

# IBM iDoctor for IBM i Updates Summary

IBM iDoctor for IBM i Development Team

4 April 2024

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## **Abstract**

This document attempts to summarize the changes made to iDoctor and provides links to download both client + server levels for each major iDoctor release for client builds 1268 and higher.

For more details, please visit the update history within the iDoctor GUI under the Help -> Update History menu.

## iDoctor Updates Summary

**Note:** Click on the date – build # link to download

### [April 4th, 2024 - Client 1688 + server builds](#)

1. Cleaned up error handling and status message handling in graphs/tables.
2. Crash fixes.
3. Added custom font support for tabs and menus. The only piece remaining are dialog/frame window title bars.
4. DPI improvements for icons, but more work remains.
5. Color customization added under Preferences -> Fonts.
6. JW call stack report changes to add offset option.
7. View -> X-axis menu option in Data Viewer added with Dates, Milliseconds and Tips.
8. Multiple collection design change: only drill-down reports that support multiple collections are shown if multiple collections selected.
9. Autohide preference added for Panes under Preferences -> Display – Advanced.

### [March 4th, 2024 - Client 1675 + server builds](#)

10. Made improvements to the Find pane interface, although this is still new and a work in progress. Let us know what else you'd like to see added.
11. Fixed several potential crash issues and added support to manage crash dumps in Preferences -> Misc.
12. Added more graph view preferences in Preferences -> Display.
13. Fixes for the Edit -> Reset Preferences menu from the Main Window.
14. Title preferences apply to everyone now. Previously there were differences between IBM users and external users.
15. Added a "Recreate stale connections" option under Preferences -> Misc.

### [Feb 15th, 2024 - Client 1666 + server builds](#)

16. Made enhancements to improve usability with 4K monitors. This includes better font customization and options to resize controls if windows are resized larger/smaller. Also resized all GUI interfaces to use more consistent spacing.
17. Added a Fonts tab to Preferences. This allows a user to use default windows fonts (which is the new default setting.)
18. Added toolbar buttons to increase/decrease the current font size on the Main Window.
19. The GUI is now coded with Visual Studio 2022. This requires the appropriate MS redistributable package. The installer is not yet updated so still requires the VS 2012 redistributable.
20. Replaced the Find interface and moved this into a Pane.
21. Fixed problems with the Add Filter window.
22. Added a scroll position indicator in graphs when moving through the data in a table below it.
23. All iDoctor shipped \*FILE objects and libraries are now shipped with \*PUBLIC \*EXCLUDE authority. This may cause issues which will need to be resolved by reporting them to [idoctor@us.ibm.com](mailto:idoctor@us.ibm.com). Authority may need to be granted manually for now.
24. The number of selected rows will be included in the status bar on the last pane on the right in parentheses.

25. In JW, interval details – call stack screen, the message indicating the reason the stack was collected has been removed since the support is broken in the OS. (ADDJWDFN – WAITSTK parm)
26. Improved performance when scrolling through tables.
27. Remove the Cancel options in the Remote Command Status View due to potential crash issues (for now.)
28. Moved saved iDoctor passwords and debug log files from %temp% to Windows %AppData%\IBM\iDoctor. Also added logic to only keep 100 max log files by default.
29. Fixed issues with recovering from lost connections and garbage text in tables.
30. Added back in the remembering of last used window sizes and locations and fixes issues with that.
31. The PEX Filter Wizard has been removed.
32. Encountering an ODBC function sequence error will no longer drop the connection and reconnect. This is also now a preference on the SQL tab if this causes issues.
33. Tooltip visible time increased in preferences from 5 to 10 seconds by default.
34. Removed several preferences (see the update history for details.)
35. Added new JW situation “Program object might be full”
36. In the Data Viewer under View, there are options to change the graph title format now.
37. The status bar will now show connection information behind the view you are currently using.
38. Added more messaging while things are happening such as fetching data, resizing columns, reconnecting, etc.
39. The Libraires Pane now has a collection name filter option. This only works against data in the collections database.
40. In the Data Viewer, you can right-click tabs to copy or move them to another Data Viewer.
41. Hold down CTRL or ALT while opening a graph or table will open this in a new Data Viewer.
42. In the Main Window under Edit menu added options to Reset Preferences.
43. In JW, the Clients + Workers analysis is now optionally ran and separate from the Collection Summary.
44. In the JW/CSI the Collections folder has been removed.
45. In JW, the Collection Summary will automatically replace bad IFS data with all 0s, if the required PTF is not installed at 7.5
46. Added a preference in Misc tab to control how analyses are sorted.

### **Sept 19th, 2023 - Client 1641 + server builds**

47. Made additional updates to the Data ready column in CSI/JW.
48. In PEX, the activation groups analysis has been divided into 2.
49. In PEX, added additional call stack detail reports in all analyses where available.
50. Added PEX Analyzer documentation on our website at:  
[https://public.dhe.ibm.com/services/us/igsc/idoctor/iDoctor\\_PEX.pdf](https://public.dhe.ibm.com/services/us/igsc/idoctor/iDoctor_PEX.pdf)
51. Fixed nmon import problems when data has SEA stats.
52. Made CSI JVM graph changes.
53. In CSI added Active threads, Threads created graphs under the Job counts folder.
54. In CSI more fixes for the RUNTIME calculation in ranking graphs.
55. In JW, added the Holder chase analysis.
56. In JW, added 3 new situations.
57. Double-clicking a situation in the graph legend now shows a PDF.
58. Added FTP Definitions support and updated the monitor commands to utilize them to send data captured to another LPAR you define.
59. The Tables folder/pane replaces the Open File/Member window.
60. Removed the Tables metrics support (under DB2 for i.)
61. The Filter Libraries pane replaces the Filter Libraries window/menu.
62. Fixes in Graph History.
63. Fixes in the Active Data, Active Job functions.
64. Moved the Record Quick View popup menu option under View in both the Main Window and Data Viewer.
65. Added Check -> QMGTOOLS options under the IBM i Connections View to check current version and also perform PTF checking.
66. Added an option to turn off use of cwblogon to avoid passing the password in clear text (under the covers in a hidden Windows command prompt) in the IBM i Connections View. Use the Password cache-> Disable for all systems menu.
67. Added a few videos to the ftp site under here:  
<https://public.dhe.ibm.com/services/us/igsc/idoctor/videos/>

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**[May 26<sup>th</sup>, 2023 - Client 1615 + server builds](#)**

1. At startup if critical stored procedures are replaced, then the collection repository will be cleared to avoid potential issues. To rebuild contents, you may need to refresh it manually using the Collections database -> Refresh all menu from the Job Watcher or Collection Services Investigator icon if you want the new columns in the list of libraries to be filled correctly.
2. Added additional columns to the list of libraries in JW, CS and PEX from the collection repository.
3. Added a Data ready column in the list of collections to indicate which special types of data exist in the collection. Also moved several of the less often collected data types from the Status column to the Data ready column
4. Replaced CSI Historical Summaries with Graph History support at 7.3+. **Note:** There are problems with the data that will need fixed in the OS which are noted where applicable in the list of graphs.
5. Changed default time grouping (clock icon) from 1 minute to collected interval size.
6. Renamed Entitled CPU to Dispatched CPU active. Job virtual CPU delay is now called Dispatched CPU wait.
7. Made improvements in the Transfer collection support (to optionally use QMGTOOLS/FTP2IBMCMD)
8. Added JW SQL PDIO and clock time graphs back into iDoctor. This requires 7.3+ and the latest JW PTFs.
9. Job Watcher Holder chase options added to go up to 15 levels deep.
10. Added option / fixes to be able to retrieve the full SQL statement correctly in both Job Watcher and Plan Cache Analyzer. In JW, double-click on the SQL statement from the SQL/Client tab to retrieve it if it is truncated.
11. Improved auto refresh of collection list after analysis finishes running.
12. Added checks to avoid doing an extra SQL statement (to count number of records returned) in most cases for overview graphs in CSI, JW and DW.
13. Added a new JW situation "Data queue auto reclaim may be causing poor performance".
14. WRKOBJLCK Pane renamed to Object lock info. It appears automatically when using the General functions -> Work management -> Object lock info folder.
15. WRKOBJ pane renamed to Objects and is used to do filtering in IBM i Explorer/General Functions for the Libraries and Objects folders.
16. WRKLNK pane renamed to IFS and appears automatically when using the IFS folder under General Functions.
17. Added options to grant authority to use iDoctor under General Functions -> System -> User profiles.
18. Generate reports can now work against user-defined graphs and reports.
19. Added buttons in the Data Viewer to move to the next or previous collections.
20. Added options to control graph titles based on the graph type under Preferences -> Display.

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**[February 21<sup>st</sup>, 2023 - Client 1589 + server builds](#)**

1. SQL preferences min/max fetch size reduced to 200 due to a bug in the ODBC driver.
2. Default GUI install location is now C:\iDoctor\<CNNNNN> where the subdirectory is the build number being installed.
3. In the installation, added more SSH options for sending the SAVFs to the IBM i (use Putty or Windows SCP.exe)
4. Created a new component called Knowledge Base to help with saving information like graphs, call stacks or other screenshots and reviewing it later. Those features are offered “as-is” and are not officially supported. TIP: Default system (checked) in your list of IBM i Connections is the current Knowledge Base system.
5. In Job Watcher, created an analysis called Active Collection Summary that lets the user run the collection summary analysis alongside an actively running collection. Also updated the STRJWMON command at 7.3+ to optionally use this feature.
6. Made fixes relating to component view virtual list support. Keep in mind to scroll through these interfaces when dealing with large numbers of rows you must use the list side and not the tree side.
7. Replaced Dispatched CPU wait bucket in CSI/JW with Entitled CPU and virtual CPU delay if report visibility setting is Advanced. Removed Dispatched CPU breakdown graphs.
8. Added Top 10 and Top N right-click comparison options from the Job Summary folder SQL table outputs. Removed Comparison Wizard support due to lack of use.
9. Removed VP\_PCT “VCPU delays as a percentage of Dispatched CPU (%)” field from secondary Y-axis wait bucket graphs in JW/CSI.
10. Added several additional columns to JW Job Summary SQL tables and fixed problems with some metrics being added up incorrectly.
11. Removed instructions per second graphs in CSI.
12. Fixed problems with PEX TPROF trees.
13. Replaced Transfer to -> PC menu with Download.
14. Added a Clear option for IFS directories.
15. Improved file transfer support. Replaced use of Putty for SSH transfer in the GUI with Windows SCP.exe instead.
16. In JW, added a new situation “QDBSRVXR job may not be running well.”
17. In JW, added new situation “Resident stack pool is being depleted”.
18. Added an Active Data menu from the component icon to graph the currently running JW or CS collection more easily. Latest server builds required if you wish to use this along with STRJWMON.
19. Many enhancements were added under General Functions -> Work management. Also added a General Functions -> System folder with things like WRKSYSSTS like output.
20. In CSI, situational analysis has been disabled for “R” named collections.
21. Fixed additional problems with the nmon import function at 7.3+.
22. In JW, Interval Details -> SQL / Client if SQL statement is truncated, double-click it to retrieve the full value.
23. QMGTOOLS no longer shipped or installed by default.
24. Added PTF checking support at 7.5.

**[September 10th, 2022 – Client 1565 + server builds](#)**

1. 2 new SQL preferences relating to the Component views to improve usability:
  - a. Component views fetch size (500 default so scrolling works better with poor network connections)
  - b. Force a refresh when tree folders expanded (default unchecked)
2. Component view tree behavior fixes.
3. Nmon analysis options weren't working – latest server builds required.
4. Fixed issue with the clock icon it may change the type of job grouping (from job to thread) incorrectly.

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**[September 1st, 2022 – Client 1561 + server builds](#)**

- 1.** ODBC connection management changes. Each Data Viewer and Main Window will now use separate ODBC connections to allow for user to run multiple queries at the same time as long as they are ran in different MDI windows.
- 2.** Canceling SQL statements is much more reliable now. Previously this could cause the cancel to fail and the GUI to appear to hang.
- 3.** Created a WRKSPLF / WRKOUTQ interface and toolbar button in the Main Window.
- 4.** CSI added new graph rankings: 1) by generic current user and 2) by submitter
- 5.** CSI – added GEO mirroring detected situation
- 6.** CSI – CS Objects folder updates
- 7.** CSI – Collection properties – System tab contains additional data about QAPMCONF GKEY values.
- 8.** CSI – SVC/StorWize graphs added at 7.5 if QAPMXS\* files exist.
- 9.** CSI - Command QIDRGUI/STRIDRSUM now allows a value of \*LATEST for the collection parameter. This can be used with scheduled jobs to run CS iDoctor analyses automatically daily. However, no automated cleanup method exists yet.
- 10.** JW - Now shipping several STRJWMON stored procedures to run as \*OWNER user profile to avoid a potential collection cleanup problem.
- 11.** JW – Fixed issues relating to graphing holders.
- 12.** JW – Interval Details fixes relating to find next, find previous buttons.
- 13.** JW/DW - When collections are starting up the refresh status will now occur automatically when the user refreshes the view while the status still shows required files missing.
- 14.** PEX – Updated the activation group analysis reports.
- 15.** PEX – Some drill down changes in TPROF.
- 16.** Report Generator – Added option to use latest collection if scheduling the report to run later. Fixed scheduling options. Added Save As PDF option. Added Email report to option (via Outlook.)
- 17.** Fixed the support to use flattened style graphs against multiple collections.
- 18.** Added options to open some reports in the Main Window now instead of the Data Viewer.
- 19.** Listing collections will no longer fail completely if > 500 exist in the library. Now only the 1<sup>st</sup> 500 are shown.
- 20.** Time filters can now be done within graph by holding down SHIFT or CTRL and performing a left-click drag zoom operation.
- 21.** Made caching changes relating to reading/writing to the Windows registry to improve performance.
- 22.** IBM i Explorer – improvements for the Libraries and Objects folders.
- 23.** Many folders in the component views will now fetch only the rows visible to improve performance. Clicking column headings will cause a resort on the server now instead of within the GUI.
- 24.** WRKOBJLCK interface now supports generic object names or library names.
- 25.** WRKOBJ interface now supports generic object names or library names.
- 26.** Fixes related to sending data to IBM.
- 27.** Removed functionality from Power Connections. Only HMC and VIOS remain as valid connection types.



**May 26th, 2022 – Client 1542 + server builds**

1. Released 7.5 server builds.
2. Removed SQLSTMT from JW ranking graph groupings, tips and flyovers for perf reasons.
3. Removed nmon analyzer (no launch option and no longer shipped with the GUI.)
4. CSI – unable to read QAPMCONF fix
5. CSI – fixed ability to graph multiple ASPs at once and compare (3+)
6. Removed Data Explorer
7. Fixed slow performance in JW – Interval Details -> SQL / Client tab
8. Changes made to user-defined graphs/reports. Table-specific filter and view options.

### April 14th, 2022 – Client 1535 + server builds

1. Design flaw fixed related to Windows UAC virtualization when installing under C:\Program Files (x86)\IBM\iDoctor. This caused some users to be running older versions of SQL statements and to experience errors and wrong results.
2. Many updates in CSI and reordering of some graphs. External storage now under Disk. System -> Interrupts and CPU -> Shared pool CPU utilization now only appears after Collection Summary ran and required data exists.
3. CSI -> Hardware -> Save/restore graphs redesigned. Also updates to SQL -> Plan cache, DB2 mirror and Hardware -> Tape.
4. CSI -> Disk -> Flattened graphs removed
5. Fixes to CSI -> Disk -> Free space map rankings
6. Fix for potential signon bug infinite loop if user id no longer exists.
7. Added new DB2 for i -> IBM i Services reports under Applications and Communications at 7.3+.
8. Plan Cache Analyzer import/split fixes and browse/search functions added.
9. Removed Plan Cache Analyzer dump support.
10. Some JW -> J9 JVM graphs were removed and others fixed.
11. SQL editor improvements and active job menu options.
12. iDoctor FTP GUI is now called IBM i Explorer.
13. General Functions -> Browse Collections removed
14. Removed SQLite support
15. Opening HMC or VIOS connections would crash the GUI with 1523.
16. Under Power Connections removed support for all types of non-IBM i connections except VIOS and HMC.
17. Options to save/open iDoctor sessions were broken and have been removed.

### January 28th, 2022 – Client 1523 + server builds


1. Fixed an issue that meant most SQL statements were running in a single QZDASOINIT job per LPAR. This along with some newly discovered problems with OVRDBF and QTEMP aliases, meant there was a high chance of reports showing wrong results.
2. Removed use of OVRDBF throughout the iDoctor GUI and replaced this with QTEMP aliases. This was due to a major design flaw that could potentially cause incorrect results. Options that prompt you for a specific collection/member have been removed. If writing your own SQL, you will need to create your aliases to point to specific database file members. User-defined reports will need to have their SQL recreated or a work around would be to only have 1 collection per library.
3. In JW, fixed drill down problems into a single call stack from Call stack summary reports.
4. In JW, updated the Collection Summary analysis to remove fields CURRUP and PRIORITY from the QAIDRJWGAP\_<MBR> SQL table. Existing collections will need to have the analysis reran to be viewable.
5. Reworked the design and SQL statements for most of the Job Watcher interval details interface for performance reasons.
6. In CSI, "R" collections will no longer complain about files missing that were not applicable to them.
7. Made additional updates / fixes related to the collections cache. This fixes a potential "Unable to read QAPMCONF" error in CSI.

8. Usability improvements relating to the running of SQL statements and error handling. For syntax errors, the position of the error should be indicated correctly.

**November 24th, 2021 – Client 1508 + server builds**

1. More performance improvements when listing collections. Server builds must be reinstalled.
2. Keep alive preference reenabled and fixed issues related to it, but its use should be limited to avoid potential problems which still could exist.
3. Added Refresh Status menu option for collections in in PEX, JW, DW and CSI.
4. The preferences to limit the number of collections displayed was broken in the previous update but fixed now.
5. Made several improvements related to successful recovery if the GUI loses connection (without requiring a restart of iDoctor.)
6. Fixed a problem with several PEX Analyses that caused the analysis to fail if collection was > 38 minutes in duration if using 1/10th intervals and > 35 minutes if using 1/100th second intervals.
7. A bug in Job Watcher monitors was fixed that caused all of the monitor's collections to be deleted when the active collection rolls over from 999 back to 001.

**October 13th, 2021 – Client 1498 + server builds**

1. Made many additional updates related to running SQL in background threads. A mouse pointer  means an SQL statement is currently running. Hit ESC on the keyboard to attempt a cancelation. If currently in an hour glass state, then at those times you cannot cancel and must wait however.
2. Several updates to try to fix crashes and hangs. The keep alive preference has been disabled since it could cause the user to hang for long periods of time.
3. Performance improvements when listing collections. Server builds are required to be reinstalled.
4. Status improvements for lists of collections in Collection Services Investigator, Disk Watcher and Job Watcher. This tells you what files/data was not collected.
5. Job Watcher call stack screen now has a Save button that lets you save a call stack for review later to a repository. See the Data Repository folder to view those.
6. Plan Cache Analyzer Split snapshot and/or Link with Job Watcher (on QRO hash) related enhancements.
7. Alternate view interface is now a pane instead of a popup window. It also now supports options for some perspective options for tables (CS Job Summary or QAPMSYSTEM.)
8. Change Description option on collections in PEX, JW, DW and CSI.
9. QAIDRPCRM table updated with latest Performance Capability Reference Manual updates for CSI and P9/P10 systems.
10. Transfer collections now supports the IBMSDDUU options again.
11. Categorized graphs now include the worst buckets average response times and counts in the flyover. A tip is shown on the X-axis label in extremely poor performing cases.
12. Flyover tips are no longer shown for situations (if mouse pointer over background areas). The mouse pointers must be over a bar or line. This was done to avoid excessive tips popping up.
13. IFS browsing support now includes the symbolic link values if required DB PTFs for the IFS\_OBJECT\_STATISTICS SQL table function have been installed.
14. JW/CSI now offer new graphs for wait counts, average wait times, average CPU times and average disk wait times for all 3 types (overview, rankings, and selection over time.)
15. In CSI added a new analysis called “Fix Missing Intervals”. This can be used to try to improve iDoctor by adding missing QAPMSYSTEM file intervals into the data. This modifies the Collection Services QAPM\* files which is necessary to graph the data properly in some situations. Make a copy of the collection before using is recommended.

### May 13th, 2021 – Client 1466 + server builds

1. More fixes in PEX – heap storage analysis
2. Tree report fixes
3. Miscellaneous cleanup
4. Installation fix (files not being copied successfully still showed a successful install)
5. Preference -> Always show dates on graphs removed (they are always shown now)
6. Fixes and updates related to VIOS monitors.

### April 9th, 2021 – Client 1455 + server builds

1. Fix for ODBC bug with latest ACS (Aug 2020) is here if you need it (this would apply if you need to use a client < 1418):  
[https://public.dhe.ibm.com/services/us/igsc/idoctor/odbc\\_userid\\_password\\_fix.zip](https://public.dhe.ibm.com/services/us/igsc/idoctor/odbc_userid_password_fix.zip)
2. Many folders in the component views will now run SQL statements in background threads to try to avoid hangs and possible “focus shifting” problems on Windows Server.
3. Most SQL statements ran in the Interval Summary and Interval details screens in JW and CSI are now ran in background threads. You can also now right-click columns in most lists and use options to filter the lists.
4. Added a report visibility setting under the View menu which controls which reports are shown. There are 3 modes: Basic, Intermediate or Advanced.
5. Several new preferences added on the SQL tab designed to try to improve performance.
6. Updated most JW SQL statements and graphing to show helpful fields on the flyovers (if unique values exist for things like holders and waiter) and X-axis labels will contain tips to tell you which if any are set.
7. In JW added QRO hash and SQL statement groupings at 7.2+.
8. Removed support to run the GUI on Linux KVMs or Linux via Wine.
9. PEX collection properties updates:
  - a. General tab – Fetch events button ran in background thread
  - b. Most lists can now be filtered, and some run in background threads.
10. Preferences -> Data Viewer -> Always display new real-time data option was broken and now fixed.
11. Memory Watcher and Data Explorer (IBM internal components) updates
12. The ability to run PEX stats analyses was broken from 1423-1428.
13. DLTJWCOL changes:
  - a. No longer does excl lock on the collection
  - b. iDoctor SQL table cleanup always occurs now even if collection does not exist.
14. STRJWMON cleanup changes:
  - a. Rewrote cleanup to improve performance
  - b. QIDRRMVJW1 now creates a temporary data area in QIDRGUI when it runs to avoid multiple QIDRRMVJW1 jobs being created
15. In CSI/JW/PEX/DW added support to graph multiple collections by right clicking the library. (See update history for more details on this.)
16. If using multiple component drill down support, the current component’s default option is now shown at the top.

17. Query Definition interface reenabled but now simplified (less options.)
18. WRKACTJOB interface now support creating graphs or launching table view results in the Data Viewer.
19. CSI – Launch Workload Estimator option removed.
20. Collection search results now sorted by Dispatched CPU by default instead of interval.
21. Signon fixes to try to avoid getting locked out due to too many failed login attempts especially after password has changed.
22. PEX heap storage analysis fixes.
23. The nmon created NPIV graphs for selection over time were broken and now fixed.
24. Fixes related to running out of GDI objects (graphing limits)
25. Browsing the IFS or using the WRKLNK interface is done via SQL using IFS\_OBJECT\_STATISTICS at 7.3+.
26. The FTP auto detect option removed.
27. In the component window removed WARNING messages about server or client builds being too old.
28. Removed about 7 preferences (see the update history.)
29. Redesigned how data is fetched to improve performance.
30. Component views are virtual now (only fetch what you see) to improve performance. The downside is you can no longer type ahead to find something in the list but the Edit-> Find option works instead.
31. Find Collections menu option added to help locate specific data on a system more easily (see the examples.) Use caution as this could be resource intensive.
32. Rewrote column resizing code to try to improve performance.
33. JW – interval details SQL tab changes:
  - a. renamed SQL tab to SQL / Client.
  - b. SQL statement shown is no longer truncated unless it exceeds 16 KB.
  - c. If 2 statements were collected, then both should now be listed.
  - d. added SQL client register fields to the list at 7.4+.
  - e. added support to show host variables in the list, open cursor lists or prepared statement areas
34. In CSI added pie graphs again under Waits -> Collection totals or I/O -> Collection totals.
35. In CSI added situation for Excessive interrupt handling delays.
36. In JW added situation for Interactive capacity check.
37. Increased max flyovers allowed on graphs to 30 (from 10)
38. Updated Collection summary analysis in both JW/CSI to add more indexes.
39. Added Index advisor views under General functions -> DB2 for I -> Index advisor.
40. Added an iDoctor Messages View to the Main window and toolbar button. This mostly contains debugging information but at times may tell you why an SQL statement is not running or folder is empty.
41. Added new command QIDRWCH/CPYCSCOL. Also updated CPYDWCOL and CPYJWCOL to support an option to control whether record formats are checked. (see the update history.)
42. Find window remembers the last 20 find values used. Collection search remembers the last 20 values used as well.
43. JW – I/O -> Synchronous response graph replaced (see update history)

44. Job Summary ranking graph options fixed / updated.

**Nov 10th, 2020 – Client 1425 + server builds**

45. Work around ACS Windows Application Package - bug with August 2020 update

- a. ODBC - User ID not recognized error.
- b. Clients older than 1418 cannot be used with this level of ACS.

46. Performance improvements when starting the GUI (latest server builds required for best results.)

47. Filter libraries enhancements:

- a. Supports multiple generic library names with custom descriptions
- b. Press Delete key to remove something from history list.
- c. Browse feature for individual libraries

48. SQL Editor fixes

- a. Running multiple statements and handling errors.
- b. Choose collection or DB member issues (case sensitivity issues with collection names bug)

49. Export to CSV file fixes

- a. You can now export from lists not in the Data Viewer (i.e. IBM i connections, etc)
- b. Tree tables can no longer export to CSV (it was broken a little too complex to include)

50. Record Quick View or Quick View enhancements

- a. Hide all 0 or blank option
- b. Multi-record comparison enhancements

51. Collection transfer fixes

52. Library properties – cross check tab.

- a. Verify if DB files are out of date when compared to QSYS.

53. In CSI added support to analyze/graph “R” collections.

- a. Graphing will better handle missing files if using these collections.
- b. From Configure Collection Services window added options to Enable system monitoring or control data category settings and retention periods

54. In CSI, most overview graphs and some rankings now support graphing multiple collections from multiple libraries.

55. In CSI - some job counts graphs’ metrics were wrong and now fixed.

56. In CSI – historical summary fixes.

57. In CSI – fixes relating to deleting collections.

58. In CSI situation updates:

- a. Added “Cycles per instruction (CPI) is high”
- b. Updates resolution text for “Temp storage > 7% of free storage in ASP 1”

59. In CSI – disk graphs ASP selection issues fixed.

60. In CSI – fix (or possibly a work around) for read cache hit % metric.

- a. Disk type D910 (EMC) may have a bug

61. PEX groupings changes

- a. Pgm or lic mod renamed to Program
- b. Pgm or lic mod – procedure renamed to Procedure



62. PEX TPROF - cacheline breakouts not appearing on P9 fix.
63. PEX ranking graph fixes – several types would not work due to TIMESTAMPDIFFF function issue if collection duration > 35 minutes.
64. Job Watcher fixes related to Show holder.
65. Job Watcher and CSI collection search fixes + enhancements.
66. Job Watcher overview graphs and some rankings now support graphing multiple collections from multiple libraries. Kick this off from the Collections folder after specifying a library filter.
67. Job Watcher call stack view – include LIC option
68. Job Watcher updated QIDRWCH/STRJWMON command to abort data collection if target DB files are outdated (wrong release.)
69. Job Watcher QRO hash support added in several spots.
  - a. 7.2 MF66612
  - b. 7.3 MF66613
  - c. 7.4 MF65997
70. Added a Temp Storage Analyzer component – this is included with a JW license. Analyzes data from the SYSTMPSTG view.
71. Power – when browsing directories added option to go up a level.
72. Change SQL Parameters updates
  - a. Removed many parameters from view that are internal only
  - b. Added validity checking for most used parameters
  - c. Fixed potential crash and bugs
73. Fixes to the warning messages shown in the iDoctor components window
74. Updates for the PCRM table used in CSI.
75. IBM i Connections view
  - a. Can now set a default system
76. View -> Auto resize column widths (or F8) can be used to auto resize the column widths of current list you are looking at if something is not drawn correctly.
77. Disk Watcher has new groupings and other fixes.
78. Plan Cache Analyzer
  - a. Added the ability to view the system's current plan cache with several graphs/reports under the "System plan cache" folder
  - b. Plan cache snapshots folder now lists newest collections first.
  - c. Added Clear system plan cache menu option.
  - d. Added Change plan cache size threshold menu option.

#### June 19th, 2020 – Client 1405 + server builds

1. Power Connections – SSH connection fixes for certain environments
2. Graph legend – hold CTRL and click on flyover fields crashed the GUI
3. Monitor commands STRJWMON/STRDWMON/STRPAMON now checks the following:
  - a. Library exists or not
  - b. Definition file exists
  - c. Definition exists
4. WRKACTJOB – new JVM perspective and Analyze JVM option via PRTJVMJOB \*GCTABLE

5. CS/JW – Graphing multiple collections made it difficult to turn off situations. (no option via legend)
6. PEX/JW - Changes to all call stacks reports. Instructions/stmts on by procedure call stack groupings no longer shown.
7. PEX – STRPACOL command collects PMCO \*Format2 or TSWOUTQ \*format 2 by default now if the problem type used includes either of these events.
8. PEX – changed almost all trace analyses (except TCP/IP).
  - a. Many new reports and more advanced rankings options
  - b. Changes to SQL tables and in some cases interval summary files added to improve perf.
  - c. Most trace analyses now support 1 second, 1/10<sup>th</sup> second or 1/100<sup>th</sup> second intervals analysis options.
9. PEX – PDIO changed to more closely match the look and feel of CSI – Disk graphs
10. PEX – Starting points – new or changed reports for CPI, CPU switch, Events, file server, call stacks, Mutex cleanup ,Netsize, SARs, PMCO – PRTPEXRPT
11. PEX – Added new analyses and graphs for Page faults, SARs
12. PEX – Removed Mutex cleanup analysis (see Starting points instead)
13. PEX – TPROF – Cacheline breakouts changes/fixes
14. CS – Updated Expected CPU rate calculation
15. CS – At 7.4+ removed situation “Temp storage > 7% of free storage in ASP 1 “
16. CS – At 7.4+ the External storage cache statistics analysis is now obsolete; the new QAPM\* files generated are accessed instead.
17. CS – Free space map rankings added
18. CS – CPU, I/O, Logical I/O, SQL, External storage graph changes
19. CS – Disk graphs updated to reflect latest design changes. Rankings menu works better on drill-downs.
20. CS – CPU rankings changes:
  - a. Added new metric “Job runtime CPU utilization”
  - b. “CPU utilization” now based on the selected time period instead of job run time.
21. JW – Fix for restoring 7.1/7.2 collection to 7.3 showing incorrect VRM
22. Collection repository/database fixes

### **Feb 27<sup>th</sup>, 2020 – Client 1394 + server builds**

1. Changed how stored procedures get loaded at startup to reduce failure chance.
2. Option added to disable FTP connection (edit your IBM i connection)
3. JW interval details – move next/move previous navigation fixes
4. Graph legend – infinite loop redraw fix
5. Saving user-defined reports fixes
6. Save password checkbox fixed for Windows 10
7. Support added for internal users - next IBM i release.

8. Improvements to drill down flow and options for Rankings menu (2<sup>nd</sup> level options).
9. Attempted fixes for focus shift problems.
10. PEX - TPROF tree counts wrong for system tasks
11. PEX - TPROF by component more breakouts added for Eric B.
12. PEX - LDIO option bits parsing
13. PEX – Starting points – PMCO PRTPEXRPT \*PROFILE added
14. PEX – Cacheline breakouts changes (P7 vs P8 reports – Note: does not appear on P6/P9)
15. CS overview – interval summary table added Type-model, nominal frequency (from QAPMCONF) and processor feature.
16. CS overview – Expected CPU rate tweak: set to 100% for P7/P8 if calc gives < 100%.
17. CS overview – added affinity score and situation
18. JW overview– added Average CPU rate
19. JW/CSI logical I/O, page allocations and temp storage graphs updated.
20. Power type column added when listing collections and added to collection properties.
21. WRKOBJ interface perspectives (Basic/Detailed/Advanced)
22. WRKACTJOB properties improvements – Perspectives options

#### **Dec 19th, 2019 – Client 1386 + server builds**

1. Data Viewer toolbar tooltip related memory corruption crash
2. Graph compare – sync scaling fix
3. Install changes/fixes (Note: This build or higher can no longer be used to install on 6.1 or 7.1)
4. Check for new server builds button fixed
5. Gantt chart fixes
6. Attempted focus shifting fixes
7. PEX – TPROF – cacheline breakouts drill down object resolution and total hits bug fix (Note: it is still wrong with this version and only shows seize/lock objects and not all)
8. CS – Collection properties system tab - added info from QIDRGUI/QAIDRPCRM
9. CS – DB2 mirror graphs added at 7.4
10. CS Overview – TIME02A fix ( CPUQ remainder)
11. CS Overview - graphs faster if collection summary ran.
12. CS Overview – workload capping related updates
13. CS - SQL full opens rates graph wrong
14. CS – External storage – PPRC Links updated
15. CS – High disk storage consumed situation fix
16. CS Job Summary – new field JBPRTY
17. JW - listing collections too slow fix related to workload capping
18. JW Job summary – new fields ORIGPRI, PRIORITY, THREADPRI

#### **Nov 7th, 2019 – Client 1381 + server builds**

1. iDoctor now supports multiple clients installed on the same PC (in different directories)
2. Fixes made to allow the latest client to work again with 7.1 servers.

3. Fix related to check for /QIBM/UserData/iDoctor/tmp path and use of RTVDIRINF that caused issues.
4. Graph selections now appear in flyovers automatically
5. "Encountered an improper argument" bug when opening graphs with 1377
6. Startup crash if user had adjusted windows scaling default to > 100%
7. Installation – QMGTOOLS 7.4 support and FTP SSL Tls12
8. PEX drill down fixes (IN operator listed twice)
9. CS/JW - Create indexes analysis option removed - always done now
10. CS/JW – overview graphs provide situation information in the graph legend.
11. CS overview – PCRM table added, CPU frequency and energy management graphs
12. CS collection summary – added SQL count fields
13. CS overview - Scaled CPU ratio renamed to Average CPU rate.
14. CS overview - Added Expected CPU rate:  $(SCALED\ CPU/100 * NOMGHZ\_QAPMCONF) / (CASE\ WHEN\ P9\_MINGHZ\ IS\ NULL\ THEN\ NOMGHZ\_PCRM\ ELSE\ P9\_MINGHZ\ END) * 100.00\ AS\ EXPCPU$
15. CS - situation fixes (No situations found, High ext stg to IBM i latency, Seize lock table)
16. CS – new situations - Interactive limit = 0%, QAMPMLPARH check
17. CS - Memory pools – 4K pages stolen graphs added
18. CS – External storage cache statistics graphs updated
19. CS rankings – option to include Y2 PCTCPU per job.
20. CS – Interval summary top section updated
21. JW/CS - run all default analyses (or when ECUREP data loaded internally) situations were not being built
22. JW monitor cleanup program fix (CPC7333 msg)
23. QIDRGU/FTPFILE fix to support Blue Diamond

#### August 15th, 2019 – Client 1368 + server builds

1. 7.4 support fixes
2. Tooltip related fixes and preferences changes
3. Secure FTP support updates (TLS 1.2) – GUI only; not in installation yet
4. Visual borders around bucket 1 (Dispatched CPU), bucket 2 (CPUQ) breakdowns.
5. Drill down support for 1/100<sup>th</sup> of a second in some cases where data allows it.
6. PEX – DB opens – options list parsing
7. PEX – TPROF - link register resolution update
8. CS – free space map updates
9. CS/JW overview – total situations occurred /descriptions displayed while SQL runs.
10. JW – workload capping graphs added

#### July 18th, 2019 – Client 1363 + server builds

1. Tooltip related fixes and preferences changes
2. License agreements updated
3. Signon issues fixed (multiple prompts)
4. 7.4 support fixes (JW – DB files VRM incorrect)

5. Collection search – default now a “Job contains” search
6. PEX – fixes in many analyses related to PDIO changes and 1/100<sup>th</sup> second intervals
7. PEX – PDIO support for 1 second, 1/10<sup>th</sup> second or 1/100<sup>th</sup> second intervals.
8. PEX – DB Opens new rankings added (by thread/pgm/file or by thread/pgm)
9. PEX – max trace collection duration analysis support (at 1 second intervals) increased from 1.15 days to 37 days. This is about 9 hours max when analyzing at 1/100<sup>th</sup> second intervals.
10. PEX – updates several analyses to avoid misleading PDIO stats
11. PEX – fixes in the Add/Change PEX Definition Wizard
12. DW (Disk Watcher)
  - a. Graphing of idle time period support.
  - b. Trace summary fixed at 7.3 due to SQL changes.
13. CS/JW – fix to allow drill down on “No subsystem”
14. CS/JW – Change sensitive user data analysis rewritten
15. CS/JW – Collections folder added – to show/graph collections from multiple libraries at once
16. CS – Historical summary analysis updates
17. CS – Job Summary analysis – new fields JBPGAI, JBPDJ, JBTPPPGAI, JBTPPPGDI
18. CS – Disk graphs updated (reordering, 6.1 graphs removed)
19. CS – Page allocation graphs – Ignore DBL3s, special handling added for broken unsigned 4-byte fields
20. CS – Disk graphs DRIVECAP value wrong in some cases.
21. CS – Situation fix “Temp storage used is potentially too high and may disrupt SQL plan cache auto-sizing”
22. CS – added bucket 2 (CPUQ) breakdown:
  - a. CPU queueing - remainder
  - b. CPU queueing – workload capping delay
23. CS – temp storage > 7% of free storage added
24. CS – disk graph fixes related to LOCCOD field
25. CS – new disk graph rankings added for Ext Stg
26. CS – disk configuration – raid type parity set check
27. CS – Ethernet graphs – line speed was wrong (divide by 1000)
28. CS – Temporary storage graphs added
29. CS – External storage links and ranks graphs updated
30. CS – System graph updates
31. JW – Holder chase updates
32. JW – Interval summary and interval details properties windows updated
33. JW – Page allocation graphs – Ignore DBL3s, special handling for negative numbers in JW data
34. JW – Temporary storage graph updates
35. JW – New situation added - Reclaim resource CPP detected

#### **January 3rd, 2019 – Client 1340 + server builds**

1. Removed QMGTOOLS GUI
2. Re-added support to connect to 6.1 systems (some builds older than 1268 removed this)

3. Added math in the status bar based on the current selection.
4. Data Viewer – Fixes related to side-by-side comparisons
5. Graph legend – Sort menu now support multiple columns
6. iDoctor now remembers your preferred toggle graph format settings for graphs.
7. Power Connections – Nmon graph fixes
8. Power Connections – fixes related to Create Disk Mapping and FTP related preferences
9. Added a graph search function (Note: The ability to hide/reappear graphs in later builds is becoming very problematic from a maintenance perspective and this ability may be removed in a later build.)
10. Updates to the Transfer to function (fixes + new features)
11. User-defined reports DB format change ( can now use IBM i library or local .mdb file)
12. PEX – PEX Collection Wizard (Start PEX+) fixes related to QMGTOOLS changes
13. PEX – Collection properties Events for \*PROFILE fix
14. PEX - PDIO – support for user-defined response time buckets
15. PEX – PDIO redesigned
16. PEX – Locks analysis added
17. PEX – added mutex cleanup reports
18. PEX –analyses updated: Events, Heap, CPU profile, data area, dataq, LDIO, DB open, netsize, act grps
19. CS/JW Situations preferences enhanced (contrast/width, etc)
20. CS – new situations added:
  - a. Seize lock table large
  - b. Temporary storage is > 7% of the free storage in ASP 1
21. CS – Situation fixes – SMT context changed
22. CS – Job Summary – new fields JBHSQLSTMT, JBTICC, JBTICU, JBTTMBU and JBPICC
23. CS – Free space map graphs added
24. CS – System graphs – Interrupts added
25. CS – Memory pool graphs added tuning type, description, pool size and pool name
26. CS – CPU Graphs - Active virtual processors graph added
27. CS – Communication graphs - Ethernet Graphs fixes
28. CS – Disk graphs – advanced - support added for QAPMCONF response time buckets
29. CS – Disk configuration – GEO mirror flag
  
30. JW – Overview Y2 changes
31. JW – Added Virtual CPU delays graph
32. JW – Temp storage rankings fixes
33. JW – Detail reports – Objects waited on updates
34. JW – Job Watcher monitor fixes related to collection cleanup
35. JW – Situation fixes:
  - a. Potentially large number of locks
  - b. Gate contention in ASM finding free space
36. JW – New situations added:

- a. RMSL lock clean-up
  - b. QDBSRVXR2 job busy
  - c. QDBSRVXR2 job may not be running well
37. JW – J9 JVM graphs by thread fix
38. JW – Added Time waiting on objects graphs
39. JW – Job counts graphs fixes
40. JW – Detail reports – call stacks – options added to show J9 call levels
41. JW – Call stack summary analysis includes J9 call stacks
42. JW – Clients + workers support added to the Collection Summary

**[March 29th, 2017 – Client 1267 + server builds](#)**

**[January 12th, 2016 – Client 1200 + server builds](#)**