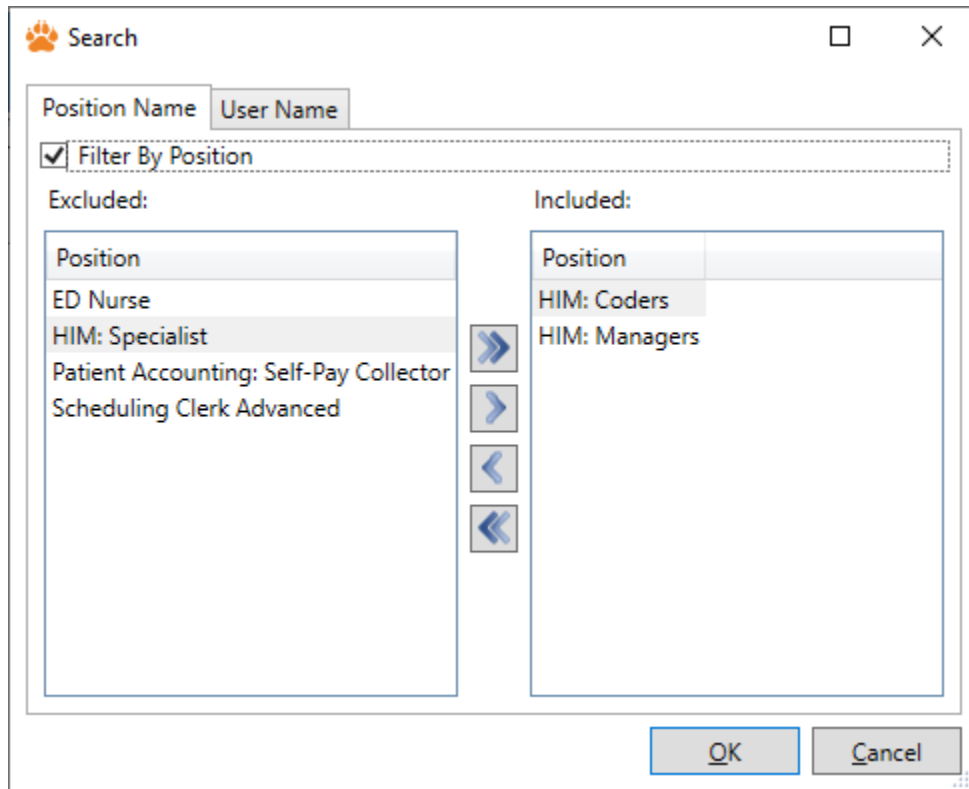


Figure 455: Position/User Search

10.9.12 HIM Tasks Dialog

The HIM Tasks dialog (Figure 456) shows a list of HIM Tasks and some basic information about the task and its associated encounter. HIM Productivity contains multiple views which show grouped information about HIM Tasks; those views have the option to launch this dialog to see the individual tasks.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export...” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated task or encounter: [Coding Summary](#), [HIM Task Details](#), and [Encounter Details](#). If you double-click a row, it will launch the [HIM Task Details](#) dialog.

HIM Tasks							
Category: Secondary							
FIN	MRN	Task Type	Status	Pass Reason	Encounter Charge Balance	Task Date Time	
1400025980	809183746	CW Analysis - OP	OnHold	Analysis - Manager Review	\$7,834.64	2021-09-30 1:08:09 AM	^
1400009519	805023945	CW Analysis - OP	OnHold	Analysis - Manager Review	\$915.00	2021-09-27 2:15:24 AM	
1400005267	808437806	CW Analysis - OP	OnHold	Analysis - Manager Review	\$95.00	2021-09-27 3:07:26 AM	
1400027764	809566726	CW Analysis - OP	OnHold	Analysis - Manager Review	\$95.00	2021-09-27 4:05:48 AM	
1400014727	800730734	CW Analysis - OP	OnHold	Analysis - Manager Review	\$1,102.00	2021-09-27 4:59:35 PM	
1400012702	804478992	CW Analysis - OP	OnHold	Analysis - Manager Review	\$70.58	2021-09-27 2:20:30 AM	
1400023189	802299663	CW Analysis - OP	OnHold	Analysis - Manager Review	\$70.58	2021-09-27 12:58:15 AM	
1400002514	802244793	CW Analysis - OP	OnHold	Analysis - Manager Review	\$1,102.00	2021-09-26 11:30:28 PM	
1400004152	806730498	CW Analysis - OP	OnHold	Analysis - Manager Review	\$189.00	2021-09-27 4:57:33 PM	
1400029137	806845447	CW Analysis - OP	OnHold	Analysis - Manager Review	\$189.00	2021-09-27 3:43:31 PM	v

Figure 456: HIM Tasks Dialog

10.9.13 HIM Task Actions Dialog

The HIM Task Actions dialog (Figure 457) shows a list of actions taken on HIM Tasks.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export...” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated task or encounter: [Coding Summary](#), [HIM Task Details](#), and [Encounter Details](#). If you double-click a row, it will launch the [HIM Task Details](#) dialog.

HIM Task Actions									
Action By: AVERY, MICHAEL Position: HIM: Coders Action Type: All Task Type: All Datetime: 2021-09-24 to 2021-10-01									
FIN	MRN	Task Id	Action Date Time	Pass Reason	Action	Encounter Charge Balance	Taken By	Taken By Position	
1400002505	807243810	808455129	2021-09-29 5:39:59 PM		Complete	\$48,665.67	AVERY, MICHAEL	HIM: Coders	^
1400029630	805241298	809900441	2021-09-29 5:32:53 PM		Complete	\$184,714.07	AVERY, MICHAEL	HIM: Coders	
1400007123	807262338	805635853	2021-09-29 9:35:29 AM		Complete	\$60,219.30	AVERY, MICHAEL	HIM: Coders	
1400030784	800942566	806473098	2021-09-29 5:17:46 AM		Complete	\$441.75	AVERY, MICHAEL	HIM: Coders	
1400033403	802012021	804944794	2021-09-29 4:46:16 AM		Complete	\$77,239.39	AVERY, MICHAEL	HIM: Coders	
1400027627	804878991	803383834	2021-09-29 12:17:35 AM		Complete	\$142,334.71	AVERY, MICHAEL	HIM: Coders	
1400027627	804878991	809074221	2021-09-27 3:42:22 PM		Dropped	\$142,334.71	AVERY, MICHAEL	HIM: Coders	
1400029674	805982207	809543339	2021-09-27 10:37:31 AM		Complete	\$93,054.18	AVERY, MICHAEL	HIM: Coders	
1400002360	807275836	807075508	2021-09-27 9:41:48 AM		Complete	\$22,263.75	AVERY, MICHAEL	HIM: Coders	
1400019372	803616601	804603195	2021-09-27 4:39:02 AM		Complete	\$39,080.58	AVERY, MICHAEL	HIM: Coders	
1400038167	806460240	800146076	2021-09-27 2:51:31 AM		Complete	\$66,019.99	AVERY, MICHAEL	HIM: Coders	
1400027627	804878991	801343690	2021-09-27 2:46:58 AM		Complete	\$142,334.71	AVERY, MICHAEL	HIM: Coders	
1400027627	804878991	803336832	2021-09-27 2:13:42 AM		Complete	\$142,334.71	AVERY, MICHAEL	HIM: Coders	
1400036658	806134821	801422997	2021-09-27 2:11:42 AM		Complete	\$8,764.47	AVERY, MICHAEL	HIM: Coders	
1400017757	806826328	801941137	2021-09-27 12:12:59 AM		Complete	\$8,375.25	AVERY, MICHAEL	HIM: Coders	
1400007112	808928457	800421419	2021-09-26 10:00:24 PM		Complete	\$10,096.97	AVERY, MICHAEL	HIM: Coders	
1400019040	800949328	808235848	2021-09-26 9:44:17 PM		Complete	\$290,747.90	AVERY, MICHAEL	HIM: Coders	
1400005090	809872025	808345020	2021-09-26 7:41:28 PM		Complete	\$5,183.50	AVERY, MICHAEL	HIM: Coders	
1400017832	804215821	803969053	2021-09-26 6:33:49 PM		Complete	\$40,599.10	AVERY, MICHAEL	HIM: Coders	
1400029674	805982207	809552830	2021-09-26 3:42:09 PM		Complete	\$93,054.18	AVERY, MICHAEL	HIM: Coders	
1400007025	806897075	804880926	2021-09-26 2:48:30 PM		Complete	\$50,486.88	AVERY, MICHAEL	HIM: Coders	
1400039465	808807415	800121074	2021-09-26 1:40:14 PM	Coding - Waiting for Coding Query	OnHold	\$0.00	AVERY, MICHAEL	HIM: Coders	
1400025226	809220582	800443202	2021-09-26 1:08:30 PM		Complete	\$6,728.25	AVERY, MICHAEL	HIM: Coders	
1400014627	804289122	805804184	2021-09-26 11:13:10 AM		Complete	\$126,026.92	AVERY, MICHAEL	HIM: Coders	v

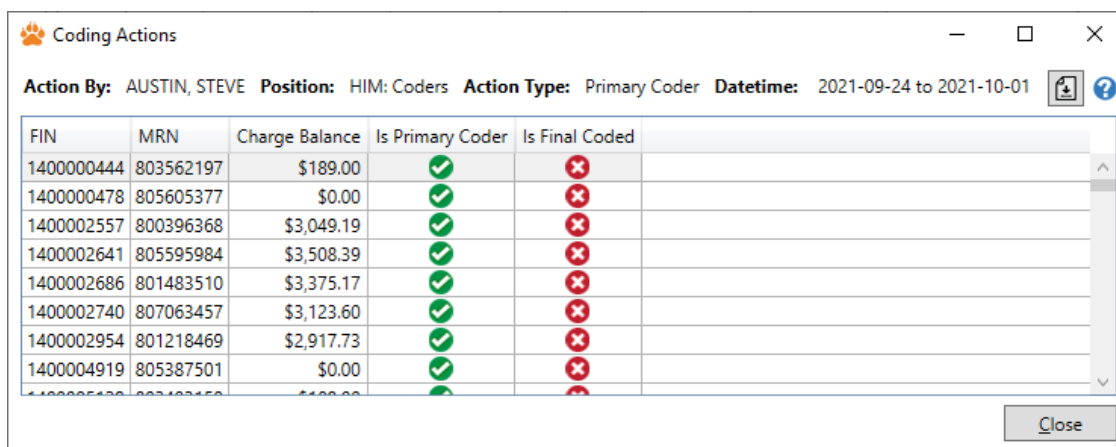
Figure 457: HIM Task Actions Dialog

10.9.14 Coding Actions Dialog

The Coding Actions dialog (Figure 458) shows a list of coding actions taken by the selected user on HIM Tasks during the selected time range, whether the user is the primary coder on the task, and whether the task is final coded.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated encounter: [Coding Summary](#), and [Encounter Details](#).



FIN	MRN	Charge Balance	Is Primary Coder	Is Final Coded
1400000444	803562197	\$189.00	✓	✗
1400000478	805605377	\$0.00	✓	✗
1400002557	800396368	\$3,049.19	✓	✗
1400002641	805595984	\$3,508.39	✓	✗
1400002686	801483510	\$3,375.17	✓	✗
1400002740	807063457	\$3,123.60	✓	✗
1400002954	801218469	\$2,917.73	✓	✗
1400004919	805387501	\$0.00	✓	✗

Figure 458: Coding Actions Dialog

10.9.15 DRG Actions Dialog

The DRG Actions dialog (Figure 459) shows a list of DRG actions taken by the selected user on HIM Tasks during the selected time range, and information about the assigned DRGs.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated encounter: [Coding Summary](#), and [Encounter Details](#).

DRG Actions

Action By: AVERY, MICHAEL **Position:** HIM: Coders **Action Type:** DRGs Added **Datetime:** 2021-09-24 to 2021-10-01

Is Final Coded	FIN	MRN	Estimated Reimbursement	Classification	Priority	Identifier	Description
✖	1400000092	803513031	\$49,749.08	MS-DRG	1	028	SPINAL PROCEDURES WITH MCC
✖	1400000241	808375755	\$44,680.82	MS-DRG	1	270	OTHER MAJOR CARDIOVASCULAR PROCEDURES WITH MCC
✖	1400000241	808375755	\$0.00	APR-DRG	2	169	MAJOR ABDOMINAL VASCULAR PROCEDURES
✖	1400001826	805241298	\$64,167.94	MS-DRG	1	870	SEPTICEMIA OR SEVERE SEPSIS WITH MV >96 HOURS
✖	1400002307	802930548	\$13,065.22	MS-DRG	1	308	CARDIAC ARRHYTHMIA AND CONDUCTION DISORDERS WITH MCC
✖	1400002307	802930548	\$0.00	APR-DRG	2	201	CARDIAC ARRHYTHMIA AND CONDUCTION DISORDERS
✖	1400004207	807275836	\$9,833.23	MS-DRG	1	690	KIDNEY AND URINARY TRACT INFECTIONS WITHOUT MCC
✖	1400004207	807275836	\$0.00	APR-DRG	2	463	KIDNEY AND URINARY TRACT INFECTIONS
✖	1400004772	803616601	\$0.00	APR-DRG	2	224	PERITONEAL ADHESION
✖	1400006462	804289122	\$57,577.88	MS-DRG	1	207	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT >96 HOURS
✖	1400006462	804289122	\$0.00	APR-DRG	2	130	RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT >96 HOURS
✖	1400006810	806826328	\$9,522.03	MS-DRG	1	641	MISCELLANEOUS DISORDERS OF NUTRITION, METABOLISM, FLUIDS AND ELECTROLYTES
✖	1400006810	806826328	\$0.00	APR-DRG	2	422	HYPOVOLEMIA AND RELATED ELECTROLYTE DISORDERS
✖	1400010449	809080294	\$16,863.24	MS-DRG	1	828	MYELOPROLIFERATIVE DISORDERS OR POORLY DIFFERENTIATED NEOPLASMS
✖	1400010449	809080294	\$0.00	APR-DRG	2	681	OTHER O.R. PROCEDURES FOR LYMPHATIC, HEMATOPOIETIC OR OTHER
✖	1400010969	807557594	\$15,705.75	MS-DRG	1	669	TRANSURETHRAL PROCEDURES WITH CC
✖	1400010969	807557594	\$0.00	APR-DRG	2	446	URETHRAL AND TRANSURETHRAL PROCEDURES

Close

Figure 459: DRG Actions Dialog

10.9.16 Diagnosis Actions Dialog

The Diagnosis Actions dialog (Figure 460) shows a list of diagnosis actions taken by the selected user on HIM Tasks during the selected time range, and information about the assigned diagnoses.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated encounter: [Coding Summary](#), and [Encounter Details](#).

Diagnosis Actions

Action By: AVERY, MICHAEL **Position:** HIM: Coders **Action Type:** Diagnoses Added **Datetime:** 2021-09-24 to 2021-10-01

Is Final Coded	FIN	MRN	Diagnosis Type	Priority	Present On Admit	Identifier	Description
✖	1400000002	803417722	Final	26	Y	R53.1	Weakness
✖	1400000002	803417722	Final	27	Y	R53.81	Other malaise
✖	1400000002	803417722	Final	28	Y	R26.9	Unspecified abnormalities of gait and mobility
✖	1400000002	803417722	Final	29	Y	E86.0	Dehydration
✖	1400002120	802335573	Admitting	1		R11.2	Nausea with vomiting, unspecified
✖	1400002120	802335573	Final	1	Y	R18.8	Other ascites
✖	1400002120	802335573	Final	2	Y	K31.1	Adult hypertrophic pyloric stenosis
✖	1400002120	802335573	Final	3	Y	C25.9	Malignant neoplasm of pancreas, unspecified
✖	1400002120	802335573	Final	4	Y	E44.1	Mild protein-calorie malnutrition
✖	1400002120	802335573	Final	5	N	A04.72	Enterocolitis due to Clostridium difficile, not specified as recurrent
✖	1400002120	802335573	Final	6	E	Z68.1	Body mass index [BMI] 19.9 or less, adult
✖	1400002120	802335573	Final	7	E	Z90.49	Acquired absence of other specified parts of digestive tract
✖	1400002120	802335573	Final	8	Y	I10	Essential (primary) hypertension
✖	1400002120	802335573	Final	9	E	Z79.84	Long term (current) use of oral hypoglycemic drugs
✖	1400002120	802335573	Final	10	Y	E11.65	Type 2 diabetes mellitus with hyperglycemia
✖	1400002120	802335573	Final	11	E	Z87.891	Personal history of nicotine dependence

Close

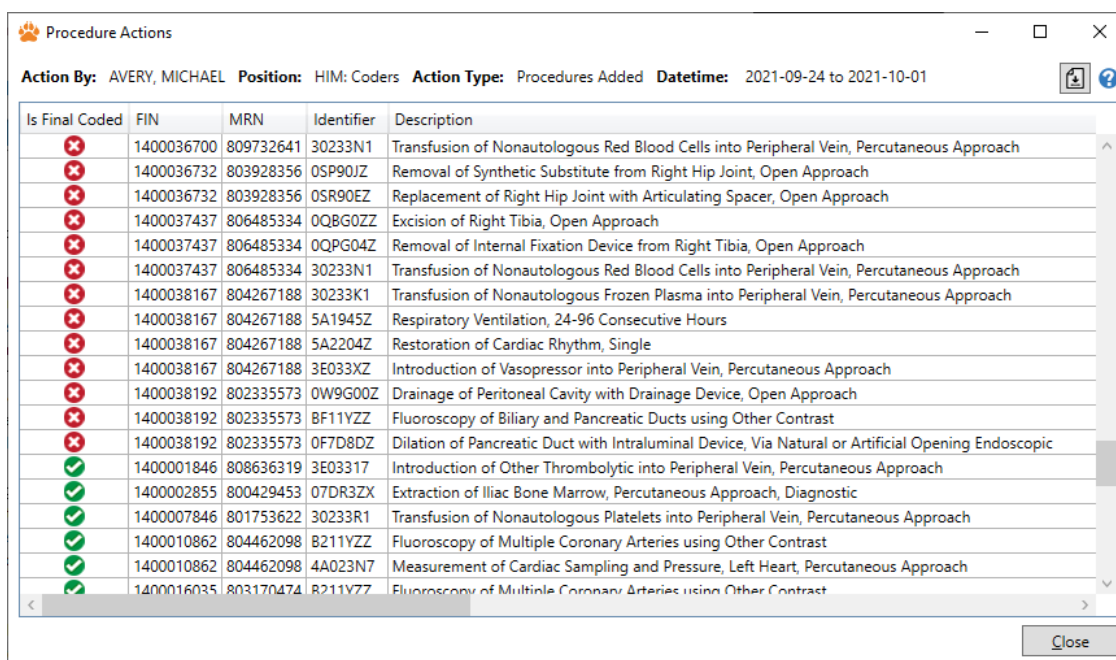
Figure 460: Diagnosis Actions Dialog

10.9.17 Procedure Actions Dialog

The Procedure Actions dialog (Figure 461) shows a list of procedure actions taken by the selected user on HIM Tasks during the selected time range, and information about the coded procedures.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated encounter: [Coding Summary](#), and [Encounter Details](#).



Is Final Coded	FIN	MRN	Identifier	Description
✗	1400036700	809732641	30233N1	Transfusion of Nonautologous Red Blood Cells into Peripheral Vein, Percutaneous Approach
✗	1400036732	803928356	OSP90JZ	Removal of Synthetic Substitute from Right Hip Joint, Open Approach
✗	1400036732	803928356	OSR90EZ	Replacement of Right Hip Joint with Articulating Spacer, Open Approach
✗	1400037437	806485334	OQB80ZZ	Excision of Right Tibia, Open Approach
✗	1400037437	806485334	OQP804Z	Removal of Internal Fixation Device from Right Tibia, Open Approach
✗	1400037437	806485334	30233N1	Transfusion of Nonautologous Red Blood Cells into Peripheral Vein, Percutaneous Approach
✗	1400038167	804267188	30233K1	Transfusion of Nonautologous Frozen Plasma into Peripheral Vein, Percutaneous Approach
✗	1400038167	804267188	5A1945Z	Respiratory Ventilation, 24-96 Consecutive Hours
✗	1400038167	804267188	5A2204Z	Restoration of Cardiac Rhythm, Single
✗	1400038167	804267188	3E033XZ	Introduction of Vasopressor into Peripheral Vein, Percutaneous Approach
✗	1400038192	802335573	0W9G00Z	Drainage of Peritoneal Cavity with Drainage Device, Open Approach
✗	1400038192	802335573	BF11YZZ	Fluoroscopy of Biliary and Pancreatic Ducts using Other Contrast
✗	1400038192	802335573	0F7D8DZ	Dilation of Pancreatic Duct with Intraluminal Device, Via Natural or Artificial Opening Endoscopic
✓	1400001846	808636319	3E03317	Introduction of Other Thrombolytic into Peripheral Vein, Percutaneous Approach
✓	1400002855	800429453	07DR3ZX	Extraction of Iliac Bone Marrow, Percutaneous Approach, Diagnostic
✓	1400007846	801753622	30233R1	Transfusion of Nonautologous Platelets into Peripheral Vein, Percutaneous Approach
✓	1400010862	804462098	B211YZZ	Fluoroscopy of Multiple Coronary Arteries using Other Contrast
✓	1400010862	804462098	4A023N7	Measurement of Cardiac Sampling and Pressure, Left Heart, Percutaneous Approach
✓	1400016035	803170474	B211YZZ	Fluoroscopy of Multiple Coronary Arteries using Other Contrast

Figure 461: Procedure Actions Dialog

10.9.18 Charge Actions Dialog

The Charge Actions dialog (Figure 462) shows a list of charge actions taken by the selected user on HIM Tasks during the selected time range, and information about the charges.

To export the data displayed in the grid, click the Export button, or right-click in the grid and select “Export. . .” from the context menu.

If you right-click on a row, the context menu presents several options for more information about the associated encounter: [Coding Summary](#), and [Encounter Details](#).

Charge Actions									
Action By: AUSTIN, STEVE Position: HIM: Coders Action Type: Charges Worked Datetime: 2021-09-24 to 2021-10-01									
FIN	MRN	Amount	Action	Description	Tier	Activity Type			
1400005272	808803860	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400005272	808803860	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400005272	808803860	\$88.75	Update	sodium chloride 0.9% injection 1,000 mL	Technical Tier	Pharmacy			
1400010571	806012056	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400010571	806012056	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400010571	806012056	\$35.50	Update	lactated ringers injection 1,000 mL	Technical Tier	Pharmacy			
1400011239	806863148	\$95.00	Update	CV ECG Acquisition	Technical Tier	Cardiovascular			
1400016193	805345375	\$95.00	Update	CV ECG Acquisition	Technical Tier	Cardiovascular			
1400019045	801356560	\$58.50	Update	sodium chloride 0.9% injection 1,000 mL	Technical Tier	Pharmacy			
1400019269	801601571	\$1,775.00	Update	phenylephrine 10 mg/mL injection 1 mL	Technical Tier	Pharmacy			
1400020157	807188777	\$75.00	Update	sodium chloride 0.9% injection 1,000 mL	Technical Tier	Pharmacy			
1400020157	807188777	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400020157	807188777	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400023109	809398240	\$359.00	Update	PM Lumbar/Sacral Facet Destruction Image Guided Radiofrequen	Technical Tier	Surgery			
1400023244	801500377	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400023244	801500377	\$35.50	Update	fentaNYL 100 mcg/2 mL injection	Technical Tier	Pharmacy			
1400023244	801500377	\$59.17	Update	lactated ringers injection 1,000 mL	Technical Tier	Pharmacy			
1400023244	801500377	\$359.00	Update	PM Lumbar/Sacral Facet Destruction Image Guided Radiofrequen	Technical Tier	Surgery			
1400023894	801220583	\$1,775.00	Update	phenylephrine 10 mg/mL injection 1 mL	Technical Tier	Pharmacy			
1400023894	801220583	\$75.00	Update	sodium chloride 0.9% injection 1,000 mL	Technical Tier	Pharmacy			

Figure 462: Charge Actions Dialog

10.9.19 Coding Summary Dialog

The Coding Summary dialog provides detailed information regarding coding of the selected task.

To export the data displayed any of the grids, click the Export button to the upper right of the grid, or right-click in the grid and select "Export. . ." from the context menu.

The *Coding History* tab provides information about coding actions taken on the encounter. When one of the rows is selected and there is a clinical document associated with the record, it will be displayed if possible. Even if the file is unsupported, it can still be exported to be viewed with an appropriate program.

 Coding Summary for FIN 1400007270

Coding History DRGs Diagnosis Procedures

Action Date Time	Acting User	Acting Position	Is Final Coded	Coding Date Time	Coding Personnel	Coding Position
2021-09-26 4:02:51 AM	UPTON, TERRY	HIM: Coders	✓	2021-09-26 4:02:51 AM	UPTON, TERRY	HIM: Coders
2021-09-26 4:02:51 AM	UPTON, TERRY	HIM: Coders	✓	2021-09-26 4:02:51 AM	UPTON, TERRY	HIM: Coders
2021-09-23 12:45:42 PM	AUSTIN, STEVE	HIM: Coders	✗	2021-09-23 12:45:42 PM	AUSTIN, STEVE	HIM: Coders
2021-09-23 12:45:42 PM	AUSTIN, STEVE	HIM: Coders	✗	2021-09-23 12:45:42 PM	AUSTIN, STEVE	HIM: Coders

Selected Clinical Document

CODING DATE: 07/21/2021 FINAL

Softek Medical Center

DSCH STATUS:

01 Discharged to Home or Self Care

Close

Figure 463: Coding History tab

The *DRGs* tab provides information about the diagnosis related groups added to the encounter. When one of the rows is selected and there is any history associated with that DRG it will be shown in the lower grid.

 Coding Summary for FIN 1400007270

Coding History DRGs Diagnosis Procedures

Is Active Diagnosis	Type	Priority	Present On Admit Ind	Identifier	Description
	Final	1		I13.0	Hypertensive heart and chronic kidney disease with h
	Final	2		N18.30	Chronic kidney disease, stage 3 unspecified
	Final	3		I50.9	Heart failure, unspecified
	Final	4		E03.9	Hypothyroidism, unspecified
	Final	5		D64.9	Anemia, unspecified
	Reason For Visit	1		N18.30	Chronic kidney disease, stage 3 unspecified

Selected Diagnosis Coding History

Is Final Coded	Action	Action Date Time	Acting User	Acting Position	Type	Priority	Present On Admit I
	[REDACTED]	2021-09-26 4:02:51 AM	UPTON, TERRY	HIM: Coders	Reason For Visit	1	
	[REDACTED]	2021-09-23 12:45:42 PM	AUSTIN, STEVE	HIM: Coders	Reason For Visit	1	

Close

Figure 465: Diagnosis tab

The *Procedures* tab provides information about the procedures and procedure modifiers added to the encounter. When one of the rows is selected and there is any history associated with that Procedure or Procedure Modifier it will be shown in the lower grid.

Coding Summary for FIN 1400000091

Coding History DRGs **Diagnosis** Procedures

Is Active Procedure	Priority	Modifier Priority	Source Vocab	Identifier	Description
	1		CPT4	43239	EGD TRANSORAL BIOPSY SINGLE/MULTIPLE
	2		ICD-10-PCS	0DB28ZX	Excision of Middle Esophagus, Via Natural or Artificial Op
	3		ICD-10-PCS	0DB78ZX	Excision of Stomach, Pylorus, Via Natural or Artificial Op
	4		ICD-10-PCS	0DB68ZX	Excision of Stomach, Via Natural or Artificial Opening En
	1		ICD-10-PCS	0DBH8ZZ	Excision of Cecum, Via Natural or Artificial Opening End
	1		CPT4	45380	COLONOSCOPY W/BIOPSY SINGLE/MULTIPLE

Select Procedure Coding History

Is Final Coded	Action	Action Date Time	Acting User	Acting Position	Priority	Modifier Priority	Identifier	Descrip
	[REDACTED]	2021-09-24 12:55:20 PM	AUSTIN, STEVE	HIM: Coders	5		0DBH8ZZ	Excision
	[REDACTED]	2021-09-20 12:55:58 AM	AUSTIN, STEVE	HIM: Coders	1		0DBH8ZZ	Excision

Close

Figure 466: Diagnosis tab

10.9.20 HIM Task Details Dialog

The HIM Task Details dialog provides detailed information for the selected task.

To export the data, click the Export button to the upper right of the grid, or right-click in the grid and select “Export...” from the context menu. The data for all of the tabs will be added as separate sheets if exporting to Excel® format, or will all be contained in one file if exporting to [CSV](#).

The upper grid contains general information about the encounter and the task.

The *Action History* tab contains information about who took actions on the task, and when.

HIM Task Details

Name	Value
Encounter	
Encounter Charge Balance	\$1,364.00
FIN	140000730
MRN	807146148
Encounter Type	Emergency
Billing Entity	CHILDRENS AND WOMENS
Facility	C AND W
Nurse Unit	SFTK PED ED

☒ Action History
 ☐ Requests
 ☐ Notes

Action Taken On	Status	Pass Reason	Taken By	Taken By Position
2021-08-19 11:03:17 PM			AVRIL, FRANK	HIM: Coders
2021-08-23 10:47:01 AM			THOMPSON, BRADY	ED Nurse

Figure 467: Action History tab

The *Requests* tab contains information about what requests were made on the encounter. If you double-click on a Request, it will launch the [Clinical Documents dialog](#), showing any Clinical Documents associated with that request.

HIM Task Details

Name	Value
Encounter	
Encounter Charge Balance	\$551.00
FIN	1400029708
MRN	802358587
Encounter Type	Emergency
Billing Entity	CHILDRENS AND WOMENS
Facility	C AND W
Nurse Unit	SFTK OBGYN EC

☐ Action History
 ☒ Requests
 ☐ Notes

Event Tag	Event Title	Request Comment	Requested On	Requested By	Request Status	Requested Of	Action
Anticipated	OBGYN EC Provider Note		2021-09-19 5:37:38 AM	SCHMIDT, XAVIER	Requested		2021-09-19 5:37:38 AM

Figure 468: Requests tab

The *Notes* tab contains information about notes made on the encounter or task.

 HIM Task Details

Name	Value
Encounter	
Encounter Charge Balance	\$1,364.00
FIN	1400000730
MRN	807146148
Encounter Type	Emergency
Billing Entity	CHILDRENS AND WOMENS
Facility	C AND W
Nurse Unit	SFTK PED ED

Action History Requests Notes

Level	User	Added By Position	Added On	Status	Text
ENCOUNTER	DUPREE, JASON	HIM: Managers	2021-09-02 4:04:18 PM	Temporary	[REDACTED]
ENCOUNTER	PLOCHER, JACK	HIM: Managers	2021-09-24 12:27:34 AM	Temporary	[REDACTED]
ENCOUNTER	RIVAS, JASON	HIM: Coders	2021-08-23 2:09:52 PM	Temporary	[REDACTED]
ENCOUNTER	ROUNDY, NORMAN	HIM: Managers	2021-09-11 2:50:37 PM	Temporary	[REDACTED]

Figure 469: Notes tab

10.9.21 Clinical Documents Dialog

The Clinical Documents dialog provides the ability to view Clinical Documents of supported file types. If there are multiple associated documents, there will be a list of the documents along the left side of the dialog with an icon indicating the file type, and the document's title. If there is only one associated document, the list will be hidden to allow for more room to view the document.

 Clinical Documents

 Admission Note

 X-Ray

 Addendum by Smith MD, John

 Addendum by Smith MD, John

 Unrecognized Format Document

 Admission Note

 Admission Note

 X-Ray

 X-Ray

 X-Ray

 X-Ray

 data (XML)

 data (JSON)



Patient submitted self at ER. Patient complains of decapitation. (As Of: 1/1/2021 12:34:45 CST)

Summary
Peripheral Pulse Rate: 150 bpm
Oxygen Saturation: 99%

Bp 150/110
Abdomen soft, bowel sounds all four quadrants
Breath sounds normal.

Figure 470: Clinical Documents Dialog

10.9.22 Encounter Details Dialog

The *Encounter Details* dialog is a common dialog displayed by many Panther controls. See [Encounter Details Dialog](#) for more information.

10.10. Payor Report Card Control

The Payor Report Card control is an interactive tool to help identify which payors respond to bills in a timely fashion.

To view the Payor Report Card control, select the *Payor Report Card* item in the domain explorer (Figure 471).

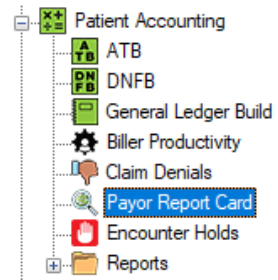


Figure 471: Domain Explorer

To the upper left of the control is the Search button, and the Refresh button. The first time you load the control, it will load all available data for the last 120 days. On subsequent visits to the control, it will automatically load the data using the saved search criteria. Click the Search button to load the [Search dialog](#) and set the search criteria. The Refresh button will only be enabled after data has been loaded. Clicking on it will cause a new search to be issued using the current search criteria.

The Export button allows you to save the currently displayed data in a [CSV](#) or Excel® format. When the Export button is clicked, the Windows “Save As” dialog will appear, prompting the you to select a name and location for the file. Data in all grids can also be selected and copied by using keyboard shortcuts or by right-clicking to access the context menu.

The Help icon provides additional information about the data currently being viewed. Hover the mouse cursor over the question mark icon to see an informational tooltip describing the data displayed.

10.10.1 Health Plan Summary

The Health Plan Summary view ([Figure 472](#)) displays statistics by health plan regarding payment responses. To launch the [Responses](#) dialog and view the a list of responses for a health plan you can either double-click on a row, or right-click and select “Details...” from the context menu.

The graphs at the top display data for the currently selected row. The graph on the left displays the amount of money paid or adjusted by encounter type. The graph on the right displays the response time for bill payments. The graphs can be hidden by unchecking the Show Graph checkbox.

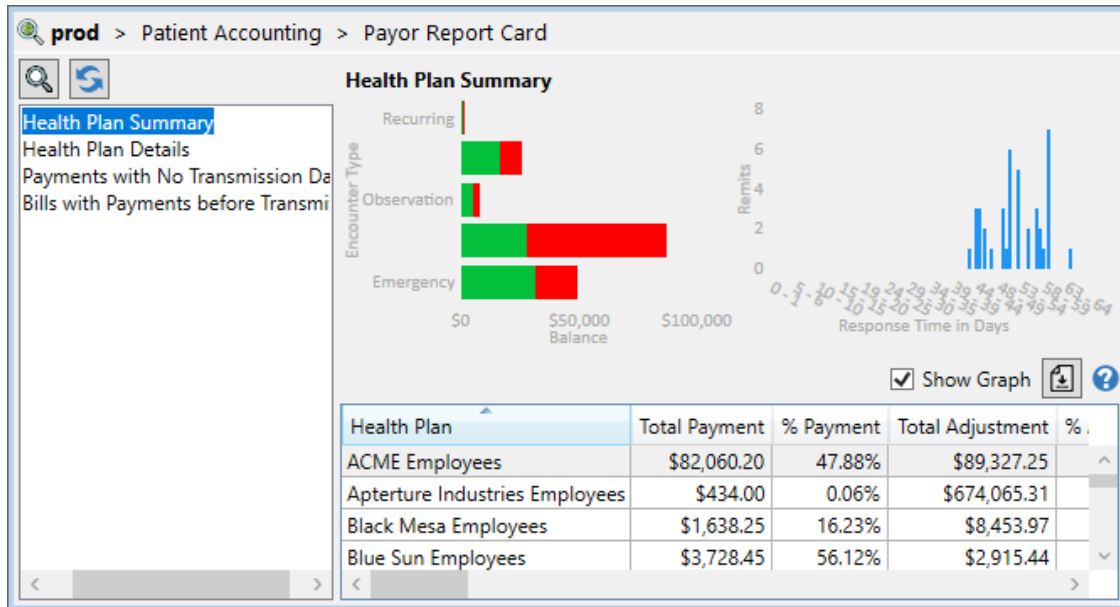


Figure 472: Health Plan Summary

10.10.2 Health Plan Details

The Health Plan Details view (Figure 473) displays a summary of responses grouped by a user configurable set of fields.

To launch the Responses dialog and view the a list of responses for each row you can either double-click on a row, or right-click and select "Details..." from the context menu.

The graphs at the top display data for the currently selected row. The graph on the left displays the amount of money paid or adjusted by encounter type. The graph on the right displays the response time for bill payments. The graphs can be hidden by unchecking the Show Graph checkbox.

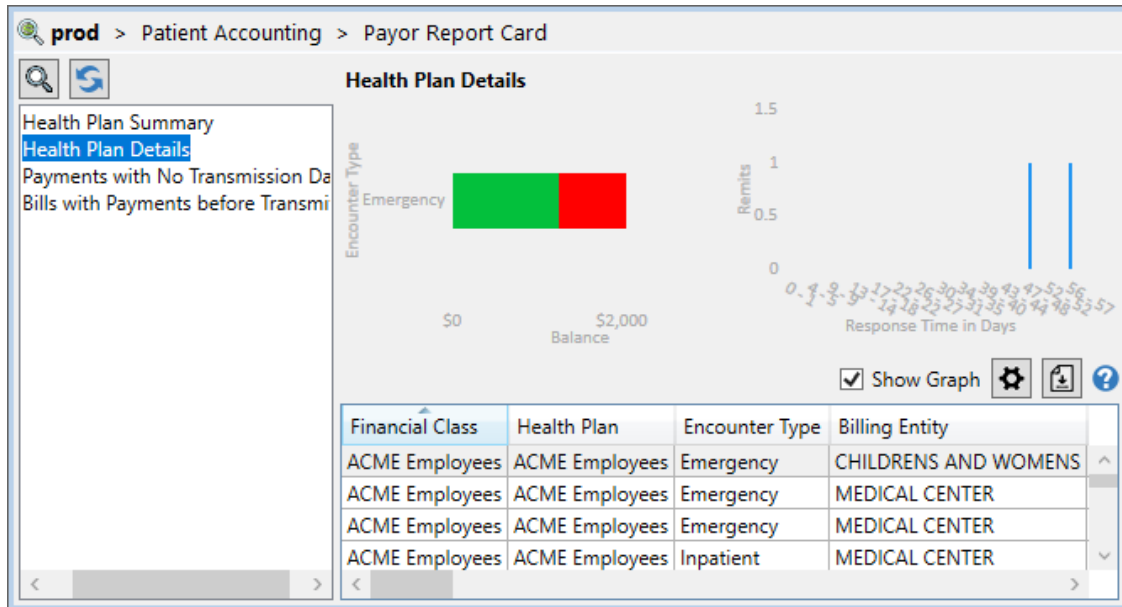


Figure 473: Health Plan Details

The settings icon on the right will open the Group By Settings dialog (Figure 474). Payor responses will be grouped by the included fields.

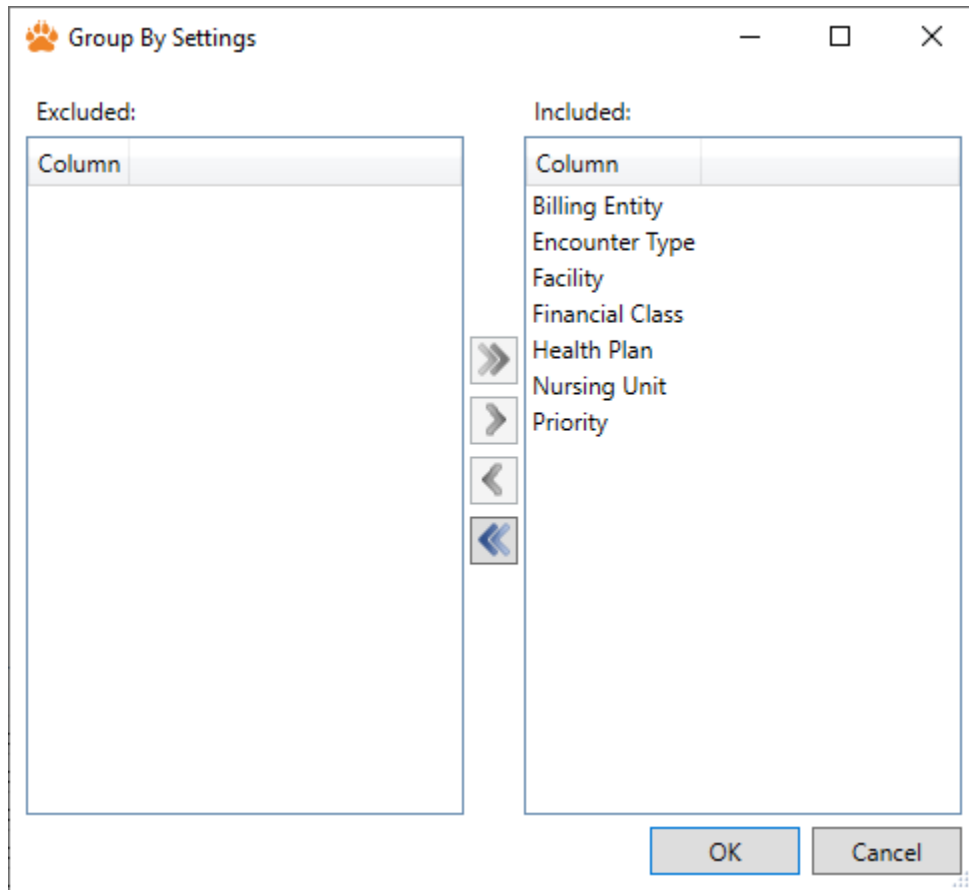


Figure 474: Group By Settings

10.10.3 Payments with No Transmission Date

The Payments with No Transmission Date view ([Figure 475](#)) shows a list of payments for bills that were never marked as transmitted. This could indicate a payment was associated with the wrong bill or the bill's transmission was not properly recorded. Double-clicking a row will open the Encounter Details dialog with additional information about the patient encounter. ([Section 10.10.7](#)) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting "Details...".

prod > Patient Accounting > Payor Report Card

Payments with No Transmission Date

FIN	Recur Sequence	Bill Number	Response Date/Time	Payment	Ad
1400000607		1070190733	3/29/2020 10:29:22 PM	\$61.47	
1400000968		2073488024	3/11/2020 4:08:45 PM	\$3,642.66	\$1
1400000993		1471547498	3/12/2020 4:02:04 PM	\$703.01	
1400001117		1053203953	3/17/2020 5:01:12 PM	\$597.77	\$
1400001117		1480248913	3/25/2020 4:13:39 PM	\$152.51	
1400001435		1056101641	3/17/2020 4:01:42 PM	\$3,398.98	\$
1400001462		1123034105	5/13/2020 11:04:12 PM	\$435.78	\$
1400001468		1768141794	3/11/2020 4:00:57 PM	\$338.19	
1400001654		1115824808	3/5/2020 10:16:01 PM	\$9.50	
1400001877		1966581566	3/17/2020 5:02:10 PM	\$2,084.25	\$
1400001877		2124339457	3/25/2020 4:14:13 PM	\$531.70	
1400001881		1828231779	5/13/2020 6:27:17 PM	\$325.57	\$

☒ Show Recurring 102 results (0 filtered)

Figure 475: Payments with No Transmission Date

10.10.4 Bills with Payments before Transmit

The Bills with Payments before Transmit view (Figure 476) shows a list of payments with a response date before the transmission date of the bill. This could indicate a payment was associated with the wrong bill or the bill's transmission was not properly recorded. Double-clicking a row will open the Encounter Details dialog with additional information about the patient encounter. (Section 10.10.7) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting "Details..."

prod > Patient Accounting > Payor Report Card

Bills with Payments before Transmit

FIN	Recur Sequence	Bill Number	Transmission Date/Time	Response Date/Time
1400000442		1597760067	3/26/2020 7:00:00 AM	3/11/2020 4:00:00 PM
1400000516		2103016894	3/19/2020 9:56:00 AM	2/17/2020 6:00:00 PM
1400000607		1619232179	3/25/2020 9:53:00 AM	3/2/2020 5:00:00 PM
1400000632		1908657137	3/25/2020 7:00:00 AM	3/19/2020 8:00:00 AM
1400000639		1618631741	1/27/2020 9:50:00 AM	12/18/2019 4:00:00 PM
1400000754		1380621345	3/26/2020 7:00:00 AM	3/25/2020 4:00:00 PM
1400000779		1878628676	3/26/2020 7:00:00 AM	3/11/2020 4:00:00 PM
1400000794		1092390835	3/26/2020 7:00:00 AM	3/11/2020 4:00:00 PM
1400000799		1170733894	5/11/2020 9:00:00 AM	3/26/2020 4:00:00 PM
1400000911		1236231630	3/26/2020 7:00:00 AM	3/18/2020 4:00:00 PM
1400000912		2034793715	3/26/2020 7:00:00 AM	3/11/2020 4:00:00 PM
1400000960		1852856273	3/26/2020 7:00:00 AM	3/11/2020 4:00:00 PM

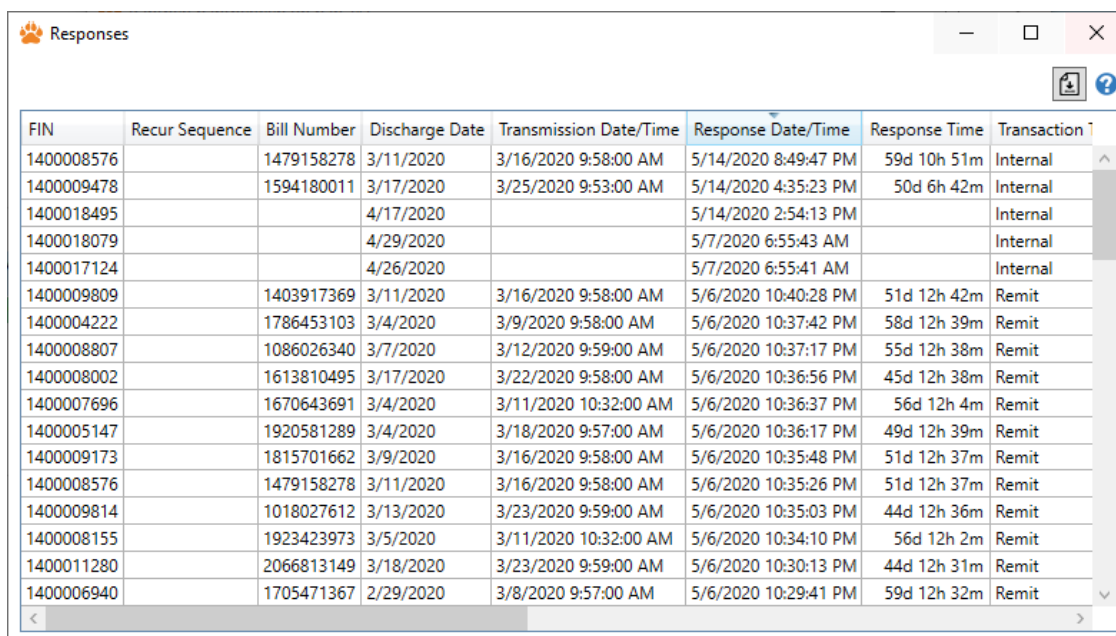
☒ Show Recurring 187 results (0 filtered)

Figure 476: Bills with Payments before Transmit

10.10.5 Responses Details Dialog

The Responses Details dialog (Figure 477) lists the payment responses counted in the summary. Double-clicking a row will open the Encounter Details dialog. (Section 10.10.7) You can also access the Encounter Details dialog by right-clicking to bring up the context menu, and selecting “Details...”.

The Responses Details dialog can be reached from the [Health Plan Summary](#) and the [Health Plan Details](#).



FIN	Recur Sequence	Bill Number	Discharge Date	Transmission Date/Time	Response Date/Time	Response Time	Transaction
1400008576		1479158278	3/11/2020	3/16/2020 9:58:00 AM	5/14/2020 8:49:47 PM	59d 10h 51m	Internal
1400009478		1594180011	3/17/2020	3/25/2020 9:53:00 AM	5/14/2020 4:35:23 PM	50d 6h 42m	Internal
1400018495			4/17/2020		5/14/2020 2:54:13 PM		Internal
1400018079			4/29/2020		5/7/2020 6:55:43 AM		Internal
1400017124			4/26/2020		5/7/2020 6:55:41 AM		Internal
1400009809		1403917369	3/11/2020	3/16/2020 9:58:00 AM	5/6/2020 10:40:28 PM	51d 12h 42m	Remit
1400004222		1786453103	3/4/2020	3/9/2020 9:58:00 AM	5/6/2020 10:37:42 PM	58d 12h 39m	Remit
1400008807		1086026340	3/7/2020	3/12/2020 9:59:00 AM	5/6/2020 10:37:17 PM	55d 12h 38m	Remit
1400008002		1613810495	3/17/2020	3/22/2020 9:58:00 AM	5/6/2020 10:36:56 PM	45d 12h 38m	Remit
1400007696		1670643691	3/4/2020	3/11/2020 10:32:00 AM	5/6/2020 10:36:37 PM	56d 12h 4m	Remit
1400005147		1920581289	3/4/2020	3/18/2020 9:57:00 AM	5/6/2020 10:36:17 PM	49d 12h 39m	Remit
1400009173		1815701662	3/9/2020	3/16/2020 9:58:00 AM	5/6/2020 10:35:48 PM	51d 12h 37m	Remit
1400008576		1479158278	3/11/2020	3/16/2020 9:58:00 AM	5/6/2020 10:35:26 PM	51d 12h 37m	Remit
1400009814		1018027612	3/13/2020	3/23/2020 9:59:00 AM	5/6/2020 10:35:03 PM	44d 12h 36m	Remit
1400008155		1923423973	3/5/2020	3/11/2020 10:32:00 AM	5/6/2020 10:34:10 PM	56d 12h 2m	Remit
1400011280		2066813149	3/18/2020	3/23/2020 9:59:00 AM	5/6/2020 10:30:13 PM	44d 12h 31m	Remit
1400006940		1705471367	2/29/2020	3/8/2020 9:57:00 AM	5/6/2020 10:29:41 PM	59d 12h 32m	Remit

Figure 477: Responses Details Dialog

10.10.6 Searching

The Payor Report Card control provides the ability to search based on selected date range, payor priority, billing entity, facility, financial class, action code, and HCPCS. The lists of selected billing entities, facilities, financial classes, action codes, and HCPCS are empty by default. If there is a warning icon on a tab, that means that criteria needs to be selected on that tab before the search can be performed. (Figure 478)



HCPCS Filter Requires All to Match

Unlike most search criteria in Panther, the HCPCS filter looks for data matching all of the selected items. If the data has additional HCPCS codes which were not selected, that will not disqualify it.



Search Displays the Current Criteria

When opened, the Search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.

Search

Date Range: Last 120 Days

Payor Priority: All

Billing Entities | Facilities | Financial Classes | Action Codes | HCPCS

☐ Filter by billing entity

Excluded:

Billing Entity Name
ALLIED HEALTH PROFESSIONS
CHILDRENS AND WOMENS
MEDICAL CENTER
SOFTEK HEALTH HOSPITAL SERVICES
SOFTEK HEALTH PHYSICIAN SERVICES

Included:

Billing Entity Name

OK Cancel

Figure 478: Search Dialog

10.10.7 Encounter Details Dialog

The Encounter Details dialog ([Figure 479](#)) provides Summary and Detail data for the encounter selected. The Summary includes basic demographic data, General information about the current balance, financial class, Hold Category, Hold Reason, current Balance, Days since the current hold has been active, and HIM coding status. There are 7 detail tabs that show balances, accounts, claims, Holds and dates the hold was applied and released, any work queue items, HIM tasks, and the Activity Log.

Double clicking a row on the Balances tab will open the Balance Details dialog. ([Section 10.10.8](#)) You can also access the Balance Details dialog by right-clicking to bring up the context menu, and selecting "Details...".

Encounter Details for FIN: 1400003626

Name	Value
Encounter Info	
Patient Name	Gusikowski, Fiona
Organization	Umbrella Corporation
Billing Entity	MEDICAL CENTER
Facility	MEDICAL CENTER
Location	01
Medical Service	Emergency Room
Type	Emergency
Class	Emergency
Status	Discharged

Balances		Accounts	Claims	Holds	Work Items	HIM Tasks	Activity
Plan Type	Plan Name	Financial Class	Priority	Status	Reason	Assigned Biller	Current Due
Commercial	Blue Sun Employees	LexCorp Workers Compensation	1				\$0.00
Self Pay	Self-Pay	Self Pay	2	Good Standing Self Pay		Olson, Zion	\$1,878.00

Figure 479: Encounter Details Dialog

10.10.8 Balance Details Dialog

The Balance Details dialog (Figure 480) provides Summary and Detail data for the balance selected. The Summary includes information about the health plan responsible for the balance, status, amount due, amount collected, and amount adjusted. There are 2 detail tabs, which show activity and claims that contribute to the balance.

Double clicking a row on the Activity tab will open the Transaction Details dialog. (Section 10.10.9) You can also access the Transaction Details dialog by right-clicking to bring up the context menu, and selecting "Details...".

Balance Details for: 900162809

Name	Value
FIN	1400003626
Plan Type	Commercial
Plan Name	Blue Sun Employees
Financial Class	LexCorp Workers Compensation
Priority	1
Status	
Reason	
Assigned Biller	
Current Due	\$0.00
Original Due	\$2,504.00
Total Paid	\$0.00
Total Adjusted	(\$626.00)
Non Covered	\$0.00

Activity

Claims

Status	Corp Activity Id	Activity Date	Alias	Alias Description	Remaining Amount	Original Amount	Amount Type
Active	800243811	3/26/2020 9:20:27 PM	800709303		(\$626.00)	(\$626.00)	ADJUSTMENT

Figure 480: Balance Details Dialog

10.10.9 Transaction Details Dialog

The Transaction Details dialog ([Figure 481](#)) provides the transaction tree for a particular action, and shows properties of the selected transaction.

 Transaction Details for Activity Id: 800811225

— □ ×

Name	Value
FIN	1400003626
Relation Reason	ROOT
Relation SubReason	
Activity Id	800811225
Correspondence Activity Id	800243811
Transaction Status	Active
Alias Description	
Transaction Alias	800709303
Amount Type	ADJUSTMENT
Activity Amount	(\$626.00)
Activity Date/Time	3/26/2020 9:20:27 PM
Amount Remaining	(\$626.00)

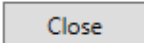


Figure 481: Transaction Details Dialog

10.11. Reports Control

The Patient Accountg Reports component contains several report controls to provide additional visibility into patient accounting data.

For more detailed information about these reports, you may visit their respective section(s).

10.11.1 General Reports

The General Reports control displays a variety of reports that review and analyze the technical aspects of the Millennium system that can impact performance and stability related to charging.

To view the General Reports control, select the *General Reports* item in the domain explorer (Figure 482).

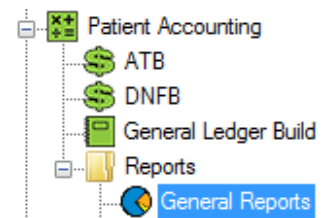


Figure 482: Domain Explorer

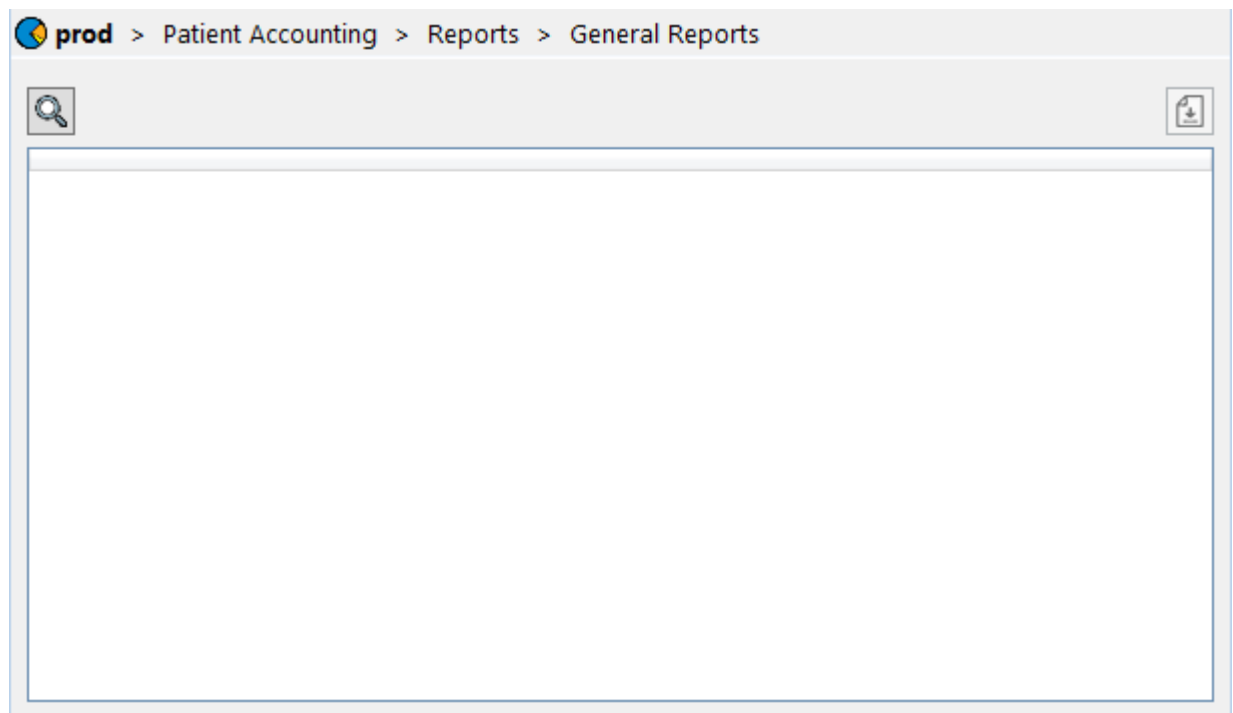


Figure 483: General Reports Control

Executing reports

To select a report for execution, click the search button. This will bring up a dialog that displays the list of available reports (Figure 484). It also includes a date range control which is enabled or disabled based upon whether the currently-selected report supports date range criteria.

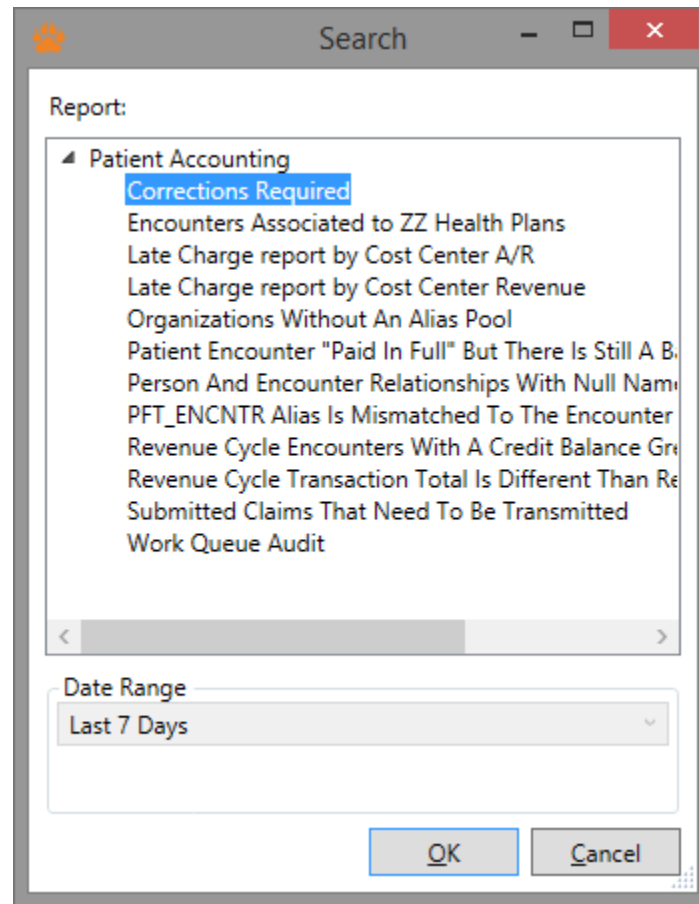


Figure 484: Search Dialog

Upon confirming the search dialog, the control will execute the report and display its results (Figure 485).

 > Patient Accounting > Reports > General Reports

 Category: Patient Accounting Report: Corrections Required 

BILLING_ENTITY	BILL_NBR_DISP	BENEFIT_ORDER_ID	EDIT_REASON	EDIT_DETAIL
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM, ^
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,
Softek Medical Center	1833352275	800726243	Claim Validation Failure	INVALID FILE FORM,

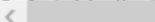
<  >

Figure 485: General Reports - With Data

The figure also displays the *No Results* overlay that appears when a query does not return any data [Figure 486](#).



Figure 486: General Reports - No Results

Exporting Data

The General Reports control also allows the export of currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

Scheduled Reports

See [Charge Capture Scheduled Reports](#).

10.11.2 ATB - Trending

The ATB - Trending control displays daily summary data for balances, payments, adjustments, and charges.

To view the ATB - Trending control, select the *ATB - Trending* item in the domain explorer (Figure 487).



Data Is Not Retrieved Automatically

Because some queries for ATB trending data can be expensive and/or time-consuming, the ATB - Trending control does not automatically perform a search on load. Instead, a user must initiate the search by clicking the search button.

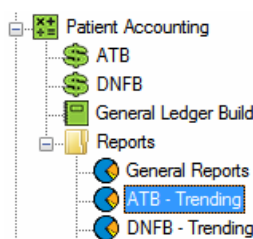


Figure 487: Domain Explorer

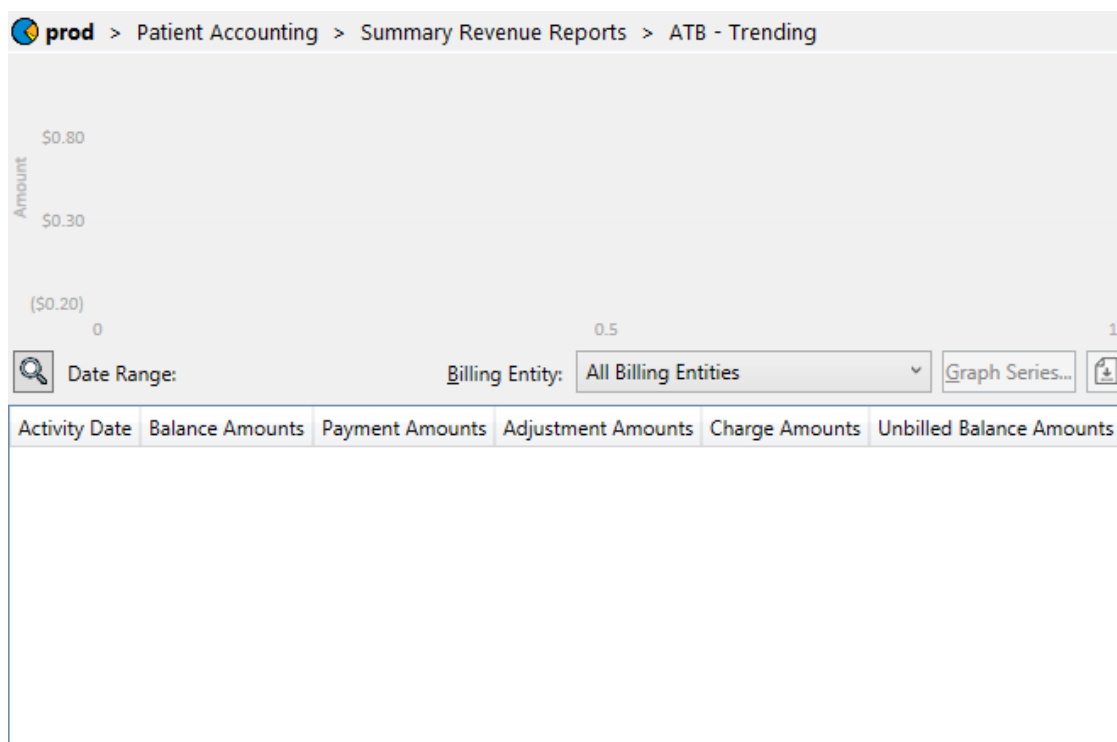


Figure 488: ATB - Trending Control

Searching For Trending Data

The ATB - Trending search provides the ability to select a time range encompassing either the last week or a given calendar month, as well as filter the summary data by encounter type, financial class, and health plan (Figures 489 and 490).

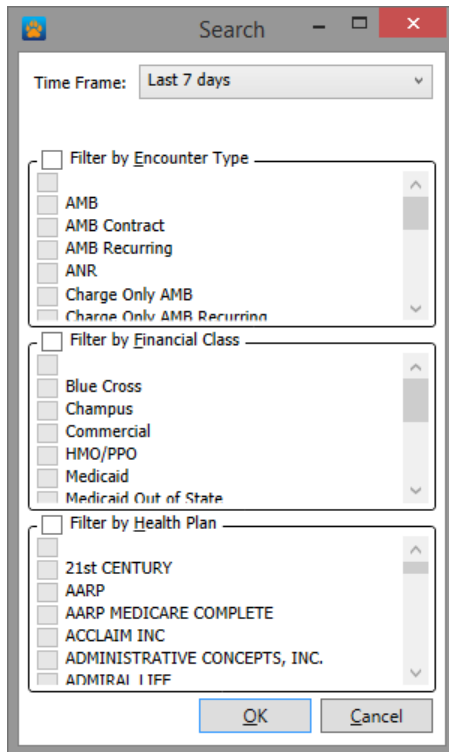


Figure 489: Search Dialog

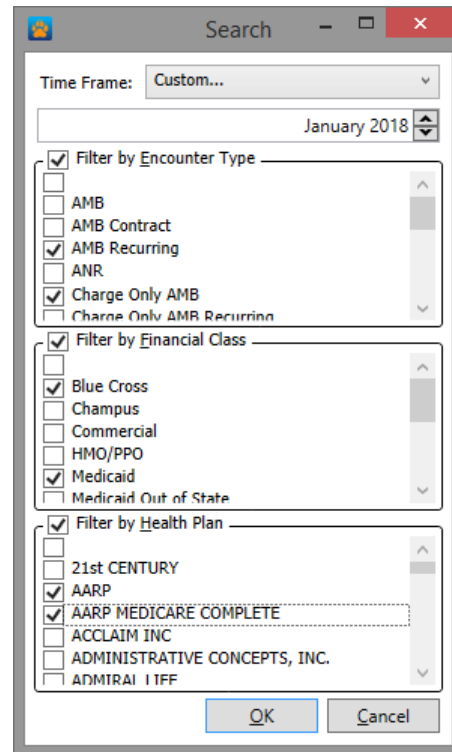


Figure 490: Search With Custom Date And Filters

Working With Search Results

Once search results have returned, the control will populate display the data both in tabular form and as a line graph of values over time (Figure 491).

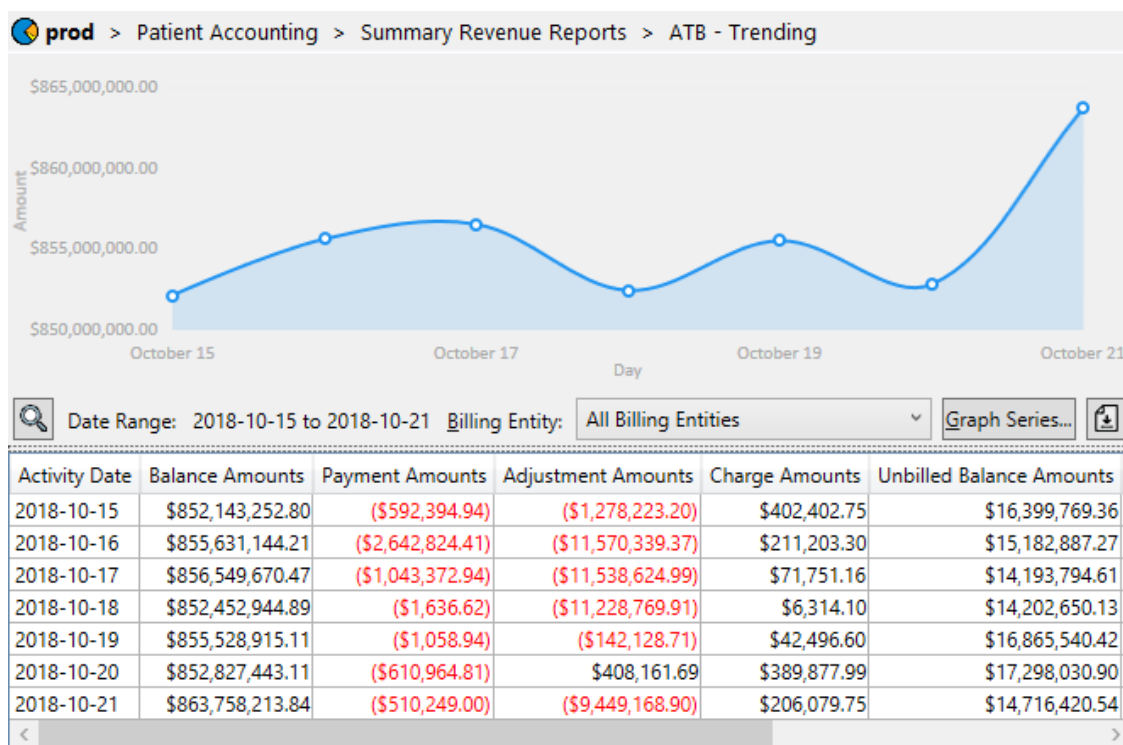


Figure 491: ATB - Trending Control With Data

Configuring the Line Graph

By default, the line graph only shows *Balance Amounts* data. To add/remove values, select the *Graph Series...* button. This will bring up a dialog to select what columns appear in the graph (Figure 492).

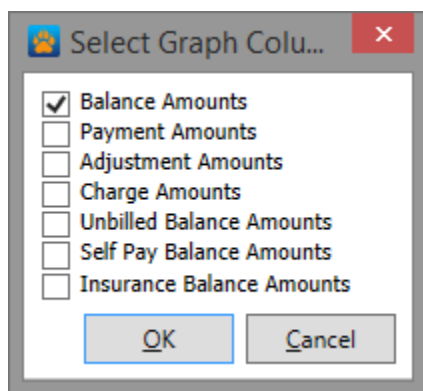


Figure 492: Graph Column Selection Dialog

Filtering by Billing Entity

By default, the tabular and line graph use summary data for all billing entities within the organization. However, data for a specific billing entity can be displayed by selecting it from the *Billing Entity* drop-down (Figure 493).

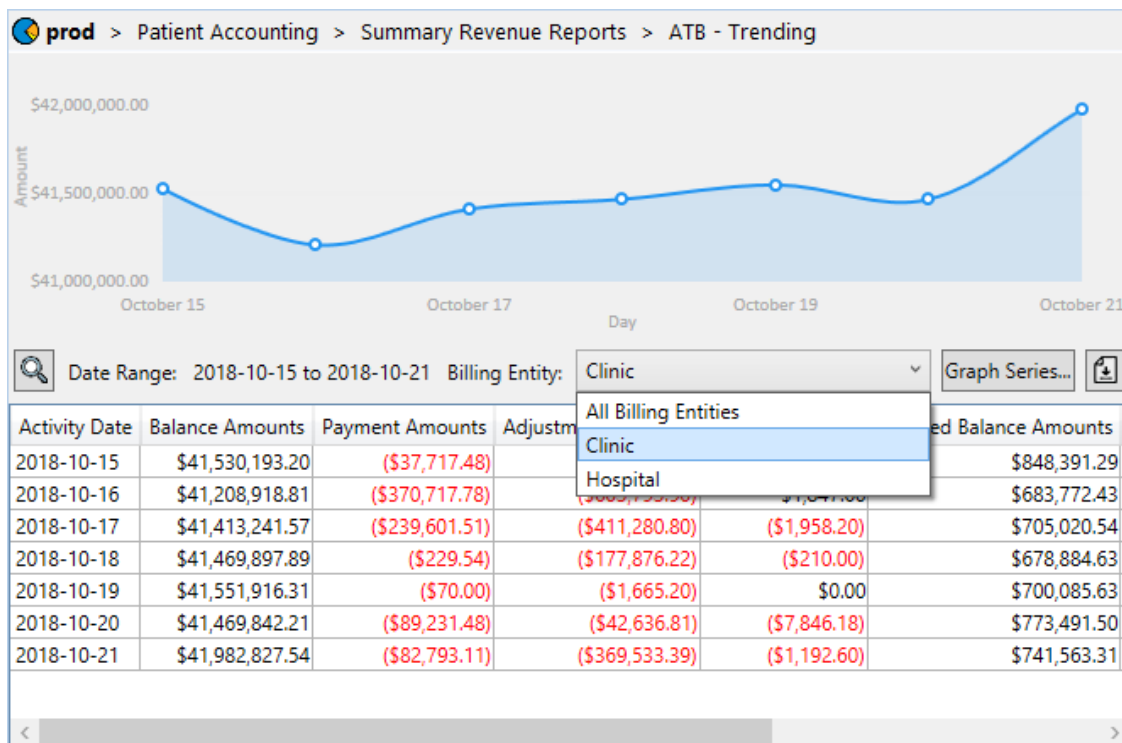


Figure 493: ATB - Trending Control Filtered By Billing Entity

Exporting Data

The ATB - Trending control also allows you to export the currently-displayed tabular data. To do so, click export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

10.11.3 DNFB - Trending

The DNFB - Trending control displays daily summary data for balances, payments, adjustments, and charges.

To view the DNFB - Trending control, select the *DNFB - Trending* item in the domain explorer (Figure 494).

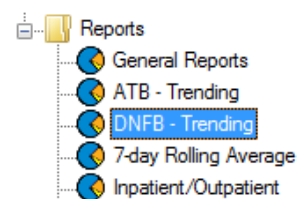


Figure 494: Domain Explorer



Data Is Not Retrieved Automatically

Because some queries for DNFB trending data can be expensive and/or time-consuming, the DNFB - Trending control does not automatically perform a search on load. Instead, a user must initiate the search by clicking the search button.

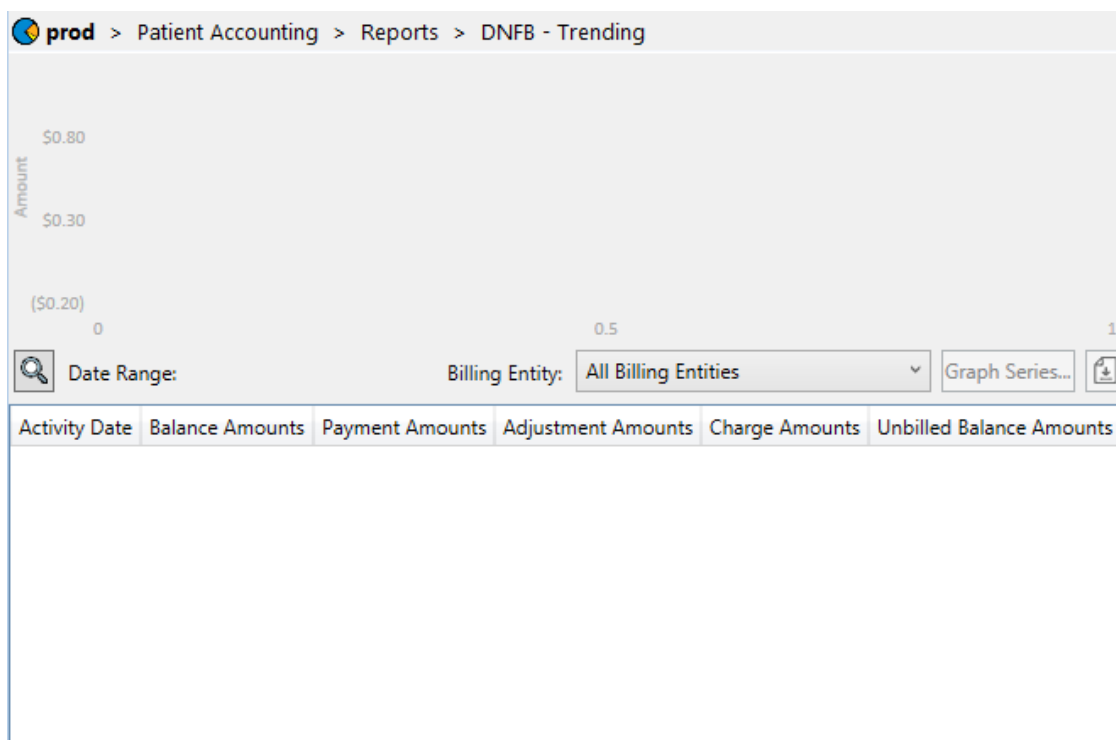


Figure 495: DNFB - Trending Control

Searching For Trending Data

The DNFB - Trending search provides the ability to select a time range encompassing either the last week or a given calendar month, as well as filter the summary data by encounter type, financial class, and health plan (Figures 496 and 497).

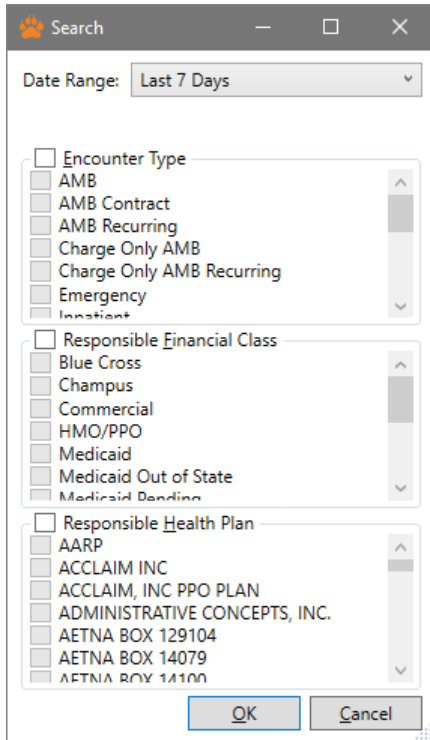


Figure 496: Search Dialog

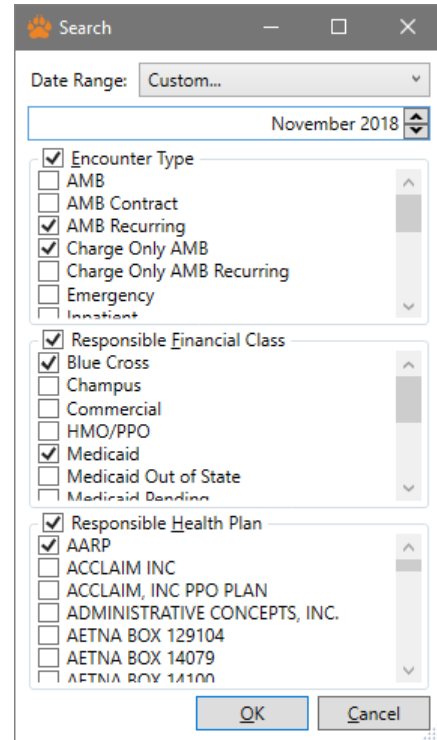


Figure 497: Search With Custom Date And Filters

Working With Search Results

Once search results have returned, the control will populate display the data both in tabular form and as a line graph of values over time (Figure 498).

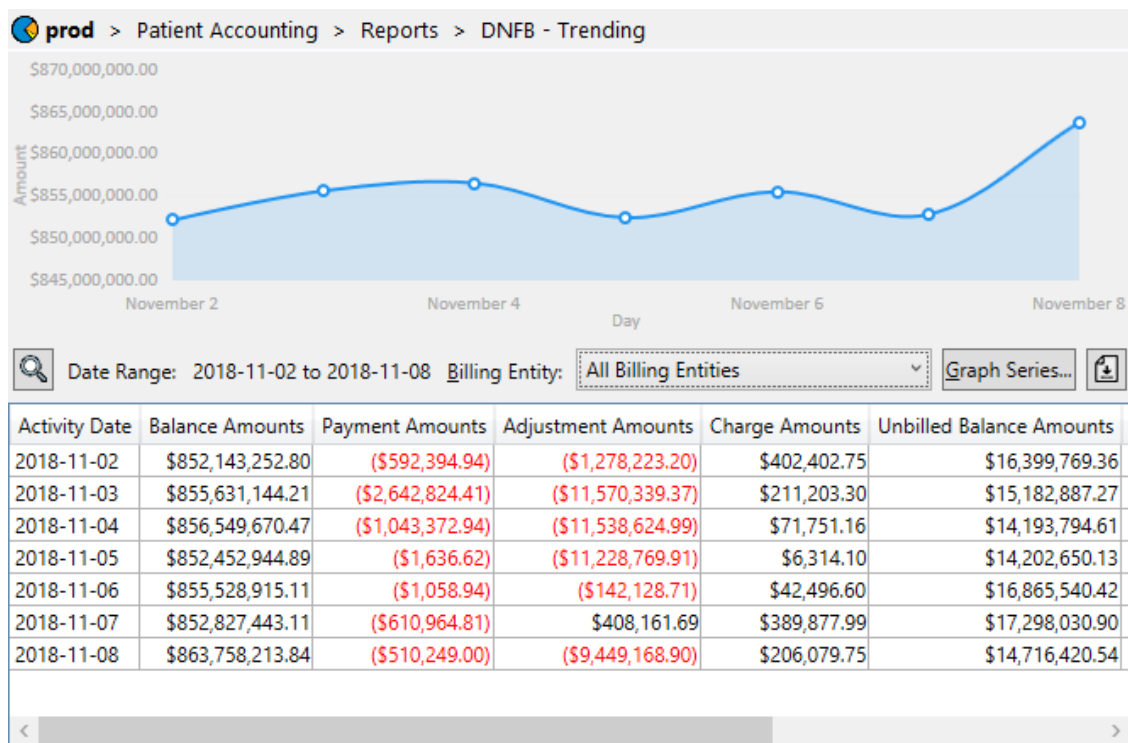


Figure 498: DNFB - Trending Control With Data

Configuring the Line Graph

By default, the line graph only shows *Balance Amounts* data. To add/remove values, select the *Graph Series...* button. This will bring up a dialog to select what columns appear in the graph (Figure 499).

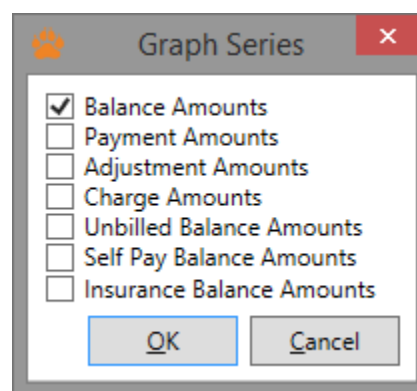


Figure 499: Graph Column Selection Dialog

Filtering by Billing Entity

By default, the tabular and line graph use summary data for all billing entities within the organization. However, data for a specific billing entity can be displayed by selecting it from the *Billing Entity* drop-down (Figure 500).

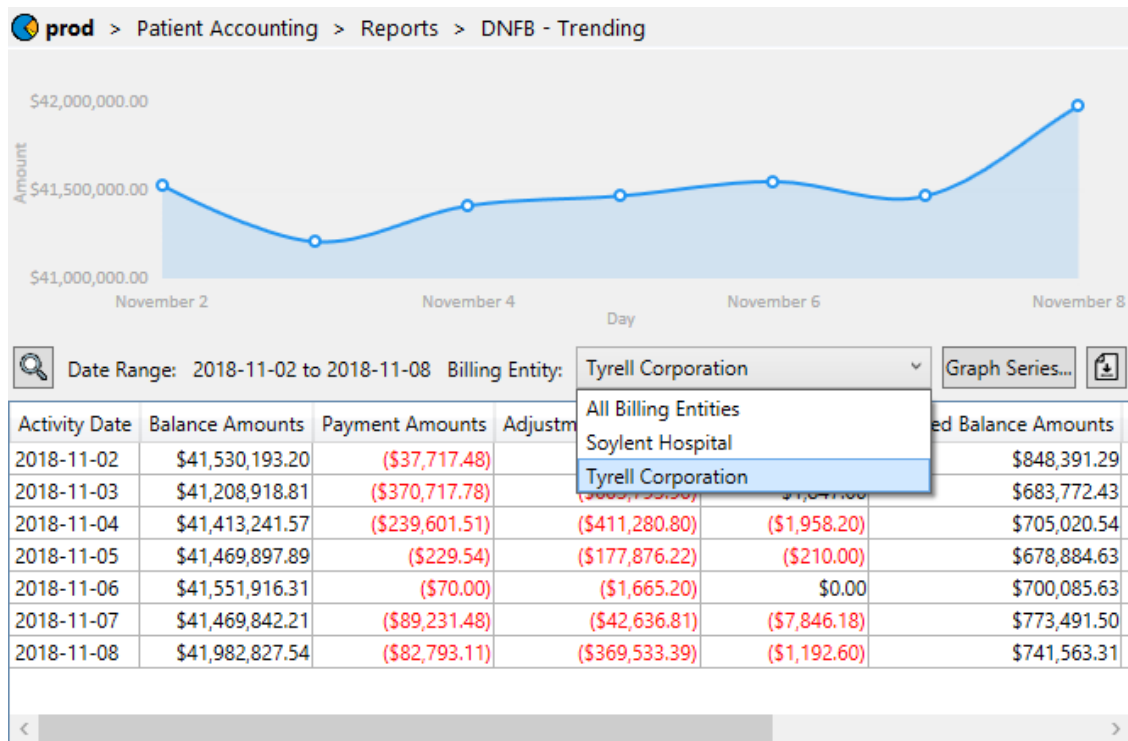


Figure 500: DNFB - Trending Control Filtered By Billing Entity

Exporting Data

The DNFB - Trending control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

10.11.4 7-day Rolling Average

The 7-day Rolling Average control displays daily revenue data for a 7-day period, the average and total revenue for the financial class over that period, and the fraction of the overall revenue for its billing entity.

To view the 7-day Rolling Average control, select the *7-day Rolling Average* item in the domain explorer (Figure 501).

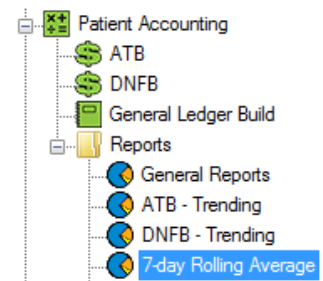


Figure 501: Domain Explorer

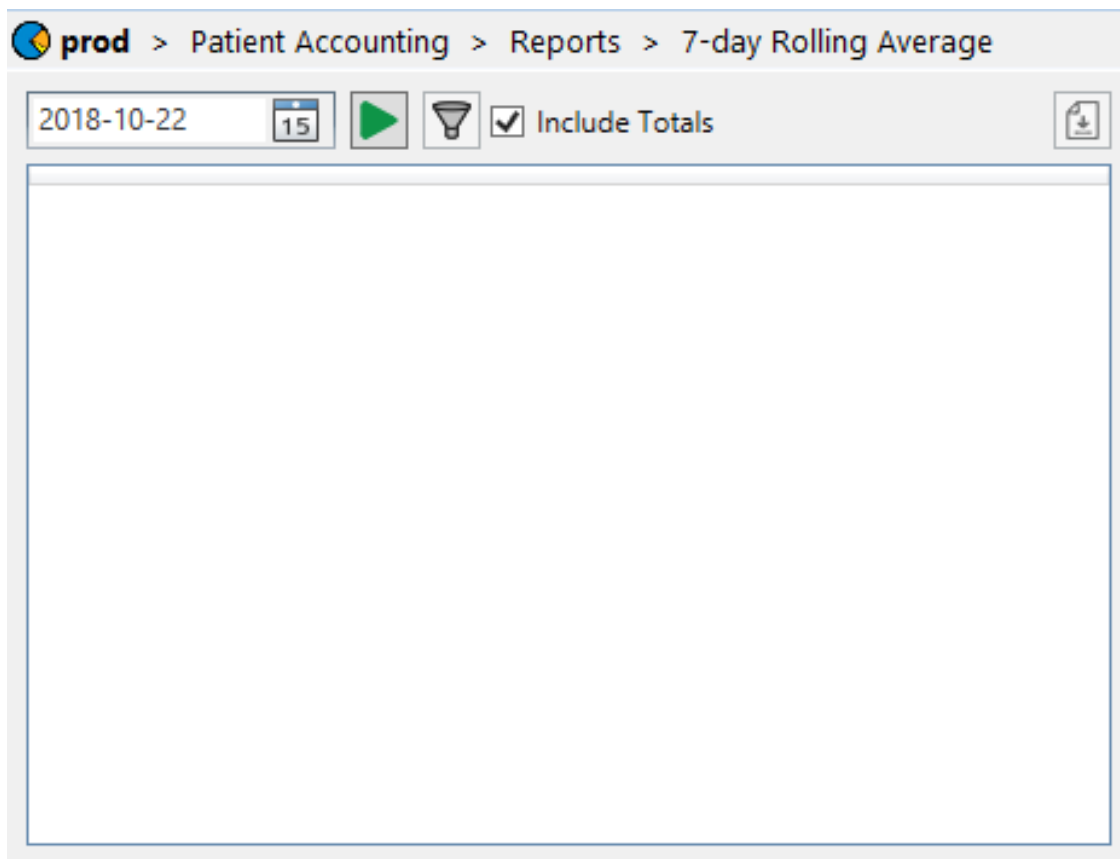
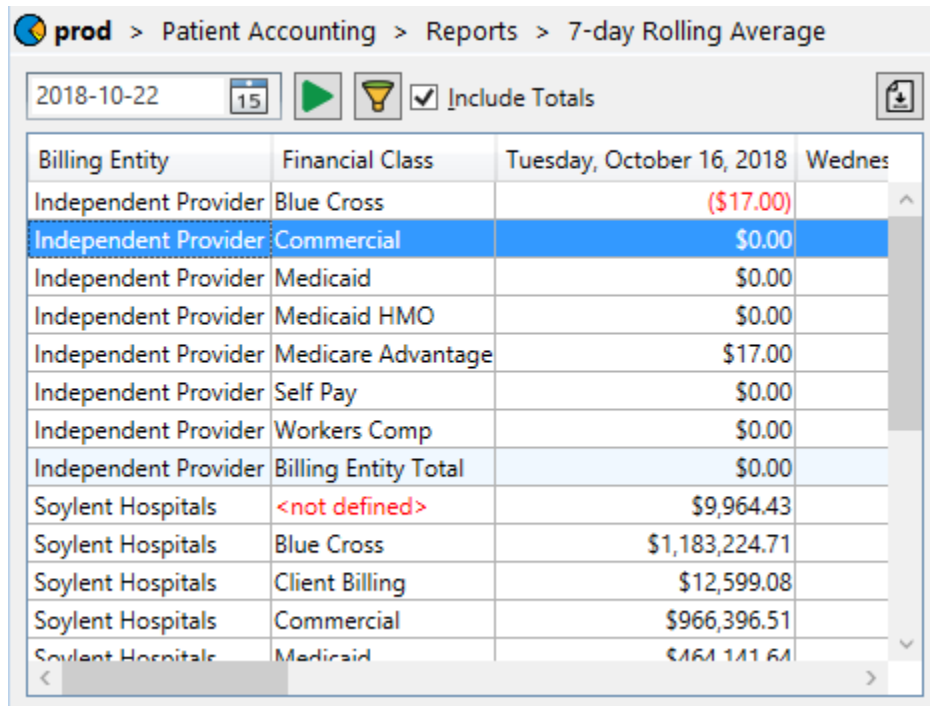


Figure 502: 7-day Rolling Average Control

Executing Reports

To execute a report, select the desired date and click the execute button. When the report has finished, the control will display data in the grid below (Figure 503)



prod > Patient Accounting > Reports > 7-day Rolling Average			
2018-10-22	15		☒ Include Totals
Billing Entity	Financial Class	Tuesday, October 16, 2018	Wednes
Independent Provider	Blue Cross	(\$17.00)	
Independent Provider	Commercial	\$0.00	
Independent Provider	Medicaid	\$0.00	
Independent Provider	Medicaid HMO	\$0.00	
Independent Provider	Medicare Advantage	\$17.00	
Independent Provider	Self Pay	\$0.00	
Independent Provider	Workers Comp	\$0.00	
Independent Provider	Billing Entity Total	\$0.00	
Soylent Hospitals	<not defined>	\$9,964.43	
Soylent Hospitals	Blue Cross	\$1,183,224.71	
Soylent Hospitals	Client Billing	\$12,599.08	
Soylent Hospitals	Commercial	\$966,396.51	
Soylent Hospitals	Medicaid	\$164,141.64	

Figure 503: 7-day Rolling Average Data

Working With Search Results

Once the report data has returned, the control provides the ability to filter by billing entity, show/hide totals, and export the data.

Filtering Billing Entities

Occasionally it may be useful to focus on a particular billing entity. To do so, click the filter button. This will launch a filter dialog ([Figure 504](#)) in which you can select which billing entities to display.

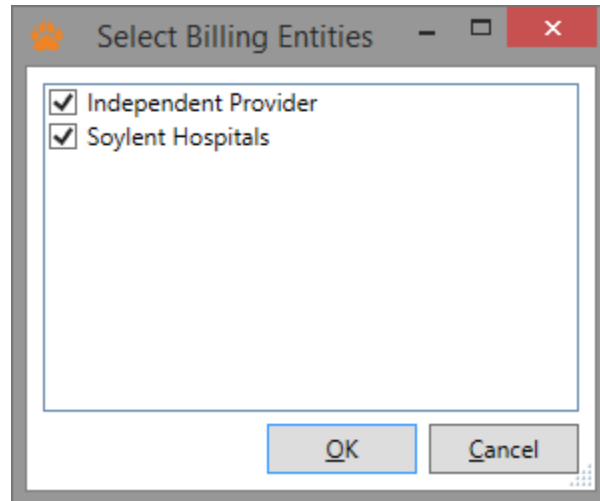
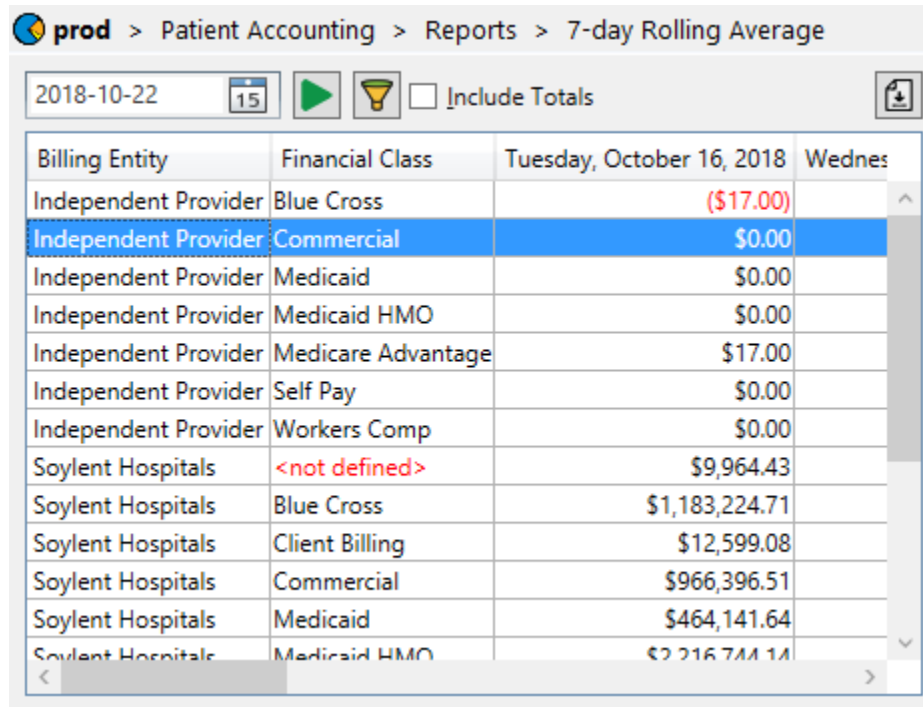


Figure 504: 7-day Rolling Average Filter Dialog

Showing and Hiding Totals

By default, the control displays subtotals for each billing entity as well as a grand total. However, there are some cases (e.g., when exporting data) when it is preferable to hide the total rows. This can be done by un-checking the *Include Totals* check box (Figure 505).



prod > Patient Accounting > Reports > 7-day Rolling Average			
2018-10-22		15	
			
		☐ Include Totals	
			
Billing Entity	Financial Class	Tuesday, October 16, 2018	Wednes
Independent Provider	Blue Cross	(\$17.00)	
Independent Provider	Commercial	\$0.00	
Independent Provider	Medicaid	\$0.00	
Independent Provider	Medicaid HMO	\$0.00	
Independent Provider	Medicare Advantage	\$17.00	
Independent Provider	Self Pay	\$0.00	
Independent Provider	Workers Comp	\$0.00	
Soylent Hospitals	<not defined>	\$9,964.43	
Soylent Hospitals	Blue Cross	\$1,183,224.71	
Soylent Hospitals	Client Billing	\$12,599.08	
Soylent Hospitals	Commercial	\$966,396.51	
Soylent Hospitals	Medicaid	\$464,141.64	
Soylent Hospitals	Medicaid HMO	\$2,216,744.14	

Figure 505: 7-day Rolling Average Without Total Rows

Exporting Data

The 7-day Rolling Average control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

10.11.5 Inpatient/Outpatient

The Inpatient/Outpatient control displays daily revenue data for a user-specified period, including total, inpatient, and outpatient charge units and revenue over that period. Optionally, it can also include 90-day rolling average data for each.

To view the Inpatient/Outpatient control, select the *Inpatient/Outpatient* item in the domain explorer (Figure 506).

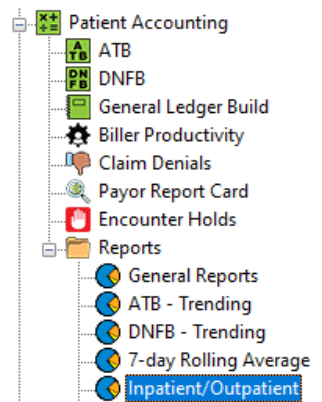


Figure 506: Domain Explorer

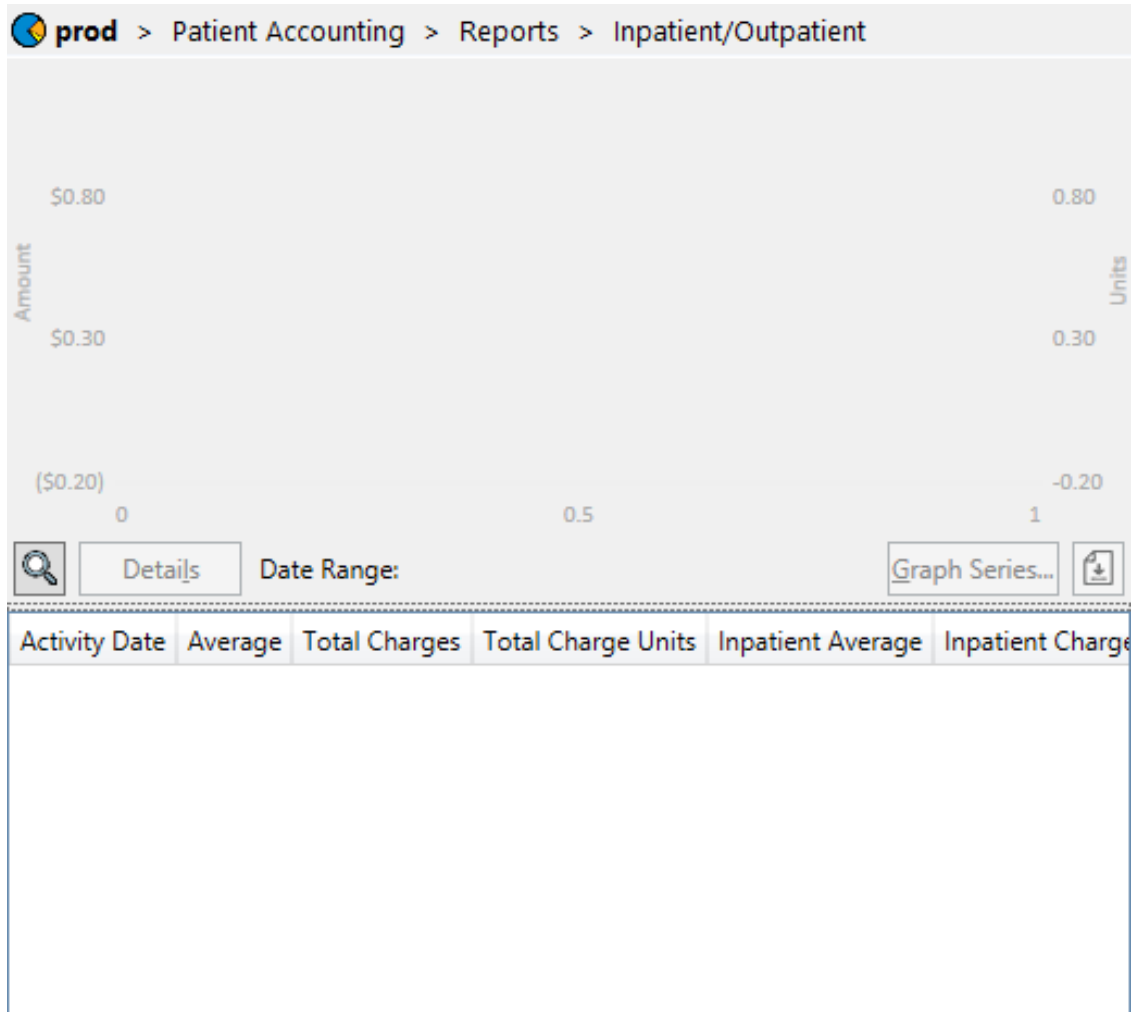


Figure 507: Inpatient/Outpatient Control

Executing Reports

To execute a report, click the search button. This will open a search prompt (Figure 508). The prompt allows users to specify date range, optionally filter by billing entity and/or cost center, and choose whether to include a 90-day average.

 Search

Date Range

Last 7 Days

☒ Filter by Cost Center

Excluded:

Name	Description
35005	Omni Consumer Products
35106	Aperture Industries
35125	Blue Sun
35150	ACME

Included:

Name	Description
35105	Umbrella Corporation
35308	Soylent Corporation

☐ Billing Entity

☐ A Fancy Health Center

☒ Include 90-day Rolling Average

OK

Cancel

Figure 508: Inpatient/Outpatient Search

Upon confirming the desired criteria, the control will initiate the search. Once the search has completed, the control will display tabular data in the grid below as well as display it as a line graph in the chart above (Figure 509).

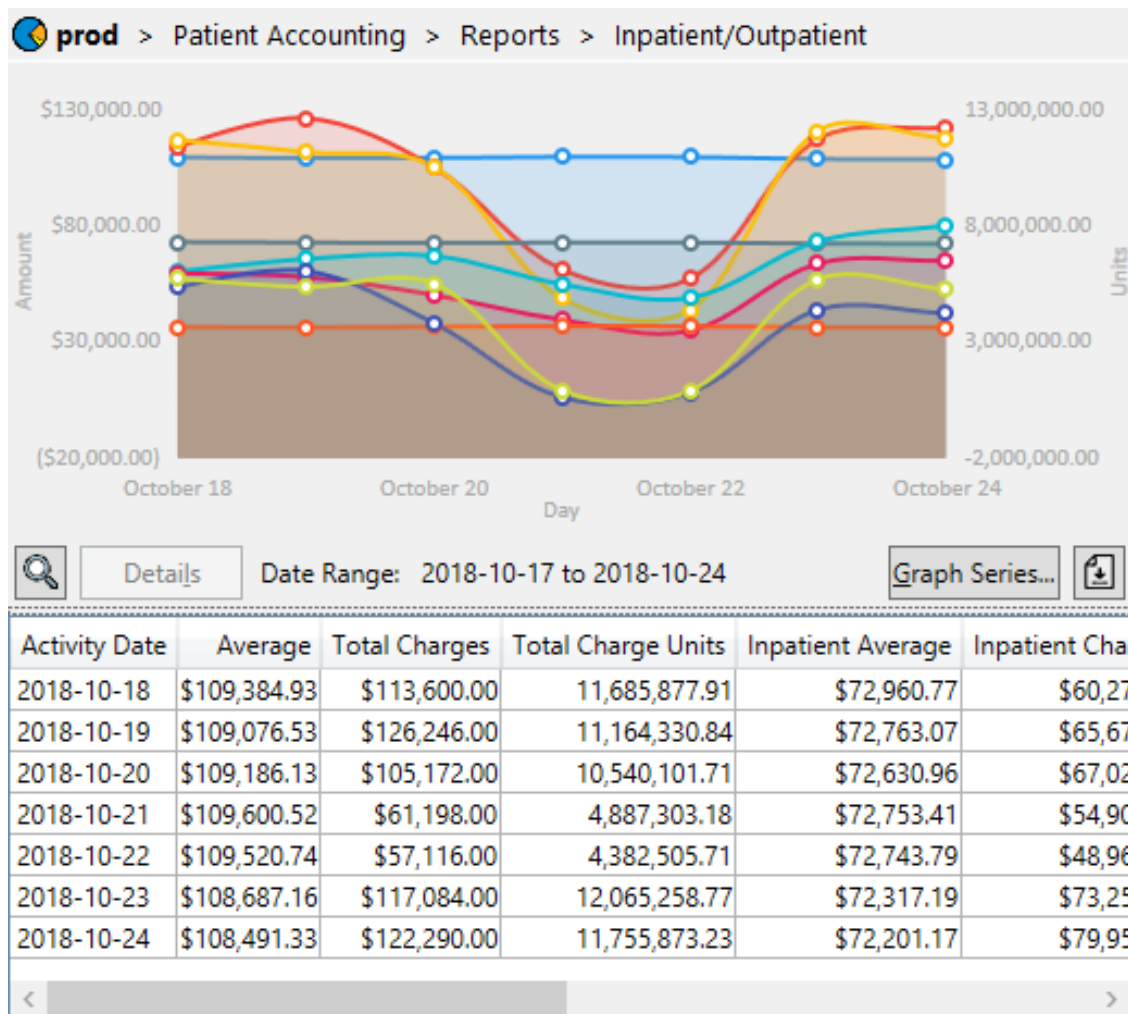


Figure 509: Inpatient/Outpatient Data

Working With Search Results

Once the data has returned, the control provides the ability to filter which series appear in the graph, export the tabular data, or show detailed information for a particular date.

Graph Filtering

By default, the graph displays a line for each column in the tabular data. However, since some columns contain data with different units than others as well as data in different columns sometimes containing data with different magnitude, it can be useful to show only a few lines at a time.

To change what lines appear, click the *Graph Series...* button. This will open a dialog which allows you to select which lines appear in the graph (Figure 510).

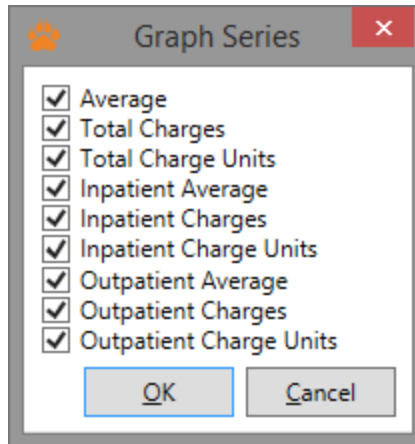


Figure 510: Inpatient/Outpatient Graph Filtering

Exporting Data

The Inpatient/Outpatient control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

Viewing Details

More granular revenue information can be displayed for a specific date by selecting a row and clicking the *Details* button. This opens a dialog that displays charge details ([Figure 511](#)).

Revenue Details						
Patient Type: Both						
FIN	Charge Amount	Quantity	Discharge Date	Service Date	Financial Class	Health I
3000019462	\$7.16	1.00		2018-10-19	Self Pay	Self Pay ^
3000025126	\$9.32	1.00		2018-10-19	Commercial	Cigna
3000025126	(\$9.32)	-1.00		2018-10-19	Commercial	Cigna
3000047157	\$112.00	1.00	2018-10-19	2018-10-19	Medicare Advantage	Humana
3000047157	\$248.00	1.00	2018-10-19	2018-10-19	Medicare Advantage	Humana
3000200517	\$187.00	1.00		2018-10-19	Blue Cross	Highma
3000200517	\$32.00	1.00		2018-10-19	Blue Cross	Highma
3000388346	\$112.00	1.00	2018-10-19	2018-10-19	Commercial	HealthS
3000388346	\$23.00	1.00	2018-10-19	2018-10-19	Commercial	HealthS
3000236437	\$248.00	1.00	2018-10-19	2018-10-19	Medicare	Medicar
3000469298	\$112.00	1.00	2018-10-19	2018-10-19	Medicare	Medicar
3000505291	\$112.00	1.00	2018-10-19	2018-10-19	Medicaid HMO	New Yo
3000505291	\$23.00	1.00	2018-10-19	2018-10-19	Medicaid HMO	New Yo
3000535408	\$23.00	1.00	2018-10-19	2018-10-19	Commercial	UMWA

Figure 511: Inpatient/Outpatient Details

Data can be filtered with the drop-down to display Inpatient data, Outpatient data, or Both (default).
Similar to the main control, the details window also allows you to export data by clicking the export button.

10.11.6 Revenue By Category

The Revenue By Category control displays revenue data for a user-specified period broken-down by a user-specified category along with a grand total for all displayed items.

To view the Revenue By Category control, select the *Revenue By Category* item in the domain explorer (Figure 512).

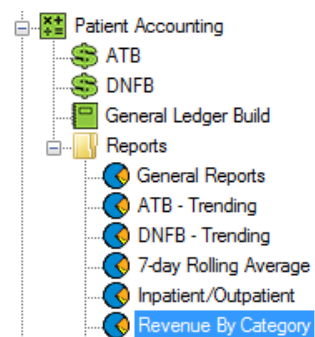


Figure 512: Domain Explorer

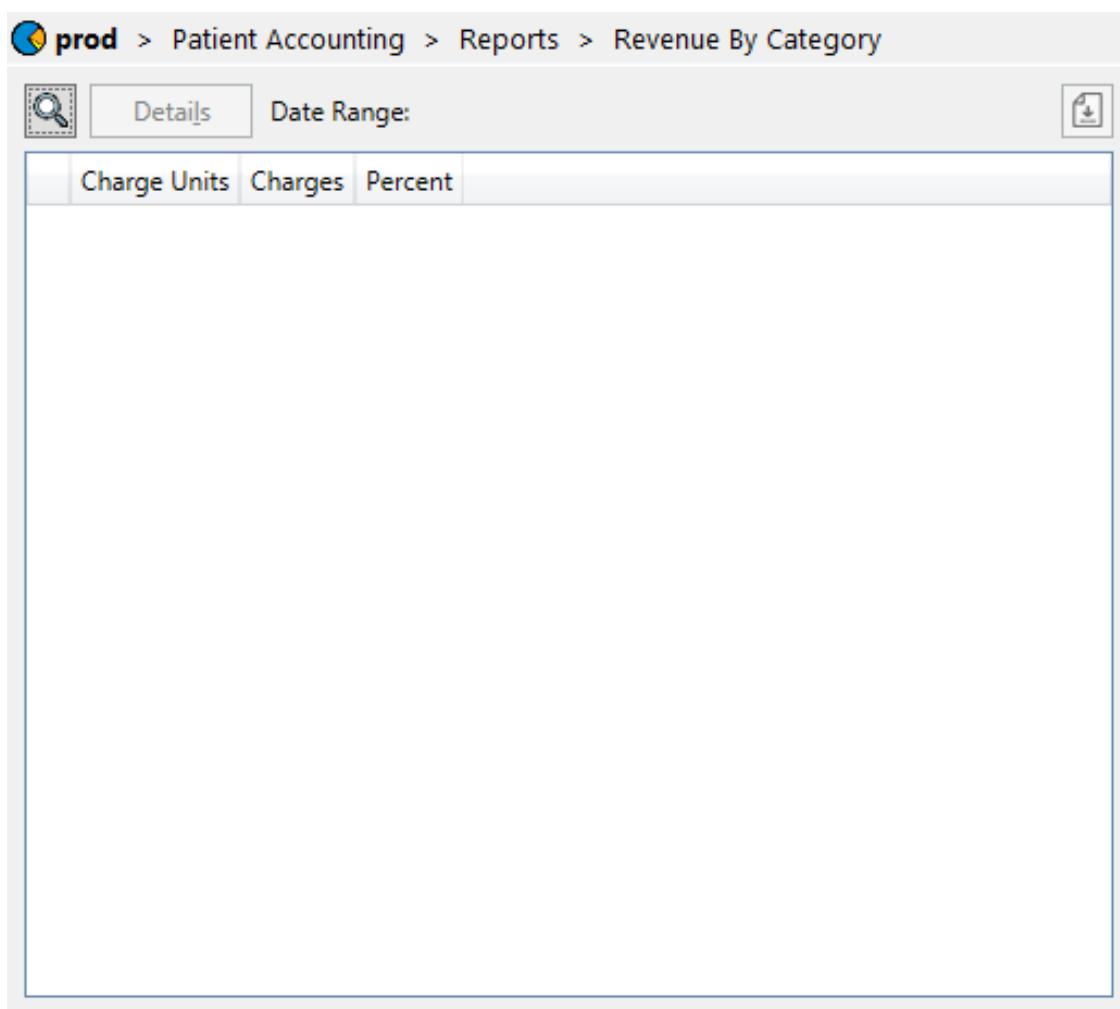


Figure 513: Revenue By Category Control

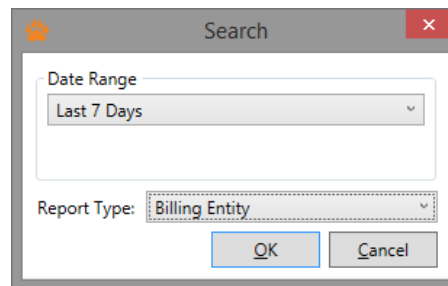
Executing Reports

To execute a report, click the search button. This will open a search prompt (Figure 514).

Upon confirming the desired date range and report type, the control will initiate the search. Once the search has completed, the control will display tabular data in the grid below (Figure 515).

Available Report Types:

- Billing Entity
- Financial Class
- Medical Service

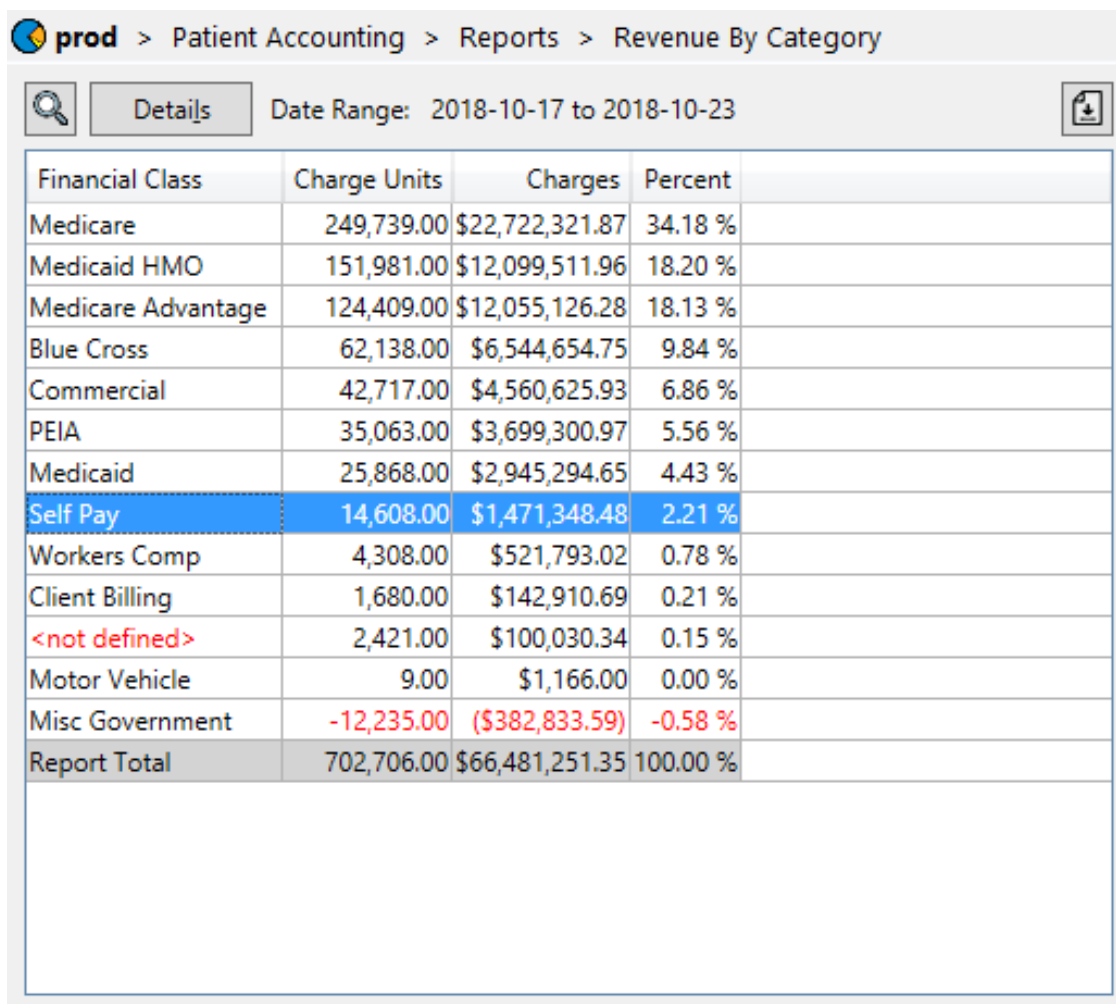
A search dialog box titled "Search" with a close button (X) in the top right corner. It contains a "Date Range" dropdown menu currently set to "Last 7 Days". Below this is a "Report Type:" label followed by a text box containing "Billing Entity". At the bottom right are "OK" and "Cancel" buttons.

Date Range
Last 7 Days

Report Type: Billing Entity

OK Cancel

Figure 514: Revenue By Category Search

A screenshot of a web application showing a report titled "Revenue By Category". The breadcrumb navigation is "prod > Patient Accounting > Reports > Revenue By Category". The report has a search icon, a "Details" button, and a "Date Range: 2018-10-17 to 2018-10-23" filter. The data is presented in a table with columns: Financial Class, Charge Units, Charges, and Percent. The "Self Pay" row is highlighted in blue. The "Report Total" row is at the bottom. Below the table is a large empty rectangular box.

Financial Class	Charge Units	Charges	Percent
Medicare	249,739.00	\$22,722,321.87	34.18 %
Medicaid HMO	151,981.00	\$12,099,511.96	18.20 %
Medicare Advantage	124,409.00	\$12,055,126.28	18.13 %
Blue Cross	62,138.00	\$6,544,654.75	9.84 %
Commercial	42,717.00	\$4,560,625.93	6.86 %
PEIA	35,063.00	\$3,699,300.97	5.56 %
Medicaid	25,868.00	\$2,945,294.65	4.43 %
Self Pay	14,608.00	\$1,471,348.48	2.21 %
Workers Comp	4,308.00	\$521,793.02	0.78 %
Client Billing	1,680.00	\$142,910.69	0.21 %
<not defined>	2,421.00	\$100,030.34	0.15 %
Motor Vehicle	9.00	\$1,166.00	0.00 %
Misc Government	-12,235.00	(\$382,833.59)	-0.58 %
Report Total	702,706.00	\$66,481,251.35	100.00 %

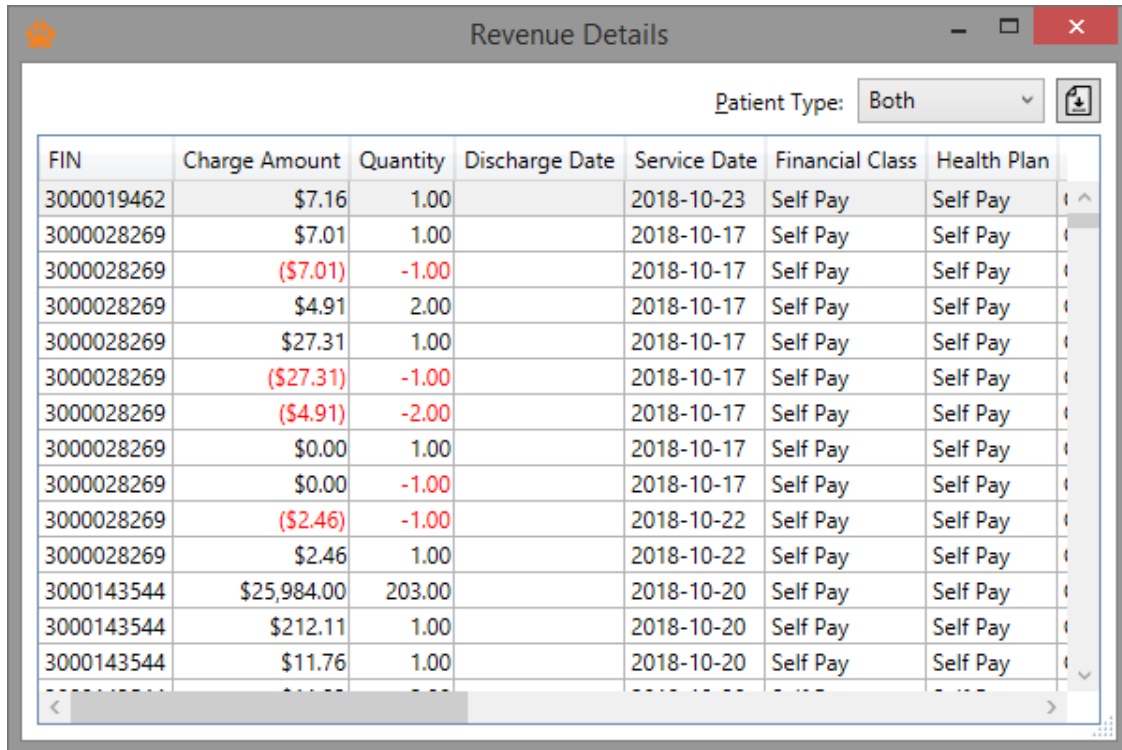
Figure 515: Revenue By Category Data

Working With Search Results

Once the data has returned, the control provides the ability to show detailed information for a particular row or export the tabular data.

Viewing Details

More granular revenue information can be displayed for a specific row by selecting it and clicking the *Details* button. This opens a dialog that displays charge details (Figure 516).



FIN	Charge Amount	Quantity	Discharge Date	Service Date	Financial Class	Health Plan
3000019462	\$7.16	1.00		2018-10-23	Self Pay	Self Pay
3000028269	\$7.01	1.00		2018-10-17	Self Pay	Self Pay
3000028269	(\$7.01)	-1.00		2018-10-17	Self Pay	Self Pay
3000028269	\$4.91	2.00		2018-10-17	Self Pay	Self Pay
3000028269	\$27.31	1.00		2018-10-17	Self Pay	Self Pay
3000028269	(\$27.31)	-1.00		2018-10-17	Self Pay	Self Pay
3000028269	(\$4.91)	-2.00		2018-10-17	Self Pay	Self Pay
3000028269	\$0.00	1.00		2018-10-17	Self Pay	Self Pay
3000028269	\$0.00	-1.00		2018-10-17	Self Pay	Self Pay
3000028269	(\$2.46)	-1.00		2018-10-22	Self Pay	Self Pay
3000028269	\$2.46	1.00		2018-10-22	Self Pay	Self Pay
3000143544	\$25,984.00	203.00		2018-10-20	Self Pay	Self Pay
3000143544	\$212.11	1.00		2018-10-20	Self Pay	Self Pay
3000143544	\$11.76	1.00		2018-10-20	Self Pay	Self Pay

Figure 516: Revenue By Category Details

Data can be filtered with the drop-down to display Inpatient data, Outpatient data, or Both (default).

Similar to the main control, the details window also allows you to export data by clicking the export button.

Exporting Data

The Revenue By Category control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

10.11.7 Revenue By CDM/CPT/HCPCS By Cost Center

The Revenue By CDM/CPT/HCPCS By Cost Center control displays revenue data for a user-specified period broken-down by billing entity, cost center, and CDM, CPT, or HCPCS, along with a grand total.

To view the Revenue By CDM/CPT/HCPCS By Cost Center control, select the *Revenue By CDM/CPT/HCPCS By Cost Center* item in the domain explorer (Figure 517).

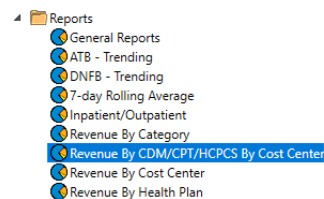


Figure 517: Domain Explorer

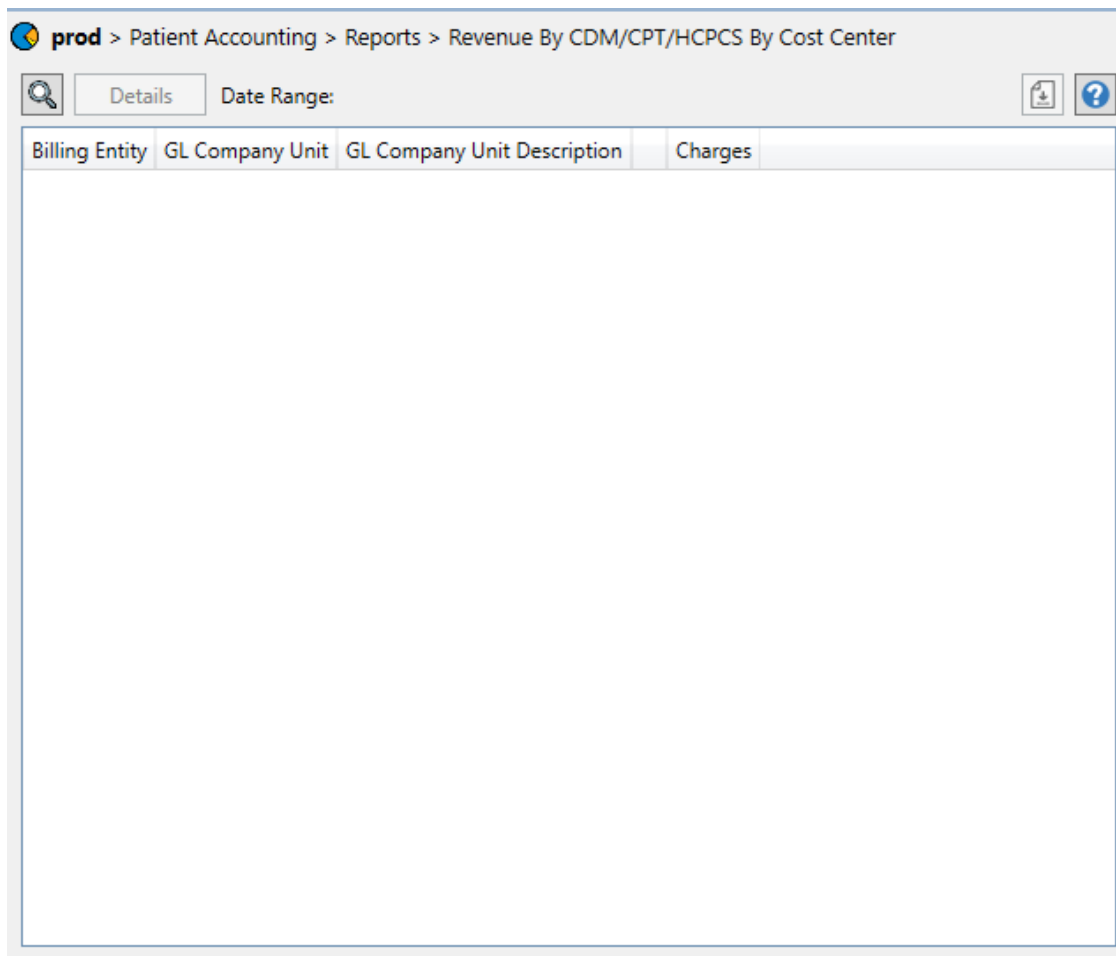


Figure 518: Revenue By CDM/CPT/HCPCS By Cost Center Control

Executing Reports

To execute a report, click the search button. This will open a search prompt (Figure 519).

Upon confirming the desired date range and optional company unit filter, the control will initiate the search. Once the search has completed, the control will display tabular data in the grid below (Figure 520).

 Search

Date Range

Last 7 Days

Search Date:

Activity Date

Grouping Column:

HCPSC

Cost Center

Primary Health Plan

☐ Filter by Cost Center

Excluded:

Name	Description
35005	Omni Consumer Products
35105	Umbrella Corporation
35106	Aperture Industries
35125	Blue Sun

Included:

Name	Description

☐ Billing Entity

☒ A Fancy Health Center

OK

Cancel

Figure 519: Revenue By CDM/CPT/HCPSC By Cost Center Search

prod > Patient Accounting > Reports > Revenue By CDM/CPT/HCPCS By Cost Center

Details Date Range: 2023-05-31 to 2023-06-06

Billing Entity	GL Company Unit	GL Company Unit Description	CDM	Charges	
Independent Provider	42738	MomCorp	30111	\$666,540.00	^
Soylent Hospitals	67263	Blue Sun	8016108	\$489,708.00	
Soylent Hospitals	35005	Omni Consumer Products	7650941	\$452,401.00	
Soylent Hospitals	41562	Tyrell Corporation	1779400	\$349,056.00	
Soylent Hospitals	42514	Soylent Corporation	7351111	\$326,469.00	
Soylent Hospitals	41562	Tyrell Corporation	7266782	\$280,027.75	
Soylent Hospitals	47548	Essex Corporation	1169062	\$266,175.00	
Soylent Hospitals	42514	Soylent Corporation	4192196	\$238,995.00	
Independent Provider	41462	Essex Corporation	8016108	\$190,676.00	
Independent Provider	67281	Weyland-Yutani	1027768	\$187,496.00	
Soylent Hospitals	41518	Yoyodine	7351111	\$184,923.00	
Soylent Hospitals	43206	Essex Corporation	1169869	\$183,420.00	
Soylent Hospitals	41512	Zorg Industries	1169869	\$183,420.00	
Soylent Hospitals	41534	Weyland-Yutani	7382796	\$167,825.00	
Independent Provider	35490	LexCorp	7650941	\$164,188.00	
Soylent Hospitals	35150	ACME	1169869	\$163,040.00	
Soylent Hospitals	47548	Essex Corporation	7360875	\$155,620.00	
Soylent Hospitals	47548	Essex Corporation	7398318	\$144,238.00	
Soylent Hospitals	42514	Soylent Corporation	8487511	\$136,300.00	
Soylent Hospitals	42550	Black Mesa	8138654	\$134,469.00	
Soylent Hospitals	42318	ACME	5267130	\$131,963.50	
Independent Provider	42500	Godfrey Institute	32310765	\$131,404.00	
Soylent Hospitals	42562	LexCorp	8138654	\$129,117.00	v

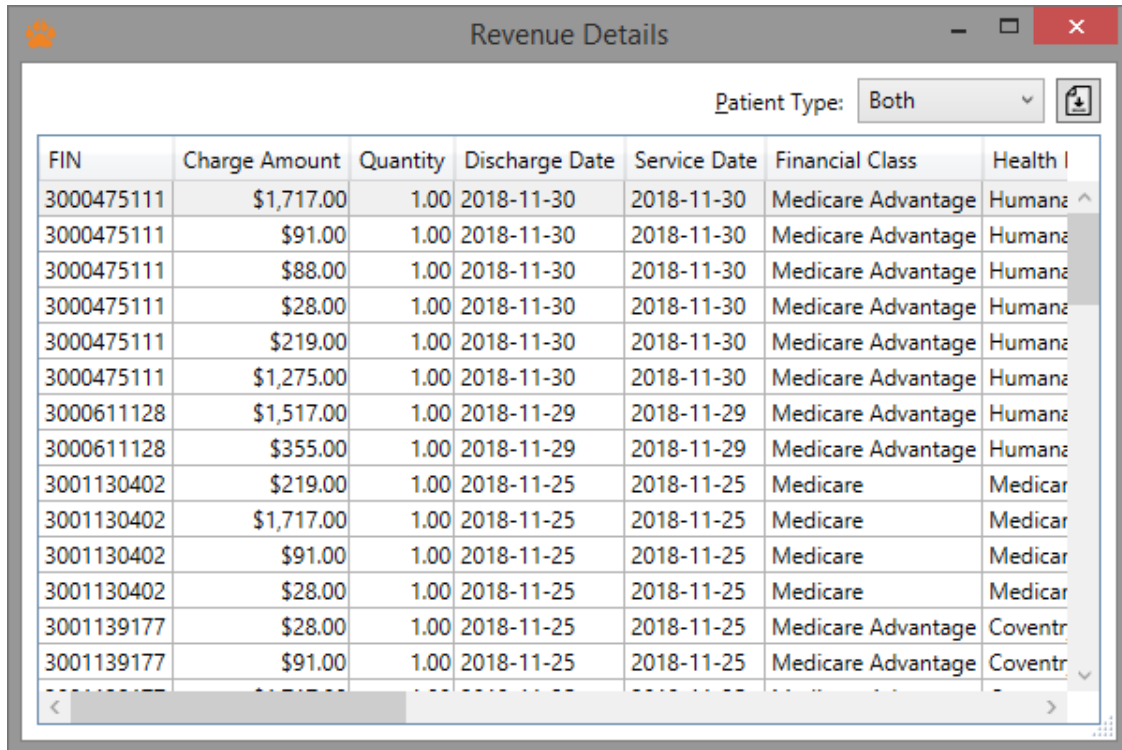
Figure 520: Revenue By CDM/CPT/HCPCS By Cost Center Data

Working With Search Results

Once the data has returned, the control provides the ability to show detailed information for a particular row or export the tabular data.

Viewing Details

More granular revenue information can be displayed for a specific row by selecting it and clicking the *Details* button. This opens a dialog that displays charge details (Figure 521).



The image shows a software window titled "Revenue Details". At the top right, there is a "Patient Type:" dropdown menu set to "Both" and an export button (a document icon with a download arrow). Below this is a table with the following columns: FIN, Charge Amount, Quantity, Discharge Date, Service Date, Financial Class, and Health I. The table contains 16 rows of data. The first 8 rows have FIN values 3000475111, 3000611128, and 3001130402. The last 8 rows have FIN values 3001130402 and 3001139177. The table is scrollable, with horizontal and vertical scroll bars visible at the bottom.

FIN	Charge Amount	Quantity	Discharge Date	Service Date	Financial Class	Health I
3000475111	\$1,717.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$91.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$88.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$28.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$219.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$1,275.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000611128	\$1,517.00	1.00	2018-11-29	2018-11-29	Medicare Advantage	Humana
3000611128	\$355.00	1.00	2018-11-29	2018-11-29	Medicare Advantage	Humana
3001130402	\$219.00	1.00	2018-11-25	2018-11-25	Medicare	Medicare
3001130402	\$1,717.00	1.00	2018-11-25	2018-11-25	Medicare	Medicare
3001130402	\$91.00	1.00	2018-11-25	2018-11-25	Medicare	Medicare
3001130402	\$28.00	1.00	2018-11-25	2018-11-25	Medicare	Medicare
3001139177	\$28.00	1.00	2018-11-25	2018-11-25	Medicare Advantage	Coventry
3001139177	\$91.00	1.00	2018-11-25	2018-11-25	Medicare Advantage	Coventry

Figure 521: Revenue By CDM/CPT/HCPCS By Cost Center Details

Data can be filtered with the drop-down to display Inpatient data, Outpatient data, or Both (default).

Similar to the main control, the details window also allows you to export data by clicking the export button.

Exporting Data

The Revenue By CDM/CPT/HCPCS By Cost Center control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in CSV or Excel® format.

10.11.8 Revenue By Cost Center

The Revenue By Cost Center control displays revenue data for a user-specified period broken-down by cost center along with a grand total for all displayed cost centers.

To view the Revenue By Cost Center control, select the *Revenue By Cost Center* item in the domain explorer (Figure 522).

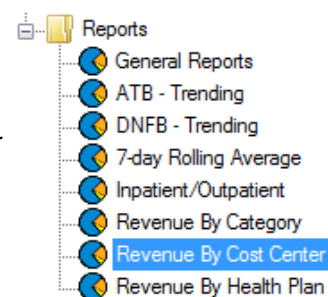


Figure 522: Domain Explorer

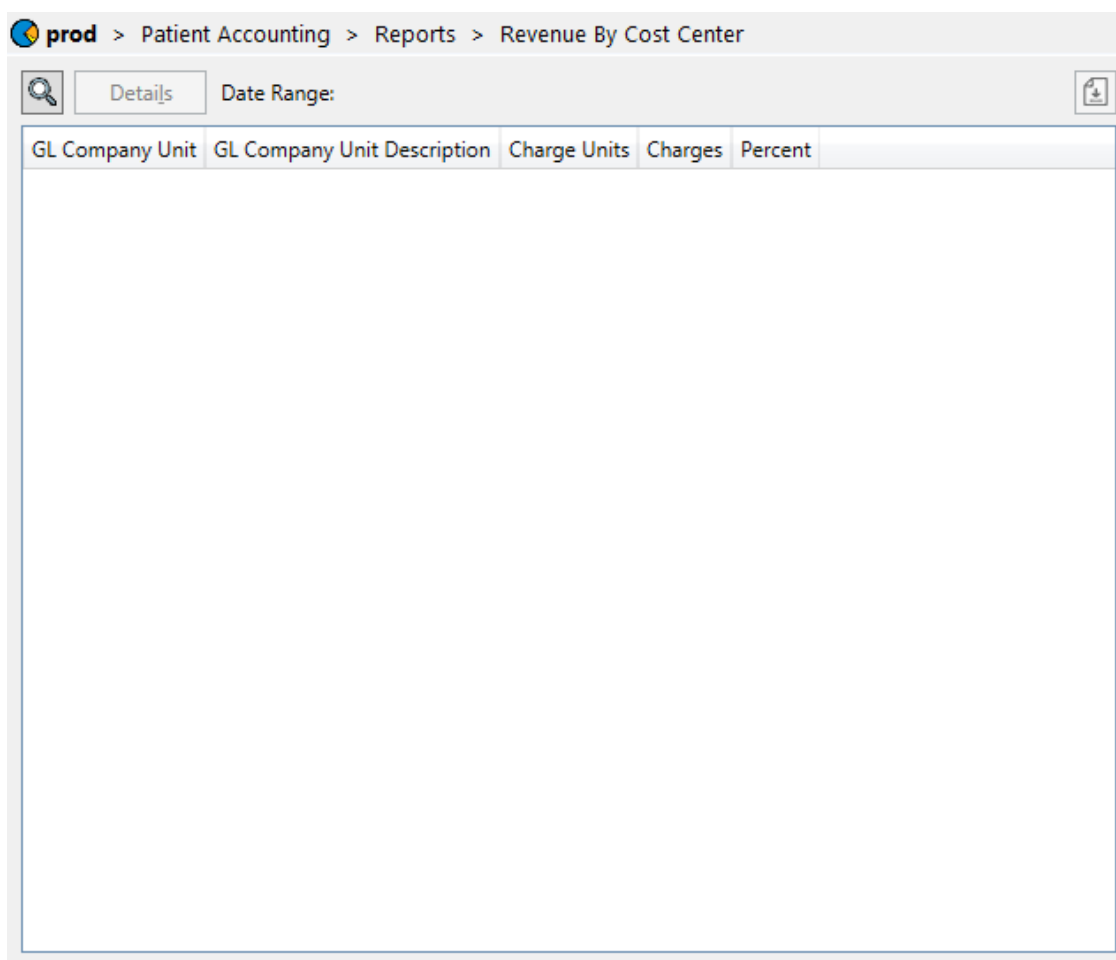


Figure 523: Revenue By Cost Center Control

Executing Reports

To execute a report, click the search button. This will open a search prompt (Figure 524).

Upon confirming the desired date range and optional company unit filter, the control will initiate the search.

Once the search has completed, the control will display tabular data in the grid below (Figure 525).

Search

Date Range

Custom...

2018-11-15 to 2018-11-30

☒ Filter by Cost Center

Excluded:

Name	Description
35639	LexCorp
35662	Cyberdine Systems
41005	Umbrella Corporation
41006	Zorg Industries
41026	OsCorp
41032	Umbrella Corporation
41042	MomCorp
41052	Omni Consumer Products

Included:

Name	Description
35106	Apterture Industries
35220	Tyrell Corporation
35308	Soylent Corporation
35310	Umbrella Corporation
35490	LexCorp
35502	Essex Corporation
35512	PharmaKom Industries
35516	Cyberdine Systems

OK Cancel

Figure 524: Revenue By Cost Center Search

prod > Patient Accounting > Reports > Revenue By Cost Center



 Date Range: 2018-11-15 to 2018-11-30
 

GL Company Unit	GL Company Unit Description	Charge Units	Charges	Percent	
35516	Cyberdine Systems	6,258.00	\$597,778.00	52.15 %	
35738	Yoyodine	76.00	\$178,343.43	15.56 %	
35512	PharmaKom Industries	131.00	\$117,115.00	10.22 %	
35106	Apterture Industries	370.00	\$80,285.00	7.00 %	
35502	Essex Corporation	488.00	\$77,764.32	6.78 %	
35308	Soylent Corporation	63.00	\$43,492.00	3.79 %	
35220	Tyrell Corporation	1,390.00	\$29,190.00	2.55 %	
35490	LexCorp	28.00	\$18,228.00	1.59 %	
35310	Umbrella Corporation	37.00	\$4,144.00	0.36 %	
Report Total		8,841.00	\$1,146,339.75	100.00 %	

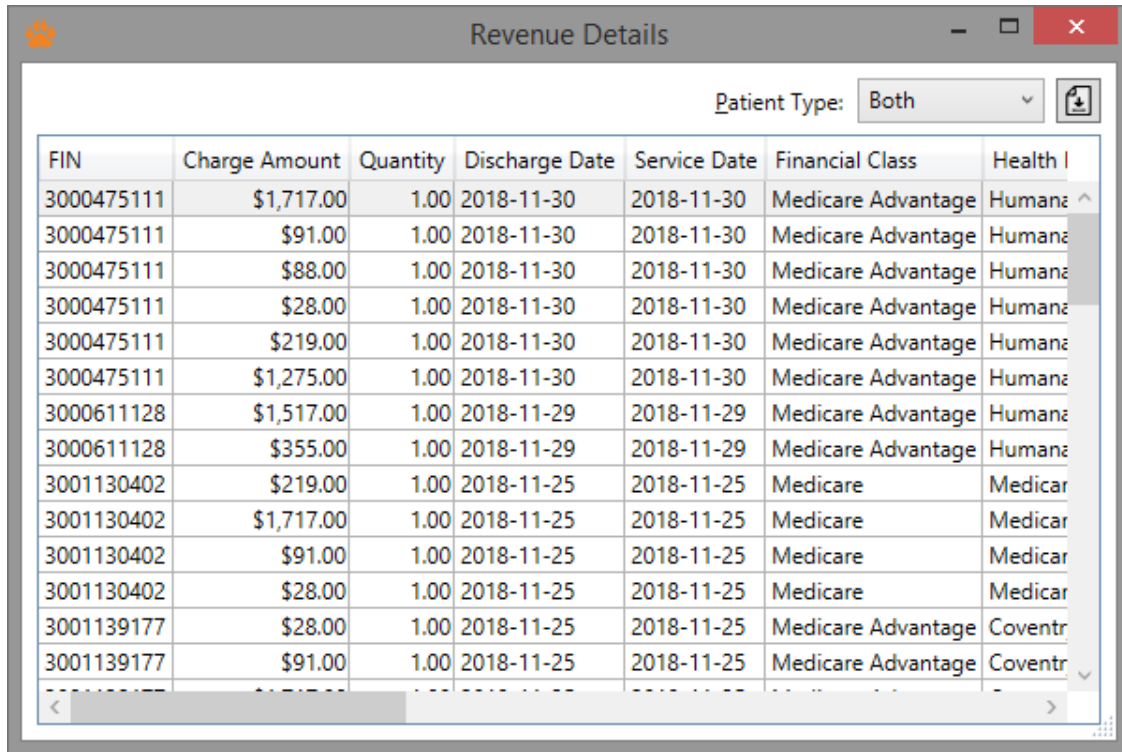
Figure 525: Revenue By Cost Center Data

Working With Search Results

Once the data has returned, the control provides the ability to show detailed information for a particular row or export the tabular data.

Viewing Details

More granular revenue information can be displayed for a specific row by selecting it and clicking the *Details* button. This opens a dialog that displays charge details (Figure 526).



The image shows a window titled "Revenue Details" with a close button in the top right corner. Below the title bar, there is a "Patient Type:" label followed by a dropdown menu set to "Both" and an export button (a document icon with a download arrow). The main area of the window contains a table with the following columns: FIN, Charge Amount, Quantity, Discharge Date, Service Date, Financial Class, and Health I. The table lists 16 rows of data, with the last row partially obscured by a scrollbar. The data includes various FIN numbers, charge amounts, quantities, and dates from 2018-11-25 to 2018-11-30. Financial classes include Medicare Advantage, Medicare, and Coventry. The Health I column has values like Humana and Coventry.

FIN	Charge Amount	Quantity	Discharge Date	Service Date	Financial Class	Health I
3000475111	\$1,717.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$91.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$88.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$28.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$219.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000475111	\$1,275.00	1.00	2018-11-30	2018-11-30	Medicare Advantage	Humana
3000611128	\$1,517.00	1.00	2018-11-29	2018-11-29	Medicare Advantage	Humana
3000611128	\$355.00	1.00	2018-11-29	2018-11-29	Medicare Advantage	Humana
3001130402	\$219.00	1.00	2018-11-25	2018-11-25	Medicare	Medicar
3001130402	\$1,717.00	1.00	2018-11-25	2018-11-25	Medicare	Medicar
3001130402	\$91.00	1.00	2018-11-25	2018-11-25	Medicare	Medicar
3001130402	\$28.00	1.00	2018-11-25	2018-11-25	Medicare	Medicar
3001139177	\$28.00	1.00	2018-11-25	2018-11-25	Medicare Advantage	Coventr
3001139177	\$91.00	1.00	2018-11-25	2018-11-25	Medicare Advantage	Coventr

Figure 526: Revenue By Cost Center Details

Data can be filtered with the drop-down to display Inpatient data, Outpatient data, or Both (default).

Similar to the main control, the details window also allows you to export data by clicking the export button.

Exporting Data

The Revenue By Cost Center control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in CSV or Excel® format.

10.11.9 Revenue By Health Plan

The Revenue By Health Plan control displays revenue data for a user-specified period broken-down by Health Plan, Primary Health Plan, and Responsible Health Plan. It also optionally displays subtotals for each Health Plan.

To view the Revenue By Health Plan control, select the *Revenue By Health Plan* item in the domain explorer (Figure 527).

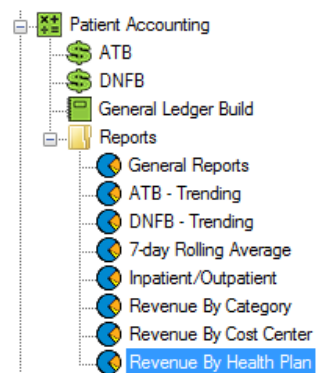


Figure 527: Domain Explorer

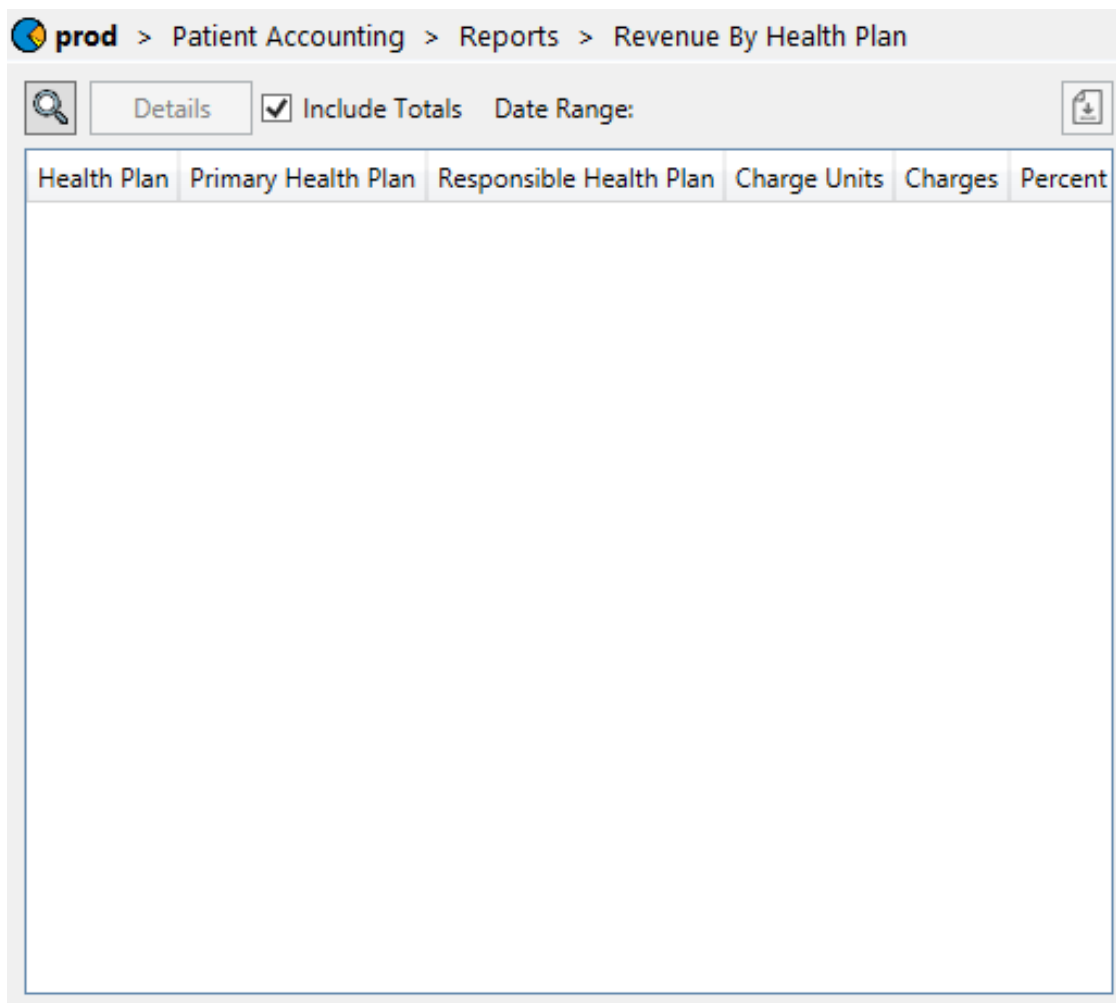


Figure 528: Revenue By Health Plan Control

Executing Reports

To execute a report, click the search button. This will open a search prompt ([Figure 529](#)).

Upon confirming the desired date range, the control will initiate the search. Once the search has completed, the control will display tabular data in the grid below ([Figure 530](#)).

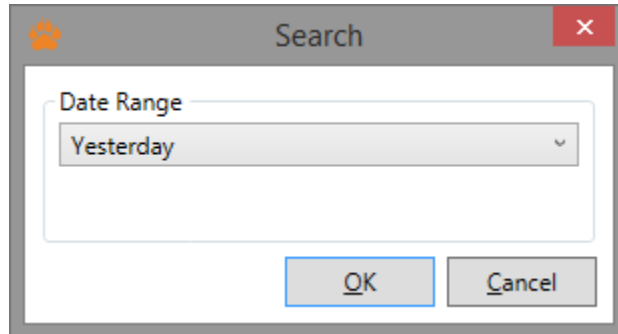


Figure 529: Revenue By Health Plan Search

prod > Patient Accounting > Reports > Revenue By Health Plan

☒ Include Totals
 Date Range: 2018-10-23 to 2018-10-24

Health Plan	Primary Health Plan
<empty>	<not defined>
<empty>	Total
AARP Health Care Options (Medicare Supplement)	AARP Health Care Options (Medicare Supplement)
AARP Health Care Options (Medicare Supplement)	Total
AARP Medicare Complete (Medicare Advantage)	<not defined>
AARP Medicare Complete (Medicare Advantage)	AARP Medicare Complete (Medicare Advantage)
AARP Medicare Complete (Medicare Advantage)	Total
Accident Fund Insurance Company of American Workers Comp	Accident Fund Insurance Company of American Workers Comp
Accident Fund Insurance Company of American Workers Comp	Total
ACS Benefit	ACS Benefit
ACS Benefit	Total
Administrative Concepts, Inc	Administrative Concepts, Inc
Administrative Concepts, Inc	Total
Aetna	<not defined>
Aetna	Aetna
Aetna	Aetna
Aetna	Aetna
Aetna	Aetna Medicare Advantage

Figure 530: Revenue By Health Plan Data

Working With Search Results

Once the data has returned, the control provides the ability to export the tabular data, show or hide total rows, or show detailed information for a particular row.

Exporting Data

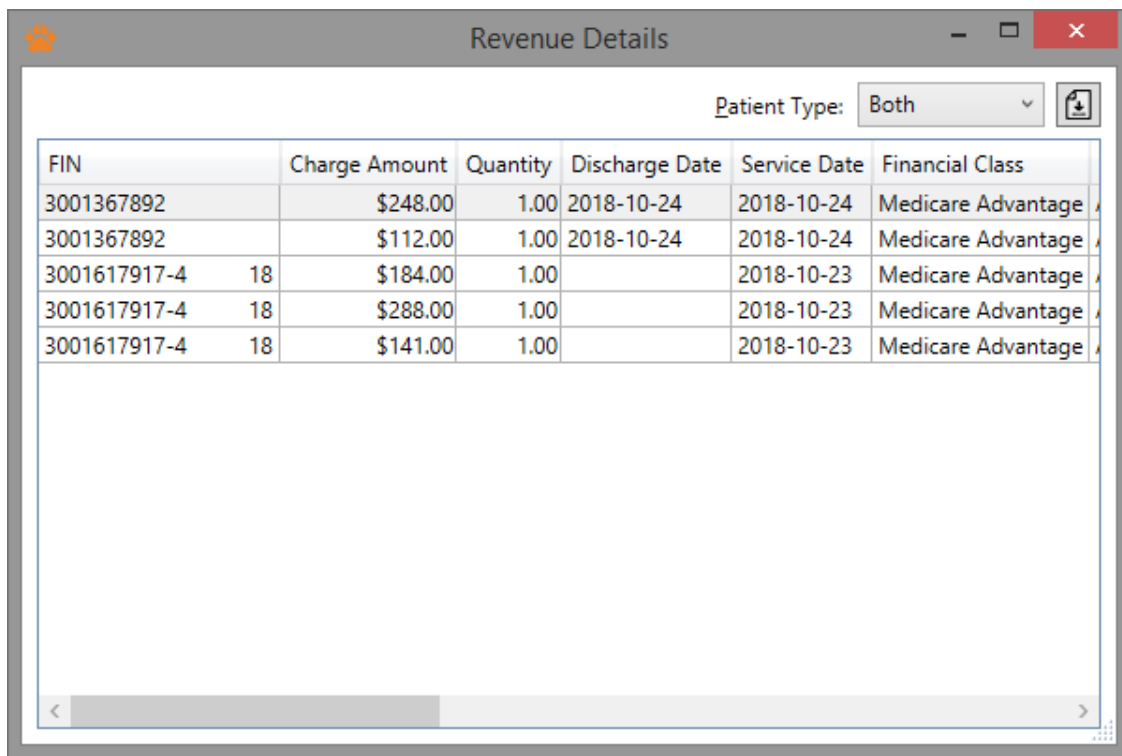
The Revenue By Health Plan control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

Total Filtering

By default, the grid displays a subtotal row for each Health Plan. However, when exporting, it may be preferable to include only the raw data. As such, total rows can be hidden by unchecking the *Include Totals* check box.

Viewing Details

More granular revenue information can be displayed for a specific row by selecting it and clicking the *Details* button. This opens a dialog that displays charge details ([Figure 531](#)).



The image shows a window titled "Revenue Details" with a close button in the top right corner. Inside the window, there is a "Patient Type:" label followed by a dropdown menu set to "Both" and an export button (a document icon with a download arrow). Below this is a table with the following data:

FIN		Charge Amount	Quantity	Discharge Date	Service Date	Financial Class
3001367892		\$248.00	1.00	2018-10-24	2018-10-24	Medicare Advantage
3001367892		\$112.00	1.00	2018-10-24	2018-10-24	Medicare Advantage
3001617917-4	18	\$184.00	1.00		2018-10-23	Medicare Advantage
3001617917-4	18	\$288.00	1.00		2018-10-23	Medicare Advantage
3001617917-4	18	\$141.00	1.00		2018-10-23	Medicare Advantage

Below the table is a large empty rectangular area, and at the bottom is a horizontal scrollbar.

Figure 531: Revenue By Health Plan Details

Data can be filtered with the drop-down to display Inpatient data, Outpatient data, or Both (default).

Similar to the main control, the details window also allows you to export data by clicking the export button.

10.11.10 Adjustments by Reason

The Adjustments by Reason control displays revenue adjustment data for a user-specified period broken-down by reason along with a grand total for all displayed adjustment reasons.

To view the Adjustments by Reason control, select the *Adjustments by Reason* item in the domain explorer (Figure 532).

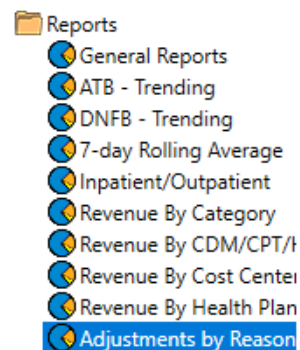


Figure 532: Domain Explorer

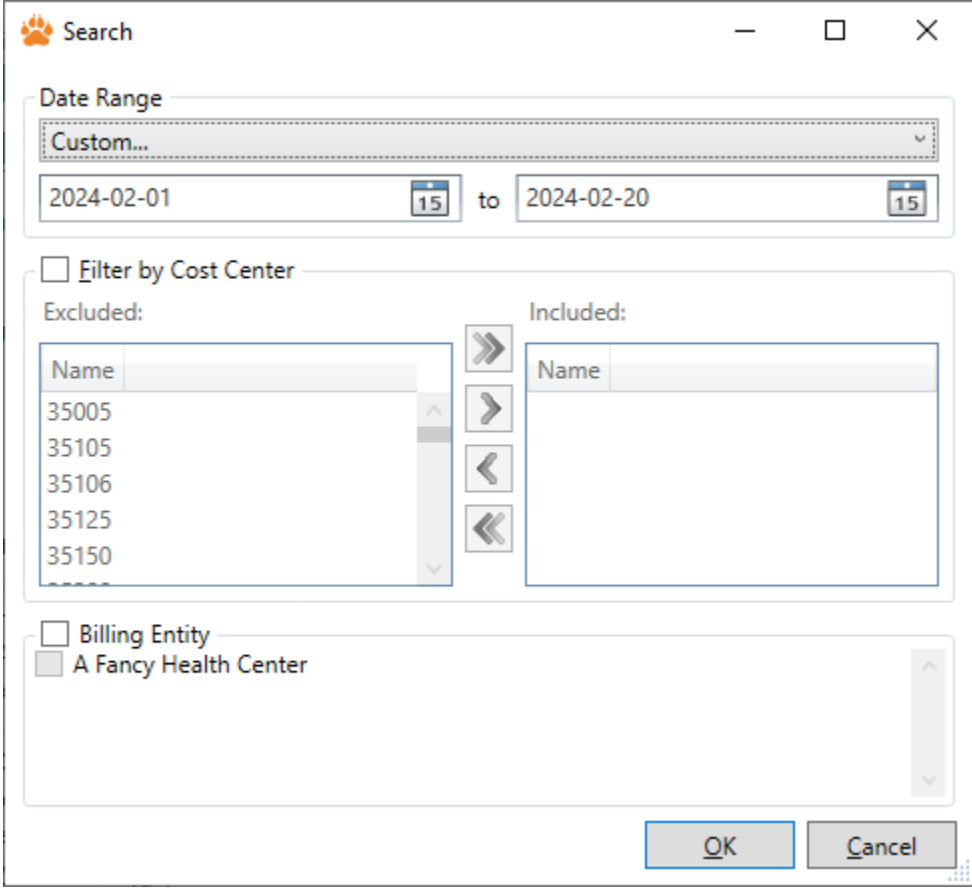
prod > Patient Accounting > Reports > Adjustments by Reason				
Date Range: 2024-02-01 to 2024-02-20				
Adjustment Reason	Count	Total Amount	Percent	
PROCEXCESSCH/Processed in Excess of charges	417	\$669,170.56	-8.61%	
MAJMEDADJ/Major Medical Adjustment	2	\$5,448.66	-0.07%	
CLMNEGDISC/Claim specific negotiated discount	2	\$0.00	0.00%	
197/Precert/auth/notification absen	1	(\$110.00)	0.00%	
CONTRACTADJ/Contractual adjustment	1	(\$426.15)	0.01%	
303/Pt resp not cover Medicare/Medicaid Bene	4	(\$699.44)	0.01%	
PROVPROMODIS/Provider promotional discount	93	(\$3,934.71)	0.05%	
CHGADJMULTI/Chgs adj-multi surg rules/concur anesthe	2	(\$4,015.28)	0.05%	
234/This proc is not paid separately	7	(\$10,960.08)	0.14%	
253/Sequestration - reduced federal spend	587	(\$26,058.93)	0.34%	
PMTINCLDOTR/Pmt included in allow for other svc/proc	1,236	(\$3,316,960.76)	42.70%	
CHGEXCTLEGIS/Chgs exceed contract/legsltd fee arrange	2,089	(\$5,079,942.78)	65.39%	
Report Total	4,441	(\$7,768,488.91)	100.00%	

Figure 533: Adjustments by Reason Control

Executing Reports

To execute a report, click the search button. This will open a search prompt ([Figure 534](#)).

Upon confirming the desired date range and optional company unit and billing entity filters, the control will initiate the search. Once the search has completed, the control will display tabular data in the grid below. ([Figure 533](#)).



The image shows a 'Search' dialog box with a paw print icon in the top-left corner. The dialog has standard window controls (minimize, maximize, close) in the top-right. It contains the following sections:

- Date Range:** A dropdown menu set to 'Custom...'. Below it, two date pickers show '2024-02-01' and '2024-02-20', each with a calendar icon.
- Filter by Cost Center:** An unchecked checkbox. Below it, two list boxes are separated by four arrow buttons (double right, single right, single left, double left).
 - Excluded:** A list box containing the following items:

Name
35005
35105
35106
35125
35150
 - Included:** An empty list box with a header 'Name'.
- Billing Entity:** An unchecked checkbox. Below it, a list box contains the item 'A Fancy Health Center'.

At the bottom right, there are 'OK' and 'Cancel' buttons.

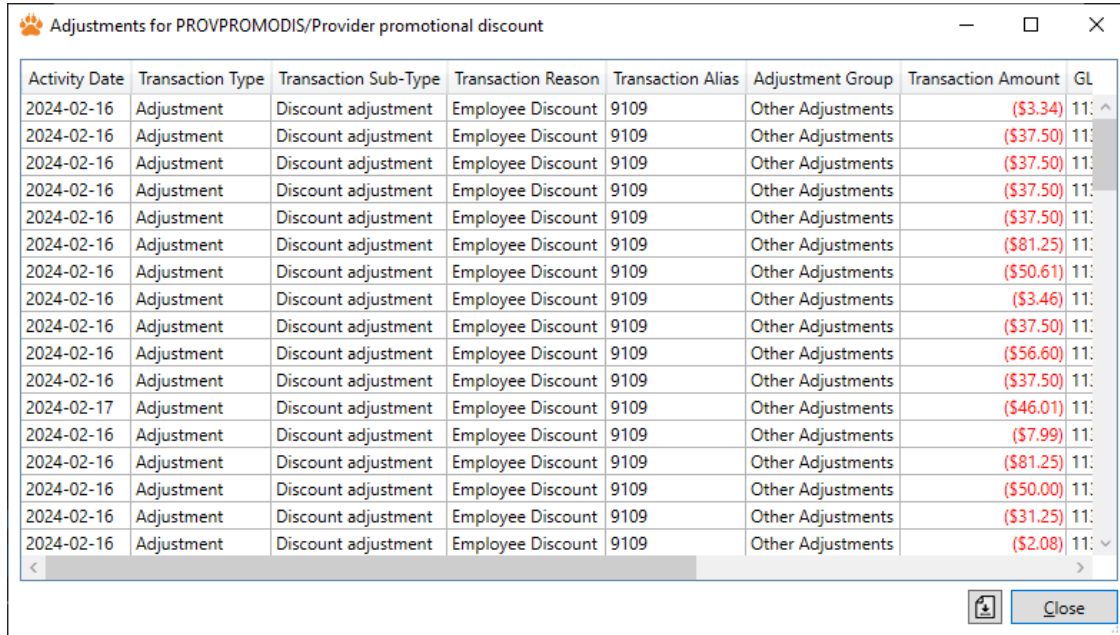
Figure 534: Adjustments by Reason Search

Working With Search Results

Once the data has returned, the control provides the ability to show detailed information for a particular row or export the tabular data.

Viewing Details

More granular revenue information can be displayed for a specific row by selecting it and clicking the *Details* button. This opens a dialog that displays adjustment details (Figure 535).



Activity Date	Transaction Type	Transaction Sub-Type	Transaction Reason	Transaction Alias	Adjustment Group	Transaction Amount	GL
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$3.34)	11: ^
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$37.50)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$37.50)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$37.50)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$37.50)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$81.25)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$50.61)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$3.46)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$37.50)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$56.60)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$37.50)	11:
2024-02-17	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$46.01)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$7.99)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$81.25)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$50.00)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$31.25)	11:
2024-02-16	Adjustment	Discount adjustment	Employee Discount	9109	Other Adjustments	(\$2.08)	11: v

Figure 535: Adjustments by Reason Details

Similar to the main control, the details window also allows you to export data by clicking the export button.

Exporting Data

The Adjustments by Reason control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

10.11.11 Revenue By Service Provider

The Revenue By Service Provider (OHPA) control displays revenue data for a user-specified period broken-down by service provider along with a grand total for all displayed service providers.

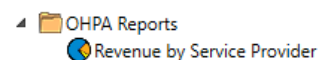


Figure 536: Domain Explorer

To view the Revenue By Service Provider control, select the *Revenue By Service Provider* item in the domain explorer (Figure 536).

A screenshot of the 'Revenue By Service Provider' control. The breadcrumb path at the top is 'prod > Patient Accounting > OHPA Reports > Revenue by Service Provider'. Below the path is a search icon and a 'Date Range:' label. To the right are icons for a file and a help question mark. The main area contains a table with the following headers: 'Service Provider Id', 'Service Provider', 'Unique Encounters', 'Charge Units', 'Charges', and 'Percent'. The table body is currently empty.

Service Provider Id	Service Provider	Unique Encounters	Charge Units	Charges	Percent

Figure 537: Revenue By Service Provider Control

Executing Reports

To execute a report, click the search button. This will open a search prompt (Figure 538).

Upon confirming the desired date range and optional service provider and billing entity filters, the control will initiate the search. Once the search has completed, the control will display tabular data in the grid below (Figure 539).

Search

Date Range

Custom...

10/1/2024 15 to 10/31/2024 15

Search Date: Activity Date

☒ Filter by Service Provider

Excluded:

Name
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Included:

Name
[REDACTED]
[REDACTED]
[REDACTED]

☐ Filter by Receivable Owner

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

OK Cancel

Figure 538: Revenue By Service Provider Search

prod > Patient Accounting > OHPA Reports > Revenue by Service Provider

Date Range: 2/2/2025 to 2/3/2025

Service Provider Id	Service Provider	Unique Encounters	Charge Units	Charges	Percent
8627043635	[REDACTED]	32	10,694.00	\$71,988,088.00	1.70%
8627038770	[REDACTED]	6	7,163.00	\$65,742,014.00	1.55%
8627308055	[REDACTED]	17	9,234.00	\$56,308,690.39	1.33%
8627264807	[REDACTED]	13	7,166.00	\$43,944,178.65	1.03%
8627035562	[REDACTED]	23	11,491.00	\$43,884,129.00	1.03%
8627270111	[REDACTED]	11	7,956.00	\$41,988,573.94	0.99%
8627366261	[REDACTED]	2	2,294.00	\$41,045,395.00	0.97%
8627041972	[REDACTED]	6	4,449.00	\$40,832,922.00	0.96%
8627043526	[REDACTED]	12	4,982.00	\$34,683,556.00	0.82%
8627364733	[REDACTED]	5	4,481.00	\$26,451,837.84	0.62%
8627045131	[REDACTED]	12	3,764.00	\$25,839,358.00	0.61%
8627265436	[REDACTED]	10	6,011.00	\$16,229,700.00	0.38%
All Service Providers		366	427,128.00	\$4,246,759,669.08	100.00%

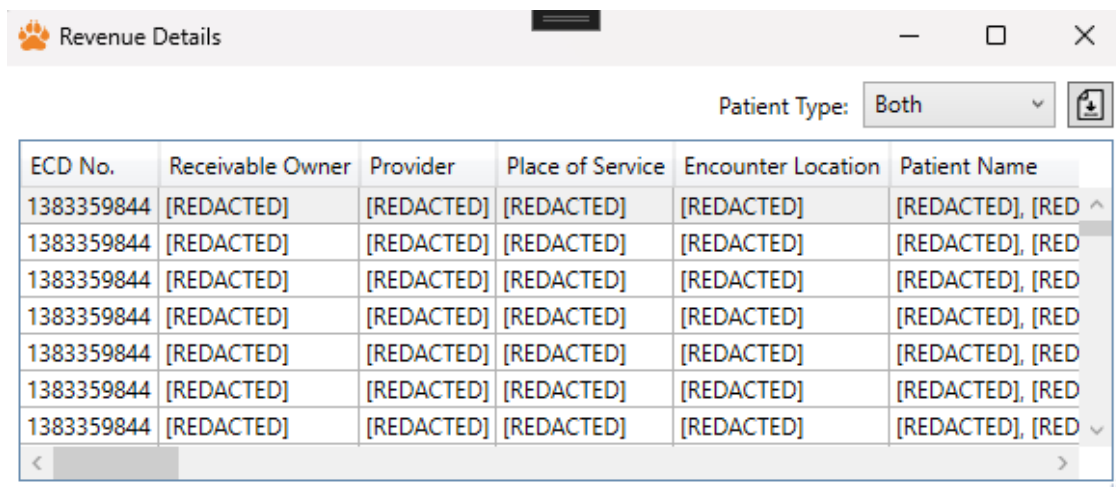
Figure 539: Revenue By Service Provider Data

Working With Search Results

Once the data has returned, the control provides the ability to show detailed information for a particular row or export the tabular data.

Viewing Details

More granular revenue information can be displayed for a specific row by selecting it and clicking the *Details* button. This opens a dialog that displays charge details (Figure 540).



ECD No.	Receivable Owner	Provider	Place of Service	Encounter Location	Patient Name
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED ^
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED
1383359844	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED], [RED v

Figure 540: Revenue By Service Provider Details

Data can be filtered with the drop-down to display Inpatient data, Outpatient data, or Both (default).

Similar to the main control, the details window also allows you to export data by clicking the export button.

Exporting Data

The Revenue By Service Provider control also allows you to export the currently-displayed tabular data. To do so, click the export button. It will then prompt for a file location and save the data in [CSV](#) or Excel® format.

10.12. Work Queue Assignments Control

The Work Queue Assignments control is an interactive tool to view current Alpha Set rules for work queues, see the number of encounters worked based on those rules, create a list of rule changes to make, and simulate what encounters assigned would have looked like based on the planned rule changes.

To view the Work Queue Assignments control, select the *Work Queue Assignments* item in the domain explorer (Figure 541).

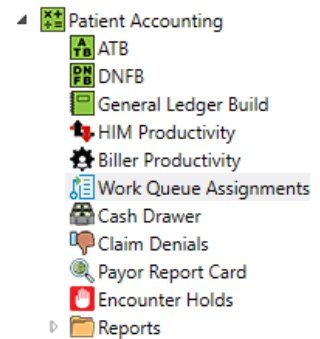


Figure 541: Domain Explorer



No Changes Are Made to Your Millennium® System

All edits and reassignments made within the Work Queue Assignment control are saved to the Panther database. They are used to help you make a list of changes to request. The Work Queue Assignment control does not make any changes to the rules stored in Millennium®.

The current rule values in Millennium® and the planned changes in Panther's database are fetched after every save. To force a new data fetch, click the "Refresh" button in the upper left.

To load one of the views, select it in the tree. The [Queue Assignment Rule Stats](#) view will need to load additional data regarding historical work items, and may take additional time to load.

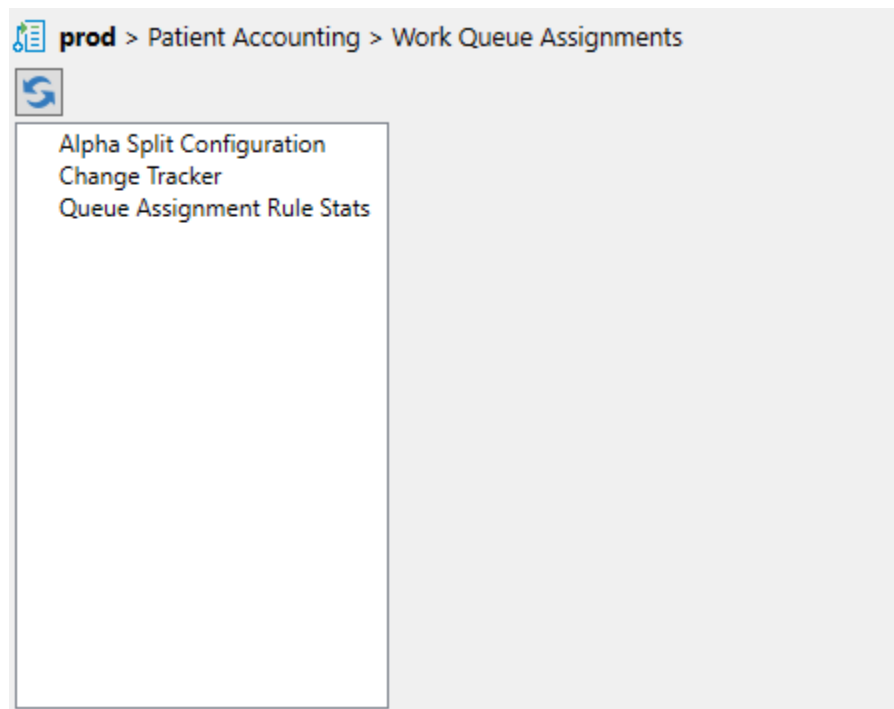


Figure 542: Work Queue Assignments Control

10.12.1 Alpha Split Configuration

Panther reads the assignment rules from the Millennium® database, and tries to group them based on the rule conditions. The Alpha Split Configuration screen lets you see all these rules as they have been grouped, what Alpha Sets they have defined, and who they are assigned to. It also allows options for manipulating these groupings within Panther to aid in planning what rule changes to make.

Name	Status
Current Financial Class: Medicare Advantage	
Current Financial Class: Medicare Advantage (1)	
Current Financial Class: Medicare Advantage (2)	
Current Financial Class: Medicare Advantage (3)	
Current Financial Class: Tricare OR Veterans Administration	
Encounter Type Code: Inpatient OR Emergency OR Observation OR Outpatient OR Outpatient i	
Entity Status: PreRegistration	
Workflow	
Current Financial Class: Agency OR Commercial Insurance OR United and Financial Class: Agen	
Current Financial Class: BCBS OR BCBS OOS OR BCBS UHP OR Workers Compensation	
Current Financial Class: BCBS OR BCBS OOS OR BCBS UHP OR Workers Compensation and Prin	
Current Financial Class: Medicaid OOS and Financial Class: Medicaid OOS and Facility: MCI Fairl	
Current Financial Class: Medicaid OR Medicaid Managed Care and Financial Class: Medicaid OF	

Current Financial Class: Medicare Advantage (1)

Used at:

- Encounter
 - Demographic Modifications
 - Billing Entity ID: Children and Womens or Medical
 - Current Financial Class: Medicare Advantage - I
 - Encounter Combines
 - Billing Entity ID: Children and Womens or Medical
 - Current Financial Class: Medicare Advantage - I

Alpha Set:

- ☐ Patient Last Name: A to B - Beier, Gia
- ☐ Patient Last Name: C to Czz - McCullough, Mack
- ☐ Patient Last Name: D to F - McCullough, Mack
- ☐ Patient Last Name: G to Gzz - Moen, Jamison
- ☐ Patient Last Name: H to Hzz - Moen, Jamison
- ☐ Patient Last Name: I to J - Moen, Jamison
- ☐ Patient Last Name: K to L - Ratke, Shakira
- ☐ Patient Last Name: M to O - Witting, Cody
- ☐ Patient Last Name: P to R - Ratke, Shakira
- ☐ Patient Last Name: S to Szz - Ernser, Ozella
- ☐ Patient Last Name: T to Tzz - Leuschke, Manuela
- ☐ Patient Last Name: U to V - Kunde, Elvis
- ☐ Patient Last Name: W to Z - Leuschke, Manuela

Clear Selection Change Assignments

Figure 543: Alpha Split Configuration

The upper grid shows a list of Alpha Sets, named after their conditions. The first column indicates if an Alpha Set has an error, such as its Alpha Split is missing a range of letters. The name just below this grid reflects the currently selected Alpha Set. To rename the Alpha Set, click the pencil button to the left of the name. Details about the currently selected Alpha Set will be displayed beneath that.

To the right, there is a button to [Split Alpha Set](#). The initial Alpha Sets within Panther are determined by grouping rules with matching Alpha Splits. If you would like to reassign an Alpha Split for only some of the rules in an Alpha Set, you will first need to split those rules into a separate Alpha Set.

The “Remove Alpha Set” button will only be enabled for Alpha Sets defined within Panther (for example, an Alpha Set that is split, or renamed) which do not have any planned assignment changes. Removing an Alpha Set from Panther will cause it to show as it is within the Millennium® database once more. One example of when you may wish to remove an Alpha Set is if you split it to allow differing assignments, but later wish to recombine it.

The [Compare Alpha Set](#) button will launch a dialog allowing you to select one of the other Alpha Sets, then shows a comparison of how the assignments differ between the two Alpha Sets.

The “Move to Group” button allows you to move an Alpha Set into a different grouping within Panther. These are primarily an organizational aid, and will not impact the list of planned changes. Similarly with the “Rename Group” button.

The “Used at:” tree shows the rule path where that alpha set is used. If some of those conditions should have a separate set of assignments, you can click the [Split Alpha Set](#) button to split some of those conditions into a separate Alpha Set, where you can change assignments independently.

The Alpha Set tree shows the Alpha Splits, any further conditions beneath them, and who is assigned to them. To change one or more assignments, check one or more boxes and click the [Change Assignments](#) button. To alter the range of an Alpha Split, right-click on an Alpha Split, and select “Edit...”. This will launch a [Change Range](#) dialog where the new start and end of the Alpha Split range can be set. To create a new Alpha Split, right-click an existing Alpha Split, and select “Clone”. This will launch the [Change Range](#) dialog pre-populated with the same range and assignee as the Alpha Split being cloned. Changes made here will be saved to the Panther database, and show up in the list of planned changes on the [Change Tracker](#) control.

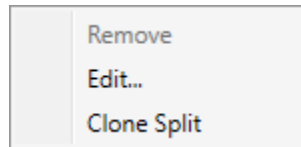


Figure 544: Alpha Set tree Context Menu

Menu Option	Description
Remove	Remove a planned new Alpha Split.
Edit. . .	Edit the range of the selected Alpha Split.
Clone	Create a planned new Alpha Split, based on the selected Alpha Split.

Table 119: Alpha Set Tree Context Menu

10.12.2 Change Tracker

The Change Tracker screen has two tabs: Planned Changes, and Unexpected Changes. Each tab header will also have a count of how many items are on that tab. All data in the Change Tracker is available for users with the *Access Work Queue Assignments* privilege to view. Some actions require the *Manage Work Queue Assignments* privilege - for example, removing notifications about unexpected changes.

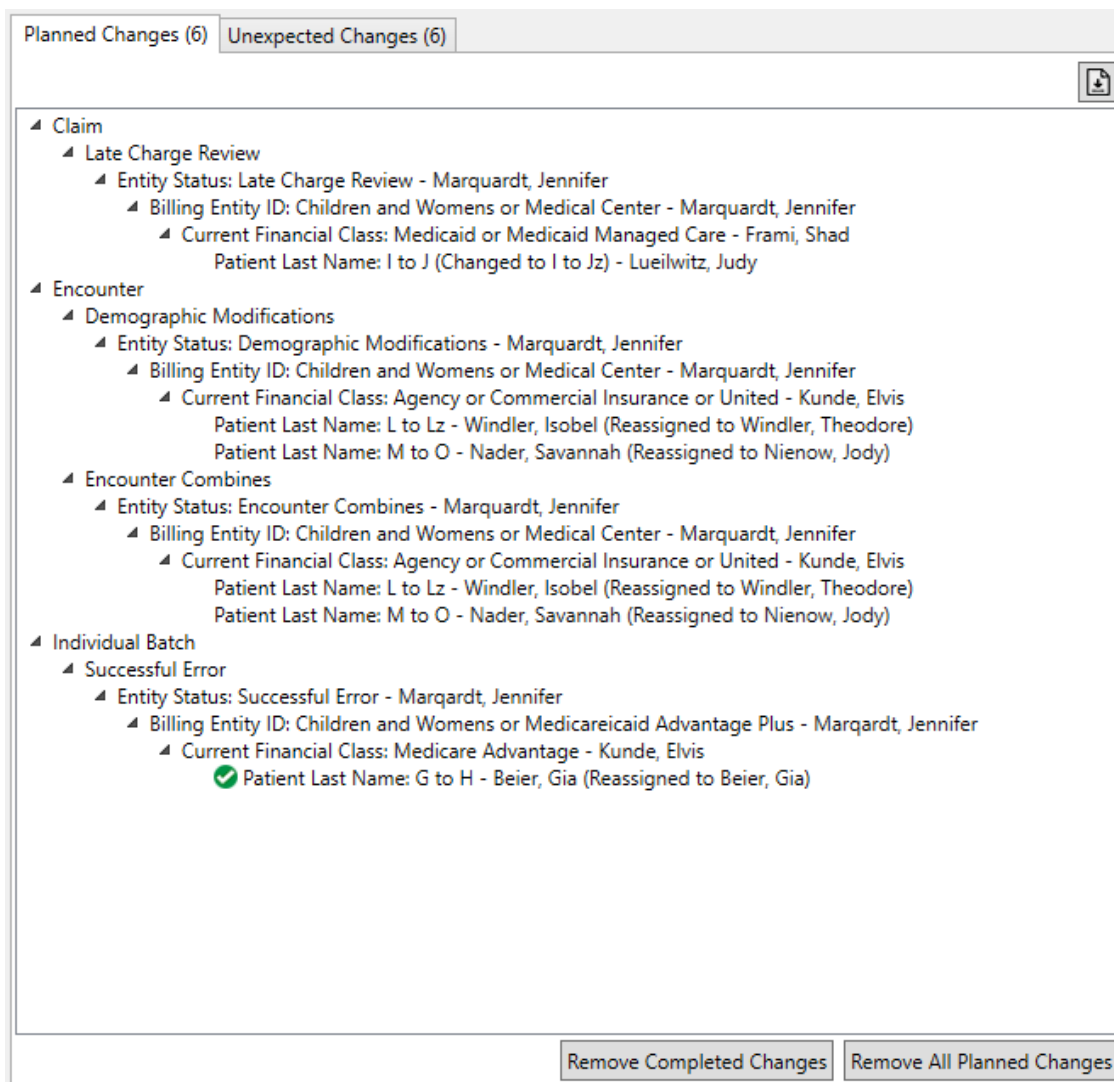


Figure 545: Planned Changes

The Planned Changes tab contains the changes which users have made in the Work Queue Assignment control. The changes are organized as a tree which let you see the Work Queue and all of the conditions leading down to the changed assignments. Each changed assignment will show who is currently assigned in the Millennium® database, and who it is planned to reassign to. The Export button in the upper right provides an easy way to get a list of the planned changes to reference when making those changes.

For any planned change in the tree, you can right-click, and choose to remove that individual change from the list of planned changes, or to [Reassign](#) it to someone else. You can also alter the range of Alpha Splits

present in the tree by right-clicking on one, and selecting “Edit. . .”. This will launch a [Change Range](#) dialog where the new start and end of the Alpha Split range can be set.

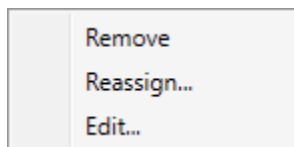


Figure 546: Planned Changes Context Menu

Menu Option	Description
Remove	Remove a planned new Alpha Split.
Reassign	Change who is assigned to the Alpha Split.
Edit. . .	Edit the range of the selected Alpha Split.

Table 120: Planned Changes Context Menu

To clear the list of Planned Changes of those changes which have been successfully completed, click the “Remove Completed Changes” button. To start from scratch, click the “Remove All Planned Changes” button, and that will clear all of the planned reassignments from the Panther database. Both of these actions will impact the lists which all other users of this control in Panther see.

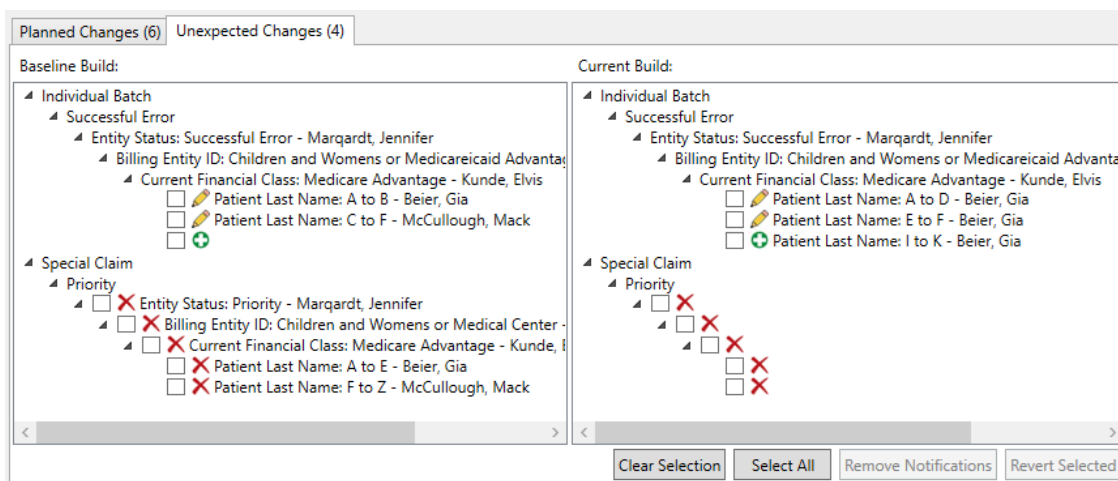


Figure 547: Unexpected Changes

The Unexpected Changes tab compares a snapshot of the previous ruleset as saved by Panther to the current state of the rules in Millennium®. If some of these changes were expected or desirable, check the box next to the change, and click “Remove Notifications”. Panther will then integrate these into its snapshot, and they will no longer show up under Unexpected Changes unless something about them changes again. If there is an unexpected change which is undesirable or you wish it to be changed back, check the box next to the change, and click “Revert Selected”. This will add corresponding items to the Planned Changes tab for changing them back to the person who was assigned as of Panther’s snapshot. Removals that go above the Alpha Split level and additions may not be reverted, and if the selected changes include a removal above

the Alpha Split level or an addition, the “Revert Selected” button will not be enabled. If you right click on one of the unexpected changes in the “Current Build” tree, there may be an option to “Reassign”. Doing so will bring up the [Change Assignments](#) dialog, and any changes made here will impact all rules in the Alpha Set. You can also alter the range of Alpha Splits present in the tree by right-clicking on one, and selecting “Edit. . .”. This will launch a [Change Range](#) dialog where the new start and end of the Alpha Split range can be set.

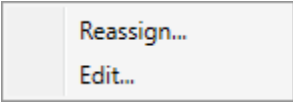


Figure 548: Unexpected Changes Context Menu

Menu Option	Description
Reassign	Change who is assigned to the Alpha Split.
Edit. . .	Edit the range of the selected Alpha Split.

Table 121: Unexpected Changes Context Menu

10.12.3 Queue Assignment Rule Stats

The Queue Assignment Rule Stats screen allows you to see how many encounters each assignee would have been expected to work based off of the current rules in the Millennium® database, and how many encounters each assignee would have been expected to work if the rules had been those saved in the Panther database. The ability to simulate changes and see how it would impact workload can simplify the trial and error of finding a balanced rule set.

When first selected, the Queue Assignment Rules will load with default search criteria. When the user changes the search criteria, it will be set as a user preference and used for future loads of the Queue Assignment Rules. To change what filters are used, click the [Search](#) button. Changing the search criteria will cause a new search to be run.

Next to the Search button, there is a radio button to select whether the values shown should reflect the current rules or simulate what the numbers would have been if the planned rule changes were made. There is also a drop-down to select what grouping to use on the rules: None, Rule Path, or Alpha Set. This allows you to slice the data in different ways, to more easily identify which rule you might want to reassign. Changing the filter options located outside of the Search dialog works with the already-fetched data, and does not cause a new search to be run.

If you double-click on any of the rows, or right-click and select [Assigned Encounters](#), it will launch a dialog with details about the encounters that would have been assigned. If you launch this dialog from one of the date-specific columns, it will be filtered down to the work items created on that date.

If you right-click on one of the rows, and “Reassign Alpha Split”, it will launch the [Change Assignments](#) dialog to reassign all alpha splits associated with the selected row.

If you right-click on one of the rows, and select “Reassign Rule”, it will launch the [Change Assignments](#) dialog to reassign all rules associated with the selected row.

If you right-click on one of the rows, and select “Edit Alpha Split Condition”, it will launch a [Change Range](#) dialog to alter the start and end of the Alpha Split range.

If you right-click on one of the rows, and select “Edit Rule Condition”, it will launch a [Change Range](#) dialog to alter the start and end of the Alpha Split range for the entire Rule.

Assigned Encounters	
Reassign Alpha Split	
Reassign Rule	
Edit Alpha Split Condition	
Edit Rule Condition	
Export...	
Copy	Ctrl+C
Select All	Ctrl+A

Figure 549: Queue Assignment Rule Stats Context Menu

Menu Option	Description
Assigned Encounters	View the list of encounters assigned because of this rule or alpha split specified in that row.
Reassign Alpha Split	Change who is assigned to the Alpha Split.
Reassign Rule	Change who is assigned to the Rule.
Edit Alpha Split Condition	Edit the range of the selected Alpha Split.
Edit Rule Condition	Edit the range of the selected Alpha Split across the entire Rule.
Export. . .	Export the currently displayed data.
Copy	Copy the selected data to the clipboard.
Select All	Select all cells in the grid

Table 122: Queue Assignment Rule Stats Context Menu

Rule Totals: ☒ Historical ☐ Simulated Changes		Group Rules by: None	Data no older than: 3/4/2024 2:32:02 PM			
Name	Position	Rule	Total	2024-02-04	2024-02-05	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: At Risk Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BC	2	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: At Risk Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Medicare A	1	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: At Risk Claim/Unknown Assignment: Abbott, Abigail	16	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: BCBS UHP Patient Responsible Threshold/Person: Abbott, Abigail	2	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Biller Assignment Rule Balance Level/Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compens	12	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Biller Assignment Rule Balance Level/Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compens	27	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Biller Assignment Rule Balance Level/Unknown Assignment: Abbott, Abigail	127	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Credit Balance/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or B	2	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Credit Balance/Unknown Assignment: Abbott, Abigail	15	0	2	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: EOB Variance/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BC	1	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: EOB Variance/Unknown Assignment: Abbott, Abigail	4	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Past Due/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BCBS C	2	1	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Past Due/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BCBS C	10	2	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Past Due/Unknown Assignment: Abbott, Abigail	54	5	4	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	17	0	1	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	61	0	12	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	3	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Pending Reimbursement Claim/Unknown Assignment: Abbott, Abigail	420	0	53	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Technical Denial/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or	2	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Technical Denial/Unknown Assignment: Abbott, Abigail	4	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: At Risk Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BC	3	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: At Risk Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BC	1	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: At Risk Claim/Unknown Assignment: Bailey, Marilou	46	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: BCBS UHP Patient Responsible Threshold/Person: Bailey, Marilou	9	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Biller Assignment Rule Balance Level/Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compens	10	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Biller Assignment Rule Balance Level/Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compens	1	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Biller Assignment Rule Balance Level/Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compens	13	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Biller Assignment Rule Balance Level/Unknown Assignment: Bailey, Marilou	202	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Credit Balance/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or B	2	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Credit Balance/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or B	1	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Credit Balance/Unknown Assignment: Bailey, Marilou	13	0	1	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: EOB Variance/Unknown Assignment: Bailey, Marilou	1	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Past Due/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BCBS C	7	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Past Due/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BCBS C	4	1	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Past Due/Unknown Assignment: Bailey, Marilou	70	7	3	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	34	0	2	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	9	0	2	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	37	0	5	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	1	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Tr	Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial	3	0	0	

Figure 550: Queue Assignment Rule Stats (No Grouping)

Rule Totals: ☒ Historical ☐ Simulated Changes Group Rules by: Rule Path				Data no older than: 3/4/2024 2:32:02 PM		
Name	Position	Rule	Total	2024-02-04	2024-02-05	2
Abbott, Abigail	Patient Accounting: Cash Poster	All	782	8	72	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/At Risk Claim	19	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: At Risk Claim	19	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Billing Entity ID: Children and Womens or Medical Center	3	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Current Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compensation/Patient Last Ni	2	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Current Financial Class: Medicare Advantage/Patient Last Name: I to J/Current Health Plan: Medica	1	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Unknown Assignment: Abbott, Abigail	16	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	<Unknown Assignment: Abbott, Abigail>	16	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/Credit Balance	17	0	2	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Credit Balance	17	0	2	
Abbott, Abigail	Patient Accounting: Cash Poster	Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: BCBS or BCBS OK	2	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Unknown Assignment: Abbott, Abigail	15	0	2	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/EOB Variance	5	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/Past Due	66	8	4	
Abbott, Abigail	Patient Accounting: Cash Poster	Entity Status: Past Due	66	8	4	
Abbott, Abigail	Patient Accounting: Cash Poster	Billing Entity ID: Children and Womens or Medical Center	12	3	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Current Financial Class: BCBS or BCBS OOS or BCBS UHP or Workers Compensation	12	3	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Patient Last Name: H to Hzz	2	1	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Patient Last Name: I to J	10	2	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Unknown Assignment: Abbott, Abigail	54	5	4	
Abbott, Abigail	Patient Accounting: Cash Poster	<Unknown Assignment: Abbott, Abigail>	54	5	4	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/Pending Reimbursement Claim	501	0	66	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/Technical Denial	6	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/Biller Assignment Rule Balance Level	166	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Insurance/BCBS UHP Patient Responsible Threshold	2	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	All	1,003	8	85	
Barton, Willow	Patient Accounting: Claims Followup Rep	All	1,101	8	80	
Beier, Gia	Patient Accounting: Claims Followup Rep	All	822	17	73	
Boyle, Karlle	Patient Accounting: Claims Followup Rep	All	710	5	43	
Braun, Chloe	Patient Accounting: Claims Followup Rep	All	1,351	6	87	
Cartwright, Ollie	Patient Accounting: Claims Followup Rep	All	267	6	15	
Dietrich, Megane	Patient Accounting: Claims Followup Rep	All	1,312	1	56	
Dooley, Eniberto	Patient Accounting: Claims Followup Rep	All	933	10	72	
Durgan, Amani	HIM: Managers	All	1,017	30	56	
Ernsler, Ozella	Patient Accounting: Claims Rev Transact	All	667	11	47	
Fadel, Lew	Patient Accounting: Self-Pay Collector	All	986	35	28	
Frami, Shad	Patient Accounting: Management	All	44,740	1,368	2,352	
Friesen, Darien	Patient Accounting: Claims Followup Rep	All	1,826	3	105	
Fritsch, Carolynne	Patient Accounting: Claims Followup Rep	All	1,898	4	131	
Gleason, Daisy	Patient Accounting: Management	All	448	0	26	
Gottlieb, Gilda	HIM: Managers	All	1,336	31	80	

Figure 551: Queue Assignment Rule Stats (Rule Path Grouped)

Rule Totals: ☒ Historical ☐ Simulated Changes		Group Rules by: Alpha Set	Data no older than: 3/4/2024 2:32:02 PM			
Name	Position	Rule	Total	2024-02-04	2024-02-05	2024-02-06
Abbott, Abigail	Patient Accounting: Cash Poster	All	782	8	72	
Abbott, Abigail	Patient Accounting: Cash Poster	Uncategorized	646	5	59	
Abbott, Abigail	Patient Accounting: Cash Poster	Queue	97	3	13	
Abbott, Abigail	Patient Accounting: Cash Poster	Current Financial Class: BCBS OR BCBS OOS OR BCBS UHP OR Workers Compensation	97	3	13	
Abbott, Abigail	Patient Accounting: Cash Poster	Patient Last Name: H to Hzz	19	1	1	
Abbott, Abigail	Patient Accounting: Cash Poster	Patient Last Name: I to J	78	2	12	
Abbott, Abigail	Patient Accounting: Cash Poster	Workflow	39	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Current Financial Class: BCBS OR BCBS OOS OR BCBS UHP OR Workers Compensation and	39	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Patient Last Name: H to Hzz	12	0	0	
Abbott, Abigail	Patient Accounting: Cash Poster	Patient Last Name: I to J	27	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	All	1,003	8	85	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Uncategorized	877	7	76	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Queue	102	1	9	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Current Financial Class: BCBS OR BCBS OOS OR BCBS UHP OR Workers Compensation	102	1	9	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Patient Last Name: T to Tzz	46	0	2	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Patient Last Name: U to V	10	0	2	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Patient Last Name: W to Z	46	1	5	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Workflow	24	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Current Financial Class: BCBS OR BCBS OOS OR BCBS UHP OR Workers Compensation and	24	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Patient Last Name: T to Tzz	10	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Patient Last Name: U to V	1	0	0	
Bailey, Marilou	Patient Accounting: Claims Rev Transact	Patient Last Name: W to Z	13	0	0	
Barton, Willow	Patient Accounting: Claims Followup Rep	All	1,101	8	80	
Beier, Gia	Patient Accounting: Claims Followup Rep	All	822	17	73	
Boyle, Karlie	Patient Accounting: Claims Followup Rep	All	710	5	43	
Braun, Chloe	Patient Accounting: Claims Followup Rep	All	1,351	6	87	
Cartwright, Ollie	Patient Accounting: Claims Followup Rep	All	267	6	15	
Dietrich, Megane	Patient Accounting: Claims Followup Rep	All	1,312	1	56	
Dooley, Eriberto	Patient Accounting: Claims Followup Rep	All	933	10	72	
Durgan, Amani	HIM: Managers	All	1,017	30	56	
Ernsner, Ozella	Patient Accounting: Claims Rev Transact	All	667	11	47	
Fadel, Lew	Patient Accounting: Self-Pay Collector	All	986	35	28	
Frami, Shad	Patient Accounting: Management	All	44,740	1,368	2,352	2,1
Friesen, Darien	Patient Accounting: Claims Followup Rep	All	1,826	3	105	
Fritsch, Carolynne	Patient Accounting: Claims Followup Rep	All	1,898	4	131	
Gleason, Daisy	Patient Accounting: Management	All	448	0	26	
Gottlieb, Gilda	HIM: Managers	All	1,336	31	80	
Hammes, Hailey	Patient Accounting: Claims Followup Rep	All	1,083	3	62	
Jacobson, Geoffrey	Patient Accounting: Claims Followup Rep	All	6	0	0	
Keeling, Cortez	Patient Accounting: Claims Rev Transact	All	2,353	3	192	1
Kilback, Jade	Patient Accounting: Claims Followup Rep	All	6	0	0	

Figure 552: Queue Assignment Rule Stats (Alpha Set Grouped)

10.12.4 Searching

Upon clicking the search button, a search dialog presenting basic criteria (Figure 553) opens. The search criteria will be applied and saved once the “OK” button is clicked and the dialog closes.

Your search criteria will be remembered and used the next time you use the Work Queue Assignments control.



Search Displays the Current Criteria

When opened, the search dialog will display the criteria used for the most recent search. This makes it easy to modify an existing search.

The screenshot shows a 'Search' dialog box with a paw print icon in the title bar. It features a 'Date Range' dropdown menu set to 'Last Month'. Below this is a tabbed interface with tabs for 'Primary FIN Classes', 'Current FIN Classes', 'Medical Services', and 'Nurse Units'. Under 'Primary FIN Classes', there are sub-tabs for 'Queues', 'Users', 'Positions', 'Facilities', and 'Billing Entities'. A checkbox labeled 'Filter by Queue' is present. Below it is a tree view with expandable categories: 'Claim' (containing 'Biller Assignment Rule', 'CCM Biller Assignment Rule Claim Level', 'CCM Variance to Resolve Assignment Rule', 'Contract Variance', 'Edit Failure Assignment', 'Late Charge Review', and 'Rejected 837'), 'Client Account' (containing 'Unbilled Invoice'), and 'Encounter'. At the bottom, there is a text input field 'Enter text here to filter queue selection tree', and buttons for 'Check All', 'Uncheck All', 'OK', and 'Cancel'.

Figure 553: Search Dialog

10.12.5 Split Alpha Set

The Split Alpha Set dialog allows you to select certain rules within an Alpha Set, and split them to a separate one, so that their Alpha Splits can be reassigned independently.

The Alpha Set names in Panther are initially generated based off of the rules. The name of an Alpha Set is an organizational aid within Panther, and does not impact how the rule functions or how it would eventually be added to Millennium®. Names are not allowed to duplicate other Alpha Set names, so you will be required to set the name for the new Alpha Set. The “New Alpha Set Name” field is pre-populated with the name of the Alpha Set you are splitting.

While you are splitting the Alpha Set, you may also wish to move it to another Group. You may select an existing Group, or type a name to start a new Group.

You must select one or more rules to move to the new Alpha Set, but not all of them. In either case, the “OK” button will become disabled.

Split Alpha Set

New Alpha Set Name:
Current Financial Class: Agency OR Commercial Insurance OR United - At Risk

New Alpha Set Group:
Queue

Please select the rules to move to the new alpha set:

- ☐ Claim
 - ☐ Late Charge Review
 - ☐ Billing Entity ID: Children and Womens or Medical Center - Marquardt,
☐ Current Financial Class: Agency or Commercial Insurance or United
- ☒ Insurance
 - ☒ At Risk Claim
 - ☒ Billing Entity ID: Children and Womens or Medical Center - Marquardt,
☒ Current Financial Class: Agency or Commercial Insurance or United
 - ☐ Credit Balance
 - ☐ Billing Entity ID: Children and Womens or Medical Center - Marquardt,
☐ Current Financial Class: Agency or Commercial Insurance or United
 - ☐ EOB Variance
 - ☐ Billing Entity ID: Children and Womens or Medical Center - Marquardt,
☐ Current Financial Class: Agency or Commercial Insurance or United
 - ☐ Past Due
 - ☐ Billing Entity ID: Children and Womens or Medical Center - Marquardt,
☐ Current Financial Class: Agency or Commercial Insurance or United

OK Cancel

Figure 554: Split Alpha Set

10.12.6 Compare Alpha Set

The Compare Alpha Set dialog allows you to compare assignments and Alpha Splits between two Alpha Sets. This can be useful if you are trying to see why Panther may have grouped the rules into different Alpha Sets in a case where you had been expecting only one.

If you select one or more of the Alpha Splits, you can click the [Change Assignments](#) button to record a planned assignment change for those Alpha Splits.

Alpha Set Comparison

Group: Queue

Alpha Set: Current Financial Class: Agency OR Commercial Insurance OR United

- ☐ Patient Last Name: A to E - Sanford, Nichole
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: F to K - Windler, Isobel
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: L to Lz - Windler, Isobel
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: M to O - Nader, Savannah
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: P to Pz - Nader, Savannah
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: Q to R - Nader, Savannah
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: S to Sz - Boyle, Karlie
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: T to Tz - Lueilwitz, Judy
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: U to V - Koch, Cortez
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: W to Wz - Boyle, Karlie
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: X to Z - Koch, Cortez
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez

Group: Queue

Alpha Set: Current Financial Class: Agency OR Commercial Insurance OR United (2)

- ☐ Patient Last Name: A to E - Sanford, Nichole
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: F to K - Windler, Isobel
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: L to P - Cartwright, Ollie
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: Q to S - Boyle, Karlie
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: T to Tz - Kunde, Elvis
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: U to V - Koch, Cortez
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: W to Wz - Boyle, Karlie
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez
- ☐ Patient Last Name: X to Z - Koch, Cortez
 - ☐ Current Health Plan: Kansas Crime Victims - Koch, Cortez
 - ☐ Current Health Plan: NaphCare - Koch, Cortez
 - ☐ Current Health Plan: SFTK Breast And Cervical Cancer - Koch, Cortez

Clear Selection Change Assignments

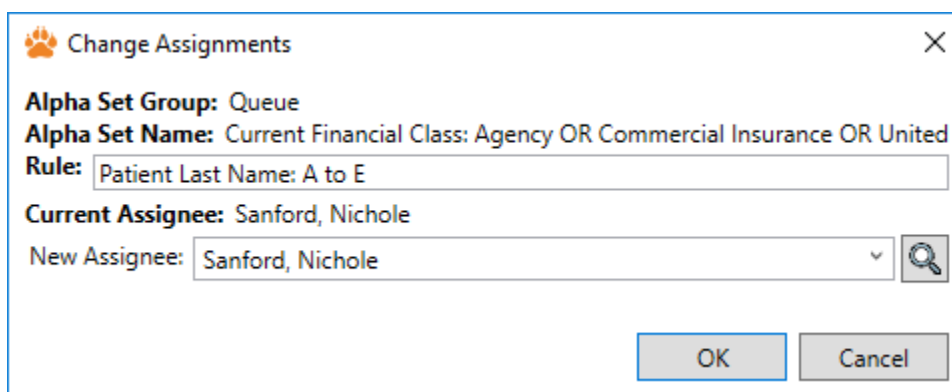
Figure 555: Compare Alpha Set

10.12.7 Change Assignments

The Change Assignments dialog displays information about the rule or Alpha Split to be reassigned, and allows you to select the new assignee.

By default, the New Assignee combo box will contain the name of the current assignee, and when you first click on the button to open the dropdown, it will list all users currently assigned to a rule. If you begin typing in the box, it will jump to the next matching name in the list. If you click the Search button, it will take the text you have currently typed in the New Assignee combo box, and will search for all matching people from the PRSNL table (limited to people which belong to organizations which the user has been granted access to). To see a list of all available people, click the Search button without any value typed in to the New Assignee combo box.

Clicking OK will record a planned change in the Panther database for the selected person to be the new assignee for the target Alpha Split(s) and/or rule(s).

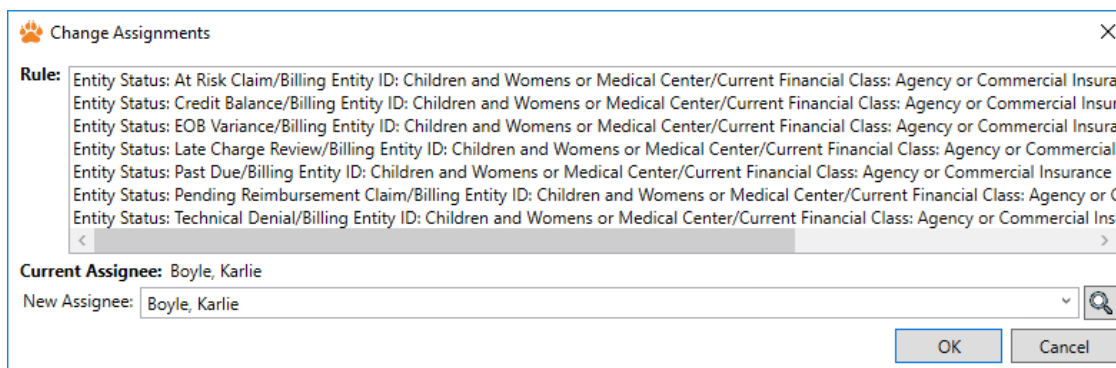


The dialog box is titled "Change Assignments" with a paw print icon and a close button. It contains the following fields:

- Alpha Set Group:** Queue
- Alpha Set Name:** Current Financial Class: Agency OR Commercial Insurance OR United
- Rule:** Patient Last Name: A to E
- Current Assignee:** Sanford, Nichole
- New Assignee:** Sanford, Nichole (with a dropdown arrow and a search icon)

At the bottom are "OK" and "Cancel" buttons.

Figure 556: Change Alpha Split Assignments



The dialog box is titled "Change Assignments" with a paw print icon and a close button. It contains the following fields:

- Rule:** A list box containing multiple rules, such as "Entity Status: At Risk Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance".
- Current Assignee:** Boyle, Karlie
- New Assignee:** Boyle, Karlie (with a dropdown arrow and a search icon)

At the bottom are "OK" and "Cancel" buttons.

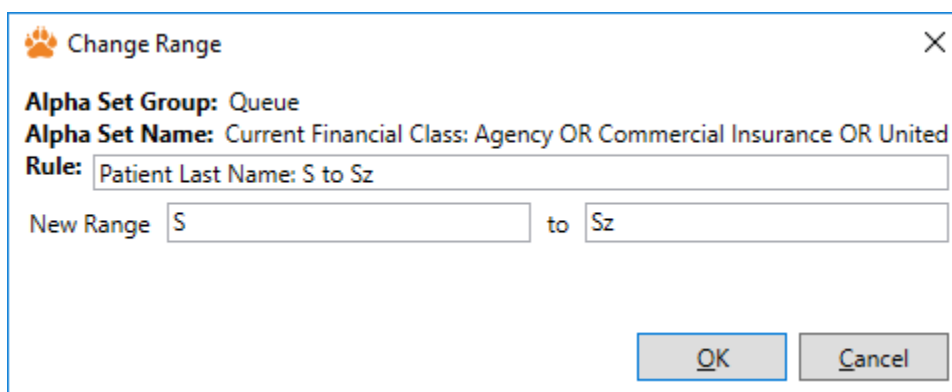
Figure 557: Change Rule Assignments

10.12.8 Change Range

The Change Range dialog displays information about the Alpha Split to be altered or created. If it is a new Alpha Split, it will allow you to select the assignee.

When cloning a rule, by default the New Assignee combo box will contain the name of the current assignee of the Alpha Split being cloned. When you first click on the button to open the dropdown, it will list all users currently assigned to a rule. If you begin typing in the box, it will jump to the next matching name in the list. If you click the Search button, it will take the text you have currently typed in the New Assignee combo box, and will search for all matching people from the PRSNL table (limited to people which belong to organizations which the user has been granted access to). To see a list of all available people, click the Search button without any value typed in to the New Assignee combo box.

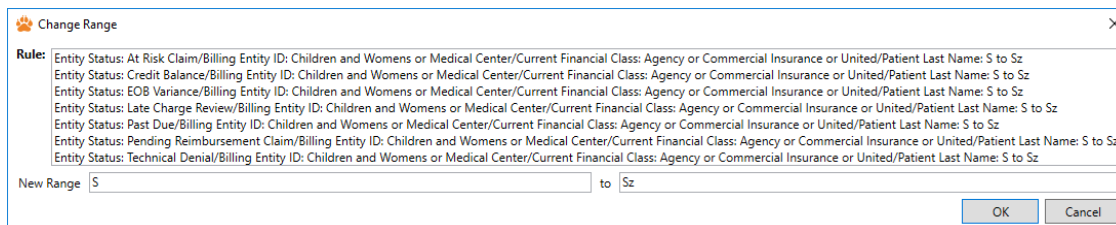
Clicking OK will record a planned changed in the Panther database for the selected Alpha Split to be altered or created, with the specified person to be the assignee for the Alpha Split(s) and/or rule(s)



The dialog box is titled "Change Range" with a paw print icon and a close button (X). It contains the following information:

- Alpha Set Group:** Queue
- Alpha Set Name:** Current Financial Class: Agency OR Commercial Insurance OR United
- Rule:** Patient Last Name: S to Sz
- New Range:** S to Sz
- Buttons: OK, Cancel

Figure 558: Change Range for Alpha Split



The dialog box is titled "Change Range" with a paw print icon and a close button (X). It contains the following information:

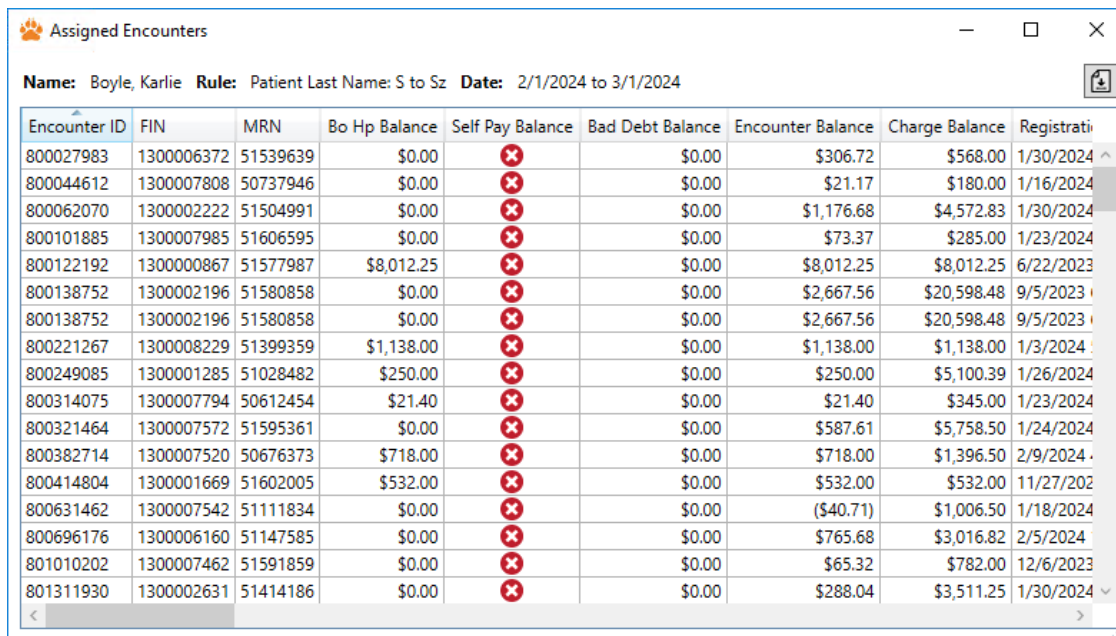
- Rule:** Entity Status: At Risk Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
Entity Status: Credit Balance/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
Entity Status: EOB Variance/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
Entity Status: Late Charge Review/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
Entity Status: Past Due/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
Entity Status: Pending Reimbursement Claim/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
Entity Status: Technical Denial/Billing Entity ID: Children and Womens or Medical Center/Current Financial Class: Agency or Commercial Insurance or United/Patient Last Name: S to Sz
- New Range:** S to Sz
- Buttons: OK, Cancel

Figure 559: Change Range for Rule

10.12.9 Assigned Encounters

The Assigned Encounters dialog shows details of which encounters were assigned, or would have been assigned with a given rule set.

To view more information about a specific encounter, you can double-click an encounter, or right-click it and select “Encounter Details” from the menu.



Assigned Encounters

Name: Boyle, Karlle **Rule:** Patient Last Name: S to Sz **Date:** 2/1/2024 to 3/1/2024

Encounter ID	FIN	MRN	Bo Hp Balance	Self Pay Balance	Bad Debt Balance	Encounter Balance	Charge Balance	Registrati
800027983	1300006372	51539639	\$0.00	✖	\$0.00	\$306.72	\$568.00	1/30/2024
800044612	1300007808	50737946	\$0.00	✖	\$0.00	\$21.17	\$180.00	1/16/2024
800062070	1300002222	51504991	\$0.00	✖	\$0.00	\$1,176.68	\$4,572.83	1/30/2024
800101885	1300007985	51606595	\$0.00	✖	\$0.00	\$73.37	\$285.00	1/23/2024
800122192	1300000867	51577987	\$8,012.25	✖	\$0.00	\$8,012.25	\$8,012.25	6/22/2023
800138752	1300002196	51580858	\$0.00	✖	\$0.00	\$2,667.56	\$20,598.48	9/5/2023
800138752	1300002196	51580858	\$0.00	✖	\$0.00	\$2,667.56	\$20,598.48	9/5/2023
800221267	1300008229	51399359	\$1,138.00	✖	\$0.00	\$1,138.00	\$1,138.00	1/3/2024
800249085	1300001285	51028482	\$250.00	✖	\$0.00	\$250.00	\$5,100.39	1/26/2024
800314075	1300007794	50612454	\$21.40	✖	\$0.00	\$21.40	\$345.00	1/23/2024
800321464	1300007572	51595361	\$0.00	✖	\$0.00	\$587.61	\$5,758.50	1/24/2024
800382714	1300007520	50676373	\$718.00	✖	\$0.00	\$718.00	\$1,396.50	2/9/2024
800414804	1300001669	51602005	\$532.00	✖	\$0.00	\$532.00	\$532.00	11/27/202
800631462	1300007542	51111834	\$0.00	✖	\$0.00	(\$40.71)	\$1,006.50	1/18/2024
800696176	1300006160	51147585	\$0.00	✖	\$0.00	\$765.68	\$3,016.82	2/5/2024
801010202	1300007462	51591859	\$0.00	✖	\$0.00	\$65.32	\$782.00	12/6/2023
801311930	1300002631	51414186	\$0.00	✖	\$0.00	\$288.04	\$3,511.25	1/30/2024

Figure 560: Assigned Encounters

10.12.10 Encounter Details

The *Encounter Details* dialog is a common dialog displayed by many Panther controls. See [Encounter Details Dialog](#) for more information.

11 EMR Performance

Panther provides the most comprehensive collection of functionality for effectively managing your Millennium environments. The controls listed below represent a growing collection of functionality. *If there is a feature that will help you reduce unplanned downtime or save you hours of tedious work that you do not see in Panther, please let us know. It is our mission to make Panther better for you!*

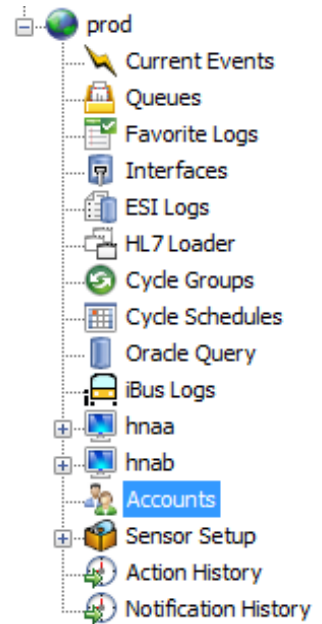
For more detailed information about the EMR Performance controls, you may visit their respective section(s).

11.1. Accounts Control

The Accounts control allows users to manage Millennium accounts. To do so, select the *Accounts* item in the Domain Explorer (Figure 561).

Users can perform the following actions:

- Show details for one or more accounts
- Search for accounts matching specified criteria
- View and modify account defaults
- Add a new account
- Copy an existing account to a new account
- Remove an account
- Modify an existing account
- Reset an account's password



Attention: Millennium and Panther permissions required to view these controls.

In order to see these controls, a user must have both Millennium's 'Manage Accounts' permission and Panther's 'Access Accounts' permission.

Figure 561: Domain Explorer

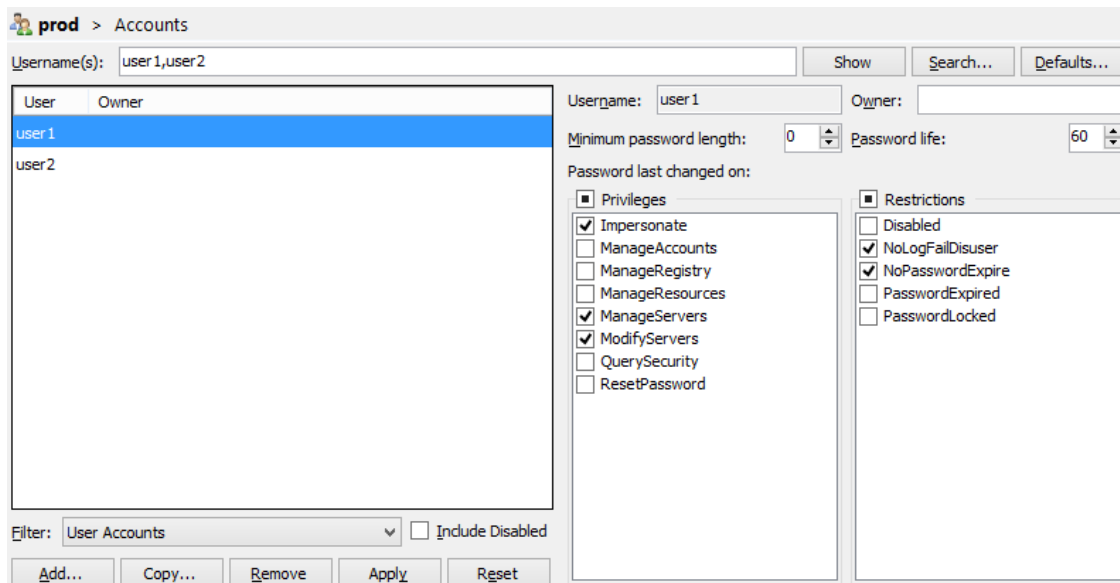


Figure 562: Accounts Control

11.1.1 Showing One or More Accounts

Figure 563: Account Show

When focusing on one or a small handful of accounts, the preferred method of retrieving their information from Millennium is via the show function. To use the show function, simply type enter the account names into the *Username(s)* field and click the *Show* button (Figure 563). Multiple account names must be separated by a space, comma, or semicolon character.

After performing the show command, the accounts that were found will be listed in the Application Workspace (Figure 562).

11.1.2 Searching Accounts

Figure 564: Account Search

When working with a larger set of accounts, more advanced search criteria can be used by clicking the *Search...* button (Figure 564).

Criteria	Description
Username	Retrieves accounts with usernames matching the input value. This can be an exact value or include a wildcard (*) at the beginning or end.
Owner	Retrieves accounts with owners matching the input value. This can be an exact value or include a wildcard (*) at the beginning or end.
Password Life	Retrieves accounts with password life values greater than or equal to the input value.
Login Failure Count	Retrieves accounts with login failure counts greater than or equal to the input value.
Minimum Password Length	Retrieves accounts with minimum password length values less than or equal to the input value.
Privileges and Restrictions	Retrieves accounts with all selected privileges and restrictions.

Table 123: User Account Search Criteria

Figure 565: Account Search Dialog

After performing the search, the accounts fitting the criteria provided will be listed in the Application Workspace (Figure 562).



Attention: Search may fail in environments with a large number of accounts.

There is a known issue where the LIST command for AuthView will fail when the number of accounts exceeds approximately 65,000. As the search function in Panther is based off this command, it will fail in these cases as well. If this occurs, it is suggested to use the show function instead.

11.1.3 Account Filtering

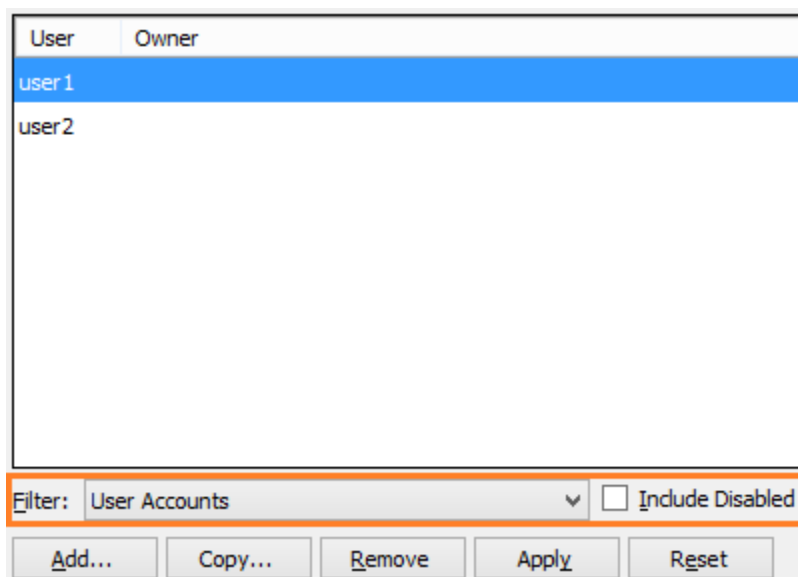


Figure 566: Account Filters

After performing a show or search operation, additional filters are provided in the main control to further narrow the displayed results (Figure 566). The *Filter* drop-down allows users to choose between displaying user accounts, service accounts, or all accounts (default: user accounts), while the *Include Disabled* check box toggles the display of accounts with the *Disabled* restriction (default: unchecked).

11.1.4 Managing Account Defaults



Figure 567: Account Defaults

To view or manage Account Defaults for the current domain, press the *Defaults...* button at the top right corner of the window (Figure 567). This will open the Account Defaults dialog (Figure 568), which displays all current default values.

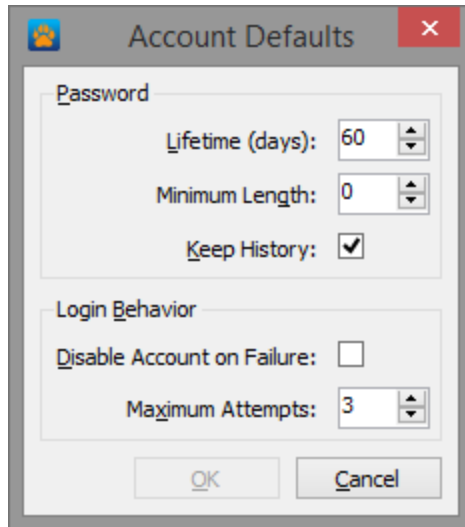


Figure 568: Account Defaults Dialog

Modifications can also be made from this dialog. After making changes, press the *OK* button to save them.

11.1.5 Creating a New Millennium Account

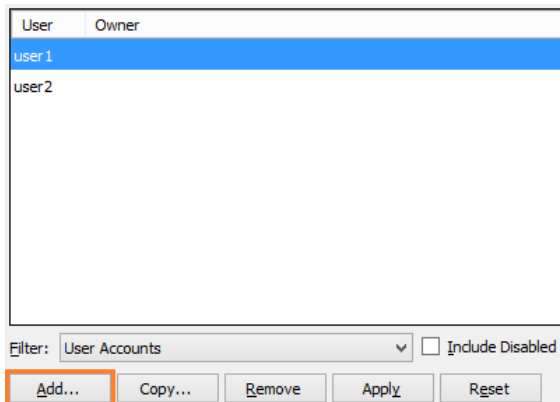


Figure 569: Add Account

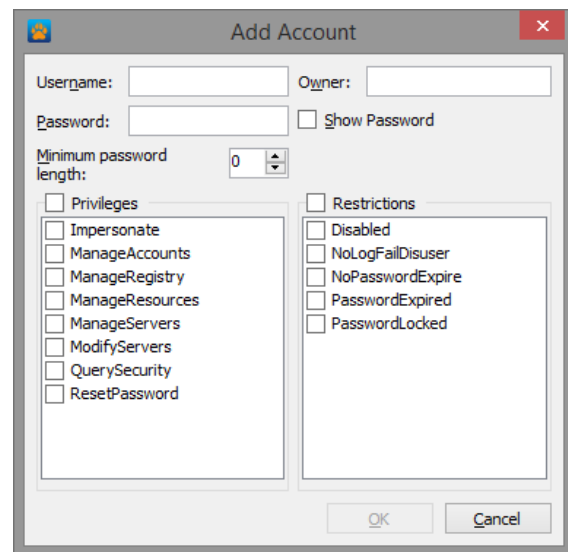


Figure 570: Add Account Dialog

To create a new account, click the button labeled *Add...* in the lower left of the screen (Figure 569). This will open the Add Account dialog (Figure 570). This dialog provides all available options for the new account.

When the new account has a *Username*, the *OK* button is enabled. Clicking the *OK* button will create an account in the current domain matching the criteria provided.

11.1.6 Copying a Millennium Account

Copying an account makes it possible to quickly create a new account with the same properties, privileges, and restrictions as an existing account.

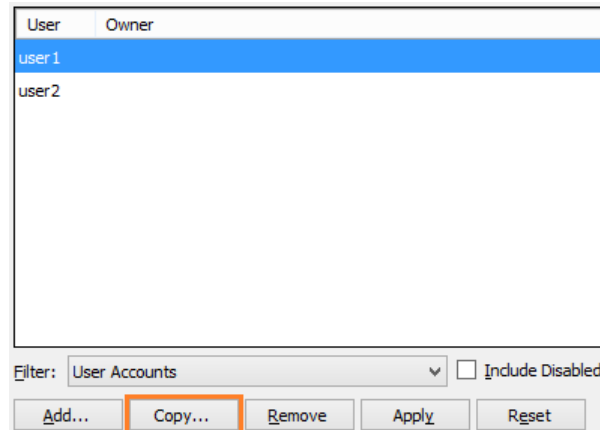


Figure 571: Copy Millennium Account

To copy an account, select it in the list and click *Copy...* (Figure 571). This will open the add account dialog (Figure 570) with owner, password length, privileges, and restrictions pre-populated with the values from the original account. Clicking *OK* will create a new account with the provided name and password in the current domain.

11.1.7 Removing a Millennium Account

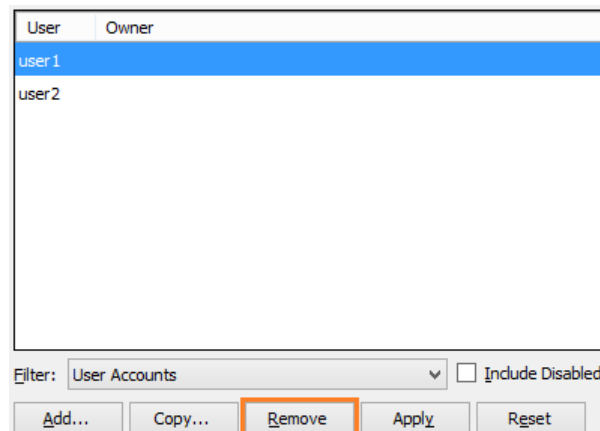


Figure 572: Remove Millennium Account

To remove an account, select it in the list and click *Remove* (Figure 572). A confirmation prompt will appear (Figure 573).

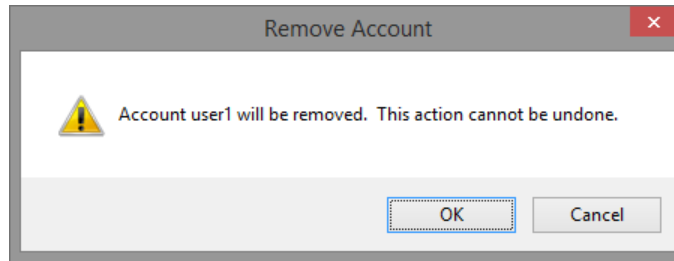


Figure 573: Remove Millennium Account Prompt

Once the *OK* button is clicked, Panther will remove the account.



Attention: Removal is Permanent

Unlike disabling an account, which simply sets the *Disabled* restriction, removing an account will wipe it from the system. If this is done in error, the account will require re-creation and re-assignment of privileges/restrictions to function again.

11.1.8 Updating a Millennium Account

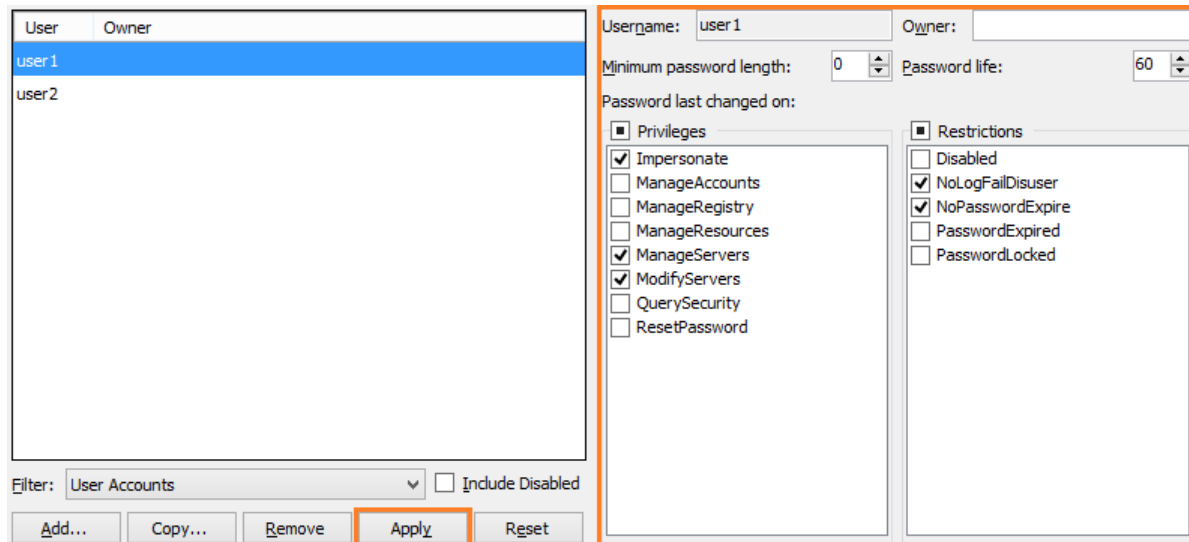


Figure 574: Modify a Millennium Account

Changes can be made to an account in the list by taking the following steps (Figure 574):

1. Select the account to change.
2. Using the fields to the right, make the desired changes to the account. Any changes will enable the *Apply* button
3. Once all desired changes have been made, click the *Apply* button to complete the operation.

11.1.9 Reset an Account's Password

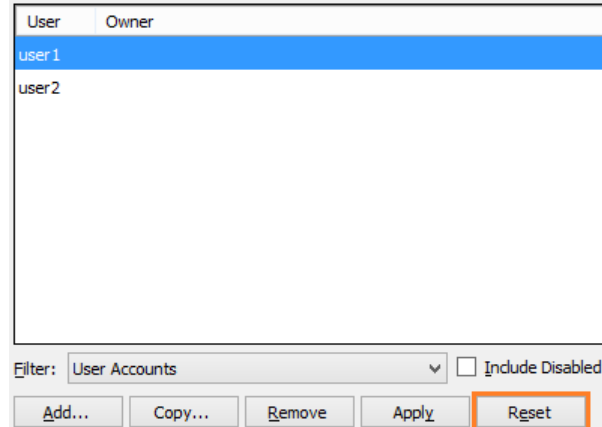


Figure 575: Reset a Password

The password for an account can be reset by selecting the desired account and clicking *Reset* (Figure 575).

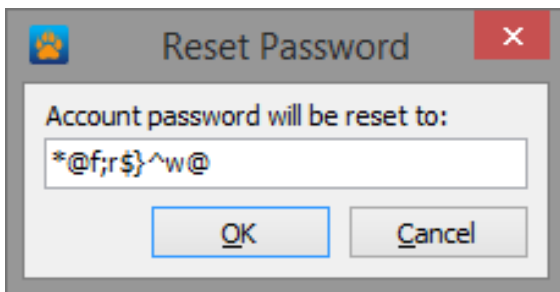


Figure 576: Reset a Password Prompt

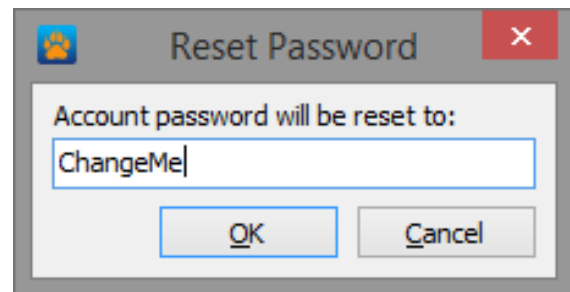


Figure 577: Overriding the Generated Password

Doing so will raise a prompt, which generates a random password and displays it (Figure 576). If a specific password is desired instead, the displayed password can be changed within this prompt (Figure 577).

11.1.10 View a User's Prsnl Record

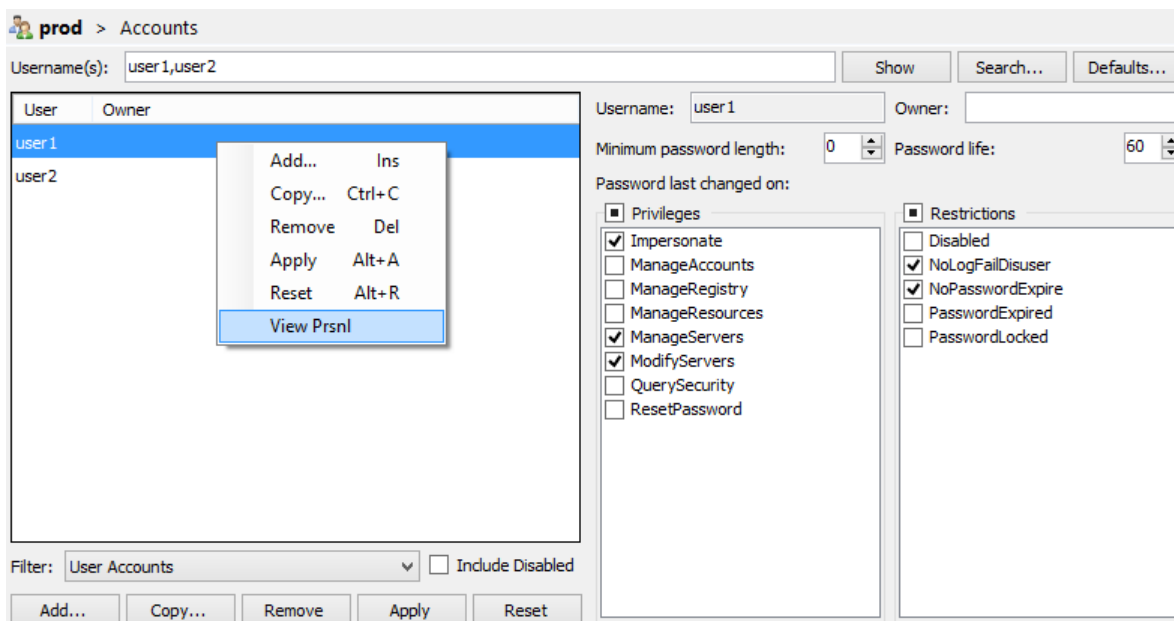


Figure 578: View Prsnl Menu

Provided there is an Oracle® connection to the domain, a user can view the Prsnl record associated with the selected user. Right clicking in the user grid and selecting “View Prsnl” will open a dialog that shows the extra information about the user, extracted from the Prsnl table in the database.

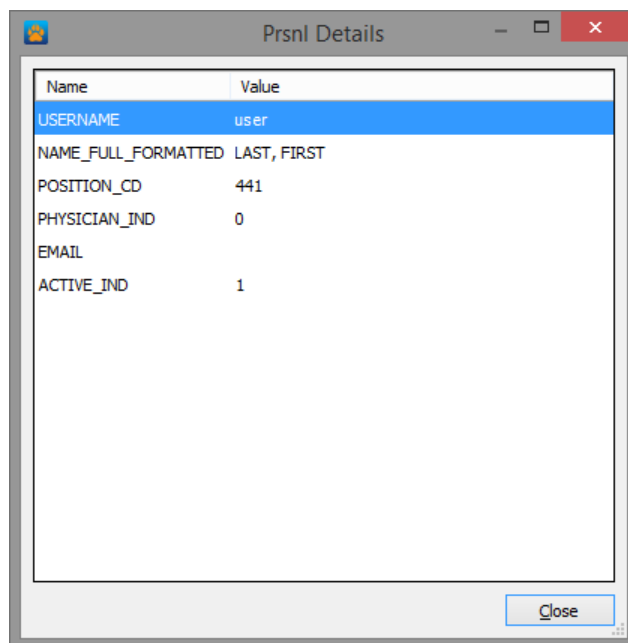


Figure 579: Prsnl Dialog

11.2. Configurations Control

The Configurations control is used to manage the configurations of server processes that run on the back end. The Configurations control can be found in the Domain Explorer (Figure 580) under each node.

After selecting the *Configurations* item in the Domain Explorer, the Configurations control will be displayed in the Application Workspace, as shown in Figure 581.

The columns that appear in the control are user defined, and as with all other controls in Panther, you can re-order and sort on any of the columns. By default, the Configurations control sorts by Entry ID.

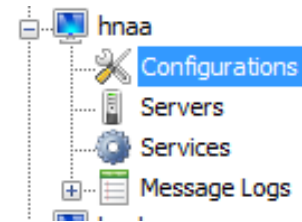


Figure 580: Domain Explorer

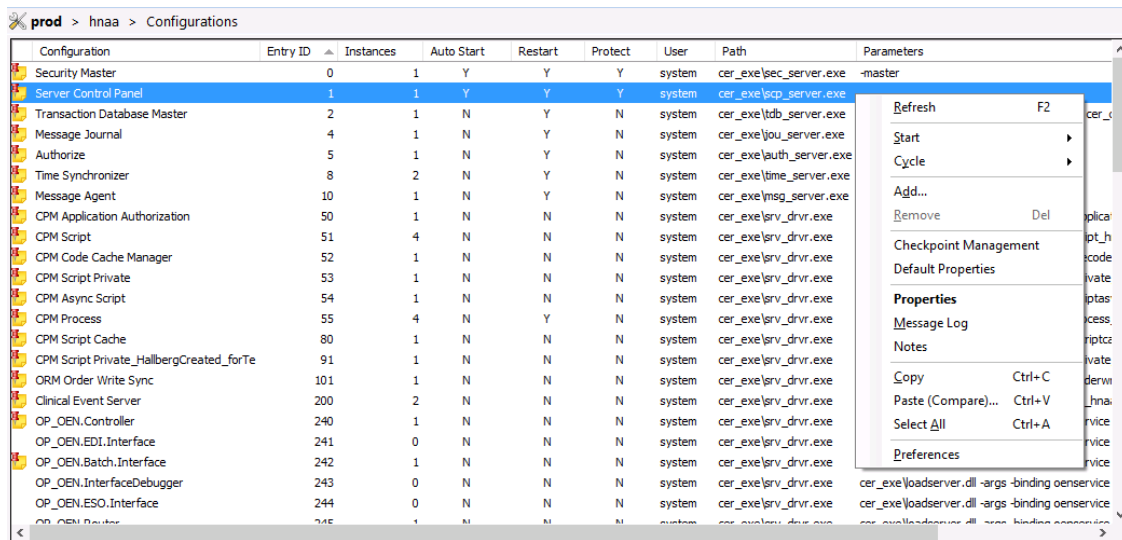


Figure 581: Configurations Control

Selecting any server configuration and right-clicking the mouse expands the Configurations context menu (Figure 581). For details about the behavior of each of the options in the menu, see the Configurations context menu (Table 124).



Any configuration property can be a column.

Panther scans all of the properties of every server configuration, and allows you to display any property as a column. This, in conjunction with sorting of any column, allows you to quickly identify configurations with unusual parameter values. For example, you can add 'Log level' (a Configuration Property) to be able to quickly identify servers with Log level set to "debug."

Option	Description
Refresh	Refreshes the list of configurations
Start	See Table 125 for the sub-menu
Cycle	See Table 126 for the sub-menu
Add. . .	Displays the Configuration Properties dialog where you can provide information to create a new server configuration.
Remove	Removes the selected server configuration(s) from the node. You will be prompted to complete this operation.
Checkpoint Management	Displays the Checkpoint Management dialog where you can create, compare, and restore server configurations from checkpoints.
Default Properties	Displays the default server properties where you can modify the property values the servers use by default.
Properties	Displays the Configuration Properties dialog for the selected server configuration.
Message Log	Displays the message log associated with the selected Entry ID.
Notes	Displays the Server Notes dialog where you can create notes that appear when certain actions are performed on a server.
Copy	Copies the selected server configurations to the system clipboard. Allowing configurations to be moved to other nodes and domains using the Paste option.
Paste (Compare). . .	Pastes server configurations from the system clipboard. This allows users to compare configurations or move a configuration to a different node or domain.
Select All	Selects all configurations currently in the list.
Preferences	Allows you to customize the appearance and behavior of the control (see Preferences).

Table 124: The Configurations Context Menu

Option	Description
Start Instance	Starts an instance of the configuration's server on the current node
Start n Instances. . .	Opens a dialog and allows multiple instances of the configuration's server to be started
Start Server	Starts a stopped server associated with the selected configuration
Start -All	Starts the maximum number of instances on the current node

Table 125: Start Sub-menu

Option	Description
Cycle Server	Cycles the associated server using its configured cycling behavior (see Properties in Table 124)
Cycle Server with Kill	Cycles the associated server using its configured cycling behavior and a kill command when stopping the server (see Properties in Table 124)
Cycle Server on All Nodes	Attempts to cycle the associated server using its configured cycling behavior on all nodes (see Properties in Table 124)
Cycle Server on All Nodes with Kill	Attempts to cycle the associated server using its configured cycling behavior on all nodes using the kill command when stopping the server (see Properties in Table 124)
View Cycle History	Displays the Action History dialog filtered to only display server cycle history of the selected server on the current domain and node.
View Cycle History for All Nodes	Displays the Action History dialog filtered to only display server cycle history of the selected server on the current domain.
View Cycle History for All Servers	Displays the Action History dialog filtered to only display server cycle history on the current node.

Table 126: Cycle Sub-menu

11.2.1 Adding New Server Configurations

To add a configuration:

1. Right-click in the Configurations table.
2. Select the *Add...* option from the Configurations context menu.

When creating a new server configuration, populate the tab labeled *SCP Properties*. Be sure that the *Entry ID* is unique, and that the path points to the appropriate server to run. The *Instances* field indicates the number to run by default.

For more information on modifying SCP Configuration Properties, see [Section 11.2.2](#).

The screenshot shows the 'Configuration Properties' dialog box with the 'SCP Properties' tab selected. The 'Entry ID' is set to 0 and 'Instances' to 1. There are empty text boxes for 'Description', 'Parameters', and 'Path'. The 'Login parameters' section includes a checked 'Use default login' checkbox, and empty fields for 'User' and 'Password'. A 'Restart' checkbox is unchecked. At the bottom, 'Protected' and 'Auto start' are both set to 'False'. There are 'Add' and 'Remove' buttons next to a 'Properties' table (which is currently empty), and 'OK' and 'Cancel' buttons at the bottom right.

Figure 582: Configuration Properties

There is an additional tab labeled *Panther Properties*. This allows users to define Panther behaviors for specific servers. To learn more about the Panther properties, see [Managing Configuration Properties](#).



Use Restart with caution.

Setting servers to *Restart Automatically* can result a “thrashing” behavior that can degrade system performance. This situation only occurs when the server crashes and continues to crash each time it is restarted by the system. Panther provides a Server Thrashing sensor to notify you of this situation.

You may add new properties to a server configuration by pressing the *Add...* button. Likewise, you can remove a property by pressing the *Remove* button. Editing is done in-place by simply clicking on the current value and setting it to the new value.

11.2.2 Managing Configuration Properties

If you have the appropriate Millennium privilege, Panther will allow you to manage server configurations. If you make changes, you may be prompted to cycle the server (depending on your preferences).

To modify a configuration, double-click the desired configuration or select *Properties* from the context menu. There are two tabs for categorizing the properties of a server. SCP Properties allows you to modify the server’s behavior in Millennium and the Panther Properties allows you to control Panther’s behavior when managing the server. Both tabs are covered in detail below.

SCP Properties

You can change the value of any field on the SCP Properties tab except Entry ID. As an example, CPM Process is shown in [Figure 583](#).

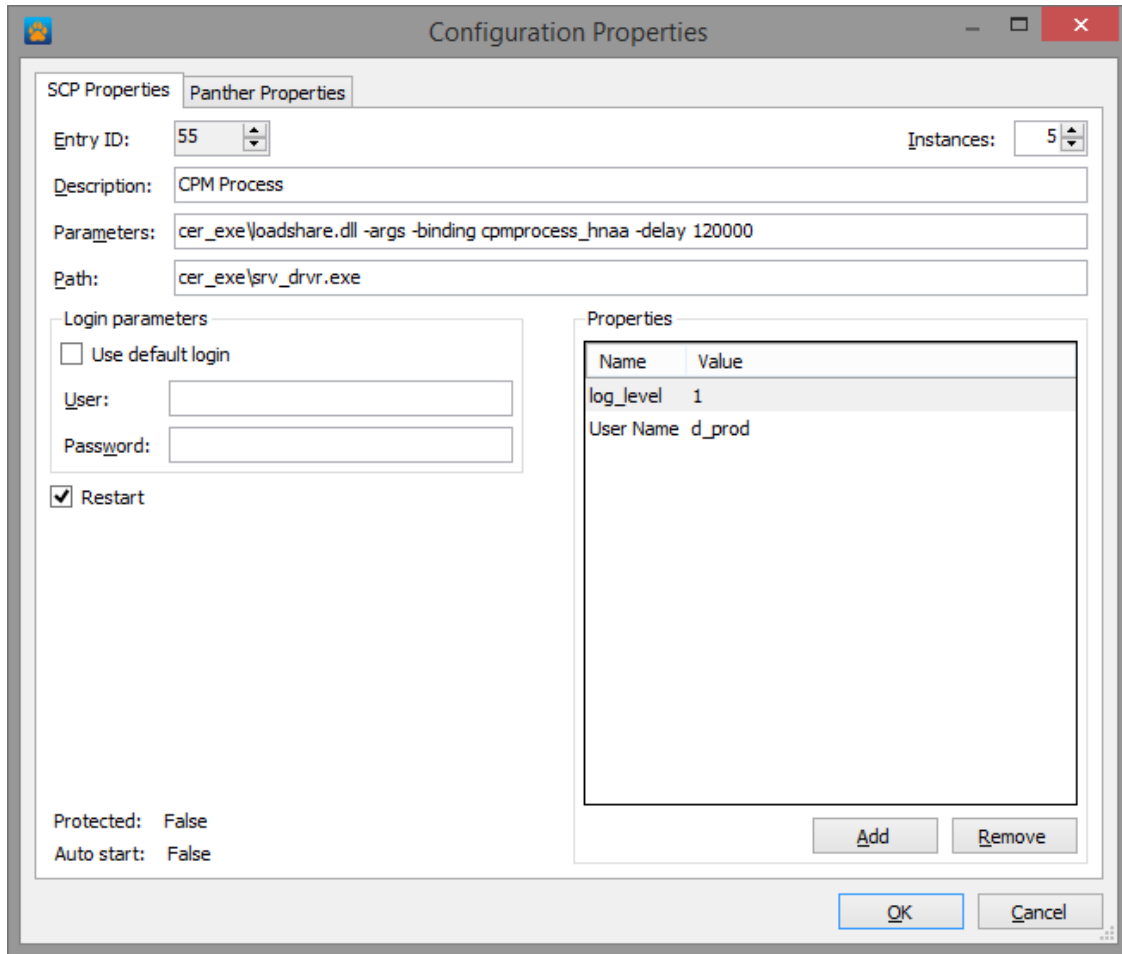


Figure 583: Configuration Properties

SCP Properties only apply to a single server, so if multiple servers are selected, the tab is disabled ([Figure 584](#)).

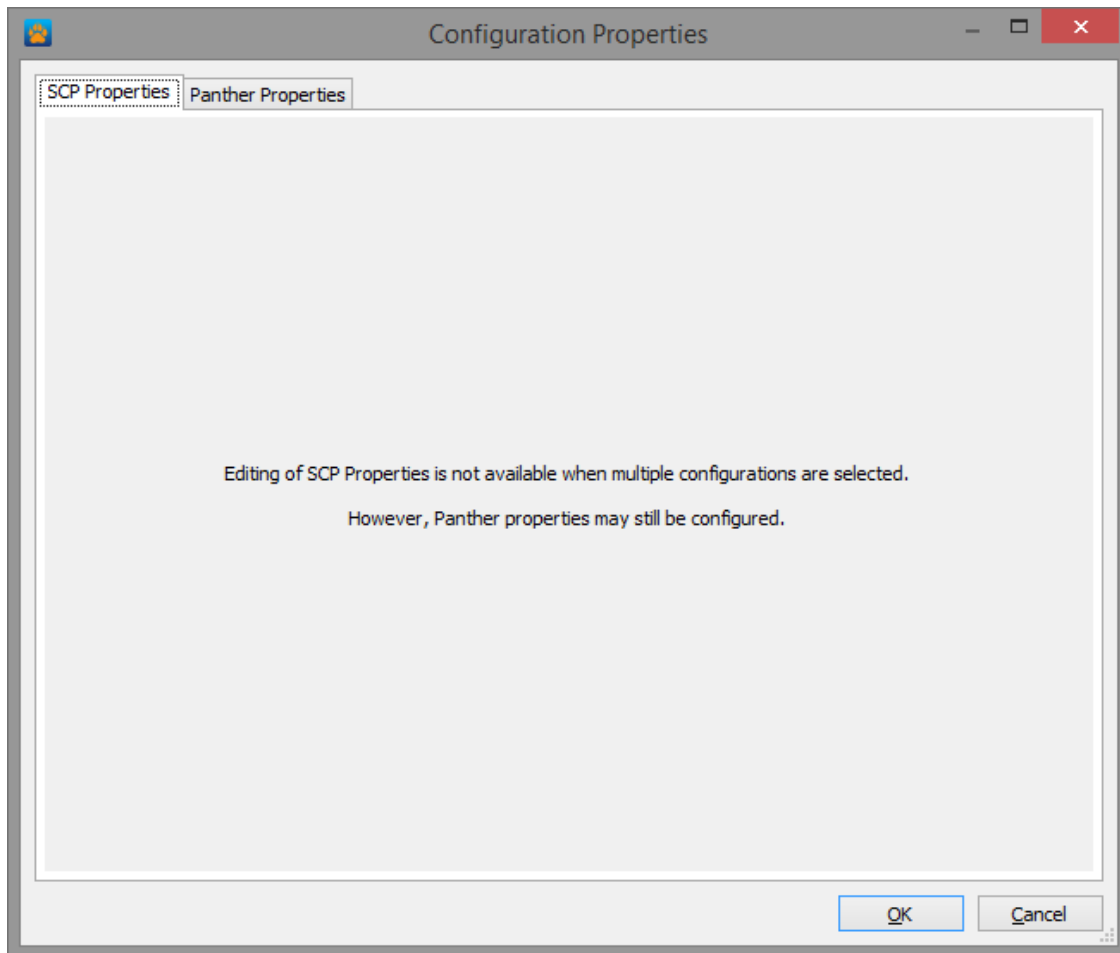


Figure 584: Configuration Properties - Multiple Servers

The *Description* field is a mechanism for identifying a server by name rather than by Entry ID.

The Parameters are command line arguments that are passed into the server at startup, and the properties are name-value pairs that the server uses to define certain behaviors.

If you do not want the server to use the default login, you can specify a user and password, and indicate whether the Millennium system will restart the server automatically if an instance happens to crash.

You have the option of adding your own Configuration Properties or defining custom values to existing Configuration Properties. To create a property, click the *Add...* button. If you want to define an override for an existing property, enter the property's name exactly as it appears in the Default Properties and the value you want to use instead of the default (shown in [Figure 585](#)).

Clicking the *Remove* button will remove the selected property from the configuration.

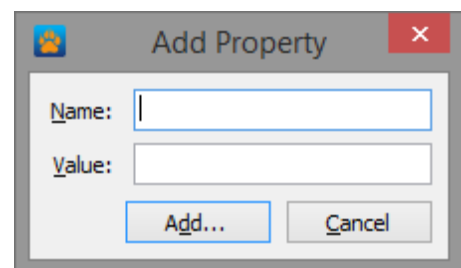


Figure 585: Add Configuration Property

Panther Properties

Cycling Mode

The cycling mode is specific to a server for given domain and node.



You can edit the Panther properties of multiple configurations at once.

If you highlight multiple items in the Configurations, Servers or Interfaces controls and open the Configuration Properties dialog, you can edit the Panther properties of all selected items at once. This can be used to quickly modify the cycling behavior of multiple configurations to use the same settings.

To alter Panther's behavior of the server, such as cycling, you can click on the Panther Properties tab shown in [Figure 586](#).

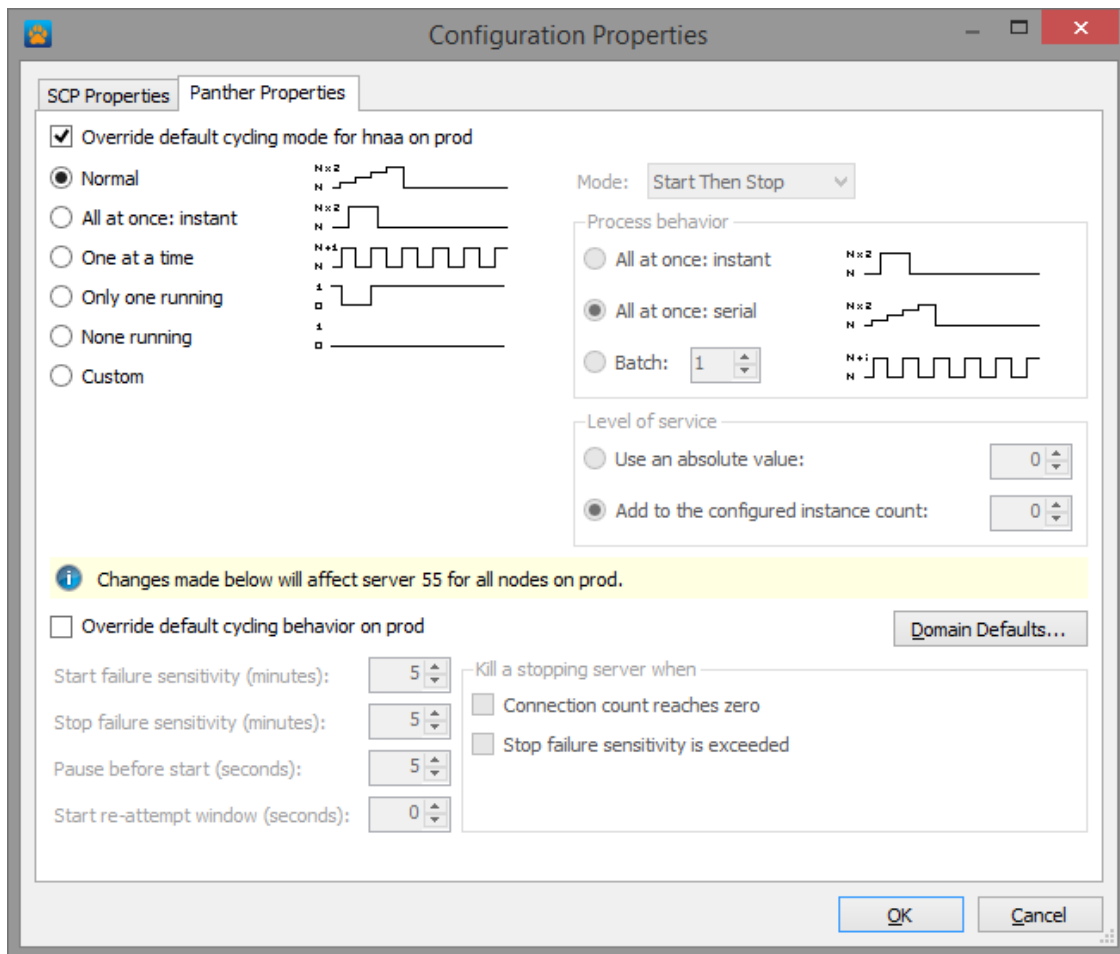


Figure 586: Panther Properties tab

To override the cycle mode as it is shown, check the box to *Override default cycling mode...* Panther provides six predefined settings as well as the ability to customize the cycling process (seen in [Table 127](#)).

Image	Meaning
Normal	Panther will cycle the server in the traditional method of starting each instance one at a time, verifying each instance reaches a running state before continuing to start the next instance. Once the appropriate number of new instances is running, all existing instances are stopped.
All at once: Instant	This option is similar to the "Normal" configuration. With this option, Panther will start all the instances of the server at once rather than waiting for each instance to enter a running state. Once the appropriate number of new instances is running, all existing instances are stopped.
One at a Time	Panther will cycle the server one instance at a time. Panther will start a new instance, verify it reaches a running state, and then stop one of the existing instances. It will continue with this process until all instances are cycled.
Only One Running	This mode is designed for servers that can only have one instance running at a time, such as interfaces. It stops the running instance, and once it is stopped, Panther starts a new instance and verifies it reaches a running state.
None running (failover)	This mode is designed for servers that have zero instances running on a given node and are present simply for failover purposes. Panther expects no instances to be running regardless of the configured instance count.
Custom	Allows you to configure the cycle behavior to fit your custom needs.

Table 127: Cycling Modes

When Custom is selected, three properties (Mode, Process Behavior, and Level Of Service) are available to configure the cycling behavior for your specific needs.

Image	Meaning
Mode	Indicates whether to start new instances or stop existing instances first.
Process Behavior	Indicates whether to cycle all instances instantly, serially or in batches. For batched cycling, the number to cycle at a time is also configurable.
Level Of Service	Specifies how many instances should be running at the end of a cycle process. The level of service can be defined as an absolute value or as an additional number to the configured instance count.

Table 128: Custom Options



Use caution when choosing a cycling mode.

Panther provides great flexibility in defining cycling behavior. However, the behavior should only be overridden after careful consideration.

The Mode of "Stop then Start" is capable of allowing a cycle to result in an underserviced state if it takes too long stopping an instance or an error occurs starting a new instance. Make sure someone is signed up for the notifications Cycle Start Failure and Cycle Stop Failure.

The Mode of "Start then Stop" is safe and will never result in an underserviced state. Use the predefined settings of Normal or One at a Time whenever possible.

Cycling Behavior

Cycling behavior properties are configured for the server on the entire domain, across all nodes.

Property	Description
Start Failure Sensitivity	The time allowed for each instance to reach a running state before it is considered a start failure.
Stop Failure Sensitivity	The time allowed for each instance to stop before it is considered a stop failure.
Pause Before Start	The time to pause before starting the initial instance.
Start Reattempt Window	The time allowed for the start reattempts. If a server instance fails to reach a running state, the start will be reattempted if the elapsed time is less than this time.
Connection count reaches zero	Indicates whether to automatically kill existing servers when the server's connection count reaches zero.
Stop Failure Sensitivity is exceeded	Indicates whether to automatically kill existing server instances that do not stop in the amount of time defined by <i>Stop Failure Sensitivity</i> .

Table 129: Behavior Properties

You can also adjust the default values for the four cycle behavior properties. Click the button *Set Defaults...* to view and change these values. Changes to these values are for the entire domain and affect all servers on the domain that do not have overrides defined.

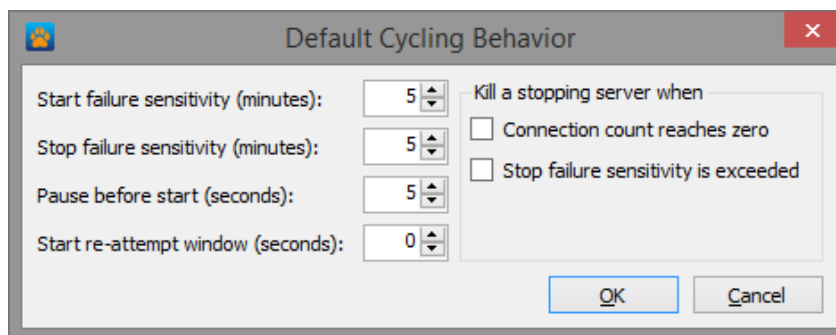


Figure 587: Default Cycling Behavior

Once the desired changes are made to the Configuration Properties, simply click *OK* on the Configuration Properties dialog. If you make changes to SCP properties, Panther asks if you wish to cycle the server. SCP changes will not take effect until the server is cycled.

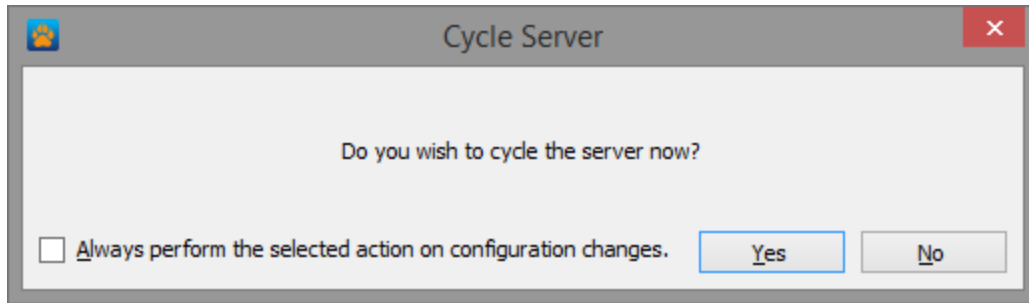


Figure 588: Cycle Server Confirmation

11.2.3 Configuration Checkpoints

Configuration checkpoints are a way to keep snapshots of server configurations. This can be helpful in identifying changes in a domain through time (e.g., before and after applying a service pack), and identifying differences between node and domain configuration.

To view or manage checkpoints, click on *Checkpoint Management* from the context menu. This opens the Configuration Checkpoint Management dialog (shown in [Figure 589](#)).

You can use the Configuration Checkpoints to compare multiple checkpoints, compare a checkpoint to the current configurations, and even restore configurations from a checkpoint to any node or domain.



Why aren't all of my checkpoints being shown?

It is possible that even after creating checkpoints, the checkpoint dialog will appear empty. This is because by default, the checkpoints are filtered to only show the checkpoints relating to the node and domain that the configurations control is currently on. You can show all checkpoints from the Filter dialog.

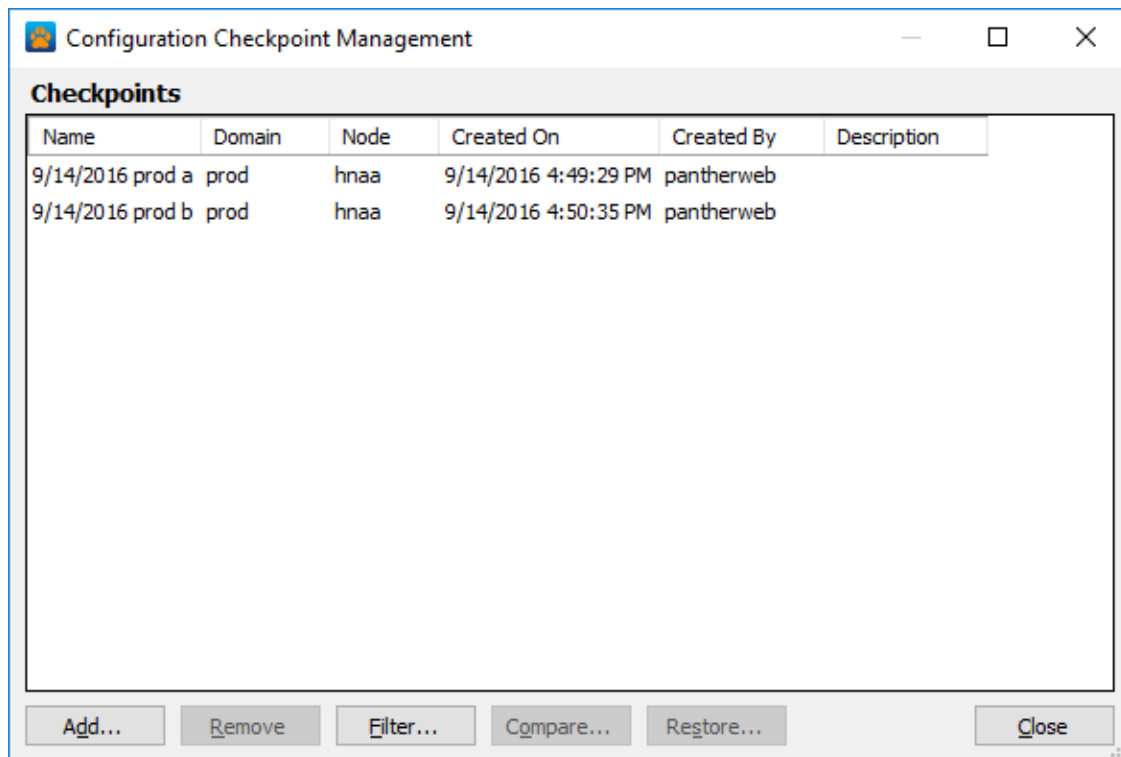


Figure 589: Configuration Checkpoint Management

Filtering Checkpoints

To change the filtering options, click the *Filter...* button, and then select the domains and nodes that you wish to appear in the list of checkpoints.

In the example above, only checkpoints created for the prod domain and the *hnaa* node will appear in the list of checkpoints.

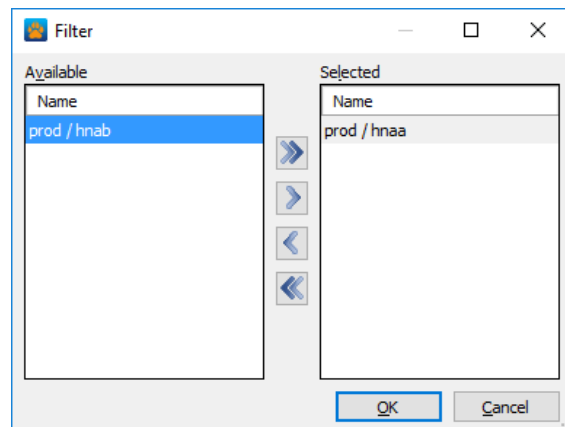


Figure 590: Checkpoint Filter



Both node and domain are important.

In order for a checkpoint to appear within the list of checkpoints, both its domain and node must be selected.

Creating Checkpoints

To create a checkpoint:

1. From the Configuration Checkpoint Management dialog click the *Add...* button.
2. Select the nodes to make a checkpoint of.
3. Give the checkpoint a name and description to help identify it later.

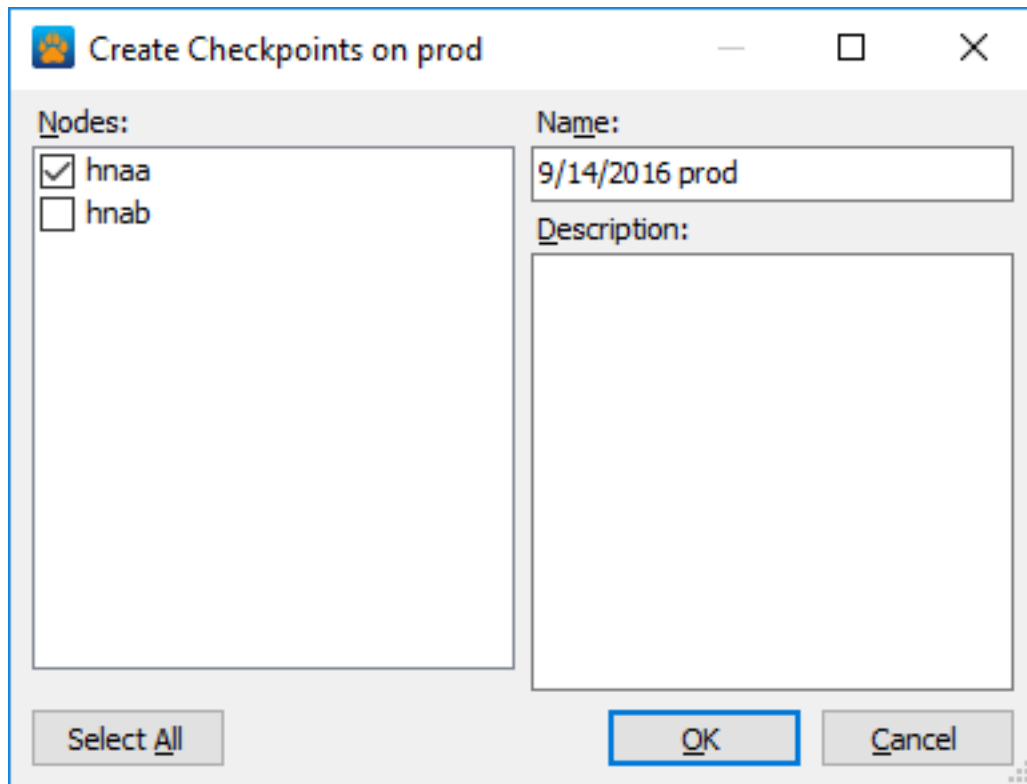


Figure 591: Checkpoint Creation

You can create checkpoints for all of the nodes in a domain at once. When you select multiple nodes, it creates multiple checkpoints: one for each node. By default, the *Name* field will contain the date and selected domain in the following format: YYYY-MM-DD <domain name>.

Each checkpoint has a user supplied name and description as well as the date it was created and the domain and node it was created on. Once a checkpoint is created, it cannot be modified.

Comparing Checkpoints

To compare two checkpoints, select both in the grid. The *Compare* button will become enabled as shown in [Figure 592](#).

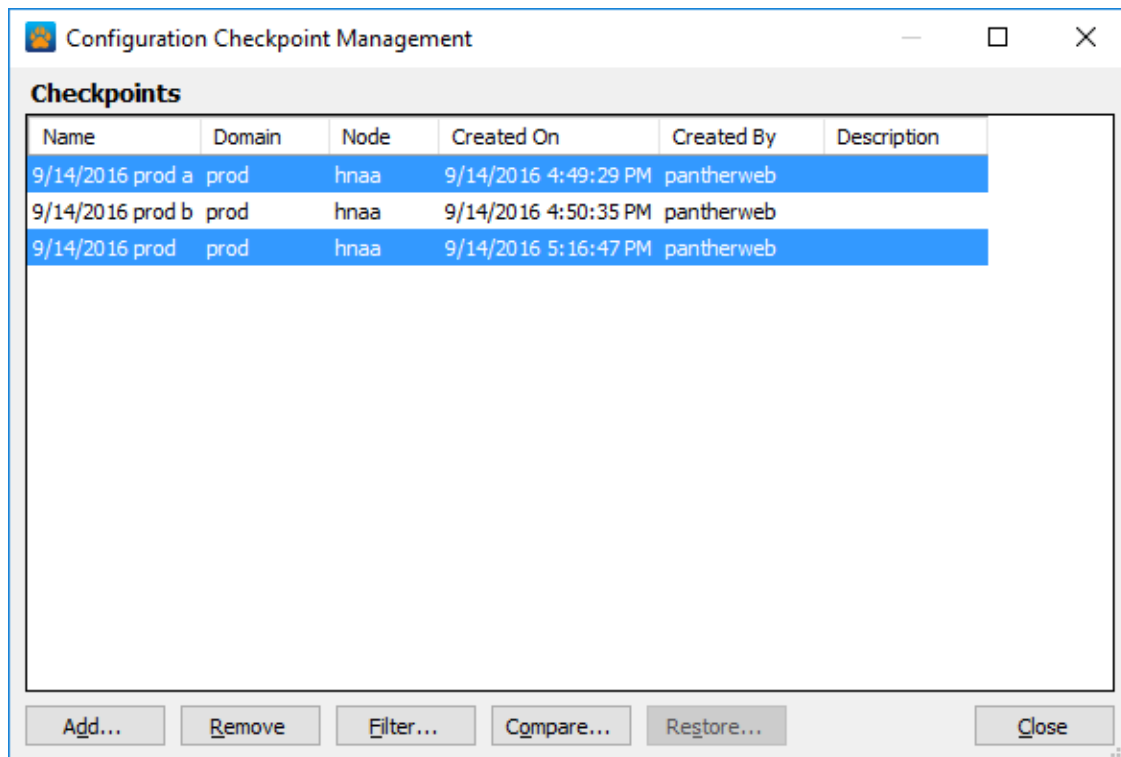


Figure 592: Checkpoint Comparison

To compare these two checkpoints, click the *Compare* button. The Compare Configuration Checkpoints dialog will open (shown in [Figure 593](#)).

Configuration differences appear in the *Source* and *Destination* tables for the selected configuration. Differences causing a status of "Different" appear in red text. It is possible additional differences exist but are being excluded. These are shown in gray text.

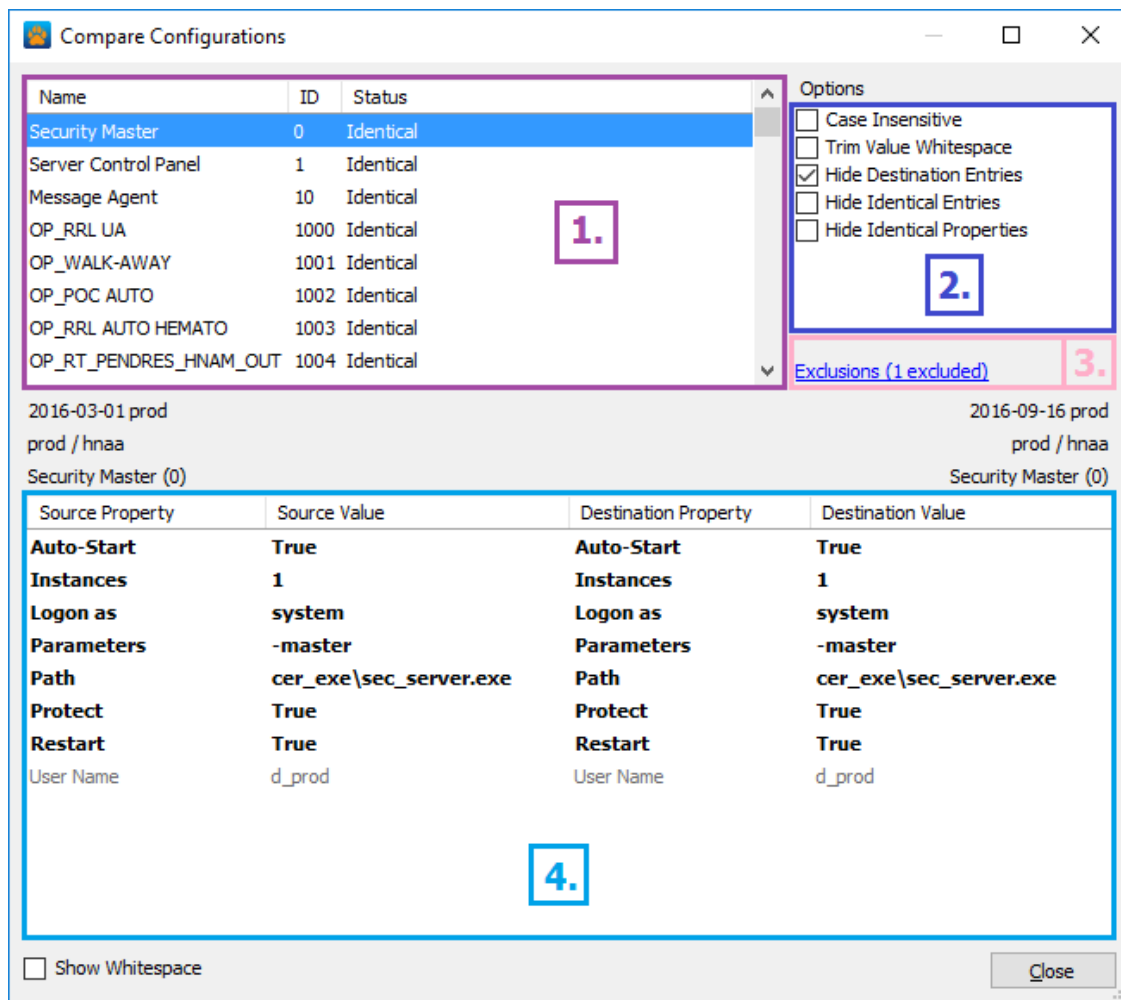


Figure 593: Comparing Configuration Checkpoints

The Compare Configuration Checkpoints dialog has four main components:

1. The list of configurations in the comparison.
2. A list of comparison options.
3. The property exclusion list link.
4. A view of the details of the two versions of the configuration.



Use Options to filter the list of configurations.

You can reduce the number of configurations that appears in the comparison list by selecting *Hide Destination Entries*, *Hide Identical Entries*, or *Hide Identical Properties* from the *Options* list. Additional options are available from the Exclusions dialog.

Option	Description
Case Insensitive Values	When checked, comparison of all values is case insensitive. Property names are always compared with case sensitivity.
Show Whitespace	Whitespace characters (spaces) are shown using a single dot (·).
Hide Destination Entries	Configurations that only the destination contains are hidden from the list.
Hide Identical Entries	Identical configurations are hidden from the list.
Hide Identical Properties	All fields and properties with identical values are hidden from the details view.

Table 130: Comparison Options

Excluding Properties

If the existing comparison options are insufficient for your purposes, Click *Exclusions* to access the Manage Exclusions dialog (shown in [Figure 594](#)).

The Manage Exclusions dialog offers a wide range of options for excluding data from the comparison. By default the *User Name* property will be excluded.

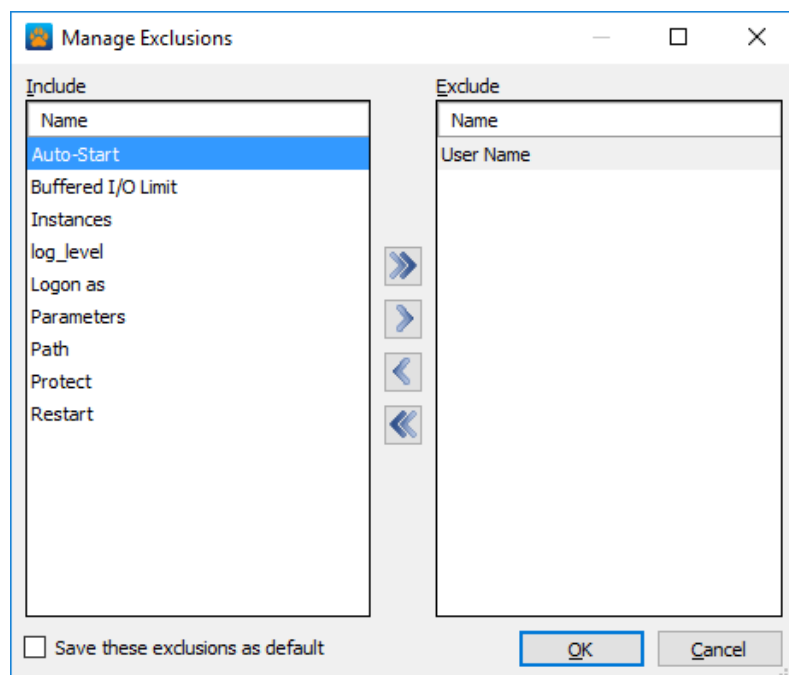


Figure 594: Manage Exclusions

Restoring Configurations from a Checkpoint

After selecting a checkpoint and clicking the *Restore...* button, the Confirm Configuration Restoration dialog opens.

Notice that the layout of the dialog matches the Configuration Comparison dialog ([Figure 593](#)) with the addition of the *Copy* column in the list of configurations and the *Copy* button in the bottom right of the dialog.

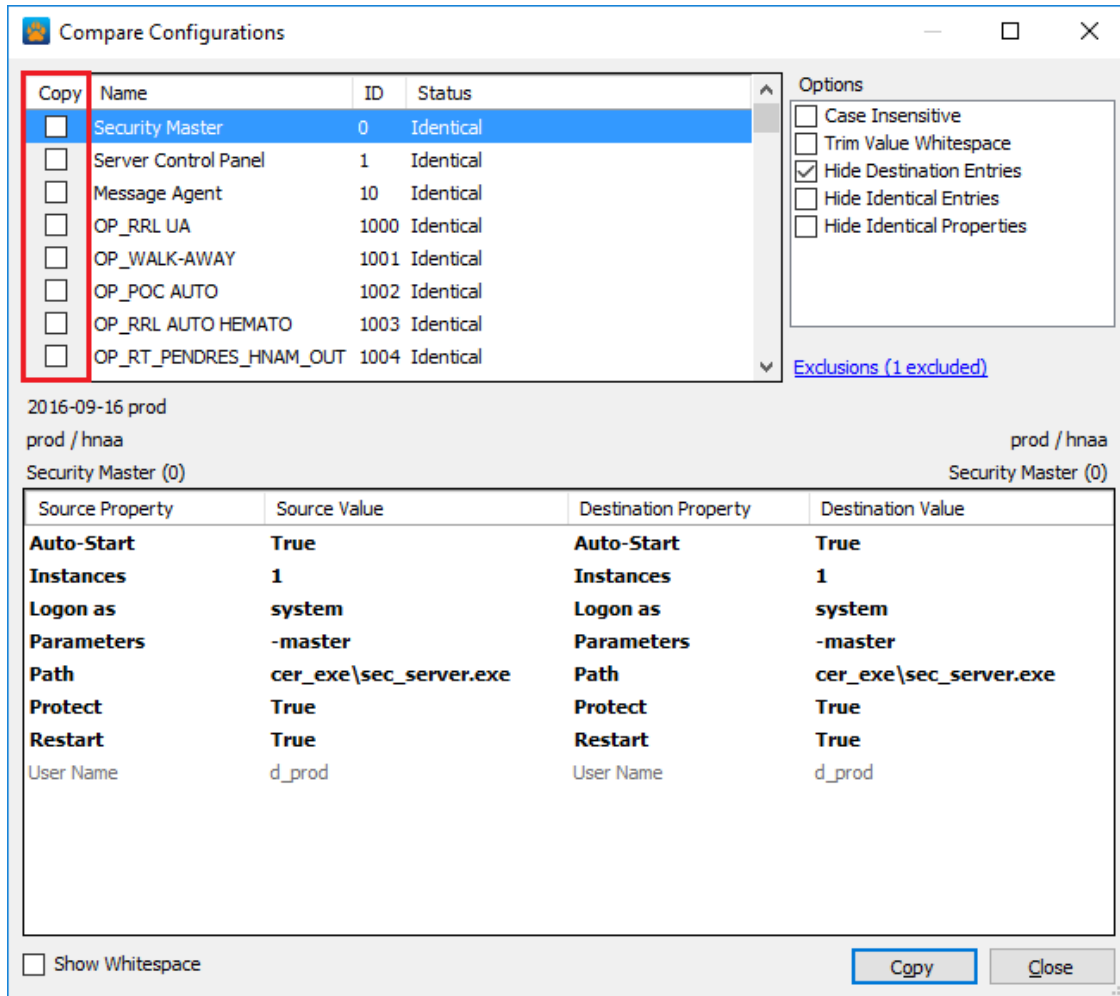


Figure 595: Confirm Configuration Restoration

When restoring configurations from a checkpoint, the checkpoint is the source, and the destination is the node and domain being restored to.

11.2.4 Configuration Defaults

Millennium defines certain default properties for server configurations. The actual list of properties varies by version of Millennium and the Operating System platform.

To access default properties:

1. From the Configurations control (see the section on the Configurations Control for details), right-click in the Server Configurations table.
2. Locate and select the *Default Properties* option in the context menu.

Configuration defaults are a mechanism for setting server configuration properties for all server configurations. These default values can be overridden for a particular server configuration by defining the same property from the Panther Configuration Properties dialog.



Configuration defaults can be shown as columns.

You can also view the default properties as columns in the main control. When you do, the default values will appear in gray letters, and any overridden values will appear in the normal black text. This feature can help you identify what servers are overriding default property values, and whether the overrides are necessary or valid.

To view the configuration defaults, click the *Defaults* button at the bottom of the Configurations view (only visible if the option is turned on from Preferences) or select *Default Properties* from the context menu. This opens the Default Properties dialog shown in [Figure 596](#).

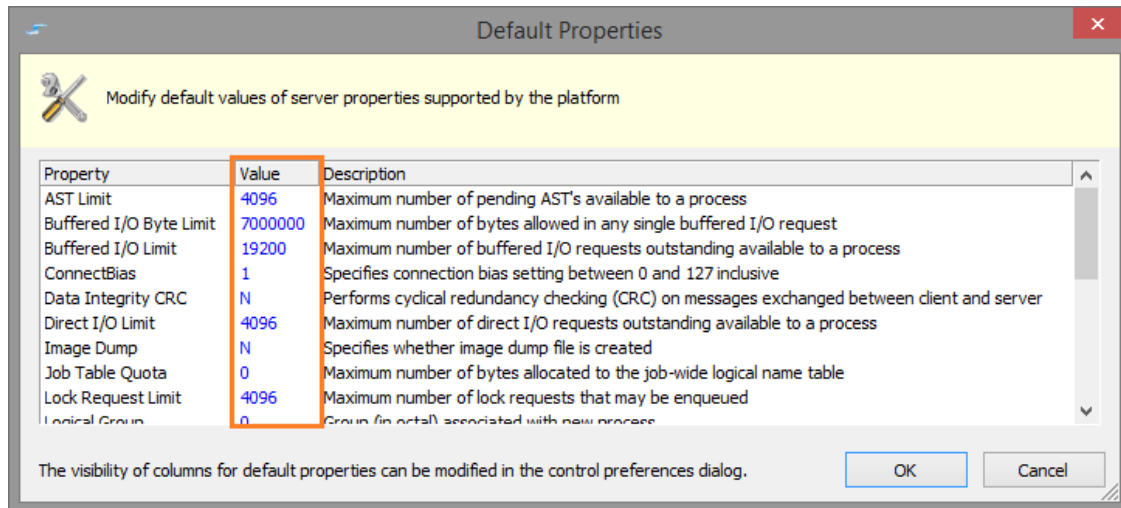


Figure 596: Default Configuration Properties

To modify a default property value, simply click on the current value. This provides a cursor where you can type in the new value (Example: ConnectBias on [Figure 596](#)). When the desired changes are made, click *OK*.

Changes made here will not be completed on the node until SCP is cycled. This must be done from Millennium's bus view unless the privileges have been changed to allow Panther to cycle SCP.



Check your default property overrides often.

Millennium will always use a server specific property value over the default value, therefore whenever you modify a default property value be sure to check for server specific overrides to ensure that the override values are still necessary and valid.

11.2.5 Message Logs

Users with the 'Access Server Logs' privilege can right-mouse click on a configuration to access the associated message log. Selecting *Message Log* from the Configurations context menu opens the Message Log Contents dialog similar to [Figure 597](#).

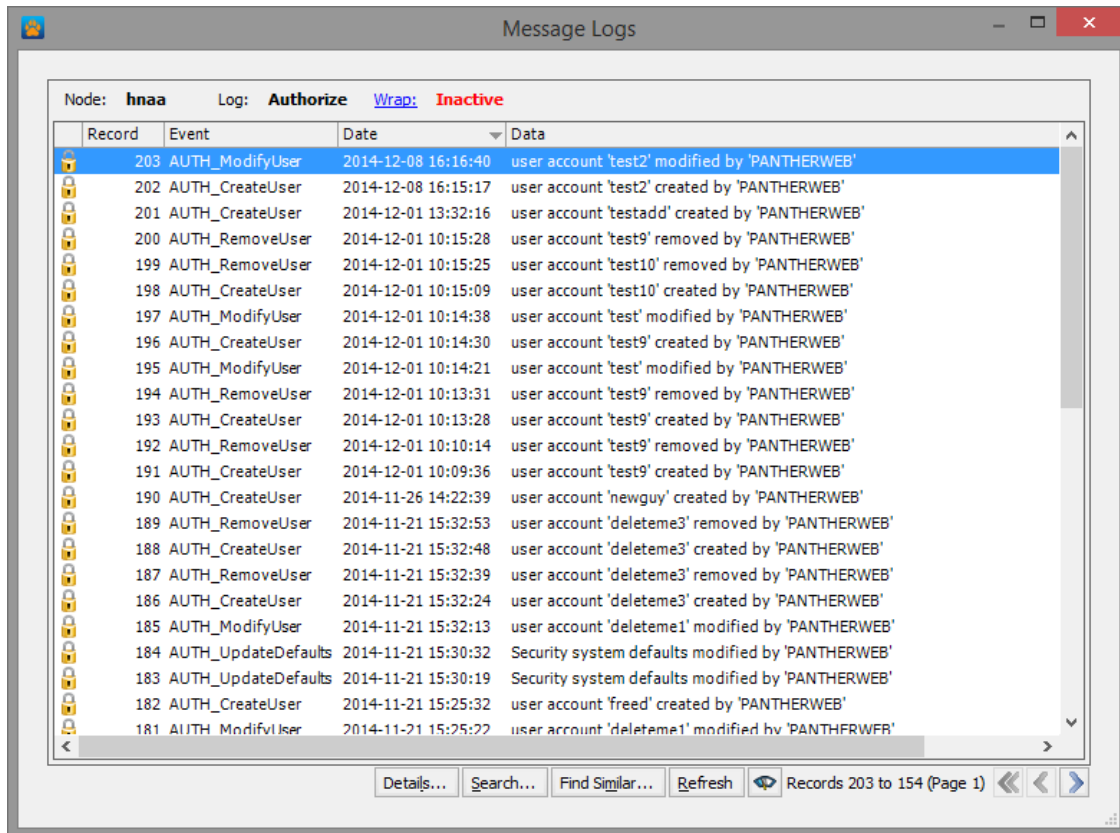


Figure 597: Message Log Contents

This dialog displays the Message Log data that will display in the Server Logs control elsewhere in Panther. For more information about navigating through these logs, refer to [Section 11.10](#), Message Logs Controls.

11.2.6 Server Notes

Server Notes can be viewed from both the Configurations control and the Servers control.

To access *Server Notes* from the Configurations control:

1. Select the configurations you wish to create/modify notes for.
2. Right-click the selected configurations.
3. Locate and select *Server Notes* from the Configurations context menu.

Selecting *Server Notes* opens the Manage Server Notes dialog (shown in [Figure 598](#)).

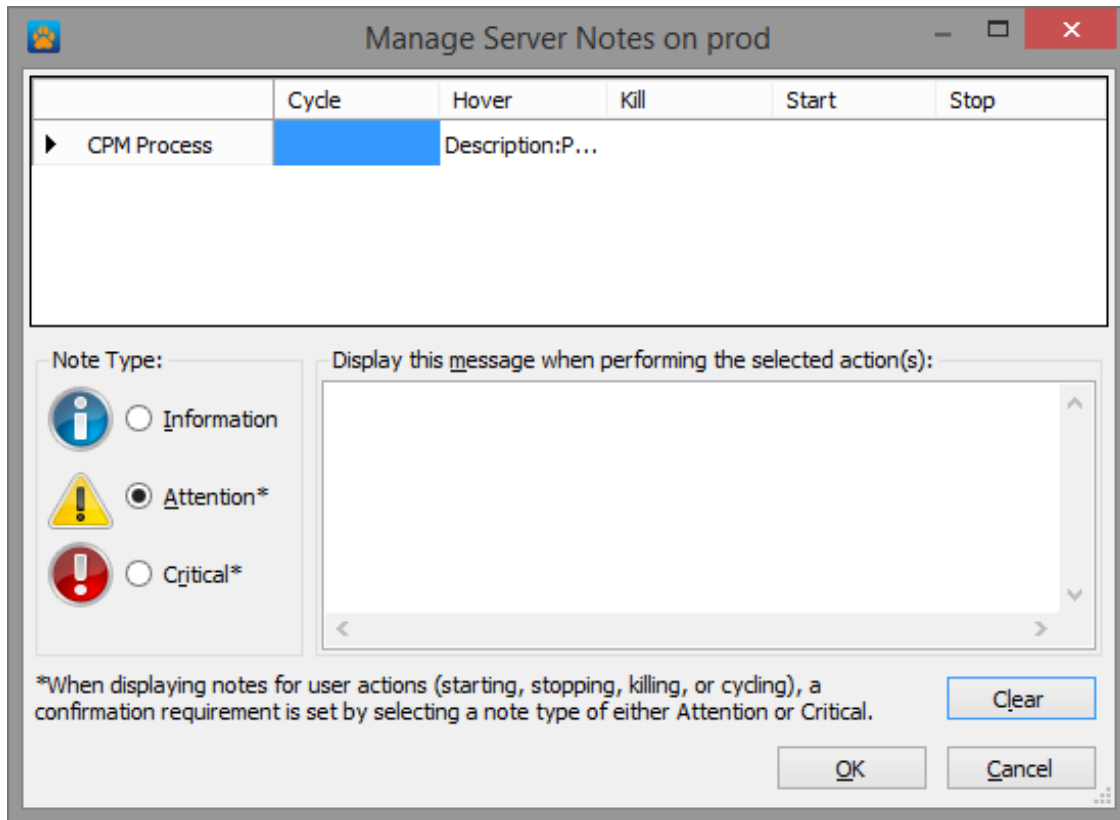


Figure 598: Server Notes

The Manage Server Notes dialog allows you to create notes for four actions (Starting, Stopping, Killing, and Cycling), and for when the user hovers the mouse over the associated server.

Server Notes give you a way to warn other users of the consequences that go along with taking certain actions on a server such as stopping, starting, killing or cycling the server.

Hovering Notes (also known as Hover Notes) will appear when a user hovers over the server or its configuration. These are useful when you want to provide details about servers that are not available as column items or that are unique to your organization's Millennium management strategy.

Creating Server Notes

1. From the Configurations Control, select the servers for which you wish to create notes. This opens the Manage Server Notes dialog (Figure 598).
2. From the Manage Server Notes dialog, select the cells in the table at the top of the dialog that correspond with the server, the note it will belong to, and the action that will trigger the note.
 - For example, you may want to warn clinicians that a certain server should never be stopped during business hours. In this case, you would click in the cell of the table where the *Cycling* column intersects with the server that warning would belong to.
 - Multiple servers can be selected at a time.
 - Multiple states can be selected at a time.
3. Once server(s) and trigger(s) have been chosen, select the Note Type (Information, Attention or Critical) to access the message area.

- If you select a note type of Attention or Critical, and a triggering action of Starting, Stopping, Killing, or Cycling users will be required to confirm requests to perform the associated action(s). This is useful when it is imperative that anyone wanting to perform an action on the selected server knows the ramifications of their request.

4. Type the note to appear to the user in the message area of the dialog (shown in [Figure 599](#)).

	Cycle	Hover	Kill	Start	Stop
▶ CPM Process		Description:P... test on killing			test on stopp...

Note Type:

☒ Information
☐ Attention*
☐ Critical*

Display this message when performing the selected action(s):

Description:
Processes requests routed to it, and can route that request to other req

Service Name = CPMProcess
Multiple Instance / Node = Y / Y

*When displaying notes for user actions (starting, stopping, killing, or cycling), a confirmation requirement is set by selecting a note type of either Attention or Critical.

Clear OK Cancel

Figure 599: Server Notes

Notice that as you type a note into the message area of the dialog, the note appears in all of the selected server and trigger action cells of the grid at the top of the dialog.

1. Click *OK* to save the note(s) and close the dialog.



You can create a note for all open engine servers.

You can create a note for all open engine servers or any other group of servers by selecting all of the open engine servers, selecting *Server Notes...* and then typing a message for the servers.

To remove a note, highlight the note in the grid, then click the *Clear Note(s)* button. This button can be used to remove any number of notes at once.

If a configuration is removed, Panther will retain the associated note. If a configuration is later created with the same Entry ID, the old note will be associated with the new configuration. This can be prevented by removing the note before deleting the configuration.

11.2.7 Copying or Comparing Configurations

In addition to creating and restoring configurations from checkpoints, you can drag and drop, or copy and paste (Ctrl+C, Ctrl+V) server configurations from one Configuration control to another Configuration control. You can do this across nodes, domains, and Panther sessions.

When you drop or paste configurations onto a Configurations control, the Compare Configuration dialog, will open (shown in [Figure 600](#)).

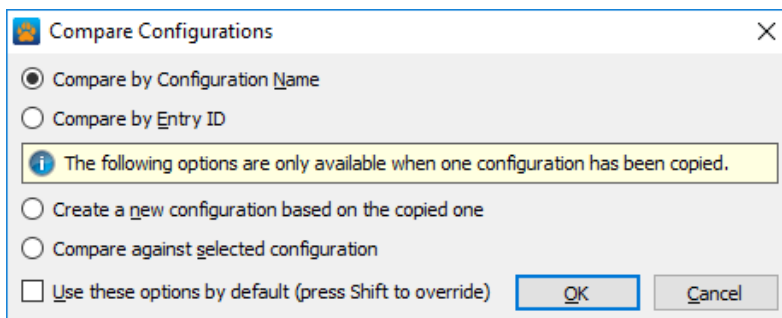


Figure 600: Compare Configurations

This dialog always gives the option to compare configurations by Name or Entry ID. If you have only copied one configuration, you have the additional options of creating a new configuration based on the copied one, or comparing it directly to another configuration. Selecting an option and clicking the *OK* button opens the Confirm Configuration Copy dialog (shown in [Figure 601](#)).

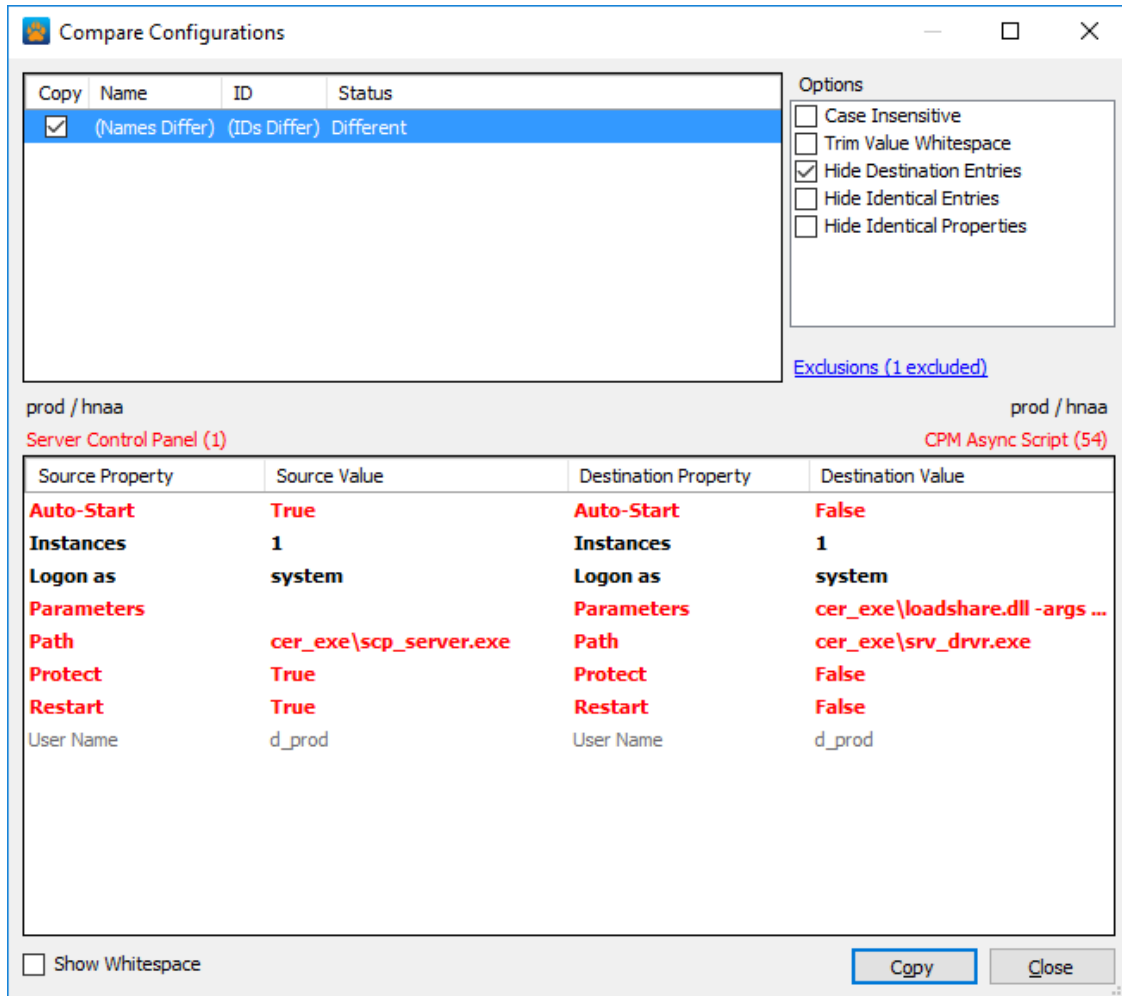


Figure 601: Confirm Configuration Copy

The Confirm Configuration Copy dialog is very similar to those used for restoring or comparing checkpoints, shown in [Figure 593](#) and [Figure 595](#)). It supports the same filtering and exclusion options.

In order to accept the displayed changes and copy the configuration(s), check or un-check the appropriate configurations in the *Copy* column. Once the desired configurations are checked, click the *Copy* button.

11.2.8 Preferences

The Preferences dialog allows you to define preferences that relate to the behavior and display of the control. These settings are unique to your account and will be remembered between login sessions.

Preferences Tab

This tab allows you to define how the Configurations control behaves in response to user actions.

Configuration Preferences
Automatically cycle servers: Cycles servers immediately after a configuration change, without asking for confirmation.

2. **Prompt to cycle servers:** Requests confirmation before cycling in response to a configuration change request. This is the default.
3. **Do not cycle servers:** Does not cycle or request to cycle when configurations are changed.

Cycling Server Preferences

- **Confirm cycle requests:** Requires confirmation of every cycle request before cycling.
- **Show dialog of successful cycle requests:** Displays a dialog after the completion of every cycle request, otherwise, only cycle requests that are blocked or fail will display a dialog.

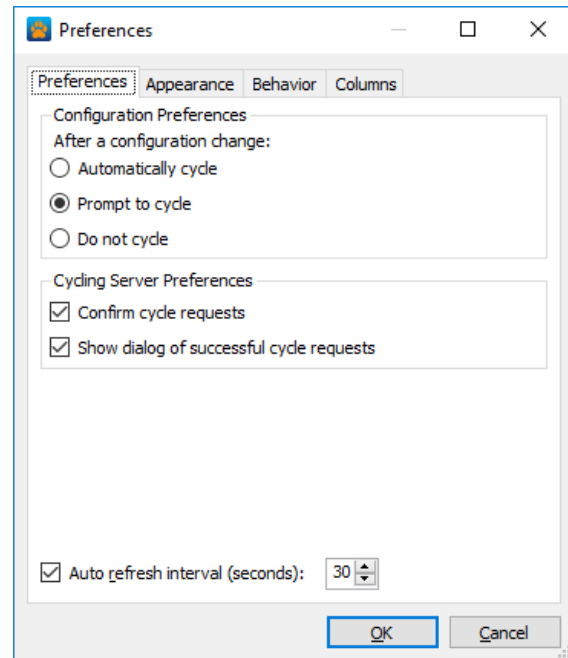


Figure 602: Preferences

You may also specify that this control “auto refresh” itself on a given interval. When the Configurations control refreshes it queries the database for new information, so the more frequently it refreshes the busier the database will be.

Appearance

This tab allows you to customize the appearance of the Configurations control.

The only Appearance option for the Configurations control is whether to show or hide the button strip.

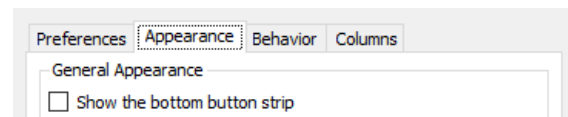


Figure 603: Appearance Tab

The button strip is useful for quick access to *Add* and *Remove* configuration features, as well as accessing the *Default Preferences*.

Behavior

This tab allows you to customize the way the *Paste* feature works for the Configurations control. These same options will appear in a special dialog each time you past a configuration into the control by default (*Always prompt*).

If you do not want to be asked how you would like to compare pasted configurations, you can select one of the other options to be your standard behavior.

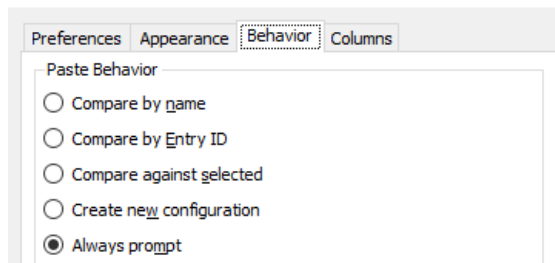


Figure 604: Behavior Tab

Columns

This tab allows you to define which columns to display when viewing server configurations.

The list of columns is dynamically built from the properties of the server configurations. The *Has Default* column indicates whether the property is available as a Millennium default property. The *Relevance* column is an indication of how many configurations have that property defined.

You may quickly alter the list of shown columns in this list by using the *Show only checked items* and *Show only properties with defaults* checkboxes at the bottom.

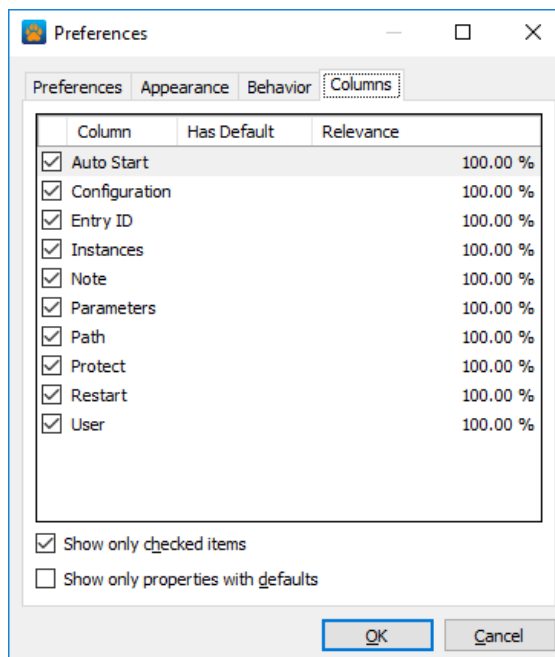


Figure 605: Columns Tab



How to: Find bad server properties

You can quickly identify servers with bad server properties by scanning the list on the *Columns* tab of the Preferences dialog. Since the server properties can be entered by hand, it is possible for them to be mistyped.

For example, when scanning the list, if you see “log level” and “Log Level” as two separate entries in the columns list, you know that some server configuration has a parameter called “Log Level” instead of “log level”. To locate this errant configuration, check the *Log Level* column in the columns list, then sort by that column from the Configurations control, and the server with this value defined will sort either to the top or bottom of the list making it easier to find.

11.3. Cycle Groups Control

The Cycle Groups control allows you to define cycling settings for multiple servers at one time to be used whenever that group of servers needs to be cycled. A cycle group is treated as a single unit that can either succeed or fail. The Cycle Groups control can be found in the Domain Explorer (Figure 606) under the domain.

Most users can only view and cycle groups that are assigned to them. However, users with the 'Manage Cycle Groups' privilege are allowed to add, edit, and remove any cycle groups. Users with this privilege may view all available cycle groups instead of only those assigned to them. This chapter covers all functions available to users with the 'Manage Cycle Groups' privilege.

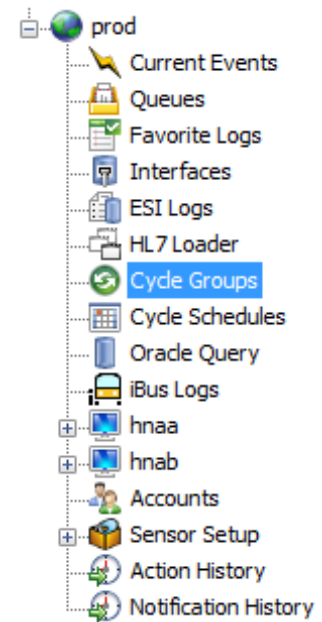


Figure 606: Domain Explorer

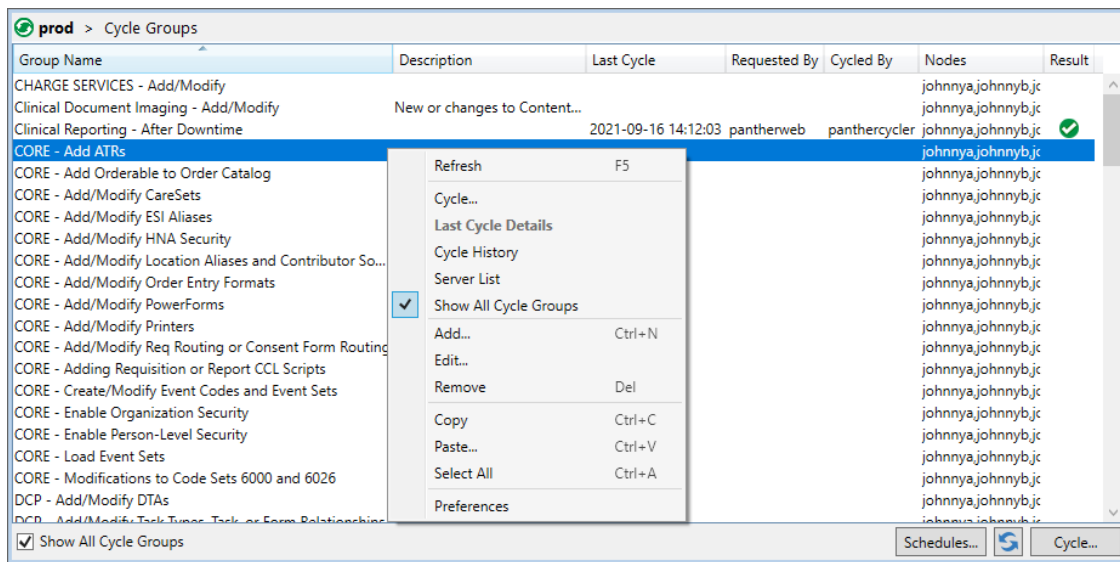


Figure 607: Cycle Groups Control

Menu Option	Description
Refresh	Refreshes the displayed cycle groups.
Columns	Allows users to choose which columns appear in the control.
Cycle...	Cycles the selected cycle groups using their cycling settings.
Last Cycle Details	If the selected cycle group has been cycled, this allows users to view the details of the last cycle operation.
View Cycle History	This will show the cycle history for the selected cycle group(s).
View Server List	Displays a dialog with a list of the servers associated with the selected cycle group.
Add...	Opens a dialog that allows you to set up a new cycle group.
Edit...	Opens a dialog to edit the currently selected cycle group's settings.
Remove...	Removes the currently selected cycle group(s).
Copy	Copies the selected cycle group(s) to the system clipboard.
Paste	Pastes the cycle group(s) currently in the clipboard.
Select All	Selects all displayed cycle group(s).
Preferences	Allows users to define your personal preferences for the Cycle Groups control.

Table 131: Cycle Groups Context Menu

11.3.1 Cycling Cycle Groups

Selecting *Cycle...* from the Cycle Groups [Context Menu](#) or clicking on the *Cycle...* button will open the Cycle Server Group dialog ([Figure 608](#)).

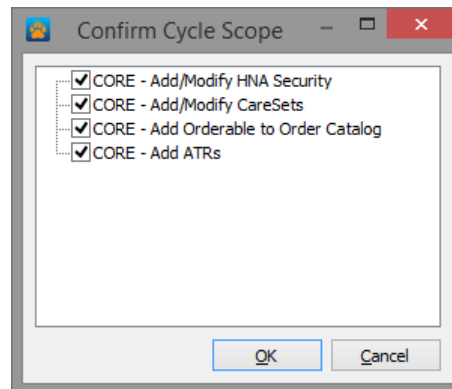


Figure 608: Scope confirmation dialog

The Cycle Server Group dialog presents a chance to confirm the cycle request. Additionally, if a cycle group is not configured to always cycle on all nodes, the user is able to specify which nodes to cycle on. Clicking *OK* will confirm your cycle request, and open the Cycle Response dialog ([Figure 609](#)).



You cannot cycle a cycling server.

Panther does not let multiple users perform a cycle operation on the same server. Cycle Groups are no different in this regard. While a Cycle Group is being cycled, none of the associated servers may be cycled.

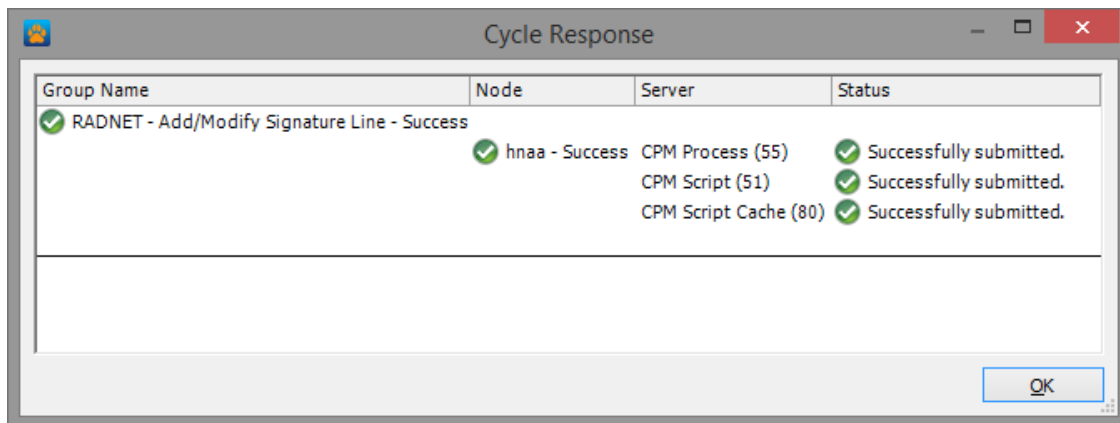


Figure 609: Cycle Response dialog

The Cycle Response dialog presents the status of all submitted cycle requests. It provides warnings when domains or nodes are suspended, when configurations do not exist on certain nodes, or if the cycle request is blocked due to another cycling operation. Cycling of groups will proceed even with warnings, although any errors will cancel the operation.

Clicking *OK* will return you to the Cycle Groups control's main screen. From here, a user can refresh the screen to watch the cycling status or open up the results of the last cycle operation. For information on viewing cycle history, see [Browsing Cycle History](#).

11.3.2 Browsing Cycle History

Selecting *View Cycle History* will display the Cycle History dialog ([Figure 610](#)), which will include all cycling operations performed on the current day for all selected cycle group(s). The Cycle History information provided in this screen will provide some summary information regarding the cycling operations performed. Cycle group history will only display a success result if all cycles in the group succeeded.

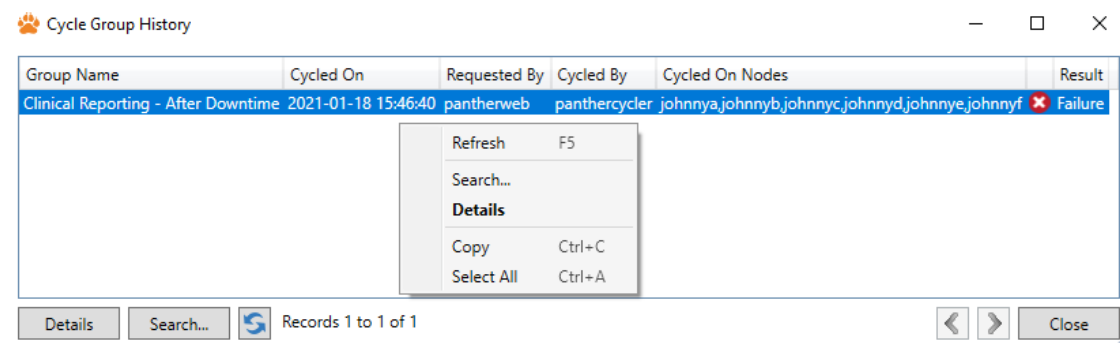


Figure 610: Cycle History dialog

Menu Option	Description
Refresh	Refreshes the cycle history list by performing the search again. This may also be done by clicking the <i>Refresh</i> button.
Search. . .	Opens the Cycle History Search dialog and modify the search criteria.
Details	Displays detailed information regarding the cycle history operation. This may also be done by double-clicking the mouse or clicking the <i>Details</i> button.
Copy	Copies the selected data to the system clipboard in tab-separated format.
Select All	Selects all visible records.

Table 132: Cycle History Context Menu

Searching Cycle History

To see Search History for a cycle group that was not selected when first opening the History dialog, add it to the *Selected Groups* from the Cycle History search ([Figure 611](#)).

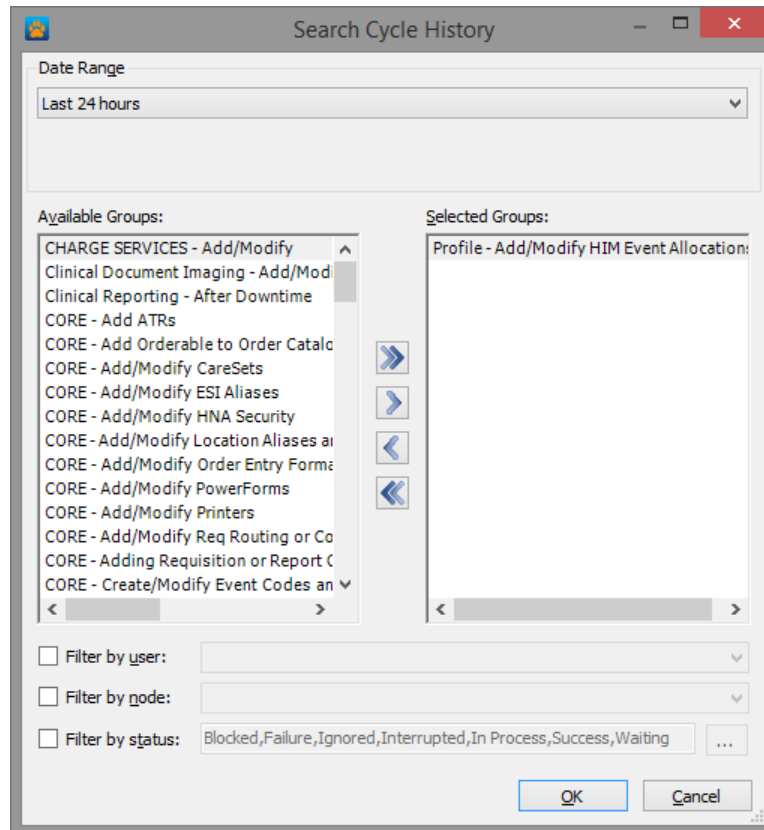


Figure 611: Search Cycle History dialog

Option	Description
Data Range	Defines the span of time used to search for records.
Groups	Identifies the groups whose history records will be shown.
User	Provides the ability to filter by the user who performed the operation.
Node	Provides the ability to filter by cycle operations performed on a specific node.
Status	Provides the ability to filter by specific statuses. Clicking on the ellipsis button (...) will display the Status Selection dialog (Figure 612). This dialog allows a user to specify the statuses that should be returned as a result of the search. This status refers to the results of the individual cycles within the group, not the displayed result of the group. Searching only for success statuses may show failed cycle groups that contain one or more successful cycles.

Table 133: Searching Options

11.3.3 Viewing Cycle History Records

Double-clicking on a record in the cycle history list, or clicking the *Details* button will display the Detailed Information for the selected record.

The cycle history will contain cycling operations that are still in process. When viewing the details for a cycle operation in progress, the *Refresh* and *Auto refresh* will be available. As each individual server's cycling operations reaches a terminal state, they will collapse and display the final status. This provides the ability to watch the cycling operation as it is happening (Figure 613).

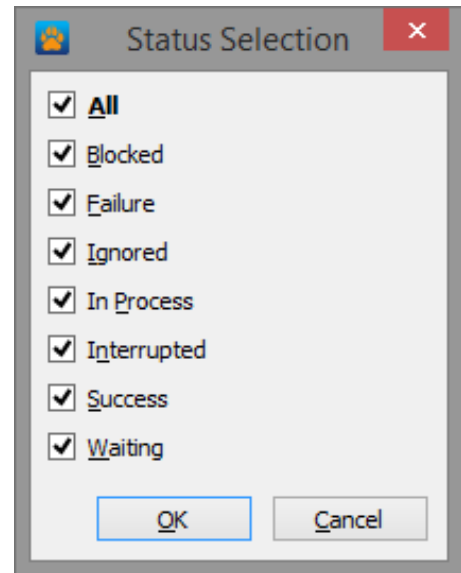


Figure 612: Status Selection dialog

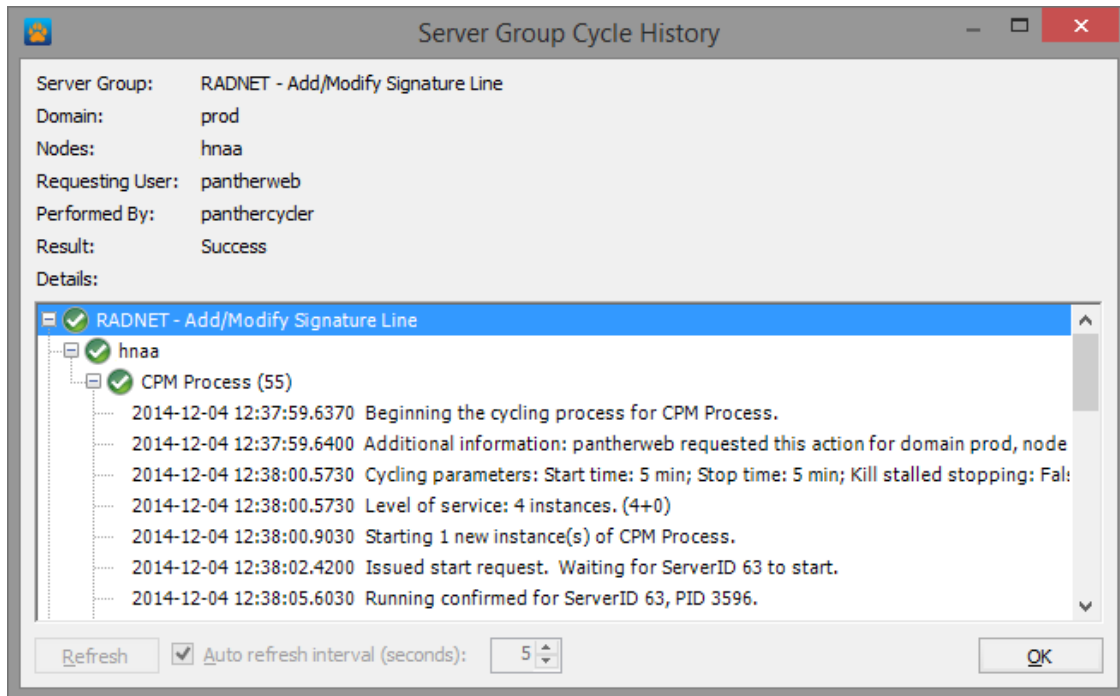


Figure 613: Server Group Cycle History dialog

When a cycling operation is finished, the history shows each step with either a success (✓) or failure (✗) image to the left of the step. Since the operation is complete, the results no longer refresh (Figure 614).

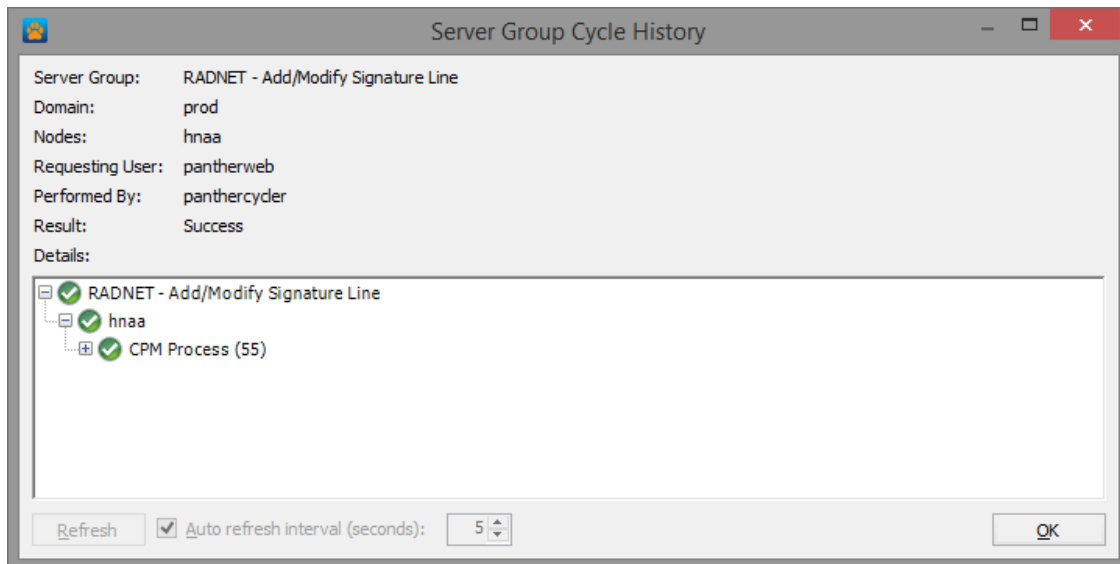


Figure 614: Server Group Cycle History - complete

11.3.4 Viewing Server Lists

Selecting *View Server List* from the context menu of the main control will display a list of servers associated with the selected cycle group ([Figure 615](#)).

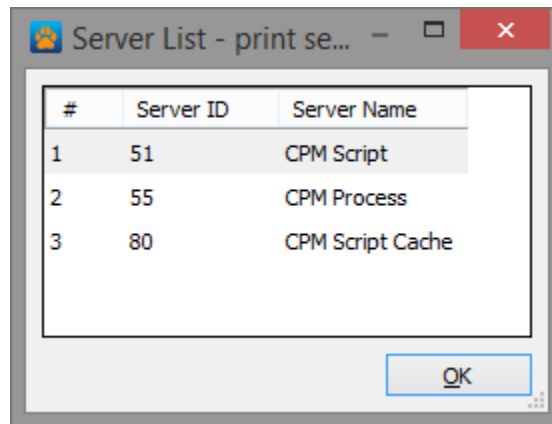


Figure 615: Server List dialog

11.3.5 Creating Cycle Groups

To add a new cycle group, right-click in the main table of the Cycle Groups control and select the *Add...* option from the context menu. This opens the Cycle Group Definition dialog ([Figure 616](#)). Fill out the information for the cycle group and click *OK* or *Apply* to save the new cycle group.

Warnings will appear in three cases:

- There are no servers in the cycle group.
- There are no nodes in the Scope of the cycle group.
- There are no users assigned to the group.

11.3.6 Modifying Cycle Groups

To modify a cycle group, double-click on it in the main control, or select *Edit...* from the Cycle Groups context menu.

The first options are *Group Name* and *Description*, which are available for editing regardless of the selected tab. Other settings for the Cycle Group are split into the following sections.

Servers Tab

In the *Servers* tab, identify which servers to associate with this cycle group. The servers in the cycle group can be given a specific order. Note: some configurations on the “Sequence” tab ignore server order.

The *Stop cycle process upon failing to successfully complete a phase* checkbox will determine whether or not this cycle group should continue or abort when a server fails to cycle successfully.

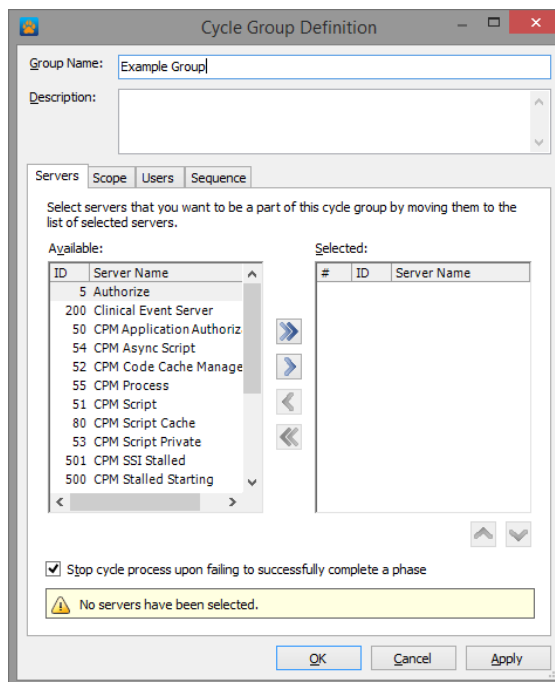


Figure 616: Cycle Group Definition dialog

Scope Tab

The *Scope* tab identifies which nodes are included in the cycle group's definition.

When the *Always cycle this group across all of the selected nodes* checkbox is selected, the option to exclude some of the nodes in the *Included Nodes* list will not be available when a cycle request is made for this group.

When the *Automatically add new nodes by default* checkbox is selected, any time a node is added to this domain, it will be included in this cycle group. This is the default behavior.

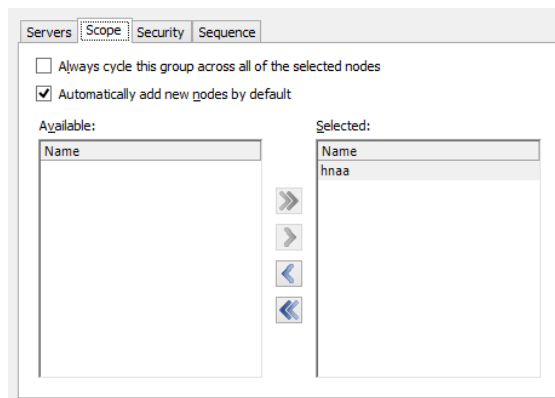


Figure 617: Scope Tab

Users Tab

The main purpose of the *Users* tab is to control who is allowed to cycle the group. Cycle groups can be configured to automatically add new users. Additionally, the *Cycle servers using the user's credentials controls* checkbox determines whether or not the cycle operation will be done with the users' Millennium accounts, or if it should be cycled with Panther's cycling account [User2](#) in most installations of Panther).

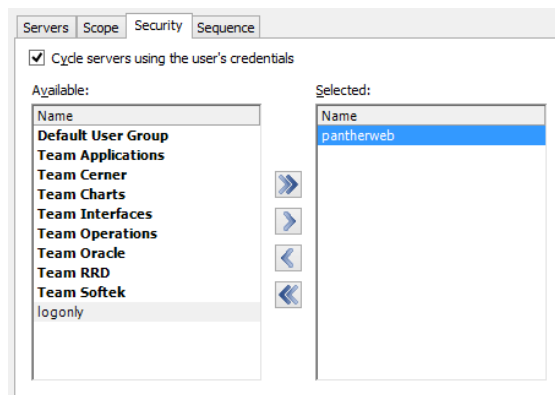


Figure 618: Users Tab



Use Panther's cycling account to allow under-privileged users to cycle.

When you choose not to cycle servers using the user's credentials, you can still allow users without the 'Manage Servers' Millennium privilege to cycle the group using Panther's Cycling Millennium account (typically [User2](#)). This provides a great benefit in which you can create Millennium users who should only be given the rights to do very specific cycling operations while being unable to start, stop, kill or cycle any other servers.

For example, if you are adding printers, certain servers have to be cycled but the user adding the printers may not be allowed to do other work on the servers.

Sequence Tab

In the *Sequence* tab, you may specify the order (if any) that Panther should follow when cycling the servers.

It is anticipated that order will matter in most cycle groups. However, if the order is not important, relieving order requirements of a cycle group can reduce the group's overall cycling time.

Once the Cycle Group is fully configured, click *OK* at the bottom of this dialog to perform the changes made and close the window.

Each of the various cycling sequences have a diagram associated with them to make their behavior more apparent. These diagrams are shown in the [Cycling Sequences table](#) along with the sequence's behavior in the order they appear in the Cycle Group Definition dialog ([Figure 619](#)).

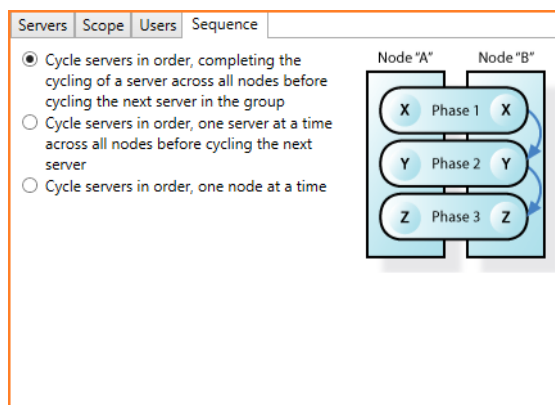


Figure 619: Sequence Tab

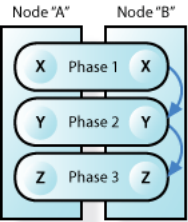
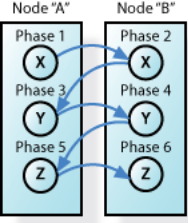
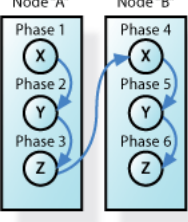
Cycling Diagram	Behavior
	Completes the cycling of server “X” on all selected nodes before the cycling of server “Y” begins.
	Completes the cycling of the first server one node at a time across all nodes before cycling the next server in order one node at a time across all nodes.
	Completes the cycling of all servers in order on the first node before cycling the servers in order on the next node.

Table 134: Cycling Sequences

11.3.7 Removing Cycle Groups

To remove cycle groups:

- Select the desired groups in the main control.
- Right-click the selected groups.
- Select the *Remove...* menu item.

A confirmation dialog will appear to confirm your action (Figure 620).

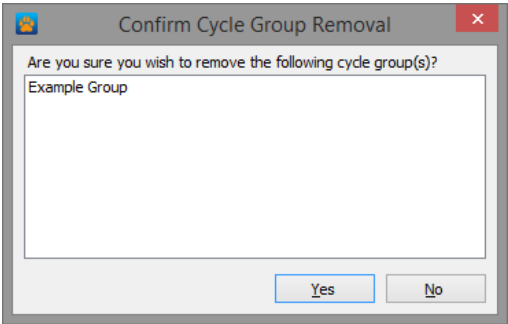


Figure 620: Confirm Removal dialog

11.3.8 Cycle Group Preferences

To access Cycle Group Preferences:

1. Right-click in the Cycle Groups table.
2. Select the *Preferences* option at the bottom of the context menu.

The Cycle Groups control provides options to modify the behavior and appearance of the control.

In this dialog, you can enable or disable the control's automatic refresh behavior, as well as modifying the refresh interval.

The *Show the bottom button strip* option may be useful when displaying the Cycle Groups control in the desktop, to save on vertical space. It will hide the *Refresh* and *Cycle...* buttons.

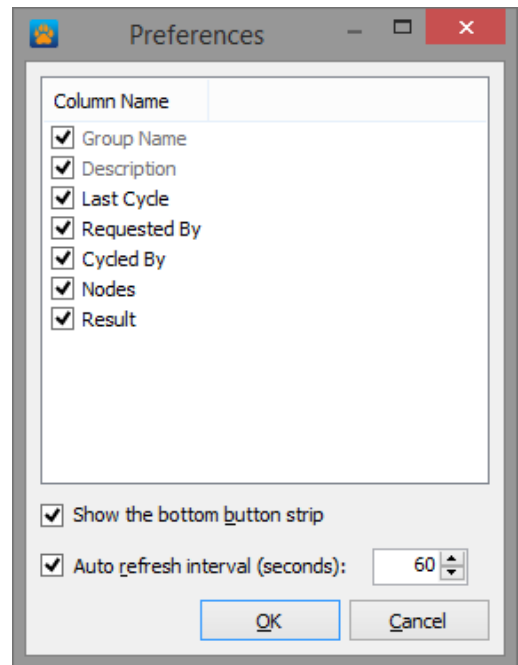


Figure 621: Preference dialogs

11.3.9 Copying Cycle Groups

The following instructions will move a Cycle Group from one domain to another without requiring you to go through setting up the group again:

1. Locate the domain you would like to copy cycle groups from, also known as the Source Domain.
2. Navigate to the Cycle Groups control for the domain using the Domain Explorer ([Figure 606](#)).
 - (a) Once the Cycle Groups control has loaded, select the group(s) to copy.
 - (b) Right-click the selected cycle groups.
 - (c) Select the *Copy* option from the Cycle Groups context menu. Now you have the groups on your system clipboard.
3. Locate the domain you would like to move the selected groups to, also known as the Destination Domain.
4. Navigate to the Cycle Groups control in the desired domain using the Domain Explorer ([Figure 606](#)).
 - (a) Once the Cycle Groups control has loaded for the desired domain, right-click in the list of cycle groups.
 - (b) Select the *Paste...* option from the Cycle Groups context menu. This opens the Copy Cycle Groups dialog ([Figure 622](#)).
5. Review the copy information and any conflicts that may exist in cycle groups between the source and destination domains.

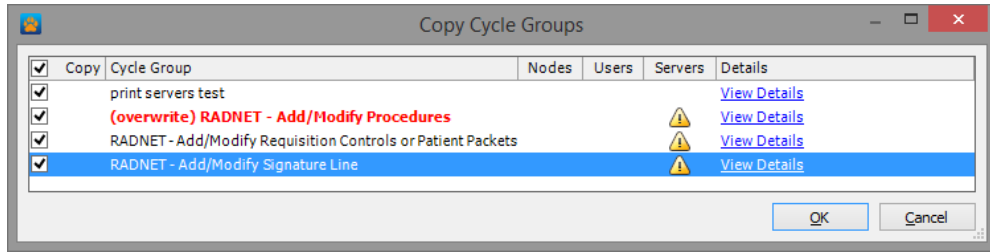


Figure 622: Copy Cycle Groups dialog

- (a) If a cycle group with the same name exists in the destination domain, it will be shown in red and will be overwritten if you continue.

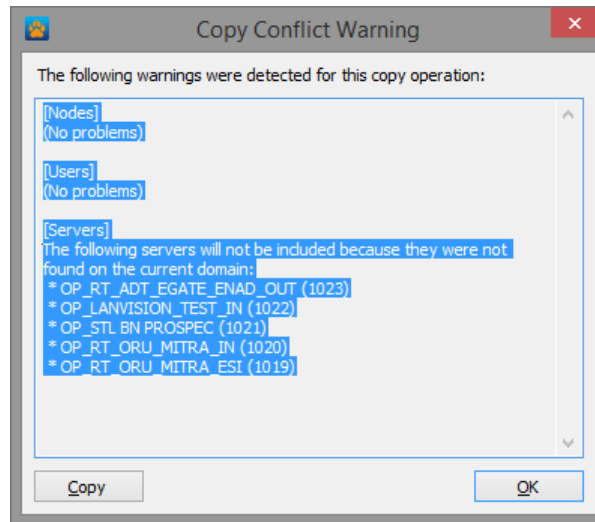


Figure 623: Copy Conflict Warning dialog

- (b) If there are conflicts between the copied cycle groups and those in the destination domain, a warning (⚠) will be shown. Select *View Details* to see the cause of the warning.
6. If the information provided by the Copy Cycle Groups dialog is acceptable, click the *OK* button to perform the indicated actions and move the cycle groups to the destination domain. Otherwise, clicking the *Cancel* button will ignore the paste request and leave the destination domain as it was.

11.3.10 Scheduling Cycle Groups

Users with the 'Manage Cycle Groups' privilege can manage cycle group schedules, by clicking *Schedules...* This opens the Cycle Group Schedules dialog (Figure 624).

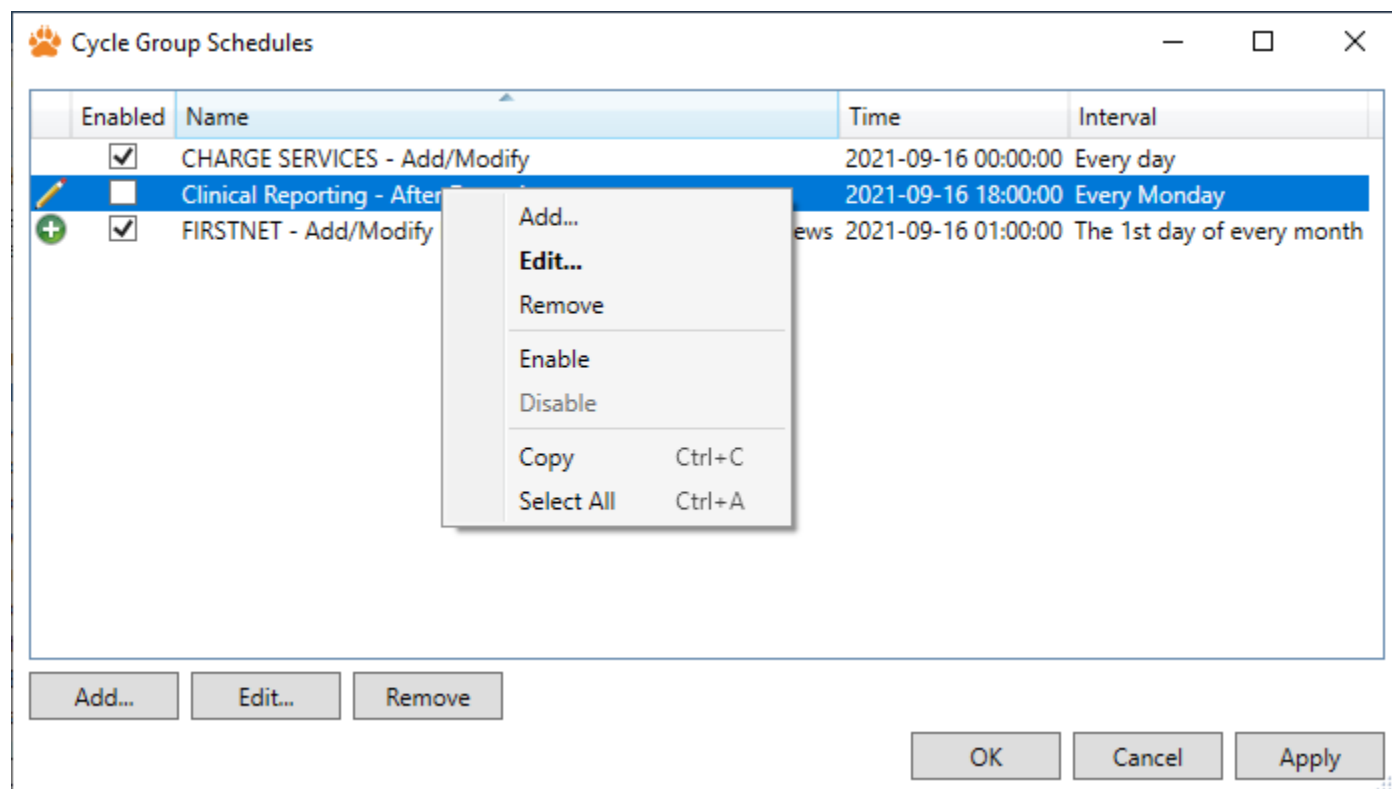


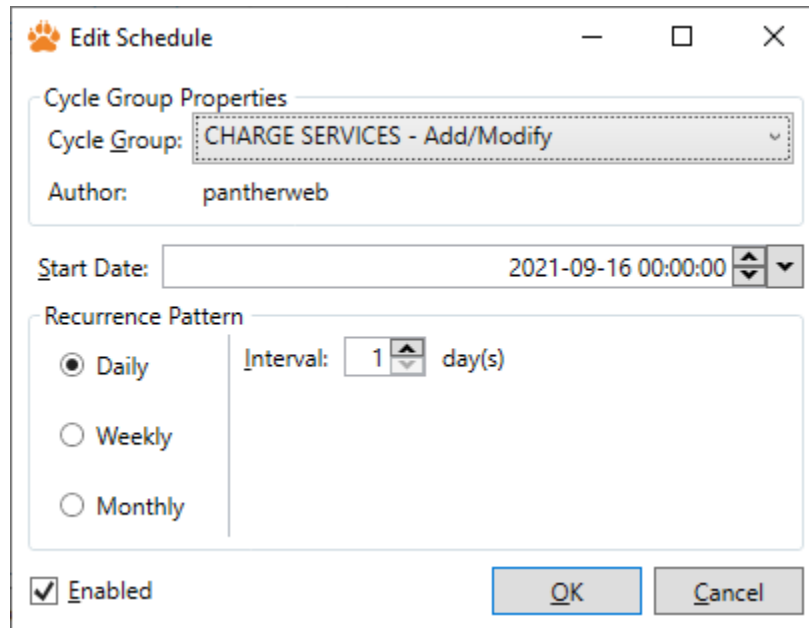
Figure 624: Cycle Group Schedules dialog

Menu Option	Description
Add...	Opens a dialog to set up a new cycle group schedule.
Edit...	Opens a dialog to edit the currently-selected cycle group schedule.
Remove	Marks the currently-selected cycle group schedules for removal.
Enable	Enables the currently-selected cycle group schedules.
Disable	Disables the currently-selected cycle group schedules.
Copy	Copies the selected data to the system clipboard in tab-separated format.
Select All	Selects all visible records.

Table 135: Cycle Group Schedules Context Menu

Add/Edit Cycle Group

Selecting *Add...* or *Edit...* from the Cycle Group Schedules [Context Menu](#) or clicking their corresponding buttons will open the Edit Schedule dialog ([Figure 625](#)).



The dialog box is titled "Edit Schedule" and features a paw print icon. It is divided into two main sections: "Cycle Group Properties" and "Recurrence Pattern".

Cycle Group Properties:

- Cycle Group:** A dropdown menu showing "CHARGE SERVICES - Add/Modify".
- Author:** A text field containing "pantherweb".

Recurrence Pattern:

- Start Date:** A date picker showing "2021-09-16 00:00:00".
- Frequency:** Three radio buttons labeled "Daily", "Weekly", and "Monthly". "Daily" is selected.
- Interval:** A numeric spinner set to "1" followed by the text "day(s)".

Bottom Section:

- Enabled:** A checkbox that is checked.
- Buttons:** "OK" and "Cancel" buttons.

Figure 625: Add/Edit Schedule dialog

The dialog allows selection of the cycle group and definition of the schedule recurrence to use, as well as enabling/disabling the schedule.

11.4. Cycle Schedules Control

The Cycle Schedules control gives users access to Automated Cycle Schedules. From this page, a user can create, remove, modify, copy, or enable/disable cycle schedules.

To view the Cycle Schedules control, select the *Cycle Schedules* item in the Domain Explorer (Figure 626). This will load the control into the Application Workspace.

Image	Meaning
	Attempting to Cycle
	Successful Cycle Attempt
	Failed Cycle Attempt

Table 136: Scheduled cycle status images

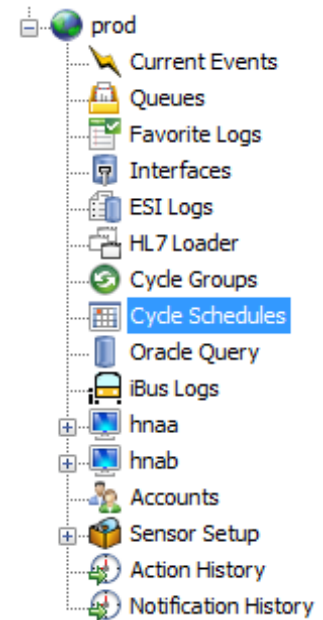


Figure 626: Domain Explorer

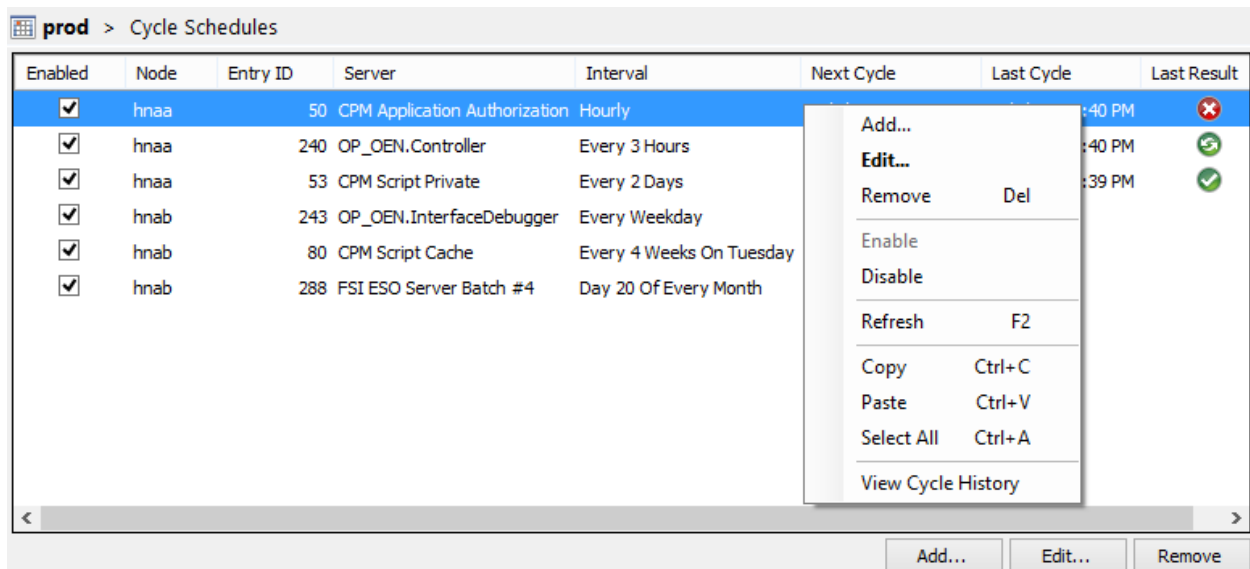


Figure 627: Server Cycler Schedules page

Option	Description
Add. . .	Allows the user to add a new cycle schedule.
Edit. . .	Allows the user to modify the currently selected cycle schedule.
Remove	Deletes the currently selected cycle schedule.
Enable	If disabled, will re-enable the currently selected cycle schedule.
Disable	Disables the currently selected cycle schedule, preventing future cycles until it is re-enabled.
Refresh	Refreshes the page.
Copy	Copies the selected cycle schedules to the clipboard.
Paste	Pastes the contents of the clipboard into the control. If the clipboard currently contains cycle schedules, this will open the Schedule Comparison dialog.
Select All	Selects all of the currently displayed cycle schedules.
View Cycle History	Displays the Action History dialog filtered to only display server cycle history of the selected cycle schedule. For more information on viewing action history, see the Action History Control .

Table 137: Server Cycler context menu

11.4.1 Copying and Comparing Cycle Schedules

When schedule(s) are copied and pasted into a Cycle Schedules table, the Schedule Comparison dialog opens. Pasted schedules will appear in the Source grid on the left and schedules on the current domain will appear in the Destination grid on the right. Pasted schedules may have their node and start time modified through the context menu so that a user can copy Cycle Schedules from one node to the next and offset the schedules by a few minutes, evening out server load.

Selecting a schedule from either grid will select the overlapping schedule (if any) from the opposite grid and highlight any differing properties above.

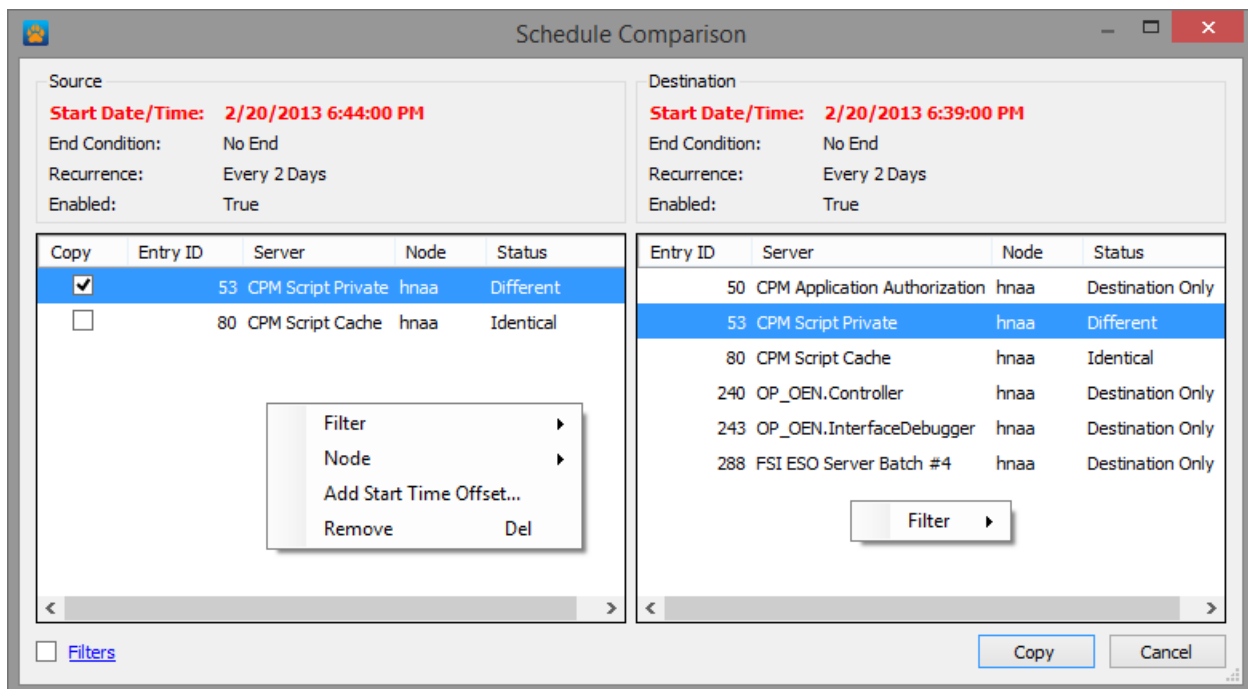


Figure 628: Schedule Comparison dialog

Option	Description
Filter	Set the currently used filters (Figure 629). Filters will not be applied unless the Filters checkbox (located in the bottom left corner) is checked.
Node	Sets the node of the schedule a user wishes to copy. This helps a user to easily copy schedules to a domain with different nodes.
Add Start Time Offset. . .	Adds an offset to the schedule's start time. When copying a schedule across nodes, this can help to even out system load.
Remove	Removes the currently selected pasted schedule from the list of source schedules. This will only remove the schedule from the dialog, not from the system.

Table 138: Schedule Comparison context menu

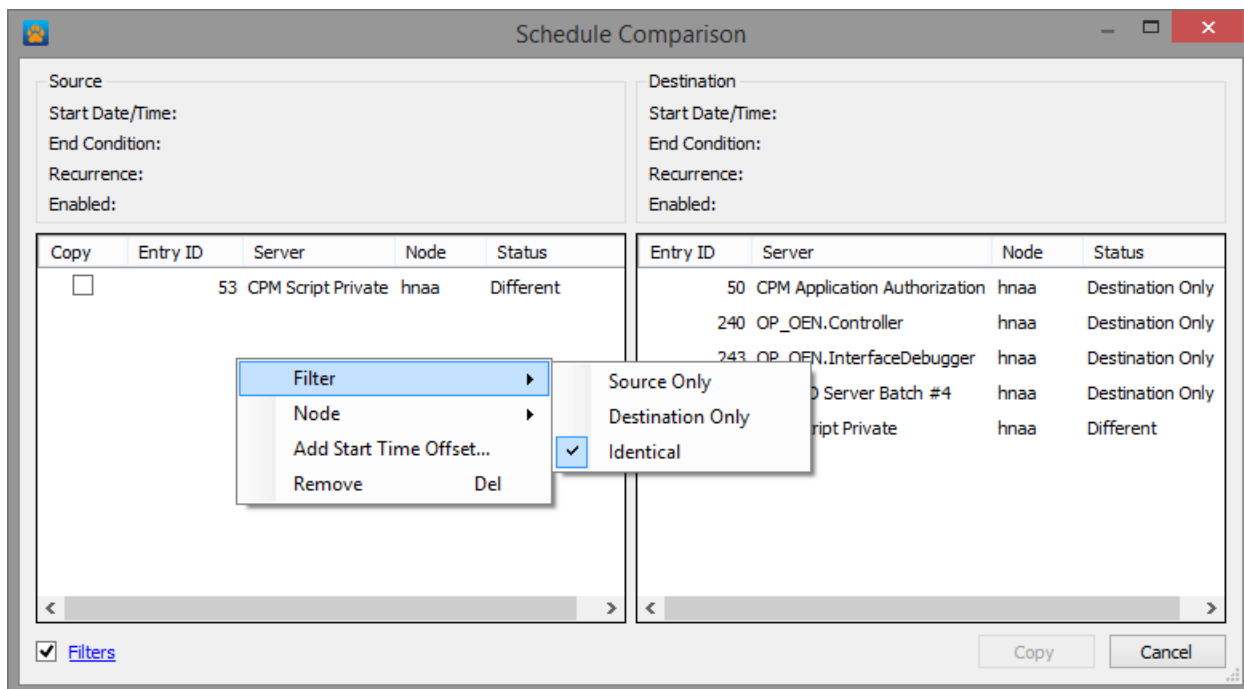


Figure 629: Schedule Comparison filters

Filters can also be changed through the Filters Dialog (Figure 630) by clicking on the *Filters* link in the bottom left corner of the Schedule Comparison Dialog (Figure 629).

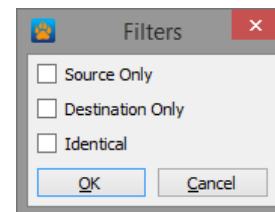


Figure 630: Filters dialog

When *Add Start Time Offset...* is selected from the context menu, the Start Time Offset dialog (Figure 631) opens. This dialog provides the option of adding an offset of 0 to 1440 minutes (24 hours) to the start time of the copied schedule(s).

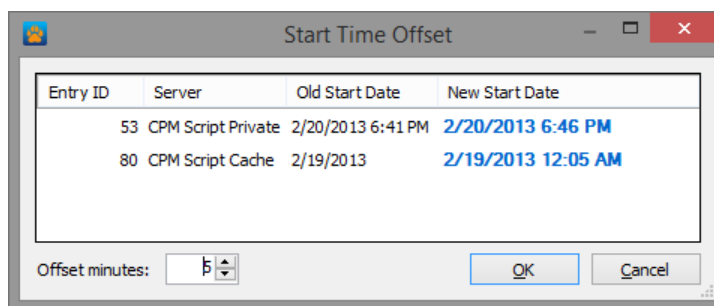


Figure 631: Start Time Offset dialog

The Preview pane shows the difference between the original start time and the start time that will result

from the offset.

11.4.2 Editing Cycle Schedules

Cycle Schedules can be edited in one of three ways:

- Double-clicking the *Cycle Schedule*.
- Selecting the schedule and clicking the *Edit...* button.
- Right-clicking the schedule and selecting the *Edit...* option from the context menu.

Any of these three actions will open the Cycle Schedule Editor dialog (Figure 632) populated with the selected schedule's information.

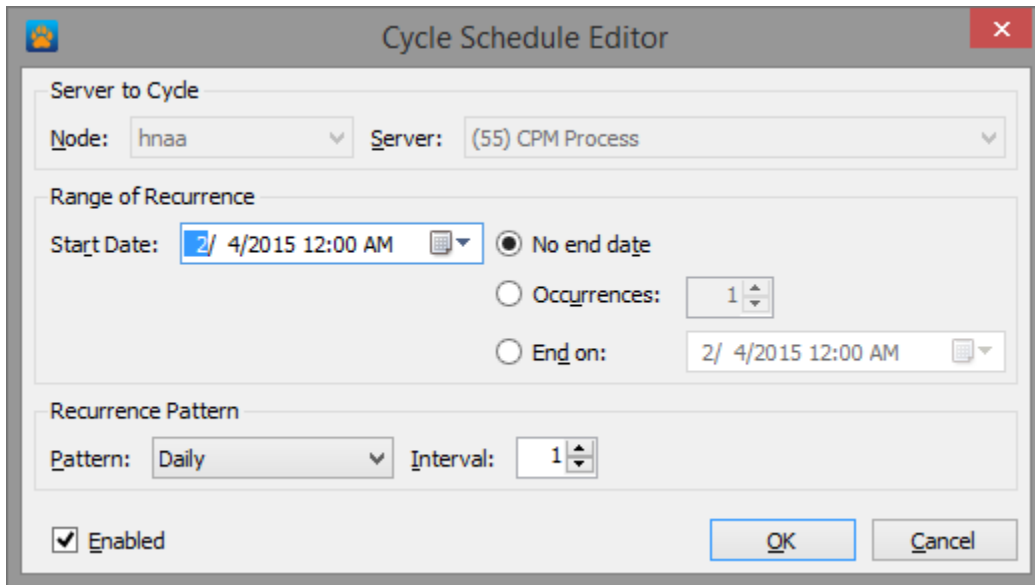
The image shows a 'Cycle Schedule Editor' dialog box. It has a title bar with a paw print icon and a close button. The dialog is divided into several sections. The 'Server to Cycle' section contains two dropdown menus: 'Node' set to 'hnaa' and 'Server' set to '(55) CPM Process'. The 'Range of Recurrence' section has a 'Start Date' field set to '2/ 4/2015 12:00 AM' with a calendar icon. Below this are three radio button options: 'No end date' (selected), 'Occurrences:' with a spinner set to '1', and 'End on:' with a date field set to '2/ 4/2015 12:00 AM' and a calendar icon. The 'Recurrence Pattern' section has a 'Pattern' dropdown set to 'Daily' and an 'Interval' spinner set to '1'. At the bottom left is a checked checkbox labeled 'Enabled'. At the bottom right are 'OK' and 'Cancel' buttons.

Figure 632: Cycle Schedule Editor dialog

11.5. ESI Logs Control

The ESI Logs control is used to view [External Service Inbound \(ESI\)](#) log entries in the database. The ESI Logs control can be found in the Domain Explorer ([Figure 633](#)) under the domain.

After selecting the *ESI Logs* item in the Domain Explorer, the ESI Logs control will be displayed in the Application Workspace.

Image	Meaning
	Success Log
	Failure Log
	Warning Log
	Terminate Log

Table 139: ESI Log Images

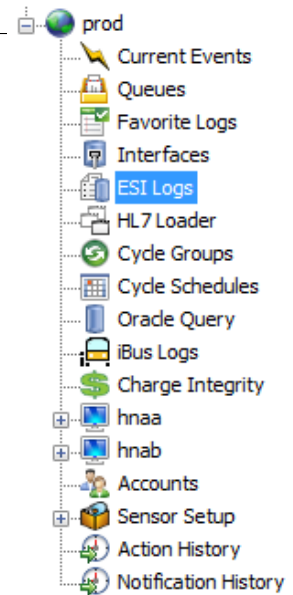


Figure 633: Domain Explorer

11.5.1 ESI Log Interface List

The list of interfaces on the left includes columns with aggregate data such as newest log record date, oldest log record date, and total number of failures. Right-clicking the mouse in the left side of the control will open the ESI Logs [Context Menu](#).

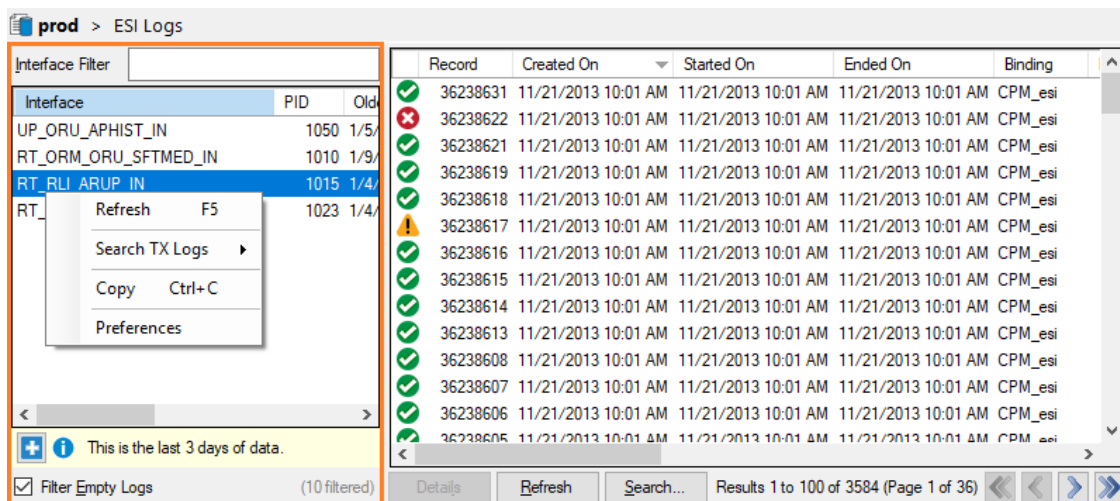


Figure 634: ESI Logs control

Menu Option	Description
Refresh	Refreshes the data displayed in the ESI Log Interface list.
Search TX Logs	Displays the Search TX Logs sub-menu .
Copy	Copies the selected ESI Logs to the clipboard.
Preferences	Allows you to define preferences for the ESI Logs control. (see ESI Logs Preferences)

Table 140: ESI Log Interface Context Menu

Option	Description
Last 24 hours	Enables searching of the interface's TX Logs for the last 24 hours. Messages found will be displayed in the Interface Tx Explorer .
Custom. . .	Enables searching of the interface's TX Logs based on the selected date range. Messages found will be displayed in the Interface Tx Explorer .

Table 141: Search TX Logs sub-menu

Filtering Interfaces

Interfaces can be filtered to only include interfaces with log entries or interfaces with a given name. To hide interfaces with empty logs check the Filter Empty Logs checkbox at the bottom of the interface list. To filter interfaces by name type in the Interface Filter box at the top of the interface list. This will limit the interface list to only interfaces with names containing the provided text.

11.5.2 ESI Log Record List

Once an Interface is selected, the associated log records are displayed in the record list to the right. By default, this list shows all available records associated with the selected interface. You can use a search to reduce the number of results and more easily locate the records you want. The ESI Log Record context menu can be accessed by right-clicking the mouse in the record list.

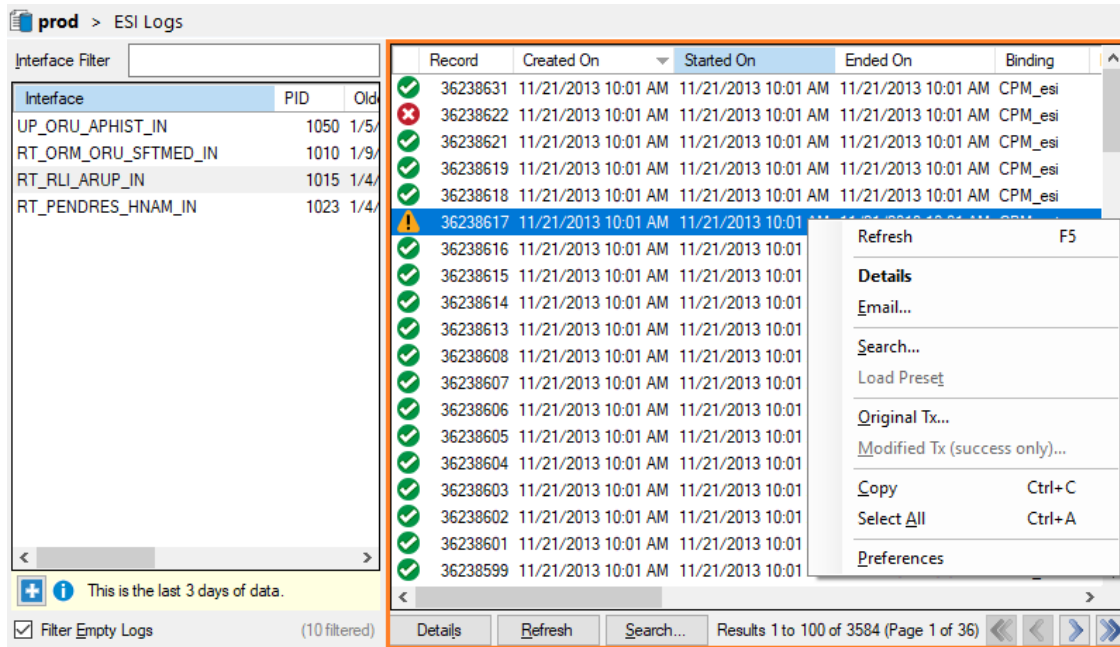


Figure 635: ESI Logs Record Context Menu

Menu Option	Description
Refresh	Refreshes the data displayed in the ESI Log Record list.
Details	Displays a dialog that includes the detailed information about this ESI log record. This is the default menu item, which means that if you select a record and press the Enter key, or simply double-click on a record, the ESI Log record details dialog will be displayed.
Email. . .	Allows you to send the selected ESI Logs to other parties via Email.
Search. . .	Displays the ESI Logs search dialog.
Load Preset	Allows you to select and run a saved search.
Original HL7	Retrieves and displays the original HL7 associated with the selected ESI Log.
Modified HL7	Retrieves and displays the modified HL7 associated with the selected ESI Log.
Copy	Copies the selected ESI Logs to the system clipboard.
Select All	Selects all of the ESI Logs currently being displayed.
Preferences	Allows you to define your personal preferences for the ESI Logs control.

Table 142: ESI Log Record Context Menu

11.5.3 Log Display Limitations

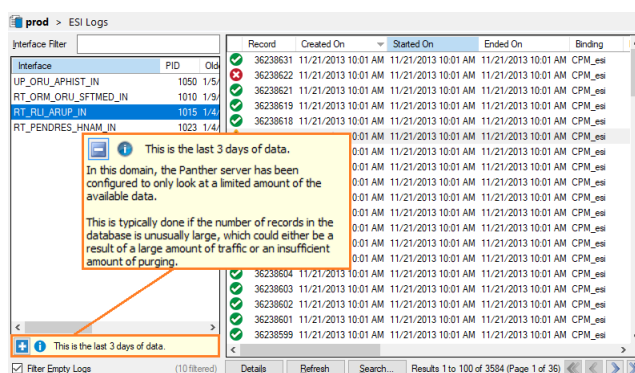


Figure 636: Log Display call-out

In the lower left of the ESI Logs control, you may notice a bar that notifies you that “This is the last x days of data” (Figure 636). If this bar is shown, you may click on the plus icon to view a description of the behavior.

If enabled by Panther Support staff, the information displayed in the left hand side of the ESI Logs control (such as total number of records) will only be calculated over a certain amount of time. This may be done if it was determined that a full query of the table was a long-running query on your database.

Organizations that enforce a regular purging interval on the ESI Logs tables can avoid this limitation.

11.5.4 Viewing Record Details

The details of an ESI Log record can be displayed by double-clicking on the desired record.

You may navigate up and down through ESI Log records by using the up and down arrow buttons. The up arrow button will display the data for the record written just after the current record (this record would appear above the current record in the ESI Log control). The down arrow button will display the data for the record written just before the current record (this record would appear below the current record in the ESI Log control).

You may also copy the displayed details of an ESI Log record to the system clipboard by pressing the copy button (📄). Copied details will be in tabular format which makes it possible to paste them into a Microsoft Excel® spreadsheet.

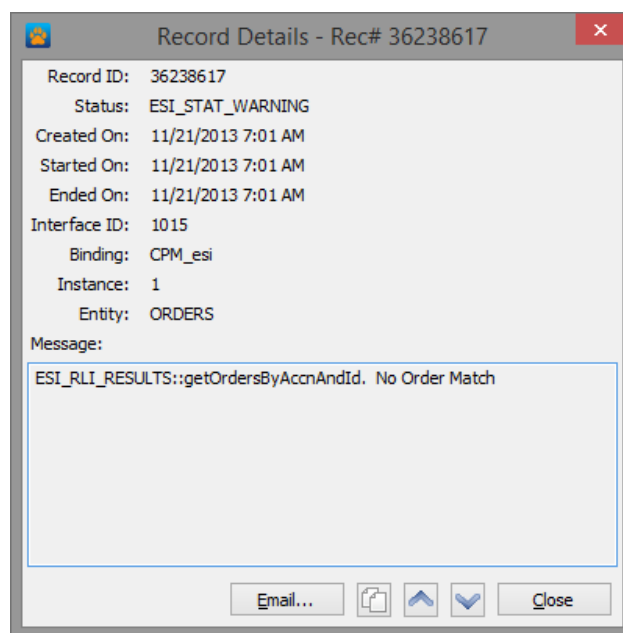


Figure 637: Log record details dialog

11.5.5 Searching ESI Logs

There are four ways to Search for ESI Log Records:

1. Using the ESI Log Record context menu:
 - (a) Right-click inside of the list on the right side of the ESI Logs control.
 - (b) Select the *Search...* option from the context menu.
2. Using the Search... button:
 - (a) Click the *Search...* button located just below the list on the right side of the ESI Logs control.
3. Using Search Presets:
 - (a) Right-click inside of the list on the right side of the ESI Logs control.
 - (b) Select *Load Preset* from the context menu.
 - (c) Select the desired preset search from the sub-menu.

Options 1 and 2 will open the Search dialog (Figure 638). Option 3 will run the selected search immediately without opening a dialog.

General Searching

Enter search criteria into the available fields to find matching ESI Logs. The default search settings are shown in the figure to the right.

If you want to run a search for a log written in a certain period of time, you may want to select the *Custom* option in the *Date Range* section of the dialog.

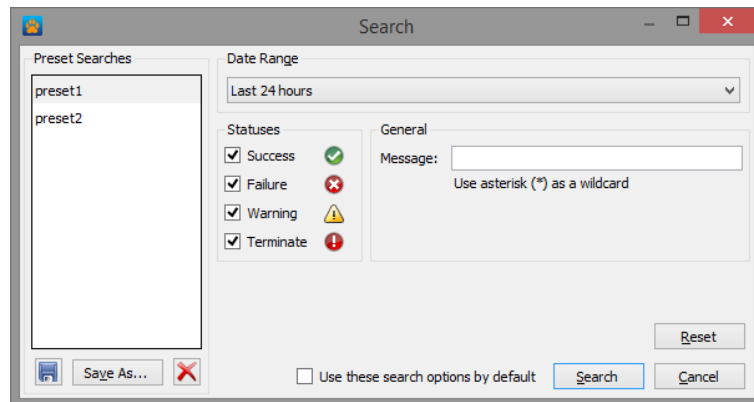


Figure 638: Search dialog

Setting a Default Search

The “Use these search options by default” checkbox can be checked to save current search settings. From the time this checkbox is checked until a new default search is set, this search will be run each time the control is loaded.

Search Presets

Search Presets are basically shortcuts to common searches, and like all shortcuts, you have to make them before they can be used.

Presets can only be made from the associated Search dialog using the *Save As...* button (Figure 638).

Each Preset must have a unique name to distinguish it from other presets.

Once saved, there are two ways to access a preset search.

1. From the ESI Logs Record context menu:
 - (a) From the ESI Logs Control, right click inside of the list on the right side of the control.
 - (b) Select *Load Preset* from the context menu.
 - (c) Select the desired preset search from the sub-menu.
2. From the Search Dialog:
 - (a) Select the preset from the list on the left.
 - (b) Click the search button.

11.5.6 Emailing Log Entries

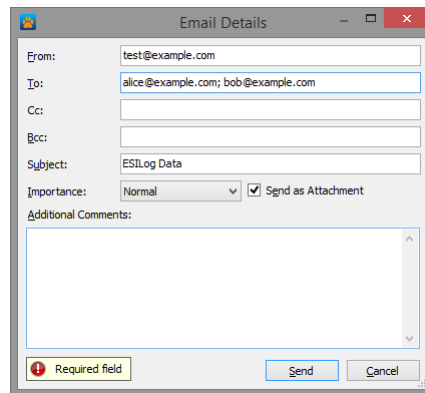


Figure 639: Email Details dialog

To email ESI Log records, Select the log records you wish to send, right-click and select the *Email. . .* option from the ESI Log Record context menu.

It is required that you provide one or more recipients for the email in the *To:* field. Separate multiple email addresses with commas.

If you provide additional comments, they will be placed in the body of the email above the ESI Log record details.

11.5.7 ESI Log Preferences

To access ESI Log Preferences:

1. Right-click in either of the lists in the ESI Logs Control.
2. Select *Preferences* from the context menu.

ESI Logs Preferences allow you to modify which columns are visible inside the ESI log list or the records list. Auto refresh only applies to the list of ESI Logs in the left grid. The list of records can be refreshed manually but will not be automatically refreshed to reduce load on the database.

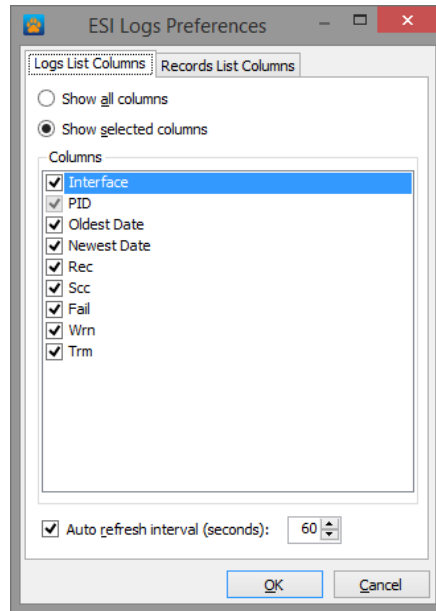


Figure 640: Log List tab

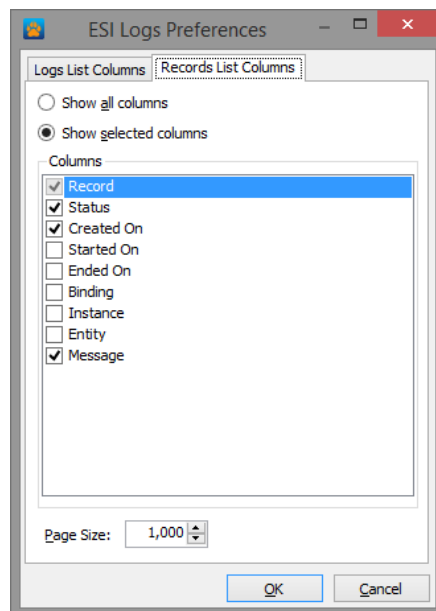


Figure 641: Records List tab

11.6. Favorite Logs Control

The Favorite Logs Control is a part of Message Logs. It exists to provide a node-independent view of Message Logs and a quick way to access commonly reviewed logs together. For more information on setting up and using Favorite Logs, see the section on [Message Logs](#), later in this chapter.

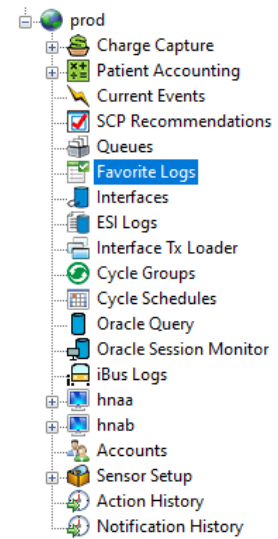


Figure 642: Domain Explorer

11.7. Interface Tx Loader Control

The Interface Tx Loader control provides access to read OEN Transactions. It can be found in the Domain Explorer (Figure 643) under the domain.

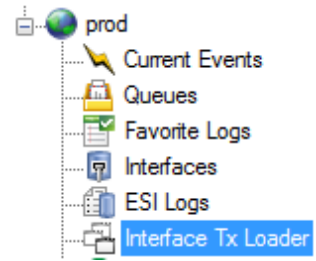


Figure 643: Domain Explorer

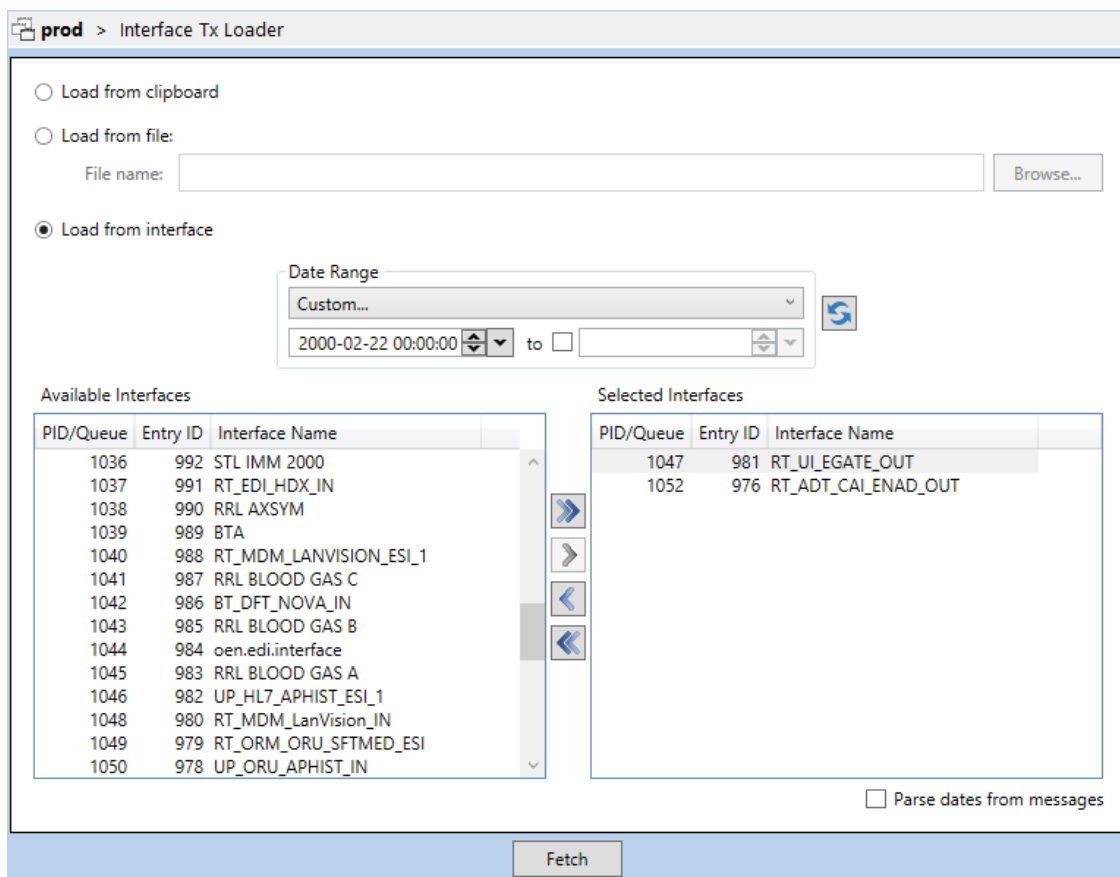


Figure 644: Interface Tx Loader control

OEN Transactions can also be accessed via the *Original HL7* and *Modified HL7* functions within the [ESI Logs](#) control. These operations directly open the [Transaction Explorer](#) window if a message is found.

Additionally, OEN Transactions can be accessed by the *Search TX Logs...* function in the [Interfaces](#) control. This operation opens the Select Interfaces dialog (Figure 645), populating *Selected Interfaces* with the interfaces that were selected when *Search TX Logs...* was clicked.

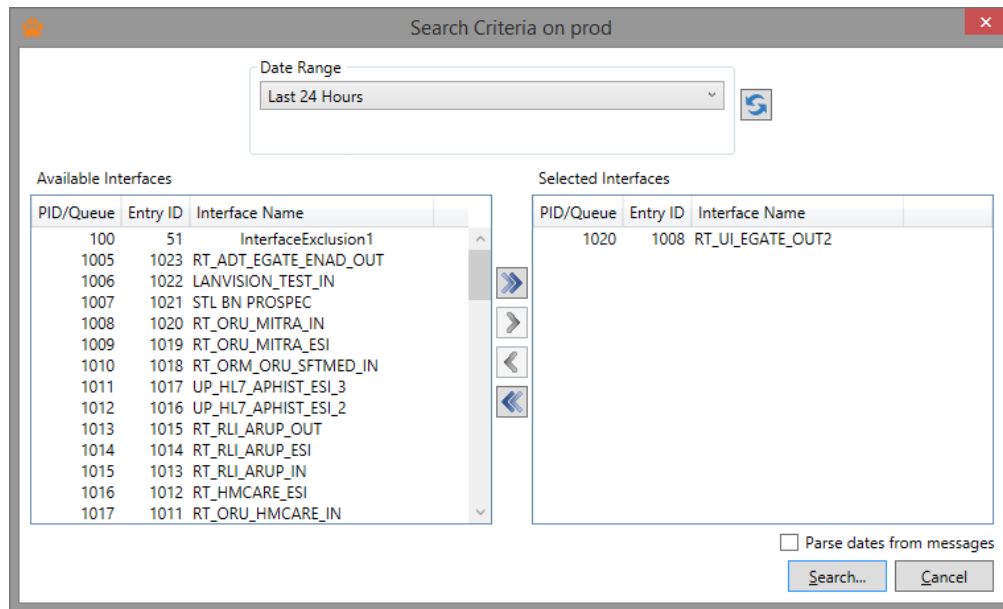


Figure 645: Select Interface dialog

11.7.1 Loading OEN Transactions

The Interface Tx Loader allows users to view messages from their clipboard, from a file, or from Open Engine interfaces.

From the Clipboard

Select this option to load previously copied transaction(s) from the clipboard of the computer.

From a File

Select this option to import OEN Transactions saved in a file. When selecting File as the source, a standard Windows Open File dialog will be presented.

From an Interface on the Domain

This option will find messages for specific interfaces during a specific period of time.

Once you have selected the source of the OEN Transactions, click the *Fetch* button to load them.

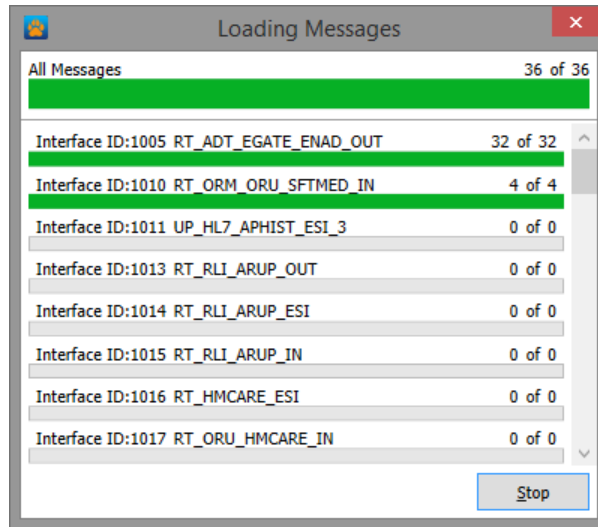


Figure 646: Loading OEN Transactions dialog

If a source that contains a large number of records was selected, the loading progress dialog will appear (Figure 646).

11.7.2 The Transaction Explorer

Once the messages fitting the load criteria have been loaded, the Transaction Explorer dialog will open.

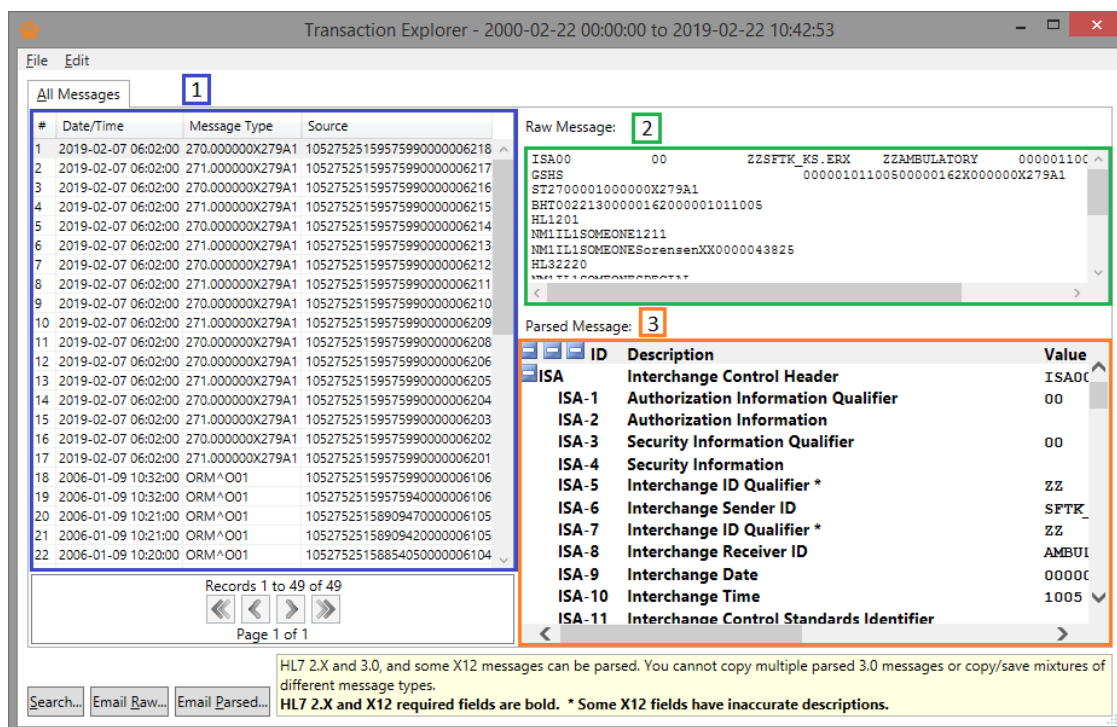


Figure 647: Transaction Explorer dialog

The Transaction Explorer dialog has three main components (Figure 647):

1. The list on the left displays a list of all messages.
2. The area at the top of the right hand side of the control displays the raw transaction.
3. The area at the bottom right of the control displays the parsed transaction.

For HL7 v2.x messages, Panther displays segments defined in the HL7 standards with their associated field name (such as “Patient Name”) next to the data. Required fields are marked in bold, while unrecognized fields are displayed are grayed.



Why are some of the message's rows gray?

Grayed text indicates that the message has components that are not defined in version 2.5 of the HL7 standards. For example, any data within Z-segments in your messages will show up as gray because there are no 2.5 standards for these segments. A message that does not conform to the HL7 standards may still be a valid message between the two systems using it.

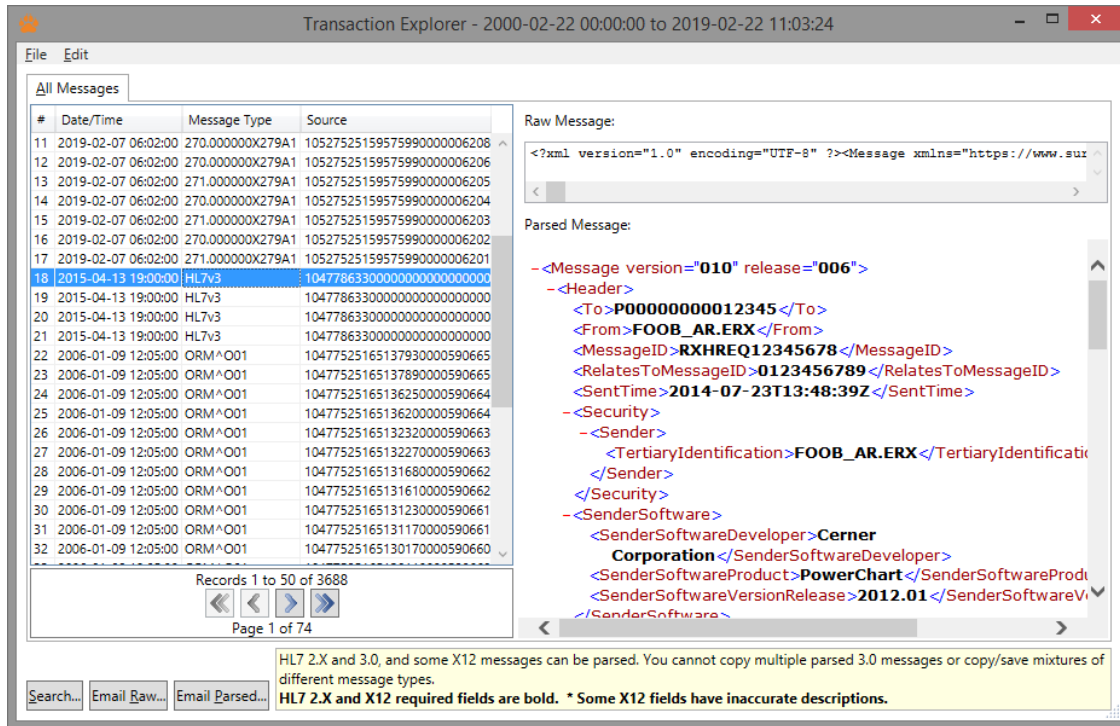


Figure 648: Transaction Explorer dialog

For HL7 v3 messages, Panther formats the message XML in a collapsible tree structure.

For X12 transactions, Panther formats the message as a collapsible tree structure. Descriptions are available for a few transaction types, but these are sometimes inaccurate.

Messages are split into pages. Navigation between pages is done using the arrow buttons on the lower left of the dialog. Each page will contain up to 100 messages.

11.7.3 Searching within OEN Transactions

The Interface Tx Loader control allows users to view messages filtered by various search criteria:

- The search can execute against all messages or just those on the current tab.
- Users can limit the scope of the search to a particular path within messages. This path supports both hyphenation or period delimiters (e.g., PID-1-1, PID-1.1, or PID.1.1). The Path is only used with HL7 2.x messages and X12 message. When there are several fields with the same path, only the first occurrence is searched.
- Messages can be filtered to those which contain or do not contain a search term.

To begin a search, click the *Search...* button. This will open the search dialog (Figure 649).

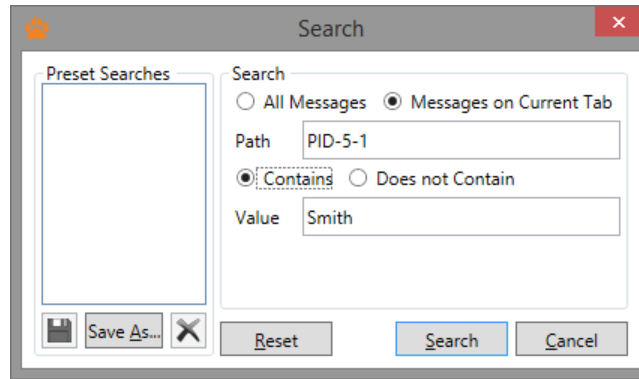


Figure 649: Search dialog

When *Search* is clicked, the Transaction Explorer performs the search and places the results in a new tab. Figure 650 below shows two search tabs, one for 'Mary' and the other for 'cmcd'.

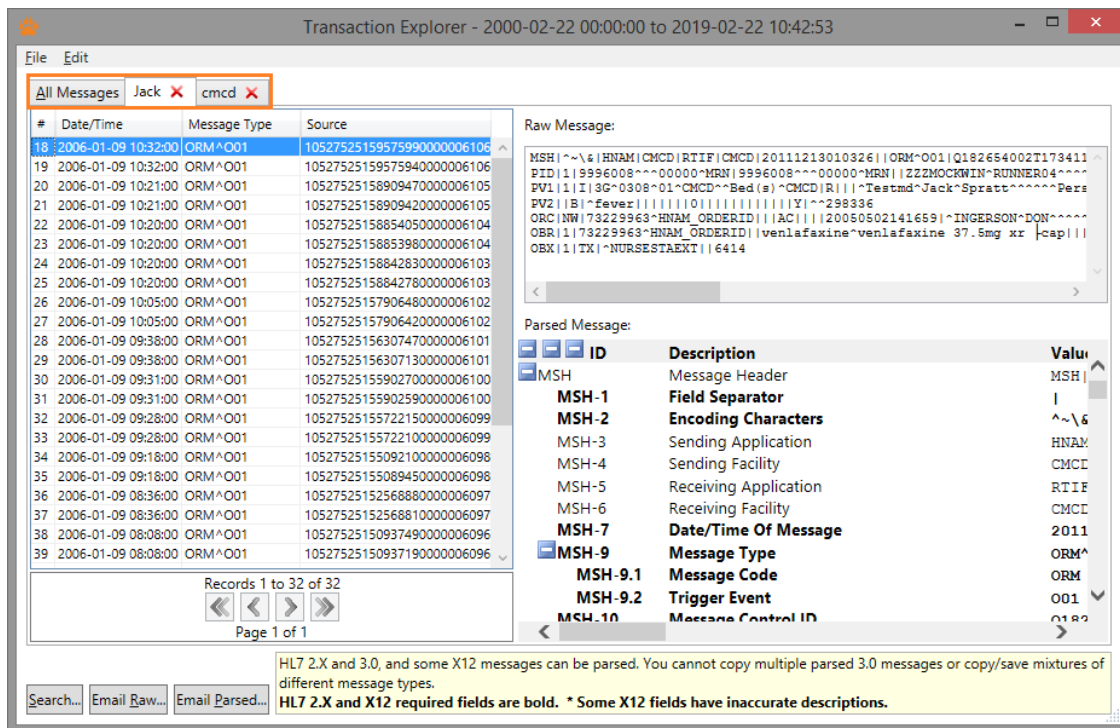


Figure 650: Transaction Explorer - tabs

Users can perform as many searches as they wish, with each search result appearing on a new tab. The basis of a search is determined by the tab active at the time the search is defined. For example, a search can be done from a source multiple times by returning to the source tab each time. Results can be built upon by searching from the most recently created tab, further defining the search parameters. Individual tabs can be closed by clicking the X.

Search Presets

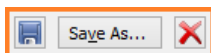


Figure 651: Preset Buttons

Search Presets are basically shortcuts to common searches, and like all shortcuts, you have to make them before they can be used ([Figure 651](#)).

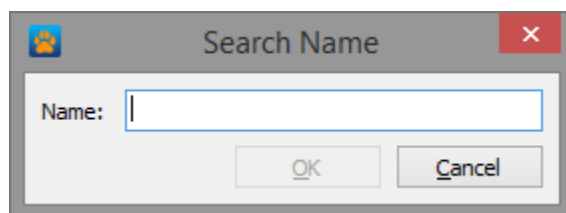


Figure 652: Save Preset Search

Presets can only be made from the associated Search dialog using the *Save As...* option under the *Preset Searches* list box ([Figure 651](#)). Each Preset must have a unique name to distinguish it from other presets.

11.7.4 Exporting OEN Transactions

The Transaction Explorer allows users to save raw or parsed OEN Transactions to a file or copy them to the clipboard. Only one type of message (HL7 2.x, or 3.0, or X12) can be copied or saved at a time. For example, if the selected messages include a mixture of HL7 2.x and HL7 3.0 messages, the Copy and Save options will be disabled. Likewise, if the messages on a tab are mixed, the options for Saving/Copying all messages on the tab will be disabled.

Copying

The copy functions are available from the *Edit* menu at the top of the dialog ([Figure 653](#)). Both raw and parsed copying functions provide the option to copy *All Messages*, *Messages on Current Tab*, and *Selected Messages on Current Page*.

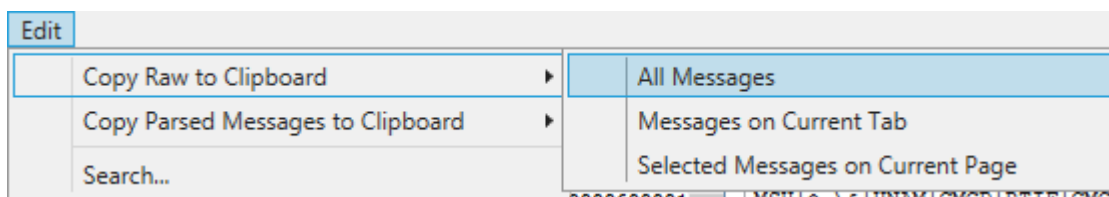


Figure 653: Copy to Clipboard

Additionally, the context menu in the message list on the left allows users to copy the selected messages.

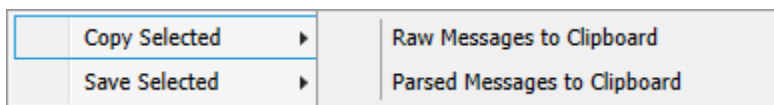


Figure 654: Copy to Clipboard (Context Menu)

Saving to a File

The save functions are available from the *File* menu at the top of the dialog (Figure 655). Similar to copying, the save function contains both raw and parsed options, each allowing the user to save *All Messages*, *Messages on Current Tab*, and *Selected Messages on Current Page*.

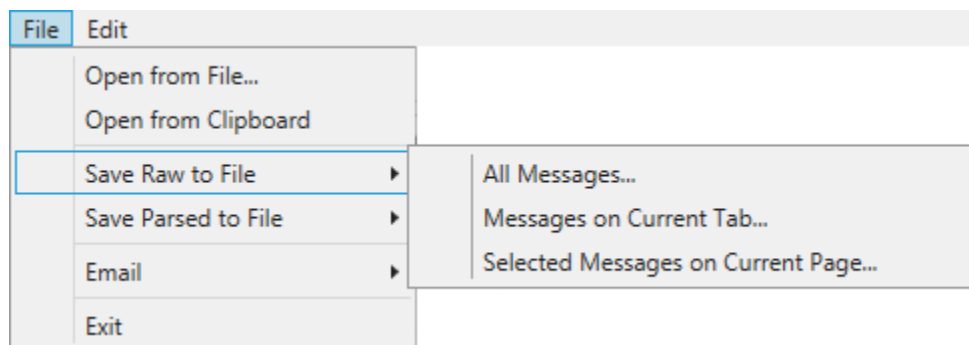


Figure 655: Save to File

Additionally, the context menu in the message list on the left allows users to save the selected messages.

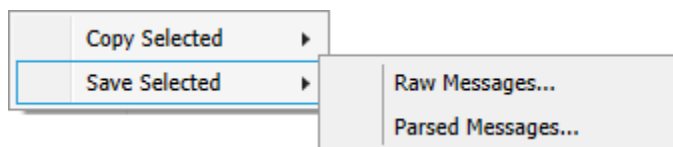


Figure 656: Save to File (Context Menu)



Attention: Export warnings

Before exporting to a file or the clipboard, Panther will check each message for an ending indicator (specifically a “line break” or “carriage return”). If no indicator is present, Panther will ask whether to continue without these characters (thus preserving messages verbatim) or insert ending indicators.

11.7.5 Emailing OEN Transactions

OEN Transactions can be emailed in either raw or parsed format. To email a selected message, click either the *E-mail Raw Message...* button or the *E-mail Parsed Message...* button. This will open the email details dialog (Figure 658).

One or more recipients must be provided for the email in the *To* field. Separate multiple email addresses with commas.

If additional comments are provided, they will be placed in the body of the email above the transaction details.

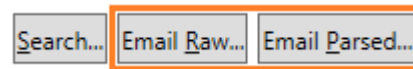


Figure 657: Email Buttons

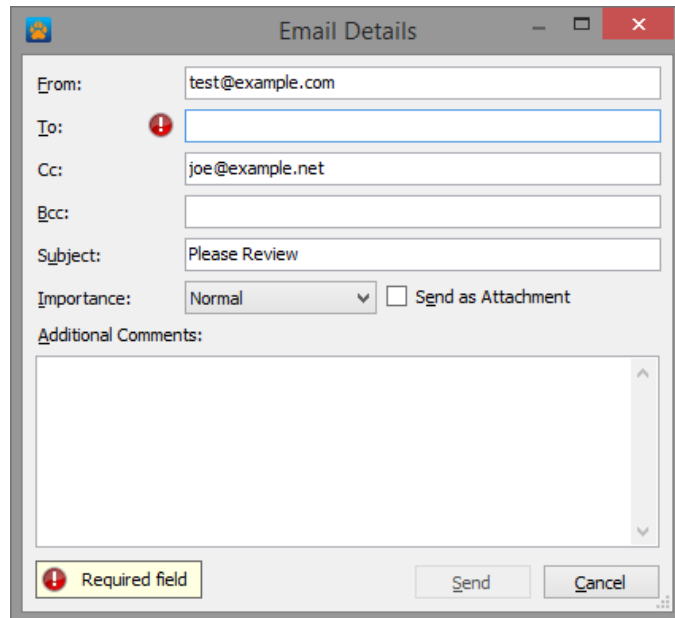
A screenshot of the 'Email Details' dialog box. It has a title bar with a minimize, maximize, and close button. The fields include: 'From:' with 'test@example.com'; 'To:' with a red exclamation mark icon and an empty text box; 'Cc:' with 'joe@example.net'; 'Bcc:' with an empty text box; 'Subject:' with 'Please Review'; 'Importance:' with a dropdown menu set to 'Normal' and a checkbox for 'Send as Attachment' which is unchecked. Below these is a large text area labeled 'Additional Comments:'. At the bottom left is a yellow warning box with a red exclamation mark and the text 'Required field'. At the bottom right are 'Send' and 'Cancel' buttons.

Figure 658: Email Details dialog

11.8. iBus Logs Control

The iBus Logs control gives users access to view log files stored on iBus servers defined in [Foreign System Setup](#) for the domain.

To view the iBus Logs control, select the *iBus Logs* item in the Domain Explorer ([Figure 659](#)).

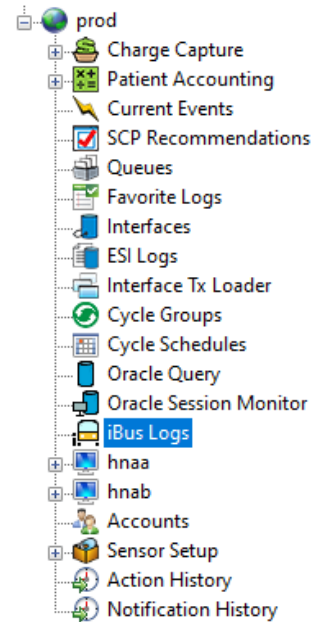


Figure 659: Domain Explorer

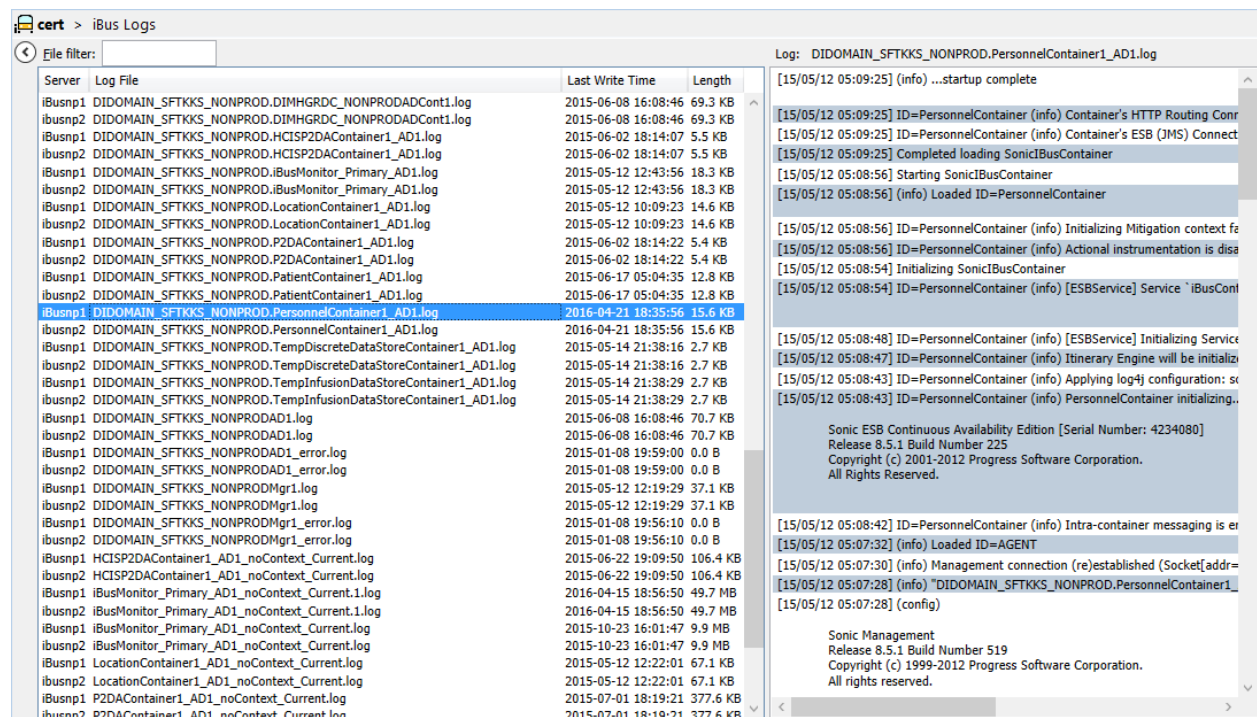


Figure 660: iBus Logs Control

11.8.1 iBus Log File List

The list of files on the left shows all iBus log files found across all servers in the current domain. It includes columns for the server the log originated on and its name, last write time, and length. Right-clicking the mouse in this list will open the iBus log files [Context Menu](#).

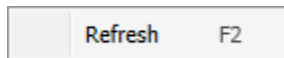


Figure 661: iBus Logs File List Context Menu

Menu Option	Description
Refresh	Refreshes the data displayed in the iBus log file list.

Table 143: iBus Log Files Context Menu

The *Filter* text box above the file list trims the list down to those with server or file names containing the filter text ([Figure 662](#)). It allows multiple filter terms, separated by spaces.

When multiple terms are used, the list will only show those files which match all terms. However, it does not matter if some terms match server name while others match file name.

File filter:	person cont np1		
Server	Log File	Last Write Time	Length
iBusnp1	DIDOMAIN_SFTKKS_NONPROD.PersonnelContainer1_AD1.log	4/21/2016 6:35:56 PM	15.6 KB
iBusnp1	PersonnelContainer1_AD1_noContext_Current.log	5/12/2015 12:22:01 PM	87.6 KB

Figure 662: iBus Log File Filtering

11.8.2 iBus Log Records

The list on the right shows the records found in the currently-selected log file, in reverse-chronological order. Alternating row colors are used to improve readability. Right-clicking the mouse in this list will open the iBus log records [Context Menu](#).

Refresh	F2
Copy	Ctrl+C
Find	Ctrl+F
Find Next	F3
Find Previous	Shift+F3

Figure 663: iBus Logs Records List Context Menu

Menu Option	Description
Refresh	Refreshes the data displayed in the iBus log file list.
Copy	Copies the text of the selected records to the clipboard.
Find	Moves focus to the search text box, found above the log records list.
Find Next	Selects the next record in the list with text matching the current search text. If the last record with a match is already selected, this will wrap and find the first record with a match.
Find Previous	Selects the prior record in the list with text matching the current search text. If the first record with a match is already selected, this will wrap and find the last record with a match.

Table 144: iBus Log Records Context Menu

The *Search* text box above the record list highlights matching words in the log records and enables navigation forward and backward to other records containing the search text (Figure 664). If multiple words are entered, they are treated as a single search phrase rather than as multiple search terms.

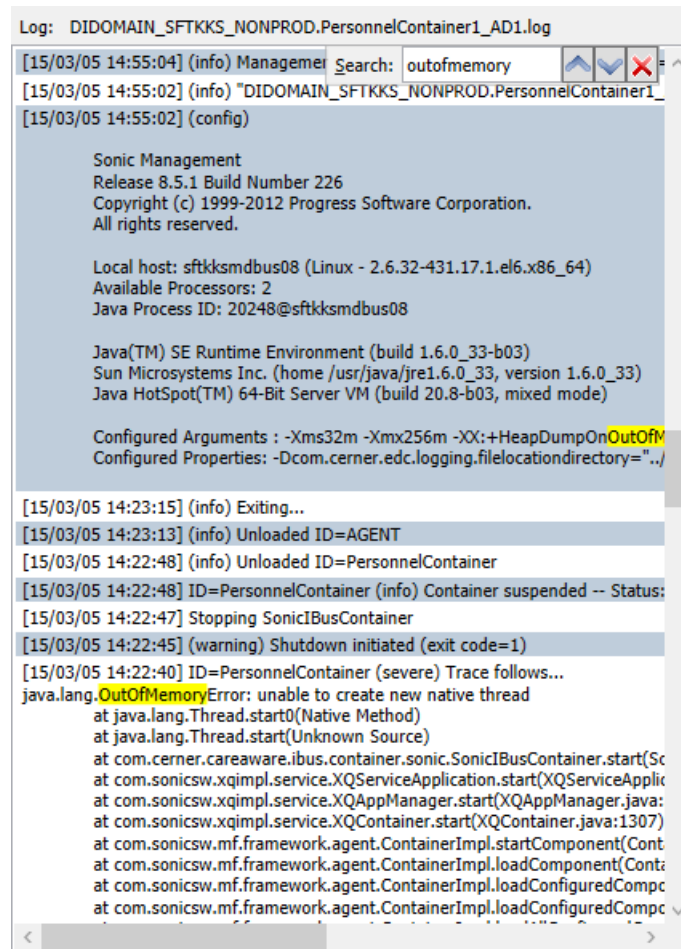


Figure 664: iBus Log Record Search

In any case where the text cannot be found in any log records, the search text will turn red (Figure 665).

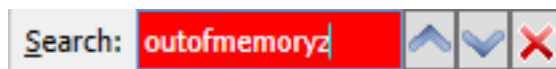


Figure 665: iBus Log Record Search Not Found

Once the desired log file has been found, the control provides the ability to collapse the log file list so the record list takes up the entire control (Figure 666). When it comes time to select a different log file, the file list can be re-expanded.

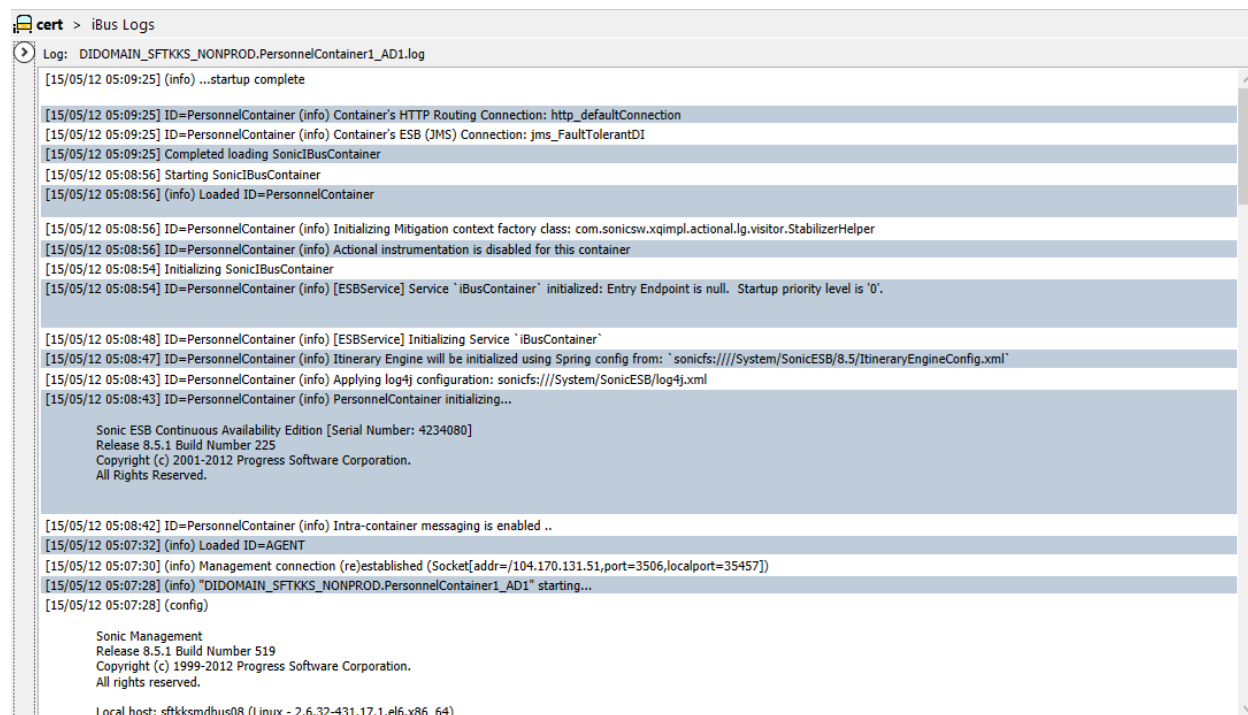


Figure 666: iBus Logs Collapsed File List

11.8.3 When iBus servers are not defined

If panther does not yet have any iBus servers defined for the current domain, the iBus Logs control will display an information banner indicating as such (Figure 667). This banner will include a *Configure* button which launches [Foreign System Setup](#).

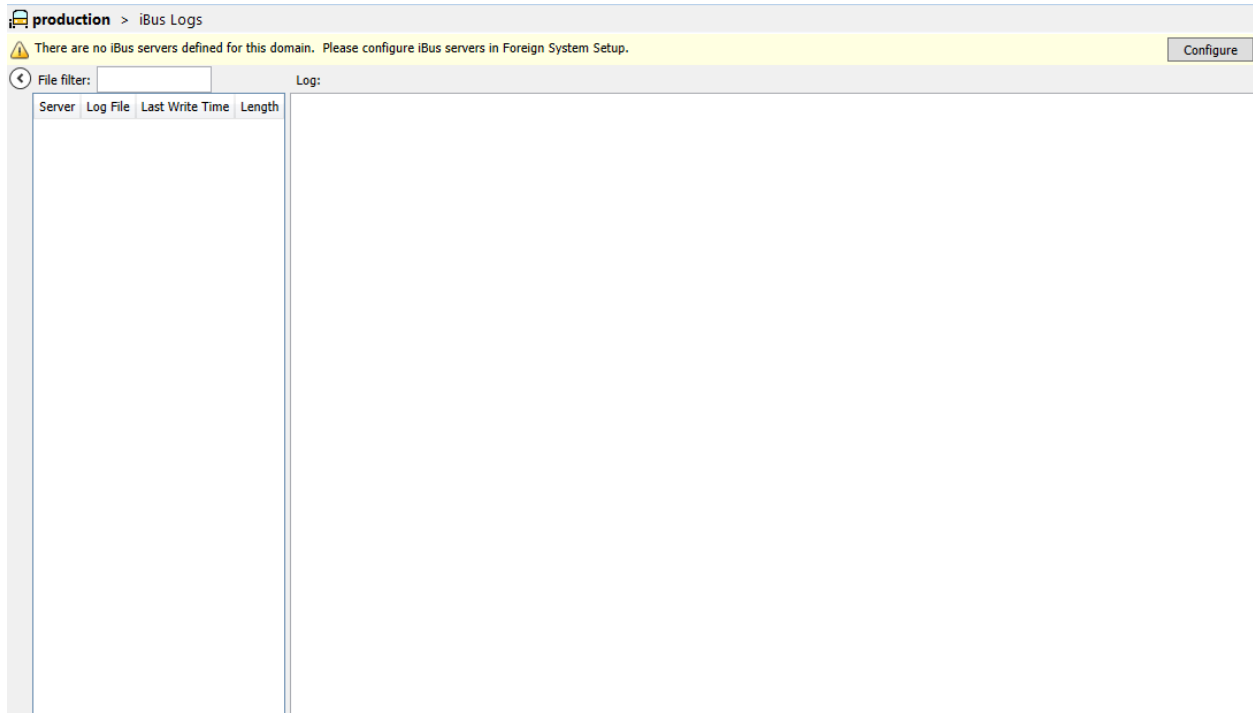


Figure 667: No iBus Servers Defined

11.9. Interfaces Control

The Interfaces control is used to monitor the interface processes that run on the back end. Interfaces are domain specific in Panther. To view the Interfaces control, select the domain you wish to view interfaces for and the *Interfaces* option under that domain in the Domain Explorer (Figure 668).

The columns that appear in the control are customizable, and you can re-order and sort by any of the columns. By default, the Interfaces control sorts by State in descending order.

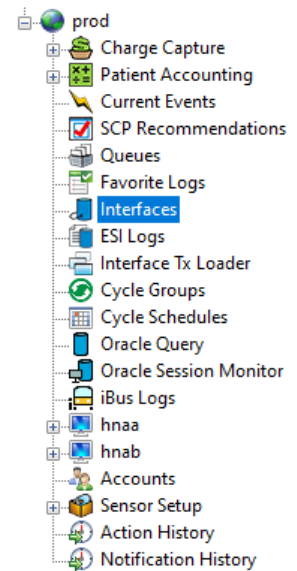


Figure 668: Domain Explorer



Where is the interface I need?

If you cannot locate an interface, it is possible the interface you are looking for is not included in the view currently in use. If you have the proper privileges, you can temporarily disable views by selecting (none) from the view list at the bottom of the screen.



You can limit users to specific views.

With the 'Manage Interface Views' privilege, you can create multiple views, and assign them to specific users. This means that if you have certain users that should only see a specific subset of interfaces, you can create a view for that subset and assign it to those users.

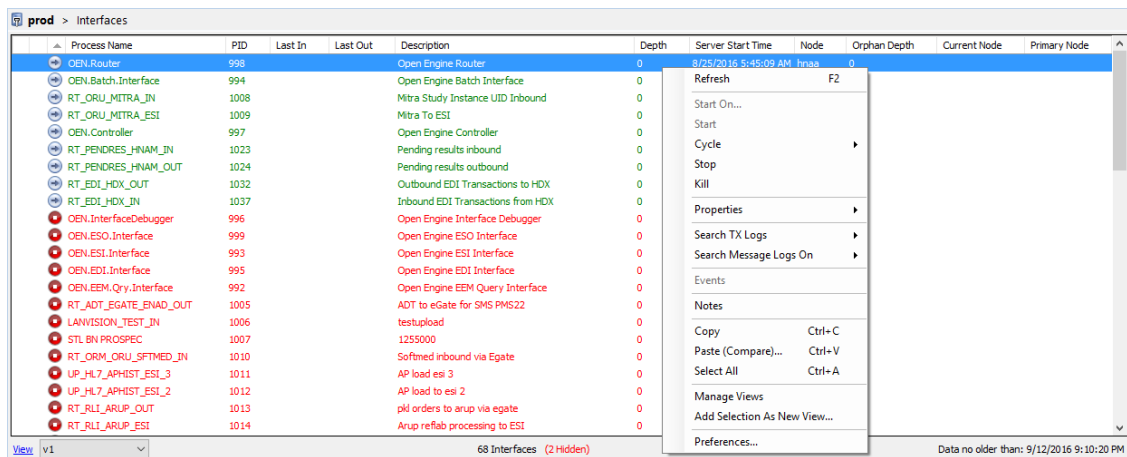


Figure 669: Interfaces Control

Image	Meaning
	The interface has a Starting, Stopping, Killing, or Cycling note
	The interface has a Hovering note
	The interface has an ongoing event
	The interface is running
	The interface is stopped

Table 145: Interface Images

When an interface is selected and right-clicked, the Interfaces [Context Menu](#) will open.

Option	Description
Refresh	Refreshes the data displayed in the control.
Start On	Prompts for the node to start selected interface(s) on.
Start	Starts selected interface(s) on the <i>Configured Node</i> .
Cycle	Displays the <i>Cycle sub-menu</i> .
Stop	Stops running instance(s) of the interface server.
Kill	Kills running instance(s) of the interface server.
Properties	Displays the <i>Properties sub-menu</i> .
Search TX Logs	Displays the <i>Search TX Logs sub-menu</i> .
Search Message Logs On. . .	Allows users with the <i>Access Server Logs</i> privilege to view the server message logs associated with the interface.
Events	Displays a dialog which displays the current events for the selected interface.
Notes	Enables creation of notes which appear when certain actions are performed on an interface server.
Copy	Copies the interface and all of its personalities to the clipboard.
Paste (compare). . .	Compares the interface(s) that are currently in the clipboard with the selected interface(s). This can be especially useful for comparing across domains.
Select All	Selects all interfaces in the control.
Manage Views	Opens the Interface View Manager (requires the <i>Manage Interface Views</i> privilege).
Add Selection As New View. . .	Opens the Interface View Manager with the selected interface(s) added to a new view (requires the <i>Manage Interface Views</i> privilege).
Preferences	Displays the preferences dialog, which allows modification of the control's operational preferences and displayed columns.

Table 146: Interfaces Context Menu

Option	Description
Cycle Interface	Cycles selected interface(s) on their currently running node or <i>Configured Nodes</i> .
Cycle Interface with Kill	Kills underlying server(s) immediately during the "Stopping" phase of the cycling operation.
View Cycle History	Opens the cycling history for the selected interface.

Table 147: Cycle sub-menu

Option	Description
Interface Properties	Enables viewing of interface properties including personalities.
SCP Configuration Properties On	Allows users with the <i>Access Configurations</i> privilege to view the configuration of the interface's server.
Interface Blacklist	Allows addition/removal of interfaces from the blacklist (see Interface Blacklist)

Table 148: Properties sub-menu

Option	Description
Last 24 hours	Enables searching of the interface's TX Logs for the last 24 hours. Messages found will be displayed in the Interface Tx Explorer .
Custom. . .	Enables searching of the interface's TX Logs based on the selected date range. Messages found will be displayed in the Interface Tx Explorer .

Table 149: Search TX Logs sub-menu



Panther can automatically notify you of interface changes.

Panther includes an interface configuration change sensor that can automatically notify you of any changes to interface servers. For more information see the [Interface Configuration Change](#) sensor.

11.9.1 Starting and Cycling Interface Servers

In multi-node domains, the *Start*, *Start On. . .*, and *Cycle* options need to know which node the server should be running on.

Option	Description
Start On. . .	Prompts you to select the node on which to start each selected server.
Start	Uses the Configured Node . (But, if no node is configured in OEN.PROCINFO or Panther Primary Node, Panther prompts, as in <i>Start On. . .</i>).
Cycle	•When cycling, if the interface is already running, it will be cycled on the same node. •If the interface isn't running, it is started on the Configured Node.

Table 150: Starting and Cycling Node Selection

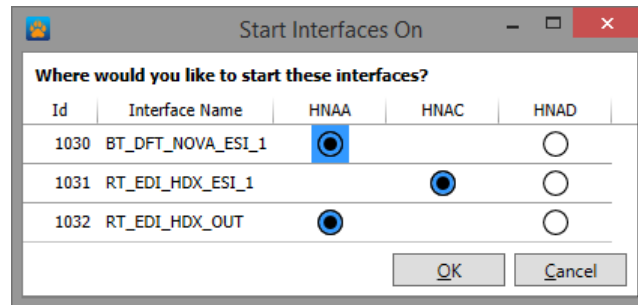


Figure 670: Interfaces Start On Dialog



When I click *Start*, where will Panther start the interface server?

If you are curious which node Panther believes a stopped server should be started on, you can right-click on the interface(s) and select *Start On...*. The dialog shows the interfaces and which nodes they are configured on. When the dialog first appears, the *Configured Node* is pre-selected for each interface.

11.9.2 Interface Servers Configured Node

To determine the *Configured Node*, Panther uses the first of these that are specified (not empty):

- CURRENT_NODE from the OEN.PROCINFO table (this is empty at many sites).
- PRIMARY_NODE from the OEN.PROCINFO table (this is empty at many sites).
- Panther's Primary Node (See [Foreign System Setup](#).)

11.9.3 Cycle History

To view Cycle History for an interface:

1. Select the desired interface.
2. Right-click the selected interface.
3. Select the *Cycle* option from the Interfaces context menu.
4. Select *View History* from the bottom of the sub-menu that opens.

The Cycle History option within the Interfaces control allows you to view a history of cycle operations that were performed by Panther on interface servers. By default, the Cycle History dialog returns only cycle operations that were performed in the last 24 hours.

Cycle History is a part of Action History. For more information, see the [Action History](#) section.

11.9.4 Interface Properties

There are two ways to view Interface properties:

- From the Interfaces context menu:
 1. Select the desired interface.
 2. Right-click the selected interface.

3. Select *Properties* from the Interfaces context menu.
 4. Select *Interface Properties* from the sub-menu that opens.
- Double-click the desired interface.

Either of these actions will open an Interface Properties dialog similar to [Figure 671](#).

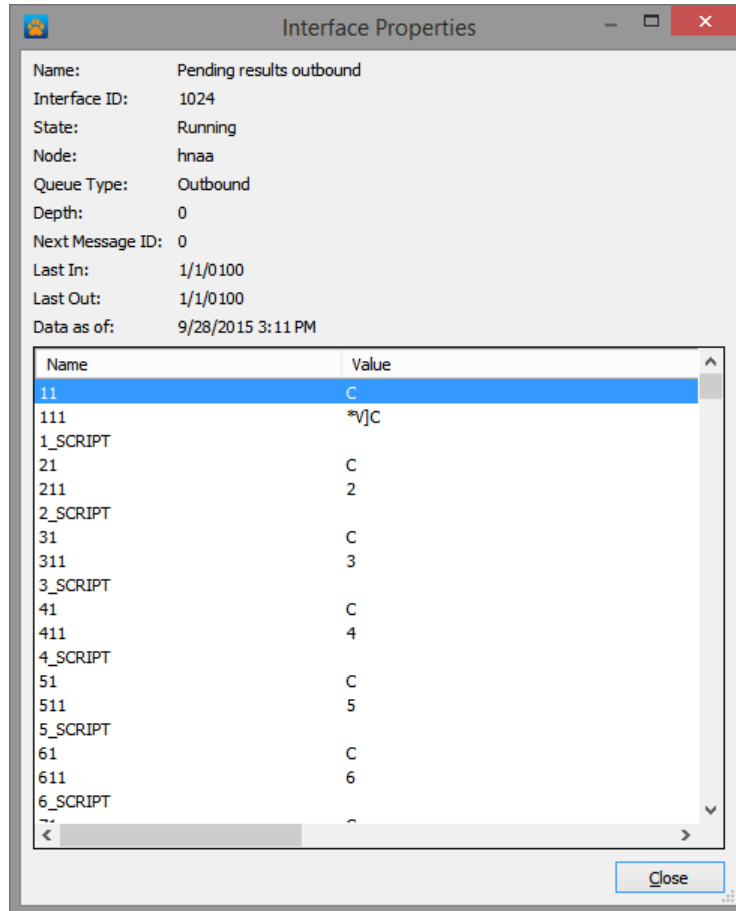


Figure 671: Interface Properties dialog

This dialog displays general interface and queue properties, and all interface personalities.

11.9.5 Interface Blacklist

A blacklisted interface is an interface that may cause some of Panther's Oracle® queries to take a long time to execute, thus producing an undesirable amount of load on the Oracle® database. The interfaces that are most likely to cause this situation are those with orphaned transactions.



Attention: Interfaces in the Interface Blacklist are ignored.

Interfaces that are in the Interface Blacklist will not be monitored by Panther's Sensors. This means that anything happening with an interface while blacklisted will not be reported when it is removed from the blacklist.



Attention: Panther will automatically add interfaces to the Interface Blacklist.

Interfaces that are identified as causing long-running Oracle® queries will be automatically blacklisted. For this reason, it is suggested to sign up for notifications from the [Interface Orphan/Blacklist](#) sensor, which will notify you if Panther begins to ignore specific interfaces.

By default, Panther will automatically add interfaces to the Interface Blacklist if they cause Panther's Open Engine queries to scan more than 100,000 records. This threshold is configurable by Panther Support if necessary. The Interface Stalled and the Interface Backlog sensors can be configured to automatically remove interfaces from the blacklist. This setting is turned on by default.

You may right-click on interfaces in the Interfaces control, and manually add or remove interfaces from the Interface Blacklist through the [Properties](#) menu item followed by the *Interface Blacklist* sub-menu.

11.9.6 Viewing Current Events

There are two ways to view ongoing events for an interface:

- Using the Interfaces context menu:
 1. Select the desired interface.
 2. Right-click the selected interface.
 3. Find the *Events* option in the Interfaces context menu. If this option is enabled, then the interface has events and clicking the option will open the Event Viewer.
- The Event Indicator column:
 1. A lightning bolt icon indicates an open event.
 2. If a lightning bolt icon appears in the Event Indicator column for an interface, you can double click the icon to open the Event Viewer.

For the selected interface, this dialog shows the events that Panther's sensors are currently reporting.

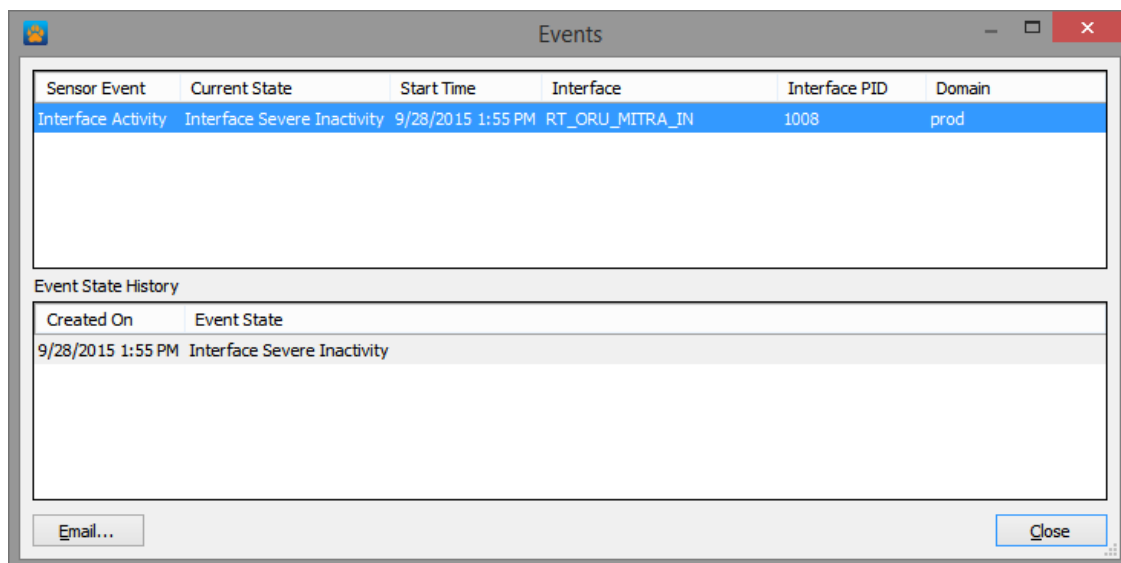


Figure 672: Event Viewer dialog

11.9.7 Interface Notes

To manage interface notes, select the interfaces to manage notes for, right-click the selected to bring up the context menu and select *Interface Notes* from the menu. After clicking on *Interface Notes*, the Manage Interface Notes dialog will open.



Attention: Interface notes are separate from server notes.

Interface notes are specified for an interface's PID and server notes are specified for a configuration's Entry ID. As a result, Interface notes are not visible in the Servers or Configurations controls, and server notes are not visible in the Interfaces control.

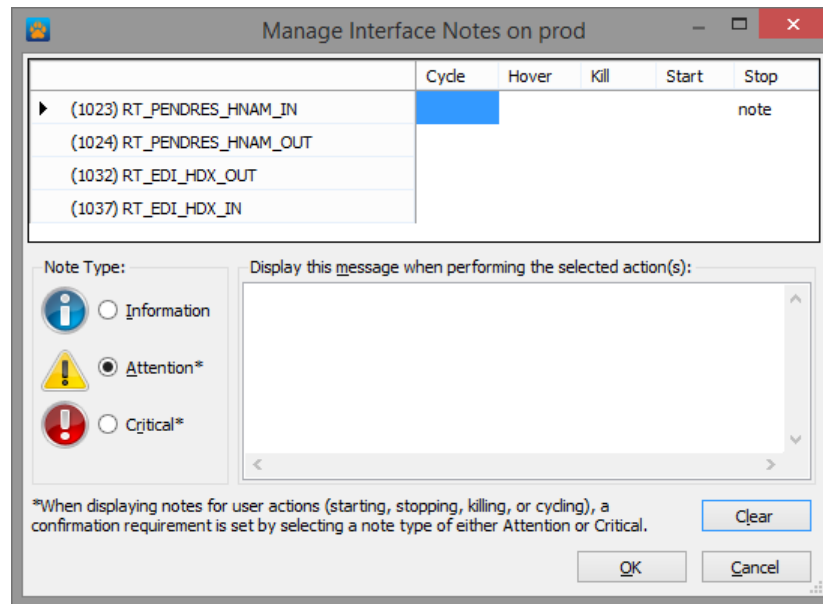


Figure 673: Manage Interface Notes dialog

The Manage Interface Notes dialog allows you to create notes for four actions (Starting, Stopping, Killing, Cycling), and for when the user hovers the mouse over the interface.

To create an interface note:

1. Select the interfaces and actions you want to trigger the note's appearance.
2. Select the Note Type (Information, Attention or Critical).
If you select a note type of *Attention* or *Critical*, and an action of *Starting*, *Stopping*, *Killing* or *Cycling*, the user will be required to confirm their action.
3. Type the note you want to appear in the Message Area of the dialog.
4. Press *OK* to save the notes and close the dialog.

Notice that as you type a note into the message area of the dialog, the note appears in all of the selected interface and action cells of the grid at the top of the dialog.

To remove a note, highlight the note(s) in the grid, then click the *Clear Note(s)* button.

If an interface is deleted, Panther will retain the associated note. If a new interface is later created with the same PID, the old note will be associated with the new interface. This can be prevented by removing the note before deleting the interface.

11.9.8 Comparing Interfaces

Panther allows you to compare the personalities of interfaces between domains or between two individual interfaces that may be similar. This allows users to quickly identify differences that could be causing issues or unexpected behaviors.

Steps to Compare Interfaces

1. Navigate to the Interfaces control.
2. Select the interface(s) you wish to compare.
3. Right-click on the selected interfaces, and then select the *Copy* menu option. Copying all the personalities can take some time.
4. You have the option of either comparing interfaces from the same domain or from different domains.
 - To compare interfaces in the same domain, select the interfaces you would like to compare the copied interfaces to.
 - To compare interfaces on another domain, navigate to the Interfaces control for the second domain.
5. Right-click in the [Application Workspace](#) for the Interfaces control, and select the *Paste (Compare)* context menu option.
6. Select the method of comparison which best suits your purposes.

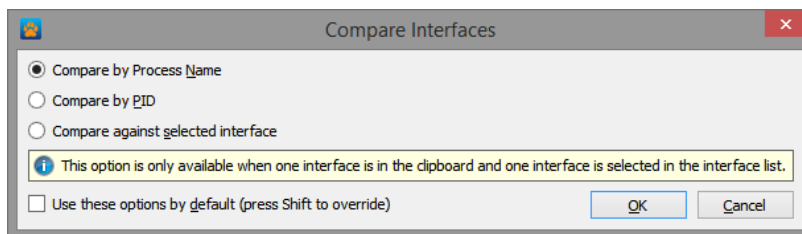


Figure 674: Compare Interface options dialog

- (a) *Compare by Process Name* will use the names of processes to uniquely identify interfaces being compared.
- (b) *Compare by PID* will use the Process Identifier to uniquely identify interfaces being compared.
- (c) *Compare against selected interface* will only be an option when you are performing a one to one comparison.

7. The [Interface Compare](#) dialog will now open, using your selected comparison method.

The Interface Compare Dialog

Main components:

1. The list of interfaces in the comparison.
2. A list of comparison options.
3. A view of the details of the two versions of the interface.

Differences in personalities will appear in the detailed comparison of the selected interface on the bottom half of the dialog. Differences causing a status of “Different” will appear in red.

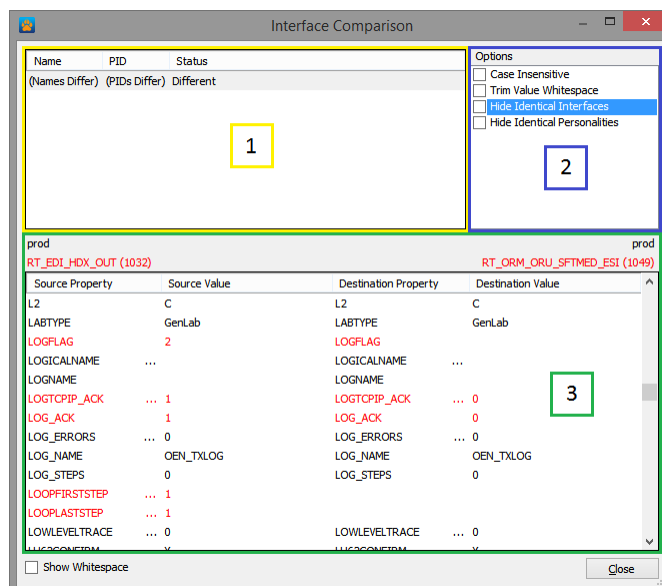


Figure 675: Interface Compare dialog

Option	Description
Case Insensitive	When checked, comparison of personality values and personality names is case insensitive.
Trim Value Whitespace	When checked, the whitespace at the beginning or ends of personality values is both hidden and ignored for comparisons.
Hide Identical Interfaces	Identical interfaces are hidden from the top list.
Hide Identical Personalities	All personalities with identical values are hidden from the details view.

Table 151: Interface Comparison Options

In the lower-left corner, there is a checkbox for “Show Whitespace”. If it is checked, whitespace will be shown using a single dot (-).

11.9.9 Interface View Management

The primary function of Views is to grant administrators the ability to restrict which interfaces a user can access without denying them access to the interfaces control altogether. Users with the ‘Manage Interface Views’ permission can Manage Views and will see the *Manage Views* link in the lower right-hand corner of the control, while those without this permission will only see those views assigned to them.

Using Views

All Interface Views that have been assigned to you will appear in the *View* drop-down list found at the bottom left of the control. Once you have selected a view, the Interfaces control will show only the interfaces that match the view as seen in the figure below.

For users with the 'Manage Interface Views' permission the View drop-down will also contain the *(none)* view which contains all available interfaces. This permission also allows the *Manage Views*



Users can be forced to use only certain views.

Panther allows you to define any number of views, and who has access to them. To allow certain users to only see a subset of interfaces, simply create the appropriate view, assign them to the view, and do not grant them the 'Manage Interface Views' privilege.

Manage Views

Within the Interfaces control, users with the 'Manage Interface Views' privilege may create any number of filtered views of the interfaces.

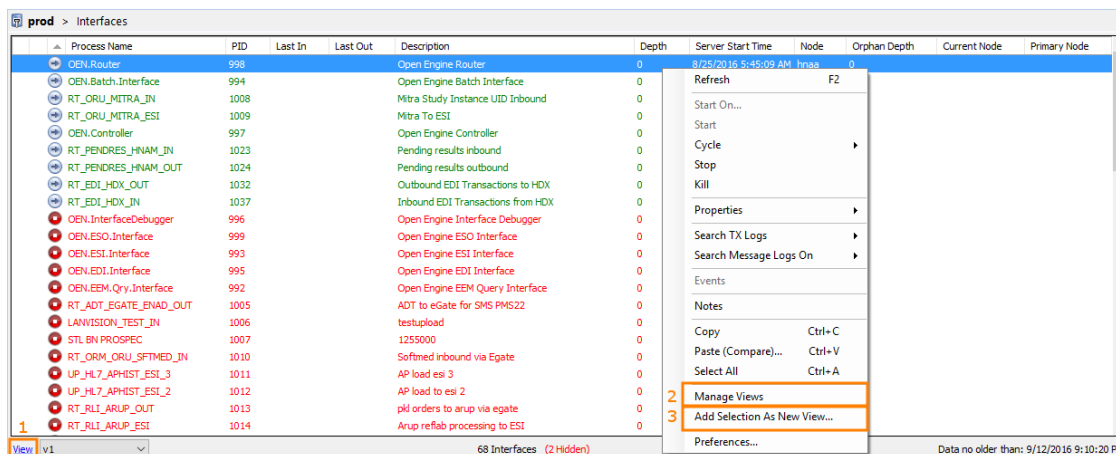


Figure 676: Manage Views menu within the Interfaces control

There are three ways to access Interface View Management:

1. Click the *View* link in the lower left corner of the control to open the View Manager.
2. Using the Interfaces context menu:
 - (a) Right-click inside of the Interfaces Control.
 - (b) Select *Manage Views* from the context menu.
3. Creating a Quick View:
 - (a) Select the interfaces you wish to appear in a new interface view.
 - (b) Note: you can use the Shift and Ctrl keys on the keyboard to select multiple interfaces.
 - (c) Right-click the selected interfaces.
 - (d) Select *Add Selection As New View...* from the context menu.



You can create new views by selection.

If you highlight the interfaces you wish to be in the new view, right-click the mouse and select *Add Selection as New View...* from the *Current View* menu option in the context menu. The View Management screen will open with a new view containing your selected interfaces. You will still need to provide a name and subscription list.

For more information on view management, refer to [Appendix A](#).

11.9.10 Preferences

Panther allows users to save your preferences for each control. Within the Interfaces control, users can save preferences dictating the behavior of the control when modifying an interface server configuration, the appearance of interfaces in different states, and what columns to show in the control.

Preferences

The preferences tab of the Preferences dialog ([Figure 677](#)) allows users to define how Panther will behave when using features of this control. The first set of preferences is “Configuration Preferences”, which allows users to define specific behavior when altering the [SCP](#) configuration on a running interface.

Users have the ability to define how the Interfaces control behaves after you make a configuration change to a running interface. Users may select one of the following:

- 1. Automatically cycle**
Cycles an interface without prompting you anytime you make a change to an interface’s [SCP](#) configuration while it is running.
- 2. Prompt to cycle**
Causes Panther to prompt you to cycle the interface anytime you make a change to an interface’s [SCP](#) configuration while it is running.
- 3. Do not cycle**
Allows you to make changes to an interface’s [SCP](#) configuration without cycling or prompting after the change is made.

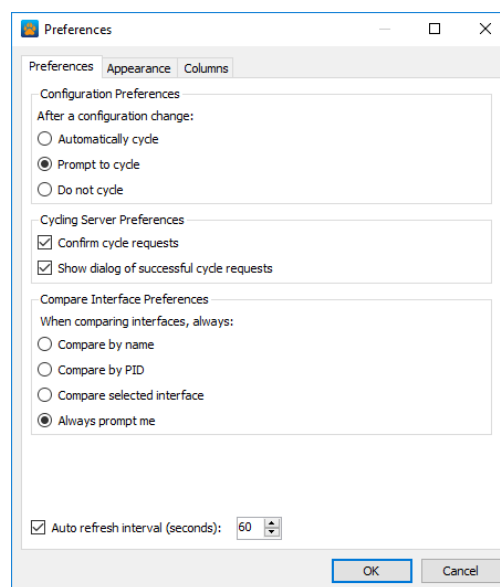


Figure 677: Preferences tab

Users may also specify that this control “Auto Refresh” itself on a given interval. Keep in mind that the shorter the refresh interval, the busier the database becomes.

Appearance

The appearance tab of the preferences dialog (Figure 678) allows users to specify how the Interfaces control displays interfaces.

Color Coding

The Color Coding Preferences allow users to change the display colors of interfaces depending on their state. To change the color for a state, select the desired state, then select the color used to display those interfaces. The preview pane below the color selector displays what the colors will look like.

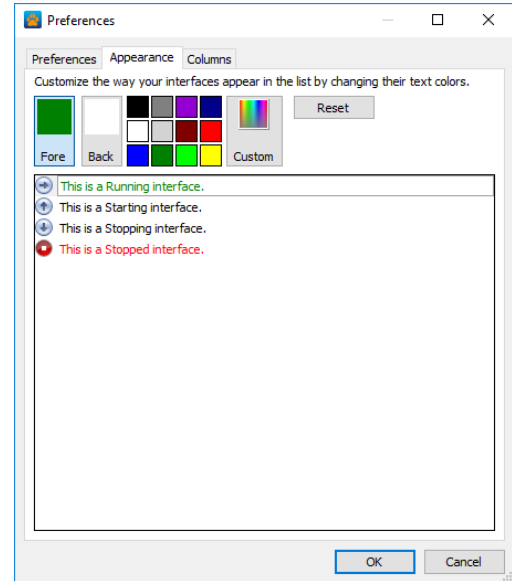


Figure 678: Appearance tab

Columns

The third tab of the preferences dialog (Figure 679) allows users to specify which columns are displayed in the Interfaces control.

Users have the option to show all available columns or to view only columns they wish to display.

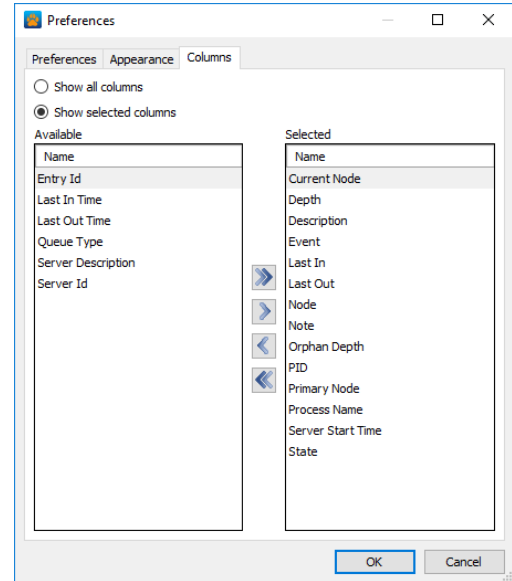


Figure 679: Columns tab



You can change column visibility from the main control and context menu.

Rather than require users to navigate to the preferences dialog to alter column visibility, Panther allows users to show and hide columns through the right-click menu of the Interfaces control. You may also right-click on column headers to quickly access the same functionality.

11.10. Message Logs Controls

The Message Logs control is used to view Message Logs written to by each server. The Message Logs control can be found in the Domain Explorer (Figure 680) under each node, as well as a *Favorite Logs* item underneath the domain.

Message Logs are divided into the following groups:

1. **system**: allows you to view and search records in the system log of the current domain and node.
2. **Server Logs**: loads a list of all server logs, allowing you to browse multiple log files. A log file that is loaded by the server logs view will be named using the Entry ID of its server.
 - Example: The log file for CPM Script is cmb_0051, where 51 is the Entry ID for CPM Script. Panther translates the log file name to identify the server, so viewing the appropriate server's logs be done by server name rather than file name.
3. **Other Logs**: shows all remaining log files whose names do not identify a server.

The *Favorite Logs* item underneath the domain displays the system logs for each node in addition to items you have added to favorites among all the nodes in that domain.

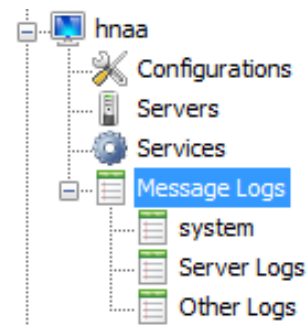


Figure 680: Domain Explorer

Record	Event	Date	Data
207	AUTH_ModifyUser	2015-02-20 07:39:27	user account 'user1' modified by 'PANTHE
206	AUTH_CreateUser	2015-02-20 07:32:54	user account 'user2' created by 'PANTHE
205	AUTH_CreateUser	2015-02-20 07:32:49	user account 'user1' created by 'PANTHE
204	AUTH_ModifyUser	2015-02-04 14:36:30	user account 'testuser' modified by 'PAN
203	AUTH_ModifyUser	2014-12-08 14:16:40	user account 'test2' modified by 'PANTHE
202	AUTH_CreateUser	2014-12-08 14:15:17	user account 'test2' created by 'PANTHE
201	AUTH_CreateUser	2014-12-01 11:32:16	user account 'testadd' created by 'PANTH
200	AUTH_RemoveUser	2014-12-01 08:15:28	user account 'test9' removed by 'PANTHE
199	AUTH_RemoveUser	2014-12-01 08:15:25	user account 'test10' removed by 'PANTHE
198	AUTH_CreateUser	2014-12-01 08:15:09	user account 'test10' created by 'PANTHE
197	AUTH_ModifyUser	2014-12-01 08:14:38	user account 'test' modified by 'PANTHE
196	AUTH_CreateUser	2014-12-01 08:14:30	user account 'test9' created by 'PANTHE
195	AUTH_ModifyUser	2014-12-01 08:14:21	user account 'test' modified by 'PANTHE
194	AUTH_RemoveUser	2014-12-01 08:13:31	user account 'test9' removed by 'PANTHE
193	AUTH_CreateUser	2014-12-01 08:13:28	user account 'test9' created by 'PANTHE
192	AUTH_RemoveUser	2014-12-01 08:10:14	user account 'test9' removed by 'PANTHE
191	AUTH_CreateUser	2014-12-01 08:09:36	user account 'test9' created by 'PANTHE
190	AUTH_CreateUser	2014-11-26 12:22:39	user account 'newguy' created by 'PANTH
189	AUTH_RemoveUser	2014-11-21 13:32:53	user account 'deleteme3' removed by 'PA
188	AUTH_CreateUser	2014-11-21 13:32:48	user account 'deleteme3' created by 'PAN
187	AUTH_RemoveUser	2014-11-21 13:32:39	user account 'deleteme3' removed by 'PA
186	AUTH_CreateUser	2014-11-21 13:32:24	user account 'deleteme3' created by 'PAN
185	AUTH_ModifyUser	2014-11-21 13:32:13	user account 'deleteme1' modified by 'PA
184	AUTH_UpdateDefaults	2014-11-21 13:30:32	Security svstem defaults modified by 'PA

Figure 681: Message Logs Control

Servers with a log file are listed on the left. To view the contents of the file, select the desired server and the most recent records will be shown on the right. Column display can be altered by selecting *Preferences* from the Log List [Context Menu](#) ([Table 153](#)).

#	Image	Level
0		Error
1		Warning
2		Audit
3		Information
4		Debug

Table 152: Log Levels

Message logs have two main areas, the Log list and the Record list ([Figure 682](#)). Each list has its own [Context Menu](#) which can be accessed by right-clicking in the list area.

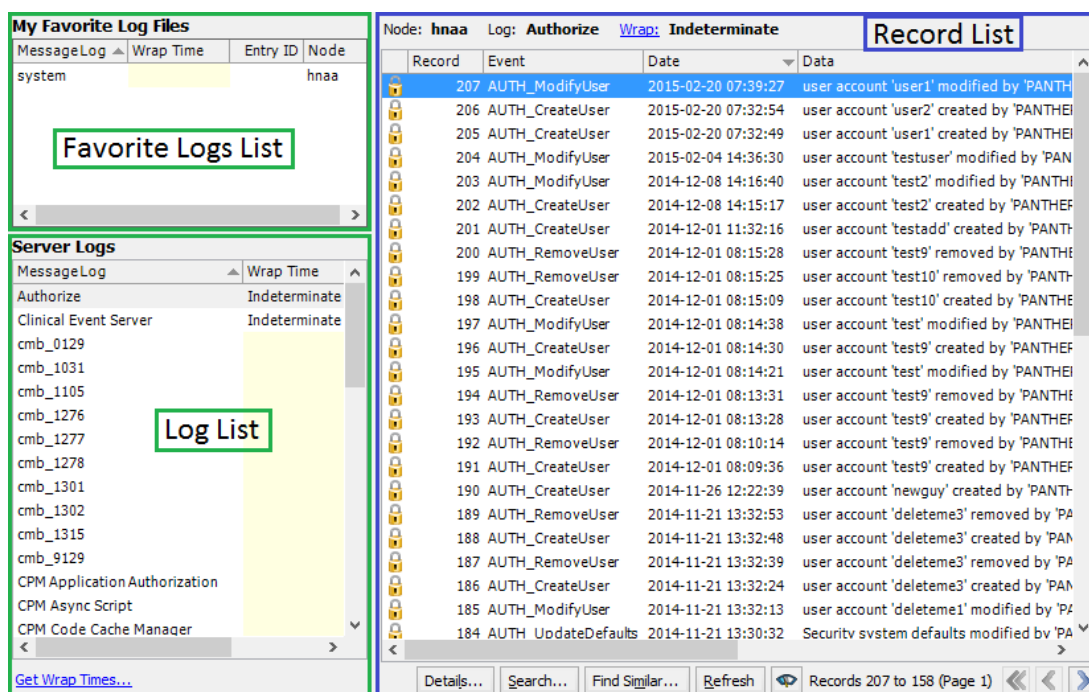


Figure 682: Message Logs Layout

Option	Description
Log Info	Displays information about the selected log file
Add To Favorites	Adds the selected file to the favorite logs list as well as the <i>My Favorite Logs</i> section in the Domain Explorer.
	<i>From the Favorite Logs List, this option is replaced with "Remove From Favorites".</i>
Refresh	Reloads the record data for the selected log file.
Get Wrap Time	Loads the data for the selected log file(s) and calculates the wrap time.
Copy	Copies the selected rows to the clipboard in a tab-separated format.
Select All	Selects all of the currently displayed rows.
Show All Columns	Displays all available columns for the Log List section
Preferences	Allows you to define custom appearance and behavior for the Log List

Table 153: Log List Context Menu

Option	Description
Log Info	Displays information about the selected log file
Search...	Opens the Search dialog, allowing you to search for specific records in the log.
Load Preset	Opens a sub-menu and allows you to select a search that was previously saved
Refresh	Reloads the data for the records being displayed
Details	Loads the record details in a separate dialog
	<i>This is the default menu item.</i>
Email...	Allows you to email the selected record(s) to the recipients you provide
Copy	Copies the selected record(s) to the system clipboard
Select All	Highlights all records currently being displayed in the record list
Preferences	Opens the Preferences dialog for the Records List

Table 154: Record List Context Menu

11.10.1 Viewing Log File Information

Log info can be view from the Log Info context menu ([Table 153](#)).

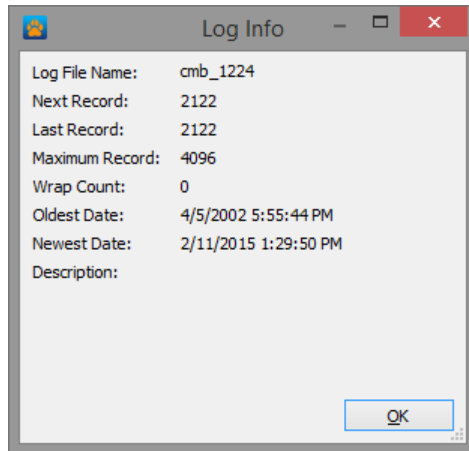


Figure 683: Log Info

1. Select the desired log from the Log List.
2. Right-click the selected log.
3. Select the *Log Info* option from the Log List context menu ([Table 153](#)).

This action opens the Log Info dialog for the selected log ([Figure 683](#)).

To view the log file information for multiple logs at once:

1. Highlight the desired logs in the Log list ([Figure 682](#)).
 - Note: you can use the Shift and Ctrl keys to highlight multiple logs.
2. Right-click the selected logs.
3. Select the *Copy* option from the Log List context menu.
4. Open Microsoft Excel® or Access® and paste the copied logs into a spreadsheet.

11.10.2 Wrap Time

Getting Wrap Times

One convenience of the Panther log viewer is that it provides a calculated wrap time for each log file. It makes this calculation using information from the log file, including the oldest and newest dates.

Wrap Time	Description
Days	The log file will not hold records older than the number of days listed. This estimate is based on the current contents of the file.
Empty	The log file has no contents
Intermediate	A wrap time cannot be accurately calculated because the wrap count is less than the Wrap Count Intermediate Sensitivity.
Inactive	The newest record in the file is older than the Inactive Message Log Sensitivity.

Table 155: Potential Wrap Time Results



Loading wrap times for all log files

You can have Panther load the log file information for all log files so a calculated wrap time can be displayed for every file. This allows useful sorting on the wrap time column to quickly identify the worst offenders. To load the information and wrap times for all log files, click the link labeled *Get wrap times...* below the *Log List* section (Figure 682).

Calculating Wrap Times

Panther provides a convenient way for you to estimate how large to make a given log file, based on a desired wrap time.

Node: **hnaa** Log: **cmb_1031** **Wrap: Inactive**

Figure 684: Calculating Wrap Times

To calculate a file size, select the desired file in the Log list. When the records load into the Record list, click on the *Wrap Time* link in the table's header (Figure 684).

The Wrap Time Assistant dialog box displays the following information:

- Node: hnaa
- Domain: prod
- Log File: cmb_1269
- Current Settings**
 - Current Wrap Time: 109 Days, 2.7 Hours
 - Current Max Records: 4096 Records
 - Current Approximate Size: 1.9 MB (Estimated)
- Log File Size Calculator**
 - Desired Wrap Time (days): 30
 - Calculate button
 - Recommended Max Records: **4096 Records**
 - Approximate Resulting Size: **1.9 MB (Estimated)**
- Information message: To change the size of this message file, you will need to sign into hnaa and run MsgView.
- Done button

Figure 685: Wrap Time Assistant

Selecting the link will open the Wrap Time Assistant (Figure 685) which displays the current settings, including wrap time, number of records, and approximate size.

Using this information you can adjust the wrap time to the desired number of days, this will cause the Assistant to calculate the Recommended Records and the Approximate Resulting Size for the file if this wrap time is used.

11.10.3 Windshield Wiper

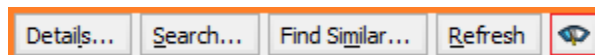


Figure 686: Bottom Button Strip

The *Windshield Wiper* button (below the Record List) is a specialized search. This button will clear the log and only show new records. This button takes your current search criteria (default criteria if no search was done) and modifies the Date Range of the search. It will use a custom search and set the *from* date to the time the button was clicked.

11.10.4 Searching for Records

Figure 687: Search Dialog

To perform a detailed search of the current log file, select *Search...* from the context menu or press the *Search...* button at the bottom of the window.

The “Use these search options by default” checkbox can be checked to save default search behavior, which will be applied to the Record List each time the control is loaded until the default is changed.

The *Reset* button will reset the form to the default search.

Criteria	Description
Level	Allows you to specify the log level or a range of log levels to search.
Date	Allows you to specify a date or date range. If you only specify the first date, the search will return all dates on or after the date provided.
User, Event, Location, Source, SourceRef, and Data	Enter the term exactly as it appears in the record (including spaces) or use the * wildcard. If the field is left blank, the search will ignore the criteria.
	 The * wildcard can be used to replace any number of characters. Example: J*n = John, Jan, Joan, or any word starting with J and ending with n.
Logical Operator	Allows you to specify whether any or all search criteria must be met.
Max Fetch	Determines how many records will be displayed per page. Note: smaller values yield faster searches.

Table 156: Message Log Searching Criteria

Search Presets

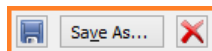


Figure 688: Preset Buttons

Search Presets are basically shortcuts to common searches, and like all shortcuts, you have to make them before they can be used ([Figure 688](#)).

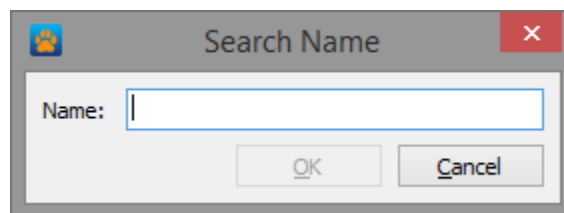


Figure 689: Save Preset Search

Presets can only be made from the associated Search dialog using the *Save As...* option under the *Preset Searches* list box ([Figure 688](#)). Each Preset must have a unique name to distinguish it from other presets.

Once saved, these searches can be quickly accessed using the Record List context menu's *Load Presets* option or the *Load* option under the *Presets* button on the Search dialog.

11.10.5 Viewing Record Details

The records associated with log files appear in the Record List on the right of all message log controls. Once you have selected the Log File you wish to view records for in the Log List, you can view details for a

specific record in that Log File in any of the three ways described below.

There are three ways to access record details ([Figure 691](#)):

1. Double-click the desired record.
2. Using the Details button:
 - (a) Select the desired record.
 - (b) Click the *Details* button located below the Record List ([Figure 690](#)).
3. Using the Record List context menu:
 - (a) Select the desired record.
 - (b) Right-click the selected record.
 - (c) Select the *Details* option from the Record List context menu ([Figure 690](#)).

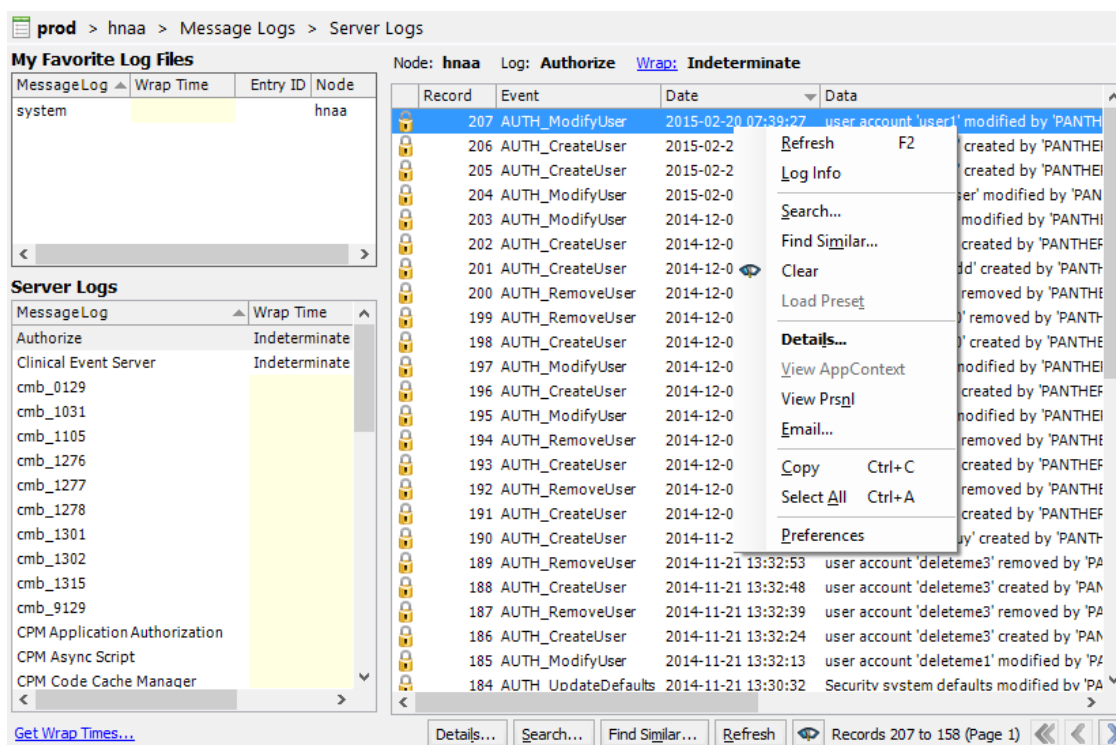


Figure 690: Message Log Records

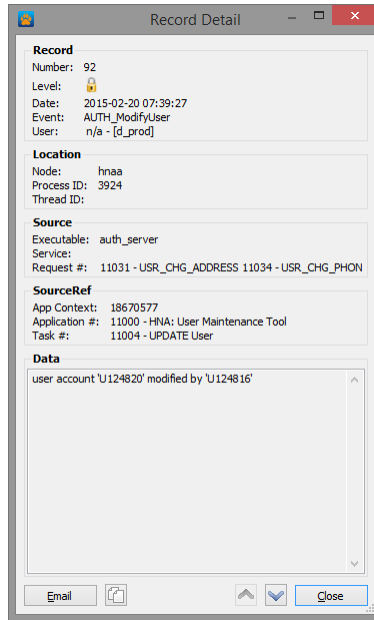


Figure 691: Log Record Details

If you have the *Allow Application Context Retrieval* privilege, the dialog will expand to display application context data.

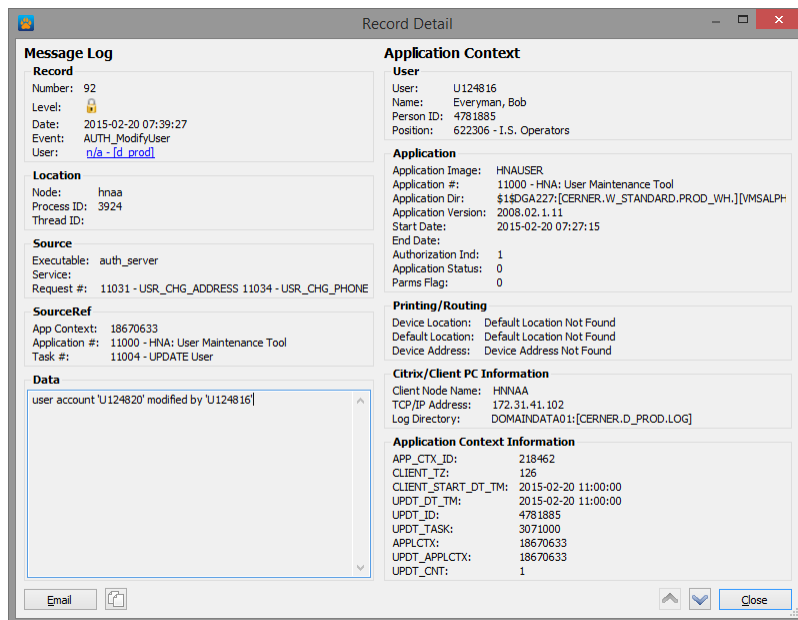


Figure 692: Log Record Details with Application Context data

If there is no application context attached to the record, or if the record cannot be found, the dialog will display a message indicating it could not retrieve the data.

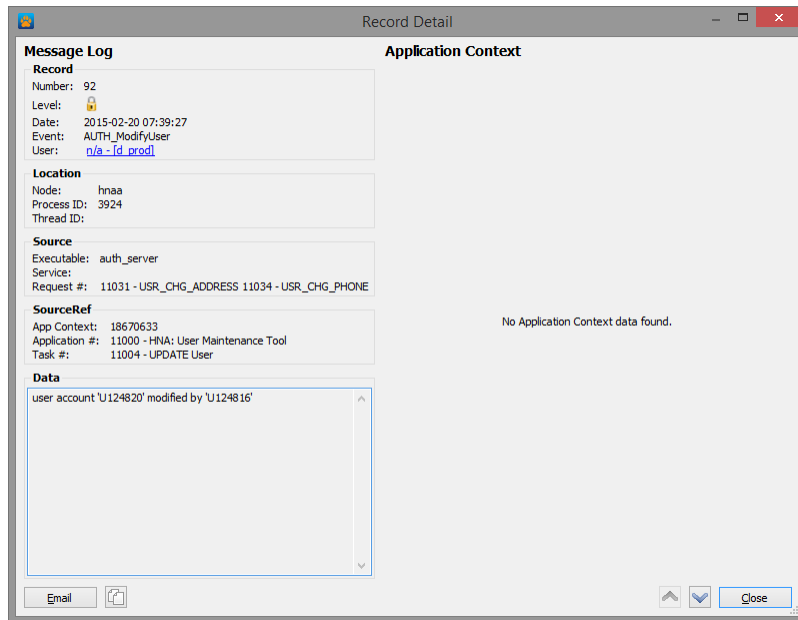


Figure 693: Log Record Details without Application Context data

Clicking the Up Arrow () will show you the record that came just after the current record in the Record Details dialog. Clicking the Down Arrow () will show you the record that came just before the current record in the Record Details dialog.

If you wish to copy the record being displayed in the Record Details dialog, you can do so by clicking the Copy button (). This will move the details of the record to the system clipboard.

The record details may have a link to the user of the record details. Clicking this link opens a dialog that shows additional information about the user, pulled from the Prsnl table in the database.

The dialog box titled "Prsni Details" contains a table with the following data:

Name	Value
USERNAME	user
NAME_FULL_FORMATTED	LAST, FIRST
POSITION_CD	441
PHYSICIAN_IND	0
EMAIL	
ACTIVE_IND	1

A "Close" button is located at the bottom right of the dialog.

Figure 694: Prsni Dialog

When you are done viewing the record details, click *Close* to return to the Message Logs control.

11.10.6 Emailing Log Entries

To send any number of records via email, select the records you wish to send, right-click and select *Email...* from the Record List context menu.

The dialog box titled "Email Details" contains the following fields and controls:

- From:** test@example.com
- To:** (Empty field with a red exclamation mark icon indicating a required field)
- Cc:** joe@example.net
- Bcc:** (Empty field)
- Subject:** Please Review
- Importance:** Normal (dropdown menu)
- ☐ Send as Attachment
- Additional Comments:** (Large text area)
- Buttons:** Send, Cancel
- Warning:** Required field (red exclamation mark icon)

Figure 695: Email Details Dialog

This will open the Email Details dialog ([Figure 695](#)) with the *From* field populated with your user email address (if you have set one up in Email Preferences) and the Subject filled in as “Message Log Data”.

In order to send the email you are required to provide one or more email addresses in the *To* field. Separate multiple addresses with commas.

11.10.7 Message Log Preferences

Show bottom button strip

The button strip at the bottom of the Message Log control can be hidden from the General Preferences section of the preferences dialog ([Figure 696](#)). This can save space when the Message Log control is viewed from the desktop.

Auto Refresh

Automatic refresh of the list of records can be enabled with a configurable interval ([Figure 696](#)). It may be beneficial to leave this off when searching or viewing details about specific logs since the data in the Message Log is volatile.

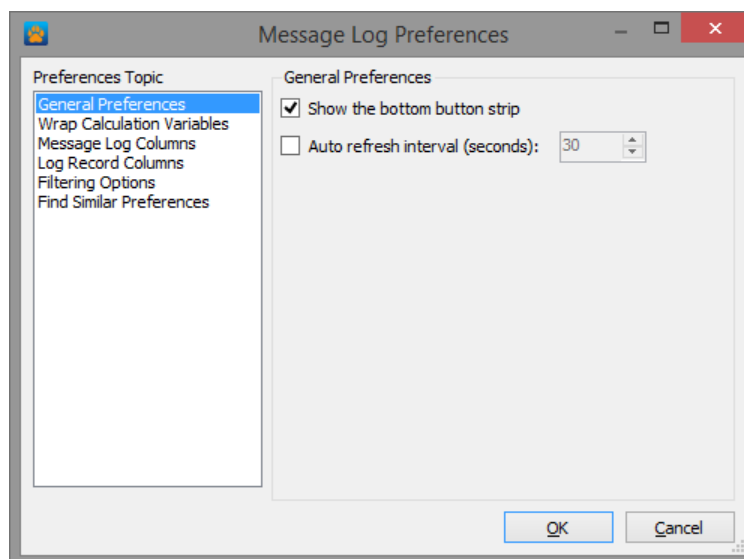


Figure 696: Message Log Preferences

11.10.8 Log List Preferences

Log List Preferences allow you to control how Message Log Files look and act whenever you access them. There are two categories of Preferences for this control, Wrap Variables and Columns.

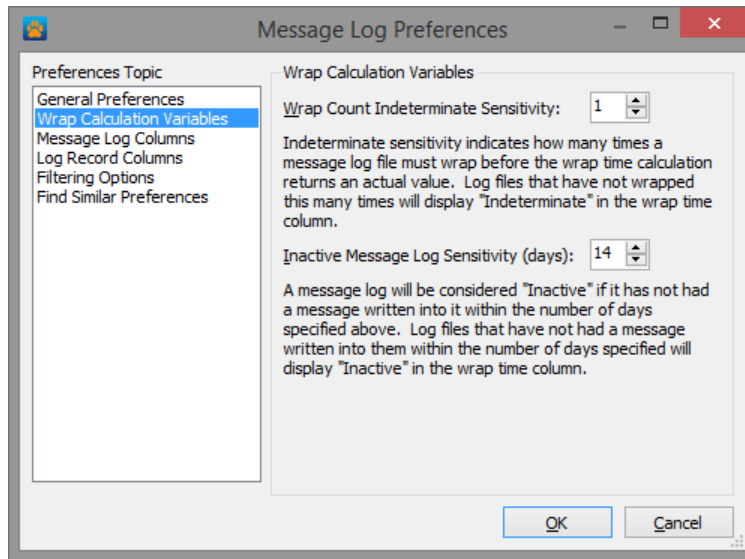


Figure 697: Wrap Calculation Variables

Wrap Variables

Wrap Count Intermediate Sensitivity

The minimum wrap count required in a log file to provide a wrap time estimate in days.

If the wrap count is less than this sensitivity setting, the wrap time calculation results in “Indeterminate”.

Interactive Message Log Sensitivity

The minimum number of days required since the last record was written in a log file to consider the file inactive. If the age of the newest record in a file is older than the number of days specified, the log file is considered “Inactive”.

Columns

The *Columns* tab allows you to select which columns you wish to display in the list of log files.

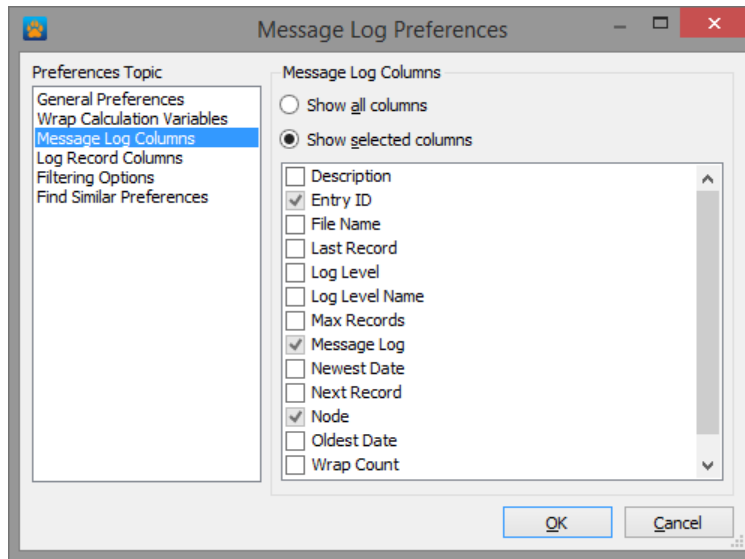


Figure 698: Log List Columns

To show a column, check the box to the left of its name; to hide a column, un-check the box.

Filtering Options

The filtering options in the Message Log preferences dialog allow for configuration of automatic wrap time fetching and message log filtering based on the wrap times (Figure 699). When the *Auto Get Wrap Time* checkbox is checked, the control will spend additional time loading and calculating the wrap time data. If the *Auto hide Empty log files* or *Auto hide Inactive log files* checkboxes are checked, logs with wrap times that fall into the included categories will be hidden from the list of message logs.

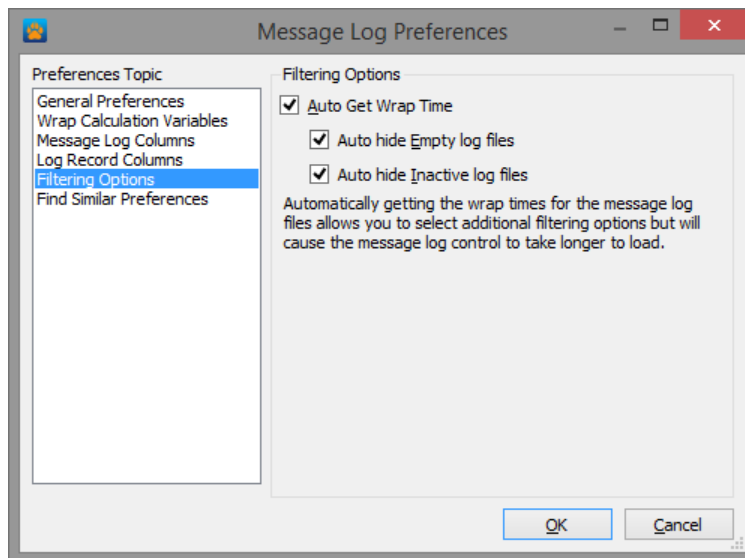


Figure 699: Filtering Options

11.10.9 Record List Preferences

To alter the appearance or behavior of the Record list (table of records shown on the right of the Message Logs and Favorite Logs controls), right-click in the table and select the *Preferences* option from the Record List context menu.

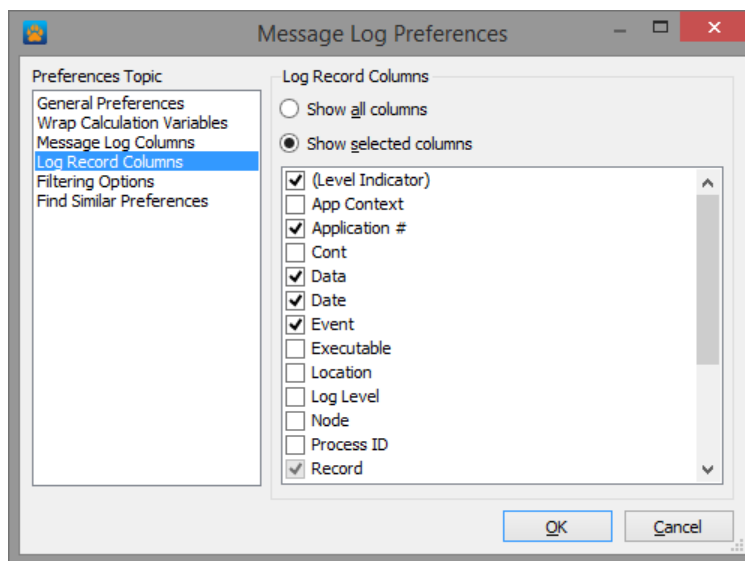


Figure 700: Record List Preferences

From this Preferences dialog ([Figure 700](#)) you can choose which columns display in the table. Check the box to the left of a column name to show the column; un-check the box to the left to hide the column.

Additionally, you can turn on auto-refresh, which will automatically reload the current page of data. This may be useful when viewing the most recent records that match the search criteria. If another match is found on a refresh, it will be added to the list. You also have the ability to change how often the refresh occurs.

Find Similar Preferences

The default search criteria for find similar search can be modified from the Find Similar Preferences section of the preferences dialog ([Figure 701](#)). When the *Confirm search criteria* checkbox is checked, find similar searches will bring up a dialog allowing the criteria to be reviewed or altered before the search. When not checked, the find similar function will use the configured criteria for find similar searches without prompting.

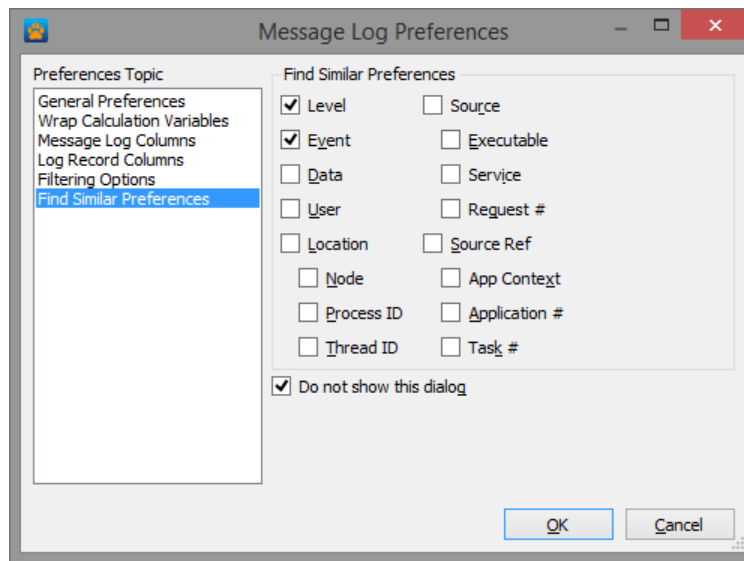


Figure 701: Find Similar Preferences

11.11. Oracle Query Control

The Oracle Query control gives users access to issue queries against the Oracle® instance defined in [Foreign System Setup](#) for the domain.

To view the Oracle Query control, select the *Oracle Query* item in the Domain Explorer ([Figure 702](#)).

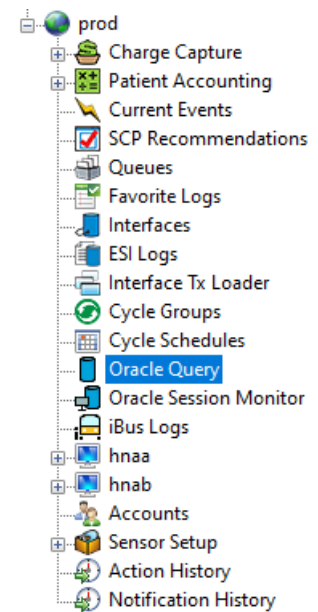


Figure 702: Domain Explorer

11.11.1 Connecting to Oracle®

Before any queries can be issued, the Oracle Query control must connect to Oracle®. In most circumstances, Panther will already have a connection defined so other controls and sensors can function. When this is the case, Oracle Query will present fields to enter credentials for the current session ([Figure 703](#)).

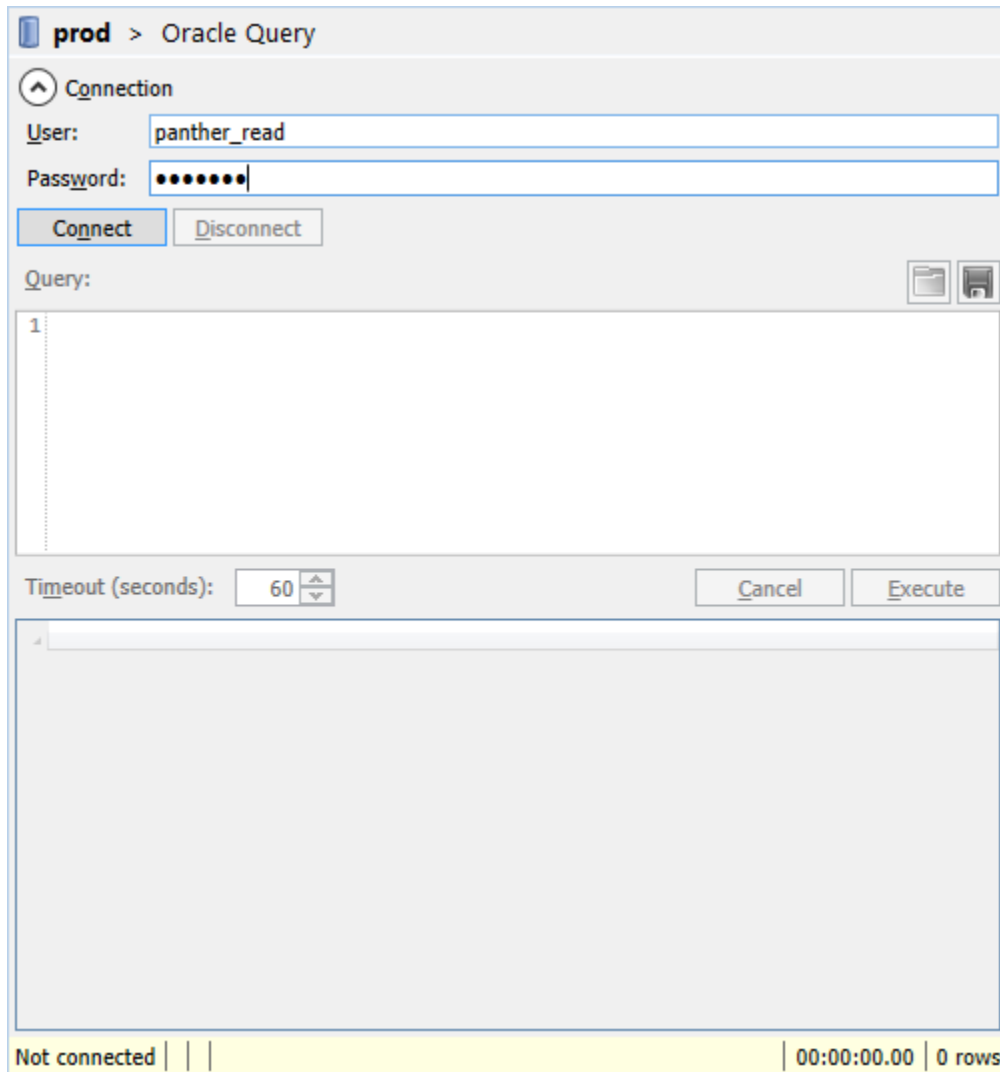


Figure 703: Not Connected

Once connected, the credentials panel will collapse and the remaining controls will become active.

When a Connection is not Defined

If Panther does not yet have a connection defined for the current domain, the Oracle Query control will display an information banner indicating as such (Figure 704). This banner will include a *Configure* button which launches [Foreign System Setup](#).

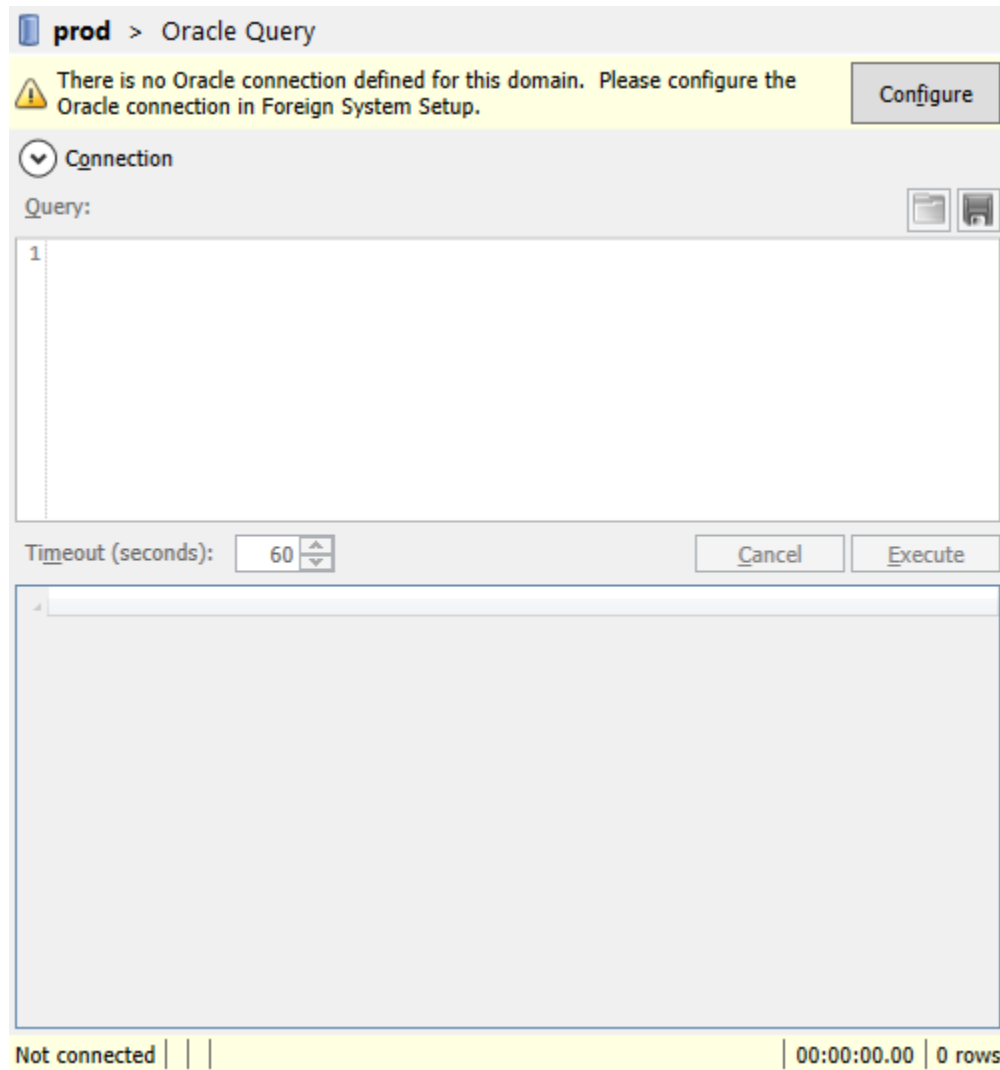


Figure 704: No Connection Defined

11.11.2 Issuing a Query

Issuing a query is as simple as entering text into the query area and clicking the *Execute* button. Oracle Query allows users to enter queries manually or load saved queries from a file using the load button or the context menu (Figure 705).

To protect against long-running queries, a timeout is provided. The default is one minute, and it can be increased to a maximum of one hour.



Attention: Timeout is handled by the Oracle® instance.

SELECT statements can run longer than the timeout parameter. Timeouts only appear to trigger when Oracle® is still processing a query. However, longer-running queries often correlate with large result sets, so a significant portion of the overall query time may be spent transmitting data.

Execute	F5
Load...	Ctrl+O
Save...	Ctrl+S
Copy	Ctrl+C
Select All	Ctrl+A

Figure 705: Query Context Menu

Option	Description
Execute	Executes the current query. If text is selected, it will use only the selected text. Otherwise, all text in the query area is used.
Load Query	Loads a query from a file.
Save Query	Saves the current query to a file.
Copy	Copies the selected text to the clipboard.
Select All	Selects all text in the query area.

Table 157: Query Context Menu

11.11.3 When a Query Succeeds

Upon successful query completion, Oracle Query will display the results in a grid below the query area ([Figure 706](#)). Values can be copied or saved from the results context menu ([Figure 707](#)).

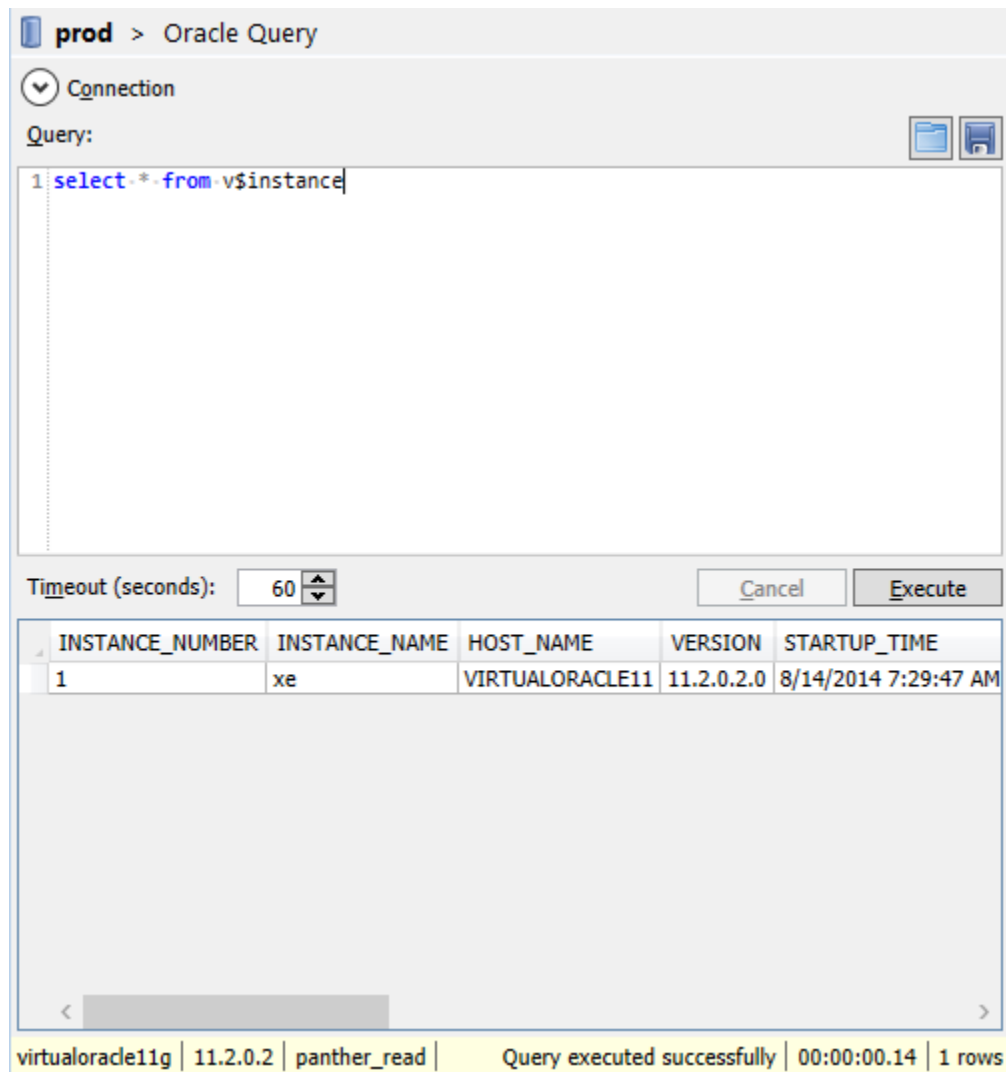


Figure 706: Successful Query

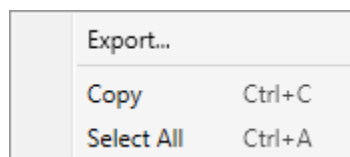


Figure 707: Results Context Menu

Option	Description
Export. . .	Saves the contents of the results grid to a user-specified file.
Copy	Copies the selected values to the clipboard.
Select All	Selects all values in the results area.

Table 158: Result Context Menu

11.11.4 When a Query Fails

Occasionally, an executing query fails. This can happen for any number of reasons, from mis-named tables or columns through Oracle® execution engine errors. When this occurs, the Oracle Query control will hide the results grid and instead display the error message (Figure 708).

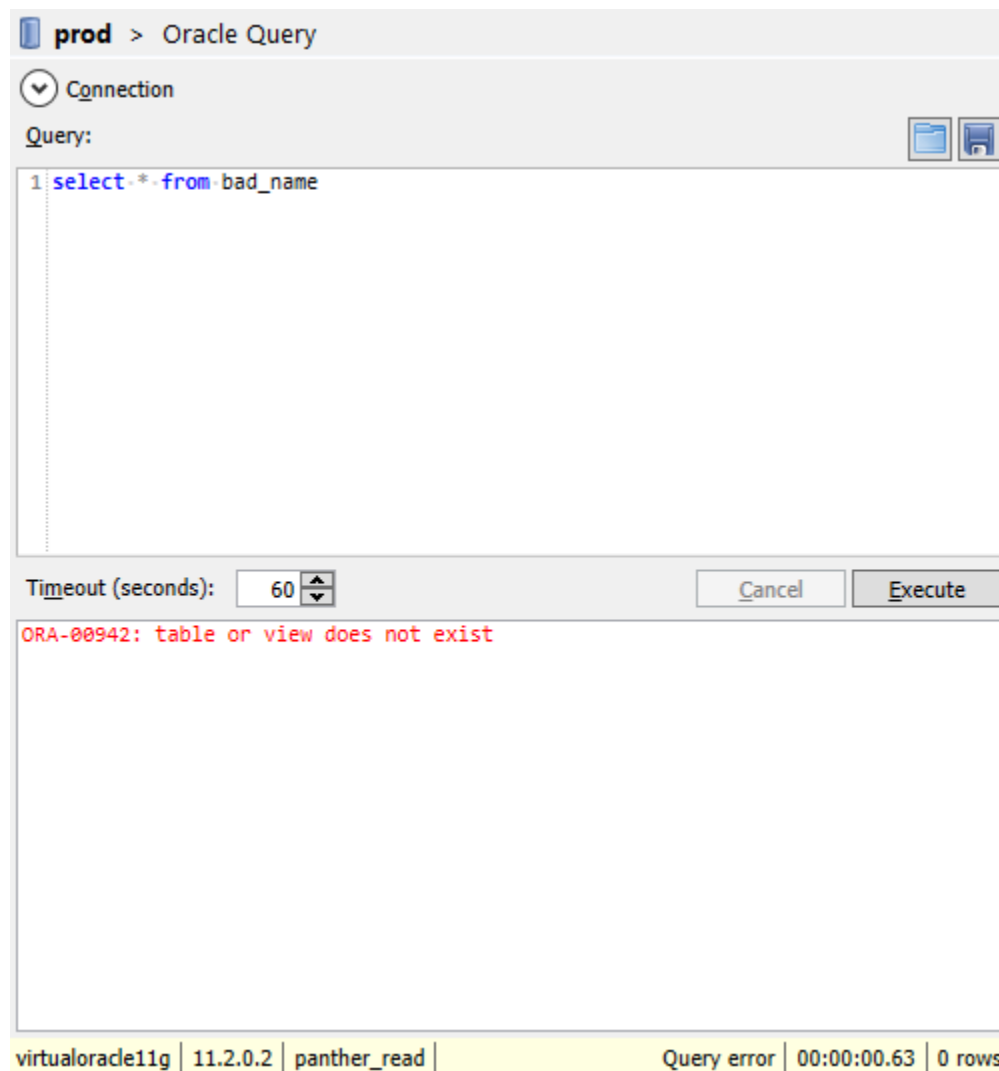


Figure 708: Failed Query

11.11.5 Disconnecting From Oracle®

Oracle Query will automatically end the current session when closing the control or leaving Panther entirely. However, the control provides the ability to manually disconnect in case a user wants to reconnect the session (e.g., when a user needs to switch their session to use different credentials).

To do so, click the arrow button next to *Connection*, which will expand the credentials panel (Figure 709), then click *Disconnect*.

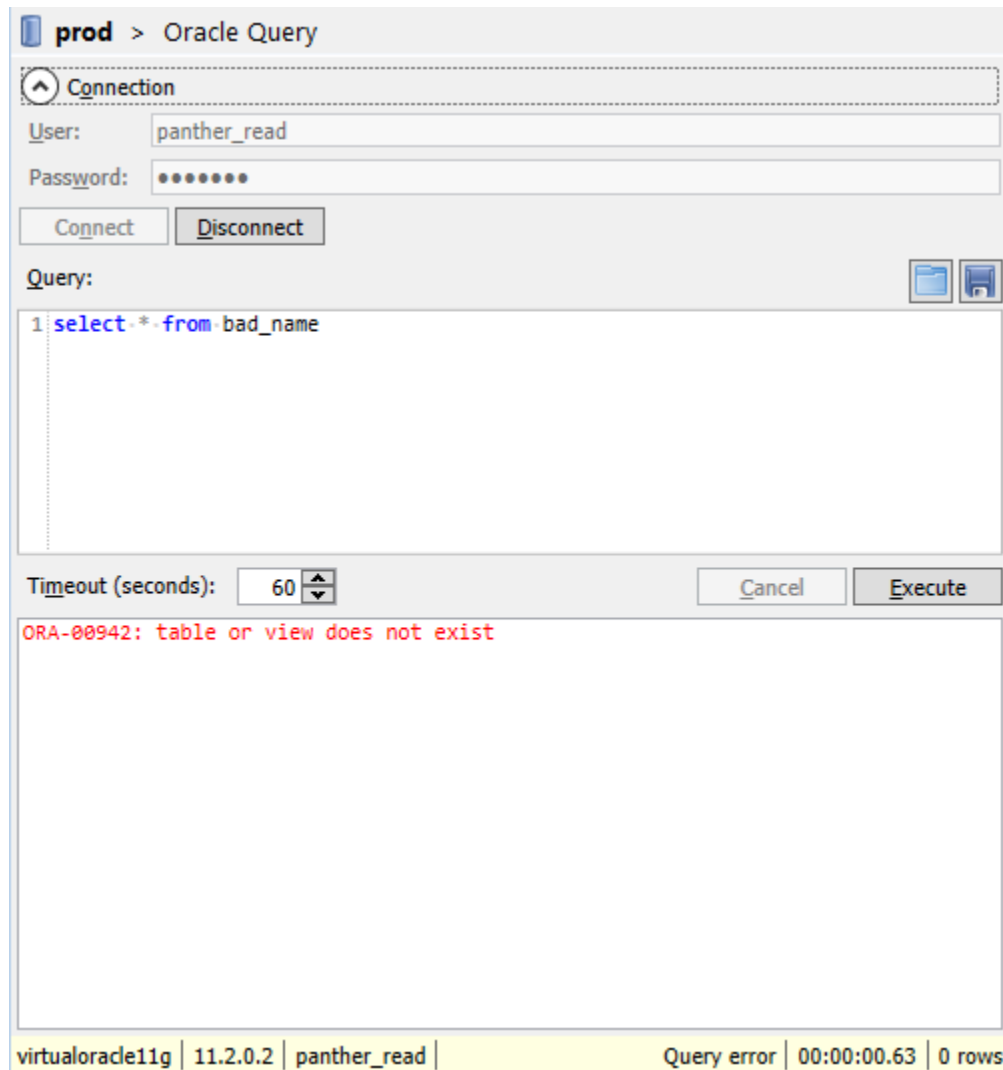


Figure 709: Disconnecting

11.12. Oracle Session Monitor Control

The Oracle Session Monitor control is used to keep track of active sessions in Oracle®. It can be found in the Domain Explorer (Figure 710) under each domain.

Image	Meaning
	The session is associated with a server which has one or more notes
	The session is associated with a server server which has a hover-note
	The session is associated with a server that has one or more ongoing events
	The session is connected to a Java process
	The session is connected to an SCP process
	The session is connected to an interactive user process
	The session is connected to the Panther server

Table 159: Oracle Session Monitor Images

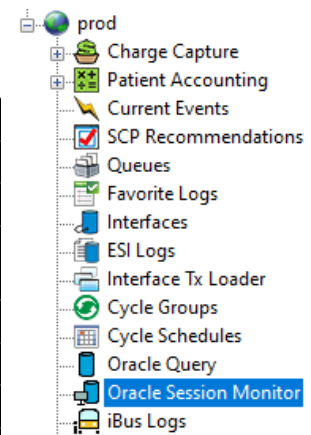


Figure 710: Domain Explorer

Instance ID	Session ID	Session Active	SQL ID	OS User	Process ID	Server Description	Server ID	Entry ID	Session Type
1	32	1h 38m 55s	0ac0fqcpr3fdx	ausur	1944:1544				Not Defined
1	123	3m 20s		d_prod	2268	Clinical Ever		200	SCP
1	48	3m 20s		d_prod	2708	CPM Script		51	SCP
1	493	3m 20s		d_prod	2824	CPM Script		51	SCP
1	662	3m 20s		d_prod	3380	CPM Script		51	SCP
1	567	3m 20s		d_prod	3484	CPM Script		51	SCP
1	872	3m 20s		d_prod	3604	CPM Script		51	SCP
1	410	3m 20s		d_prod	5192	CPM Proces		55	SCP
1	96	3m 20s		d_prod	5288	CPM Proces		55	SCP
1	376	3m 20s		d_prod	5412	CPM Proces		55	SCP
1	99	3m 20s		d_prod	5568	CPM Proces		55	SCP
1	23	3m 20s		d_prod	2244	CPM Proces		55	SCP
1	2048	2m 20s		ausur	3009951				Java
1	1024	1m 40s		ausur	10034815				Interactive
1	41	0s	3dqqmuob0h0aj	ausur	2000192:1				Not Defined

Figure 711: Oracle Session Monitor Control

Option	Description
Refresh	Refreshes the list of sessions.
Kill Session. . .	Kills the selected sessions. <i>Panther will prompt for Oracle credentials in order to complete this action.</i>
Cycle Server Instance	Cycles any Millennium servers associated with the selected sessions.
Kill Server Instance	Kills any Millennium servers associated with the selected sessions (requires the <i>Allow SCP Kill operations</i> privilege).
Stop Server Instance	Stops any Millennium servers associated with the selected sessions.
Server Properties	Displays the Server Properties dialog for the Millennium server associated with the selected session. <i>This is the default menu item.</i>
Message Logs	Displays the message log for the Millennium server associated with the selected session.
Events	Displays ongoing events for the selected session.
View SQL Text	Displays the SQL text for the selected session.
Copy	Copies the selected session rows the clipboard in a tab-separated format.
Select All	Selects all of the currently displayed sessions.
Preferences	Allows you to define which columns to display and some operational preferences.

Table 160: Oracle Session Monitor Context Menu

Sometimes a session in Oracle® starts to cause problems, either because it runs too long, it consumes too many resources while executing a query, or it acquires locks that block other sessions. Once identified, the session's process is found and stopped or the session itself is killed within Oracle®.

The Oracle Session Monitor control provides visibility into the active sessions running on the Millennium database so problem sessions can be identified quicker and more easily, and it provides the tools to address them. When sessions can be mapped to Millennium servers, the control provides the ability to dig into message logs, view server properties, show events and notes, and cycle, stop, or kill the server instance. Sessions with a schema name of SYS and sessions originating from the Panther server are filtered out in order to help provide a more targeted view.

11.12.1 Killing a Session

When the *Kill Session. . .* option is selected, Panther prompts for Oracle® credentials (see [Figure 712](#)).

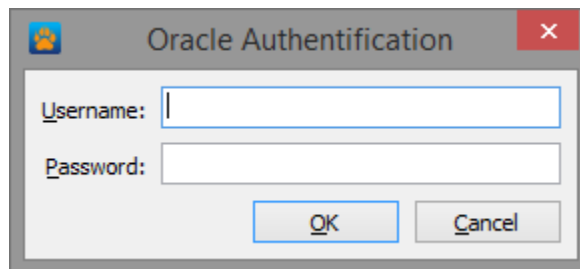


Figure 712: Oracle Authentication Prompt

Once the credentials have been supplied, the control will issue the request to kill the selected sessions and

immediately refresh.



Attention: Oracle® is not guaranteed to end sessions immediately.

When a session is killed, Oracle® has to perform clean-up steps, which can often include rolling back transactions. If there is a large number of operations to undo, the session may take a while to disappear.

11.12.2 Identifying Millennium Sessions

Oracle Session Monitor will attempt to match Oracle® sessions with Millennium server processes. It does so by pulling the list of running servers for all nodes on the domain, then matching the machine and process ID values for the session to a node and server process ID.

For those sessions which successfully map to Millennium servers, the  icon will appear, server notes and events will display as appropriate, message logs and cycle history will become available, and stop and cycle operations will be enabled. Kill operations will also be enabled if the user has the *Allow SCP Kill operations* privilege.

11.12.3 Preferences

As with other controls, Oracle Session Monitor provides preferences that relate to the behavior and display of the control.

Preferences Tab

The preferences tab provides options for controlling prompts and auto refresh behavior. While the control does not auto refresh by default, that can be enabled from this tab, and the interval can be set.

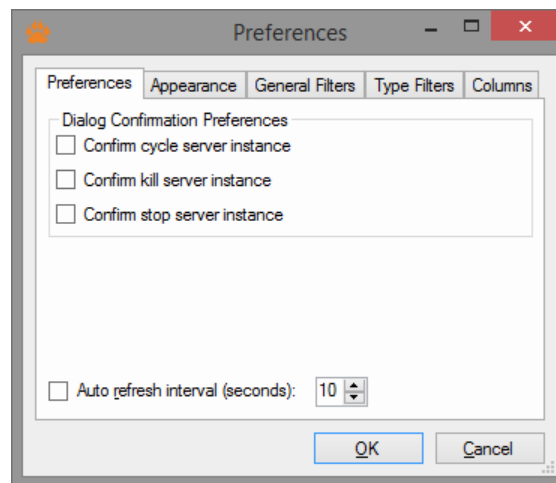


Figure 713: Oracle Session Monitor Preferences

Appearance Tab

The appearance tab allows customization for the appearance of sessions.

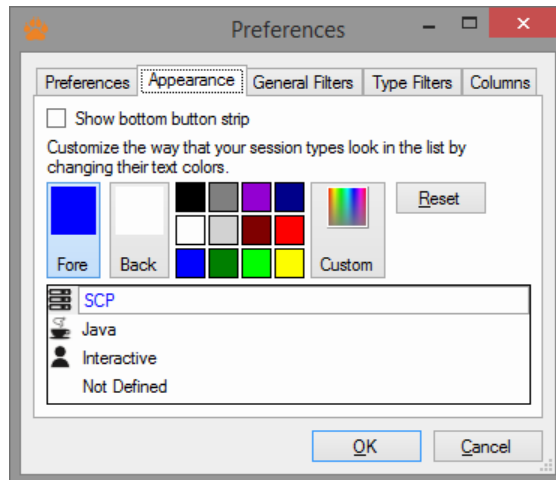


Figure 714: Oracle Session Monitor Appearance Preferences

Show the bottom button strip allows the user to indicate whether they would like the button strip to appear below the server list. Turning this option off saves vertical space (good for desktops), and having it on allows quick access to interactive actions.

The rest of the dialog changes display colors for the Oracle Session Monitor control. To change the color for a specific session type, select the session type and then select the color used to display those sessions. The preview below allows you to get an idea of what the colors will look like.

General Filters Tab

The General Filters tab provides options for filtering sessions based upon various criteria. The filter can be enabled or disabled, and the filter can be configured to filter on specific properties, including the Instance ID of the session, the OS User, the Machine the session is originating from, the Terminal, and whether the session has a blocking session.

If an individual property on the filter is unchecked, the General Filter will ignore it, even if the General Filter is enabled. The text boxes perform an exact match by default, and support wildcards for partial matching ("?" for single characters, and "*" for multiple characters).

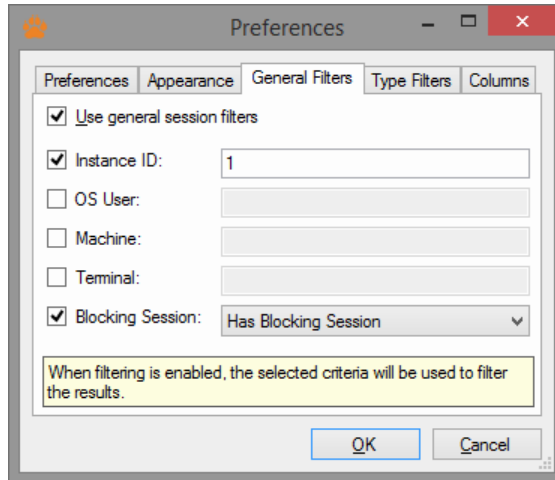


Figure 715: Oracle Session Monitor General Filters Preferences

Type Filters Tab

The Type Filters tab provides options for filtering sessions based upon their type. The filter can be enabled or disabled, and the user can define which types it filters on.



The General Filter can be quickly enabled/disabled.

The filter can be quickly toggled on or off by clicking the *General Filters* check box in the lower-right of the main control.

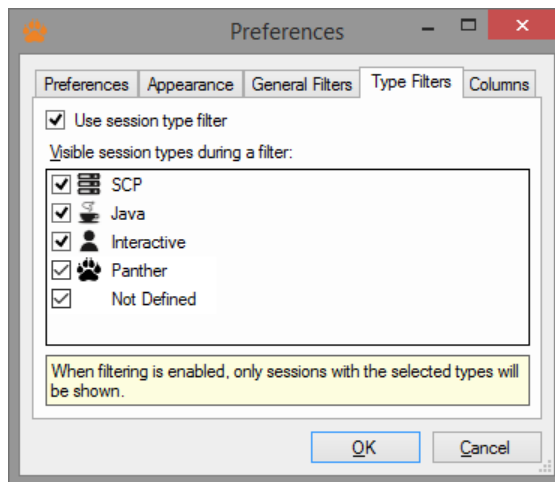


Figure 716: Oracle Session Monitor Type Filters Preferences



The session types filter can be quickly enabled/disabled.

The filter can be quickly toggled on or off by clicking the *Type Filters* check box in the lower-right of the main control.

Once the filter has been applied, the info bar at the bottom of the control will turn yellow and display the number of filtered sessions (see [Figure 717](#)).

Instance ID	Session ID	Session Active	SQL ID	OS User	Process ID	Server Description	Server ID	Entry ID	Session Type
1	123	3m 20s		d_prod	2268	Clinical Event Server	17	200	SCP
1	48	3m 20s		d_prod	2708	CPM Script	35	51	SCP
1	493	3m 20s		d_prod	2824	CPM Script	37	51	SCP
1	662	3m 20s		d_prod	3380	CPM Script	45	51	SCP
1	567	3m 20s		d_prod	3484	CPM Script	47	51	SCP
1	872	3m 20s		d_prod	3604	CPM Script	49	51	SCP
1	410	3m 20s		d_prod	5192	CPM Process	59	55	SCP
1	96	3m 20s		d_prod	5288	CPM Process	60	55	SCP
1	376	3m 20s		d_prod	5412	CPM Process	61	55	SCP
1	99	3m 20s		d_prod	5568	CPM Process	63	55	SCP
1	23	3m 20s		d_prod	2244	CPM Process	70	55	SCP

11 results (4 filtered)

☐ General Filters ☒ Type Filters

Figure 717: Oracle Session Monitor Filter Applied

Columns Tab

The columns tab allows the user to customize which columns appear in the control. Users can select *Show all columns* to display everything or select *Show selected columns* to limit the control to displaying those columns in the *Selected* list.

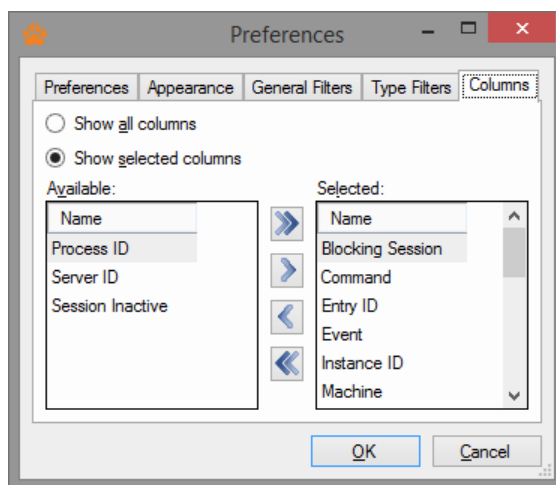


Figure 718: Oracle Session Monitor Column Preferences

11.13. Printers Control

The Printers control shows printers configured in Millennium and helps to configuration inconsistencies. This control does not make any modifications to printers.

To view the Printers control, select the *Printers* item in the Domain Explorer (Figure 719).

On the Printers Control's main screen, and on its dialogs, there is a export icon. This allows you to save the currently displayed data in *CSV* or Excel® format.

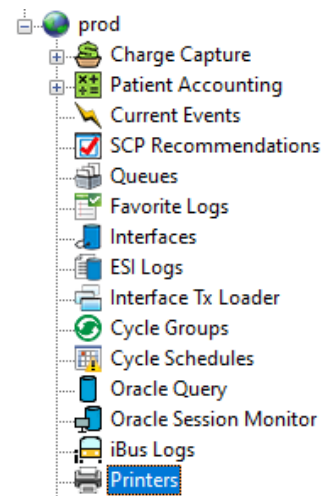


Figure 719: Domain Explorer

The image shows the 'Printers' control window. On the left is a tree view with categories like 'Node Info', 'Printer Types', and 'XR Reports'. The main area is a table with columns for printer details and status across different interfaces. The table is titled 'prod > Printers'. Below the table is a checkbox labeled 'Show all printers (72/9,598)'.

Queue Device Name	Printer Device Id	Printer Name	sftk1	sftk10	sftk11	sftk12	sftk19	sftk2	sftk20
softek1042	803960943	softek1042	✓	✓	✓	✓	✓	✓	✓
softek1047	803354037	softek1047	✓	✓	✓	✓	✓	✓	✓
softek1087	800673840	softek1087	✓	✓	✓	✓	✓	✓	✓
softek1166	804857968	softek1166	✓	✓	✓	✓	✓	✓	✓
softek1172	809671723	softek1172	✓	✓	✓	✓	✓	✓	✓
softek1173	807314092	softek1173	✓	✓	✓	✓	✓	✓	✓
softek128	801599521	softek128	✓	✓	✓	✓	✓	✓	✓
softek129	801535791	softek129	✓	✓	✓	✓	✓	✓	✓
softek1292	800277226	softek1292	✗	✗	✗	✗	✗	✗	✗
softek130	807471640	softek130	✓	✓	✓	✓	✓	✗	✓
softek131	805739590	softek131	✓	✓	✓	✓	✓	✓	✓
softek132	801395920	softek132	✓	✓	✓	✓	✓	✗	✓
softek133	801407233	softek133	✓	✓	✓	✓	✓	✗	✓
softek134	807812023	softek134	✓	✓	✓	✓	✓	✗	✓
softek135	802521765	softek135	✓	✓	✓	✓	✓	✓	✓
softek136	807397455	softek136	✓	✓	✓	✓	✓	✓	✓
softek140	809150427	softek10131	✗	✗	✗	✗	✗	✓	✗
softek140	805972820	softek10130	✓	✗	✗	✗	✗	✗	✗
softek1970	808040476	softek1970	✓	✓	✓	✓	✓	✓	✓
softek2573	809029534	softek2573	✓	✓	✓	✓	✓	✓	✓
softek2706	806422042	softek2706	✓	✓	✓	✓	✓	✓	✓

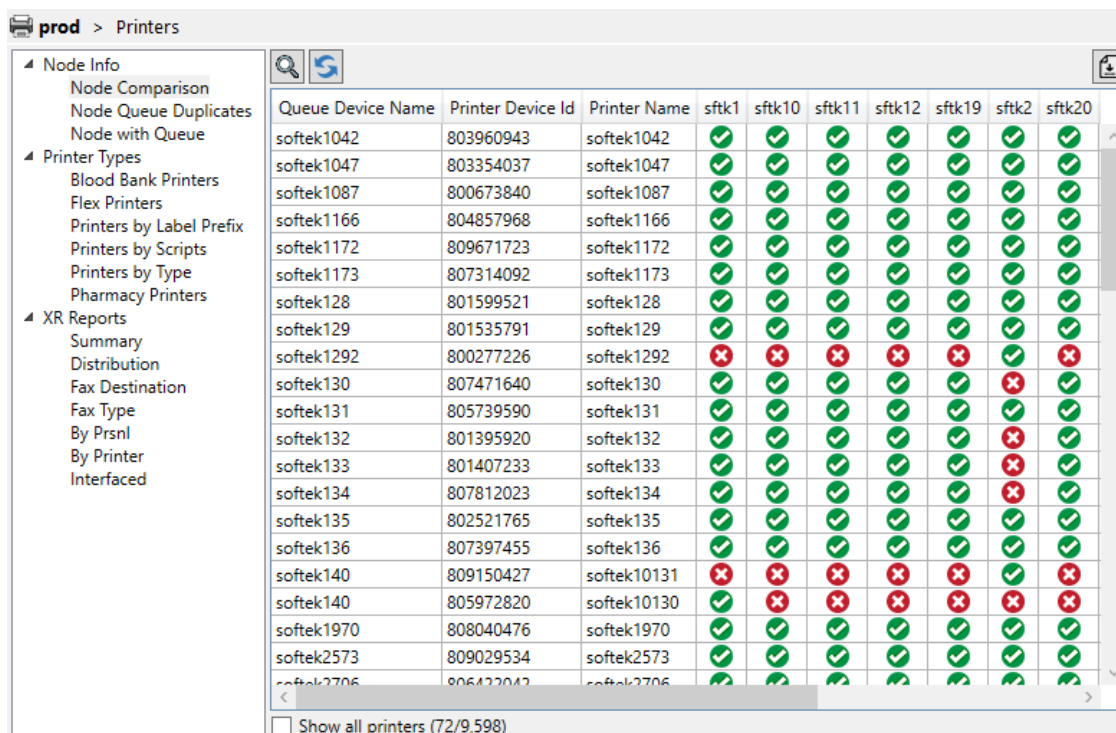
Figure 720: Printers

The tree on the left displays categories of printer information. Clicking a category will load the data on the right side of the control.

11.13.1 Node Comparison

Node Comparison displays the node configuration of printer devices. By default, printers that are configured on all nodes will be hidden. Hidden rows can be shown by checking the “Show all printers” checkbox at the bottom.

By default, all nodes are included in the comparison. To change what nodes are compared, click the search button above the grid to open the [Node Selection](#) dialog.



The screenshot shows a web application interface titled "prod > Printers". On the left is a sidebar menu with categories like "Node Info", "Printer Types", and "XR Reports". The main area contains a table with columns: Queue Device Name, Printer Device Id, Printer Name, and a series of columns for different nodes (sftk1, sftk10, sftk11, sftk12, sftk19, sftk2, sftk20). Each cell in the node columns contains a green checkmark or a red X. At the bottom, there is a checkbox labeled "Show all printers (72/9,598)".

Queue Device Name	Printer Device Id	Printer Name	sftk1	sftk10	sftk11	sftk12	sftk19	sftk2	sftk20
softek1042	803960943	softek1042	✓	✓	✓	✓	✓	✓	✓
softek1047	803354037	softek1047	✓	✓	✓	✓	✓	✓	✓
softek1087	800673840	softek1087	✓	✓	✓	✓	✓	✓	✓
softek1166	804857968	softek1166	✓	✓	✓	✓	✓	✓	✓
softek1172	809671723	softek1172	✓	✓	✓	✓	✓	✓	✓
softek1173	807314092	softek1173	✓	✓	✓	✓	✓	✓	✓
softek128	801599521	softek128	✓	✓	✓	✓	✓	✓	✓
softek129	801535791	softek129	✓	✓	✓	✓	✓	✓	✓
softek1292	800277226	softek1292	✗	✗	✗	✗	✗	✗	✗
softek130	807471640	softek130	✓	✓	✓	✓	✓	✗	✓
softek131	805739590	softek131	✓	✓	✓	✓	✓	✓	✓
softek132	801395920	softek132	✓	✓	✓	✓	✓	✗	✓
softek133	801407233	softek133	✓	✓	✓	✓	✓	✗	✓
softek134	807812023	softek134	✓	✓	✓	✓	✓	✗	✓
softek135	802521765	softek135	✓	✓	✓	✓	✓	✓	✓
softek136	807397455	softek136	✓	✓	✓	✓	✓	✓	✓
softek140	809150427	softek10131	✗	✗	✗	✗	✗	✓	✗
softek140	805972820	softek10130	✓	✗	✗	✗	✗	✗	✗
softek1970	808040476	softek1970	✓	✓	✓	✓	✓	✓	✓
softek2573	809029534	softek2573	✓	✓	✓	✓	✓	✓	✓
softek2706	806422042	softek2706	✓	✓	✓	✓	✓	✓	✓

Figure 721: Node Comparison

Menu Option	Description
Refresh	Reloads the data in the grid.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 161: Node Comparison Context Menu

Node Selection

Node Selection is used to choose what nodes are included in the comparison for Node Comparison. Move nodes to the included selection to display them in the comparison.

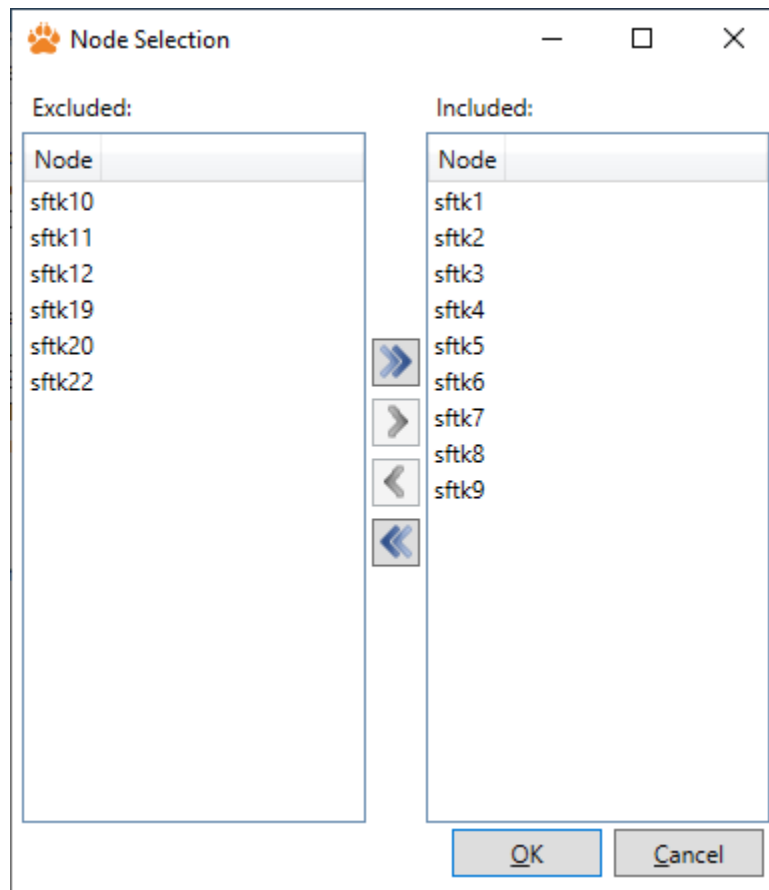


Figure 722: Node Selection

11.13.2 Node Queue Duplicates

Double click a row or use the context menu to view the duplicates in the [Details](#) dialog.

prod > Printers

Node Info

Node Comparison

Node Queue Duplicates

Node with Queue

Printer Types

Blood Bank Printers

Flex Printers

Printers by Label Prefix

Printers by Scripts

Printers by Type

Pharmacy Printers

XR Reports

Summary

Distribution

Fax Destination

Fax Type

By Prsnl

By Printer

Interfaced

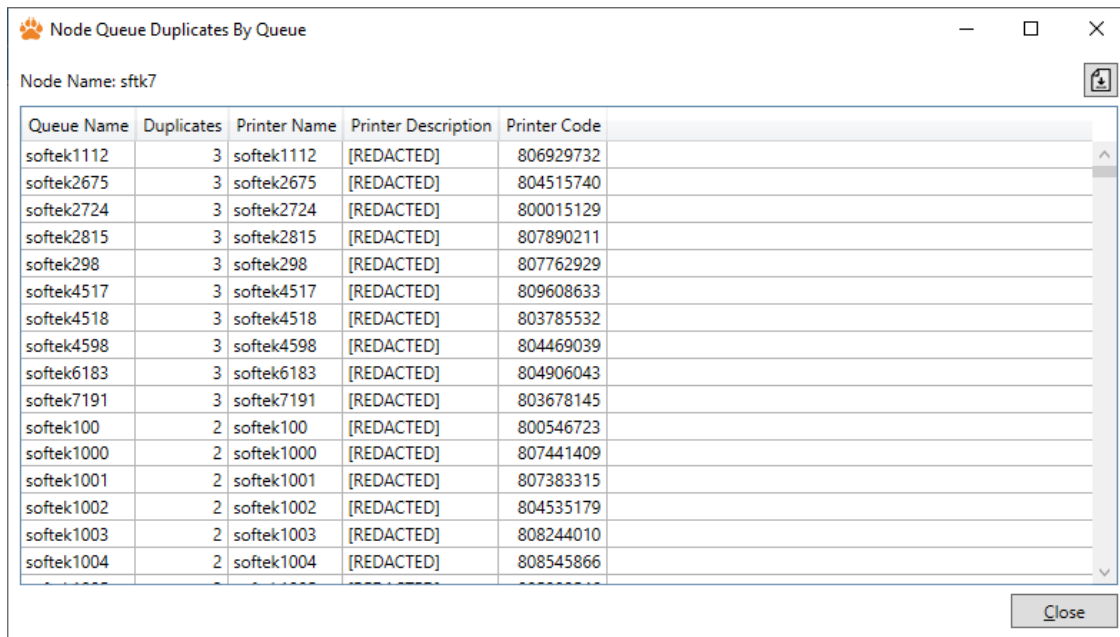
Name	Duplicate Count	Node Cd	
sftk7	6,662	801019239	
sftk8	6,662	807327969	

Figure 723: Node Queue Duplicates

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 162: Node Queue Duplicates Context Menu

11.13.3 Node Queue Duplicates by Queue



Queue Name	Duplicates	Printer Name	Printer Description	Printer Code
softek1112	3	softek1112	[REDACTED]	806929732
softek2675	3	softek2675	[REDACTED]	804515740
softek2724	3	softek2724	[REDACTED]	800015129
softek2815	3	softek2815	[REDACTED]	807890211
softek298	3	softek298	[REDACTED]	807762929
softek4517	3	softek4517	[REDACTED]	809608633
softek4518	3	softek4518	[REDACTED]	803785532
softek4598	3	softek4598	[REDACTED]	804469039
softek6183	3	softek6183	[REDACTED]	804906043
softek7191	3	softek7191	[REDACTED]	803678145
softek100	2	softek100	[REDACTED]	800546723
softek1000	2	softek1000	[REDACTED]	807441409
softek1001	2	softek1001	[REDACTED]	807383315
softek1002	2	softek1002	[REDACTED]	804535179
softek1003	2	softek1003	[REDACTED]	808244010
softek1004	2	softek1004	[REDACTED]	808545866

Figure 724: Node Queue Duplicates by Queue

Menu Option	Description
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 163: Node Queue Duplicates by Queue Context Menu

11.13.4 Node Queue Duplicate Details

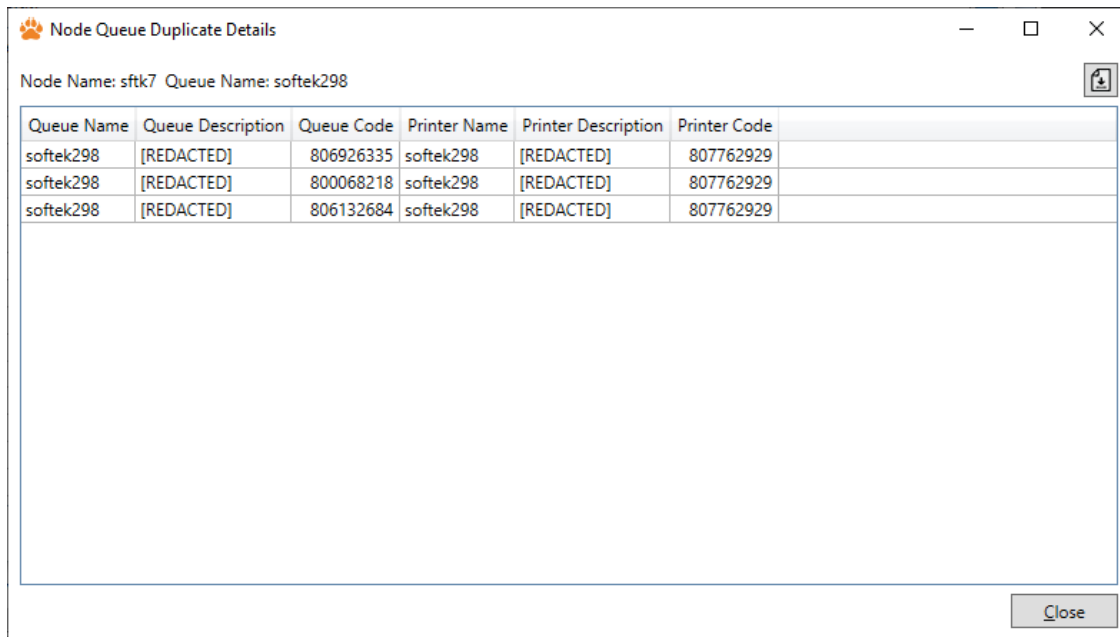
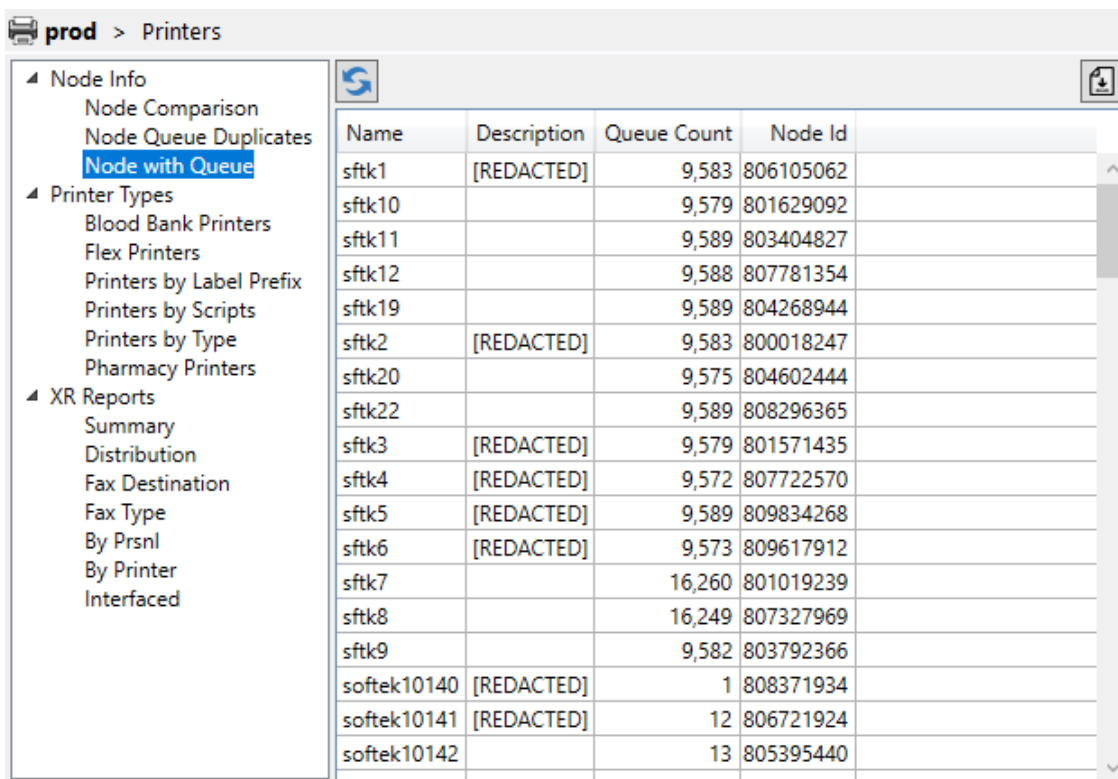


Figure 725: Node Queue Duplicate Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 164: Node Queue Duplicate Details Context Menu

11.13.5 Node with Queue



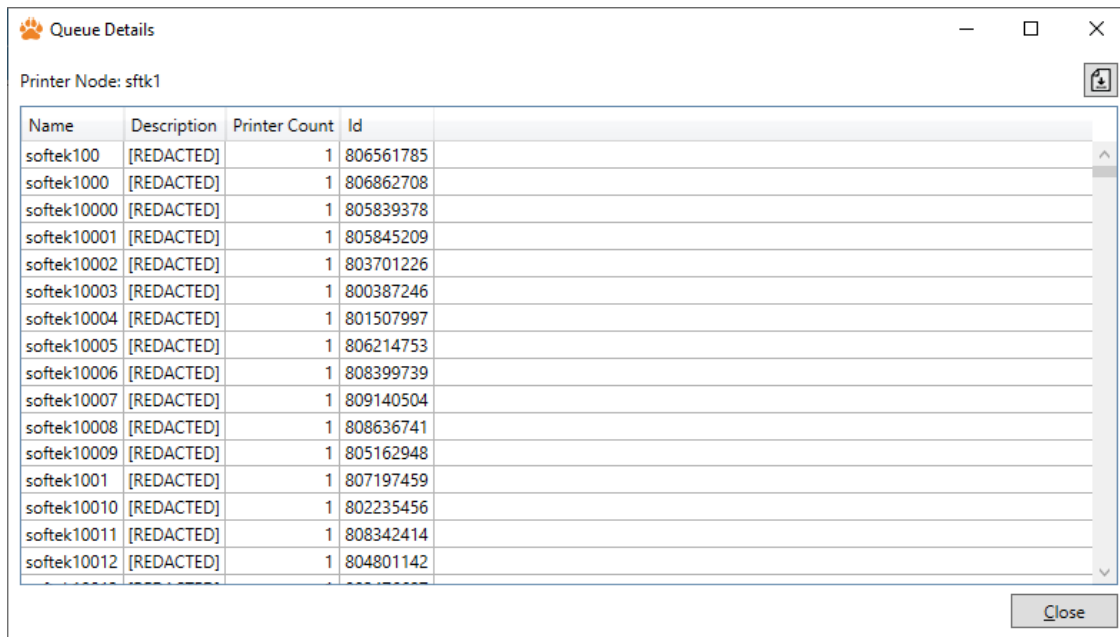
Name	Description	Queue Count	Node Id
sftk1	[REDACTED]	9,583	806105062
sftk10		9,579	801629092
sftk11		9,589	803404827
sftk12		9,588	807781354
sftk19		9,589	804268944
sftk2	[REDACTED]	9,583	800018247
sftk20		9,575	804602444
sftk22		9,589	808296365
sftk3	[REDACTED]	9,579	801571435
sftk4	[REDACTED]	9,572	807722570
sftk5	[REDACTED]	9,589	809834268
sftk6	[REDACTED]	9,573	809617912
sftk7		16,260	801019239
sftk8		16,249	807327969
sftk9		9,582	803792366
softek10140	[REDACTED]	1	808371934
softek10141	[REDACTED]	12	806721924
softek10142		13	805395440

Figure 726: Node with Queue

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 165: Node with Queue Context Menu

11.13.6 Queue Details



Printer Node: sftk1

Name	Description	Printer Count	Id
softek100	[REDACTED]	1	806561785
softek1000	[REDACTED]	1	806862708
softek10000	[REDACTED]	1	805839378
softek10001	[REDACTED]	1	805845209
softek10002	[REDACTED]	1	803701226
softek10003	[REDACTED]	1	800387246
softek10004	[REDACTED]	1	801507997
softek10005	[REDACTED]	1	806214753
softek10006	[REDACTED]	1	808399739
softek10007	[REDACTED]	1	809140504
softek10008	[REDACTED]	1	808636741
softek10009	[REDACTED]	1	805162948
softek1001	[REDACTED]	1	807197459
softek10010	[REDACTED]	1	802235456
softek10011	[REDACTED]	1	808342414
softek10012	[REDACTED]	1	804801142

Close

Figure 727: Queue Details

Menu Option	Description
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 166: Queue Details Context Menu

11.13.7 Printer Details

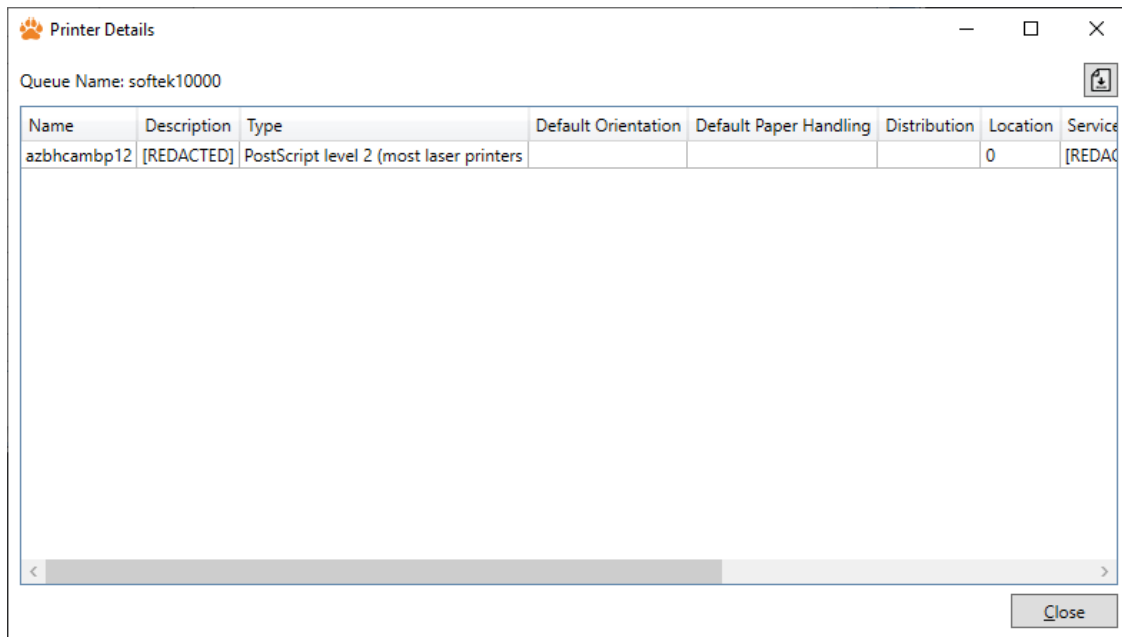


Figure 728: Printer Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 167: Printer Details Context Menu

11.13.8 Blood Bank Printers

prod > Printers

Name	Description	Address	Model	Port	Label Type	Server Name	Server Description	Server Ip Address	Server Port
softek1	[REDACTED]	10.19.4.60	Zebra Technologies 105Se, Z4M	2	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek10	[REDACTED]	10.14.1.183	Zebra Technologies 105Se, Z4M	13	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek11	[REDACTED]	10.16.8.138	Zebra Technologies 105Se, Z4M	14	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek12	[REDACTED]	10.27.0.28	Zebra Technologies 105Se, Z4M	15	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek13	[REDACTED]	10.18.7.92	Zebra Technologies 105Se, Z4M	16	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek14	[REDACTED]	10.112.50.26	Zebra Technologies 105Se, Z4M	17	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek15	[REDACTED]	10.112.50.25	Zebra Technologies 105Se, Z4M	18	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek16	[REDACTED]	10.121.028.050	Zebra Technologies 105Se, Z4M	11	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek17	[REDACTED]	10.25.0.19	Zebra Technologies 105Se, Z4M	19	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek18	[REDACTED]	172.19.131.172	Zebra Technologies 105Se, Z4M	20	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek19	[REDACTED]	10.14.8.227	Zebra Technologies 105Se, Z4M	1	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek2	[REDACTED]	10.18.5.211	Zebra Technologies 105Se, Z4M	3	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek3	[REDACTED]	10.7.102.151	Zebra Technologies 105Se, Z4M	7	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek4	[REDACTED]	10.7.158.29	Zebra Technologies 105Se, Z4M	8	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek5	[REDACTED]	10.7.208.33	Zebra Technologies 105Se, Z4M	9	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek6	[REDACTED]	10.4.34.39	Zebra Technologies 105Se, Z4M	10	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek7	[REDACTED]	10.3.103.14	Zebra Technologies 105Se, Z4M	6	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek8	[REDACTED]	10.16.228.13	Zebra Technologies 105Se, Z4M	12	4.0' W x 4.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500
softek9	[REDACTED]	10.2.68.15	Zebra Technologies 105Se, Z4M	5	4.0' W x 2.0' H	Hema Trax Server	Hema Trax Server	10.65.57.43	5500

Figure 729: Blood Bank Printers

Menu Option	Description
Refresh	Reloads the data in the grid.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 168: Blood Bank Printers Context Menu

11.13.9 Flex Printers

prod > Printers														
Node Info														
Node Comparison	Name	Route Description	Dcp Output Route Id	Param Count	Param1	Value1	Param2	Param2	Param3	Param3	Param4	Param5	Orderables	
Node with Queue	softek1227	EasyScript	802952322	1	Patient Location	83 NRSY							3,126	
Printer Types	softek1228	EasyScript	802952322	1	Patient Location	83 SURG							3,126	
Brood Bank Printers	softek127	EasyScript	802952322	1	Patient Location	12 GMS							3,126	
Flex Printers	softek127	EasyScript	802952322	1	Patient Location	50 Lab							3,126	
Printers by Label Prefix	softek127	PfFac/SPO	806787392	2	Patient Facility	PAGE	Order Department	Order Department					2,722	
Printers by Scripts	softek1295	EasyScript	802952322	1	Patient Location	22 SQ3E							3,126	
Printers by Type	softek1336	RT Activity/Order Loc	808574269	2	Order Department	Pulmonary Function Lab	Order Location	Order Location					15	
Pharmacy Printers	softek1338	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BBWMC	Activity Sub Type	Activity Sub Type					47	
XR Reports	softek1374	EasyScript	802952322	1	Patient Location	55 ERL							3,126	
Summary	softek1374	EasyScript	802952322	1	Patient Location	55 EDL							3,126	
Distribution	softek139	PfFac/Order Dept	809674885	2	Patient Facility	BTMC	Order Department	Order Department					297	
Fax Destination	softek1393	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BBH	Activity Sub Type	Activity Sub Type					47	
Fax Type	softek1394	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BBH	Activity Sub Type	Activity Sub Type					47	
By Print	softek1410	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BBMC	Activity Sub Type	Activity Sub Type					47	
By Printer	softek1422	Discharge	806479534	3	Patient Facility	PAGE	Order Department	Order Department	Patient Type	Patient Type			3	
Interfaced	softek1424	Discharge	806479534	3	Patient Facility	PAGE	Order Department	Order Department	Patient Type	Patient Type			3	
	softek1426	RT Activity/Order Loc	808574269	2	Order Department	Pulmonary Function Lab	Order Location	Order Location					15	
	softek1427	RT Activity/Order Loc	808574269	2	Order Department	Pulmonary Function Lab	Order Location	Order Location					15	
	softek1448	PfFac/Order Dept	809674885	2	Patient Facility	PAGE	Order Department	Order Department					297	
	softek145	PfFac/Order Dept	809674885	2	Patient Facility	BTMC	Order Department	Order Department					297	
	softek1453	Lab-PfFac/Activity Type	801659426	2	Patient Facility	BMMC	Order Department	Order Department					21	
	softek1453	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BMMC	Activity Sub Type	Activity Sub Type					47	
	softek1453	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BMMC	Activity Sub Type	Activity Sub Type					47	
	softek1453	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BMMC	Activity Sub Type	Activity Sub Type					47	
	softek1453	Lab-PfFac/Sub Activity	803181287	2	Patient Facility	BMMC	Activity Sub Type	Activity Sub Type					47	
	softek1454	A/D/T/CCO/REG	802802593	2	Patient Facility	PAGE	Activity Sub Type	Activity Sub Type					3	
	softek1454	A/D/T/CCO/REG	802802593	2	Patient Facility	PAGE	Activity Sub Type	Activity Sub Type					3	
	softek1454	PfFac/Sub Activity	800581444	2	Patient Facility	PAGE	Activity Sub Type	Activity Sub Type					25	
	softek147	PfFac/Order Dept	809674885	2	Patient Facility	BTMC	Order Department	Order Department					297	
	softek1513	PfFac/Sub Activity	800581444	2	Patient Facility	PAGE	Activity Sub Type	Activity Sub Type					26	

Figure 730: Flex Printers

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 169: Flex Printers Context Menu

11.13.10 Flex Printer Orderables

 Flex Printer Orderables

Printer Name: softek1295

Activity Type	Catalog Item	Catalog Id
General Lab	APTT Lupus Mixing Study - Discern	807634344
General Lab	APTT Treated - Discern	809076983
General Lab	Hexagonal LUPUS- Discern	801149876
General Lab	Reflex DRVVT 1:1 Mix	803448010
General Lab	Thrombin Clotting Time LUPUS - Discern	801901573
Pharmacy	0.9% NS with KCL and K Acetate	805231881
Pharmacy	0.9% NS with KCL and KPhos	803675522
Pharmacy	1/2 NS (250 mL) + heparin (125 units)	807663800
Pharmacy	1/2 NS (30 mL) + heparin (15 units)	807628627
Pharmacy	2-Octyl Cyanoacrylate Adhesive	809693436
Pharmacy	5-hydroxytryptophan	809932052
Pharmacy	abacavir	806425611
Pharmacy	abacavir-lamivudine	800507734
Pharmacy	abacavir/dolutegravir/lamivudine	805442652
Pharmacy	abacavir/lamivudine/zidovudine	806091414
Pharmacy	abaloparatide	804559931

Close

Figure 731: Flex Printer Orderables

Menu Option	Description
Copy Catalog Id	Copies the Catalog Id value to the clipboard.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 170: Flex Printer Orderables Context Menu

11.13.11 Printers by Label Prefix

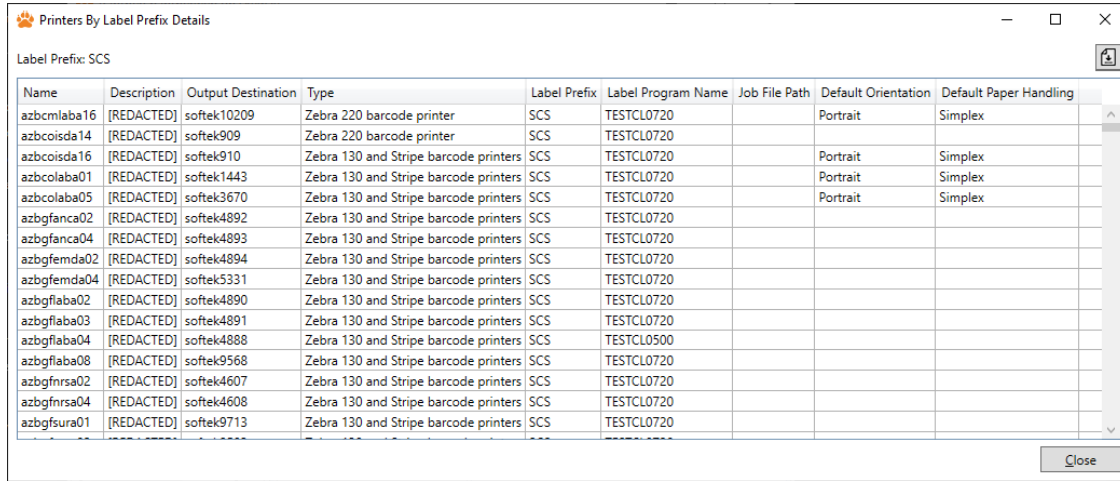
Label Prefix	Count
<all>	2,185
APSLABEL	31
MIC	31
phalbl	151
PHALBL	8
SCS	1,964

Figure 732: Printers by Label Prefix

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 171: Printers by Label Prefix Context Menu

11.13.12 Printers by Label Prefix Details



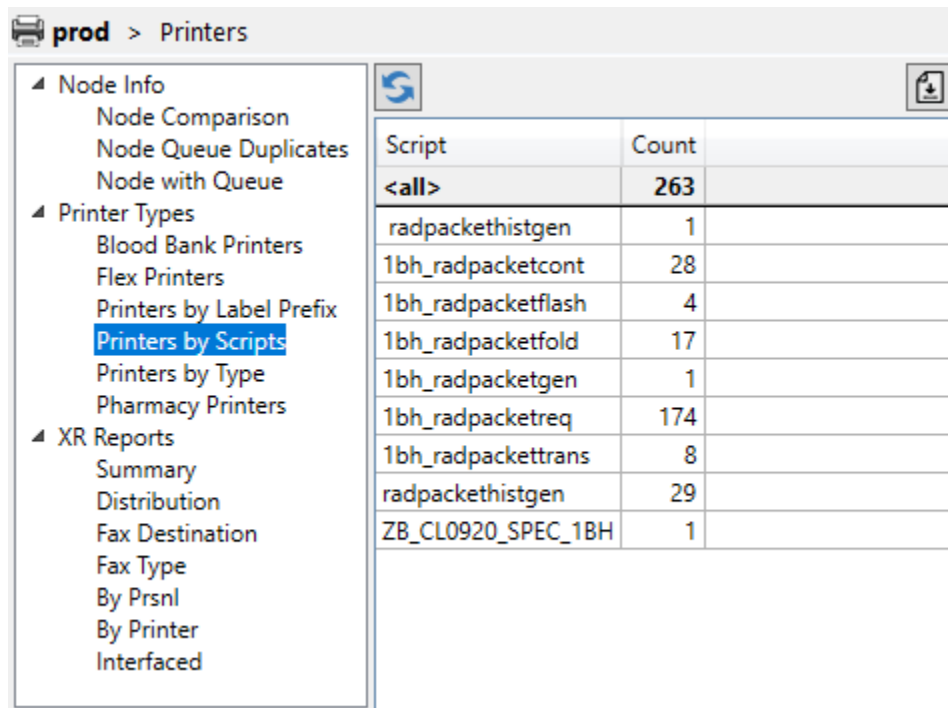
Name	Description	Output Destination	Type	Label Prefix	Label Program Name	Job File Path	Default Orientation	Default Paper Handling
azbcm1aba16	[REDACTED]	softek10209	Zebra 220 barcode printer	SCS	TESTCL0720		Portrait	Simplex
azbcoida14	[REDACTED]	softek909	Zebra 220 barcode printer	SCS	TESTCL0720			
azbcoida16	[REDACTED]	softek910	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720		Portrait	Simplex
azbcoida01	[REDACTED]	softek1443	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720		Portrait	Simplex
azbcoida05	[REDACTED]	softek3670	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720		Portrait	Simplex
azbgfanc02	[REDACTED]	softek4892	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgfanc04	[REDACTED]	softek4893	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgfemda02	[REDACTED]	softek4894	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgfemda04	[REDACTED]	softek5331	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgflaba02	[REDACTED]	softek4890	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgflaba03	[REDACTED]	softek4891	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgflaba04	[REDACTED]	softek4888	Zebra 130 and Stripe barcode printers	SCS	TESTCL0500			
azbgflaba08	[REDACTED]	softek9568	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgfmr02	[REDACTED]	softek4607	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgfmr04	[REDACTED]	softek4608	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			
azbgfsura01	[REDACTED]	softek9713	Zebra 130 and Stripe barcode printers	SCS	TESTCL0720			

Figure 733: Printers by Label Prefix Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 172: Printers by Label Prefix Details Context Menu

11.13.13 Printers by Scripts



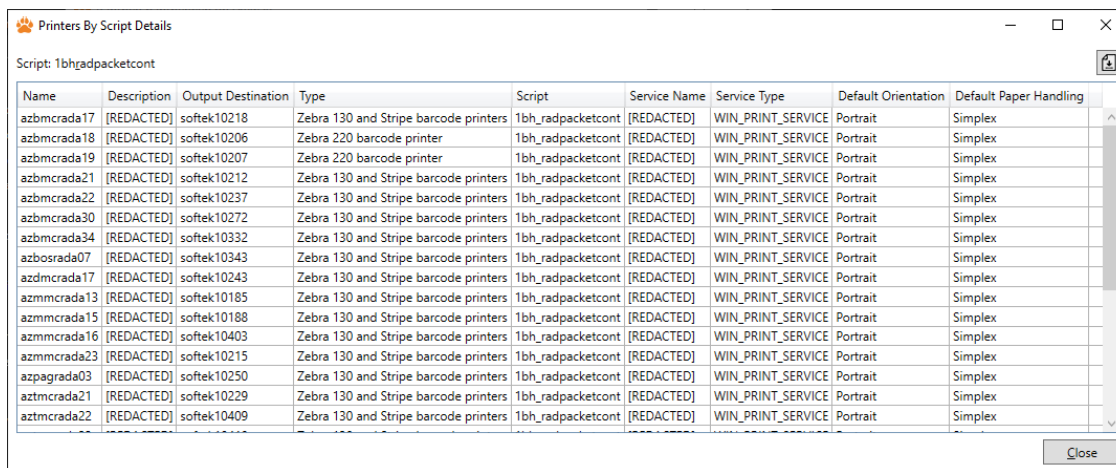
Script	Count
<all>	263
radpackethistgen	1
1bh_radpacketcont	28
1bh_radpacketflash	4
1bh_radpacketfold	17
1bh_radpacketgen	1
1bh_radpacketreq	174
1bh_radpackettrans	8
radpackethistgen	29
ZB_CL0920_SPEC_1BH	1

Figure 734: Printers by Scripts

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 173: Printers by Scripts Context Menu

11.13.14 Printers by Script Details



Printers By Script Details

Script: 1bh_radpacketcont

Name	Description	Output Destination	Type	Script	Service Name	Service Type	Default Orientation	Default Paper Handling
azbmcrcda17	[REDACTED]	softek10218	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbmcrcda18	[REDACTED]	softek10206	Zebra 220 barcode printer	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbmcrcda19	[REDACTED]	softek10207	Zebra 220 barcode printer	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbmcrcda21	[REDACTED]	softek10212	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbmcrcda22	[REDACTED]	softek10237	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbmcrcda30	[REDACTED]	softek10272	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbmcrcda34	[REDACTED]	softek10332	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azbosrcda07	[REDACTED]	softek10343	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azdmcrcda17	[REDACTED]	softek10243	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azmmrcda13	[REDACTED]	softek10185	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azmmrcda15	[REDACTED]	softek10188	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azmmrcda16	[REDACTED]	softek10403	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azmmrcda23	[REDACTED]	softek10215	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
azpgrada03	[REDACTED]	softek10250	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
aztmcrcda21	[REDACTED]	softek10229	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex
aztmcrcda22	[REDACTED]	softek10409	Zebra 130 and Stripe barcode printers	1bh_radpacketcont	[REDACTED]	WIN_PRINT_SERVICE	Portrait	Simplex

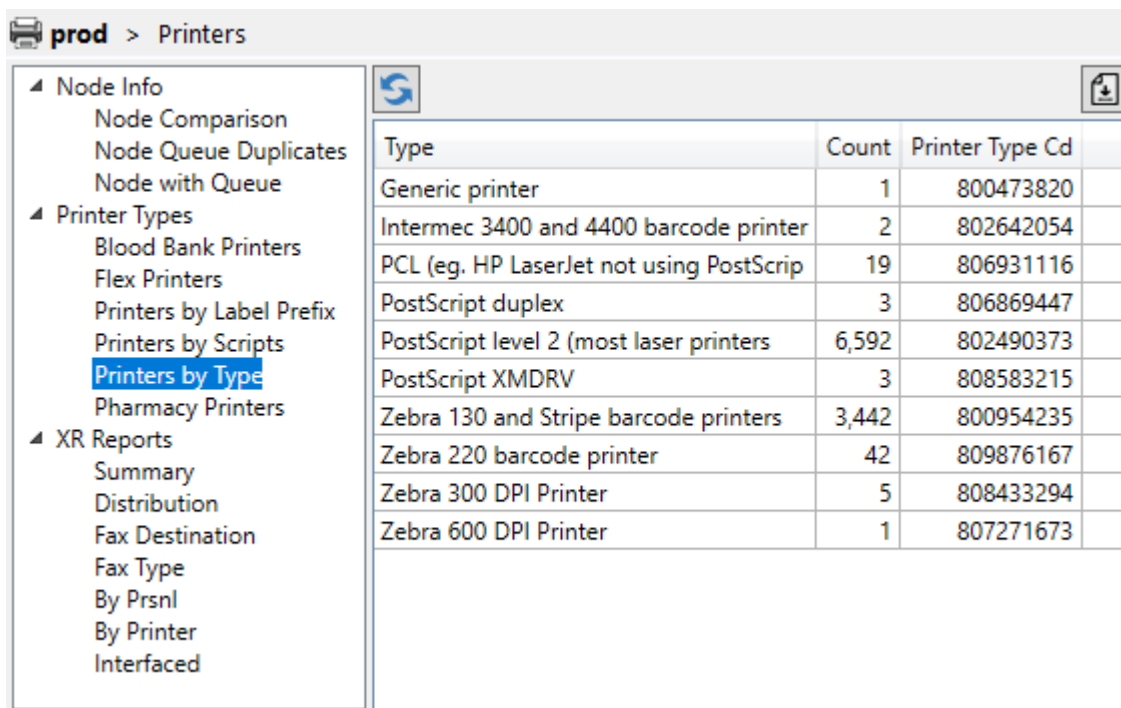
Close

Figure 735: Printers by Script Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 174: Printers by Script Details Context Menu

11.13.15 Printers by Type



The screenshot shows a web application interface for 'prod > Printers'. On the left is a sidebar menu with the following options: Node Info (Node Comparison, Node Queue Duplicates, Node with Queue), Printer Types (Blood Bank Printers, Flex Printers, Printers by Label Prefix, Printers by Scripts, **Printers by Type**, Pharmacy Printers), and XR Reports (Summary, Distribution, Fax Destination, Fax Type, By Prsnl, By Printer, Interfaced). The 'Printers by Type' option is highlighted. The main area displays a table with three columns: Type, Count, and Printer Type Cd. The table contains 10 rows of printer data.

Type	Count	Printer Type Cd
Generic printer	1	800473820
Intermec 3400 and 4400 barcode printer	2	802642054
PCL (eg. HP LaserJet not using PostScrip	19	806931116
PostScript duplex	3	806869447
PostScript level 2 (most laser printers	6,592	802490373
PostScript XMDRV	3	808583215
Zebra 130 and Stripe barcode printers	3,442	800954235
Zebra 220 barcode printer	42	809876167
Zebra 300 DPI Printer	5	808433294
Zebra 600 DPI Printer	1	807271673

Figure 736: Printers by Type

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Copy Printer Type Cd	Copies the Printer Type Cd value to the clipboard.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 175: Printers by Type Context Menu

11.13.16 Printers by Type Details

Printers By Type Details											
Printer Type: PostScript duplex											
Type	Name	Description	Default Orientation	Default Paper Handling	Distribution	Location	Service Name	Service Type	Host Name	Physical Device Name	Id
PostScript duplex	azbcoanca19	[REDACTED]				0	[REDACTED]	WIN_PRINT_SERVICE			807078838
PostScript duplex	azbhcamba66	[REDACTED]				0	[REDACTED]	WIN_PRINT_SERVICE			809528726
PostScript duplex	azgsmancb65	[REDACTED]	Portrait	Simplex		0	[REDACTED]	WIN_PRINT_SERVICE			804245158

Figure 737: Printers by Type Details

Menu Option	Description
Copy Printer Id	Copies the Printer Id value to the clipboard.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 176: Printers by Type Details Context Menu

11.13.17 Pharmacy Printers

prod > Printers

Node Info

Node Configuration

Node Queue Duplicates

Node with Queue

Printer Types

Blood Bank Printers

Fax Printers

Printers by Label Prefix

Printers by Scripts

Printers by Type

[View All Printers](#)

XRI Reports

Summary Distribution

Fax Destination

Fax Type

By Job

By Printer

Interfaced

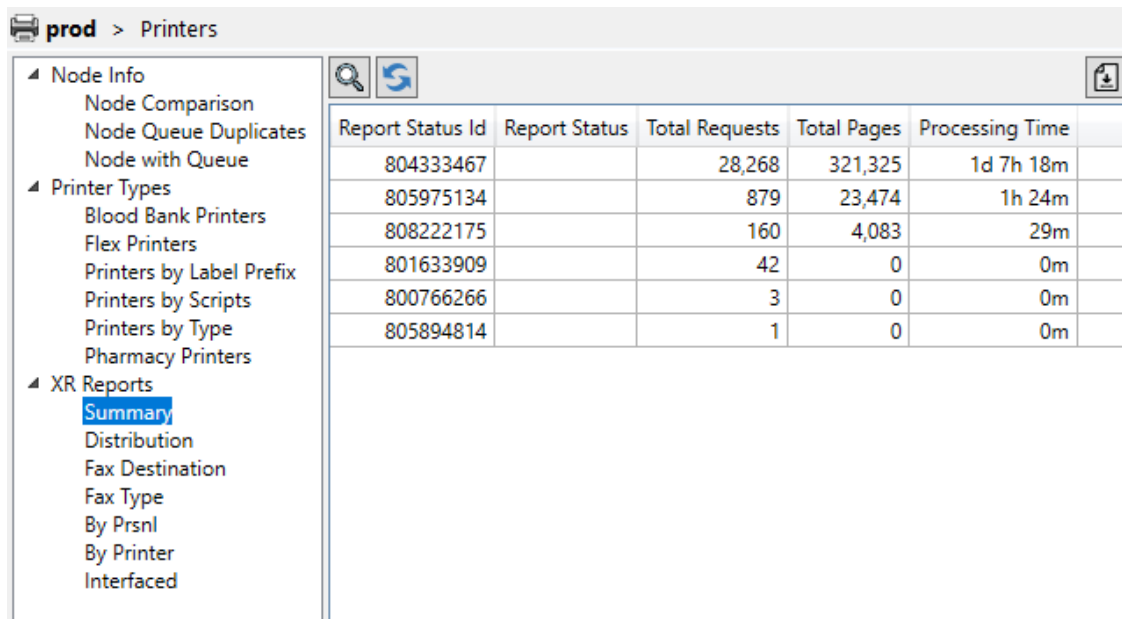
Location	Name	Description	Output Destination	Type	Label Prefix	Label Program Name	Job File Path	Default Orientation	Default Paper Handling	Dispense Categories
Zebra 130 and Stripe barcode printers	01 10A UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 10B UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 10R UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 10B UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 10C UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 10C UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 10D UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 10D UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 11A UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 11A UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 11B UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 11B UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 11C UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 11C UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 11D UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 11D UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 12A UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 12A UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 12B UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 12B UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 12C UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				
Zebra 130 and Stripe barcode printers	01 12C UBC	sophek1517	[REDACTED]	CHEMOMIX, IRR, IVPB, LVP, PCA, TPN, CHEMOIC, CHEMMOMed Or...	sophek1517	phalbit				
Zebra 130 and Stripe barcode printers	01 12CD UBC	sophek1518	[REDACTED]	BULK UD, CS, REFRIG, RESIST, COD, PAT, EN, UDAUDUJIKI	sophek1518	phalbit				

Figure 738: Pharmacy Printers

Menu Option	Description
Refresh	Reloads the data in the grid.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 177: Pharmacy Printers Context Menu

11.13.18 Summary



Report Status Id	Report Status	Total Requests	Total Pages	Processing Time
804333467		28,268	321,325	1d 7h 18m
805975134		879	23,474	1h 24m
808222175		160	4,083	29m
801633909		42	0	0m
800766266		3	0	0m
805894814		1	0	0m

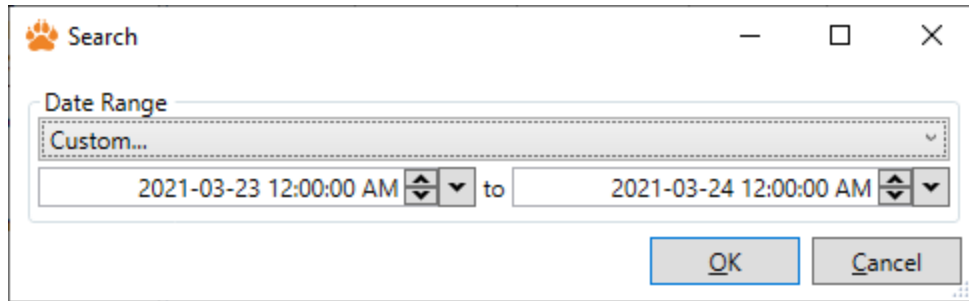
Figure 739: XR Summary

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 178: Summary Context Menu

11.13.19 Search

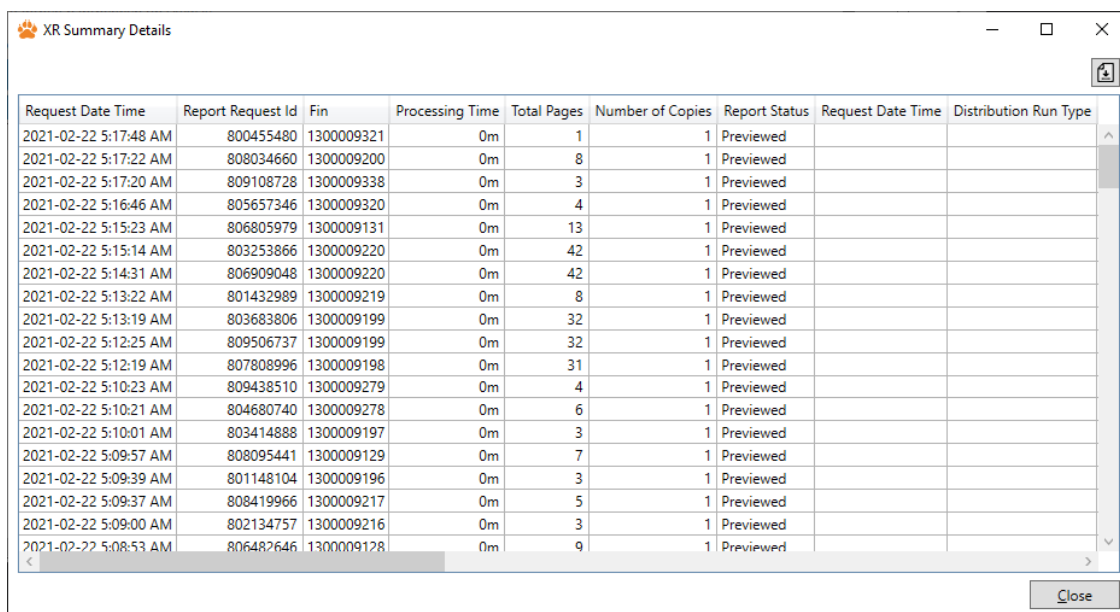
Clicking the search button when an XR Reports control is selected will load the search dialog. Select the desired date range and click OK to load the data for that date range. Search criteria will be remembered and used on subsequent visits.



The 'Search' dialog box features a paw print icon and standard window controls. It contains a 'Date Range' section with a dropdown menu currently set to 'Custom...'. Below this, two date and time pickers are shown: '2021-03-23 12:00:00 AM' and '2021-03-24 12:00:00 AM', separated by a 'to' label. At the bottom right are 'OK' and 'Cancel' buttons.

Figure 740: Printers Search

11.13.20 Summary Details



The 'XR Summary Details' window displays a table of report data. It includes a paw print icon, window controls, and a context menu icon in the top right. The table has columns for Request Date Time, Report Request Id, Fin, Processing Time, Total Pages, Number of Copies, Report Status, and Distribution Run Type. The data shows various reports from February 22, 2021, all with a status of 'Previewed'. A 'Close' button is located at the bottom right.

Request Date Time	Report Request Id	Fin	Processing Time	Total Pages	Number of Copies	Report Status	Request Date Time	Distribution Run Type
2021-02-22 5:17:48 AM	800455480	1300009321	0m	1	1	Previewed		
2021-02-22 5:17:22 AM	808034660	1300009200	0m	8	1	Previewed		
2021-02-22 5:17:20 AM	809108728	1300009338	0m	3	1	Previewed		
2021-02-22 5:16:46 AM	805657346	1300009320	0m	4	1	Previewed		
2021-02-22 5:15:23 AM	806805979	1300009131	0m	13	1	Previewed		
2021-02-22 5:15:14 AM	803253866	1300009220	0m	42	1	Previewed		
2021-02-22 5:14:31 AM	806909048	1300009220	0m	42	1	Previewed		
2021-02-22 5:13:22 AM	801432989	1300009219	0m	8	1	Previewed		
2021-02-22 5:13:19 AM	803683806	1300009199	0m	32	1	Previewed		
2021-02-22 5:12:25 AM	809506737	1300009199	0m	32	1	Previewed		
2021-02-22 5:12:19 AM	807808996	1300009198	0m	31	1	Previewed		
2021-02-22 5:10:23 AM	809438510	1300009279	0m	4	1	Previewed		
2021-02-22 5:10:21 AM	804680740	1300009278	0m	6	1	Previewed		
2021-02-22 5:10:01 AM	803414888	1300009197	0m	3	1	Previewed		
2021-02-22 5:09:57 AM	808095441	1300009129	0m	7	1	Previewed		
2021-02-22 5:09:39 AM	801148104	1300009196	0m	3	1	Previewed		
2021-02-22 5:09:37 AM	808419966	1300009217	0m	5	1	Previewed		
2021-02-22 5:09:00 AM	802134757	1300009216	0m	3	1	Previewed		
2021-02-22 5:08:53 AM	806482646	1300009128	0m	9	1	Previewed		

Figure 741: XR Summary Details

Menu Option	Description
Distribution Log	Navigates to the Distribution Log dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 179: Summary Details Context Menu

11.13.21 Distribution

prod > Printers

Node Info						
Node Comparison						
Node Queue Duplicates						
Node with Queue						
Printer Types						
Blood Bank Printers						
Flex Printers						
Printers by Label Prefix						
Printers by Scripts						
Printers by Type						
Pharmacy Printers						
XR Reports						
Summary						
Distribution						
Fax Destination						
Fax Type						
By Prsnl						
By Printer						
Interfaced						

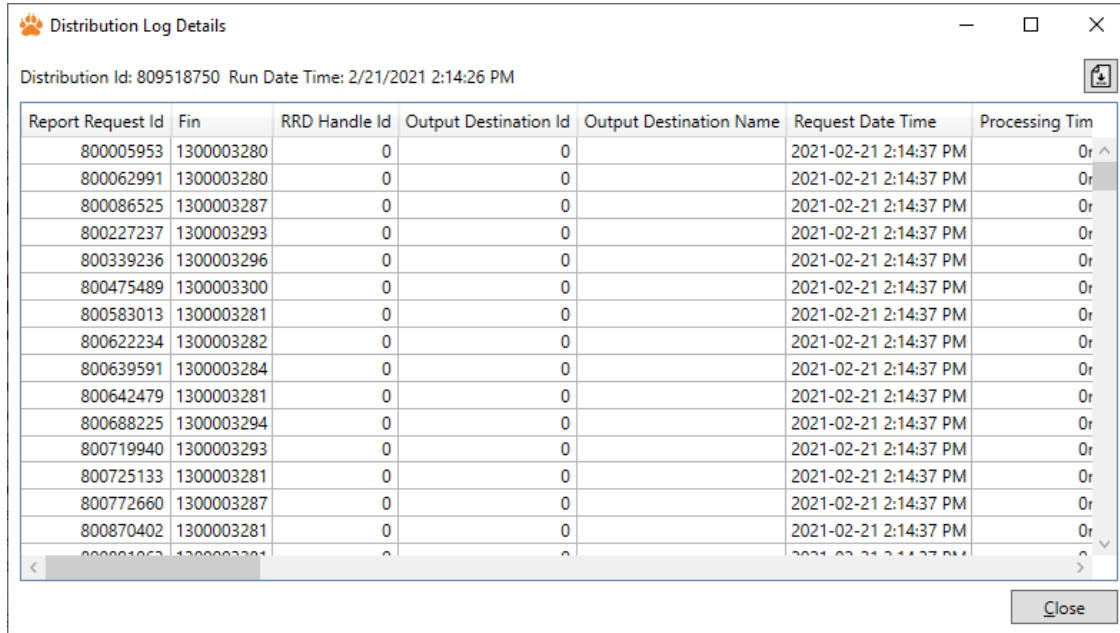
Distribution Id	Distribution Description	Run Date Time	Total Requests	Total Pages	Processing Time
807680227	[REDACTED]	2/21/2021 4:38:20 PM	965	4,737	22m
805140407	[REDACTED]	2/21/2021 4:30:20 PM	589	885	11m
802184068	[REDACTED]	2/22/2021 2:10:59 AM	484	14,031	1h 25m
802184068	[REDACTED]	2/22/2021 6:10:31 AM	362	11,613	1h 13m
802184068	[REDACTED]	2/21/2021 9:01:16 AM	334	11,237	1h 5m
805227401	[REDACTED]	2/22/2021 2:00:57 AM	330	5,962	33m
802191877	[REDACTED]	2/22/2021 2:01:21 AM	314	4,516	24m
802184068	[REDACTED]	2/21/2021 7:00:37 PM	304	10,688	1h 3m
806125038	[REDACTED]	2/21/2021 8:02:37 PM	290	532	5m
802184068	[REDACTED]	2/21/2021 8:10:11 PM	286	9,472	59m
801949108	[REDACTED]	2/21/2021 7:30:34 PM	282	459	5m
802421361	[REDACTED]	2/21/2021 7:00:32 PM	258	439	5m
802184068	[REDACTED]	2/21/2021 11:01:32 AM	242	9,234	56m
802616644	[REDACTED]	2/21/2021 4:33:20 PM	242	325	4m
802616644	[REDACTED]	2/21/2021 8:00:37 AM	233	297	5m
805227401	[REDACTED]	2/22/2021 6:00:29 AM	232	4,762	25m

Figure 742: Distribution

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Distribution Log	Navigates to the Distribution Log dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 180: Distribution Context Menu

11.13.22 Distribution Log Details



Distribution Log Details

Distribution Id: 809518750 Run Date Time: 2/21/2021 2:14:26 PM

Report Request Id	Fin	RRD Handle Id	Output Destination Id	Output Destination Name	Request Date Time	Processing Time
800005953	1300003280	0	0		2021-02-21 2:14:37 PM	0r ^
800062991	1300003280	0	0		2021-02-21 2:14:37 PM	0r
800086525	1300003287	0	0		2021-02-21 2:14:37 PM	0r
800227237	1300003293	0	0		2021-02-21 2:14:37 PM	0r
800339236	1300003296	0	0		2021-02-21 2:14:37 PM	0r
800475489	1300003300	0	0		2021-02-21 2:14:37 PM	0r
800583013	1300003281	0	0		2021-02-21 2:14:37 PM	0r
800622234	1300003282	0	0		2021-02-21 2:14:37 PM	0r
800639591	1300003284	0	0		2021-02-21 2:14:37 PM	0r
800642479	1300003281	0	0		2021-02-21 2:14:37 PM	0r
800688225	1300003294	0	0		2021-02-21 2:14:37 PM	0r
800719940	1300003293	0	0		2021-02-21 2:14:37 PM	0r
800725133	1300003281	0	0		2021-02-21 2:14:37 PM	0r
800772660	1300003287	0	0		2021-02-21 2:14:37 PM	0r
800870402	1300003281	0	0		2021-02-21 2:14:37 PM	0r
800901003	1300003281	0	0		2021-02-21 2:14:37 PM	0r

Close

Figure 743: Distribution Log Details

Menu Option	Description
Distribution Log	Navigates to the Distribution Log dialog for the selected row.
Copy Report Request Id	Copies the Report Request Id value to the clipboard.
Copy Fin	Copies the Fin value to the clipboard.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 181: Distribution Log Details Context Menu

11.13.23 Distribution Log

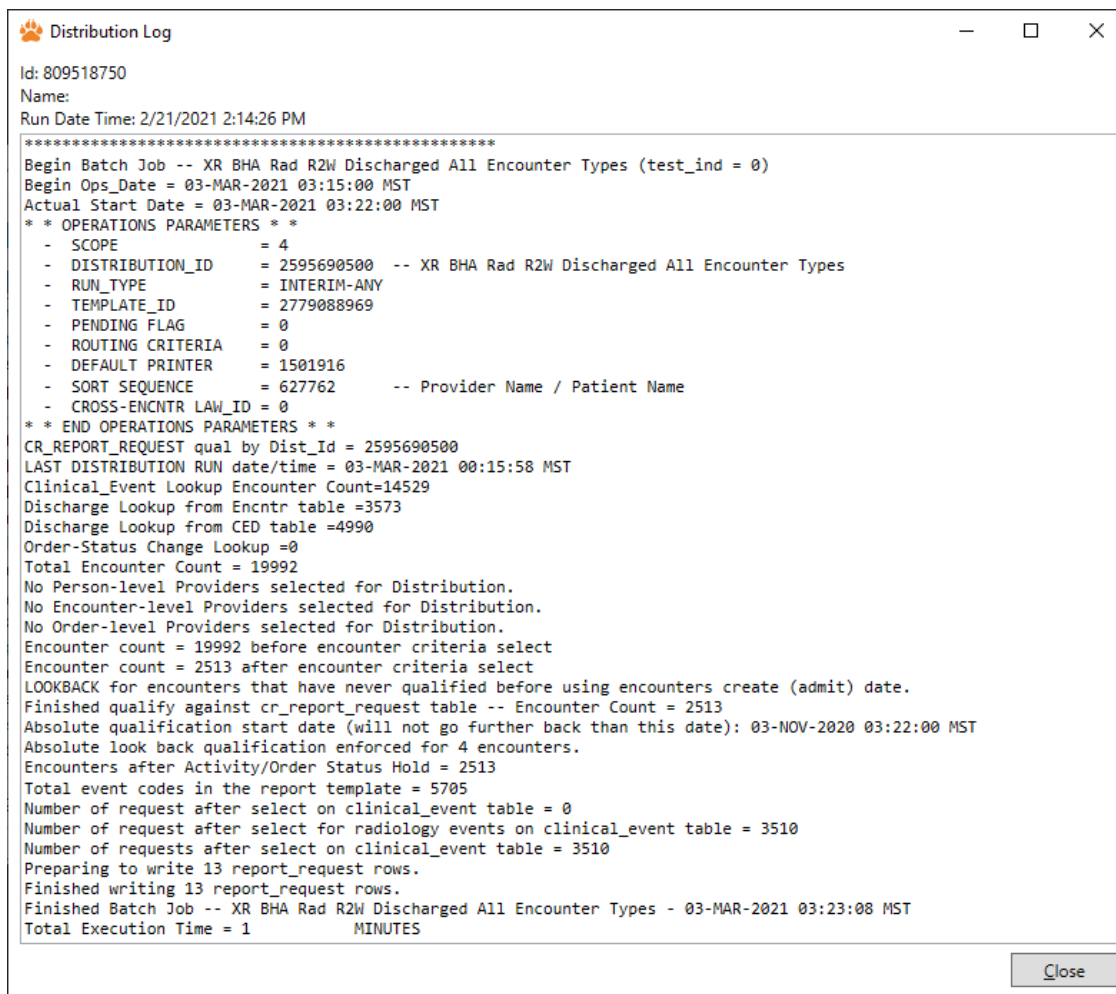


Figure 744: Distribution Log

Menu Option	Description
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 182: Distribution Log Context Menu

11.13.24 Fax Destination

prod > Printers

Node Info

- Node Comparison
- Node Queue Duplicates
- Node with Queue

Printer Types

- Blood Bank Printers
- Flex Printers
- Printers by Label Prefix
- Printers by Scripts
- Printers by Type
- Pharmacy Printers

XR Reports

- Summary
- Distribution
- Fax Destination
- Fax Type
- By Prsnl
- By Printer
- Interfaced

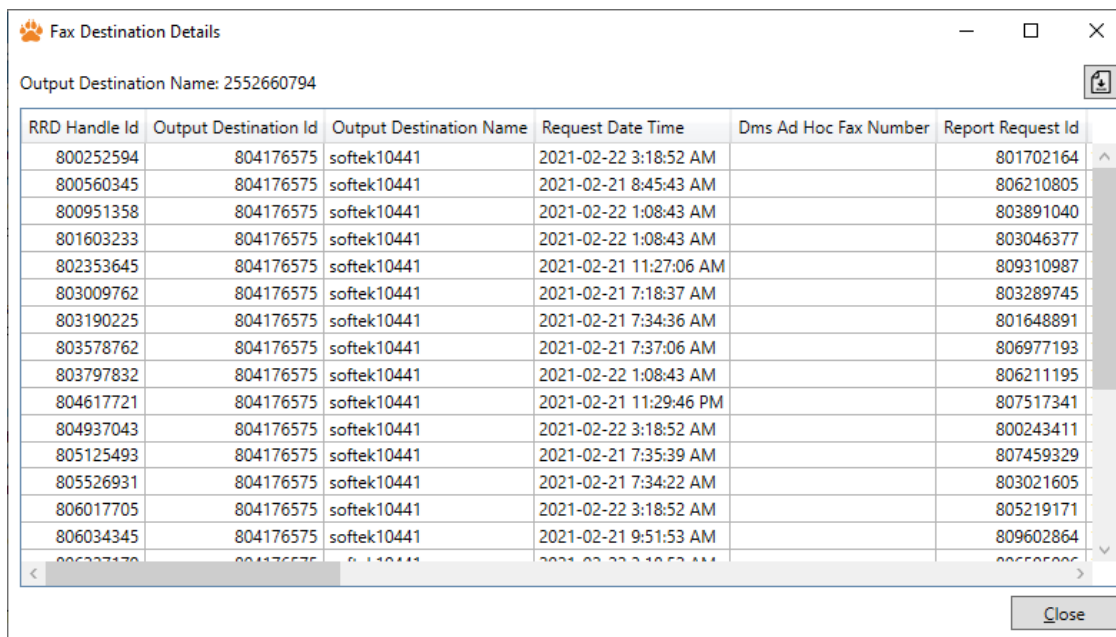
Output Destination Id	Name	Description	Adhoc Fax Number	Total Requests	Total Pages	Processing Time
804300983	5029164210	[REDACTED]		28	133	0m
807671709	7035215579	[REDACTED]		28	77	0m
807720448	1664012965	[REDACTED]		27	96	0m
804176575	2552660794	[REDACTED]		25	25	0m
800782542	2758903722	[REDACTED]		25	59	0m
800055200	4035114878	[REDACTED]		24	84	0m
806790365	9985332290	[REDACTED]		22	128	0m
800915555	9144686284	[REDACTED]		20	47	0m
802892251	7943917502	[REDACTED]		20	93	0m
804641915	8432972688	[REDACTED]		18	87	0m
805469412	3793664794	[REDACTED]		15	44	0m
801107724	5678758552	[REDACTED]		15	19	0m
802311794	5692466182	[REDACTED]		15	53	0m
802020695	5589666005	[REDACTED]		15	30	0m
803047712	6516734934	[REDACTED]		14	14	0m
803183322	6509654423	[REDACTED]		13	36	0m
806713634	5912515822	[REDACTED]		13	13	0m
802592877	7327120765	[REDACTED]		13	57	0m

Figure 745: Fax Destination

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 183: Fax Destination Context Menu

11.13.25 Fax Destination Details



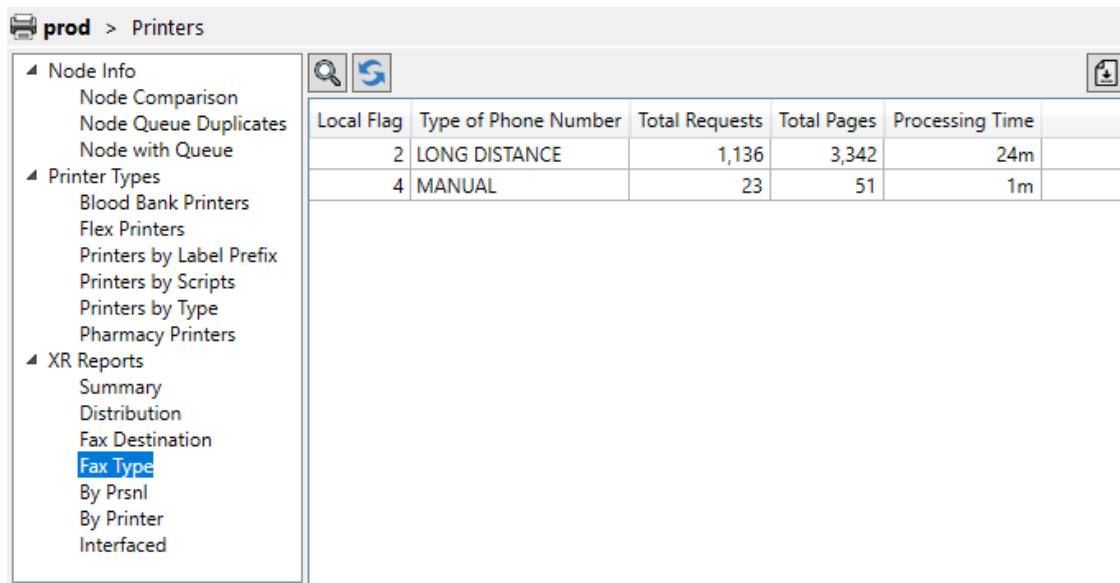
RRD Handle Id	Output Destination Id	Output Destination Name	Request Date Time	Dms Ad Hoc Fax Number	Report Request Id
800252594	804176575	softek10441	2021-02-22 3:18:52 AM		801702164
800560345	804176575	softek10441	2021-02-21 8:45:43 AM		806210805
800951358	804176575	softek10441	2021-02-22 1:08:43 AM		803891040
801603233	804176575	softek10441	2021-02-22 1:08:43 AM		803046377
802353645	804176575	softek10441	2021-02-21 11:27:06 AM		809310987
803009762	804176575	softek10441	2021-02-21 7:18:37 AM		803289745
803190225	804176575	softek10441	2021-02-21 7:34:36 AM		801648891
803578762	804176575	softek10441	2021-02-21 7:37:06 AM		806977193
803797832	804176575	softek10441	2021-02-22 1:08:43 AM		806211195
804617721	804176575	softek10441	2021-02-21 11:29:46 PM		807517341
804937043	804176575	softek10441	2021-02-22 3:18:52 AM		800243411
805125493	804176575	softek10441	2021-02-21 7:35:39 AM		807459329
805526931	804176575	softek10441	2021-02-21 7:34:22 AM		803021605
806017705	804176575	softek10441	2021-02-22 3:18:52 AM		805219171
806034345	804176575	softek10441	2021-02-21 9:51:53 AM		809602864

Figure 746: Fax Destination Details

Menu Option	Description
Copy FIN	Copies the FIN value to the clipboard.
Copy Output Destination Id	Copies the Output Destination Id value to the clipboard.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 184: Fax Destination Details Context Menu

11.13.26 Fax Type



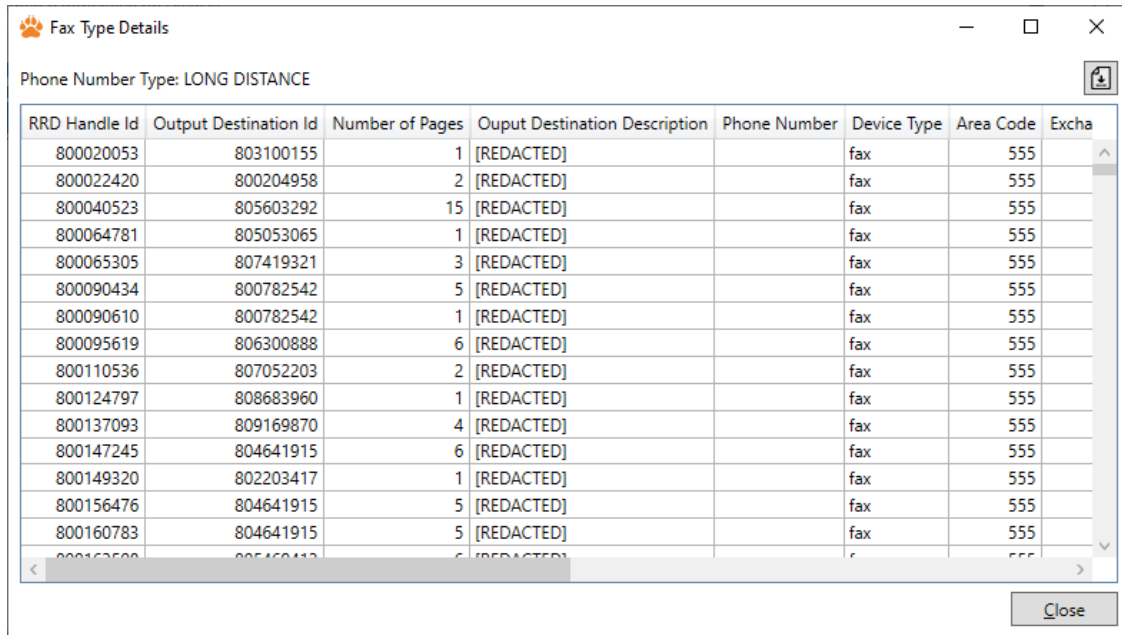
Local Flag	Type of Phone Number	Total Requests	Total Pages	Processing Time
2	LONG DISTANCE	1,136	3,342	24m
4	MANUAL	23	51	1m

Figure 747: Fax Type

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 185: Fax Type Context Menu

11.13.27 Fax Type Details



RRD Handle Id	Output Destination Id	Number of Pages	Ouput Destination Description	Phone Number	Device Type	Area Code	Excha
800020053	803100155	1	[REDACTED]		fax	555	
800022420	800204958	2	[REDACTED]		fax	555	
800040523	805603292	15	[REDACTED]		fax	555	
800064781	805053065	1	[REDACTED]		fax	555	
800065305	807419321	3	[REDACTED]		fax	555	
800090434	800782542	5	[REDACTED]		fax	555	
800090610	800782542	1	[REDACTED]		fax	555	
800095619	806300888	6	[REDACTED]		fax	555	
800110536	807052203	2	[REDACTED]		fax	555	
800124797	808683960	1	[REDACTED]		fax	555	
800137093	809169870	4	[REDACTED]		fax	555	
800147245	804641915	6	[REDACTED]		fax	555	
800149320	802203417	1	[REDACTED]		fax	555	
800156476	804641915	5	[REDACTED]		fax	555	
800160783	804641915	5	[REDACTED]		fax	555	
800162500	805160113	6	[REDACTED]		fax	555	

Figure 748: Fax Type Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 186: Fax Type Details Context Menu

11.13.28 By Prsnl

prod > Printers

Node Info

Node Comparison

Node Queue Duplicates

Node with Queue

Printer Types

Blood Bank Printers

Flex Printers

Printers by Label Prefix

Printers by Scripts

Printers by Type

Pharmacy Printers

XR Reports

Summary

Distribution

Fax Destination

Fax Type

By Prsnl

By Printer

Interfaced

Request Prsnl Id

Name

Position

Total Requests

Total Pages

Processing Time

807482515

Powlowski, Bette

HIM: Operations

118

3,444

23m

808947884

Beahan, Alex

Case Management/Social Work Staff

55

974

2m

807252034

Steuber, Shane

Case Management/Social Work Staff

32

643

1m

803926152

Jacobson, Jaclyn

Case Management/Social Work Staff

29

1,294

2m

800038799

Schaefer, Julien

Case Management/Social Work Staff

29

845

1m

800352298

Champlin, Reina

Case Management/Social Work Staff

25

1,180

2m

800260859

Casper, Rachelle

HIM: Operations

21

273

4m

803213518

Hartmann, Levi

Case Management/Social Work Staff

20

593

1m

804808968

Franecki, Teagan

Case Management/Social Work Staff

19

404

0m

802691334

Bergstrom, Jovanny

Case Management/Social Work Staff

18

588

1m

809238114

Bogisich, Bruce

Case Management/Social Work Staff

17

635

1m

805621970

Schroeder, Ozella

Case Management/Social Work Staff

16

910

1m

809673126

Herzog, Naomie

Case Management/Social Work Staff

16

885

5m

801361560

Beatty, Dewayne

Case Management/Social Work Staff

15

365

1m

808482082

McClure, Candida

Case Management/Social Work Staff

15

632

1m

800415877

Lindgren, Brett

Case Management/Social Work Staff

15

363

0m

807165465

Stark, Immanuel

Case Management/Social Work Staff

15

213

0m

805424034

Gorczany, Kelsi

Case Management/Social Work Staff

14

399

0m

804149078

Miller, Finn

Case Management/Social Work Staff

14

433

0m

809287365

Douglas, Caitlyn

Medical Technologist II

13

18

0m

Figure 749: By Prsnl

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 187: By Prsnl Context Menu

11.13.29 By Prsnl Details

XR By Prsnl Details

Requestor: Beahan, Alex

Request Date Time	Report Request Id	Fin	Processing Time	Total Pages	Number of Copies	Report Status
2021-02-22 6:47:57 AM	802533807	1300000797	0m	4	1	Archived - Preview Not Displaye ^
2021-02-22 6:42:09 AM	803660929	1300001207	0m	95	1	Archived - Preview Not Displaye
2021-02-22 6:39:02 AM	803371629	1300001207	0m	76	1	Archived - Preview Not Displaye
2021-02-22 6:18:19 AM	808370028	1300001036	0m	66	1	Archived - Preview Not Displaye
2021-02-22 5:13:08 AM	806809104	1300000101	0m	1	1	Archived - Preview Not Displaye
2021-02-22 5:12:35 AM	801002352	1300000101	0m	0	1	No Qualification
2021-02-22 4:47:46 AM	800943881	1300000101	0m	19	1	Archived - Preview Not Displaye
2021-02-22 4:32:30 AM	806784712	1300000101	0m	14	1	Archived - Preview Not Displaye
2021-02-22 3:49:21 AM	801127493	1300002626	0m	1	1	Archived - Preview Not Displaye
2021-02-22 3:48:52 AM	804802918	1300002626	0m	0	1	No Qualification
2021-02-22 3:45:41 AM	808641494	1300002626	0m	43	1	Archived - Preview Not Displaye
2021-02-22 3:31:46 AM	803186254	1300000101	0m	8	1	Archived - Preview Not Displaye
2021-02-22 2:55:46 AM	805662311	1300001378	0m	23	1	Archived - Preview Not Displaye
2021-02-22 2:37:50 AM	802523619	1300000169	0m	8	1	Archived - Preview Not Displaye
2021-02-22 1:59:58 AM	803542707	1300001372	0m	11	1	Archived - Preview Not Displaye
2021-02-22 1:51:46 AM	800000000	1300000000	0m	0	0	Archived - Preview Not Displaye

Close

Figure 750: By Prsnl Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 188: By Prsnl Details Context Menu

11.13.30 By Printer

prod > Printers

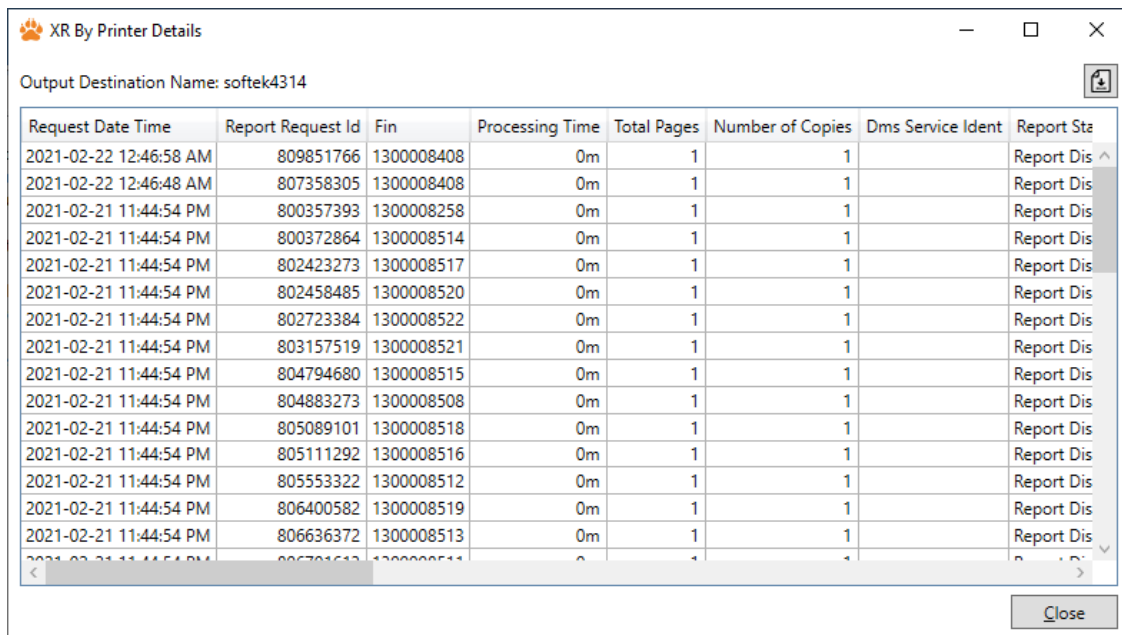
Output Destination Id	Output Destination Name	Output Destination Description	Device Name	Device Description	Dms Service Ident	Total Requests	Total Pages	Processing Time
803614864	softek7993	[REDACTED]	null_prt	[REDACTED]		21,607	297,719	1d 5h 1m
804230310	softek7866	[REDACTED]	tus214015718	[REDACTED]		90	95	1m
808142832	softek4569	[REDACTED]	phx201275853	[REDACTED]		85	90	2m
805319571	softek4243	[REDACTED]	phx287254583	[REDACTED]		76	78	1m
805991831	softek3597	[REDACTED]	ncmc32846	[REDACTED]		55	58	1m
802414751	softek4903	[REDACTED]	phx201157020	[REDACTED]		53	55	1m
805534783	softek4314	[REDACTED]	srm20070757	[REDACTED]		52	56	1m
801411917	softek7447	[REDACTED]	tus214015441	[REDACTED]		49	52	1m
809163487	softek5966	[REDACTED]	phx201134005	[REDACTED]		47	47	0m
803627527	softek8333	[REDACTED]	phx297563309	[REDACTED]		43	44	0m
804755122	softek4429	[REDACTED]	phx201158389	[REDACTED]		40	49	0m
803494464	softek4341	[REDACTED]	bcc20011039	[REDACTED]		39	46	0m
801278752	softek4182	[REDACTED]	phx201155919	[REDACTED]		37	39	0m
804333831	softek4726	[REDACTED]	phx287035007	[REDACTED]		34	35	0m
801100077	softek4591	[REDACTED]	phx287530482	[REDACTED]		34	34	0m
809453017	softek5196	[REDACTED]	cgz201379984	[REDACTED]		29	38	0m
801233555	softek4810	[REDACTED]	phx287312466	[REDACTED]		28	41	1m
806418375	softek4572	[REDACTED]	bdraddir	[REDACTED]		27	41	0m
807387547	softek3818	[REDACTED]	phx201206485	[REDACTED]		25	25	0m
808248586	softek2114	[REDACTED]	cgz200320735_v2	[REDACTED]		25	27	0m

Figure 751: By Printer

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Copy Output Destination Id	Copies the Output Destination Id value to the clipboard.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 189: By Printer Context Menu

11.13.31 By Printer Details



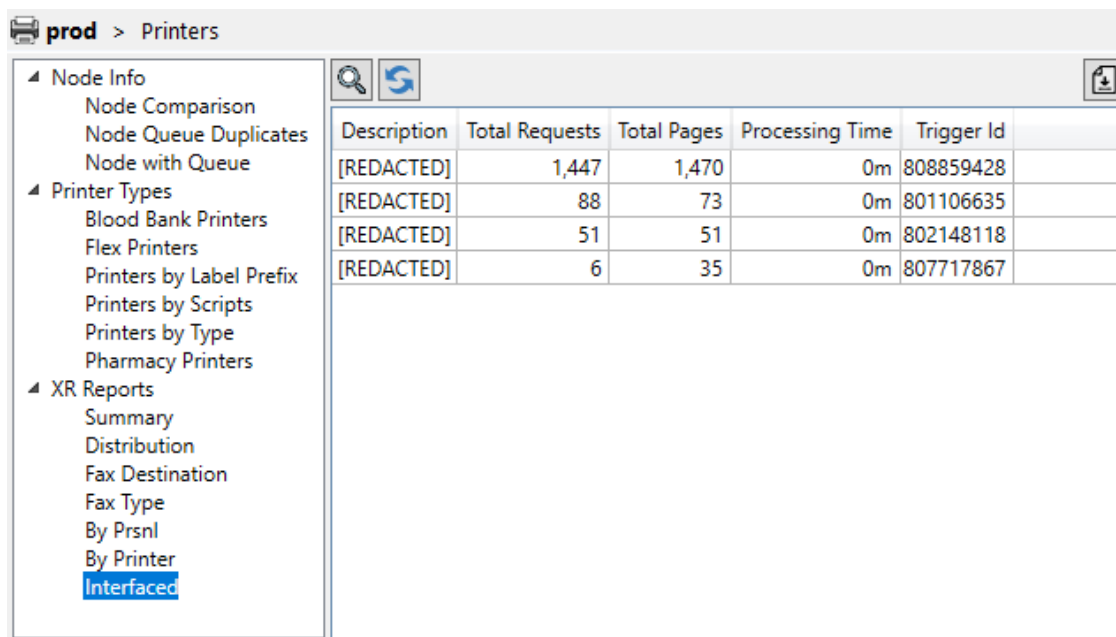
Request Date Time	Report Request Id	Fin	Processing Time	Total Pages	Number of Copies	Dms Service Ident	Report Sta
2021-02-22 12:46:58 AM	809851766	1300008408	0m	1	1		Report Dis
2021-02-22 12:46:48 AM	807358305	1300008408	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	800357393	1300008258	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	800372864	1300008514	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	802423273	1300008517	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	802458485	1300008520	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	802723384	1300008522	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	803157519	1300008521	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	804794680	1300008515	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	804883273	1300008508	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	805089101	1300008518	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	805111292	1300008516	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	805553322	1300008512	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	806400582	1300008519	0m	1	1		Report Dis
2021-02-21 11:44:54 PM	806636372	1300008513	0m	1	1		Report Dis

Figure 752: By Printer Details

Menu Option	Description
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 190: By Printer Details Context Menu

11.13.32 Interfaced



The screenshot shows a web application interface for 'prod > Printers'. On the left is a navigation menu with categories: Node Info, Printer Types, and XR Reports. Under 'Printer Types', 'Interfaced' is highlighted. The main area displays a table with printer statistics.

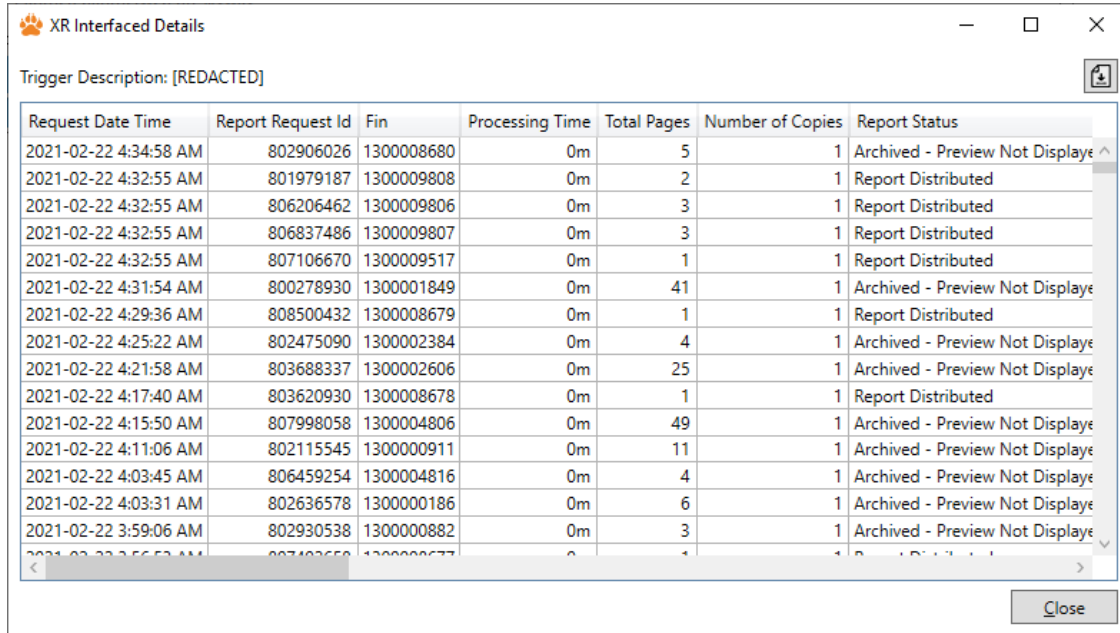
Description	Total Requests	Total Pages	Processing Time	Trigger Id
[REDACTED]	1,447	1,470	0m	808859428
[REDACTED]	88	73	0m	801106635
[REDACTED]	51	51	0m	802148118
[REDACTED]	6	35	0m	807717867

Figure 753: Interfaced

Menu Option	Description
Refresh	Reloads the data in the grid.
Details	Navigates to the Details dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 191: Interfaced Context Menu

11.13.33 Interfaced Details



Request Date Time	Report Request Id	Fin	Processing Time	Total Pages	Number of Copies	Report Status
2021-02-22 4:34:58 AM	802906026	1300008680	0m	5	1	Archived - Preview Not Displaye ^
2021-02-22 4:32:55 AM	801979187	1300009808	0m	2	1	Report Distributed
2021-02-22 4:32:55 AM	806206462	1300009806	0m	3	1	Report Distributed
2021-02-22 4:32:55 AM	806837486	1300009807	0m	3	1	Report Distributed
2021-02-22 4:32:55 AM	807106670	1300009517	0m	1	1	Report Distributed
2021-02-22 4:31:54 AM	800278930	1300001849	0m	41	1	Archived - Preview Not Displaye
2021-02-22 4:29:36 AM	808500432	1300008679	0m	1	1	Report Distributed
2021-02-22 4:25:22 AM	802475090	1300002384	0m	4	1	Archived - Preview Not Displaye
2021-02-22 4:21:58 AM	803688337	1300002606	0m	25	1	Archived - Preview Not Displaye
2021-02-22 4:17:40 AM	803620930	1300008678	0m	1	1	Report Distributed
2021-02-22 4:15:50 AM	807998058	1300004806	0m	49	1	Archived - Preview Not Displaye
2021-02-22 4:11:06 AM	802115545	1300000911	0m	11	1	Archived - Preview Not Displaye
2021-02-22 4:03:45 AM	806459254	1300004816	0m	4	1	Archived - Preview Not Displaye
2021-02-22 4:03:31 AM	802636578	1300000186	0m	6	1	Archived - Preview Not Displaye
2021-02-22 3:59:06 AM	802930538	1300000882	0m	3	1	Archived - Preview Not Displaye
2021-02-22 3:56:53 AM	803103258	1300000677	0m	1	1	Report Distributed

Figure 754: Interfaced Details

Menu Option	Description
Distribution Log	Navigates to the Distribution Log dialog for the selected row.
Export	Opens the save dialog to save the displayed results to a file.
Copy	Copies the text of the selected rows to the clipboard.
Select All	Selects all rows.

Table 192: Interfaced Details Context Menu

11.14. Queues Control

The Queues control is used to manage and monitor the message queues used by the Cerner Millennium® system.

To view the Queues control, select the *Queues* item in the Domain Explorer (Figure 755), this will load the control into the Application Workspace (Figure 756). To view the Queues Context Menu, select a queue and right-click it (Table 193).

The Panther Queues control displays the queues across all nodes.

Default columns are shown in Figure 756. Columns may be added or removed using the preferences dialog.

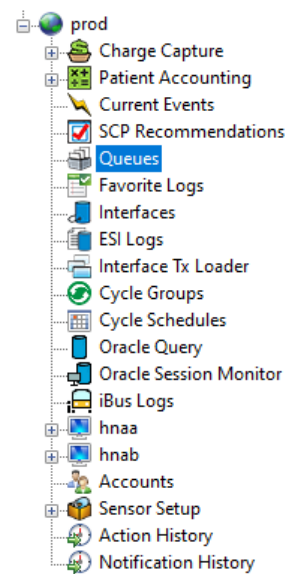


Figure 755: Domain Explorer

prod > Queues

Queues - 252/348 displayed

Node	Name	Depth	Readers	Writers	Max Depth	High Queue Depth
johnnya	CERN.CPMSRIPTASYN	0	4	794	42500	42400
johnnya	CERN.CPMSRIPT	0	42			35600
johnnya	CERN.ORM.ORDERWRITE	135	2			30400
johnnya	CERN.CPMPROCESS	161	14			26600
johnnya	CERN.AUDIT.EXCEPTION	0	0			0
johnnya	CERN.CPMPROCESS001	0	1			23200
johnnya	CERN.CPMSRIPTASYN001	0	1			25500
johnnya	CERN.CPMSRIPTASYN002	6	1			30100
johnnya	CERN.CPMSRIPTASYNCDM	71	1			27100
johnnya	CERN.CPMSRIPTASYNCRAD	15672	1			29000

View (none) Filters ☒ General ☐ Depth

Exception Queues - 3078 messages

Node	Name	Depth	Readers	Writers	Max Depth	High Queue Depth
johnnya	CERN.EXCEPTION	513	1	1	5000	513
johnnyb	CERN.EXCEPTION	513	1	1	5000	513

Context Menu:

- Refresh F5
- Messages
- Connections
- Queue Properties
- Clear Queue
- Delete Queue Del
- Copy Ctrl+C
- Select All Ctrl+A
- Manage Views
- Add Selection as New View...
- Manager Info
- Preferences

Figure 756: Queues control



Where are the OOC and OIC columns?

Other applications may have shown the OOC or OIC columns. The meaning of these columns is “Open Output Count” and “Open Input Count”. These columns represent the number of servers connected to the queue that are either writing to the queue (Open Output Count), or reading messages off of the queue (Open Input Count). For clarity, Panther displays “Writers” and “Readers” instead of OOC and OIC.



Attention: Not all users may access message contents.

In order to view the contents of a message, a user must have the ‘Access Queue Message Contents’ privilege.

Option	Description
Refresh	Refreshes the list of queues and their associated information.
View Messages	Opens a list of messages that are currently in the queue. This is the default menu item, meaning double-click or Enter displays the Queue Messages dialog for the selected queue.
View Connections	Views a list of servers that are currently connected to the queue.
Queue Properties	Allows a user to manage the properties of the various queues.
Requeue All Messages	Returns all of the messages in the selected exception queue(s) back to their originating queue(s). This action is audited in Panther.
Clear Queue	Clears the selected queue of all messages. This action is audited in Panther.
Delete Queue	Deletes the selected queue from the system. This action is audited in Panther.
Copy	Copies the selected items to the clipboard.
Select All	Selects all of the queues in the Queues control.
Manager Info	Provides information related to queues for each node on the current domain.
Preferences	Allows the user to define filtering and appearance preferences.

Table 193: Queues Context Menu

11.14.1 Viewing Messages

When messages appear in the queue, a user can view more information about them by selecting the *View Messages* option in the Queues context menu. When this option is selected, the Queue Messages dialog ([Figure 757](#) and [Figure 758](#)) will open with a list of all the messages in the queue. The dialog is context-aware and will change based upon whether it displays messages for a normal queue or exception queue.

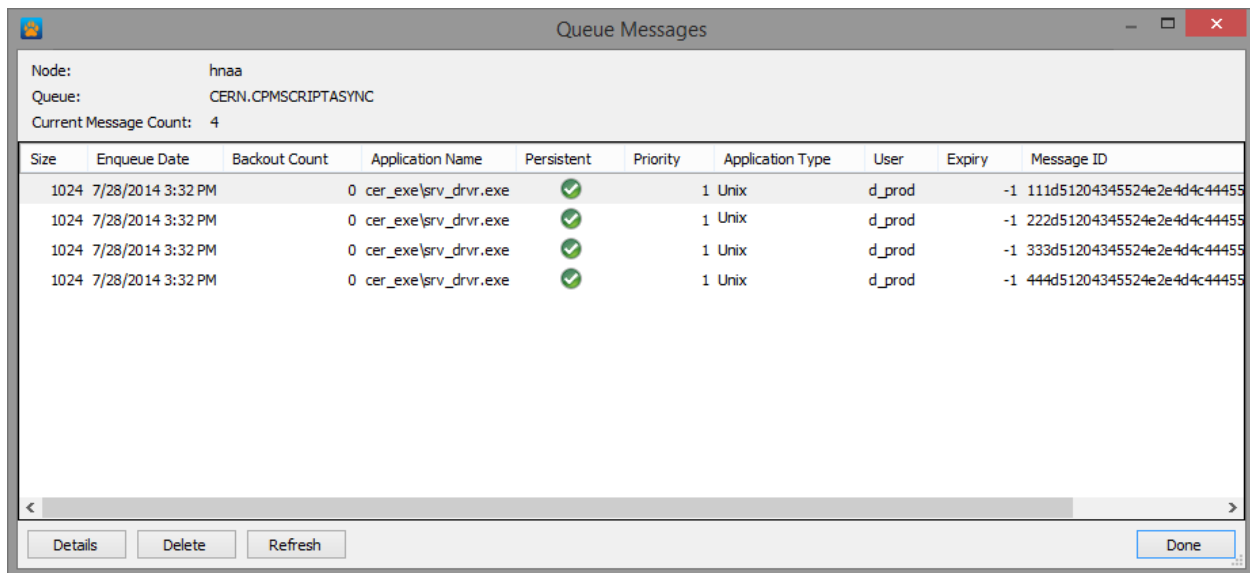


Figure 757: Queue Messages dialog

For all queues, the Queue Messages dialog provides options to view message details or delete one or more messages.

Details displays the contents of the selected message in a [new dialog](#). Only one message can be shown at a time, so the *Details* button is disabled when multiple messages are selected.

Delete will remove all selected messages, prompting for confirmation before performing the operation.

Refresh retrieves and shows the most up-to-date list of messages.

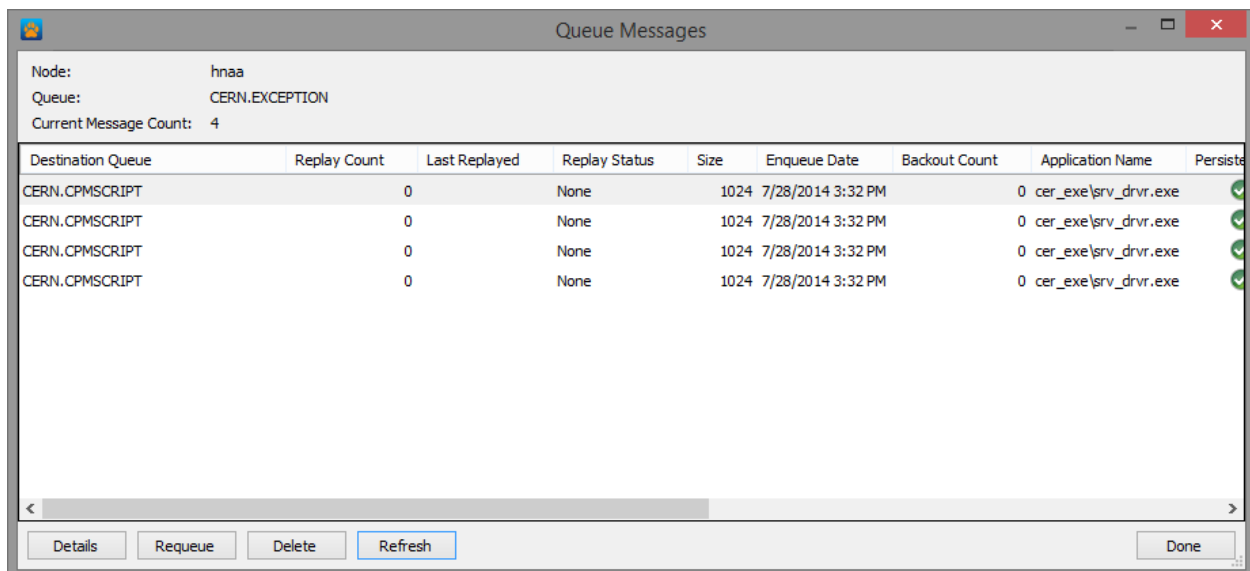


Figure 758: Exception Queue Messages dialog

Requeue will replay the selected messages into their destination queues. More information about the status of the replay can be viewed by selecting the *Auto Replay Details* menu option.



Anytime a message is requeued, deleted, or the content of a message is accessed, Panther creates an audit record which can be viewed in the [Audit Log](#) control.

The Message Details dialog allows a user to browse the contents of a queue message and email or print the displayed information.

The screenshot shows a Windows-style application window titled "Message Details". Inside, there's a section header "Transaction Properties" followed by a sub-header "Message Properties". Below this is a table with two columns: "Name" and "Value". The table lists various message properties such as ID, Group ID, Correlation ID, Accounting Token, Application Data, Application Origin Data, Backout Count, Character Set, Completion Code, Encoding, Expiry, Feedback, Flags, Format, Length, and Offset. At the bottom of the window, there are three buttons: "Email...", "Print...", and "Done".

Name	Value
ID	222d51204345524e2e4d4c444556412e50d2373f23
Group ID	0000000000000000000000000000000000000000
Correlation ID	0000000000000000000000000000000000000000
Accounting Token	0331313800000000000000000000000000000000
Application Data	
Application Origin Data	
Backout Count	0
Character Set	UTF8
Completion Code	Ok
Encoding	IntegerNormal
Expiry	-1
Feedback	None
Flags	None
Format	MQDEAD
Length	1024
Offset	0

Figure 759: Message Details dialog

To view the current connections of the selected queue:

1. Select the desired queue.
2. Right-click the queue.
3. Select the *View Connections* option from the Queues context menu.

While managing a queue, it may be necessary to start, stop or kill servers connected to it. To perform these actions in Panther, select the server(s), and click the appropriate button. This feature is disabled for connections which do not map to Millennium server processes.

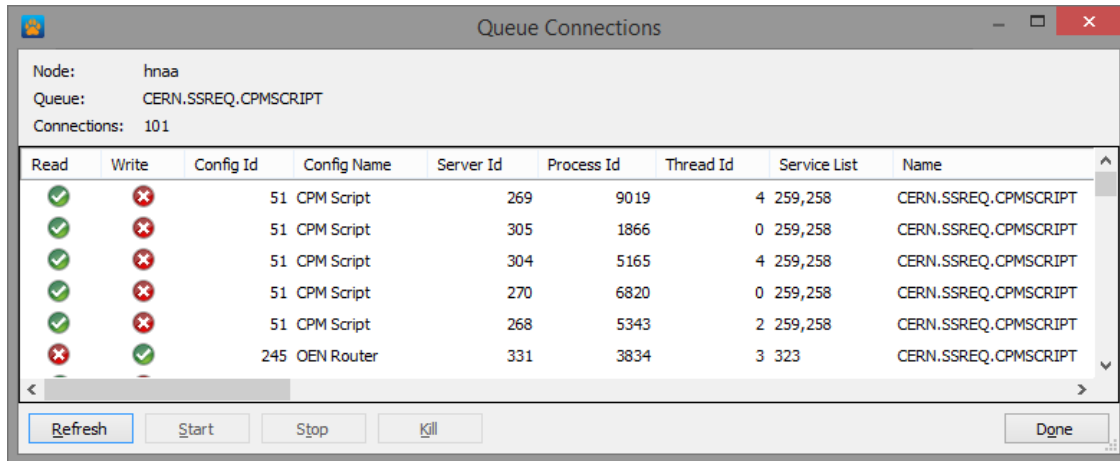


Figure 760: Queue Connections dialog



Attention: Stopping or killing servers

Stopping or killing servers that read from the queue can result in a queue backlog, and some messages may end up in the exception queue. If this happens, re-queue the effected messages immediately to avoid negatively impacting the domain.

11.14.4 Managing Queue Properties

To access Queue Properties:

1. Select the desired Queue.
2. Right-click on the selected Queue.
3. Select the *Queue Properties* option from the Queue context menu.

Selecting this option will open the Queue Properties dialog, which provides functionality to manage a queue. By default, all of the fields are locked down. To modify a queue, click the *Unlock* button and make the desired changes.

Queue Properties (CERN.CPMPROCESS)

Created On: 8/26/2011
Last Alterd On: 8/26/2011 1:42 PM

Type: Local
Definition Type: Permanent Dynamic

Description:
IBM Websphere MQ

Queue Message Processing Info

Writers (Open Output Count): 51
☐ Inhibit Puts

Readers (Open Input Count): 14
☐ Inhibit Gets

Maximum Message Length: 104857600
☒ Persist

Message Delivery Sequence: Priority
☒ Shareable

Queue Depth Limits

Low: 20
☒ Low queue depth event enabled

High: 80
☒ High queue depth event enabled

Max: 5000
☒ Max queue depth event enabled

Backout Properties

Backout Threshold: 0

Backout Requeue Name:

Queue Info

High Queue Depth (HQD): 5000
Current Queue Depth (CQD): 111

Unlock OK Cancel

Figure 761: Queue Properties dialog



Attention: Panther audits actions performed on queues.

Any time queue properties are modified, Panther creates an audit record which can be viewed in the [Audit Log](#) control.

11.14.5 Manager Information

The Queue Manager Information dialog displays information and status for the queue managers on each node in the domain. To access this dialog, select the *Manager Info* option from the queues [Context Menu](#).

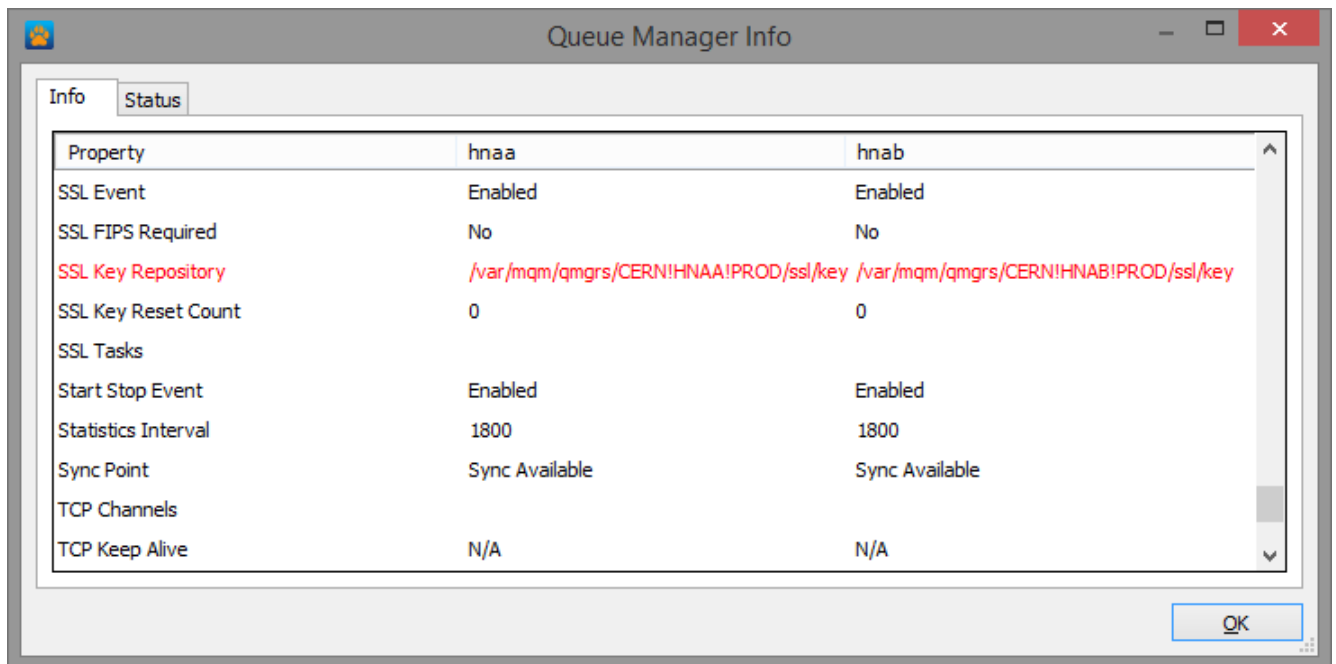


Figure 762: Queue Manager Info dialog

11.14.6 Queue Preferences

To access Queue Preferences:

1. Select the desired Queue.
2. Right-click the selected Queue.
3. Select *Preferences* from the Queues context menu.

Panther allows each user to setup preferences that determine which queues appear and how they are displayed. There are tabs to define general filters, depth-based filters, modify the appearance of queues based upon depth, and select the displayed columns.

In addition, users can configure the auto-refresh of the Queues control. By default, the control automatically refreshes every 30 seconds.

General Filters

Queues can be filtered based on which node they reside in. This is helpful when you wish to only see queues on a specific node within a domain. All nodes are shown by default.

The General Filters tab also provides settings to show/hide queues based upon their type. By default, only SSREQ and RDM queues are shown.

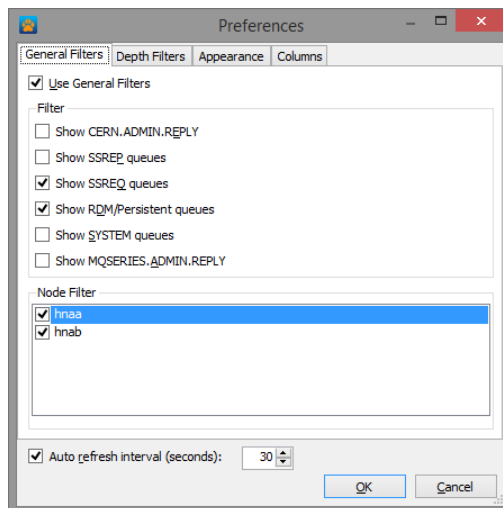


Figure 763: General Filters Preferences

Depth Filters

Queues are grouped into normal, mild, medium, and severe groups based upon their depth. This tab allows a user to define the thresholds used to determine a queue's group and whether each group will be shown or hidden. This is helpful when troubleshooting queuing issues.

By default, thresholds of 2, 5, and 15 are used for mild, medium, and severe, respectively.

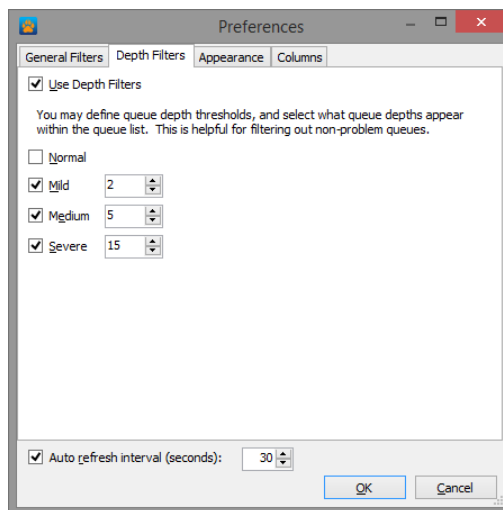


Figure 764: Filter By Queue Depth Preferences

Appearance

The foreground and background colors for queues with mild, medium, and severe depths can be defined. Selecting highly contrasting colors for different depth thresholds makes it easy to identify problem queues at a glance.

By default, the control uses the colors shown in [Figure 765](#).

To modify the colors for a particular depth threshold, simply select it in the list, click the *Fore* or *Back* button, and then either click one of the color boxes or the *Custom* button. Changes will be reflected within the list so users can preview changes before applying them. Clicking *Reset* will return all colors to defaults.

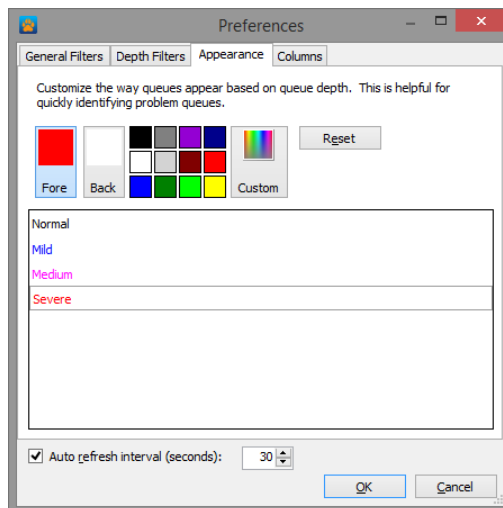


Figure 765: Appearance Preferences

Columns

Columns for the different queue properties can be shown or hidden in the main Queues control. Columns which appear in the *Selected* list are shown, while columns appearing in the *Available* list are hidden. Changing column visibility can be done by selecting one or more columns in a list and clicking the arrow buttons.

Selecting the *Show all available columns* option will display all columns regardless of the available and selected columns. To return the display settings to a custom selection, select *Show only selected columns*.

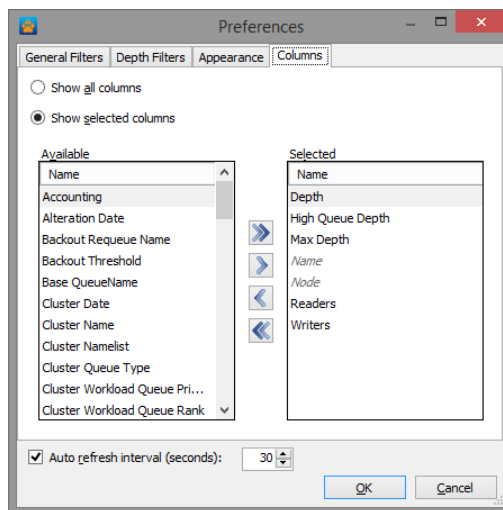


Figure 766: Column Preferences



All preferences are user-specific.

Preferences for what columns appear, their colors, and filters are all specific to each user account. No one else can change or reset them.

11.15. SCP Recommendations Control

The SCP Recommendations control is used to reduce queuing and improve wait times in Millennium® applications. The SCP Recommendations control uses historical queuing data gathered by Panther to recommend increasing instance counts for services that are queuing.

To view the SCP Recommendations control, select the *SCP Recommendations* item in the domain explorer (Figure 767).

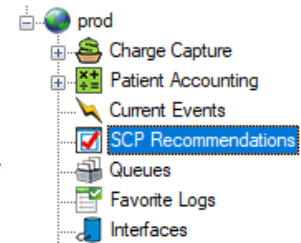


Figure 767: Domain Explorer



Disclaimer

This report has been prepared exclusively for you and is not intended for the benefit of any third party. While Softek works to ensure the accuracy of the information in this report, certain situations or unknown factors within your production environment could affect how your system responds to Softek's recommendations and could create unpredictable results. Accordingly, Softek makes no representations, warranties, or guarantees, express or implied, as to the accuracy or completeness of the information contained in this report or its suitability with your current production environment. You alone are responsible for assessing the relevancy of this report's contents and any change introduced to your system should follow proper change control procedures in a non-production setting before being fully implemented. Softek cannot be held responsible for any negative impact, including downtime events, that occurs based on the recommendations or analysis provided in this report.

☒ **prod** > SCP Recommendations

Fix ?

Selected	Queue	Entry ID	SCP Description	hnaa	hnab	Increase	Mismatch	Java	Svc Count
☐	CERN.ORM.ORDERWRITE	104	ORM Order Write Async	4	4	1		☐	
☐	CERN.SSREQ.EVENT	200	Clinical Event Server	26	25	1	Sync	☐	
☐	CERN.ORDERSMANAGEMENT	351	Order Management	2	2	Split		☒	2
☐	CERN.MESSAGING	401	Clinical Information Messaging	2	2	DUP		☒	1
☐	CERN.MESSAGINGASYNC	403	Messaging Async	1	1	1		☒	1
☐	CERN.MESSAGING	509	Clinical Information - Messaging	2	2	DUP		☒	1

Legend:

Color

Error There are duplicate java services.

Warning Node columns: the configured instance counts are mismatched.
Increase column: the java server has multiple configured instances on at least one node and hosts multiple services.

Text

DUP Two or more servers are hosting java services hosting the same queue.

Split The java server has two or more instances and two or more services.

Sync The configured instance counts across nodes are mismatched.

Figure 768: SCP Recommendations control

The table excludes MQ Queues that cannot be linked to an SCP Entry ID, have total queuing time less than 15 minutes per node, or if the name matches any of the following:

- OEN
- EXCEPTION
- SCP
- QCP
- CPMSRVAUDIT
- CERN.SSREP
- SYSTEM.
- REPLY
- SECURITY
- CERN.SSQA.SERVER
- CERN.SSREQ.FSI.TRIGHOLD_SERVICE
- CERN.SSREQ.LISTENER
- CERN.SSREQ.ESMSRVAGENT
- CERN.SERVER.CTRLREP_
- CERN.FSI.HOLD_SERVICE

The instance count recommendations are meant as a general guideline. Your counts might need to vary if an Entry ID has restrictions related to the number of instances or the number of nodes on which it can run.

The Mismatched column indicates whether the configured instance counts are the same across all nodes.

The Java column indicates if the Path for the Entry ID contains the text “java”.

The Svc Count column contains the number of services hosted by Java servers. Svc Count is determined by counting the number of parameters supplied in the server’s configuration.

Since Java servers have a maximum instance count of two per node, SPLIT in the INCREASE column indicates that the services for a Java Server need to be separated into additional Java Servers.

If the table has no visible rows, then there are no MQ Queuing issues in which wait times for end users could typically be reduced through increased SCP instance counts.

11.15.1 Fixing Recommendations

If Panther is able to make the recommend changes, the check box in the Selected column will be enabled. Check the boxes for any recommendations you want to apply, then click the *Fix* button. Panther will make the recommended instance count modifications to the configurations and prompt you to cycle the servers. Panther will not automatically start additional instances until the server is cycled.

Panther updates its recommendations weekly, so it may take up to a week for them to change after applying changes.

11.16. Servers Control

The Servers control is used to manage the server processes that run on the back end. A Servers control can be found in the Domain Explorer (Figure 10) under each node.

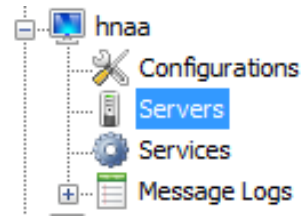


Figure 769: Domain Explorer

Image	Meaning
	The server has one or more notes
	The server has a hover-note
	There is an ongoing event
	The server is starting
	The server is Underserviced
	The server is running
	The server is Overserviced
	The server is stopping
	The server has no configuration
	The server is dead
	The server is dead and not configured to run

Table 194: Server Images

Description	Entry ID	Server ID	Start Date	State Name	Process ID	Total Messages	Service List
Security Master	0	1	2016-08-25 05:44:03	Running	1272	4363523	5,6
Server Control Panel	1	2			1280	598391	10
Transaction Database Master	2	24			2964	32387	28,32,37
Message Journal	4						
Authorize	5	39			3992	12	31
Time Synchronizer	8						
Message Agent	10	12			2256	183130	12
CPM Application Authorization	50						
CPM Script	51						
CPM Code Cache Manager	52						
CPM Script Private	53						
CPM Async Script	54						
CPM Process	55						
CPM Script Cache	80						
CPM Script Private_HallbergCreated_forTe	91	64			5844	0	45
ORM Order Write Sync	101						
Clinical Event Server	200						
OP_OEN.Controller	240	30			3368	0	24
OP_OEN.EDI.Interface	241						
OP_OEN.Batch.Interface	242	32			3480	0	27
OP_OEN.InterfaceDebugger	243						

View: (none) 88 results Filter By State

Figure 770: Servers Control

The columns that appear in the control can be modified from the Preferences dialog (see Preferences later in this section), and you can re-order or sort the control by any of them. By default, the Servers control sorts by Server ID. This initial sort brings [Dead Servers](#) (which do not have a server ID), to the top of the list.



Where is the server I need?

If you cannot locate a server, it is possible the server you are looking for is filtered out from the list. Panther provides both the ability to filter out servers based on current state and a 'View' feature which can hide Servers by their Entry ID. You can temporarily disable filtering by un-checking the box in the lower right labeled *Filter By State*, and you may select a different view in the *View* drop-down to the lower left.

Option	Description
Refresh	Refreshes the list of servers.
Start	Provides options for starting servers.
Stop	Provides options for stopping servers.
Kill	Provides options for killing servers.
Cycle	Provides options for cycling servers and viewing cycle history.
Properties	Displays the Server Properties dialog for the selected server. <i>This is the default menu item.</i>
Configuration Properties	Displays the Configuration Properties dialog for the selected server configuration. <i>Requires the 'Access Configurations' privilege.</i>
Message Logs	Displays the message log associated with the selected server's Entry ID. <i>Requires the 'Access Server Logs' privilege.</i>
Events	Displays ongoing events for the selected servers.
Notes	Displays the Server Notes dialog where you can create notes that appear when certain actions are performed on a server.
Copy	Copies the selected server rows the clipboard in a tab-separated format.
Select All	Selects all of the currently displayed servers.
Manage Views	Opens the View Manager (requires the <i>Manage Server Views</i> privilege).
Add Selection As New View...	Opens the Server View Manager with the selected server(s) added to a new view (requires the <i>Manage Server Views</i> privilege).
Preferences	Allows you to define which columns to display and some operational preferences.

Table 195: Servers Context Menu

11.16.1 Starting Servers

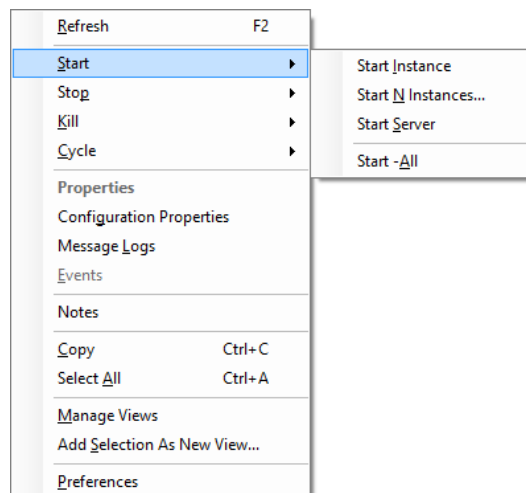


Figure 771: Start Servers Context Menu

To start new instance(s) of a server(s):

1. Select the server(s).
2. Right-click the selected servers.
3. Select *Start* in the option from the Servers context menu (Figure 771).

When you select *Start* from the context menu, a sub-menu appears with start options (Figure 771).

If none of the selected servers are stopped, the Start Instance, Start n Instances, and Start Server options will be disabled.

Option	Description
Start Instance	Starts a single instance of the selected server(s).
Start N Instances. . .	Allows you to specify the number of server instances to start.
Start Server	Starts enough Server Instances to bring the total number of running servers to the configured amount. This option uses the instance count specified by the “Panther Properties” in the configuration of the server, which may differ from the instance count specified in the “SCP Properties”. For more information about Level Of Service (LOS) , see Managing Configuration Properties under Configurations Control.
Start –All	Starts enough server instances for every configuration on the node to bring the total number of running servers to the server’s configured amount. However, because this performs the same back-end command as “start –all” would in scpview, this will only start servers to the instance count specifications of the SCP properties.

Table 196: Servers Start Menu

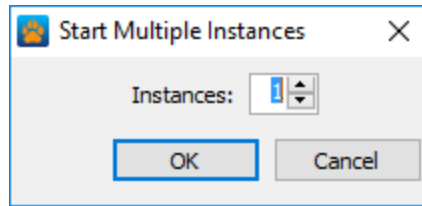


Figure 772: Start Multiple Instances

11.16.2 Stopping Servers

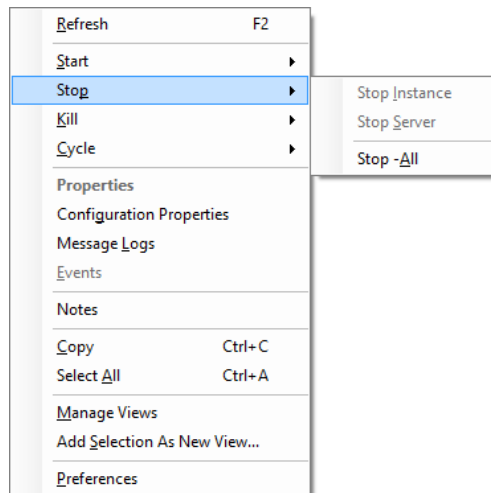


Figure 773: Stop Servers Context Menu

To stop running instances of servers:

1. Select the server(s).
2. Right-click the selected servers.
3. Select the *Stop* in the option from the Servers context menu (Figure 773).

When you select *Stop* from the context menu, a sub-menu appears with stop options (Figure 773).

If none of the selected servers are running, the Stop Instance and Stop Server options will be disabled (excluding Stop -All)

Option	Description
Stop Instance	Stops the specific instance(s) selected.
Stop Server	Stops all running instances of the selected server(s).
Stop -All	Stops all server instances for every configuration on the node.

Table 197: Servers Stop Menu

11.16.3 Killing Servers

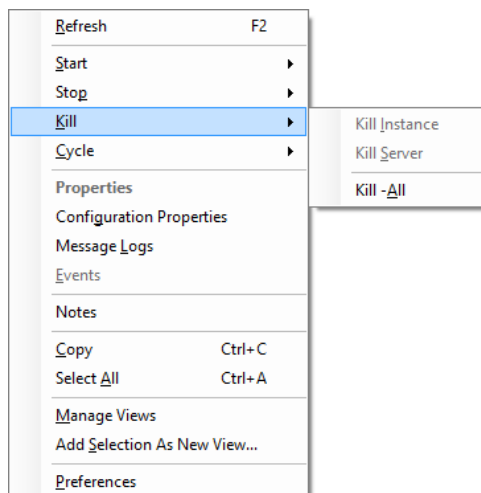


Figure 774: Kill Servers Context Menu

Killing running server instances is very similar to stopping them, but it performs the stop action immediately without waiting for the instance to shut down.

To kill running instances of servers:

1. Select the server(s).
2. Right-click the selected server(s).
3. Select the *Kill* option from the Servers Context Menu (Figure 774).

When you select *Kill* from the context menu, a sub-menu appears with *Kill* options (Figure 774).

If none of the selected servers are running, the *Kill Instance* and *Kill Server* options will be disabled.

Option	Description
Kill Instance	Kills the specific instance(s) selected.
Kill Server	Kills all running instances of the selected server(s).
Kill –All	Kills all server instances for every configuration on the node.

Table 198: Kill Servers Context Menu

11.16.4 Cycling Servers

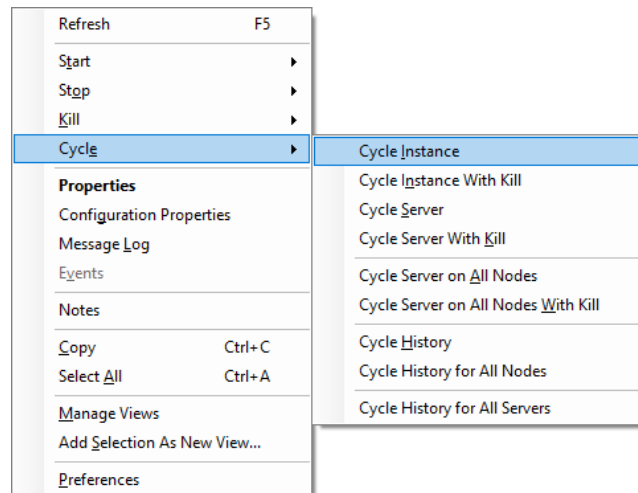


Figure 775: Cycle Servers Context Menu

To cycle servers:

1. Select the server(s) to cycle.
2. Right-click the selected server(s).
3. Select the *Cycle* option from the Servers context menu ([Figure 775](#)).

When you have selected *Cycle* from the [Context Menu](#), a sub-menu appears with cycle options ([Figure 775](#)).



You can schedule a server cycle.

The Server Cycler sensor allows the ability to schedule cycles for servers that require cycling on a regular basis.

Option	Description
Cycle Instance	Cycles the specific instance(s) selected.
Cycle Instance With Kill	Cycles the specific instance(s) selected by killing the existing instances immediately rather than stopping them. <i>Panther will display a confirmation dialog before performing this action.</i>
Cycle Server	Cycles the selected servers on this node.
Cycle Server With Kill	Cycles the selected servers on this node by killing the existing servers immediately rather than stopping them. <i>Panther will display a confirmation dialog before performing this action.</i>
Cycle Server on All Nodes	Cycles all of the selected servers on all of the nodes that have the configurations.
Cycle Server on All Nodes with Kill	Cycles all of the selected servers on all of the nodes that have the configurations by killing the existing servers immediately rather than stopping them. <i>Panther will display a confirmation dialog before performing this action.</i>
View Cycle History	Displays the Action History dialog filtered to only display server cycle history of the selected server on the current domain and node.
View Cycle History for All Nodes	Displays the Action History dialog filtered to only display server cycle history of the selected server on the current domain.
View Cycle History for All Servers	Displays the Action History dialog filtered to only display server cycle history on the current node.

Table 199: Servers Cycle Menu

Cycling a server in Panther submits a cycle request to a process running on the Panther machine, so cycling is performed by Panther while you continue to work.



Panther protects against simultaneous requests to cycle the same server.

If multiple users attempt to cycle the same server, Panther responds with a blocked status, indicating there is already an active request to cycle the server.

The default cycling behavior through Panther is to start a new server and monitor its progress to ensure that it reaches a “Running” state before telling the old server to stop running. This behavior can be modified using the server configuration properties. To access these properties select *Configuration Properties* from the Servers context menu ([Figure 770](#) and [Table 195](#)). For more detailed instructions on modifying cycling behavior using server configurations, go to the section on the Configurations Control and the subsection on Managing Configuration Properties.

When a server fails to reach a running state in the “Start” phase of the cycling operation, a Cycle Start Failure notification is sent. Likewise, a Cycle Stop Failure notification is sent if Panther attempts to stop a server and it fails to stop.

11.16.5 Viewing Server Properties

There are two ways to access Server Properties:

1. Double-click the server for which you wish to view properties.
2. Use the Servers context menu.
 - (a) Select a single server for which you wish to view properties.
 - (b) Right-click the selected server.
 - (c) Select the *Properties* option from the Servers context menu (Figure 770).

Taking either of the two actions listed above will display the server's properties in a dialog similar to the one seen in Figure 776.

The Server Properties dialog provides an easier-to-read view of all the current information for the selected server as well as a list of the services related to this server. The services list includes Service ID and Description (Service Name) as well as additional information about the current and total load.

Using the buttons at the bottom of the dialog, you can also stop or kill the server instance you are viewing.

Server ID: Entry ID:

Description:

Start Date:

Connections

Current: Total: Maximum: Rejected:

Process ID: Messages:

State:

Running and accepting connections

Services

Service ID	Service Name	Current Messages	Total Messages	Current
10	scp_hnaa	17	493735	

Stop Kill Close

Figure 776: Server Properties

11.16.6 Message Logs

Users with the Panther 'Access Server Logs' privilege can access the message logs for servers from the Servers Control

To access a server's message logs:

1. Select the desired server.
2. Right-click the selected server.
3. Select the *Message Log* option from the Servers context menu (Figure 770).

Selecting *Message Log* from the [Context Menu](#) opens the message log associated with the selected server (Figure 777).

This dialog displays the message log data that will display in the Server Logs control elsewhere in Panther. For more information about navigating through these logs, refer to the Message Logs Controls section of this document.

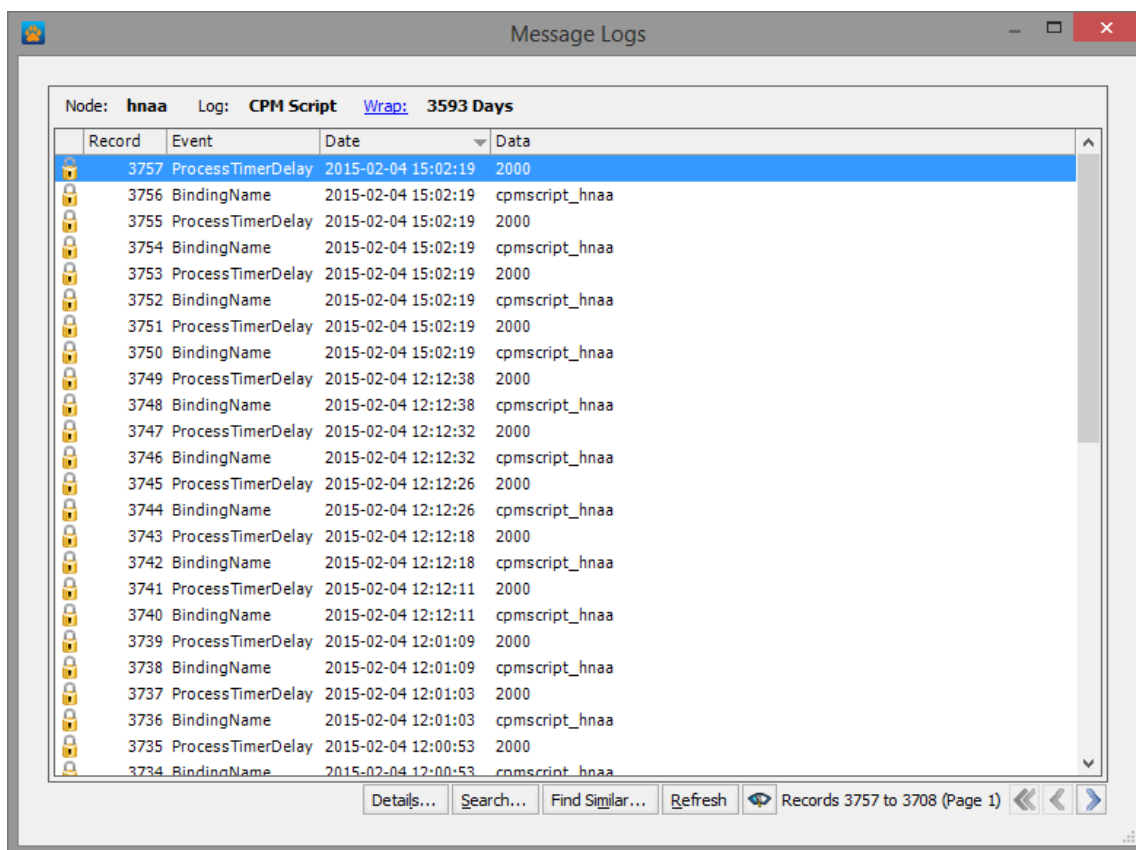


Figure 777: Message Logs

11.16.7 Viewing Current Events

When a server has an event, the Event image (🚩) will appear in the server's (Event) column on the Servers control. If you do not see this column, you can display it by right-clicking any column header, selecting the (Select Columns...) option [Context Menu](#), and making the Event column available.

When a server has one or more events, there are two ways to access them:

1. Double-click the Event image () in the (Event) column.
2. Use the Servers context menu.
 - (a) Select the desired server.
 - (b) Right-click the selected server.
 - (c) Select the *Events* option from the Servers context menu ([Figure 770](#)).

Either of these actions will open the Event Viewer dialog. For the selected servers, this dialog shows the events that Panther's sensors are currently reporting.

Currently, only events from the Server Thrashing, Server Under/Overserviced, and Server Instance Stalled sensors are visible through the Servers control.

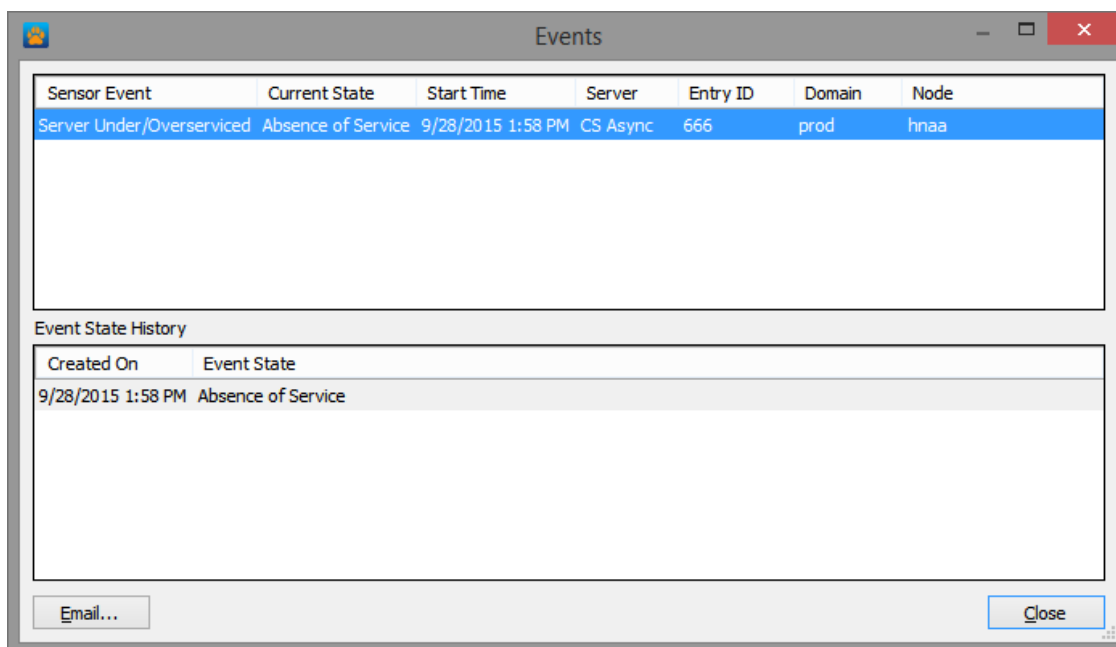


Figure 778: Event Viewer

11.16.8 Server Notes

To access the server notes manager:

1. Select the servers for which you wish to manage notes.
2. Right-click the selected servers.
3. Select *Notes* from the Servers context menu ([Figure 770](#)).

After clicking on *Notes*, the Manage Server Notes dialog will open.



Attention: Server notes are separate from Interface notes.

Interface notes are specified for an interface's PID and server notes are specified for a configuration's Entry ID. As a result, Interface notes are not visible in the Servers or Configurations controls, and server notes are not visible in the Interfaces control.

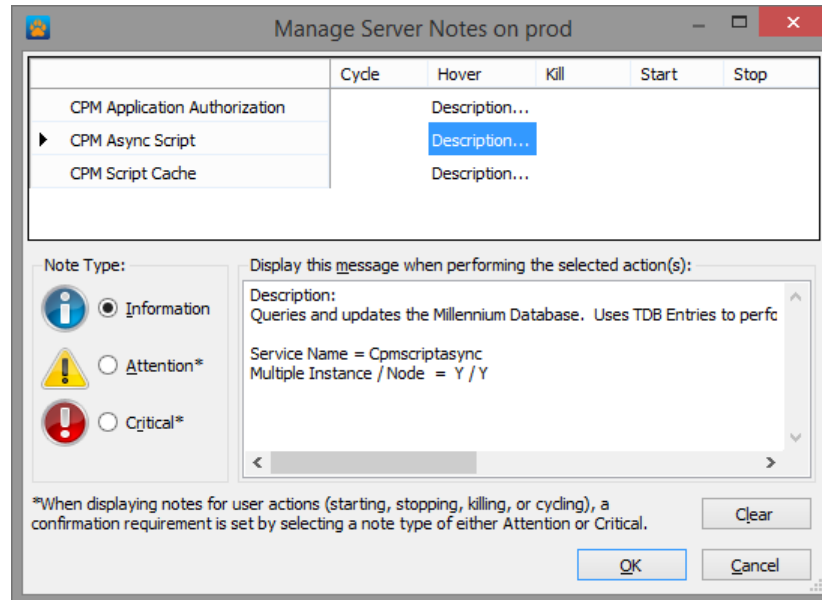


Figure 779: Manage Server Notes

The Manage Server Notes dialog allows you to create notes for four actions (Starting, Stopping, Killing, Cycling), and for when the user hovers the mouse over the interface.

To create a server note:

1. Select the servers and actions you wish to trigger the note's appearance.
2. Select the Note Type (Information, Attention or Critical).
 - If you select a note type of Attention or Critical, and an action of Starting, Stopping, Killing, or Cycling; users will be required to confirm requests to perform the associated action(s).
3. Type the note to appear to the user in the message area of the dialog (Figure 779).
4. Click *OK* to save the notes and close the dialog.

Notice that as you type a note into the message area of the dialog, the note appears in all of the selected server and action cells of the grid at the top of the dialog.

To remove a note, highlight the note(s) in the grid, then click the *Clear Note(s)* button.

If a server is removed, Panther will retain the associated note. If a server is later created with the same Entry ID, the old note will be associated with the new server. This can be prevented by removing the note before deleting the server.

11.16.9 View Management

All Views of the servers assigned to a user will appear in the *View* drop-down list found at the bottom left of the main control ([Figure 780](#)).

In the main control, when you select a view, the Servers control will show only the servers defined in that view.

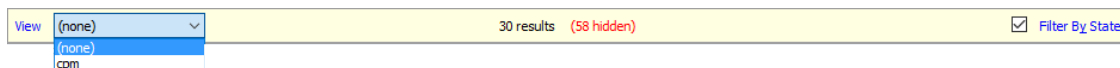


Figure 780: Server Views Toolbar

Within the Servers control, users with the 'Manage Servers Views' privilege may create any number of server views. Views can be managed by right-clicking the mouse and selecting *Manage Views* from the [Context Menu](#). Users can also click on the blue *View* link label located in the lower left corner of the main control.

Once you have selected *Manage Views* or clicked on the blue highlighted *View* link on the main control, the Server Views dialog opens.



You can easily create new Views by selection.

Panther allows you to create a new View based on the currently selected servers. To do this, simply highlight the servers you wish to be in the new View, right-click the mouse and select *Add Selection as New View...* from the [Context Menu](#).

For more information on view management, refer to [Appendix A](#).

11.16.10 Preferences

The Servers control allows you to define preferences that relate to the behavior and display of the control.

Preferences Tab

The Preferences tab allows you to define how Panther will behave when using features of this control. This tab offers the following categories of options as well as the option to auto refresh the control on an interval.

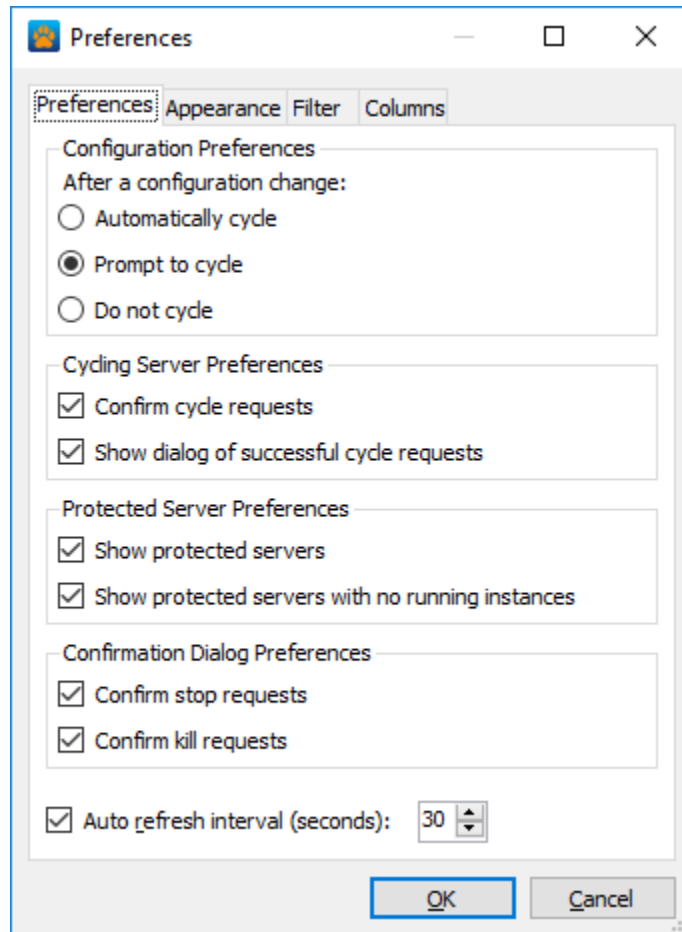


Figure 781: Servers Control Preferences

Configuration Preferences

Next, you have the ability to define how Panther behaves after you make a configuration change. You may select one of the following:

1. **Automatically cycle servers:** Cycles servers without prompting you anytime you make a change to a server configuration.
2. **Prompt to cycle servers:** Prompts to cycle the server anytime a change is made to a server configuration.
3. **Do not cycle servers:** Never ask you to cycle a server after a configuration change.

Cycling Server Preferences

Confirm cycle requests will make you confirm every cycle request before proceeding.

Show dialog of successful cycle requests will display a dialog whenever you submit a request to cycle servers. If you un-check this preference, only cycle requests that are blocked or fail will display a dialog.

Protected Server Preferences

Show protected servers will display servers that are marked as protected. These servers cannot be managed by typical [SCP](#) operations, so excluding protected servers from the list may be a helpful option.

Show protected servers with no running instances will display protected servers that appear dead by SCP, such as Service Manager, but are not necessarily dead.

Confirmation Dialog Preferences

Confirm stop requests will make you confirm every stop request before proceeding.

Confirm kill requests will make you confirm every kill request before proceeding.

Appearance Tab

The Appearance tab allows you to customize the appearance of the Servers control.

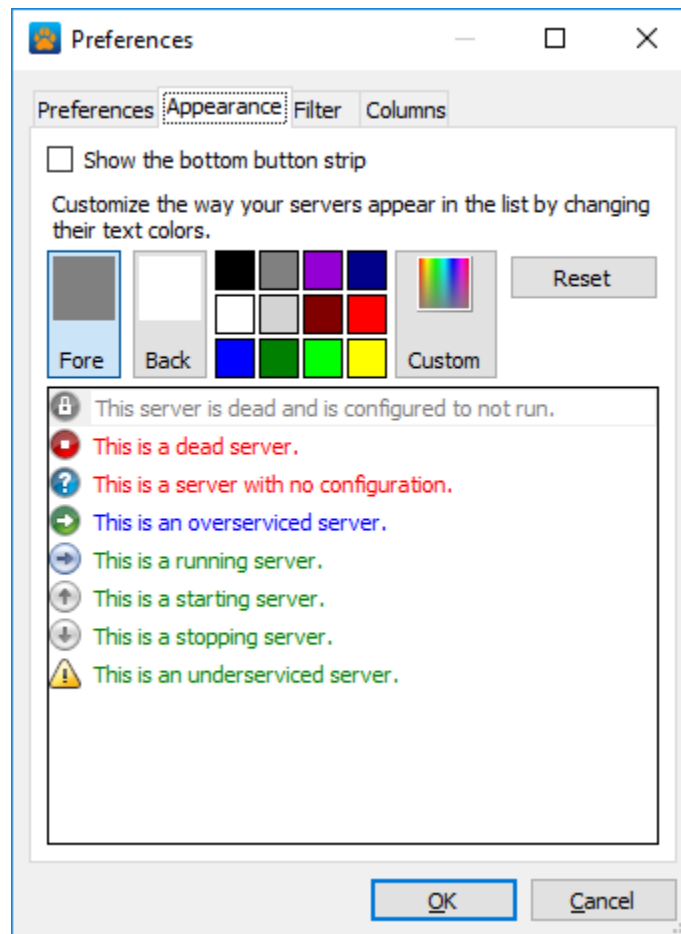


Figure 782: Servers Control Appearance

Show the bottom button strip allows you to indicate whether you would like the button strip to appear below the server list. Turning this option off saves vertical space (good for desktops), and having it on allows quick access to server features.

The rest of the dialog changes display colors for the Servers control. To change the color for a specific server state, select the server state and then select the color used to display those servers. The preview below allows you to get an idea of what the colors will look like.

Filter

The third tab of the preferences dialog allows you to define the server state filter.

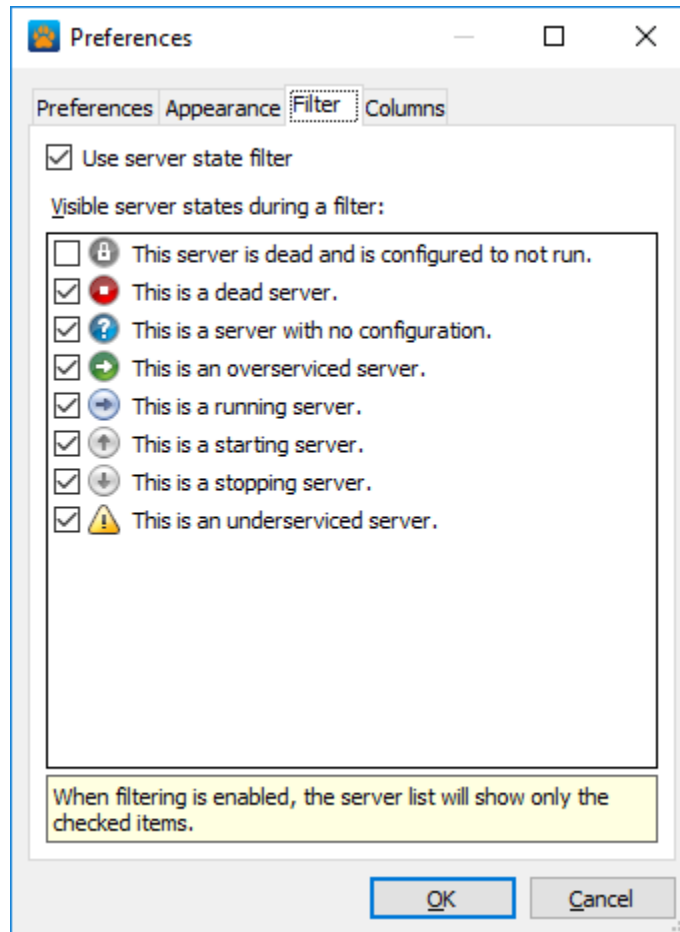


Figure 783: Servers Control Filter

Use server state filter allows you to indicate whether you would like to hide servers with specific states as defined under the Filter Specification.

To hide servers of a specific state simply un-check the appropriate item. Likewise, to show servers of a specific state, simply check the appropriate item.



You can quickly turn off the Server State Filter.

You can quickly toggle the filter on and off by clicking *Use Server State Filter* from the [Context Menu](#) of the main server list. This allows you to turn it off without changing your filter preferences. Additionally, the *Filter By State* checkbox is visible in the lower right of the server list, which can be used to toggle the filter as well.

Columns

The Columns tab allows you to define what columns appear in the main control. Checking a column will add it to the server list, and un-checking a column will hide a column from the list. You also have the option to always show all available columns.

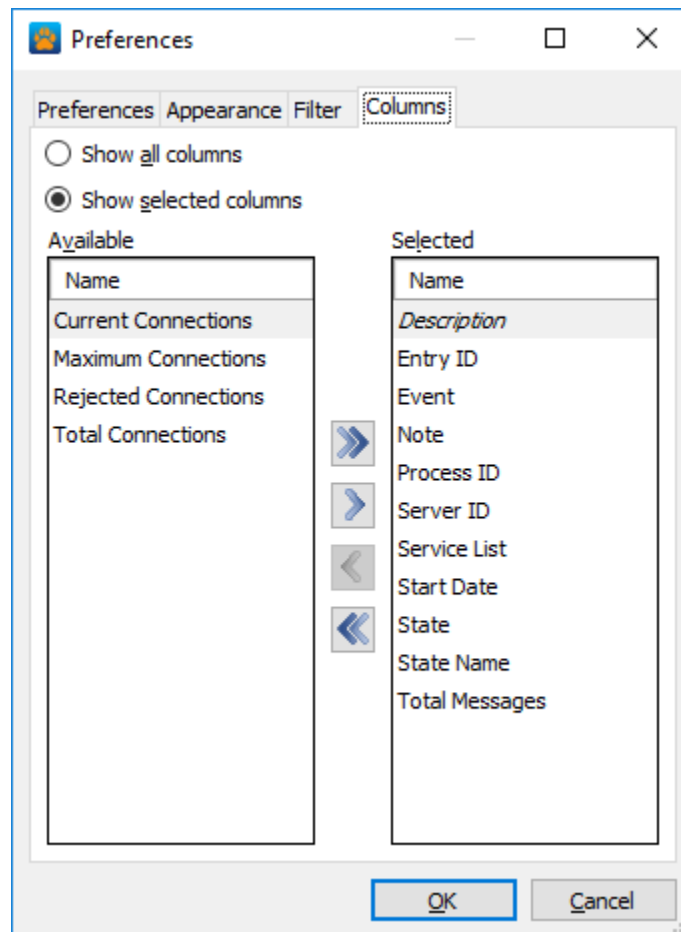


Figure 784: Servers Control Columns

11.17. Services Control

The Services control shows a list of all currently registered services. This view provides information such as current connections and messages. The Services control can be found in the Domain Explorer (Figure 785) under each node.

After selecting the *Services* item in the Domain Explorer, the Services control will be displayed in the Application Workspace (Figure 785).

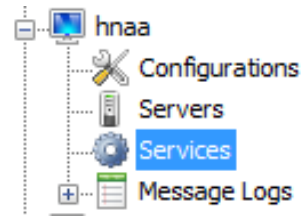


Figure 785: Domain Explorer

Image	Meaning
N/A	Service (not shared)
+	Shared Service

Table 200: Service Images

prod > hnaa > Services										
Service Name	ID	Curr Msgs	Total Msgs	Transaction Rate	Curr Conns	Total Conns	Max Conns	Rej Conns	State	
security	4	2941626	27251832	12.17	9	266715	60	0	Registered	
scp_hnaa	6	560309	2114492	1.07	4	108748	18	0	Registered	
authorize	61	0	152	0.00	0	79	2	0	Registered	
cpm.scriptcache_hnaa	49	0	0	0.00	0	0	0	0	Registered	
cpmdecoder_hnaa	31	0	0	0.00	0	0	0	0	Registered	
cpmdecoder_hnaa	33	0	0	0.00	0	0	0	0	Registered	
cpmprivate_hnaa	34	0	0	0.00	0	0	0	0	Registered	
cpmprivate_hnaa	35	0	0	0.00	0	0	0	0	Registered	
cpmprocess_hnaa	47	0	0	0.00	0	0	0	0	Registered	
cpmscript_hnaa	30	0	0	0.00	0	0	0	0	Registered	
cpmscriptasync_hnaa	41	0	0	0.00	0	0	0	0	Registered	
cpmssinstalled_hnaa	28	0	0	0.00	0	0	0	0	Registered	
cpmstall_hnaa	29	0	0	0.00	0	0	0	0	Registered	
event_hnaa	17	0	0	0.00	0	0	0	0	Registered	
event_hnaa	18	0	0	0.00	0	0	0	0	Registered	
event_hnaa	19	0	0	0.00	0	0	0	0	Registered	

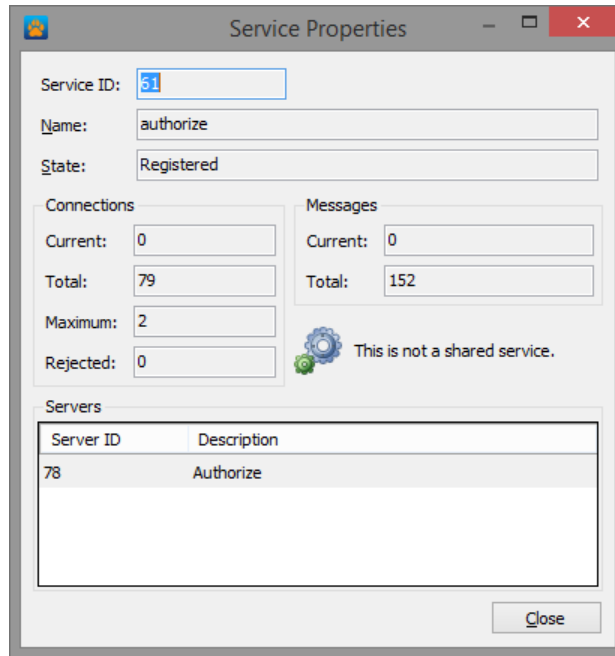
Figure 786: Services Control

Option	Description
Refresh	Refreshes the list of services and their associated information.
Properties	Allows you to view the properties of the selected service. <i>This is the default menu item.</i>
Copy	Copies the selected service rows to the clipboard in a tab-separated format.
Select All	Selects all of the currently displayed services.
Preferences	Allows you to customize the appearance and behavior of the control.

Table 201: Services Context Menu

11.17.1 Viewing Service Properties

Selecting *Properties* from the [Context Menu](#) or double-clicking on a service will display the Service Properties dialog ([Figure 787](#)).



The Service Properties dialog box displays the following information:

- Service ID:** 51
- Name:** authorize
- State:** Registered
- Connections:**
 - Current: 0
 - Total: 79
 - Maximum: 2
 - Rejected: 0
- Messages:**
 - Current: 0
 - Total: 152
- Message:** This is not a shared service.
- Servers:**

Server ID	Description
78	Authorize

A **Close** button is located at the bottom right of the dialog.

Figure 787: Service Properties

This allows an easier-to-read view of all the current information for the selected service. This dialog also provides a list of the servers. The servers list includes both the Server ID and Description.

11.17.2 Service Preferences

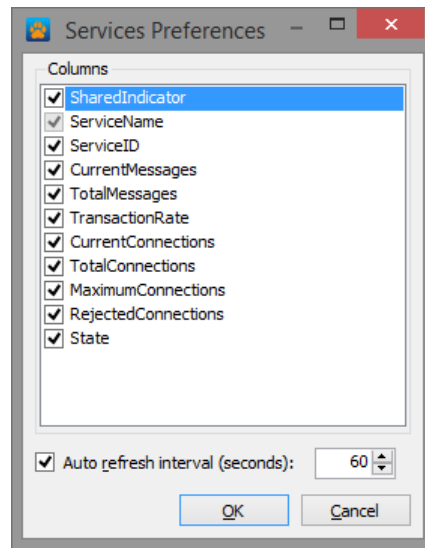


Figure 788: Service Preferences

Panther allows each user to customize how the Services control is displayed for them. Custom settings established from Preferences will only be applied for the user who sets them up.

You can select which columns you wish to display in the Services control. To show a column, check it in the list. To hide a column, un-check it in the list.

Additionally, the Services control allows the automatic refreshing of the data. You can turn auto-refresh on or off by checking or un-checking the checkbox at the bottom of the Preferences dialog. If you have Panther automatically refresh the service information, you can adjust the refresh rate.

12 Sensors

Panther provides an ever increasing catalog of [Sensors](#) across multiple technologies. The main purpose of the Panther sensors is to accurately identify anomalous behavior as quickly as possible to help reduce unplanned downtime.



All Panther sensors are AGENT-LESS.

This means that you do not have to install any executables on your back-end resources in order for Panther to work. All of the CPU intensive analysis is performed on the Panther server, freeing up your system from the burden of monitoring itself.

Panther currently provides sensors for the following technologies:

- [BMDI](#)
- [Chart Server](#)
- [EKS](#)
- [IBM WebSphere MQ](#)
- [IBM WebSphere Application Server](#)
- [Millennium](#)
- [NDC](#)
- [Open Engine](#)
- [Operations](#)
- [Oracle](#)
- [Remote Report Distribution](#)
- [XR](#)

The following information summarizes the behavior of each available sensor. Keep in mind that some of the sensors described below may not be enabled at your organization. More detailed information about each sensor is included in that sensor's operational documentation, available through the Panther Support Site. To access these documents use the *Click here to learn more...* link in the sensor setup, for the sensor you wish to learn more about.

12.1. Functionality Summaries

12.1.1 BMDI Sensors

BMDI Discharged Association

This sensor monitors for BMDI devices that are still associated with discharged patients. This notice helps provide hospital staff with a chance to disassociate the device from the patient prior to further activity occurring on it.

12.1.2 Chart Server Sensors

Chart Job Backlog

By detecting a Chart Job Backlog, Panther can quickly identify key situations, which impact interactive clinical users. This early warning can give the IT team a head start in determining and correcting a problem

before the end users experience unacceptable response times, or the situation degrades to the point where there is an inability to use the system at all.

Chart Job Stalled

Some Chart jobs may take a long time to process or cause an error in the server. This sensor sends alerts when chart jobs remain in a “processing” state without being updated for a set amount of time. This allows IT staff to address the problem in a timely manner and avoid getting caught off-guard by a phone call. Settings can be overridden on a domain-wide level, or by request types.

Chart Job Unprocessed

This sensor monitors chart jobs that are in the queue waiting to be processed. After the job has been idle for longer than the specified duration (15 minutes, by default), an alarm notification is sent.

12.1.3 EKS Sensors

EKS Build

This sensor monitors EKS module audits each day for build issues. This notice helps hospital staff identify problem modules so they can make changes to correct missing author, missing purpose, or reconciliation errors.

EKS Dialog Configuration Change

This sensor monitors EKS dialogs on an hourly basis for configuration changes. This notice helps hospital staff stay apprised of changes made to EKS dialogs so they do not go unnoticed and potentially cause issues at a later date.

EKS Event Configuration Change

This sensor monitors EKS events on an hourly basis for configuration changes. This notice helps hospital staff stay apprised of changes made to EKS events so they do not go unnoticed and potentially cause issues at a later date.

EKS Failure

This sensor monitors EKS module audits each day for failures. This notice helps hospital staff identify problem modules so they can make corrections so future executions do not fail again.

EKS Module Configuration Change

This sensor monitors EKS modules on an hourly basis for configuration changes. This notice helps hospital staff stay apprised of changes made to EKS modules so they do not go unnoticed and potentially cause issues at a later moment such as a cycle or the end of a planned downtime.

EKS Performance

This sensor monitors EKS module audits each day for performance issues. This notice helps hospital staff identify problem modules so they can make corrections so future executions complete in a more timely manner.

EKS Request Configuration Change

This sensor monitors EKS requests on an hourly basis for configuration changes. This notice helps hospital staff stay apprised of changes made to EKS requests so they do not go unnoticed and potentially cause issues at a later date.

EKS Template Configuration Change

This sensor monitors EKS templates on an hourly basis for configuration changes. This notice helps hospital staff stay apprised of changes made to EKS templates so they do not go unnoticed and potentially cause issues at a later date.

12.1.4 IBM WebSphere MQ Sensors

IBM MQ Auto Replay

With this action you can enable automatic re-queuing of transactions that appear in the Exception queue. When enabled, transactions will be resubmitted to the originating queue, an audit record will be generated documenting this action, and (optionally) a notification will be sent. Additionally, Panther allows the administrator to control the maximum number of re-queue attempts. This prevents the endless re-queuing of transactions that are crashing their associated application server. If this condition is detected, and the maximum number of re-queue attempts is reached, a notification can be generated prompting corrective action.

IBM MQ Backlog

The IBM MQ Backlog sensor detects when a queue is backing up. Queues can back up due to batch processing, heavy system load, or by problematic messages that hang the receiving server. IT Staff can define mild, medium, and severe thresholds to signify the trigger points for sending a notification. By quickly identifying queues with backlogs, the IT staff can be made aware of the situation and proactively take action.

IBM MQ Configuration Change

A problem frequently cited by administrators occurs when someone makes a change to a queue configuration without their knowledge. If no change control processes were followed, and unexpected side effects occur, troubleshooting the issue can be particularly difficult. The administrator is left to determine what was changed, who changed it, and when.

This sensor proactively solves this problem by immediately notifying IT staff of IBM MQ configuration changes and providing an audit trail, regardless of who makes the changes. This sensor can be configured to ignore changes to specific properties of a queue's configuration. By default, the "Alteration Date" is automatically ignored.

IBM MQ Capacity

The IBM MQ Capacity sensor detects when a queue is nearing its maximum capacity. Queues can back up due to batch processing, heavy system load, or by problematic messages that hang the receiving server. When a queue reaches its maximum capacity, messages can be discarded by the system. IT Staff can define mild, medium, and severe thresholds to signify the trigger points for sending a notification. By quickly identifying queues nearing capacity, the IT staff can take action before data loss occurs.

IBM MQ Stalled

Occasionally when processing messages, a server will receive a message that causes it to stall. The message may simply take a long time to process, or may cause an error in the server. In either case, if left unchecked, the stall can lead to other problems such as excessive queue backlogs. The IBM MQ Stalled sensor analyzes queues over a period of time, prowling for situations where the servers processing the queue are not making forward progress on the queue. This allows IT staff to address the problem in a timely manner and avoid getting caught off-guard by a phone call.

12.1.5 IBM WebSphere® Application Server Sensors

Application Under-Overserviced

The Application Under-Overserviced detects when there are too many (overserviced), too few (underserviced), or no (absence of service) running servers hosting each application and notify IT staff when these situations occur.

12.1.6 Millennium Sensors

Configuration Change

A problem frequently cited by administrators occurs when someone makes a change to a configuration without their knowledge. If no change control processes were followed, the change goes unnoticed until the next reboot or cycling of that server, with possible unexpected side effects. The administrator is then left to determine what was changed, who changed it, and when.

This sensor proactively solves this problem by immediately notifying IT staff of server configuration changes and providing an audit trail of these changes, regardless of who makes them.

Connection Count Limit

The Connection Count Limit sensor is used to aid in the tuning of a system by alerting the IT Staff to services with a large number of connections. Starting additional instances of a server will have the effect of distributing the number of connections across them, reducing the number of connections any single service will receive. Among other things, this can increase performance by reducing server contention due to a heavy volume of transactions through a single server process.

Node Health

The Node Health sensor detects periods of unexpected loss of connectivity to a node. This can indicate network connectivity issues or failure to communicate with Millennium middleware.

Server Cycler

The Cycling Confirmation notification provides IT staff with notifications of both successful and unsuccessful [Cycle](#) attempts when servers are cycled by an interactive user, a scheduled cycling event in Panther, or a Cycle Group operation. By providing failure notifications with detailed information about the cycle event, IT staff can take appropriate action to correct the situation.

Server Instance Stalled

When IT staff starts or stops a server, they expect the server to reach its expected end-state. If a server fails to reach a running state and hangs indefinitely, the server is deviating from its normal behavior. This situation may not be identified until other system performance problems appear.

The Server Instance Stalled sensor detects [Server Instances](#) that remain in a starting state for longer than the configured amount of time, aiding IT staff by notifying them of server instances that are not behaving as expected.

This sensor also detects server instances that remain in a stopping state for longer than the configured amount of time, aiding IT staff by notifying them of server instances that are consuming unnecessary back-end resources. By quickly identifying these stalled servers, the IT staff can be made aware of server instances that are in an indeterminate state and/or unnecessarily consuming system resources, and take appropriate action.

Server Life Cycle

During the course of operation, server processes are created and terminated throughout the week. Often times, this happens without the knowledge of the IT staff. This sensor analyzes server process and state information over a period of time, identifying situations where a server instance has been started, or a server instance has been stopped. This can aid the administrator in troubleshooting the system state leading up to a major problem with the system, as it provides some detail relating to what might have happened immediately preceding the problem.

Server Restart

During the course of operation, a server can terminate abnormally and depending on the configuration, automatically be restarted by the Millennium system.

For example, when a transaction (resulting in a CCL Script being executed) runs for a duration exceeding the allowable limit, the CPM Script server self-terminates. When the system detects this, it restarts the deceased instance. This can happen without the knowledge of the IT staff. The effect on the end user: their application hangs unexpectedly, and ultimately ends with a failure.

Having knowledge of this problem can aid the administrator in diagnosing such problems before users get frustrated with poor application behavior. Additionally, the CCL script can be checked for optimization, leading to overall system performance improvements.

Server Thrashing

The Server Thrashing sensor analyzes server process and state information over a user-defined period of time, prowling for situations where one or more instances of a server are crashing and are immediately restarted by the bus. This pattern is identified by the sensor as a server restart. If the server restarts too many times within a defined window of time, a notification is sent out indicating the server is thrashing.

Server Under/Overserviced

The Server Under/Overserviced sensor detects when there are too many (**Overserviced**), too few (**Underserviced**) or no (absence of service) server instances running on a given node in the domain based on the sensor's event detection setup. When these situations are detected, the IT staff can be notified.

- An **Underserviced** server can lead to unusual backlogs and slowdowns in system throughput.
- An absence of service indicates that there are no servers running on a given node, which may result in clients experiencing a denial of service.
- An **Overserviced** server can indicate that individuals have started additional server instances beyond the configured amount. This by itself is not an issue, except for the extra resources required from the system to run the additional instances.

Service Not Accepting Connections

Occasionally, services will cease to accept connections. The service will remain registered, and the servers bound to it will be running, but the service will refuse all attempts by clients to connect. Due to the lack of any strong, visible signs that something is wrong, the first indication that there is a problem usually comes in the form of a clinician calling in about a loss of service.

This sensor detects when services are no longer accepting connections, allowing IT staff to address the problem proactively, possibly before end users even know there is a problem.

Shared Service Queue Backlog

By detecting a Shared Service Queue Backlog, Panther can quickly identify two key situations, both of which impact interactive clinical users.

1. When the servers participating in the Shared Service queue hang and the queue rapidly builds, stranding users throughout the system.
2. When the sensor detects an increase in system load, it will aid the administrator in adjusting the number of running servers necessary to service the demand. A common example of this is the need to increase the number of CPM Script servers available to service the applications.

It can also aid the administrator in detecting periods of increased activity and backups in the system leading to degradation in application performance. This early warning can give the IT team a head start in determining and correcting a problem before the end users experience unacceptable response times, or the situation degrades to the point where there is an inability to use the system at all.

This sensor is not for MQ Shared Services.

Shared Service Queue Stalled

Occasionally when processing messages, a shared service queue will receive messages that cause it to stall. The messages may simply take a long time to process, or they may have caused an error in the server. In either case, if left unchecked, the stall can lead to other problems such as excessive queue depths.

The Shared Service Queue Stalled sensor analyzes published services over a period of time, prowling for situations where the servers participating in the service are not making forward progress on the Shared Service queue, allowing IT staff to address the problem in a timely manner and avoid getting caught off-guard by a phone call.

12.1.7 NDC Sensors

Obsolete NDC Dispensed

The Obsolete NDC Dispensed sensor monitors for dispenses of drugs with NDC codes which have reached their obsolescence dates, and provides IT with a summary of these dispenses on a configured interval. This gives staff the heads up to remove remaining stock from dispensing machines or begin completing any special coding required for NDCs that recently became obsolete.

NDC Obsoleting

The NDC Obsoleting sensor monitors for NDC entries which are nearing their obsolescence dates, notifying IT when obsolescence dates are approaching or met. This gives staff the heads up to use remaining stock prior to obsolescence and inactivate products in Millennium® or begin completing any special coding required for NDCs that recently became obsolete.

12.1.8 OHPA® Sensors

OHPA® Unreachable

The Unreachable sensor detects situations where connectivity to the database is lost. Detecting an inability to connect or execute queries as soon as possible allows IT staff to react quickly to minimize downtime.

12.1.9 Open Engine Sensors

ESI Failure

The ESI Failure sensor reports when records with a warning, failure, or terminate status are written to the ESI Logs. It groups the records based on the similarity of their messages, so as to detect ongoing ESI issues.

ESO Queue Backlog

The Queue Backlog sensor detects when a backlog of messages exists in the queue. Queues can back up due to batch processing, heavy system load, or by problematic messages that hang the queue. IT staff can define mild, medium, and severe thresholds to signify the trigger points for sending a notification. By quickly identifying queues with backlogs, the IT staff can be made aware of the situation and proactively take action.

ESO Queue Stalled

Occasionally when processing messages, a queue will receive a message that causes it to stall. The message may simply take a long time to process, or may cause an error to occur. In either case, if left unchecked, the stall can lead to other problems such as excessive queue backlogs.

The [External Service Outbound \(ESO\)](#) Queue Stalled sensor analyzes queues over a period of time, prowling for situations where the queues are not making forward progress. By quickly identifying stalled queues, the IT staff can be made aware of the situation and proactively take action.

Interface Activity

Unlike Shared Service queues or IBM WebSphere® queues, Interface queues are dependent on foreign systems that do not always behave as expected. It is frustrating to realize late in the game that a foreign system has stopped sending messages. This sensor monitors interface activity, verifying that the foreign system continues to send messages as expected. IT staff can tune this sensor to expect messages from a foreign system on a certain frequency.

Furthermore, since expectations change, you can tune the sensor to expect different frequencies of messages throughout the day using schedules. Some interface queues are active only during normal business hours and therefore can be tuned to only expect volumes during these times. During non-business hours, you can tell the sensor to ignore message inactivity.

Interface Backlog

The Interface Backlog sensor detects when a backlog of messages to be processed by an interface exist in the queue. Interfaces can back up due to batch processing, heavy system load, or by problematic messages that hang the interface. IT staff can define mild, medium, and severe thresholds to signify the trigger points for sending a notification. By quickly identifying interfaces with backlogs, the IT staff can be made aware of the situation and proactively take action.

Interface Configuration Change

Changes made to interface configurations without the knowledge of an administrator can cause unexpected side effects. To alert IT staff of these changes, this sensor will generate a notification based on the established parameters.

Notifications will be generated when interfaces or personalities are added, removed or modified. An interface is considered modified when its name, Entry ID or personality information is changed. These notifications will provide an audit trail of changes, regardless of who makes them.

Interface Orphan/Blacklist

This sensor detects when an interface skips one or more messages marked for processing (“pending”). Such messages are considered orphaned, and alerts for this sensor will inform the recipient about the interfaces that are currently exhibiting this behavior. Additionally, this sensor will send notifications when interfaces are added or removed from the Interface Blacklist.

The [Blacklist](#) exists to reduce the load on Oracle® due to orphaned messages, backlogged interfaces, and other situations that will cause an interface’s queue to contain an exceptionally large number of unprocessed messages. Interfaces that have been blacklisted are not monitored by Panther.

Interface Serviced

Open Engine uses inbound and outbound interfaces to allow the Millennium system to communicate with foreign systems. Sometimes these foreign systems could be implemented in a different programming language than the Millennium system. This means that that some interfaces have to use a communication channel (ComChannel) to effectively communicate with both foreign systems and the Millennium system. Unfortunately, problems can arise and the ComChannel could close or even stop running completely. If left unchecked, end use applications and patient care could be affected.

This sensor is designed to monitor these interfaces, detecting closed ComChannels and stopped interfaces. This enables IT Staff to be proactive in responding to situations that may arise, resulting in timely resolution or prevention of potentially severe problems.

Interface Stalled

Occasionally when processing messages, an interface will receive a message that causes it to stall. The message may simply take a long time to process, or may cause an error to occur. In either case, if left unchecked, the stall can lead to other problems such as excessive interface backlogs.

The Open Engine Interface Stalled sensor analyzes interfaces over a period of time, prowling for situations where the interfaces are not making forward progress on their queues. By quickly identifying stalled interfaces, the IT staff can be made aware of the situation and proactively take action.

12.1.10 Operations (Ops) Sensors

Within the Millennium system, there may be thousands of scheduled jobs set up to perform a myriad tasks ranging from cycling servers to purging data from tables within Oracle®. These jobs may be a part of larger job groups or scheduled independently.

Ops Job Concurrency

The Ops system is comprised of many different jobs that interact with different parts of the Millennium system. There are charting jobs, database jobs, SCP jobs, etc. As a result, it is normal for many jobs to be running simultaneously. A job which purges a table in the database may have little or no effect on a job which Cycles a server, so there is little impact on the system in running both jobs together. However, when too many jobs touching the same part of the system are run at the same time, it can cause slowdowns and instability.

The Ops Job Concurrency sensor monitors the currently-running jobs, searching for multiple jobs using the same template. By identifying overlapping jobs quickly, IT staff can minimize or prevent impact on the system.

Ops Job Configuration Change

To define the behavior of a particular job, the ops system contains templates, job steps, jobs, scheduled parameters, and scheduling information. As many jobs are critical to the performance and stability of the Millennium system as a whole, it is important for IT staff to be keep tabs on any changes made.

The Ops Job Configuration Change sensor monitors for these changes. By identifying changes promptly, IT staff can be made aware of any unplanned modifications before they can cause problems

Ops Job Failure

While running, conditions may cause a single job or an entire group to fail. In the case of job groups, an individual job within the group may fail. In some cases, the group as a whole may continue to process. In others, the entire group may stop. Such failures can result in performance degradation or system downtime.

The Ops Job Failure sensor monitors currently-running jobs, searching for job failures. By identifying job failures quickly, IT staff can take action before the situation escalates.

Ops Job Overdue

Making sure jobs start and do so on time can be just as important as monitoring for failures. Late jobs can result in calls from users expecting output or expecting some task to be performed. They can also cause failures in other jobs, which may lead to performance issues or downtime.

The Ops Job Overdue sensor monitors currently-scheduled jobs, searching for jobs that have failed to start on time. By identifying late jobs quickly, IT staff can resolve problems before they occur.

Ops Job Stalled

Occasionally, jobs will take too long to process. A job that normally takes fifteen minutes to run may take an hour. The same job may take several hours, or simply not complete at all. As with failed and overdue jobs, stalled jobs can have an adverse affect on the system. Jobs within groups that stall can prevent the execution of other jobs appearing later in the group. This can cascade further into other jobs failing or never executing.

The Ops Job Stalled sensor monitors currently-executing jobs, searching for jobs that are taking longer than normal to run.

12.1.11 Oracle® Sensors

Oracle® Alerts

The Alerts sensor monitors the database, notifying IT when ORA- errors occur. This gives IT Staff the opportunity to respond quickly to the problem, before it escalates.

Oracle® Enhanced Tablespace

This sensor is very similar to the “Oracle® Tablespace” sensor used in earlier versions, but provides more flexibility in tuning. This sensor continually monitors the used space within tablespaces and their data files. When one or more tablespaces have exceeded any of the user defined thresholds, the sensor immediately notifies the IT staff, allowing them to take corrective action before the tablespace fills and downtime occurs. The thresholds for this sensor can be defined to use a percentage scheme or a file size scheme. Additionally, users may specify these settings differently for tablespaces of certain sizes, so that users may simply modify the behavior for tablespaces of similar size rather than each individual tablespace.

Oracle® Extent Activity

The Extent Activity sensor monitors the number of extents and determines how many times segments have extended over the sensitivity window. If a segment begins to extend more than the user specified limits, it sends a notification allowing IT staff to address the situation before it results in unplanned downtime.

Oracle® Lock Analysis

The Lock Analysis sensor monitors locks held in the database, notifying IT when a session has held a lock for too long. This gives IT Staff the opportunity to close the appropriate application or kill the appropriate session to free up the resource before the rest of the system is impacted too heavily.

Oracle® Max Extents

The Max Extents sensor monitors the number of times each database object has extended, along with the object's max extents setting, and calculating how many times the object can extend before reaching its limit. It notifies IT Staff immediately once an object's remaining number of extents drops below a user-specified number, giving them the opportunity to correct the issue before downtime results.

Oracle® Next Extent Failure

The Next Extent Failure monitors objects within the database, calculating how many times each object can extend, given the sizes and number of free extents within the tablespace. The sensor sends notifications that provide advanced warning when an object's remaining extents falls below a user-indicated threshold, allowing IT Staff to prevent the downtime that would inevitably occur if an object runs out of space and cannot extend.

Oracle® Next Extent Size

Within an Oracle® server, there may be thousands of tables used by various programs and people. As these tables fill, they grow in file size through the use of extents. If the size of an extent is too small, the table can become overly fragmented, and may reach the maximum number of extents quickly. Once the table has reached its maximum number of extents it can no longer grow and all attempts to insert to the table fail. The Next Extent Size sensor detects segments using an extent size below a user specified limit, and when an extent size becomes smaller than it used to be.

Oracle® Orphan Process

This sensor detects when a process continues to run for an Oracle® session that has already been closed. By default, Panther waits for only one minute from detection before it sends an alarm notification.

Oracle® Tablespace Projection

The Tablespace Projection sensor keeps a history of the used space within tablespaces and generates estimated fill times for them. When one or more tablespaces exceed any of the user defined thresholds, the sensor notifies IT staff, allowing them to take corrective action before the tablespace fills and downtime occurs.

Oracle® Unreachable

The Unreachable (previously labeled Absence of Service) sensor detects situations where connectivity to the listener or to the database itself is lost. Inability to connect to the listener indicates that any new process attempting to connect to Oracle® will fail, ultimately resulting in unplanned downtime. Inability to execute a simple query in Oracle® indicates that any other process connected to the database will experience query failures, ultimately resulting in unplanned downtime of the dependent applications. Detecting an inability to

connect or execute queries as soon as possible allows IT staff to react quickly to minimize downtime.

12.1.12 Remote Report Distribution Sensors

RRD Port Disabled

The RRD Port Disabled sensor notifies any subscribed users when it detects that an RRD COM port has been disabled. This enables the IT staff to re-enable unintentionally disabled RRD ports before it begins to cause issues.

RRD Report Failure

The Report Failure sensor detects when reports have failed due to entering an error state. Reports will enter an error state when a problem occurs during conversion or transmission of the report. By quickly identifying failures, the IT staff can be made aware of the problem and proactively take action.

RRD Report Queue Backlog

The Report Queue Backlog Sensor detects when there is a backlog of converted and unconverted reports. Reports are unconverted if they have just entered the RRD system and have not yet been converted to an image file, otherwise, they are converted. The report queue can back up due to batch processing, heavy system load, or by reports that are stalled. IT staff can define mild, medium, and severe thresholds for unconverted and converted reports to signify the trigger points for sending a notification. By quickly identifying backlogs, the IT staff can be made aware of the situation and proactively take action.

RRD Report Stalled

Occasionally when processing reports, an RRD server will receive a report that causes it to stall. The report may simply take a long time to process or may cause an error in the server. The RRD Report Stalled sensor performs analysis over a period of time, notifying about reports that have become stuck while processing. By quickly identifying stalls, the IT staff can be made aware of the situation and proactively take action.

12.1.13 XR Sensors

XR Backlog

By detecting an XR job backlog, Panther can quickly identify key situations which impact interactive clinical users. This early warning can give the IT team a head start in determining and correcting a problem before the end users experience unacceptable response times, or the situation degrades to the point where there is an inability to use the system at all.

XR Failure

This sensor monitors XR jobs and alerts upon detecting any have reached a failure state so IT Staff can resolve problems and optionally resubmit them.

XR Stalled

Some XR jobs may take a long time to process or cause an error in the server. This sensor sends alerts when chart jobs remain in a “processing” state without being updated for a set amount of time. This allows IT staff to address the problem in a timely manner and avoid getting caught off-guard by a phone call. Settings can be overridden on a domain-wide level, or by request types.

XR Unprocessed

This sensor monitors XR jobs that are in the queue waiting to be processed. After the job has been idle for longer than the specified duration (15 minutes, by default), an alarm notification is sent.

12.2. Sensor Setup

Setting up sensor settings is done within Panther under each domain. Additionally, sensors are split into groups.

To modify the settings of a specific sensor:

1. Select the domain the sensor operates on in the Domain Explorer (Chapter 5, Figure 5.1-1).
2. Select *Sensor Setup*.
3. Select the technology the sensor interacts with.
4. Select the sensor.

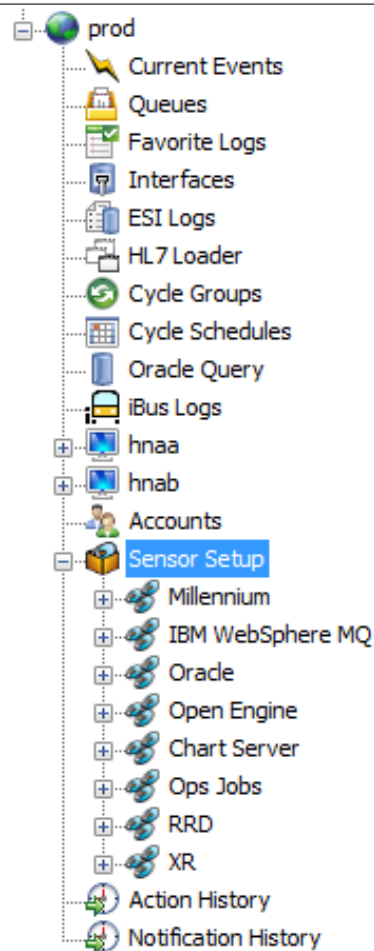


Figure 789: Domain Explorer

12.2.1 Main Screen

The main sensor setup screen includes general information about the sensor and links to finer controls. The top of the page includes the sensor name and the current domain. The control includes a brief description of the sensor and a link to any documentation that may be available. The links that appear depend upon the sensor's capabilities.

The following figures illustrate the various links that are available:

Server Cyclor

The Cycling Confirmation notification provides IT staff with notifications of both successful and unsuccessful cycle attempts when servers are cycled by an interactive user, or as a scheduled event. By providing failure notifications with detailed information about the cycle event, IT staff can take appropriate action to correct the situation.

[Hide Description](#)

[Click here to learn more about the Server Cyclor sensor.](#)



Figure 790: Server Cyclor main page

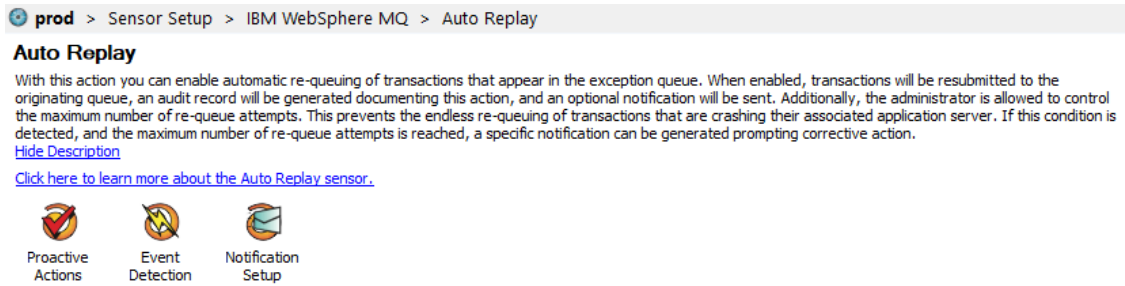


Figure 791: IBM MQ Auto Replay main page

Option	Description
Event Detection	Provides settings for analysis. On this page, users define parameters which dictate what conditions must exist to open and close events.
Notification Setup	Provides settings for notifications. On this page, users define which events will send emails and/or pages, and which items should be specifically included/excluded from notification.
Proactive Actions	Provides settings for actions. On this page, users define parameters which dictate the actions a sensor will take once an event has occurred.
Operational Behavior	Provides access to cycle history.

Table 202: Operational setting options

12.2.2 Event Detection

The Event Detection page allows a user to modify parameters that determine when a sensor should alert about issues for a given system (Millennium, Oracle, etc.). In most cases, a list of monitored items will appear on the left, providing the ability to create overrides for a particular item or a group of items. For a more detailed look at what parameters and override items are available, refer to the sensor documentation for the sensor you are curious about.

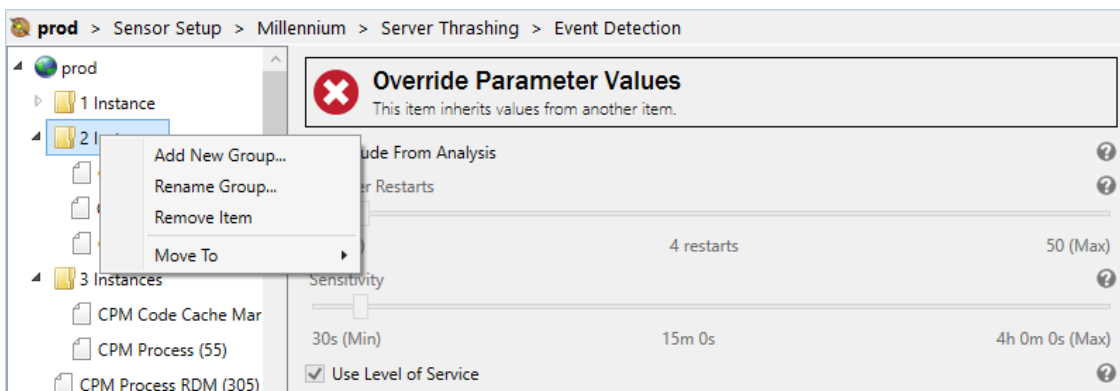


Figure 792: Event Detection page

Option	Description
Add New Group	Adds a group under the selected item. This can only be done for items that contain children.
Rename Group	Changes the name of the selected group.
Remove Item	Removes the selected item. This can only be done for items that were created by a user. Removing an item will cause its children to move up a level.
Move To	Moves the selected item(s) to the group chosen from the sub-menu.

Table 203: Monitored items context menu

Using Monitored Item Groups

The figure below shows the Event Detection screen for the Server Thrashing sensor. In this case, a group has been created with monitored items as members, which contain a collection of items that are to be monitored using the same settings. This way the desired values can be set once for the group rather than many times for each of its members.

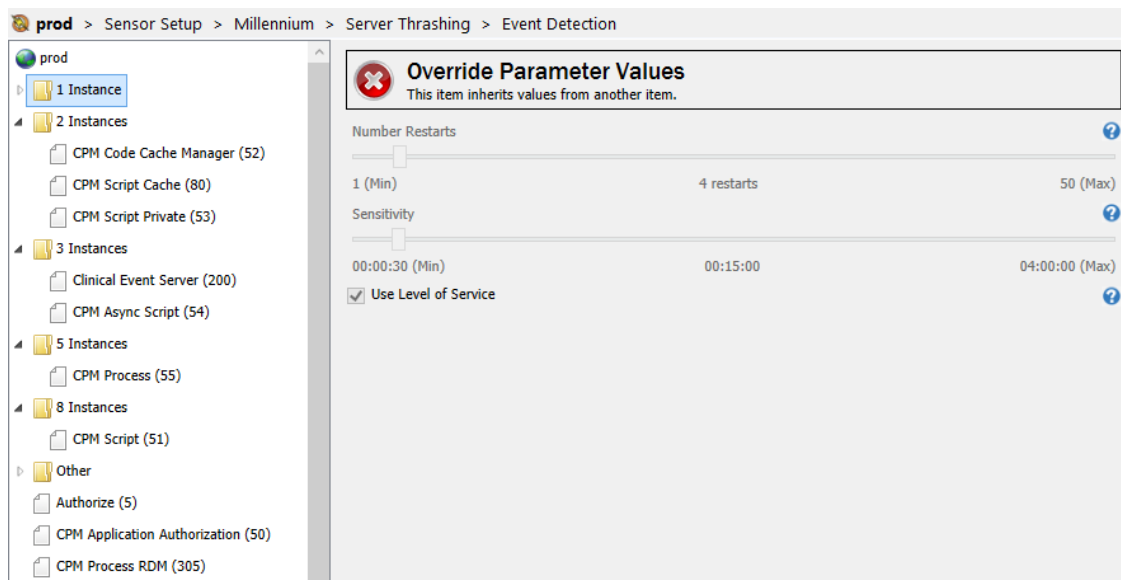


Figure 793: Groups in Server Thrashing

Image	Meaning
	The domain and all descendents use default values.
	The domain uses default values, but at least one descendent has overridden values.
	The domain is overridden, but no descendents have overridden values.
	The domain is overridden. At least one descendent has overridden values.
	This group and all descendents use the same values as its parent.
	This group uses the same values as its parent. At least one descendent has overridden values.
	This group is overridden, but no descendents have overridden values.
	This group is overridden. At least one descendent has overridden values.
	This item and all descendents use the same values as its parent.
	This item uses the same values as its parent. At least one descendent has overridden values.
	This item is overridden, but no descendents have overridden values.
	This item is overridden. At least one descendent has overridden values.

Table 204: Event Detection Images

12.2.3 Scheduling

Some of the sensors in Panther support scheduling. Setting up a schedule allows you to change the event detection settings depending on the time of day and the day of the year. Sensors that support this feature will display the *Schedule* option at the bottom of their Event Detection screen ([Figure 794](#)).

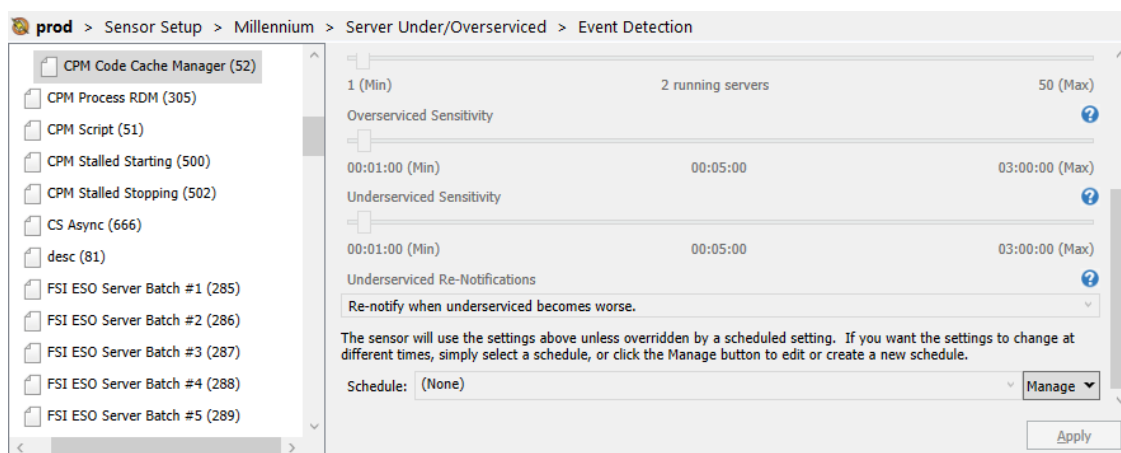


Figure 794: Event Detection page

The default behavior of schedulable sensors is to not use a schedule. In order for you to setup and use scheduling for one of these sensors, you need to override its default parameter values ([Figure 795](#)). This enables the *Schedule* field and *Manage* button.

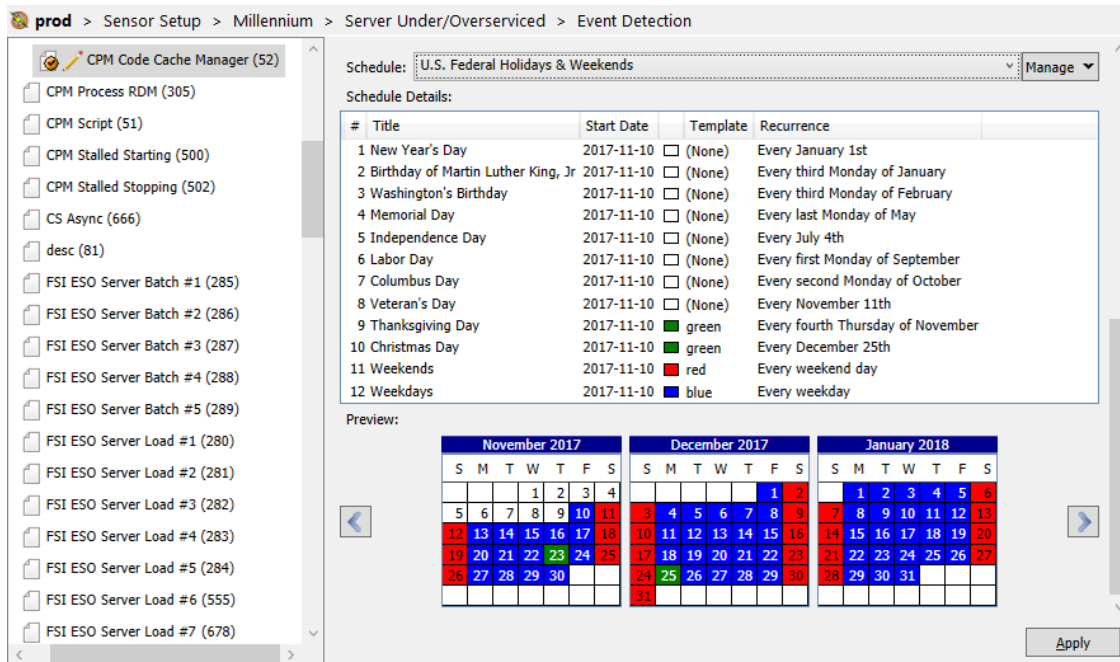


Figure 795: Event Detection - override set

Manage Schedules

After overriding the default parameter values for the monitored items, you would like to create a schedule for, click the *Manage* button to access the Manage Schedules screen. When you click the button, two options will expand from it: *Manage Schedules* and *Manage 24-Hour Templates*.

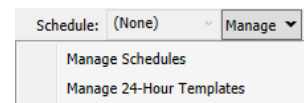


Figure 796: Manage Schedules

Managing templates is covered in the next section. For now, select the *Manage Schedules* option.

Selecting *Manage Schedules* will open the Manage Schedules dialog (Figure 797) which allows addition, removal, and modification of schedules that all sensors can. When defining a schedule, a description may be included along with a set of recurrences to use.

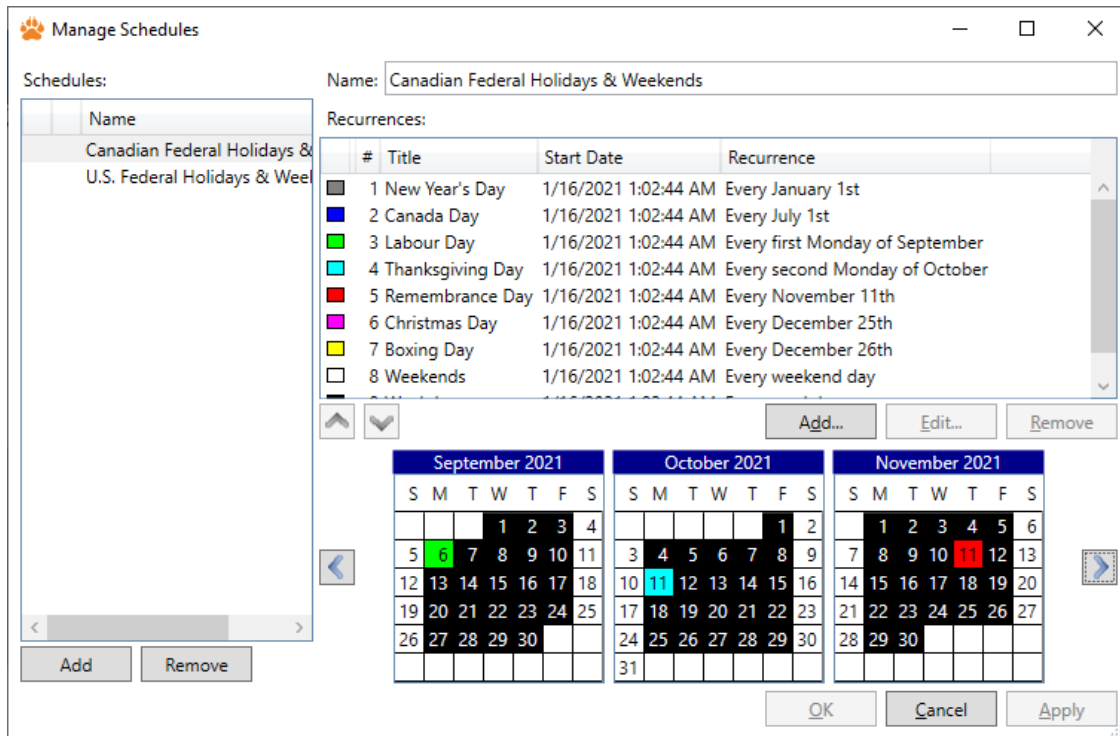


Figure 797: Manage Schedules dialog

Recurrences are markers in the schedule for special events. In [Figure 797](#), there are New Year's Day and Weekends recurrences. The order of recurrences is important. When the sensor is looking for what sensitivities to use, it will start at the top of the list and use the first sensitivity that applies to the current day. For example, if it is Christmas Day and Saturday, both the Christmas Day and Weekends recurrences apply, but because Christmas Day comes before Weekends in the list, the sensor will use the sensitivities for Christmas Day.

The order of recurrences can be modified by selecting a recurrence and either clicking the up or down arrow to move it accordingly, or right-clicking and selecting the *Move Up* or *Move Down* options from the [Context Menu](#).

12.2.4 Managing Recurrences

Clicking the *Add...* or *Edit* buttons on the Manage Schedules dialog, the Template Recurrence ([Figure 798](#)) dialog will open. This is where you can either create a new recurrence or modify an existing one.

The days this recurrence applies to are determined by your selections in the Recurrence Pattern section. To make sure that your selection is what you expect, you can check the small calendars at the bottom of the dialog. The days that match your selections in the Recurrence Pattern section will be highlighted in bright green (Example: the fifteenth of January in [Figure 798](#)).

Template Recurrence [X]

Title:

Start Date: 

Recurrence Pattern

☐ Weekly
☐ Monthly
☒ Yearly

Interval: year(s)

Month:

☐ Absolute day:
☒ Relative day:

November 2017						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

December 2017						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

January 2018						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Figure 798: Template Recurrence dialog

Recurrence Pattern

☒ Weekly
☐ Monthly
☐ Yearly

Interval: week(s)

☒ Sunday
☒ Monday
☒ Tuesday
☒ Wednesday
☒ Thursday
☒ Friday
☒ Saturday

Figure 799: Weekly Recurrence



Use “Weekly” to create daily recurrences

To create a daily recurrence, you should select Weekly and check every day of the week.

Recurrence Pattern

☐ Weekly
 ☒ Monthly
 ☐ Yearly

Interval: 1 month(s)

☒ Absolute day: 1
 ☐ Relative day: first day

Figure 800: Monthly Recurrence

12.2.5 24-Hour Templates

So, you have a schedule, now it's time to use it. Click the *Schedule* field's drop-down arrow to see the list of all available schedules. There are two by default: *Canadian Federal Holidays & Weekends* and *U. S. Federal Holidays & Weekends*.

Select the schedule that you would like to use. This will open the Schedule Details for the selected schedule (Figure 801). In this section you will see a column labeled *Template* with a default of *(None)*. This is where the 24-Hour Templates come into play. Before you can assign a template to your schedule recurrences, you have to create one. To do this, click the *Manage* button and select the *Manage 24-Hour Templates* option (Figure 802) his will open the Manage 24-Hour Templates dialog (Figure 803).

Schedule: U.S. Federal Holidays & Weekends Manage

Schedule Details:

#	Title	Start Date	Template	Recurrence
1	New Year's Day	11/6/2017	☐ (None)	Every January 1st
2	Birthday of Martin Luther King, Jr	11/6/2017	☐ (None)	Every third Monday of January
3	Washington's Birthday	11/6/2017	☐ (None)	Every third Monday of February
4	Memorial Day	11/6/2017	☐ (None)	Every last Monday of May
5	Independence Day	11/6/2017	☐ (None)	Every July 4th
6	Labor Day	11/6/2017	☐ (None)	Every first Monday of September
7	Columbus Day	11/6/2017	☐ (None)	Every second Monday of October
8	Veteran's Day	11/6/2017	☐ (None)	Every November 11th
9	Thanksgiving Day	11/6/2017	☐ (None)	Every fourth Thursday of November
10	Christmas Day	11/6/2017	☐ (None)	Every December 25th
11	Weekends	11/6/2017	☐ (None)	Every weekend day
12	Weekdays	11/6/2017	☐ (None)	Every weekday

Preview:

November 2017							December 2017							January 2018							February 2018							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
				1	2	3	4						1	2		1	2	3	4	5	6					1	2	3
5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9	10	
12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20	11	12	13	14	15	16	17	
19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23	24	
26	27	28	29	30			24	25	26	27	28	29	30	28	29	30	31				25	26	27	28				
							31																					

Figure 801: Schedule Details

Managing 24-Hour Templates

If no 24-Hour Templates have been created for your environment yet, when the Manage 24-Hour Templates dialog opens it will be pretty empty (Figure 803).

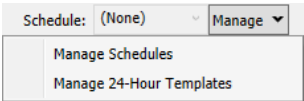


Figure 802: Manage Schedules

Image	Meaning
	Template has Unsaved Changes
	Template is Flagged for addition
	Template is Flagged for removal

Table 205: 24-Hour Template Images

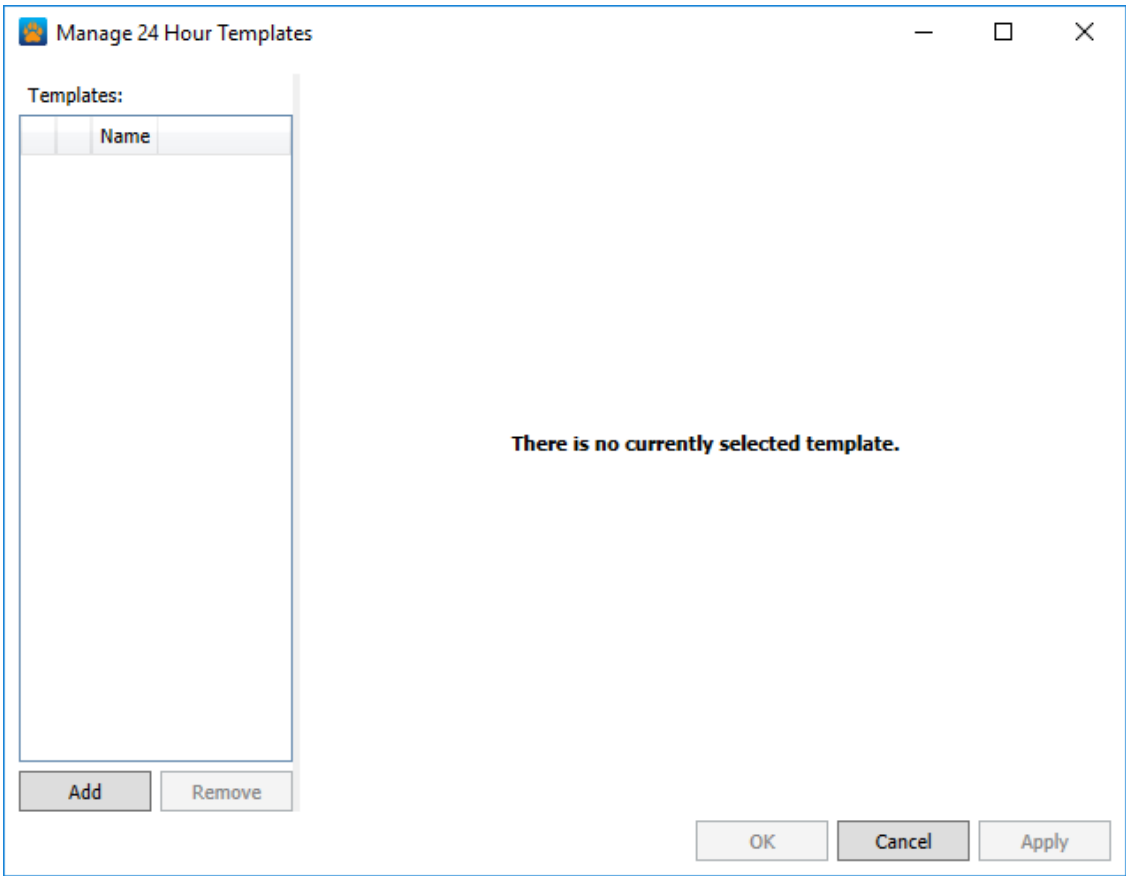


Figure 803: Manage 24-Hour Templates dialog

Adding New Templates

- 1. Click the *Add* button under the empty 24 Hr Templates list. This will place a new template in the list (Figure 804).

2. Give the template a name.

Manage 24 Hour Templates

Templates:

Name

Name:

schedule name cannot be empty

Color:

Start Time: End Time:

Midnight

6:00 am

Noon

6:00 pm

Midnight

Override Parameter Values
This item inherits values from another item.

☐ Exclude From Analysis

Overserviced Threshold

1 (Min) 2 running servers 50 (Max)

Overserviced Severe Threshold

1 (Min) 2 running servers 50 (Max)

Overserviced Sensitivity

00:01:00 (Min) 00:05:00 03:00:00 (Max)

Underserviced Sensitivity

OK Cancel Apply

Figure 804: Manage 24-Hour Templates: add template

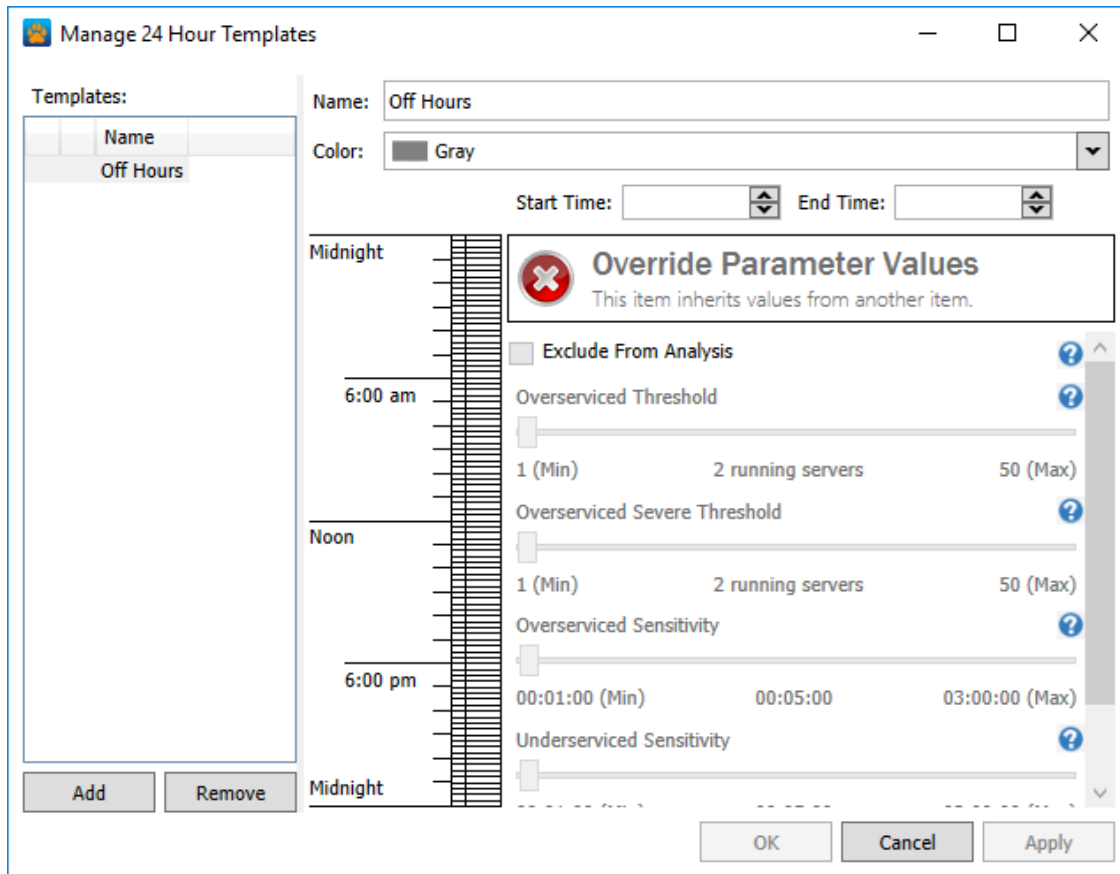


Figure 805: Manage 24-Hour Templates: configure template

3. (Optional) Select a color for this template by clicking the colored square to the right of the *Color* label. This will open the system color palette and allow you to select a color. This color will be used to identify schedule recurrences that are using this template.
4. (Optional) Provide a description for the template. This is to make it easier for other users on the system to quickly identify the purpose of the template in the event that they desire more detail than is provided in the name.
5. Set up the times that apply to this template.
 - (a) Either click in the time bar on the left, or enter the desired times into the *Start Time* and *End Time* fields. For this example (Figure 806), we will be using Midnight to 8AM.
 - (b) Click the *Override Parameter Values* panel to set up custom settings for this period of time. (Figure 806).

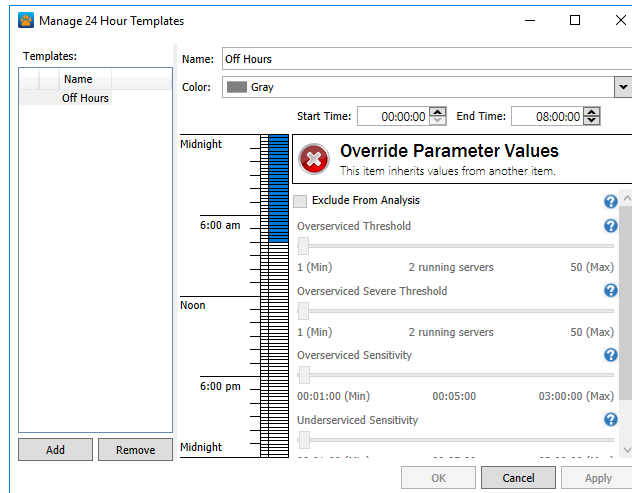


Figure 806: Selecting a time range

- (c) Select the customized sensitivities you desire and click the *Apply* button (Figure 805). This will close the custom settings for this part of the schedule and allow you to select another time range if you wish (Figure 807).

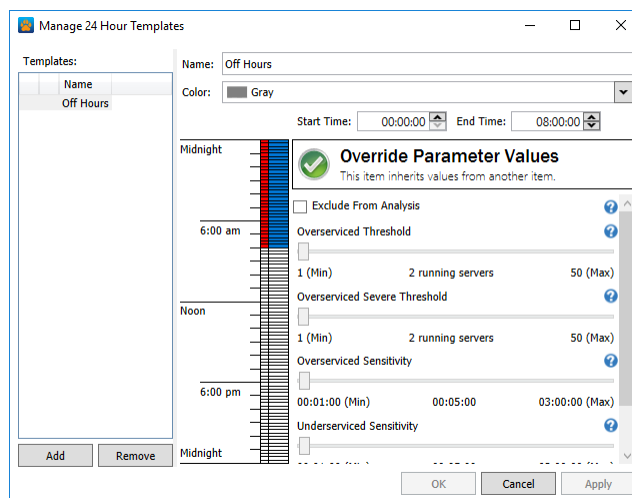


Figure 807: Overriding parameters within a range

6. Add an additional Time-Range.

- (a) Click in a different part of the time bar than was previously selected. For this example, we are setting up a workday where different settings should be used during the lunch hour. To finish this template, we select 1PM to 5PM for the second time span (see the figure to the right).

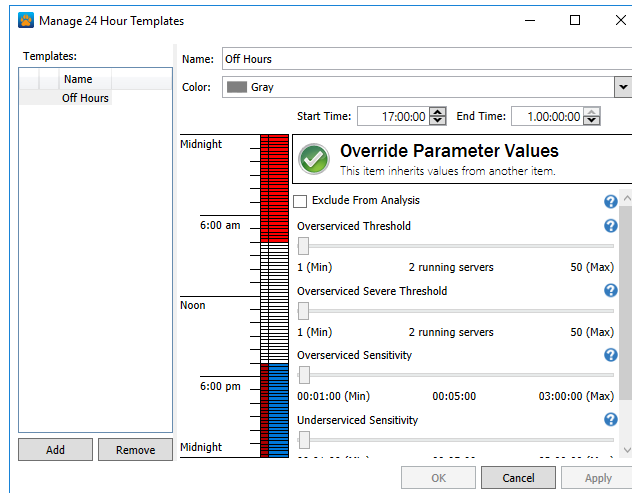


Figure 808: Creating additional time ranges

- (b) From here repeat steps 5.b and 5.c. If you need to alter the overrides for an existing range, double-click inside a cell within that range on the timeline to highlight all cells that are part of that range.

Using 24-Hour Templates

Once one or more 24-Hour Templates have been created, they can be applied to a selected schedule by clicking the template cell associated with the recurrence the template should apply to (Figure 809). This expands a list of all available templates for the current sensor. To apply the template, select it from the list.

Schedule:
U.S. Federal Holidays & Weekends
Manage

Schedule Details:

#	Title	Start Date	Template	Recurrence
1	New Year's Day	11/6/2017	☐ (None)	Every January 1st
2	Birthday of Martin Luther King, Jr	11/6/2017	☐ (None)	Every third Monday of January
3	Washington's Birthday	11/6/2017	☐ (None)	Every third Monday of February
4	Memorial Day	11/6/2017	☐ (None)	Every last Monday of May
5	Independence Day	11/6/2017	☐ (None)	Every July 4th
6	Labor Day	11/6/2017	☐ (None)	Every first Monday of September
7	Columbus Day	11/6/2017	☐ (None)	Every second Monday of October
8	Veteran's Day	11/6/2017	☐ (None)	Every November 11th
9	Thanksgiving Day	11/6/2017	☐ (None)	Every fourth Thursday of November
10	Christmas Day	11/6/2017	☐ (None)	Every December 25th
11	Weekends	11/6/2017	☐ (None)	Every weekend day
12	Weekdays	11/6/2017	☐ (None)	Every weekday

Preview:

November 2017

December 2017

January 2018

February 2018

S M T W T F S

1 2 3 4

5 6 7 8 9 10 11

12 13 14 15 16 17 18

19 20 21 22 23 24 25

26 27 28 29 30

S M T W T F S

1 2

3 4 5 6 7 8 9

10 11 12 13 14 15 16

17 18 19 20 21 22 23

24 25 26 27 28 29 30

31

S M T W T F S

1 2 3 4 5 6

7 8 9 10 11 12 13

14 15 16 17 18 19 20

21 22 23 24 25 26 27

28 29 30 31

S M T W T F S

1 2 3

4 5 6 7 8 9 10

11 12 13 14 15 16 17

18 19 20 21 22 23 24

25 26 27 28

Figure 809: Setting a template for a recurrence

Parameter Groups

Some sensors provide logical groupings of parameters to aid in manageability. In these cases, each group will appear with a name and a short description, and they can be collapsed or expanded (Figure 810).

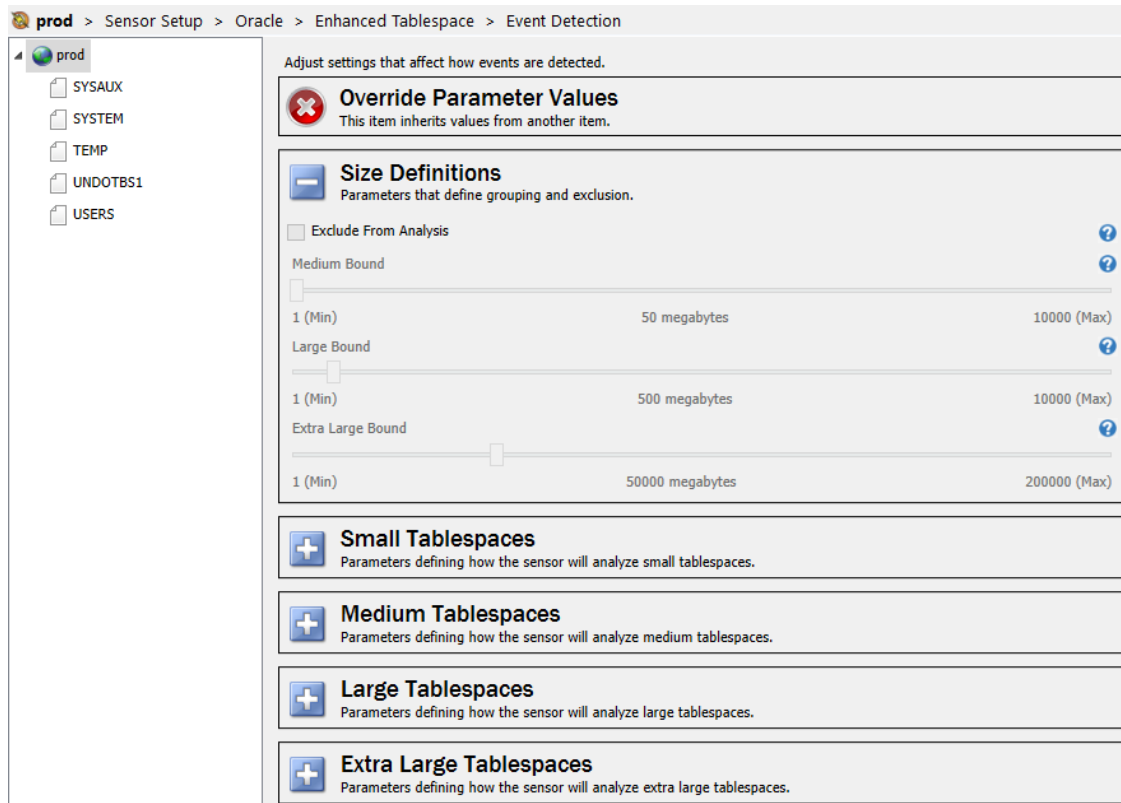


Figure 810: Event Detection Parameter Groups

Parameter Help

Each parameter will include a help button (🔍) that will display a dialog explaining the parameter's function. For more complex parameters, the impact of changing value will be explained as well.

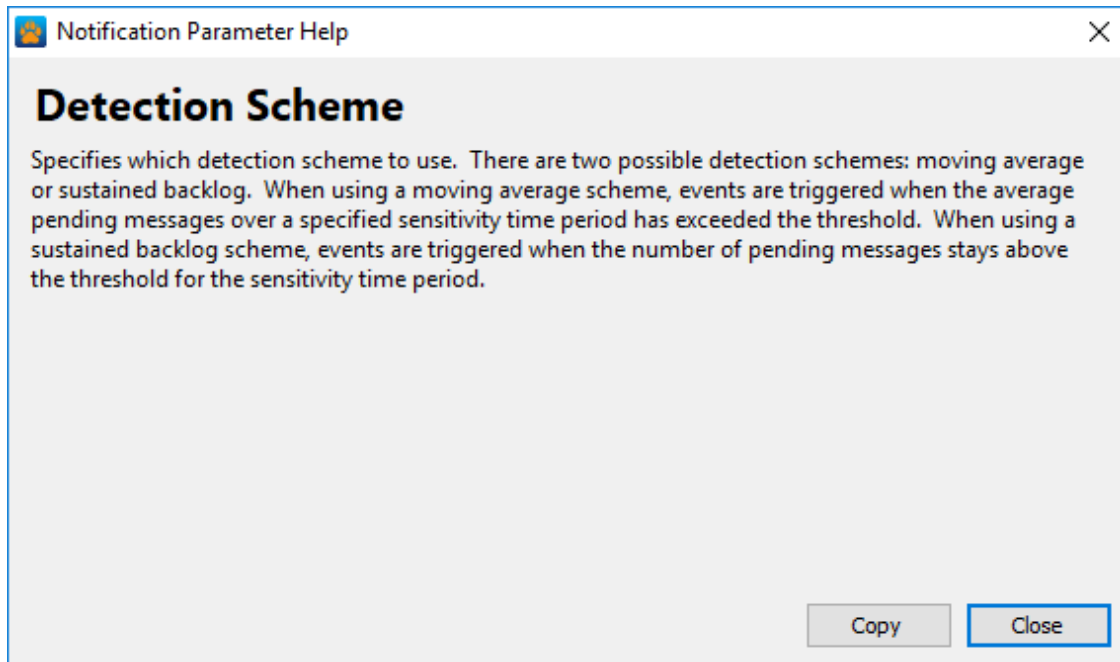


Figure 811: Parameter help dialog

12.2.6 Notification Setup

The Notification Setup page ([Figure 812](#)) provides users with the ability to sign up for email or pager notifications per notification topic. For example, in the figure below, the Team Interfaces group and the logonly user are subscribed to the Resonance notification topic. Because no descendents have overrides, the Resonance topic contains all items beneath it.

To sign up for notifications here, a user must first have an email address and the *May Receive Notifications* checkbox checked in *Email Preferences* under the *Tools* menu.

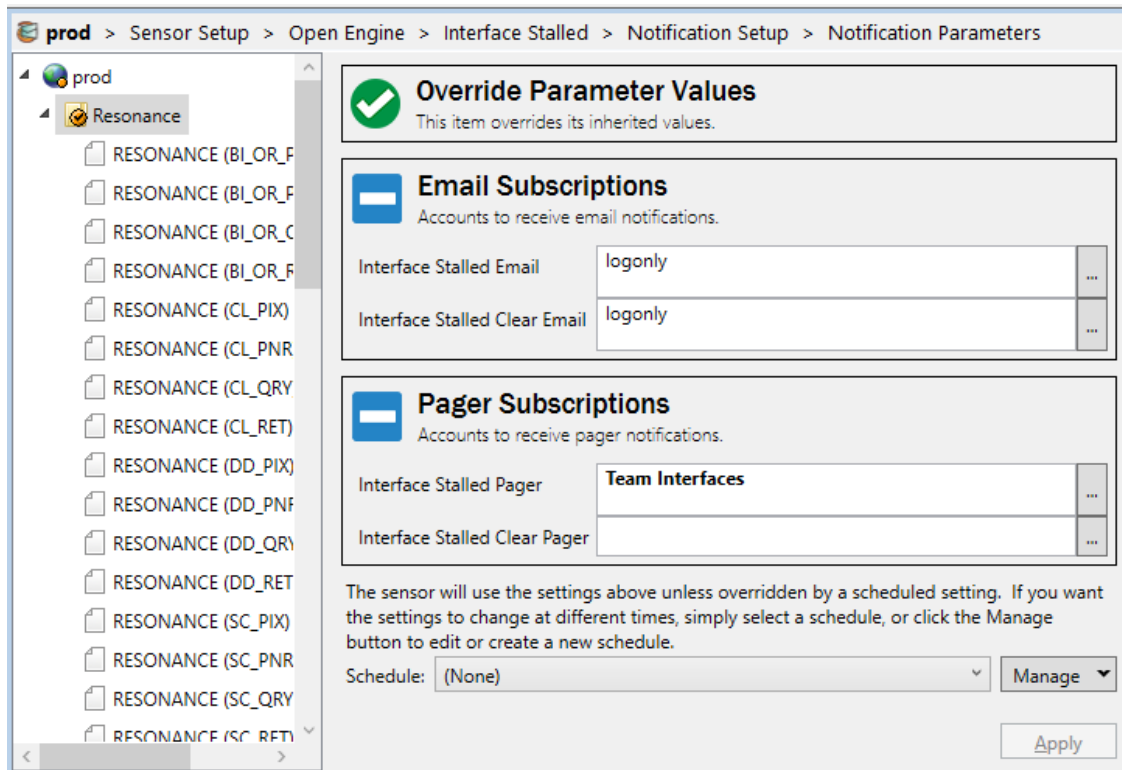


Figure 812: Notification Setup page

The icons used to describe the tree on the left are helpful to understand how notifications and subscriptions are grouped. This is very similar to how Event Detection parameters are configured.

Image	Meaning
	The domain and all descendents use default values. There are no topics at any level for this domain.
	The domain uses default values, but at least one descendent has overridden values. This is not a topic, but at least one descendent is.
	The domain is overridden, but no descendents have overridden values. This is a topic including all descendent items.
	The domain is overridden. At least one descendent has overridden values. This is a topic. Descendent items not part of another topic are included in this one.
	This group and all descendents use the same values as its parent. Descendent items included in the nearest ancestor topic.
	This group uses the same values as its parent. At least one descendent has overridden values. Descendent items not part of another topic are included in the nearest ancestor topic.
	This group is overridden, but no descendents have overridden values. This is a topic including all descendent items. The name of this group is included in email subjects.
	This group is overridden. At least one descendent has overridden values. This is a topic. Descendent items not part of another topic are included in this one. The name of this group is included in email subjects.
	This item and all descendents use the same values as its parent. This and all descendent items are part of the nearest ancestor topic.
	This item uses the same values as its parent. At least one descendent has overridden values. This and descendent items not part of another topic are included in the nearest ancestor topic.
	This item is overridden, but no descendents have overridden values. This is a topic including all descendent items. The (id) of this item is included in email subjects as the topic name.
	This item is overridden. At least one descendent has overridden values. This is a topic. Descendent items not part of another topic are included in this one. The (id) of this item is included in email subjects as the topic name.

Table 206: Notification Setup Images

Subscribing to Notifications

To change the subscriptions for a notification, click the “...” button adjacent to an *Email* or *Pager* cell.

This will open the *Manage Email Notifications* or *Manage Pager Notifications* dialog, depending on which option you chose (Figure 812).

If you have a list of account names you wish to use for another subscription, you can copy it with the *Copy* menu item or ctrl+C and paste it with the *Paste* menu item or ctrl+V.

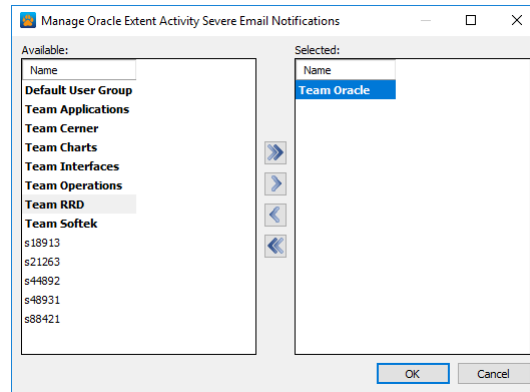


Figure 813: Manage subscriptions dialog

- A Notification Topic is a group of items (e.g. OPS Jobs, OEN Interfaces, etc.). Each item may only be in a single topic. Instead of subscribing to notifications for all items, you can think of each topic as a more focused notification and sign up users and groups to receive the ones they want.
- In the Notification Setup tree, any item or group where the “override” checkbox is checked is a separate topic representing its own stream of notifications.
- Each topic may have its own subscription list.
- Each sensor has its own set of topics. For example, the set of topics for Server Cyclor is different than Server Under/Over Serviced. If these sensors both coincidentally have a topic named “Script servers”, the list of configs would be independent for each.
- The Inclusion/Exclusion lists from earlier Panther versions have been replaced with notification topics. When upgrading, any items from the exclusion list are automatically moved into a topic named “Migrated Excluded Items”. This topic has an empty list of accounts for all subscriptions so no one is notified. Similarly, items from an inclusion list are moved to a topic named “Migrated Included Items.”
- Tips:
 - Give topic groups a nice, short name because it will appear in the email subject.
 - Make topics that group items by their team ownership or another logical grouping so interested people see related items together.
 - If you override SCP Config 51, the topic is named “51”, not “CPM Script” as you might reasonably think. You can get a more descriptive topic name by adding it to a new topic group with the name of your choice.
 - When a bunch of related items are next to each other in the tree, you can select them all at once and right-click to move them into a new or existing group.
 - It can be helpful to add a group for “Excluded” items that no one is interested in, and clear out the list of subscribers or set it to “logonly.” Then, you can select one or more items and right-click on the item to move them to the excluded group.
 - Inbox rules from your email application can be used to perform operations specific to topic names. For example, you could make some items more important or worth interrupting your sacred quiet hours on your phone.

Notification Analysis: History

History shows notifications that have been generated by the current sensor over time. These notifications will be opened in a dialog identical to the Notification History control. For details on using this history dialog,

see the section on the [Notification History Control](#).

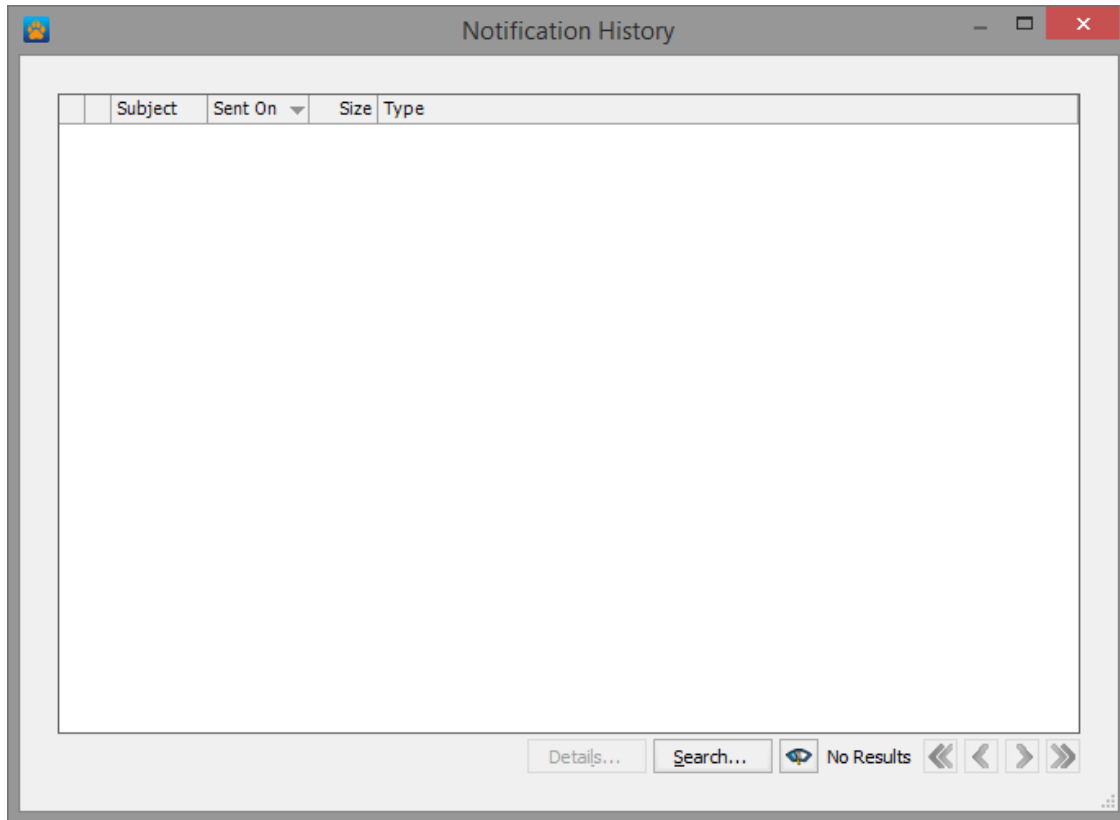


Figure 814: Notification History dialog

12.2.7 Proactive Actions

Within the Proactive Actions page, the behavior a sensor will take while performing actions on the system can be defined. Additional pages are provided to manage parameters, exceptions, and history.

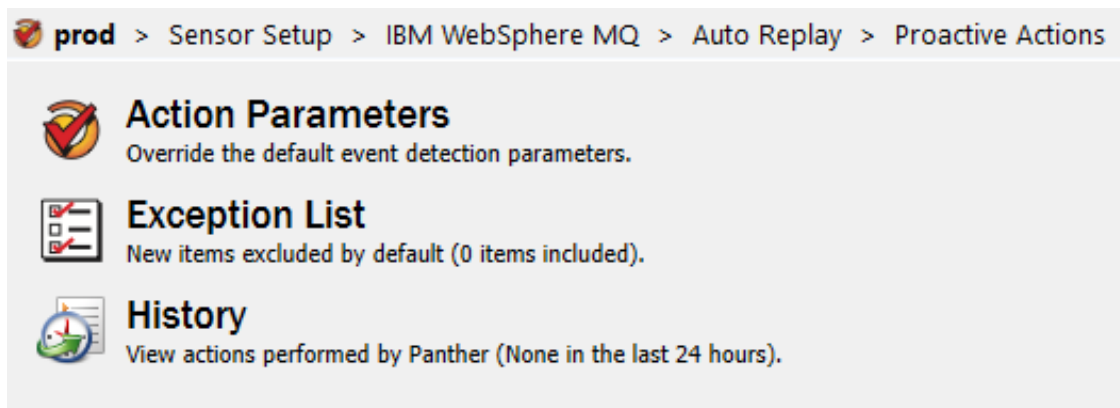


Figure 815: Auto Replay Actions page

Advanced Setup Options: Action Parameters

Similar to Event Detection, the Action Parameters page provides a set of parameters defining sensor behavior and a list of monitored items on the left, allowing for overrides to be set per item. This page provides identical functionality to Event Detection.

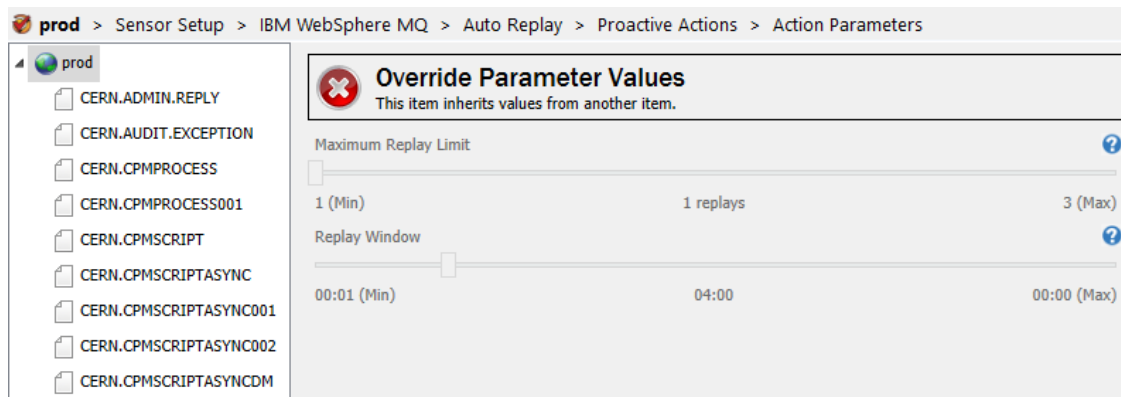


Figure 816: Auto Replay Action Parameters

Advanced Setup Options: Exception List

The exception list provides users a way to define which items the sensor will act upon and which will be ignored. It also defines how new items added later will be treated.

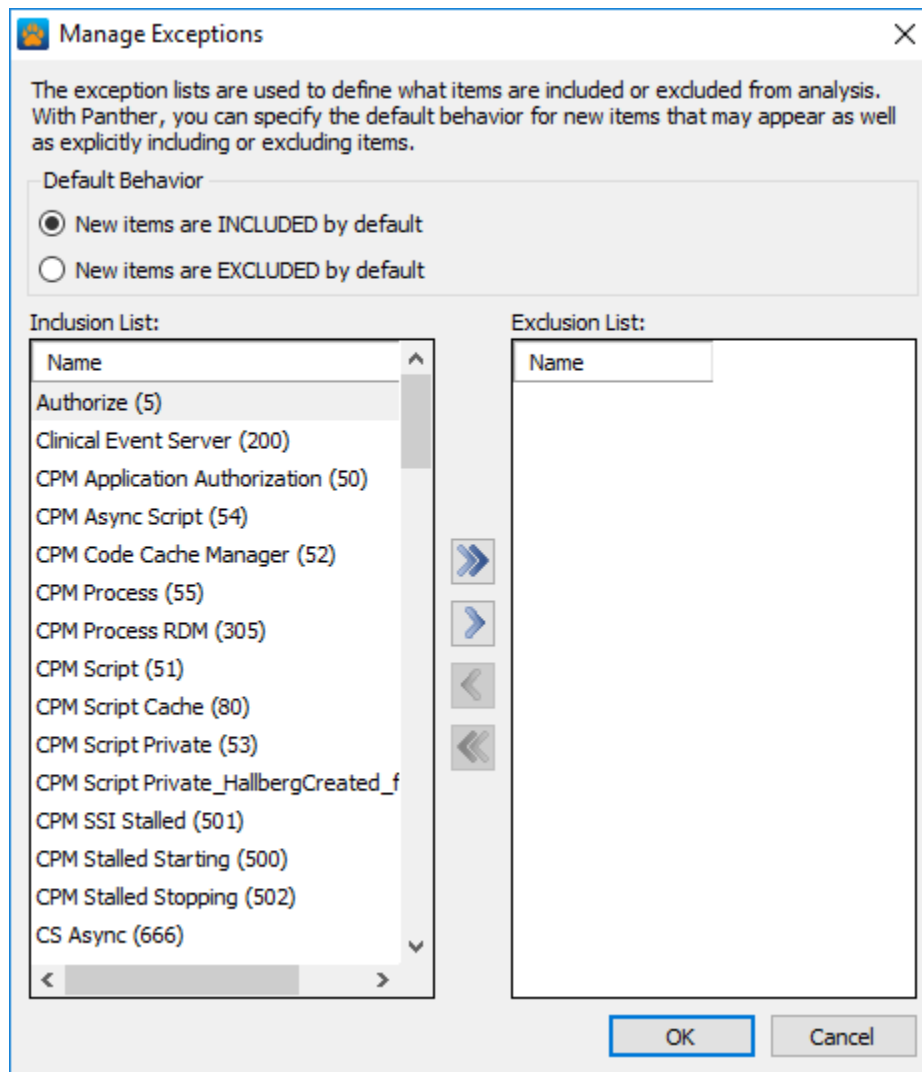


Figure 817: Action Exception List

Action Analysis: History

The history link brings up a dialog containing a history of actions performed by the current sensor. This dialog provides search capability, allowing users to see what actions the sensor may have taken for a target time period. It behaves exactly like the Action History control, so if you would like to learn more about the behavior of this dialog, see the section on the [Action History Control](#).

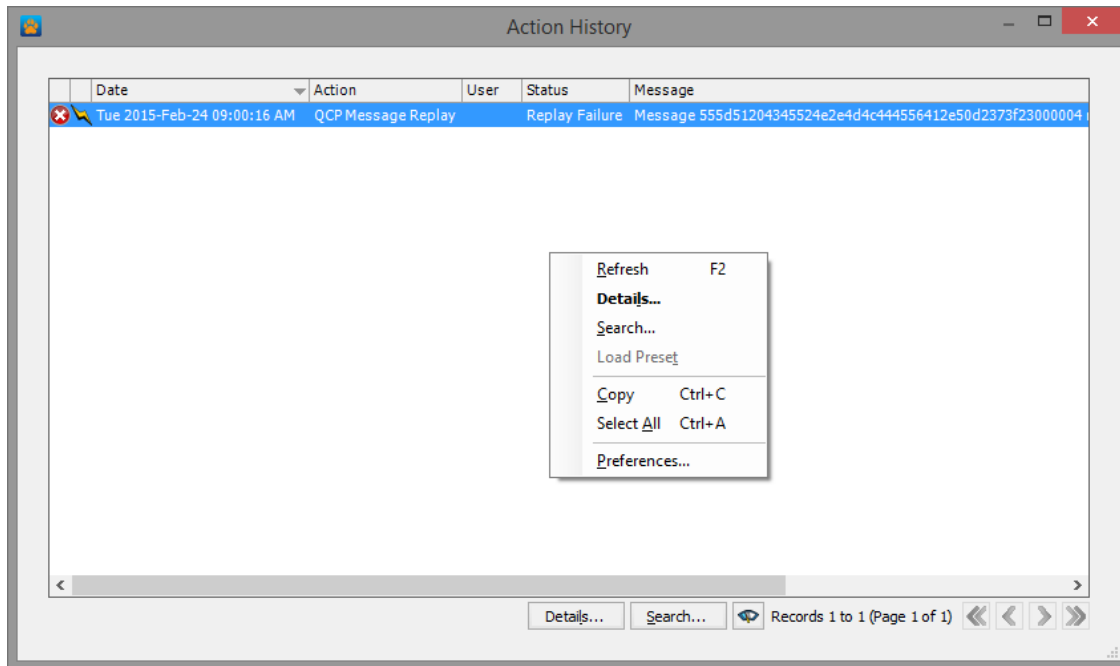


Figure 818: Action History

12.2.8 Operational Behavior

The Operational Behavior page includes a link to Action History that filters down to cycle actions, displaying all cycling operations performed by Panther. At the bottom of the page, there is a reminder that cycling behavior is defined within Configuration Properties.

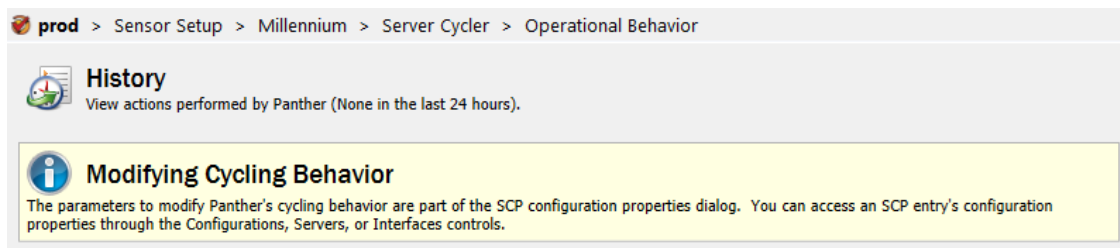


Figure 819: Server Cyclers Operational Behavior page

Action Analysis: History

The history link brings up a dialog containing a history of actions performed by the current sensor. This dialog provides search capabilities, allowing users to see what actions the sensor may have taken for a target time period. It behaves exactly like the Action History control, so if you would like to learn more about the behavior of this dialog, see the section on the [Action History Control](#).

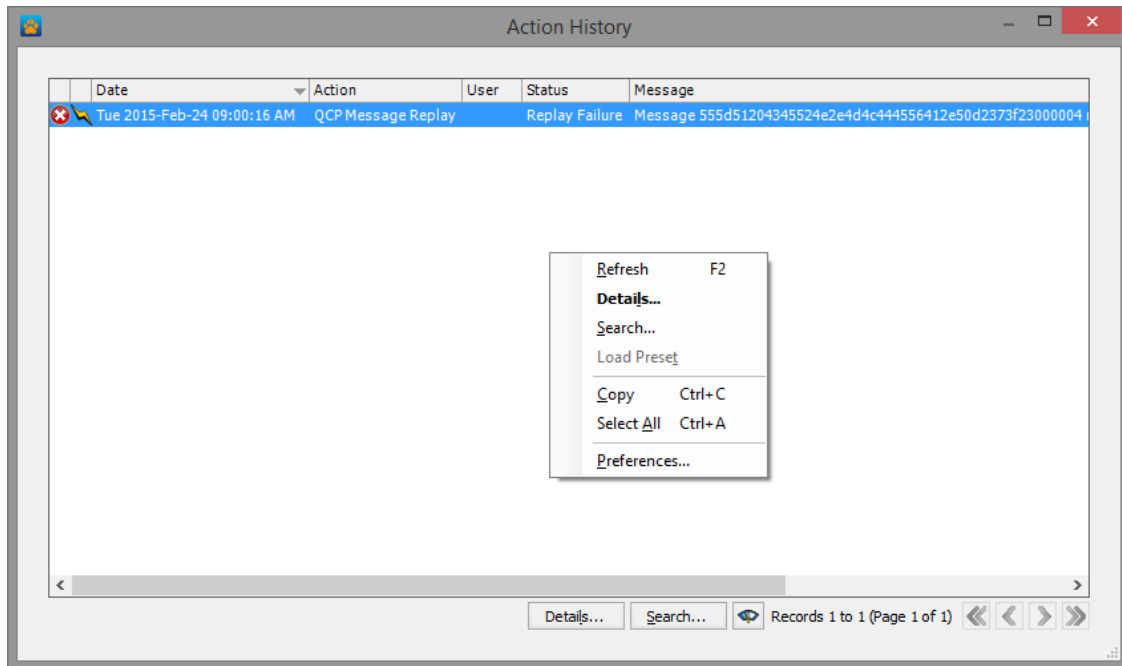


Figure 820: Action History

A View Management

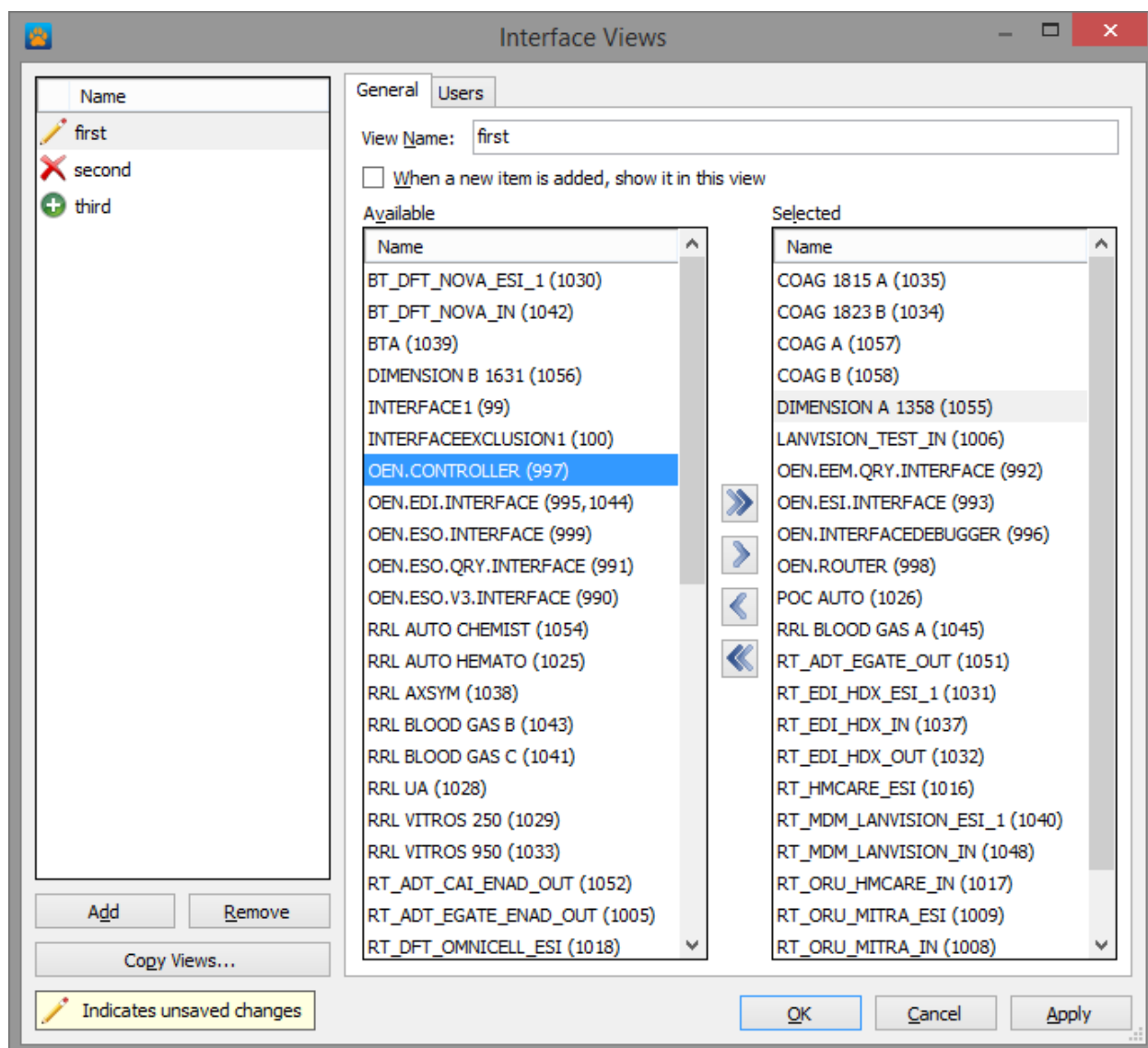
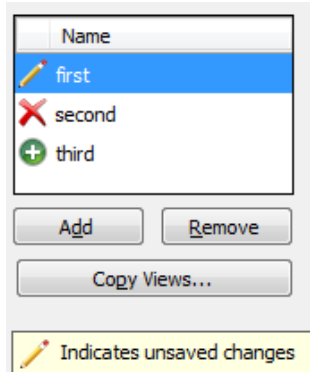


Figure 821: View Management

The view management dialog is composed of two sections - a section to manage the list of views and a section to manage the details for the selected view.

A.1. View List



The view list portion of the dialog provides a list of current views and allows a user to perform the following:

- [Managing views](#)
 - Update a view
 - Add a view
 - Remove a view
- [Copy views](#)

Figure 822: View List

A.1.1 Managing Views

The basic management operations for views include updating, adding, and removing a view. These options are saved locally and persisted as a batch upon clicking the *OK* or *Apply* button.

Update a View

To update a view, simply select an existing view in the view list and make changes in the [view details](#) section of the dialog. Once a change has been made, an icon will appear next to the view in the list indicating unsaved changes are present.

Adding a View

Adding a view is done by clicking the *Add* button, selecting the *Add* item in the context menu, or hitting the *Insert* key on the keyboard. A new view will appear with an add icon in the list, and it will be immediately selected for modification. Once this occurs, simply update the view's details in the same manner as modifying an existing view.

Removing a View

Removing a view is done by clicking the *Remove* button, selecting the *Remove* item in the context menu, or hitting the *Delete* key on the keyboard. If a non-persisted, recently-added view is selected when *Remove* is clicked, it will immediately disappear from the list. Otherwise, the view will display a deleted icon and remain until changes are persisted.

A.1.2 Copying Views

Sometimes there may be an occasion to copy views from one domain to another. The *Copy Views* button accomplishes this task. Once clicked, it launches the copy views dialog.

Copy Views Dialog

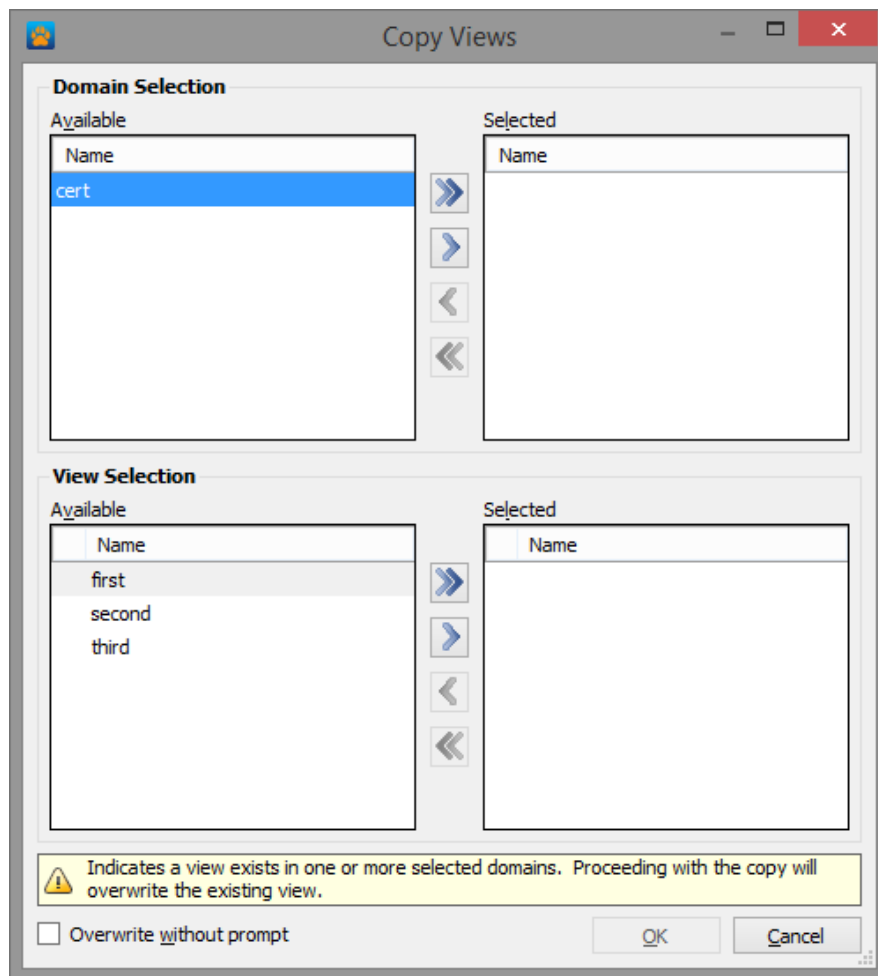


Figure 823: View Copy Dialog

This dialog allows a user to select the target views and domains for copy. As domains are selected, views which have name conflicts in the selected domain will display warning icons ([Figure 824](#)).

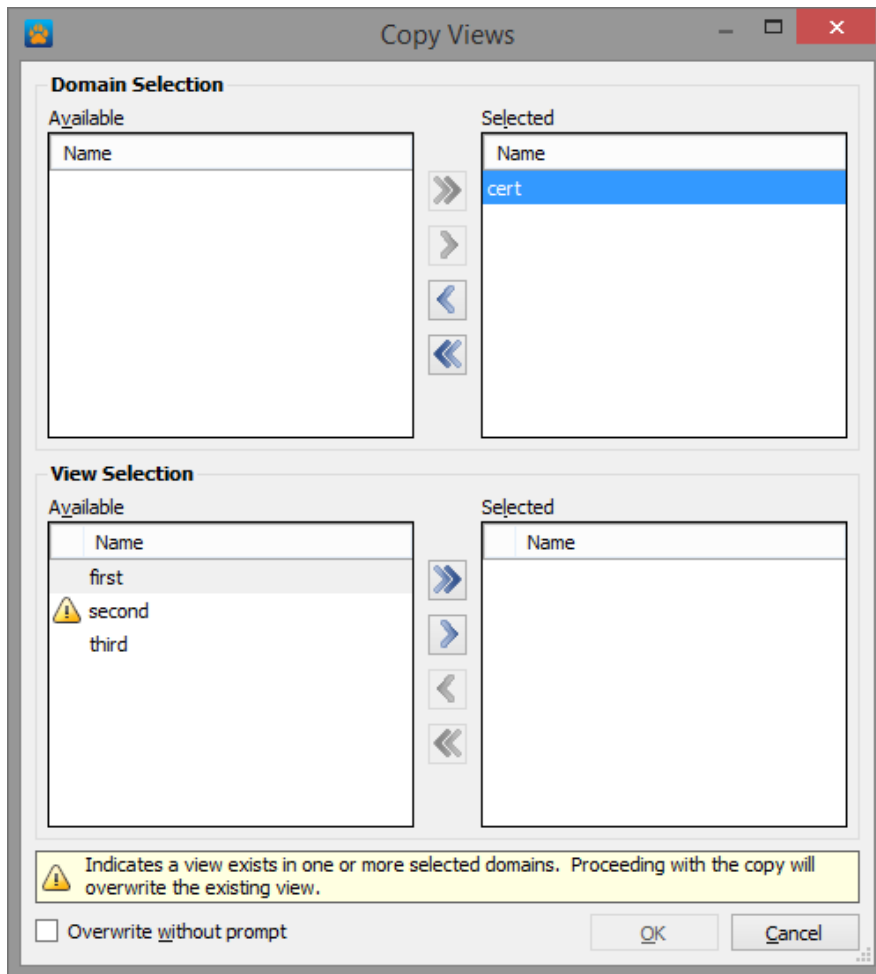


Figure 824: View Copy Dialog With Conflicts

There are two options to deal with conflicts:

- Overwrite any views in the selected domains with name conflicts
- Resolve the conflicts within another dialog

If the overwrite option is checked, clicking OK will issue the copy request and close the copy dialog. If it is not checked, and one or more selected views have conflicts, the resolve conflicts dialog will appear.

Resolve Conflicts Dialog

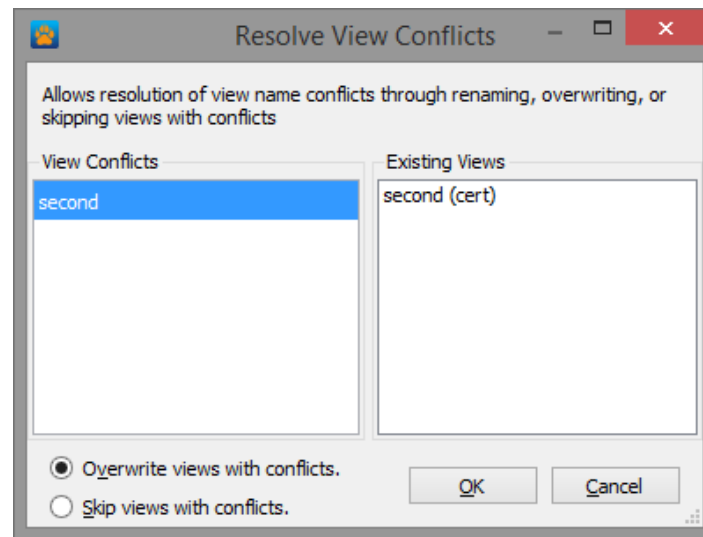


Figure 825: Resolve View Conflicts Dialog

This dialog displays the views with conflicts and provides several options for resolving view conflicts:

- Overwrite views with conflicts
- Skip views with conflicts
- Rename views to avoid conflicts

Overwrite works similarly to the overwrite option in the main copy dialog. It will replace the view on a target domain with the view which was selected for copy.

Skip is a little different - it will modify the copy request such that only non-conflicting views are copied rather than the complete list of selected views.

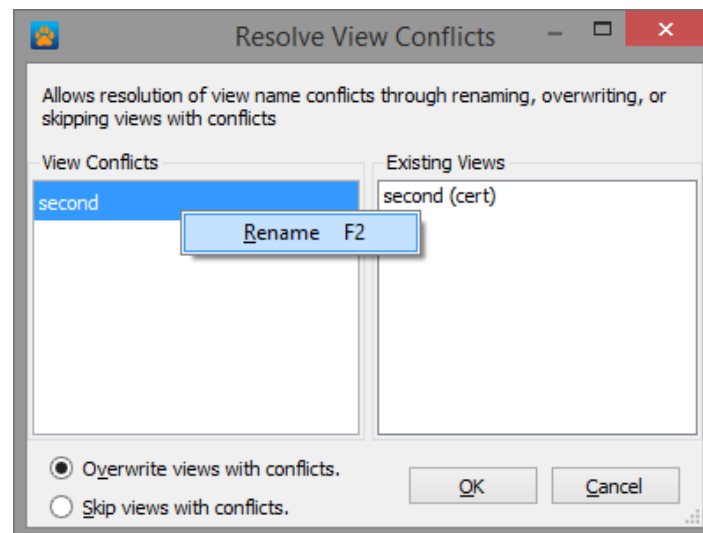


Figure 826: Renaming a Conflict View

The rename function will alter the name of the view sent in the copy request. This can be initiated by clicking the *Rename* context menu item or hitting *F2* on the keyboard. Doing so will select the view's name and allow the user to type in the new name directly.

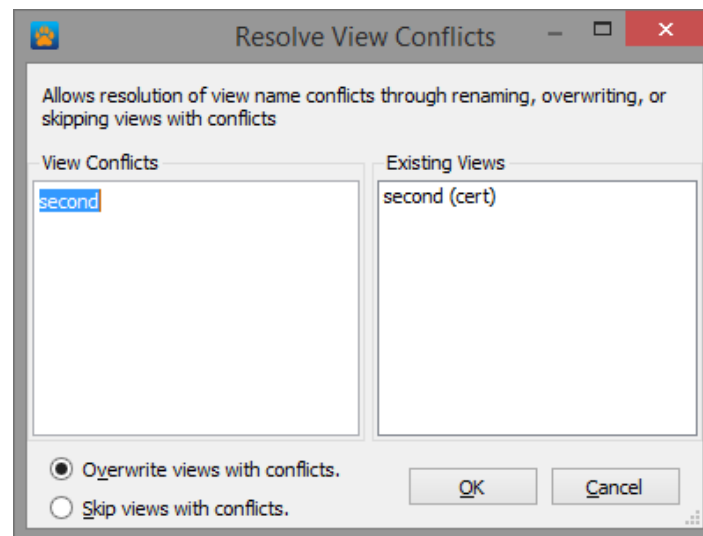


Figure 827: Editing a View Name

To aid in selecting a new view name which does not conflict with views on the target domains, a list of existing views is displayed on the right side of the resolve view conflicts dialog along with the domains on which that name resides.



View renames do not persist to the current domain.

The rename option in the Resolve View Conflicts dialog only modifies the name of the view which ends up on the target domains. Renaming a view on the current domain must be done from the main view management dialog.

Clicking the OK button will close both the resolve view conflicts and the copy views dialogs and issue the copy request.

A.2. View Details

The view detail portion of the dialog provides General and Users tabs which allow users to define the behavior and accessibility of a view.

A.2.1 General Tab

GeneralUsers

View Name: first

☐ When a new item is added, show it in this view

Available

Name
RRL VITROS 950 (1033)
RT_ADT_CAI_ENAD_OUT (10...
RT_ADT_EGATE_ENAD_OUT (...)
RT_ADT_EGATE_OUT (1051)
RT_DFT_OMNICELL_ESI (1018)
RT_DFT_OMNICELL_IN (1053)
RT_EDI_HDX_ESI_1 (1031)
RT_HMCARE_ESI (1016)
RT_MDM_LANVISION_ESI_1 (...)
RT_MDM_LANVISION_IN (1048)
RT_ORM_ORU_SFTMED_ESI (...)
RT_ORM_ORU_SFTMED_IN (...)
RT_ORU_HMCARE_IN (1017)
RT_ORU_MITRA_ESI (1009)
RT_ORU_MITRA_IN (1008)
UP_MDM_LANVISION_IN (1059)

Selected

Name
UP_MDM_LANVISION_ESI_3 (...)
UP_MDM_LANVISION_ESI_2 (...)
UP_MDM_LANVISION_ESI_1 (...)
UP_HL7_APHIST_ESI_3 (1011)
UP_HL7_APHIST_ESI_2 (1012)
UP_HL7_APHIST_ESI_1 (1046)
STL IMM 2000 (1036)
STL BDN PROSPEC (1007)
RT_UI_EGATE_OUT2 (1020)
RT_UI_EGATE_OUT (1047)
RT_RLI_ARUP_OUT (1013)
RT_RLI_ARUP_IN (1015)
RT_RLI_ARUP_ESI (1014)
RT_PENDRES_HNAM_IN (1023)
RT_PENDRES_ESI (1022)
RT_ORU_TALKTECH_IN (1021)

Figure 828: General Tab

Within the General tab, users can update the name of the view, determine if the view should include new items by default, and select which of the current items should be included or excluded from the view.



View names must be unique.

To avoid confusion when selecting views within Panther controls, names must be unique. View names are case-insensitive.

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A.2.2 Users Tab

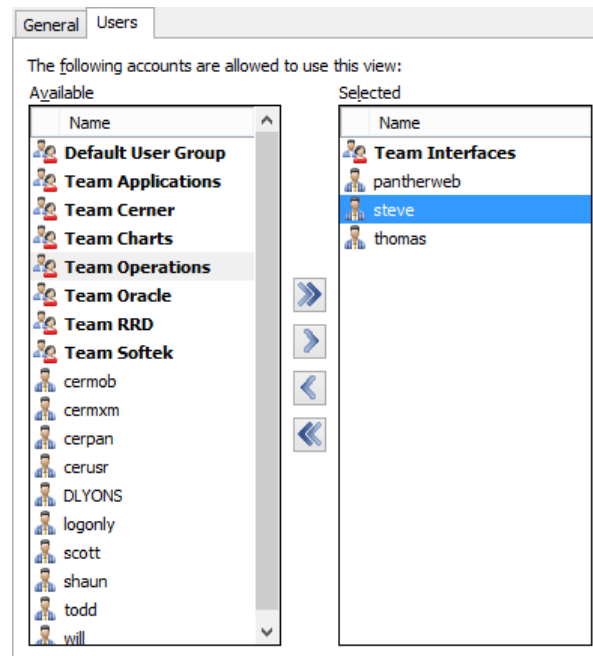


Figure 829: Users Tab

The users tab allows a user to define which Panther users and groups have access to the view. Providing access to new users is as simple as granting access to a group which includes users by default.

B Oracle® Account Creation

Panther utilizes connections to Oracle® for monitoring several aspects of a Millennium system. These include general Oracle® health items such as remaining tablespace and lock contention to Millennium components which utilize Oracle® such as Open Engine, Ops Jobs, RRD, Chart, and XR. It is recommended to set up a dedicated user account on the Oracle® system for Panther to use for this purpose.

Run the following commands with an account that has DBA privileges:

```
CREATE USER oracle_read IDENTIFIED BY oracle_read DEFAULT TABLESPACE misc
GRANT CREATE SESSION TO oracle_read
GRANT SELECT ANY DICTIONARY TO oracle_read
GRANT SELECT ANY TABLE TO oracle_read
```

The username, password, and tablespace listed above are defaults and can be substituted with other values as needed.

Once an account is created, it can be added to Panther using the [Foreign System Setup](#) control.

C Alerts Trigger Creation

C.1. Account Setup

These steps must be performed as a user with SYSDBA privileges.

In order to place the trigger within a particular schema, it must be created by the user who owns said schema. Before doing that, the user needs a certain set of privileges in the database. These privileges can be revoked once the trigger creation process is completed (see [Clean-up](#)).

Modify the oracle_read Oracle® account using the instructions below:

1. GRANT CREATE TABLE TO oracle_read
 2. GRANT DROP ANY TABLE TO oracle_read
 3. GRANT CREATE SEQUENCE TO oracle_read
 4. GRANT CREATE TRIGGER TO oracle_read
 5. GRANT ADMINISTER DATABASE TRIGGER TO oracle_read
 6. GRANT SELECT ON SYS.V_\$SESSION TO oracle_read
 7. ALTER USER oracle_read QUOTA UNLIMITED ON MISC
-

C.2. Trigger Creation

These steps must be performed as the user whose schema the trigger will reside in. In this example, the user is oracle_read.

The following steps will perform all the operations required to create the alerts trigger and its dependent objects in the database.

Check for trigger existence

```
SELECT
  OWNER
FROM
  DBA_TRIGGERS
WHERE
  TRIGGER_NAME = 'AUD_ORA_ERROR'
  AND OWNER = 'ORACLE_READ'
```

Disable the trigger if it exists

If the trigger already exists, it will prevent some of the operations performed in later steps of this document. It must be disabled to continue.

```
ALTER TRIGGER AUD_ORA_ERROR DISABLE
```

Check for sequence existence

```
SELECT
  SEQUENCE_OWNER
FROM
  DBA_SEQUENCES
WHERE
  SEQUENCE_NAME = 'AUD_ORA_ERROR_SEQ'
  AND SEQUENCE_OWNER = 'ORACLE_READ'
```

Create sequence if necessary

The table used to store alerts information uses an auto-numbering column to identify its rows. Unlike a database like SQL Server, however; there is no concept of an auto-incrementing identity column.

Instead, sequences are used. When a row is inserted, the calling statement must obtain the next value from the sequence and use it for the identity value.

```
CREATE SEQUENCE
  AUD_ORA_ERROR_SEQ
INCREMENT BY 1
MINVALUE 1
MAXVALUE 1000000000
CYCLE
CACHE 2000
```

Check for table existence

```
SELECT
  OWNER
FROM
  DBA_ALL_TABLES
WHERE
  TABLE_NAME = 'AUD_ORA_ERROR_TB'
  AND OWNER = 'ORACLE_READ'
```

Drop the table

If the table already exists, it must be dropped before re-creating it. This step is necessary to ensure that the table's schema matches the version of the trigger created by this document.

```
DROP TABLE AUD_ORA_ERROR_TB
```

Create table

The table can be placed in any available tablespace. Misc is used below as a default tablespace.

```
CREATE TABLE AUD_ORA_ERROR_TB
(
  ID          NUMBER,
  error       NUMBER,
  tstamp     TIMESTAMP,
  SID        NUMBER,
  serial     NUMBER,
  machine    VARCHAR2(64),
  process    VARCHAR2(12),
  program    VARCHAR2(48),
  orauser    VARCHAR2(30),
  osuser     VARCHAR2(30),
  error_msg  VARCHAR2(4000),
  sql_text   CLOB
)
TABLESPACE misc
STORAGE (INITIAL 4M NEXT 4M MAXEXTENTS UNLIMITED)
```

Create trigger

To capture Oracle® alerts, a trigger is created which fires after SERVERERROR events. This trigger pulls information about the error, the SQL text, and the session under which it occurred. It then places this information into the table created in a prior step so that it can be analyzed later.

Data older than 24 hours is automatically purged when the trigger executes.

Certain error numbers (seen in the WHEN clause) are filtered at the trigger level rather than the Panther sensor. These errors have demonstrated exceptionally high volume and are excluded to prevent I/O issues from excess writes to the alerts table.

```

CREATE OR REPLACE TRIGGER
  AUD_ORA_ERROR
AFTER SERVERERROR ON DATABASE
WHEN (ora_server_error (1) NOT IN
      (00001, 00054, 01400, 01401, 01722, 01841, 01873, 06550, 20100, 25228, 25254))

DECLARE
  v_sql_stmt          CLOB;
  v_sql_text          ora_name_list_t;
  v_tmp_counter       PLS_INTEGER;
  v_tmp_sql_chunks    PLS_INTEGER;
  v_sid               NUMBER;
  v_serial            NUMBER;
  v_machine            VARCHAR2(64);
  v_process           VARCHAR2(12);
  v_program           VARCHAR2(48);
  v_osuser            VARCHAR2(30);
BEGIN
  BEGIN
    v_tmp_sql_chunks := ora_sql_txt (v_sql_text);

    IF v_tmp_sql_chunks > 0 THEN
      FOR v_tmp_counter IN 1..v_tmp_sql_chunks LOOP
        v_sql_stmt := v_sql_stmt || v_sql_text (v_tmp_counter);
      END LOOP;
    ELSE
      v_sql_stmt := 'SQL Not Available';
    END IF;
  EXCEPTION
    WHEN OTHERS THEN
      v_sql_stmt := 'SQL Not Available';
  END;

  DELETE FROM
    aud_ora_error_tb
  WHERE
    tstamp <=  SYS_EXTRACT_UTC (systimestamp)
               - TO_DSINTERVAL ('1 00:00:00');

  SELECT
    SID,
    serial#,
    NVL (terminal, machine),
    process,
    program,
    osuser
  INTO
    v_sid,

```



```

        v_serial,
        v_machine,
        v_process,
        v_program,
        v_osuser
FROM
    v$session
WHERE
    audsid = userenv ('sessionid');

INSERT INTO aud_ora_error_tb (
    ID,
    error,
    tstamp,
    SID,
    serial,
    machine,
    process,
    program,
    orauser,
    osuser,
    error_msg,
    sql_text)
VALUES (
    aud_ora_error_seq.nextval,
    ora_server_error (1),
    SYS_EXTRACT_UTC (sysimestamp),
    v_sid,
    v_serial,
    v_machine,
    v_process,
    v_program,
    ora_login_user,
    v_osuser,
    ora_server_error_msg (1),
    v_sql_stmt);
END;
/

```

Enable the trigger

Now that the trigger creation steps are complete, it can be re-enabled.

```
ALTER TRIGGER AUD_ORA_ERROR ENABLE
```

C.3. Clean-up

These steps must be performed as a user with SYSDBA privileges.

Revoke privileges from the user

Perform the following steps to remove the special privileges granted earlier to the user:

1. REVOKE CREATE TABLE FROM oracle_read
2. REVOKE DROP ANY TABLE FROM oracle_read

3. REVOKE CREATE SEQUENCE FROM oracle_read
4. REVOKE CREATE TRIGGER FROM oracle_read
5. REVOKE ADMINISTER DATABASE TRIGGER FROM oracle_read

Check for duplicates in other schema

In case these steps have been run against a different schema in the past, it is a good idea to check for the existence of the trigger, table, and sequence within other schemas. Any duplicates found should be removed.

First, check for duplicate triggers. It has a dependency on the table, so it must be removed first.

```
SELECT
    OWNER
FROM
    DBA_TRIGGERS
WHERE
    TRIGGER_NAME = 'AUD_ORA_ERROR'
    AND OWNER <> 'ORACLE_READ'
```

Next, check for duplicate tables. It has a dependency on the sequence.

```
SELECT
    OWNER
FROM
    DBA_ALL_TABLES
WHERE
    TABLE_NAME = 'AUD_ORA_ERROR_TB'
    AND OWNER <> 'ORACLE_READ'
```

Finally, check for duplicate sequences.

```
SELECT
    SEQUENCE_OWNER
FROM
    DBA_SEQUENCES
WHERE
    SEQUENCE_NAME = 'AUD_ORA_ERROR_SEQ'
    AND SEQUENCE_OWNER <> 'ORACLE_READ'
```

D Reply Queue Creation

By default, when monitoring the IBM MQ system, Panther uses temporary dynamic queues. Occasionally, this can result in messages appearing in the dead-letter queue with a reply queue of the format AMQ.*. This is most often a result of the MQ system replying to a request after Panther's connection has been interrupted and its temporary queue removed.

To mitigate this issue, Panther now has the ability to use a permanent reply queue when performing MQ queries. The default reply queue name used by Panther is MQSERIES.ADMIN.REPLY. When configured to use a permanent reply queue, Panther will automatically create the queue on startup. Should it be preferable to define the queue beforehand, queue creation steps are given below:

Run the following command from a RUNMQSC session:

```
DEFINE QLOCAL (MQSERIES.ADMIN.REPLY) +  
BOQNAME ( ' ' ) +  
GET (ENABLED) +  
MAXDEPTH (5000) +  
MAXMSGL (4194304) +  
PUT (ENABLED)
```

E Rules Engine Columns

The [Rules Engine control](#) executes rules against a data set composed of data from several charge-related tables in the Millennium® database. The shape of the data is as follows:

Column Name	Scope	Data Type	Notes
ORGANIZATION_NAME	Group	String	
COST_CENTER	Group	String	
FIN_NBR	Group	String	Group Identifier
ENCOUNTER_TYPE	Group	String	
DISCHARGED	Group	Number	
DISCHARGE_DT_TM	Group	Date	
ACTIVITY_TYPE	Record	String	Department Identifier
CHARGE_ITEM_ID	Record	Number	Record Identifier
CHARGE_DESCRIPTION	Record	String	
SERVICE_DT_TM	Record	Date	Service Date Identifier
ITEM_QUANTITY	Record	Number	
ITEM_PRICE	Record	Number	
ITEM_EXTENDED_PRICE	Record	Number	Price Identifier
CDM	Record	String	
CPT	Record	String	
HCPCS	Record	String	
NDC	Record	String	
QCF	Record	Number	
PROCESS_FLG	Record	Number	
CHARGE_TYPE	Record	String	
BILL_ITEM_ID	Record	Number	
DEFAULT_BILL_ITEM_ID	Record	Number	
ALPHA_BILL_ITEM_ID	Record	Number	
REVENUE_CODE	Record	Number	
ADMIT_TYPE	Group	String	
FINANCIAL_CLASS	Group	String	
GENDER	Group	String	
MAX_CHARGE_DATE	Record	Date	Represents the latest date allowed for a charge on the encounter, calculated by adding the standard delay to the discharge date.
DISCHARGE_DT	Group	Date	
SERVICE_DT	Record	Date	

Table 207: Rules Engine Columns (1 of 2)

Column Name	Scope	Data Type	Notes
ENCNTR_FINANCIAL_CLASS	Group	String	
LOCATION	Group	String	
FACILITY	Group	String	
BUILDING	Group	String	
NURSE_UNIT	Group	String	
ROOM	Group	String	
BED	Group	String	
ENCNTR_ADMIT_TYPE	Group	String	
ENCNTR_MEDICAL_SERVICE	Group	String	
ENCOUNTER_TYPE_CLASS	Group	String	
TIER_GROUP	Group	String	
MEDICAL_SERVICE	Group	String	
DEPARTMENT	Group	String	
SECTION	Group	String	
SUBSECTION	Group	String	
LEVEL5	Group	String	
ORD_LOC	Group	String	
PERF_LOC	Group	String	
HEALTH_PLAN	Group	String	
ENCNTR_STATUS	Group	String	

Table 208: Rules Engine Columns (2 of 2)

F Pharmacy Integrity Column Definitions

The Pharmacy Integrity control does a lot of calculations. Here are explanations for the different columns you may see in the control, grouped by the grid or dialog you may see them on.

F.1. Pharmacy Summary

Drug Class - The DEA Schedule of Classes of Drugs. Only those classes which have drugs with discrepancies will be shown.

Charge Discrepancy Count - The number of drugs within that Drug Class which have charge discrepancies.

Charge Discrepancy - The total Charge Discrepancy of the drugs in that Drug Class.

Documentation Discrepancies - The number of drugs within that Drug Class which have documentation discrepancies.

Shrinkage Count - The number of drugs within that Drug Class which have shrinkage.

Shrinkage Cost - The Unaccounted Cost plus the Wasted Cost.

F.2. Charge Discrepancy Summary

(Has Administration(s) from Ignored Funding Sources) - Whether the mnemonic has any administrations within the search range with entries in the IMMUNIZATION_MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Encounters with Discrepancies - The number of encounters for that drug which have charge discrepancies.

Expected Charges - The control counts the number of product dispenses for the following:

- non-offset dispenses associated with an administration (where the administration is not marked as being from an ignored funding source)
- non-offset dispenses with a charge indicator of 1
- any other non-offset, non-return dispense table entries with a charge indicator of 1, that are not associated with administrations from ignored funding sources.

However, if there are no product dispenses on a given dispense, the control uses the number of order ingredients in the first action sequence.

The control subtracts any returns with no residual doses, likewise counting the number of product dispenses on a return or the order ingredients.

Actual Charges - The Actual Charges value is calculated by counting the number of CHARGE records associated with an order which satisfy the following conditions:

- has an OFFSET_CHARGE.ITEM.ID of 0
- the CHARGE is active
- has a PROCESS.FLG that is not 998
- has a CHARGE.TYPE.CD that is not "NO CHARGE", "WORKLOADONLY", or "PHARMNC"

Expected Charge Total - Sums the product dispense history prices for the following:

- non-offset dispenses associated with an administration (where the administration is not marked as being from an ignored funding source)
- non-offset dispenses with a charge indicator of 1
- any other non-offset, non-return dispense table entries with a charge indicator of 1, that are not associated with administrations from ignored funding sources.

If the product dispense history does not have a price, then we sum the EVENT_TOTAL_PRICE. If that is 0 or not present, we sum the OD_ORDER_PRICE_VALUE.

Then we subtract the return price. We find the return price by summing the product dispense history prices of any return-type entries in the dispense table, that are not offset and have a charge indicator of 1.

If the product dispense history does not have a price for the return, then we sum the EVENT_TOTAL_PRICE or the OD_ORDER_PRICE_VALUE, whichever is found first.

Actual Charge Total - Sums the ITEM_EXTENDED_PRICE for the CHARGE records that are not offset.

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

F.3. Charge Details

FIN - Financial number for an encounter.

(Has Administration(s) from Ignored Funding Sources) - Whether the encounter has any administrations within the search range with entries in the IMMUNIZATION_MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Expected Charges - The control counts the number of product dispenses for the following:

- non-offset dispenses associated with an administration (where the administration is not marked as being from an ignored funding source)
- non-offset dispenses with a charge indicator of 1
- any other non-offset, non-return dispense table entries with a charge indicator of 1, that are not associated with administrations from ignored funding sources.

However, if there are no product dispenses on a given dispense, the control uses the number of order ingredients in the first action sequence.

The control subtracts any returns with no residual doses, likewise counting the number of product dispenses on a return or the order ingredients.

Actual Charges - The Actual Charges value is calculated by counting the number of CHARGE records associated with an order which satisfy the following conditions:

- has an OFFSET_CHARGE_ITEM_ID of 0
- the CHARGE is active
- has a PROCESS_FLG that is not 998
- has a CHARGE_TYPE_CD that is not "NO CHARGE", "WORKLOADONLY", or "PHARMNC"

Expected Charge Total - Sums the product dispense history prices for the following:

- non-offset dispenses associated with an administration (where the administration is not marked as being from an ignored funding source)
- non-offset dispenses with a charge indicator of 1

- any other non-offset, non-return dispense table entries with a charge indicator of 1, that are not associated with administrations from ignored funding sources.

If the product dispense history does not have a price, then we sum the EVENT_TOTAL_PRICE. If that is 0 or not present, we sum the OD_ORDER_PRICE_VALUE.

Then we subtract the return price. We find the return price by summing the product dispense history prices of any return-type entries in the dispense table, that are not offset and have a charge indicator of 1.

If the product dispense history does not have a price for the return, then we sum the EVENT_TOTAL_PRICE or the OD_ORDER_PRICE_VALUE, whichever is found first.

Actual Charge Total - Sums the ITEM_EXTENDED_PRICE for the CHARGE records that are not offset.

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

F.4. Encounter Details

Expected Charges - The control counts the number of product dispenses for the following:

- non-offset dispenses associated with an administration (where the administration is not marked as being from an ignored funding source)
- non-offset dispenses with a charge indicator of 1
- any other non-offset, non-return dispense table entries with a charge indicator of 1, that are not associated with administrations from ignored funding sources.

However, if there are no product dispenses on a given dispense, the control uses the number of order ingredients in the first action sequence.

The control subtracts any returns with no residual doses, likewise counting the number of product dispenses on a return or the order ingredients.

Actual Charges - The Actual Charges value is calculated by counting the number of CHARGE records associated with an order which satisfy the following conditions:

- has an OFFSET_CHARGE_ITEM_ID of 0
- the CHARGE is active
- has a PROCESS_FLG that is not 998
- has a CHARGE_TYPE_CD that is not "NO CHARGE", "WORKLOADONLY", or "PHARMNC"

Expected Charge Total - Sums the product dispense history prices for the following:

- non-offset dispenses associated with an administration (where the administration is not marked as being from an ignored funding source)
- non-offset dispenses with a charge indicator of 1
- any other non-offset, non-return dispense table entries with a charge indicator of 1, that are not associated with administrations from ignored funding sources.

If the product dispense history does not have a price, then we sum the EVENT_TOTAL_PRICE. If that is 0 or not present, we sum the OD_ORDER_PRICE_VALUE.

Then we subtract the return price. We find the return price by summing the product dispense history prices of any return-type entries in the dispense table, that are not offset and have a charge indicator of 1.

If the product dispense history does not have a price for the return, then we sum the EVENT_TOTAL_PRICE or the OD_ORDER_PRICE_VALUE, whichever is found first.

Actual Charge Total - Sums the ITEM_EXTENDED_PRICE for the CHARGE records that are not offset.

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

Dispense Cost - The cost of the drugs dispensed, less the cost of the drugs returned.

Dispense Price - The price that might have been charged for the drugs dispensed, less the price that might have been charged for the drugs returned.

Dispensed - The quantity of drug dispensed, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Dispense Event Id" list.

Returned - The quantity of drug returned, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Return Event Id" list.

Net Dispensed - The Dispensed quantity less the Returned quantity.

Administered - The quantity of drugs administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Administered on Dispense - The quantity of drugs dispensed where the charge indicator is 1, or the Order's Charge Point is Charge On Dispense.

Total Administered - The sum of the Administered quantity of drugs and the Administered on Dispense quantity of drugs.

Not Administered - The quantity of drugs recorded as not administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Not Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Unaccounted - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, dispensed - (administered + notAdministered + (administeredOnDispense - notAdministeredOnDispense)).

If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml dispensed and order #2 with 5mg/20ml administered has an unaccounted quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.)

Administered and Not Administered may or may not include values for ChargeOnDispense orders depending on configuration.

Unaccounted Cost - If the previously calculated Unaccounted Quantity, Net Dispensed Quantity, or Dispense Cost is 0, the cost is 0. Otherwise, it takes the strength of the net dispensed quantity, or the volume if there is no strength, and the matching unit of strength/volume from the unaccounted quantity. It then divides that amount by the dispensed amount, and multiplies by the dispense cost.

Invalid - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, (administered + notAdministered + (administeredOnDispense - notAdministeredOnDispense)) - dispensed

Parenthesis matter, as negatives are not allowed in these quantity calculations.

If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml administered and order #2 with 5mg/20ml dispensed has an invalid quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.)

Administered and Not Administered may or may not include values for ChargeOnDispense orders depending on configuration.

Order ID - The Millennium Order ID.

Mnemonic - The order mnemonic.

Original Order Date - The date the order was placed.

Contributor - The application that originated the order.

Charge Point - If there is no associated dispense or PRN_IND for the order, it is NotDefined. If the PRN_IND is 1, it is the value of the dispense's CHARGE_PT_PRN_IND. If the PRN_IND is not 1, it is the value of the dispense's CHARGE_PT_SCH_IND.

Charge Count - The number of non-offset charges associated with the order.

Charge Total - Sums the ITEM_EXTENDED_PRICE for the non-offset charges.

Anesthesia Dispense - Whether the drug administered is marked as being anesthesia.

(Has Ignored Funding Source) - Whether the drug administered has a funding source (pulled from the IMMUNIZATION_MODIFIER table) on the list of ignored funding sources. Panther Support can help configure this list.

Dispense Count - Count of the DISPENSE_HX records for an order with a DISP_EVENT_TYPE_CD configured in the "Dispense Event Id" list.

Dispensed - The quantity of drug dispensed, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Dispense Event Id" list.

Administered on Dispense - The quantity of drugs dispensed where the charge indicator is 1, or the Order's Charge Point is Charge On Dispense.

Administration Event Count - The number of MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Administered - The quantity of drugs administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Not Administered Event Count - The number of MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Not Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Not Administered - The quantity of drugs recorded as not administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Not Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Returned Event Count - Count of the DISPENSE_HX records for an order with a DISP_EVENT_TYPE_CD configured in the "Return Event Id" list.

Returned - The quantity of drug returned, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Return Event Id" list.

Not Administered On Dispense - The quantity of drugs in the order's DispenseHistory, where the DISP_EVENT_TYPE_CD is in the defined list of return event types, and either CHARGE_IND == 1, or the order is ChargeOnDispense.

F.5. Order Details

Process Flag - The charge table's process flag. (Examples: 100 - the charge is sent to Millennium's Revenue Cycle application, and 1 is a suspended charge.)

Charge Description - Description of the medication charge.

Price - The price of a single dose of this medication.

Posted Date - The date the charge was entered in the charge table.

Service Date - The date of service for the charge.

HCPCS - Healthcare Common Procedure Coding System, if defined for this medication.

Dispense History ID - DISPENSE_HX.DISPENSE_HX_ID

Dispense Type - Whether the record is for a Dispense or a Return.

Dispense Event Type - DISPENSE_HX.DISP_EVENT_TYPE_CD

Date - DISPENSE_HX.DISPENSE_DT_TM

Quantity - The quantity of drug dispensed, calculated from the product dispenses associated with the DISPENSE_HX record.

Location - The display value corresponding with DISPENSE_HX.DISP_LOC_CD.

Source - The display value corresponding with DISPENSE_HX.DISP_SRC_CD.

Dispensed By - The user who triggered the dispense.

Mnemonic - The order mnemonic.

Sequence - The sequence of the products in the dispense.

NDC - National Drug Code

Inner NDC - National Drug Code of the inner package.

Pyxis ID - The pharmacy robot ID for the NDC.

Med Admin Event ID - MED_ADMIN_EVENT.MED_ADMIN_EVENT_ID

Administration Type - Whether the administration record is Administered or Not Administered.

Begin Date - CLINICAL_EVENT.EVENT_START_DT_TM

End Date - CLINICAL_EVENT.EVENT_END_DT_TM

Event Tag - CLINICAL_EVENT.EVENT_TAG

Quantity - The quantity that was administered or not administered.

Nurse Unit - The display value associated with MED_ADMIN_EVENT.NURSE_UNIT_CD.

Administered By - The NAME_FULL_FORMATTED associated with CLINICAL_EVENT.PERFORMED_PRSNL_ID.

(Has Ignored Funding Source) - Whether the drug administered has a funding source (pulled from the IMMUNIZATION_MODIFIER table) on the list of ignored funding sources. Panther Support can help configure this list.

F.6. Documentation Discrepancy Summary

Mnemonic - The Millennium order mnemonic.

(Has Administration(s) from Ignored Funding Sources) - Whether the mnemonic has any administrations within the search range with entries in the IMMUNIZATION_MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Drug Class - The FDA drug classification schedules organize drugs into groups based on risk of abuse or harm.

Encounters with Unaccounted for Disposes - The number of encounters for each drug which have been determined to have an amount of drug dispensed that is not accounted for by return, administration, or wastage.

Encounters with Invalid Administrations - The number of encounters for each drug which have been determined to have a greater quantity administered than dispensed.

Encounters with Undocumented Returns - The number of encounters for each drug which have been determined to have a return with no matching record of Not Administered.

Encounters with Calculation Issues - The number of encounters for each drug where we have been unable to perform our calculations. A common cause for this is if there is an inconsistency within the encounter of the unit the administrations are recorded in.

F.7. Encounters with Unaccounted

FIN - Financial number for an encounter.

(Has Administration(s) from Ignored Funding Sources) - Whether the encounter has any administrations within the search range with entries in the IMMUNIZATION_MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Dispensed - The quantity of drug dispensed, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Dispense Event Id" list.

Returned - The quantity of drug returned, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Return Event Id" list.

Net Dispensed - The quantity of drug dispensed, less the quantity of drug returned.

Administered - The quantity of drugs administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Administered on Dispense - The quantity of drugs dispensed where the charge indicator is 1, or the Order's Charge Point is Charge On Dispense.

Total Administered - The sum of the Administered quantity of drugs and the Administered on Dispense quantity of drugs.

Not Administered - The quantity of drugs recorded as not administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured “Not Administered Event Id” list, and don’t have a ResultStatusCd of 31 or an EventTag of “InError”.

Unaccounted - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, dispensed - (administered + notAdministered + (administeredOnDispense - notAdministeredOnDispense)).

If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml dispensed and order #2 with 5mg/20ml administered has an unaccounted quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.)

Administered and NotAdministered may or may not include values for ChargeOnDispense orders depending on configuration.

Unaccounted Cost - Looks at the previously calculated unaccounted quantity. If it, the net dispensed quantities, or the dispense cost is 0, the cost is 0. Otherwise, it takes the strength of the net dispensed quantity, or the volume if there is no strength, and the matching unit of strength/volume from the unaccounted quantity.

It then divides that amount by the dispensed amount, and multiplies by the dispense cost.

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

F.8. Encounters with Invalid Administrations

FIN - Financial number for an encounter.

(Has Administration(s) from Ignored Funding Sources) - Whether the encounter has any administrations within the search range with entries in the IMMUNIZATION.MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Dispensed - The quantity of drug dispensed, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the “Dispense Event Id” list.

Returned - The quantity of drug returned, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the “Return Event Id” list.

Net Dispensed - The quantity of drug dispensed, less the quantity of drug returned.

Administered - The quantity of drugs administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured “Administered Event Id” list, and don’t have a ResultStatusCd of 31 or an EventTag of “InError”.

Administered on Dispense - The quantity of drugs dispensed where the charge indicator is 1, or the Order’s Charge Point is Charge On Dispense.

Total Administered - The sum of the Administered quantity of drugs and the Administered on Dispense quantity of drugs.

Not Administered - The quantity of drugs recorded as not administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured “Not Administered Event Id” list, and don’t have a ResultStatusCd of 31 or an EventTag of “InError”.

Invalid - The quantity of drugs Administered less the quantity Dispensed.

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

F.9. Encounters with Undocumented Returns

FIN - Financial number for an encounter.

(Has Administration(s) from Ignored Funding Sources) - Whether the encounter has any administrations within the search range with entries in the IMMUNIZATION.MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Dispensed - The quantity of drug dispensed, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Dispense Event Id" list.

Returned - The quantity of drug returned, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Return Event Id" list.

Net Dispensed - The quantity of drug dispensed, less the quantity of drug returned.

Administered - The quantity of drugs administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Administered on Dispense - The quantity of drugs dispensed where the charge indicator is 1, or the Order's Charge Point is Charge On Dispense.

Total Administered - The sum of the Administered quantity of drugs and the Administered on Dispense quantity of drugs.

Not Administered - The quantity of drugs recorded as not administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Not Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

F.10. Encounters with Calculation Issues

FIN - Financial number for an encounter.

(Has Administration(s) from Ignored Funding Sources) - Whether the encounter has any administrations within the search range with entries in the IMMUNIZATION.MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Dispensed - The quantity of drug dispensed, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Dispense Event Id" list.

Returned - The quantity of drug returned, calculated from the product dispenses associated with each DISPENSE_HX record for the encounter orders with a DISP_EVENT_TYPE_CD configured in the "Return Event Id" list.

Administered - The quantity of drugs administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Not Administered - The quantity of drugs recorded as not administered in MED_ADMIN_EVENT entries associated with the given order which have an EVENT_TYPE_CD on the configured "Not Administered Event Id" list, and don't have a ResultStatusCd of 31 or an EventTag of "InError".

Charge Discrepancy - The difference between the Expected Charge Total and the Actual Charge Total.

F.11. Shrinkage Summary

Mnemonic - The Millennium order mnemonic.

(Has Administration(s) from Ignored Funding Sources) - Whether the mnemonic has any administrations within the search range with entries in the IMMUNIZATION_MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Drug Class - The FDA drug classification schedules organize drugs into groups based on risk of abuse or harm.

Encounters with Shrinkage - The number of encounters for that drug which have a non-zero Shrinkage quantity.

Shrinkage Cost - The Unaccounted Cost plus the Wasted Cost.

Shrinkage - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, dispensed - (administeredOnDispense - notAdministeredOnDispense) - administered.

If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml dispensed and order #2 with 5mg/20ml administered has a shrinkage quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.)

Administered may or may not include values for ChargeOnDispense orders depending on configuration.

Wasted Cost - Looks at the previously calculated wasted quantity. If it, the net dispensed quantities, or the dispense cost is 0, the cost is 0. Otherwise, it takes the strength of the net dispensed quantity, or the volume if there is no strength, and the matching unit of strength/volume from the wasted quantity. It then divides that amount by the dispensed amount, and multiplies by the dispense cost.

Wasted - The Shrinkage quantity less the Unaccounted quantity.

Unaccounted Cost - Looks at the previously calculated unaccounted quantity. If it, the net dispensed quantities, or the dispense cost is 0, the cost is 0. Otherwise, it takes the strength of the net dispensed quantity, or the volume if there is no strength, and the matching unit of strength/volume from the unaccounted quantity. It then divides that amount by the dispensed amount, and multiplies by the dispense cost.

Unaccounted - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, dispensed - (administered + notAdministered + (administeredOnDispense - notAdministeredOnDispense)).

If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml dispensed and order #2 with 5mg/20ml administered has an unaccounted quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.)

Administered and NotAdministered may or may not include values for ChargeOnDispense orders depending on configuration.

F.12. Shrinkage Details

FIN - Financial number for an encounter.

(Has Administration(s) from Ignored Funding Sources) - Whether the encounter has any administrations within the search range with entries in the IMMUNIZATION_MODIFIER table with funding sources on the list of ignored funding sources. Panther Support can help configure this list.

Shrinkage Cost - The Unaccounted Cost plus the Wasted Cost.

Shrinkage - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, dispensed - (administeredOnDispense - notAdministeredOnDispense) - administered.

If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml dispensed and order #2 with 5mg/20ml administered has a shrinkage quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.) Administered may or may not include values for ChargeOnDispense orders depending on configuration.

Wasted Cost - Looks at the previously calculated wasted quantity. If it, the net dispensed quantities, or the dispense cost is 0, the cost is 0. Otherwise, it takes the strength of the net dispensed quantity, or the volume if there is no strength, and the matching unit of strength/volume from the wasted quantity. It then divides that amount by the dispensed amount, and multiplies by the dispense cost.

Wasted - The Shrinkage quantity less the Unaccounted quantity.

Unaccounted Cost - Looks at the previously calculated unaccounted quantity. If it, the net dispensed quantities, or the dispense cost is 0, the cost is 0. Otherwise, it takes the strength of the net dispensed quantity, or the volume if there is no strength, and the matching unit of strength/volume from the unaccounted quantity. It then divides that amount by the dispensed amount, and multiplies by the dispense cost.

Unaccounted - If there is only one type of unit used across all the quantities, or all the quantities have the same ratio, dispensed - (administered + notAdministered + (administeredOnDispense - notAdministeredOnDispense)). If there is more than one type of unit or different ratios, then it does roughly the same thing, but only where the order IDs match. So, order #1 with 5mg/10ml dispensed and order #2 with 5mg/20ml administered has an unaccounted quantity of 5mg/10ml, because the ratios are different and they are on different orders. (Though, really, it would likely run into a calculation issue first.)

Administered may or may not include values for ChargeOnDispense orders depending on configuration.

Glossary

Blacklist Refers to a collection of interfaces not being monitored by Panther due to exceptionally large numbers of unprocessed or pending messages in their queues. Monitoring such interfaces increases the load on Oracle® significantly. [640](#)

Breadcrumbs The location and scope of a Panther Control displayed at the top of the Control in the toolbar. The breadcrumbs are useful for distinguishing between similar desktop controls that are from different domains or different nodes. [32](#)

Context Menu A context menu is any list of options that can be opened by right-clicking an item in the user interface. All major controls in Panther have a context menu associated with their main data table. Because the context of the right-click determines the contents of the menu, where you right-click is important. Depending on where you right-click on the user interface, context menus may change. Changes can include small things like graying out or enabling options in the list or significant changes such as the entire contents of the menu changing. [59](#), [84](#), [85](#), [91](#), [93](#), [102](#), [127–133](#), [135](#), [136](#), [139–141](#), [146–148](#), [173](#), [175–178](#), [180–185](#), [187–189](#), [197](#), [204](#), [217–220](#), [224](#), [248](#), [261–263](#), [265–279](#), [281](#), [282](#), [284](#), [322](#), [323](#), [325–327](#), [487](#), [499](#), [505](#), [523](#), [528](#), [542](#), [602](#), [607](#), [619](#), [622](#), [625](#), [628](#), [631](#), [649](#)

CSV Comma-Separated Value. [125](#), [155](#), [160](#), [173](#), [191](#), [202](#), [229](#), [242](#), [261](#), [262](#), [290](#), [291](#), [320](#), [345](#), [346](#), [377](#), [381](#), [395](#), [399](#), [403](#), [407](#), [412](#), [416](#), [420](#), [424](#), [428](#), [431](#), [435](#), [570](#)

Cycle The process of restarting one or more server processes in such a manner that end users do not experience a denial of service. [45](#), [80](#), [636](#), [641](#)

Dead Server A server with no running instances but configured to have more than zero running instances. [615](#)

Device Identifier A mandatory, fixed portion of a [UDI](#) that identifies the labeler and the specific version or model of a device. [192](#), see [Universal Device Identifier](#)

DNFB Discharged Not Final Billed. [341](#)

ESI External Service Inbound – A foreign system is using this interface to send messages to Millennium. [505](#)

ESO External Service Outbound – Millennium is using this interface to send messages to a foreign system. [639](#)

GL General Ledger. [355](#), [358](#)

LOS Level Of Service – a property in Panther that is used to describe the number of server instances that should be running for a particular Server. This value determines how many instances are started when Panther cycles a Server as well as how Panther determines if a Server is under or overserved. [616](#)

Overserved Describes a server that has a greater number of running instances than the number of instances listed in its server configuration. [614](#), [638](#)

Production Identifier A conditional, variable portion of a [UDI](#) that identifies one or more of the following when included on the label of a device:

- Lot or batch number within which a device was manufactured
- Serial number of a specific device
- Expiration date of a specific device
- Date a specific device was manufactured
- Distinct identification code for a human cell, tissue, or cellular and tissue-based product (HCT/P) regulated as a device

. [192](#), see [Universal Device Identifier](#)

SCP Server Control Panel. [55](#), [530](#), [538](#), [626](#), [627](#), [641](#)

Sensor A process that runs on Panther that is designed to identify anomalous behaviors or situations on foreign systems such as Oracle® or Millennium. [11](#), [633](#)

Server Instance A specific instance of a running server representing a single process on a node. [616](#), [637](#)

Underserviced Describes a server that has a smaller number of running instances than the number of instances listed in its server configuration. [120](#), [614](#), [638](#)

Universal Device Identifier UDI – A unique numeric or alphanumeric code used to identify a device.

For more information, refer to [UDI Basics](#). [192](#), [696](#)

User1 Millennium account set up for Panther with similar privileges to *system*. This is typically pantherweb. [13](#), [21](#)

User2 Millennium account set up for Panther with similar privileges to *systemoe*. This is typically panther-cycler. [13](#), [21](#), [494](#)