



eRAD RIS

RELEASE ANNOUNCEMENT

Build 4.2024.004

UPDATED JANUARY 11, 2024

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PUBLICATION HISTORY

Revision	Author	Description
January 11, 2024	Kevin Brooks, Michelle Mahabir / Hilary Saltmarsh	<ul style="list-style-type: none">Commercial release.

SUMMARY

Release Announcement

This release of eRAD RIS 4.2024.004 introduces new management reports for database performance and resolves performance issues including scheduling slowness.

New Features

This release introduces the following features and enhancements:

Category	Redmine #	Subject	Description
Database	33659	New database performance monitoring tools and management reports	This enhancement to Database updates the database performance metrics being gathered and introduces three new Managements Reports.
Scheduling	33400	Capture telemetry for appointment search time	This enhancement to Scheduling updates web service logging when performing an appointment search to capture both the search and display time.

SORTED BY CATEGORY AND REDMINE

Refer to the FEATURE DETAILS section below for configuration and usage information.

Resolved Issues

This release resolves the following issues:

Category	Redmine #	Subject
DB	34378	Resolved DB issue that was causing timeouts to occur when attempting to view scanned documents within the personnel lookup.
Scheduling	34956	Resolved Scheduling issue where slowness was being observed when attempting to use type ahead in the procedure picker field.
Worklists	33658	Enhanced Database performance when preparing Mammo Recall Categories for worklists.

SORTED BY CATEGORY AND REDMINE

FEATURE DETAILS

Database

Feature # 33659 - New database performance monitoring tools and management reports

Summary

This enhancement to Database updates the database performance metrics being gathered and introduces three new Managements Reports.

Feature Description

Three new reports have been added to the `Management Reports/Maintenance` folder:

1. RIS Database Performance Stats
2. RIS Screen Load Times
3. RIS Screen Save Times

Additionally, metrics are now available to identify which service calls are keeping the server busy.

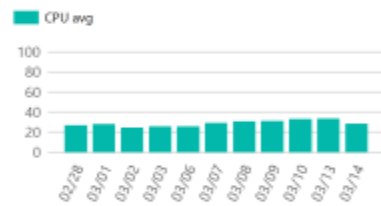
RIS Database Performance Stats

This management report shows selected information from the DB section of `ris_diag.c_showoverallstats`:

RIS Database Performance Stats

Date	Week Day	CPU Avg	PLE Avg	Batch Req Avg	Deadlocks Total	Wait Time Hours
03/14/2023	Tuesday	28.44	680	4553.85	11	17.36
03/13/2023	Monday	33.54	608	5784.42	25	42.47
03/10/2023	Friday	32.97	695	5547.99	18	40.08
03/09/2023	Thursday	31.18	665	5818.45	25	35.93
03/08/2023	Wednesday	30.66	584	5873.58	22	36.95
03/07/2023	Tuesday	29.03	686	5865.12	27	34.74
03/06/2023	Monday	25.78	625	5840.26	28	37.65
03/03/2023	Friday	25.67	700	5334.37	31	37.38
03/02/2023	Thursday	24.30	644	5529.25	16	30.28
03/01/2023	Wednesday	27.96	548	5404.90	22	40.65
02/28/2023	Tuesday	26.66	652	5728.48	19	31.48

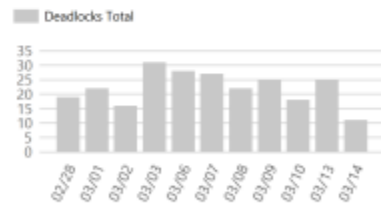
CPU Utilization By Date



Wait Time By Date



Deadlocks By Date



PLE Average By Date



3/14/2023 12:21:56 PM

SAMPLE REPORT.

Note that `Ris_diag.c_showoverallstats` has been updated to take an optional parameter, `resultFilter` to limit the result sets.

Prior to this change, the stored procedure returned 4 sections: a system summary, a database statistics section, a section on general ris statistics.

With this change, the `resultFilter` parameter accepts the values `ALL`, `Summary`, `DB`, and `RIS`. If a value isn't specified, all sections will be returned. If `Summary`, `DB`, or `RIS` is specified only that section is returned.

RIS Screen Load & Save Times

Management Reports were created to show the screen load and screen save times.

RIS Screen Save Times

Screen	Capture Date	N	Avg (ms)	[0<1]	[1<2]	[2<5]	[5<10]	[10+]
Registration	8/1/2023	16	141,194	0.0%	0.0%	12.5%	12.5%	75.0%
ScheduleOrder	8/1/2023	2	36,645	0.0%	0.0%	0.0%	0.0%	100.0%
Total		18	88,920	0.0%	0.0%	6.3%	6.3%	87.5%

SAMPLE REPORT. RIS SCREEN LOAD TIMES PROVIDES A SIMILAR VIEW.

Each night, screen load data and other performance data is moved into an aggregate type table that is maintained for a longer period of time. `Ris_diag.c_CaptureRISEventData` runs each night and gathers performance information and moves it to `ris_diag.c_ris_event_data`.

Previously all screen loads were being aggregated together. These are now grouped by screen name. As this increases the number of rows being saved, the reporting interval has been reduced from 5 minutes to 15 minutes.

Top Database Calls Metrics

Additionally, a new database stored procedure `ris_diag.c_ShowTopCalls` was added to show which service calls are consuming the most CPU time. This data is useful for comparing one customer’s database to another, or for identifying performance tuning opportunities.

For example, the following sample output shows `GetEligibilityByKeys` consumed 2800 minutes of server time in a day, while the next highest service call, `GetPatientBalance`, consumed 1500 minutes:

method_name	total_minutes	total_calls
<code>GetEligibilityByKeys</code>	2809	197300
<code>GetPatientBalance</code>	1542	484511
<code>GetPersonnelByKeys</code>	891	448808
<code>UpdateStudyData</code>	610	92237
<code>GetWL2:TechFilteredWL</code>	540	1602708
<code>GetWL2:ReceptionWL</code>	511	1768556
<code>AppointmentSearch</code>	465	50791
<code>GetRelevantPriors</code>	410	85605
<code>GetBinaryStudyDataByKey</code>	312	403520
<code>UpdateMultipleStudyData</code>	308	51184
<code>GetLookupDataSet</code>	297	618528
<code>IsResourceSchedulingEnabled</code>	223	97812
<code>GetPatientFolderWithAudit</code>	197	204741
<code>GetWL2:IVTWL</code>	189	85732
<code>GetWL2:PendingDictationByUserWL</code>	183	313286

SAMPLE REPORT.

Configuration Instructions

No System Administrator actions are necessary to enable this feature, however Service Team assistance is required for some actions.

Scheduling

Feature #33400 – Capture telemetry for appointment search time

Summary

This enhancement to Scheduling updates web service logging when performing an appointment search to capture both the search and display time.

Feature Description

With this change, when scheduling an appointment and the appointment `Search` button is clicked, RIS will first capture and log the elapsed time for the Web Service to return results, e.g.:

```
10:31:34.123 AM # AppointmentSearch.GenerateResults took 83 ms (main)
```

Secondly, RIS will now also log the elapsed time to update the UI with the results, e.g.:

```
10:31:34.036 AM DataStore AppointmentSearch - 11512211 (115)
```

This additional metric allows better monitoring of UI performance.

Configuration Instructions

No System Administrator actions are necessary to enable this feature.

VERSION DETAILS

Code Stream

The following source code branches have been merged into this release:

