IBM iDoctor for IBM i
Main Window and Common Interfaces

IBM iDoctor for IBM i Development Team

28 August 2023

Abstract

Provides in-depth coverage of all major GUI functions for all components at 7.2 and higher. This covers the common features found in all iDoctor components within the Main Window.

Changes

9 Aug 2023 – Updated for 2023 and client 1635 or higher.

6 Sept 2022 – Updated content to match client 1561

8 Feb 2022 – Created new document to separate the documentation into different documents for ease of maintenance. This is sections 4 and 5 from the previous version of the documentation.

Table of Contents

1 Introduction

This document covers the iDoctor client and major common functions provided in all components. Some common functionality is also covered separately in additional chapters (i.e. Power, Data Viewer.)

1.1 Starting iDoctor

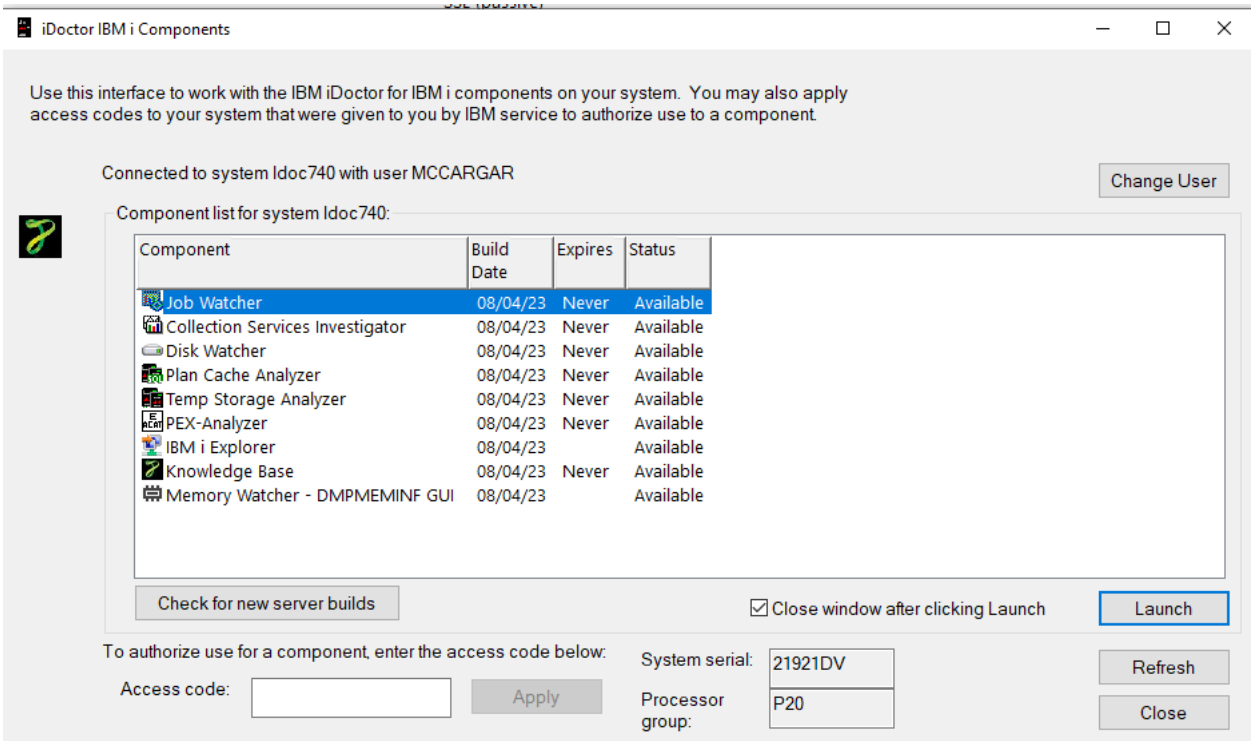
iDoctor may be launched in one of several ways:

1. via the IBM iDoctor for IBM i desktop icon
2. On Windows 7; Start -> Programs -> IBM iDoctor for IBM i -> IBM iDoctor for IBM i) or
3. On Windows 8/10/11: Start -> IBM iDoctor for IBM i
4. By passing an idoctor:// URL string to a web browser. To generate this string, look for a "Copy URL" button or menu where this option is available.

The iDoctor Main Window will initially show a list of recent changes made in the iDoctor Update History window.

Pressing Close on this screen will return you to the Main Window where you can define a connection or pick an existing connection on the IBM i Connections View in order to begin looking at data.
Right click in the IBM i Connections View and use the Add Connection menu to add a connection or double-click on a system name shown to connect.

Next you will be prompted for your username and password and then shown the iDoctor components window that displays the components available:



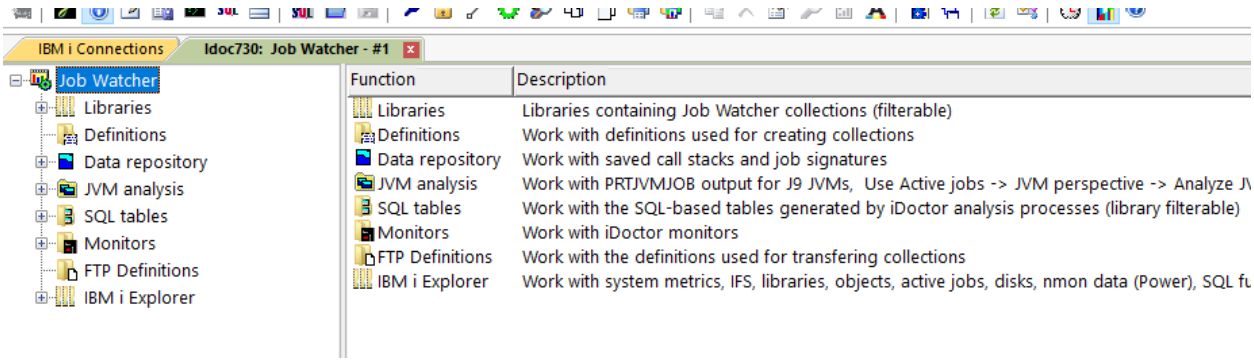
If the status indicates the component is not available due to a missing access code you can enter the access code at the bottom of this window.

If the status message indicates the access code is invalid, these are the possible reasons:

1. Serial number provided to IBM was incorrect.
2. The wrong OS level of the iDoctor server code is installed. This can happen (for example) if you have iDoctor 7.1 installed and then upgrade the system to 7.4 without also updating the iDoctor server code.
3. The access code entered was for the wrong component (you asked for PEX but really wanted Job Watcher)
4. Access code generation error (on IBM's side). This could be due to an administrative error, website problem, etc.

Note: If the iDoctor components window does not list the component as "Available" but lists a message about the client and server build levels not being up to date, you can still continue to launch the component anyway. But in this situation some functionality may not work correctly. If problems occur, then it's typically recommended to download the latest version and install it on both client and server.

Assuming the desired component is listed as "Available", double-clicking on it will open the component view for it. Component views display all reporting options available for the desired system and component. Multiple component views may be in use within the same Main Window as desired. To launch a second component view you would either need to revisit the Connections View and double-click the desired system a second time or simply uncheck the option "close window after clicking Launch" on the iDoctor components window.



Job Watcher component view example

1.2 iDoctor and Internet connectivity

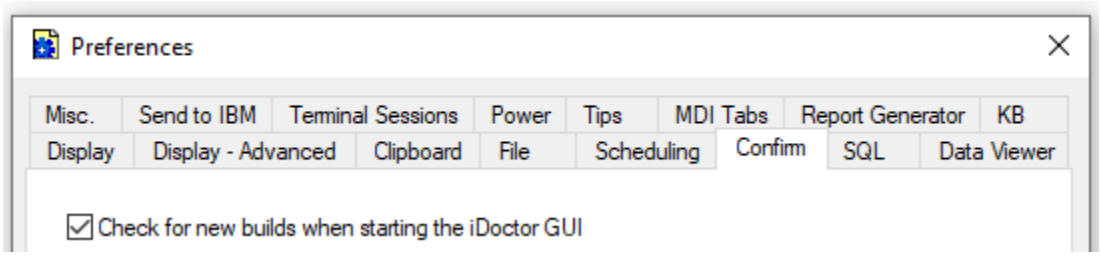
This section describes the functions performed behind the scenes at startup that require an Internet connection to be successful. If one is not available or blocked by a firewall on the PC, then these functions will NOT be performed.

1.2.1 Automatic client updates

When the iDoctor client starts, it will check if a newer client build is available. If one is available, you will be asked if it should be downloaded and installed.

By picking yes, the latest client will be downloaded, the current client will end, and the default web browser will be started to download the latest client update. After installation is complete, the iDoctor GUI will be launched again.

Note: This check can be disabled by going under Preferences -> Confirm and unchecking the 1st option shown.

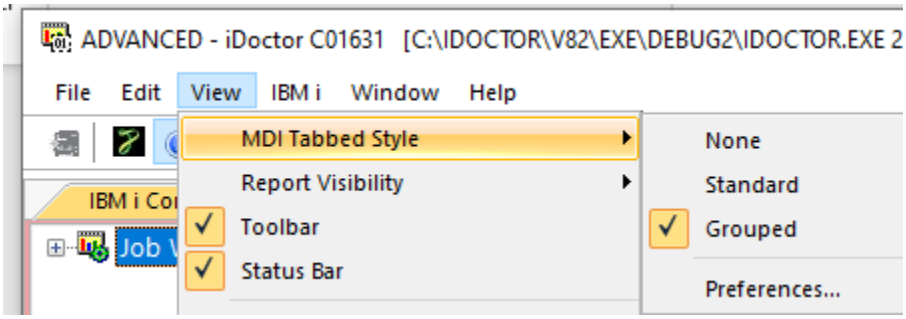


1.2.2 Automatic server PTF checking

When the iDoctor client starts, it will attempt to determine the latest required PTFs for the various performance components of IBM i, used by iDoctor. These PTF lists are stored on the iDoctor website's FTP server and downloaded to the PC. When PTFs are checked later when collections are started, the latest PTF lists will be used.

1.3 MDI Tabbed Styles

The MDI Tabbed styles options let you control the style of interface you wish to use. You can change this under the View -> MDI Tabbed Style menu.



The options are:

1) None – this is a classic Windows MDI without tabs which was more commonly used in the 1990s and early 2000s.
2) Standard – Provides tabs and allows users to tile and cascade but you cannot create groups of MDI tabs to compare with other tabs.
3) **Grouped – Default setting.** Tabs **cannot** be tiled or cascaded but you can create groups of MDI tabs to make comparisons.
4) Preferences – Use this interface to control options for these styles.

1.3.1 None

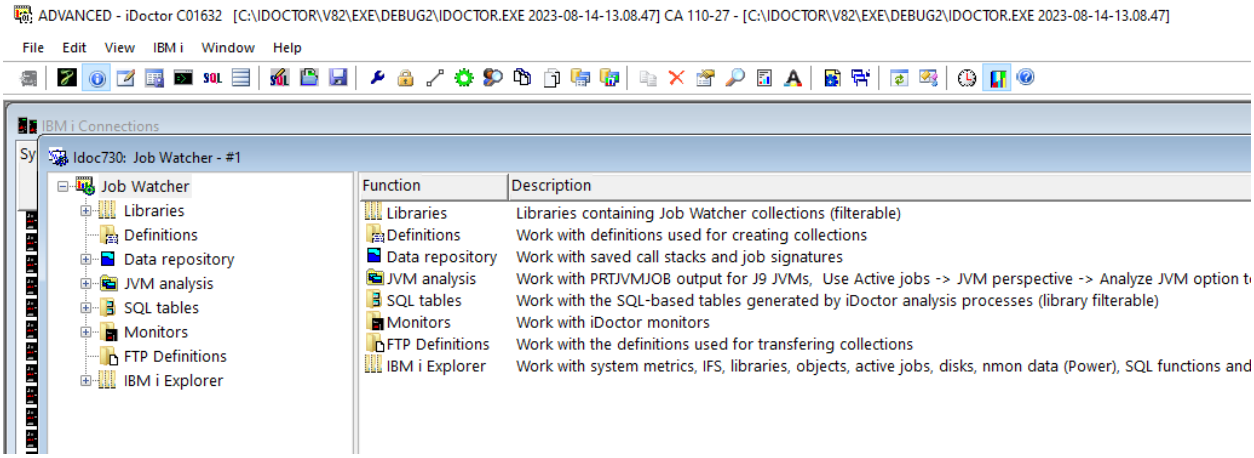
This style is the classic Windows MDI style where the frame window contains one or more child windows that can be individually moved/resized, cascaded or tiled horizontally or vertically.

If "None" is used, then some newer features are not available:

1) The View -> Full Screen option.
2) You will not be able to group several views/tabs together to make comparison with another set of views/tabs.

However, when using "None" you will be able to use the Windows -> Cascade, or Windows -> Tile menus to rearrange the views shown.

An example of the "None" MDI Tabbed Style in use is:

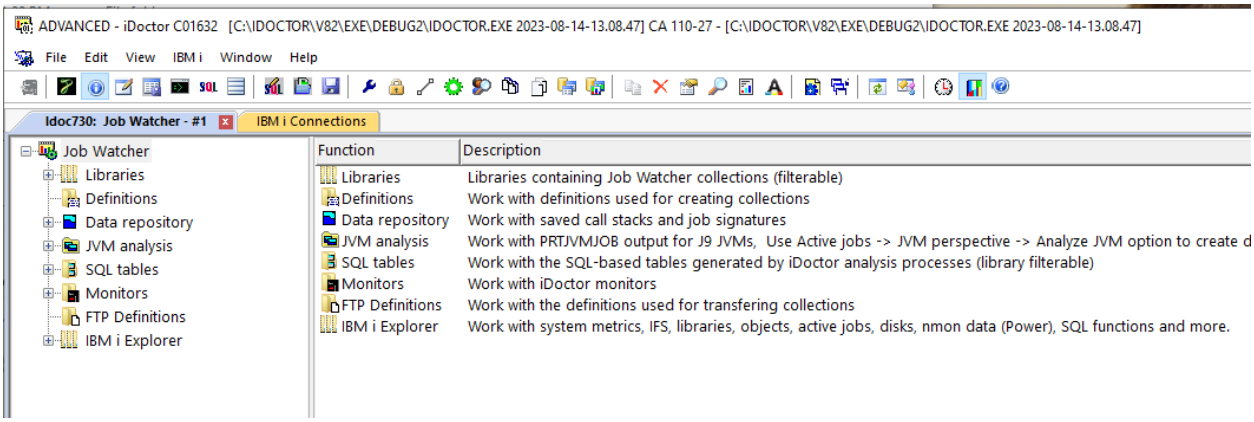


Main Window with the MDI Tabbed Style set to None

1.3.2 Standard

The Standard MDI style combines the benefits of using tabs with the classic MDI features of cascading and tiling. However, this style does not allow tabs to be grouped together, so it will be more difficult to make comparisons with another set of tabs when using this setting. You can also right-click anywhere on a tab to get additional options such as closing the tab or moving to another tab.

An example of the “Standard” MDI Tabbed Style in use is:



Main Window with the MDI Tabbed Style set to Standard

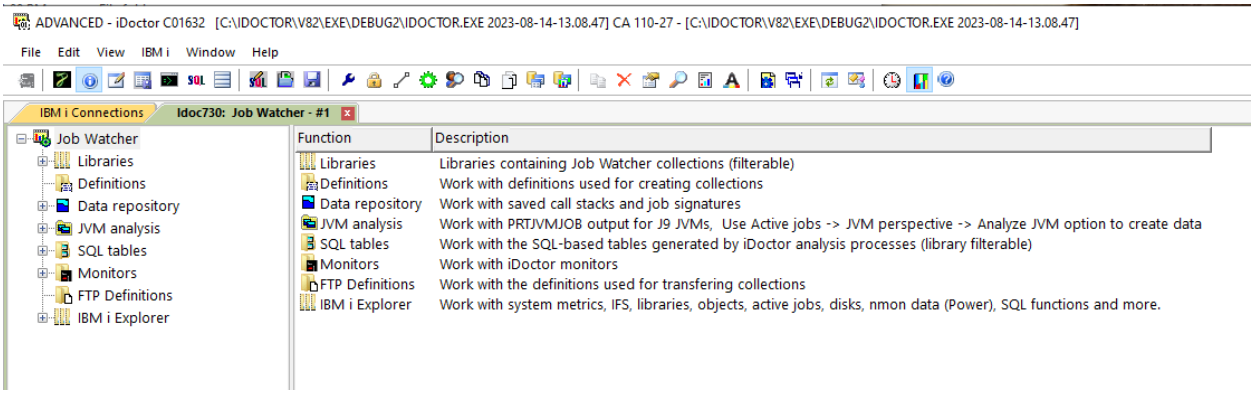
1.3.3 Grouped

The Grouped MDI style allows users to drag and drop tabs/views order in order to create 1 or more groups of tabs. This makes it relatively easy to make comparisons of 1 or more view(s) vs another set of views. **This setting is the default setting in iDoctor.**

To drag and drop a tab simply left click on a tab and hold the mouse down and move the mouse pointer to the desired part of the window to create a new tabbed group in (top, bottom, left or right.) Once in the correct location Windows will display a shaded rectangle around the area where the new tab will appear. At this point release the left mouse button and the tab will be moved to this location.

Grouped mode does not allow users to Tile or Cascade the views shown within.

An example of the “Grouped” MDI Tabbed Style in use is:

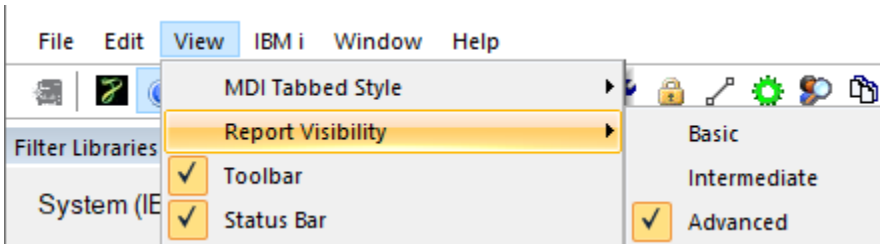


Main Window with the MDI Tabbed Style set to Grouped

1.4 Report Visibility

This option is used to control the level of detail shown in iDoctor in 3 ways: Basic, Detailed, Advanced.

You can set this using the View -> Report visibility menu on both the Main Window and Data Viewer windows.



Basic mode will show the fewest reports and Advanced will show all reports.
For new users Intermediate is recommended.

Note: You can tell which mode is in use by looking at the first word in the title bar of the Main Window or Data Viewer.

If you cannot find a graph that another user can see, then the 1st thing to check is which report visibility mode you are using, and you may need to set this to Advanced in order to see the missing graph.

1.5 Collections database

The iDoctor collections database is built into the design of iDoctor and is used to improve performance in the GUI when listing the collections that exist on an IBM i. It supports the following types of data:

- PEX
- Job Watcher (JW)
- Collection Services (CSI)
- Disk Watcher (DW)

The database resides in these tables in QUSRSYS.

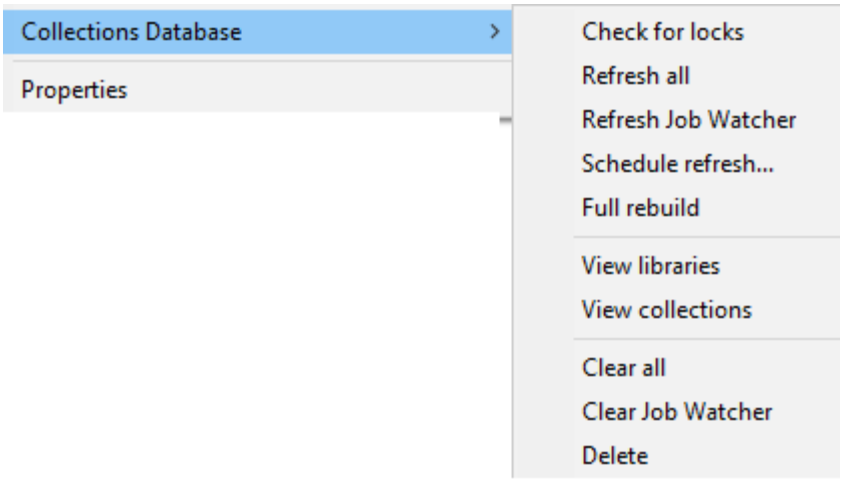
Table	Description
QAIDRLIBS	Collections cache list of libraries.
QAIDRCOLS	Collections cache list of collections.

These tables provide the ability to:

1. Drill down in the overview graphs in CSI or Job Watcher to drill down into another component's data for the same system in the same time period. This is typically used to drill down from CSI to Job Watcher and/or PEX.
2. Speeds up listing collections in libraries in iDoctor.

Note: These tables are cleared after a reinstallation of the server builds and it is recommended that they be rebuilt after doing so. Right-click the component icon and choose **Collections database -> Refresh all** to do this.

1.5.1 Menu Options



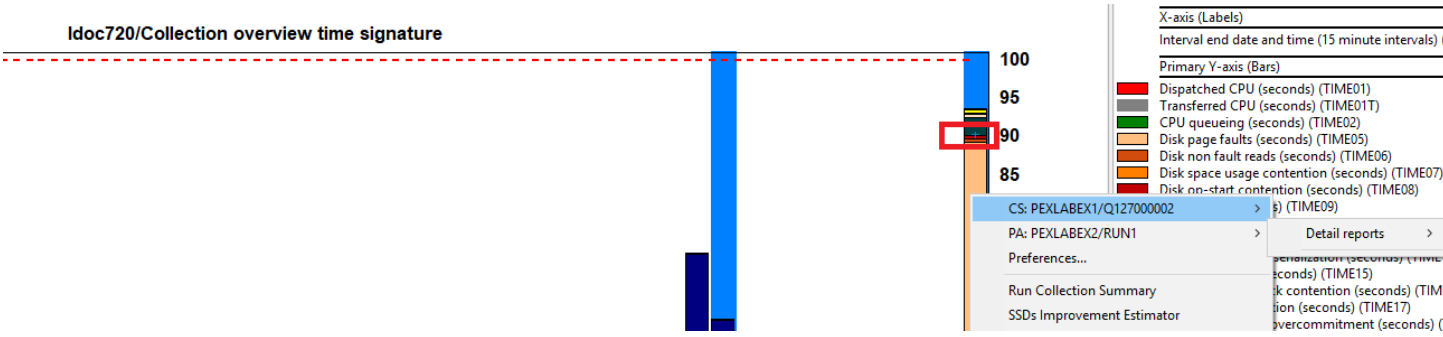
The following options are available under the Collections Database menu:

Menu	Description
Check for locks	This opens the Object lock info Pane to check for any locks on the QAIDRCOLS table. Typically, if any user has a CSI/JW Collection overview time signature graph open a lock will exist and these graphs and/or jobs will need to be closed before using the Delete or Full rebuild options.
Refresh all	This will submit jobs to rebuild the collections database for all 4 components PEX, DW, JW and CSI.
Refresh <X>	This will submit a job to rebuild the collections database for the current component.
Schedule refresh	This option allows you to schedule a daily refresh of the database.
Full rebuild	This option will delete and fully recreate the database. Use the Check for locks option before using this or it will likely fail.
View libraries	This will open the QUSRSYS/QAIDRLIBS table.
View collections	This will open the QUSRSYS/QAIDRCOLS table.
Clear all	Removes all records from the QAIDRLIBS and QAIDRCOLS tables.
Clear <X>	Removes all collections from the QAIDRCOLS table for the current component only.
Delete	This will delete the QAIDRLIBS and QAIDRCOLS tables. Use Check for locks before using. If you use this option, you should do a full rebuild afterwards or some functions may no longer work correctly.

1.5.2 Intra-component drill down support

Some overview graphs in Job Watcher and Collection Services Investigator use the Collections database to identify and drill into other types of data. If a drill down into another type of component is available a "widget" is shown on the graph which is special shape. Then the menu option will contain options for the current component and an option for each available additional component you can drill into for this system and time period.

In the following example CSI graph the plus sign (within the red box) indicates a drill down into PEX Analyzer is available and the normal drill downs into CSI are available under the CS menu. The collection name for each is also listed in the menu.

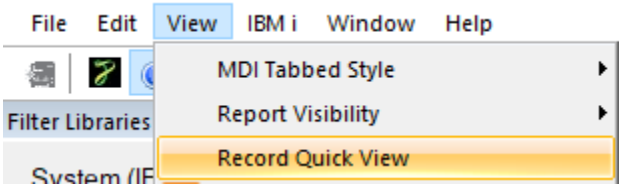


CSI Collection overview time signature showing intra-component drill down into PEX Analyzer.

1.6 Record Quick View

This window is shown when the Record Quick View menu is taken for the selected rows in a list or table view. The Record Quick View tab shows all data for the selected rows in a vertical list. This can make it easier to see all the data for a single record if many fields exist in the table. You can also make comparisons between multiple rows by selecting them and using the Record Quick View menu.

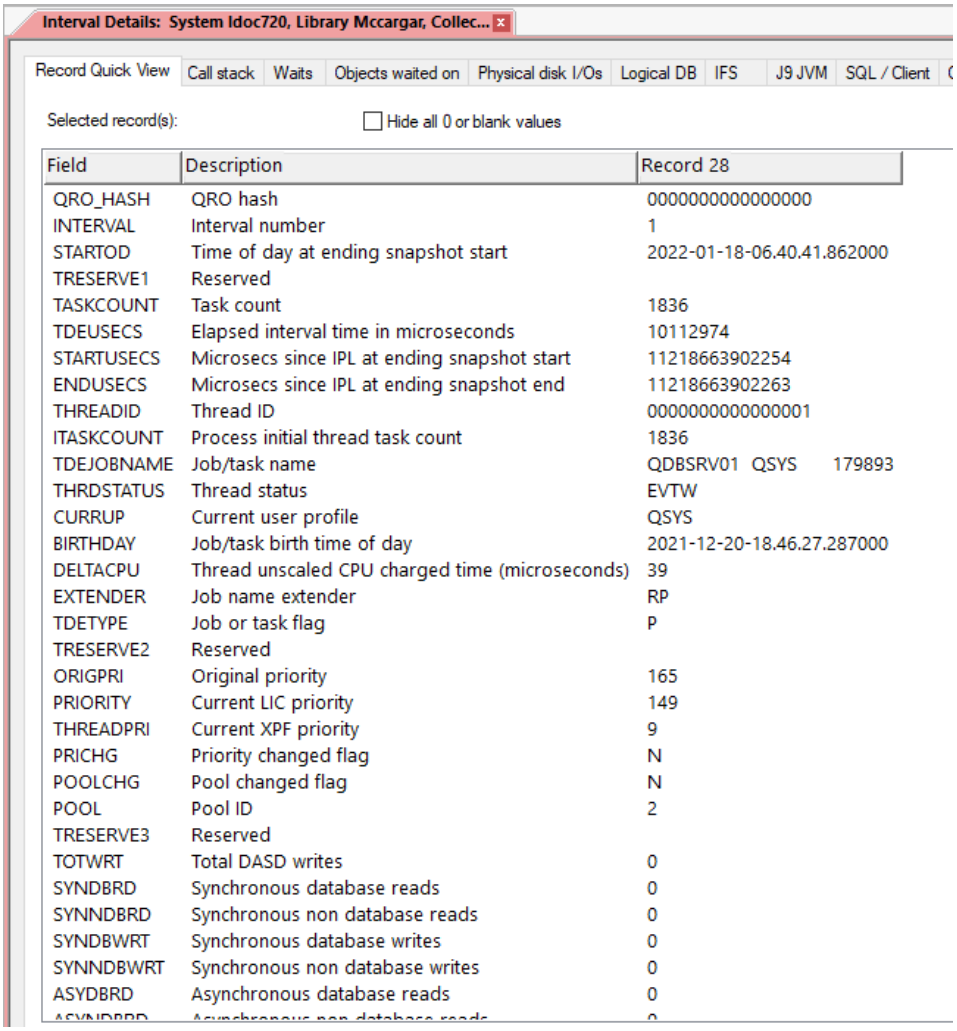
Tip: Access this window by double-clicking on any record in a table view in the Data Viewer or use the Record Quick View menu option from the Main Window's View menu or popup menu on the desired folder in some cases.



View -> Record Quick View menu from the Main Window

1.6.1 Viewing a single row

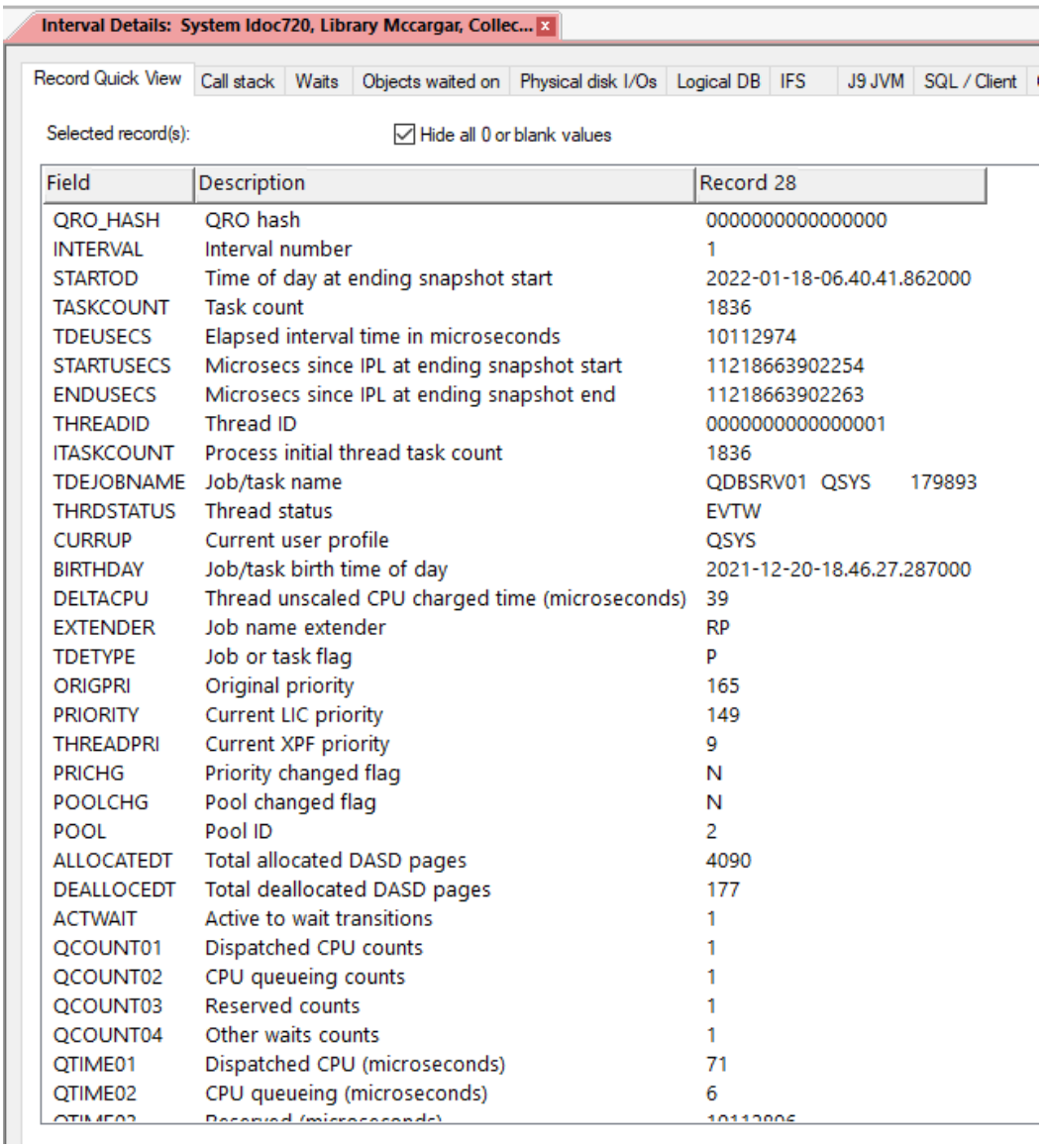
To view a single row in a table, simple double-click the desired row:



Field	Description	Record 28
QRO_HASH	QRO hash	0000000000000000
INTERVAL	Interval number	1
STARTOD	Time of day at ending snapshot start	2022-01-18-06.40.41.862000
TRESERVE1	Reserved	
TASKCOUNT	Task count	1836
TDEUSECS	Elapsed interval time in microseconds	10112974
STARTUSECS	Microsecs since IPL at ending snapshot start	11218663902254
ENDUSECS	Microsecs since IPL at ending snapshot end	11218663902263
THREADID	Thread ID	0000000000000001
ITASKCOUNT	Process initial thread task count	1836
TDEJOBNAME	Job/task name	QDBSRV01 QSYS 179893
THRDSTATUS	Thread status	EVTW
CURRUP	Current user profile	QSYS
BIRTHDAY	Job/task birth time of day	2021-12-20-18.46.27.287000
DELTACPU	Thread unscaled CPU charged time (microseconds)	39
EXTENDER	Job name extender	RP
TDETYPE	Job or task flag	P
TRESERVE2	Reserved	
ORIGPRI	Original priority	165
PRIORITY	Current LIC priority	149
THREADPRI	Current XPF priority	9
PRICHG	Priority changed flag	N
POOLCHG	Pool changed flag	N
POOL	Pool ID	2
TRESERVE3	Reserved	
TOTWRT	Total DASD writes	0
SYNDBRD	Synchronous database reads	0
SYNNDBRD	Synchronous non database reads	0
SYNDBWRT	Synchronous database writes	0
SYNNDBWRT	Synchronous non database writes	0
ASYDBRD	Asynchronous database reads	0

Record Quick View for 1 row

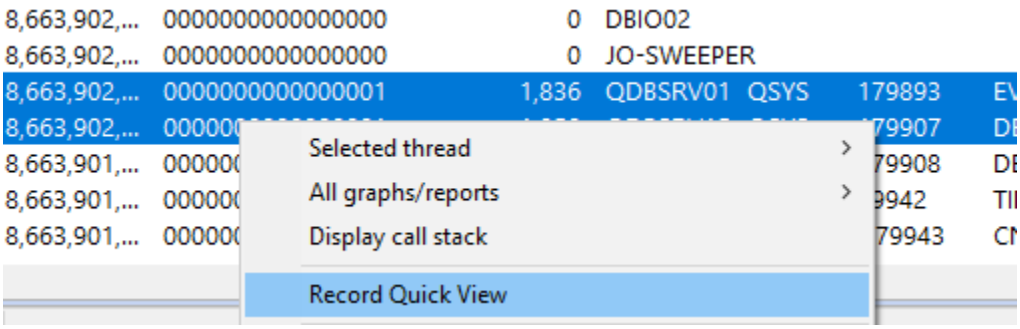
Tip: Use the **Hide all 0 or blank values** checkbox to remove those values from the list



Field	Description	Record 28
QRO_HASH	QRO hash	0000000000000000
INTERVAL	Interval number	1
STARTOD	Time of day at ending snapshot start	2022-01-18-06.40.41.862000
TASKCOUNT	Task count	1836
TDEUSECS	Elapsed interval time in microseconds	10112974
STARTUSECS	Microsecs since IPL at ending snapshot start	11218663902254
ENDUSECS	Microsecs since IPL at ending snapshot end	11218663902263
THREADID	Thread ID	0000000000000001
ITASKCOUNT	Process initial thread task count	1836
TDEJOBNAME	Job/task name	QDBSRV01 QSYS 179893
THRDSTATUS	Thread status	EVTW
CURRUP	Current user profile	QSYS
BIRTHDAY	Job/task birth time of day	2021-12-20-18.46.27.287000
DELTACPU	Thread unscaled CPU charged time (microseconds)	39
EXTENDER	Job name extender	RP
TDETYPE	Job or task flag	P
ORIGPRI	Original priority	165
PRIORITY	Current LIC priority	149
THREADPRI	Current XPF priority	9
PRICHG	Priority changed flag	N
POOLCHG	Pool changed flag	N
POOL	Pool ID	2
ALLOCATEDT	Total allocated DASD pages	4090
DEALLOCEDT	Total deallocated DASD pages	177
ACTWAIT	Active to wait transitions	1
QCOUNT01	Dispatched CPU counts	1
QCOUNT02	CPU queueing counts	1
QCOUNT03	Reserved counts	1
QCOUNT04	Other waits counts	1
QTIME01	Dispatched CPU (microseconds)	71
QTIME02	CPU queueing (microseconds)	6

1.6.2 Comparing multiple rows

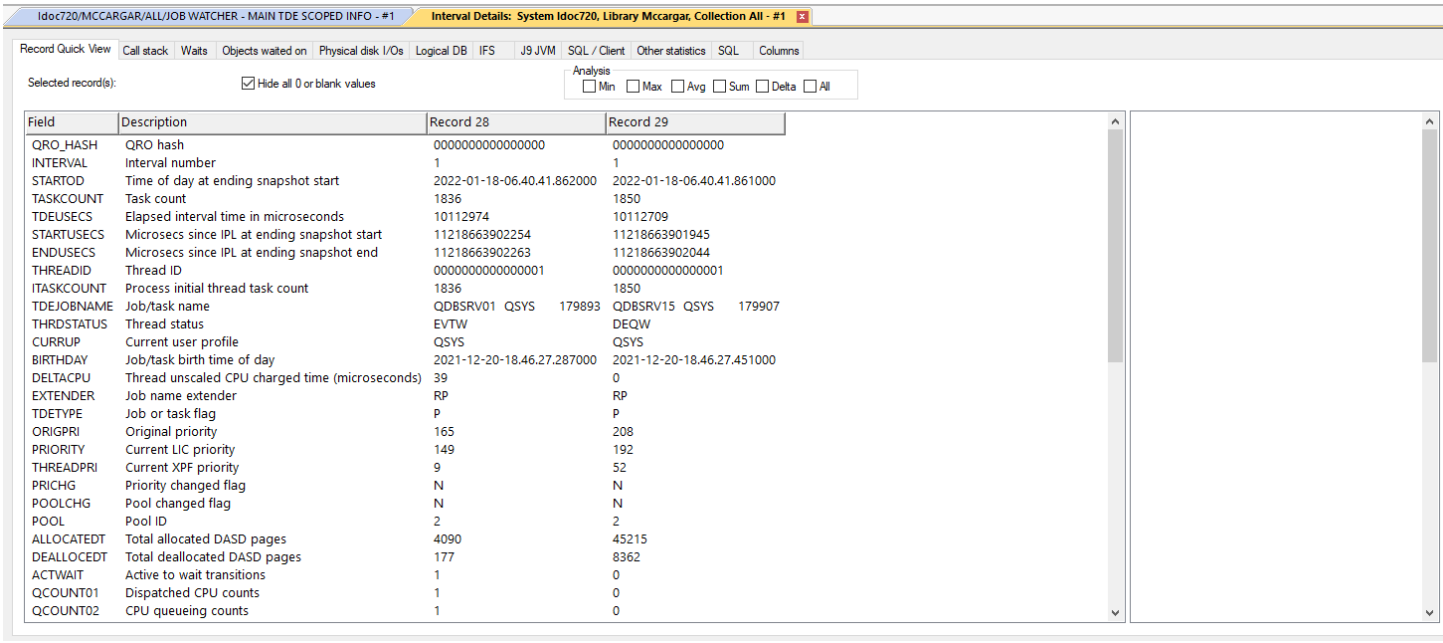
Select multiple rows in the table, right-click and use the Record Quick View menu to do this:



Record Quick View menu option

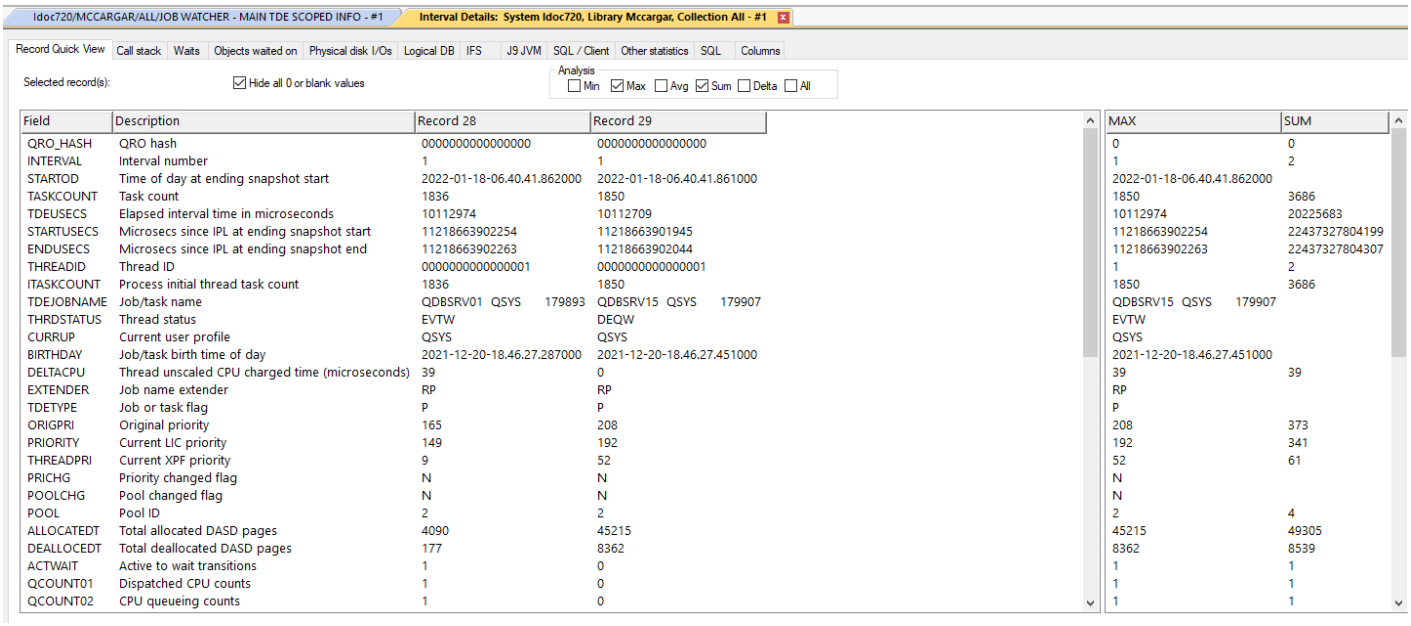
This will show the rows side-by-side with an area on the right side of the screen which is used for the analysis checkboxes at the top of the screen.
The Analysis options are:

Min, Max, Avg, Sum and All



Field	Description	Record 28	Record 29
QRO_HASH	QRO hash	0000000000000000	0000000000000000
INTERVAL	Interval number	1	1
STARTOD	Time of day at ending snapshot start	2022-01-18-06.40.41.862000	2022-01-18-06.40.41.861000
TASKCOUNT	Task count	1836	1850
TDEUSECS	Elapsed interval time in microseconds	10112974	10112709
STARTUSECS	Microsecs since IPL at ending snapshot start	11218663902254	11218663901945
ENDUSECS	Microsecs since IPL at ending snapshot end	11218663902263	11218663902044
THREADID	Thread ID	0000000000000001	0000000000000001
ITASKCOUNT	Process initial thread task count	1836	1850
TDEJOBNAME	Job/task name	QDBSRV01 QSYS 179893	QDBSRV15 QSYS 179907
THRDSTATUS	Thread status	EVTW	DEQW
CURRUP	Current user profile	QSYS	QSYS
BIRTHDAY	Job/task birth time of day	2021-12-20-18.46.27.287000	2021-12-20-18.46.27.451000
DELTACPU	Thread unscaled CPU charged time (microseconds)	39	0
EXTENDER	Job name extender	RP	RP
TDETYPE	Job or task flag	P	P
ORIGPRI	Original priority	165	208
PRIORITY	Current LIC priority	149	192
THREADPRI	Current XPF priority	9	52
PRICHG	Priority changed flag	N	N
POOLCHG	Pool changed flag	N	N
POOL	Pool ID	2	2
ALLOCATEDT	Total allocated DASD pages	4090	45215
DEALLOCEDT	Total deallocated DASD pages	177	8362
ACTWAIT	Active to wait transitions	1	0
QCOUNT01	Dispatched CPU counts	1	0
QCOUNT02	CPU queueing counts	1	0

Comparing 2 rows



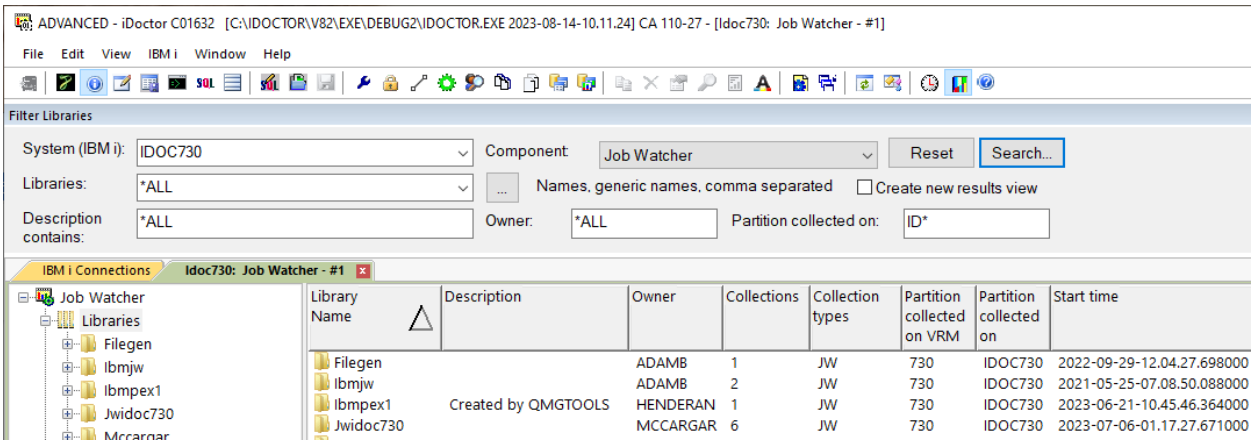
Field	Description	Record 28	Record 29	MAX	SUM
QRO_HASH	QRO hash	0000000000000000	0000000000000000	0	0
INTERVAL	Interval number	1	1	1	2
STARTOD	Time of day at ending snapshot start	2022-01-18-06.40.41.862000	2022-01-18-06.40.41.861000	2022-01-18-06.40.41.862000	
TASKCOUNT	Task count	1836	1850	1850	3686
TDEUSECS	Elapsed interval time in microseconds	10112974	10112709	10112974	20225683
STARTUSECS	Microsecs since IPL at ending snapshot start	11218663902254	11218663901945	11218663902254	22437327804199
ENDUSECS	Microsecs since IPL at ending snapshot end	11218663902263	11218663902044	11218663902263	22437327804307
THREADID	Thread ID	0000000000000001	0000000000000001	1	2
ITASKCOUNT	Process initial thread task count	1836	1850	1850	3686
TDEJOBNAME	Job/task name	QDBSRV01 QSYS 179893	QDBSRV15 QSYS 179907	QDBSRV15 QSYS 179907	
THRDSTATUS	Thread status	EVTW	DEQW	EVTW	
CURRUP	Current user profile	QSYS	QSYS	QSYS	
BIRTHDAY	Job/task birth time of day	2021-12-20-18.46.27.287000	2021-12-20-18.46.27.451000	2021-12-20-18.46.27.451000	
DELTACPU	Thread unscaled CPU charged time (microseconds)	39	0	39	39
EXTENDER	Job name extender	RP	RP	RP	
TDETYPE	Job or task flag	P	P	P	
ORIGPRI	Original priority	165	208	208	373
PRIORITY	Current LIC priority	149	192	192	341
THREADPRI	Current XPF priority	9	52	52	61
PRICHG	Priority changed flag	N	N	N	
POOLCHG	Pool changed flag	N	N	N	
POOL	Pool ID	2	2	2	4
ALLOCATEDT	Total allocated DASD pages	4090	45215	45215	49305
DEALLOCEDT	Total deallocated DASD pages	177	8362	8362	8539
ACTWAIT	Active to wait transitions	1	0	1	1
QCOUNT01	Dispatched CPU counts	1	0	1	1
QCOUNT02	CPU queueing counts	1	0	1	1

Showing results for the Max and Sum options on 2 rows

2 The Main Window

The Main Window displays the various component views as well as some additional views such as the IBM i Connections View. Each of these views within the Main Window will be discussed in greater detail in the next sections. This section will discuss the general use of the Main Window within IBM iDoctor for IBM i.

The heart of the IBM iDoctor for IBM i application is the interface shown below. All components are displayed within this GUI each within a separate "tree/list" view. Each view can be resized, tiled or manipulated at runtime. You can have as many component (a.k.a "tree/list") views up at one time as you wish.



Main Window Example

2.1 Toolbar

This section covers the toolbar buttons shown on the Main Window.

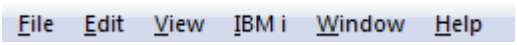
Note: Some of these options are only enabled depending on the current focus of the mouse pointer.

	**Add Connection (Alt+A)** Opens the Add Connection window for either the IBM i Connections View or Power Connections View depending upon which view is open and has focus. This option will only be enabled when one of the connection views has focus.
	**Power Connections** Shows or hides the Power Connections View. This lets you work with the HMC or VIOS connections.
	**IBM i Connections** Shows or hides the IBM i Connections View.
	**Open Knowledge Base** This opens the Knowledge Base component on whatever system in the list of IBM I connections defined as the default system (with a checkmark icon next to it.) This is a repository for storing your notes about performance data captured in iDoctor.
	**Save to Knowledge Base** This option is used to save the current information shown on the screen to the Knowledge Base.
	**Remote Command Status View** Shows or hides the Remote Command Status View. This view will show the status of CL commands and program calls running on behalf of the GUI's requests.
	**Remote SQL Statement Status View** Shows or hides the Remote SQL Statement Status View. This view will show the status of SQL statements running on behalf of the iDoctor GUI's requests.
	**iDoctor Message View** Shows or hide the iDoctor Message View. This provides debug information and is used primarily if problems occur and you need to provide more details back to iDoctor support.
	**New SQL Query** Opens a new instance of an SQL Query View. The SQL Query View is used to create a query using Structured Query Language (SQL). The top portion of the view is an area where you can enter an SQL statement (also known as the SQL Editor) and the bottom portion is the result or output from the statement above.
	**Open File** This option allows you to open any library/file/member on the system using the Open File/SQL Table Window. This window lets you browse for the file or SQL table you wish to open.
	**Save As** This option allows you to either save the contents of a table view to a file or if viewing a graph to a .jpg image. When using this option on a table the entire contents of the table are saved. You can choose between rich text, comma separated, and tab separated text formats. If you wish to include/exclude the header in the saved file, see the Preferences -> File tab.
	**Objects** Displays/hides the Objects Pane. This is an interface like the WRKOBJ command. This option lets you work with objects on the desired system and appears when the IBM i Explorer Objects or Libraries folders are used or when a search is performed results will go to the Objects folder in IBM i Explorer.
	**Object lock info** Displays/hides the Object lock info Pane. This option lets you work with the any locks that exist on the specified object. This is an interface like the WRKOBJLCK command and appears automatically when the IBM i Explorer -> Work management -> Object lock info folder is used. Search results will also go to that folder.
	**IFS** Displays/hides the IFS Pane. This option lets you browse a directory on the IFS. This is an interface like the WRKLNK command appears automatically when the IBM i Explorer -> IBM I Explorer -> IFS folder is used.
	**Active jobs** Displays/hides the Active Jobs Pane. Unlike the command this view lets you work with active or

	inactive jobs on the system (to view spool files of completed jobs.) You can also graph some job statistics in limited ways.
	**User profiles** Displays/hides the User profiles Pane. This lets you search/view/modify the user profiles found on the desired system. This is an interface like the WRKUSRPRF command appears automatically when the IBM i Explorer -> System -> User profiles folder is used.
	**Output queues** Displays or hides the Output queues Pane. This lets you view the output queues or expand them to view spool files within them. This is an interface like the WRKOUTQ command appears automatically when the IBM i Explorer -> Work management -> Output queues folder is used.
	**Spool files** Displays/hides the Spool files Pane. This lets you work with the spool files on the system. This is an interface like the WRKSPLF command appears automatically when the IBM i Explorer -> Work management -> Spool files folder is used.
	**Tables** Displays/hides the Tables Pane. This lets you search the desired system for physical files/SQL tables/views/etc. This pane appears automatically when the IBM i Explorer -> IBM i Explorer -> Tables folder is used.
	**Graphs** Displays/hides the Graphs Pane. This lets you search the iDoctor report database for graphs and reports of interest and determine where they exist, what releases they are available and what special files or PTFs are required for each.
	**Copy (Ctrl+C)** Copy the selected rows or cells from a list view to the clipboard in text format. This allows you to quickly copy data shown in iDoctor list views into Notepad or other applications that work with text.
	**Delete** Deletes the selected objects (connections, libraries, collections, etc)
	**Properties** Displays the property pages for the selected object (library, collection, etc)
	**Collection Search** This option will open the Collection Search function for the currently selected performance collection. (PEX, CS, DW, JW, etc) This will let you search for something specific within the desired collection such as a job name.
	**Report Generator** This option will open the Report Generator interface for the currently selected performance collection. This is used to build several graph/reports from the data at once and saving lists of reports into a reusable collection of favorites to be used repeatedly.
	**Set Font** Displays the Set Font window which allows you to control the font used in iDoctor tree and list views.
	**Edit Preferences** Displays the iDoctor Preferences interface.
	**Window Manager** This button will display the Window Manager which lets you work with a list of all tabs/views that are opened. This lets you find and activate the desired view/window or close one or more views quickly.
	**Refresh (F5)** Refresh the selected list view or selected branch in a tree. **Note:** This is not the same as refreshing everything on the screen. In some cases, you may need to click on the folder above the current one to refresh the desired objects.
	**Data Viewer (Ctrl+N)** Opens an empty Data Viewer for the system you are currently working with.

	**Set default time grouping** Toggles the **default time grouping** shown on graphs. The iDoctor default value for this is 1-minute intervals. This setting is changeable in the Data Viewer after the graph is opened using the clock icon there. The larger the interval size, the smaller number of bars produced in the graph and the more time that can be shown on a single graph page. This applies to all components that show data over time. **Note:** If the data was collected at an interval size greater than the current default time range interval size specified, (such as 15-minute intervals in Collection Services) the data will be shown at the collected interval size since it cannot be broken down further.
	**Enable/disable Situations** This button enables or disables the Situational Analysis background colors across all graphs/components. If graphs are currently open, you may need to click on the desired graph after toggling this button on/off in order to see the change take effect on the graph.
	**About** This option displays the properties for iDoctor. This button performs the same action as the Help -> About menu.

2.2 Menu Options



The tables below outline the different types of menu operations that may be performed within the Main Window of the iDoctor GUI.

2.2.1 File

File Menu	Description
Add Connection	This option will display the Add Connection window to add a new IBM i or Power connection depending on which view (IBM i connections or Power Connections) is currently active. If neither is active then this menu option will be disabled.
New SQL Query	Opens a new instance of an SQL Query View. The SQL Query View is used to create a query using Structured Query Language (SQL). The top portion of the view is an area where you can enter an SQL statement (also known as the SQL Editor) and the bottom portion is the result or output from the statement above.
Open Knowledge Base	This opens the Knowledge Base component on whatever system in the list of IBM I connections defined as the default system (with a checkmark icon next to it.) This is a repository for storing your notes about performance data captured in iDoctor.
Open File/Member	This option allows you to open any library/file/member on the system using the Open File/SQL Table Window. This window lets you browse for the file or SQL table you wish to open.
Open New Data Viewer	Opens an empty Data Viewer.
Save -> View As...	This option allows you to save the contents of a list view to a file. When using this option, the entire contents of the table are saved. You can choose between rich text, comma separated, and tab separated text formats.
Save -> Selection As…	The option allows you to save the **selected** contents within a list shown in the GUI to a file. When using this option only the selected records or block of cells are written to the file. When using this option, you can choose between rich text, comma separated, and tab separated text formats. This option is not available for graph views.
Save to Knowledge Base	This option is used to save the current information shown on the screen to the Knowledge Base.
Close	This will close the active view within the Main Window.
Set User-Defined Reports Database	This option allows a user to load/use another user's iDoctor user-defined reports/graphs that they have previously created. When saving user-defined reports these are saved into the specified database. This can either be an IBM i library or a local database on the PC (MDB file). To find the current user-defined reports DB settings, either use this menu option or see the application properties (Help -> About menu) and then look for the "User-defined reports DB" location.
Exit	Exits the application. All open windows including Data Viewers will be closed.

2.2.2 Edit

Edit Menu	Description
Copy	Copies the current selection from the active view to the clipboard. This is only enabled when the active view is a list view or text in a textbox.
Delete	Deletes the current selection.
Select all	If the current view is a list view or text box, this option will select the entire contents.
Find	This option displays the Find Window which can be used to find the next or previous text in a list view.
Find Next	Use this option (or press F3) to look for and select the next occurrence of the text last entered on the Find Window.
Find Previous	Use this option (or press Shift+F3) to look for and select the previous occurrence of the text last entered on the Find Window.
Search	This option will open the Collection Search function for the currently selected performance collection. (PEX, CS, DW, JW, etc) This will let you search for something specific within the desired collection such as a job name.
Generate Reports	This option will open the Report Generator interface for the currently selected performance collection. This is used to build several graph/reports from the data at once and saving lists of reports into a reusable collection of favorites to be used repeatedly.
Set Font	Displays a window allowing you to change the font used for the interface currently open. The font change will also be used in other interfaces of the same type. The fonts used in lists/trees is different than the fixed-width font used in editors, property sheets and text file output and can be controlled more directly under Preferences -> Display - Advanced.
Preferences	This interface allows you to work with many user-definable settings in iDoctor. These settings are stored in the Windows registry.
Wait Bucket Preferences	Displays a window letting you work with preferred colors, patterns and wait buckets to show in iDoctor wait bucket graphs.
Column Search	This option allows a user to search all of the iDoctor graph/report databases (.mdb files) at once for a specific column name in any of the reports. **Note:** This typically is for IBM internal use only.
Clear iDoctor cache	This option clears most data structures loaded into the GUI's memory cache. This includes things like report information, graph definitions, stored procedure versions, column descriptions, etc.
Migrate user-defined reports DB	This is available to assist any long-time user migrate their user-defined iDoctor reports to the latest format. This only works if the file was created after November 2012.
Restore Field Selection Settings	This option resets all field selections in the component views to the defaults. These can be changed by the user on some folders using the Select Fields… menu option.
Increase Windows GDI limit	This option will allow a user to open more graphs (4X) than you would normally be able to before running out of Windows (GDI) objects (a type of memory structure). **This is highly recommended.** As a work-around you can also try opening multiple instances of iDoctor
Restore Windows GDI limit	This option will restore the Windows GDI limit to the Windows default of 10,000.

2.2.3 View

View Menu	Description
MDI Tabbed Style	Use this option to change the current MDI tabbed style being used. There are 3 styles of MDI tabs available in iDoctor: 1) None – this is a classic Windows MDI without tabs 2) Standard – allows users to tile and cascade but you cannot create groups of MDI tabs to compare with other tabs. 3) **Grouped** – Tabs cannot be tiled or cascaded but you can create groups of MDI tabs in order to make comparisons.
Report Visibility	This option is used to control the level of detail in the list of reports in 3 ways: Basic, Detailed, Advanced.
Record Quick View	
Toolbar	This will either show or hide the tool bar.
Status Bar	This will either show or hide the status bar.
Refresh	This menu will refresh the currently selected portion of a tree/list view. F5 can also be used to do this action. If a tree item is selected and this menu is clicked, everything underneath the tree item, including the tree item will have its data refreshed. If the list has focus and this menu is clicked, the entire list will be refreshed.
Resize Column Widths	This option will resize the columns shown in the currently show list view. F8 can also be used to do this action. This is mostly useful in situations where new data has arrived, and the columns are truncating some of that data.
Power Connections	Shows or hides the Power Connections View.
IBM i Connections	This menu will either show or hide the IBM i Connections View.
Remote Command Status	This menu will either show or hide the Remote Command Status View. This view displays the status of long running remote commands such as copying a collection or sending a collection to another system. It can also be used to run CL commands against one or more systems at once.
Remote SQL Statement Status	This menu will either show or hide the Remote SQL Statement Status View. This view executes SQL statements ran by the GUI or user. It can also be used to run user-defined SQL statements against one or more systems.
iDoctor Messages	Shows or hide the iDoctor Message View. This provides debug information and is used primarily if problems occur and you need to provide more details back to iDoctor support.
Objects	Displays/hides the Objects Pane. This is an interface like the WRKOBJ command. This option lets you work with objects on the desired system and appears when the IBM i Explorer Objects or Libraries folders are used or when a search is performed results will go to the Objects folder in IBM i Explorer.
Object lock info	Displays/hides the Object lock info Pane. This option lets you work with the any locks that exist on the specified object. This is an interface like the WRKOBJLCK command and appears automatically when the IBM i Explorer -> Work management -> Object lock info folder is used. Search results will also go to that folder.
IFS	Displays/hides the IFS Pane. This option lets you browse a directory on the IFS. This is an interface like the WRKLNK command appears automatically when the IBM i Explorer -> IBM I Explorer -> IFS folder is used.
Active jobs	Displays/hides the Active Jobs Pane. Unlike the command this view lets you work with active or inactive jobs on the system (to view spool files of completed jobs.) You can also graph some job statistics in limited ways.
User profiles	Displays/hides the User profiles Pane. This lets you search/view/modify the user

	profiles found on the desired system. This is an interface like the WRKUSRPRF command appears automatically when the IBM i Explorer -> System -> User profiles folder is used.
Output queues	Displays or hides the Output queues Pane. This lets you view the output queues or expand them to view spool files within them. This is an interface like the WRKOUTQ command appears automatically when the IBM i Explorer -> Work management -> Output queues folder is used.
Spool files	Displays/hides the Spool files Pane. This lets you work with the spool files on the system. This is an interface like the WRKSPLF command appears automatically when the IBM i Explorer -> Work management -> Spool files folder is used.
Tables	Displays/hides the Tables Pane. This lets you search the desired system for physical files/SQL tables/views/etc. This pane appears automatically when the IBM i Explorer -> IBM i Explorer -> Tables folder is used.
Graphs	Displays/hides the Graphs Pane. This lets you search the iDoctor report database for graphs and reports of interest and determine where they exist, what releases they are available and what special files or PTFs are required for each.
Properties	This action displays the properties for the selected item in the current interface with focus.

2.2.4 IBM i

IBM i Menu	Description
Objects	Displays/hides the Objects Pane. This is an interface like the WRKOBJ command. This option lets you work with objects on the desired system and appears when the IBM i Explorer Objects or Libraries folders are used or when a search is performed results will go to the Objects folder in IBM i Explorer. Additional options also appear here to access the iDoctor libraries QIDRGUI, QIDRWCH, QIDRPA, QMGTOOLS and QIDRTMP.
Object lock info	Displays/hides the Object lock info Pane. This option lets you work with the any locks that exist on the specified object. This is an interface like the WRKOBJLCK command and appears automatically when the IBM i Explorer -> Work management -> Object lock info folder is used. Search results will also go to that folder.
IFS	Displays/hides the IFS Pane. This option lets you browse a directory on the IFS. This is an interface like the WRKLNK command appears automatically when the IBM i Explorer -> IBM I Explorer -> IFS folder is used.
Active jobs	Displays/hides the Active Jobs Pane. Unlike the command this view lets you work with active or inactive jobs on the system (to view spool files of completed jobs.) You can also graph some job statistics in limited ways.
User profiles	Displays/hides the User profiles Pane. This lets you search/view/modify the user profiles found on the desired system. This is an interface like the WRKUSRPRF command appears automatically when the IBM i Explorer -> System -> User profiles folder is used.
Output queues	Displays or hides the Output queues Pane. This lets you view the output queues or expand them to view spool files within them. This is an interface like the WRKOUTQ command appears automatically when the IBM i Explorer -> Work management -> Output queues folder is used.
Spool files	Displays/hides the Spool files Pane. This lets you work with the spool files on the system. This is an interface like the WRKSPLF command appears automatically when the IBM i Explorer -> Work management -> Spool files folder is used.
Tables	Displays/hides the Tables Pane. This lets you search the desired system for physical files/SQL tables/views/etc. This pane appears automatically when the IBM i Explorer -> IBM i Explorer -> Tables folder is used.
Delete all Spool Files for current user	This option will prompt you and then if confirmed, remove all spool files for the currently signed on user profile for the current system.

2.2.5 Window

Window Menu	Description
Cascade	Use this menu to rearrange all views in the Main Window in an overlapping sequence starting in the upper left corner of the window. **Note:** This option is not shown when the MDI tabbed style is set to Grouped.
Tile Horizontally	Use this menu to rearrange all views in the Main Window such that each view will have an equal distribution of the available height in the Main Window. The views will not overlap each other. **Note:** This option is not shown when the MDI tabbed style is set to Grouped.
Tile Vertically	Use this menu to rearrange all views in the Main Window such that each view will have an equal distribution of the available width in the Main Window. The views will not overlap each other. **Note:** This option is not shown when the MDI tabbed style is set to Grouped.
Close All	This option will close all open tabs/views.

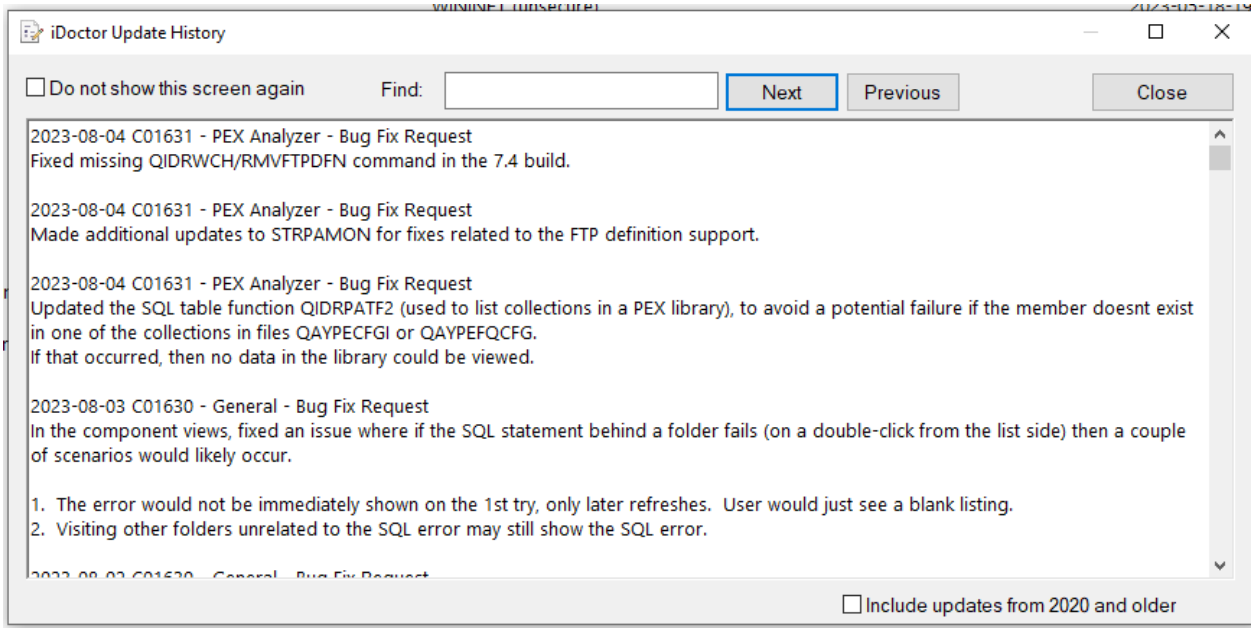
Note: The Window menu also dynamically contains a list of all open views within the Main Window for easy access to them. Clicking on a view name will take the user to it.

2.2.6 Help

Help Menu	Description
Update History	Shows the Update History window.
Update Summary	Opens the iDoctor Update Summary PDF document. This is a much-less verbose version of the Update History.
FAQs	This open the iDoctor Frequently Asked Questions document.
iDoctor Videos	Launches your web browser and takes you to iDoctor videos on IBM MediaCenter .
IBM i Support Center Videos	Launches your web browser and takes you to the IBM i Systems Support MediaCenter page
Tips	Additional PDF documents covering different topics are accessible under this menu.
iDoctor website	Launches your web browser and takes you to the iDoctor website.
iDoctor downloads	Launches your web browser and takes you to the iDoctor download page.
iDoctor documentation	Launches your web browser and takes you to the documentation.
About IBM iDoctor for IBM i	This displays version information for the iDoctor client.

2.3 Update History

This window is displayed when iDoctor is started by default to show all the recent changes.

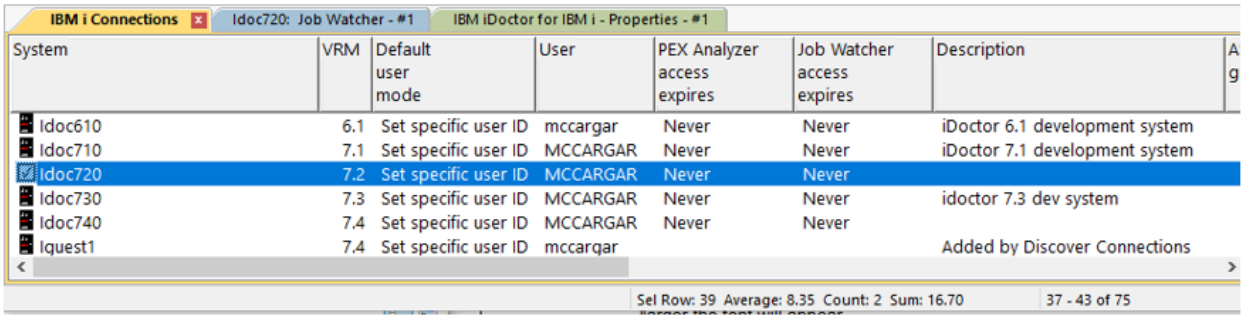


The window provides a find textbox that lets you search for the iDoctor function of interest. You may also click the “do not show this screen again checkbox”. If you click that checkbox and then want to see the Update History window again later, use the Help -> Update History menu to reopen it.

2.4 IBM i Connections View

The IBM i Connections view allows you to work with all the connections defined to IBM i systems created via IBM i Access Client Solutions or iDoctor. The primary purpose of this view is to provide a quick and easy way to launch the iDoctor components for any system desired.

The list of connections shown is for the currently active “environment”. Each environment can contain 1 or more systems. You can change the currently active environment by right-clicking on the list and choosing the Change Environment... menu.



IBM i Connections

Double-click a system to connect to it. Right-click a system and use Edit to change the settings for a system.

2.4.1 Fields

The list contains several columns. **NOTE:** All values shown are based on the last checked values and may not reflect current values. Some of the less obvious fields in the list are described below:

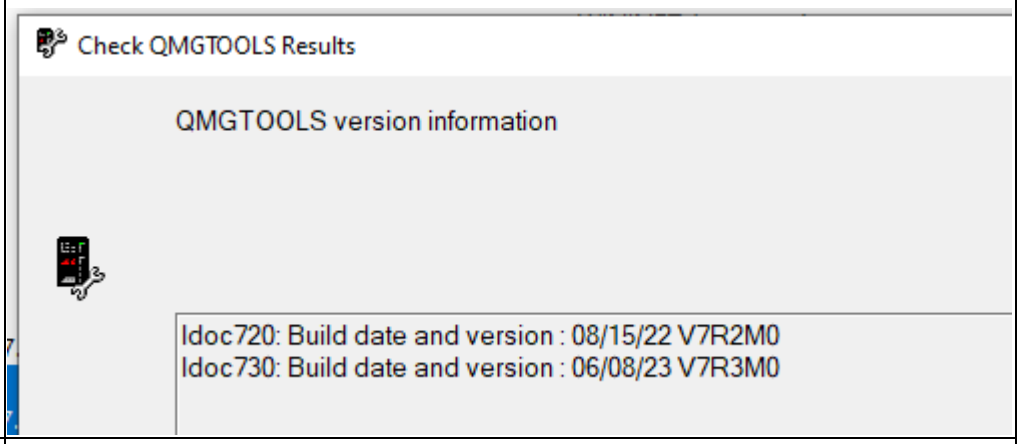
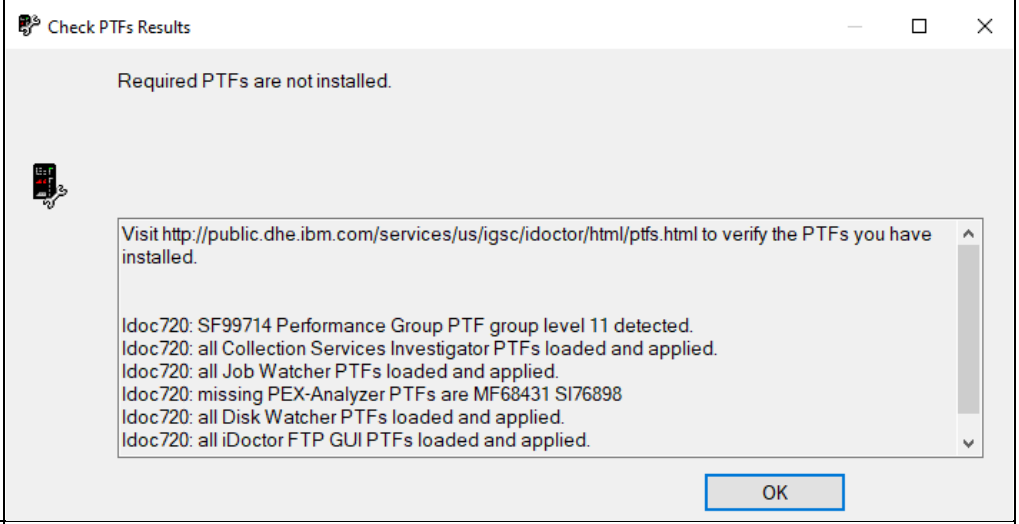
Column	Description
Default user mode	This indicates how the username is determined when making connections. The possible values are: 1) Use Windows ID 2) Set specific user ID (indicated by the User column) 3) Prompt every time
ASP group	The name of the IASP group to use when making the connection. This is a required field if you wish to work with libraries created on IASPs. The value given should match the value supplied after running the command: WRKDEVD DEVD(*ASP)
Relational database name	The name of the relational database to use when making the connection to the system. This is primarily used when connecting to a system with an IASP (in the ODBC connection for the QZDASOINIT job). The value may or may not be same as the ASP group value depending on how the system is configured. The relational database name is listed in the Database component of IBM i Navigator.
Transfer method	This indicates how files will be transferred to/from the system.
SSL	Indicates if the ACS setting to use SSL on the connection is set. It does not apply to the Transfer method SSL option.
IP Address	The last known IP address of the system. To update this right-click the list and use the Check -> IP Address popup menu.

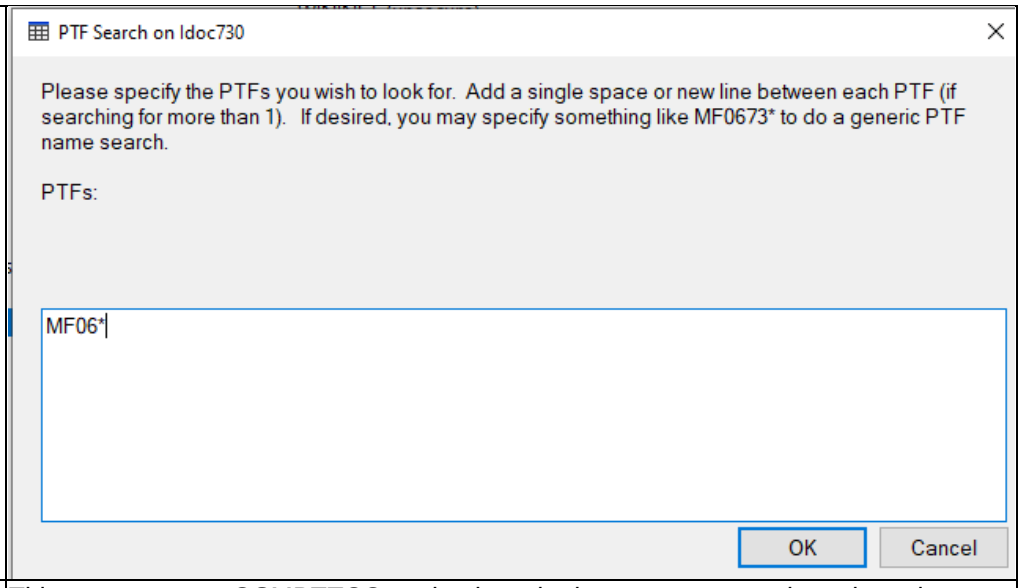
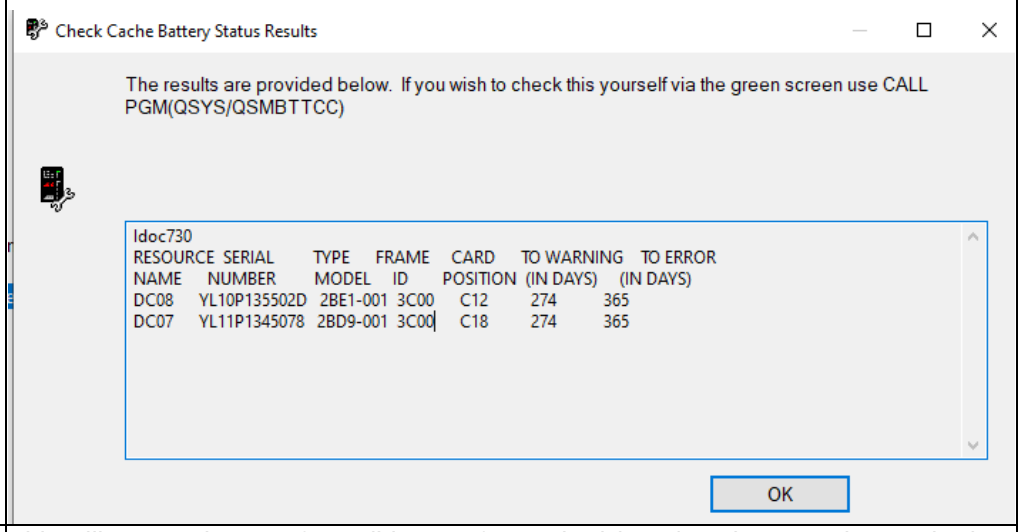
2.4.2 Menu options

Right-click a system for several options. The less obvious options are described below:

Popup Menu	Description
Terminal Sessions – Launch ACS	This allows you to launch an IBM i Access Client Solutions terminal session to the selected system. **Note:** This option only works when the Preferences > Terminal Session -> Sessions Directory value specifies the directory where the ACS .ws files are stored and the file name matches the connection name exactly (minus the .ws). This currently doesn't support .hod files
Terminal Sessions – Launch PCOMM	This allows you to launch an IBM Personal Communications terminal session to the selected system. **Note:** This option only works when the Preferences > Terminal Session -> Sessions Directory value specifies the directory where the ACS .ws files are stored and the file name matches the connection name exactly (minus the .ws).
Terminal Sessions – Launch Putty (SSH)	This launches a putty (SSH) session to the system. This only works if Preferences -> Power -> Putty install directory setting correctly specifies a directory where Putty has been installed. **Note:** You may need to run this command on the IBM i before being able to use this option by starting the SSHD server. QSYS/STRTCPSVR SERVER(*SSHD)
Terminal Sessions – Launch Putty (Telnet)	This launches a Putty telnet session to the system. This only works if Preferences -> Power -> Putty install directory setting correctly specifies a directory where Putty has been installed. **Note:** You may need to run this command on the IBM I before being able to use this option by starting the Telnet server. QSYS/STRTCPSVR SERVER(*TELNET)
Terminal Sessions – Open Sessions Directory…	This opens the Preferences -> Terminal Sessions -> Sessions Directory folder in Windows Explorer.

Enable SSH key-based authentication	The GUI will attempt to setup SSH key-based authentication on this LPAR. It won't always work. See the FAQ section 2.13 for more information on what it does and additional resources for setting this up.

Check – QMGTOOLS version	This option will determine the build date of QMGTOOLS for each of the selected systems. You will be prompted to signon for any system where this is necessary, and the password is not cached already in ACS. **Note:** This requires build 1633+. 
Check – Expiration Dates	This will check the dates the access codes expire on all selected systems then update the **PEX Analyzer access expires** and **Job Watcher access expires** columns in the list. The default signon is used to access each selected system.
Check – PTFs	This checks the required PTF levels for all performance related components on the desired system(s). The Performance Group PTF level will be checked as well as the required PTFs for Job Watcher, PEX, Collection Services and Disk Watcher. 
Check – PTF Search	This option allows the user to type in a specific PTF name or a generic PTF name against a system to check the status of a PTF. This uses the QSYS2/PTF_INFO view. **Tip:** Enter a value of * to see a list of all PTFs. Only works against 1 system at a time.

	
Check – Cache battery status	This runs program QSMBTTCC to check cache battery status on the selected system(s). 
Check – Transfer Methods	This will test each type of possible transfer method (FTP/SSH) connection method on the system and show the results. Only works against 1 system at a time.
Check – Connection	This runs the windows ping command against the selected system(s).
Check – IP Address	This will attempt to determine the IP address for all selected systems, then update the listing.

Record Quick View	Displays a vertical list of fields for the selected rows in a new window. You can use this to make comparisons.
Set default user mode	Use this option to more quickly set the **default user mode** to a specific user id of your choice on all systems or only the selected systems.
Set as default system	This sets the desired LPAR to be the default one in Access Client Solutions. This system will be shown with a checkbox icon in this interface. This means this system is the Knowledge Base system used by the GUI.
Apply Keys	This option is used to apply access codes to one or more LPARs using the email sent by the iDoctor team.
Clear Password Cache	This option is sometimes useful to ensure that iDoctor does not try to use an old/expired password after changing your password on a system.
Open Digital Certificate Manager	This opens the Digital Certificate Manager web page for the current system.
Download Certificates	This launches the cwbcossl ACS tool for downloading certificates from the current system to the PC.

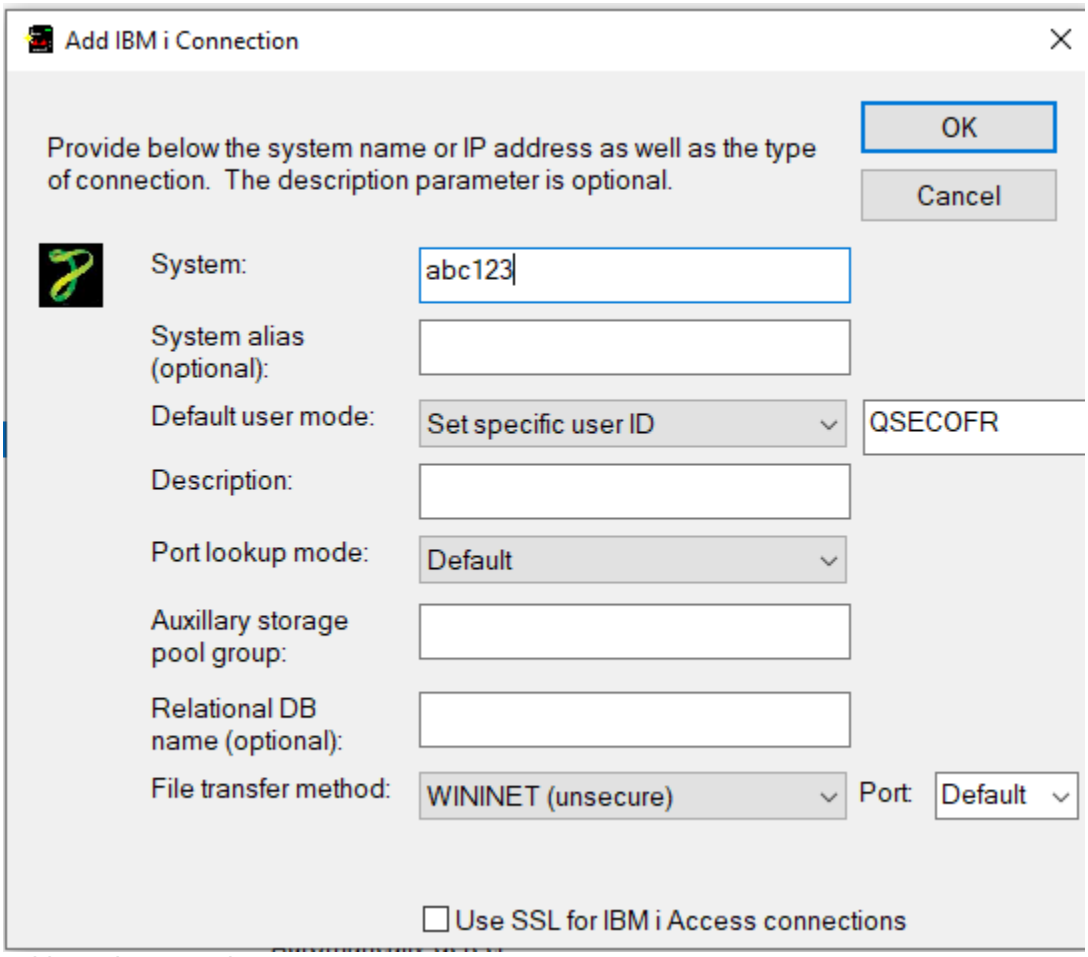
Export Connections	Use this option to create a Windows registry file that contains a list of all your IBM I connections. This file can be used to restore your connections later, or move them to another PC.
Export GUI Preferences	Added in 1562+, this option creates a Windows registry file that contains all iDoctor preferences (except for your connections). This file can be used to restore your desired preferences later or move them to another PC.
Uninstall iDoctor	This option removes all iDoctor related libraries and objects on the system. After running this option, you can view the results (job log) from the Remote Command Status View. If you wish to run this process outside of the GUI then execute the following commands: CRTDUPOBJ OBJ(QIDRUNINST) FROMLIB(QIDRGUI) OBJTYPE(*PGM) TOLIB(QTEMP) CALL PGM(QTEMP/QIDRUNINST) **Note:** No performance data created by iDoctor is deleted using this option. If this is desired, delete the desired performance data from the system first before uninstalling iDoctor. Also, it is normal for some objects to be missing and show errors during the uninstall process. If you encounter objects created by iDoctor but not removed, you can report this to idoctor@us.ibm.com so we can update this program appropriately.
Change Connection Environment	A connection environment is a set of 1 or more connections which can be defined in both iDoctor and ACS. By changing your connection environments the IBM i Connections view will update to show the connections within that environment. You can also define new connection environments or delete one within this interface.

2.4.3 Add/Edit IBM i Connection

This window allows a user to add or edit a connection.

Provide the system name or IP address, the default user mode and user ID if applicable, an optional description and click OK to register the system on your PC and add it to the list of IBM i Connections.

An example of this interface is:



Add IBM i Connection

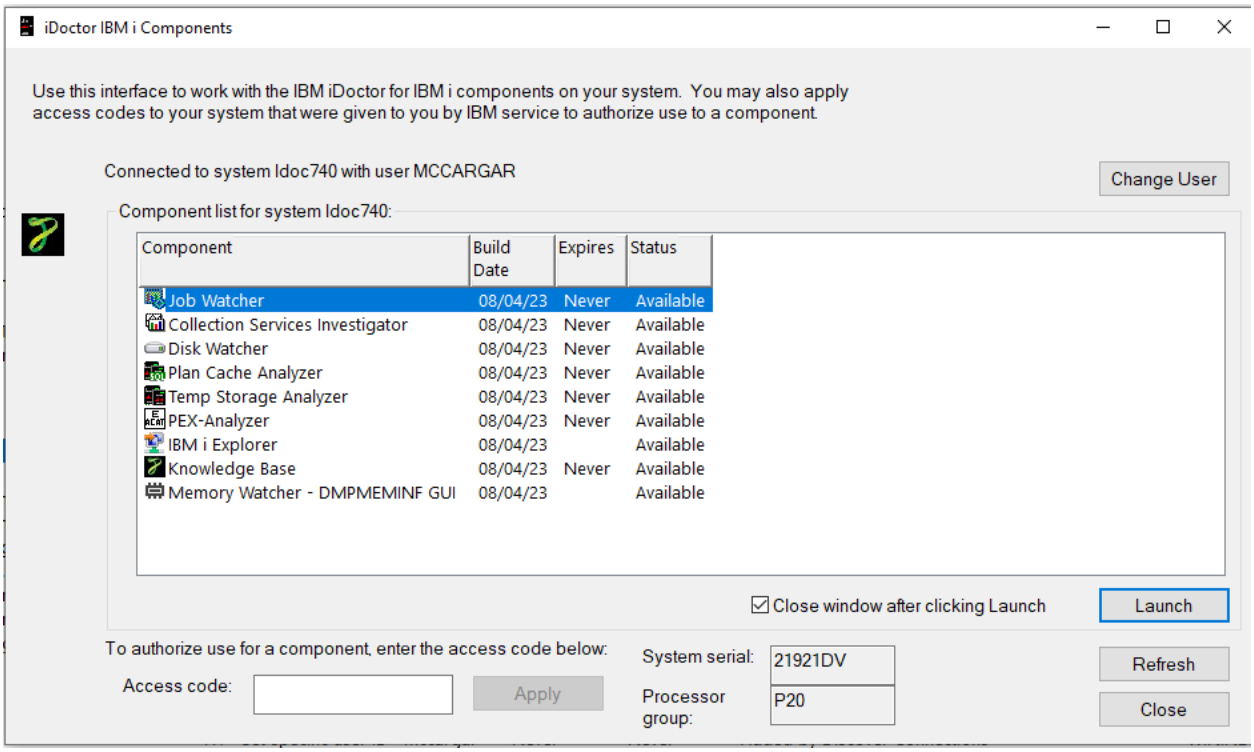
2.4.3.1 Interface

The less obvious options available on this screen are described in the following table:

Option	Description
System alias (optional)	This option (if specified) will display this value as the system name in graph titles or report titles in the Data Viewer.
Default user mode	Indicates how the user name when making connections to this system will be determined. The choices are: Use Windows ID Set specific user ID (a text box will appear where you can enter this value) Prompt every time
Port lookup mode	This is an ACS setting indicating how the host server port lookup will occur. More information on the API used is here.
Auxillary storage pool group	The name of the IASP group to use when making the connection. This is a required field if you wish to work with libraries created on IASPs. The value given should match the value supplied after running the command: WRKDEVD DEVD(*ASP)
Relational DB name	The name of the relational database to use when making the connection to the system. This is primarily used when connecting to a system with an IASP (in the ODBC connection for the QZDASOINIT job). The value may or may not be same as the ASP group value depending on how the system is configured. The relational database name is listed in the Database component of IBM i Navigator.
File transfer method	This option lets you pick which method is preferred when connecting to this system for the purpose of sending or receiving files. The choices are: - WININET - This is an unsecure FTP connection, but the fastest option. - SSL (passive) - This is recommended if needing a secure connection. Use the SSL protocol Tls12 value in most cases. - SSL (active) - This option has not been well tested and may not work. - SSH (using Windows SSH support) - This option has not been well tested and may not work. - DISABLED (If you want to be sure no FTP connections are attempted but certain functions will fail however with this set.) The Port value defaults to 0 but this just means the default port for the type of connection will be used. For example, the default port for WININET is 21, SSL (passive) is 990, etc.

2.5 iDoctor IBM i Components Window

The components window provides the status of the iDoctor components installed on the system selected from the IBM i Connections View.



iDoctor IBM i Components Window

This window allows a user to launch a component, change the user signed on to the system or apply an access code. After applying an access code, the component list will refresh to indicate any changes in status (i.e. Not Authorized -> Available)

Note on applying accessing codes: The serial number listed here is for your convenience and verification. If the system serial number has changed, use the "Refresh" button to update the value shown. This button will also refresh the processor group value shown from its last retrieved value.

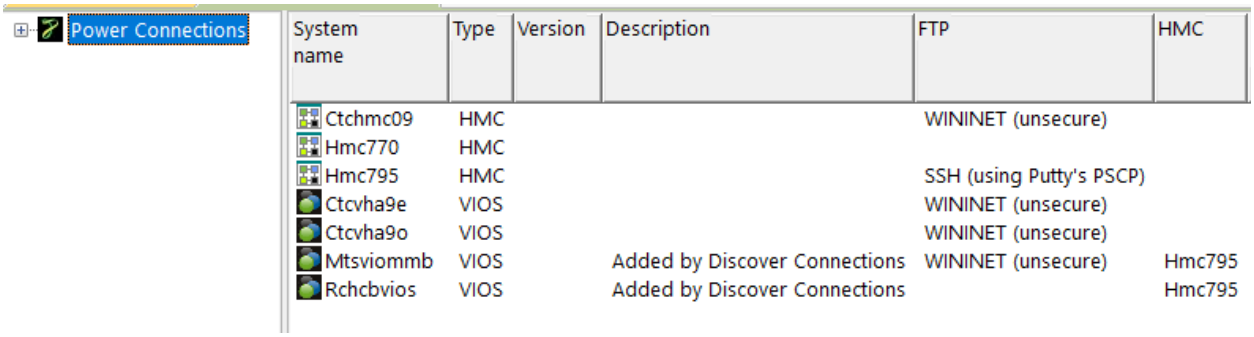
2.5.1 Interface

The less obvious options on this screen are described in the following table:

Option	Description
Access code	The access code can be entered into this box and then press the Apply button to have it take effect. Do not copy the serial number into this box. You should immediately see the status and expiration date change for the component(s) the access code applies to. **Note:** The Access code will only be correct and work if the system serial number supplied to IBM is correct and the appropriate release of iDoctor on the server is installed and it must match the OS (IBM i) release.
System serial number	This value is the result given by the DSPSYSVAL QSRLNBR command. On IBM i cloud systems this is the virtual serial number (VSN). In that case, 2 serial numbers are listed. The 1st is the physical serial number and the second is the (VSN).

2.6 Power Connections View

The Power Connections view allows you to work with all connections defined to non-IBM i systems. Currently this view will only work with HMC or VIOS type connections.



Main Window displaying the Power Connections View

The top level of the tree/list contains several columns that represent settings for each connection. The data supplied is based on the last known connection made to the system and may not reflect current system settings.

Unlike the IBM i Connections View, this interface consists of a tree and list with expandable connections. The top level of the tree contains a list of all your Power connections.

Power Connections is documented on our website here.

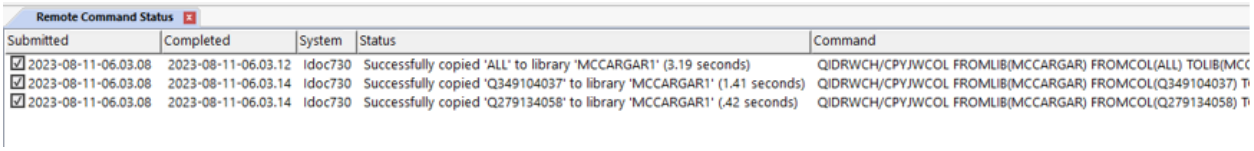
2.7 Remote Command Status View

The Remote Command Status view shows you the status of certain remote commands being executed on a system. This allows you to perform lengthy operations like copy objects or delete files without tying up the GUI.

Depending on the function being used you will see one or more commands in the remote command status view. As each command completes you will see its result or error message in the view.

You can also close this window and reopen it later while commands are being executed to periodically check the status of the commands issued. Use the View -> Remote Command Status menu on the Main Window or the toolbar button to reopen it.

Note: This will only execute 1 command at a time.



Remote Command Status View

2.7.1 Fields

Column	Description
Submitted	The time the command was added to the view.
Completed	The time the command completed.
System	
Status	Shows either Running, Waiting or the result of the operation.
Command	Lists the command string executed. **Note:** In some cases, these are not IBM i commands but apply to iDoctor/Windows operations. Examples: **get** - download a file. **put** - upload a file from the PC to the i. **explorer** - opens Windows Explorer at the path indicated.
Job	Indicates the job on the i that is running or ran this command if it occurred in the past. **Note:** This does not apply if this view is showing operations to HMC or VIOS or Windows.

2.7.2 Menu options

The following actions may be taken in the Remote Command Status View by selecting one or more entries and then right-clicking:

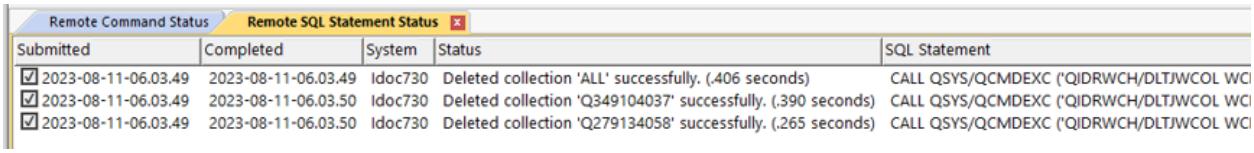
Menu	Description
Display Job Log	Shows the job log for the selected system. **Tip:** This is the default action if double-clicking a row.
Show History Log	Opens notepad with a listing of all commands and results for the entire view.
Active job options	These options let the user view or search job logs, end jobs and more.
Copy Selected Commands to Clipboard	Copies all command strings listed in the entries selected to the Windows Clipboard.
Rerun commands	Allows you to rerun the selected command(s) either on the same LPAR or other LPAR(s). **Note:** This can't be used on things like Windows commands or file transfers, only IBM i commands.
Add Command(s)…	Displays a window where you can provide your own CL command(s) to run on this system (and/or other systems.)
Cancel	Cancels the running command by ending the QZRCSRVS job if applicable.
Remove Selected	Removes selected remote command entries from the view. **Note:** Does not apply to commands that are running, use Cancel instead.
Remove All	Use this menu to remove all remote command entries from the view. **Note:** Does not apply to commands that are running, use Cancel instead.

2.8 Remote SQL Statement Status View

The Remote SQL Statement Status view shows you the status of SQL statements running on the system.

Depending on the function being used you will see one or more statements in this view. As each statement completes you will immediately see its result in the view.

You can also close this window and reopen it later while commands are being executed to periodically check the status of the statements issued. Use the View -> Remote SQL Statement Status View menu on the Main Window to reopen it.



Remote SQL Statement Status View displaying the status of collections being deleted in Job Watcher.

2.8.1 Fields

Column	Description
Submitted	The time the statement was added to the view.
Completed	The time the statement completed.
System	
Status	Shows either Running, Waiting or the result of the operation.
SQL Statement	Lists the SQL Statement
Job	Indicates the job on the i that is running or ran this SQL statement if it occurred in the past.

2.8.2 Menu options

The following actions may be taken in the Remote SQL Statement Status View by selecting one or more entries and then right-clicking:

Menu	Description
Display Job Log	Shows the job log for the selected system. **Tip:** This is the default action if double-clicking a row.
Show History Log	Opens notepad with a listing of all SQL statements and results for the entire view.
Active job options	These options let the user view or search job logs, end jobs and more.
Copy Selected SQL Statements to Clipboard	Copies all SQL statements for the entries selected to the Windows Clipboard.
Rerun SQL statements	Allows you to rerun the selected statements either on the same LPAR or other LPAR(s).
Add SQL Statement(s)…	Displays a window where you can provide your own SQL statements to run on this system (and/or other systems.)
Cancel	Cancels the running SQL statement if applicable.
Remove Selected	Removes selected SQL statement entries from the view. **Note:** Does not apply to statements that are running, use Cancel instead.
Remove All	Use this menu to remove all SQL statement entries from the view. **Note:** Does not apply to statements that are running, use Cancel instead.

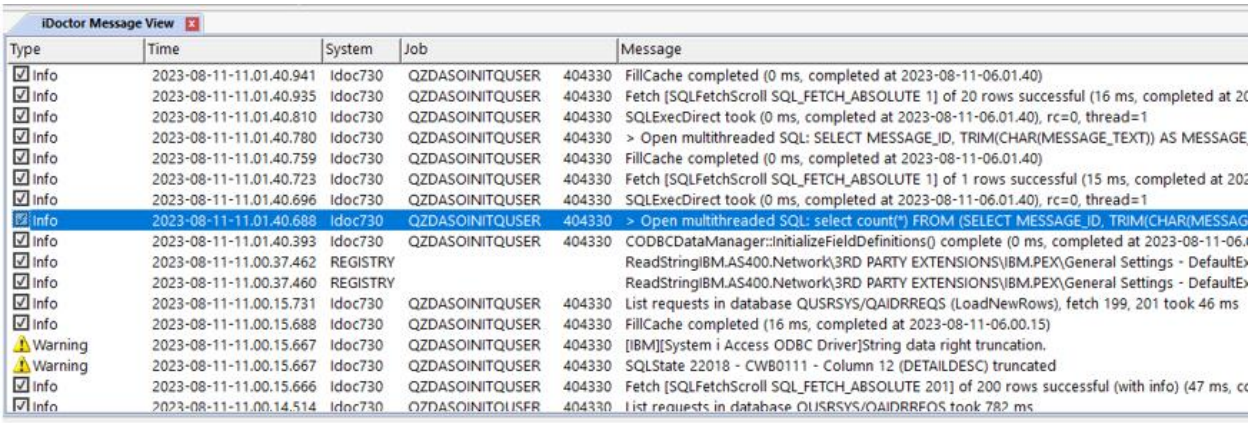
2.9 iDoctor Message View

This interface provides debug and informational messages to the user when it is enabled. Many different types of messages will appear here including those related to SQL statements, IBM i Access Client Solutions API calls and more.

The amount of detail shown in this view can be increased by using Preferences -> Misc -> Enable debug logging to C:\temp and the options for logging SQL statements.

All QZRCSRVS and QZDASOINIT job commands performed are tracked in this view. Additional options are available by right clicking any of the messages.

An example of this view is:



iDoctor Message View

2.9.1 Fields

Column	Description
Type	Info, Warning or Error based on the severity of the message.
Time	Time of the operation
System	GUI, REGISTRY or an IBM i system name
Job	Indicates the job on the i that is running or ran this operation if it occurred in the past.
Message	Details about the operation.

2.9.2 Menu options

Popup Menu	Description
Display Job Log	Shows the job log for the selected system and job. **Tip:** This is the default action if double-clicking a row. Only applies if a job name is listed.
Active job options	These options let the user view or search job logs, end jobs and more. Only applies if a job name is listed.
Copy	Copies all selected rows to the clipboard.
Copy Message(s)	Copies just the Message column for all selected rows to the clipboard.
Select All	Selects all rows.
Export All	This will create a file with the entire contents of the message view.
Clear	Removes everything from the view.

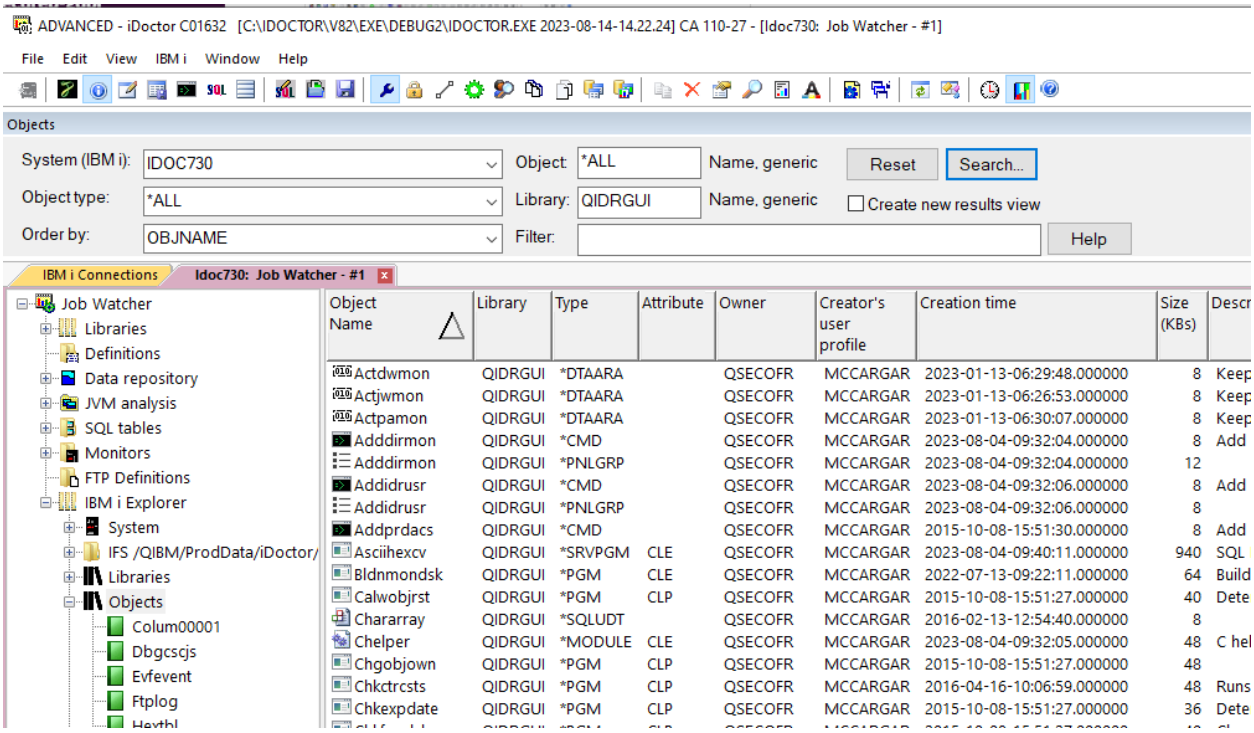
2.10 Objects Pane

This pane is a bit like the WRKOBJ (Work with Objects) command and is accessible by clicking this button  in the toolbar on the Main Window. When pressing this button, the pane will appear near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

Tip: When using the Objects and Libraries folders under IBM i Explorer, this pane appears automatically.

It allows you to browse the objects and libraries on an IBM i based on the search criteria of your choice.

Pressing Search will open and navigate to the IBM i Explorer -> Objects folder if not already looking at it. If focus is on the Libraries folder instead, then the results will be shown there when pressing Search.

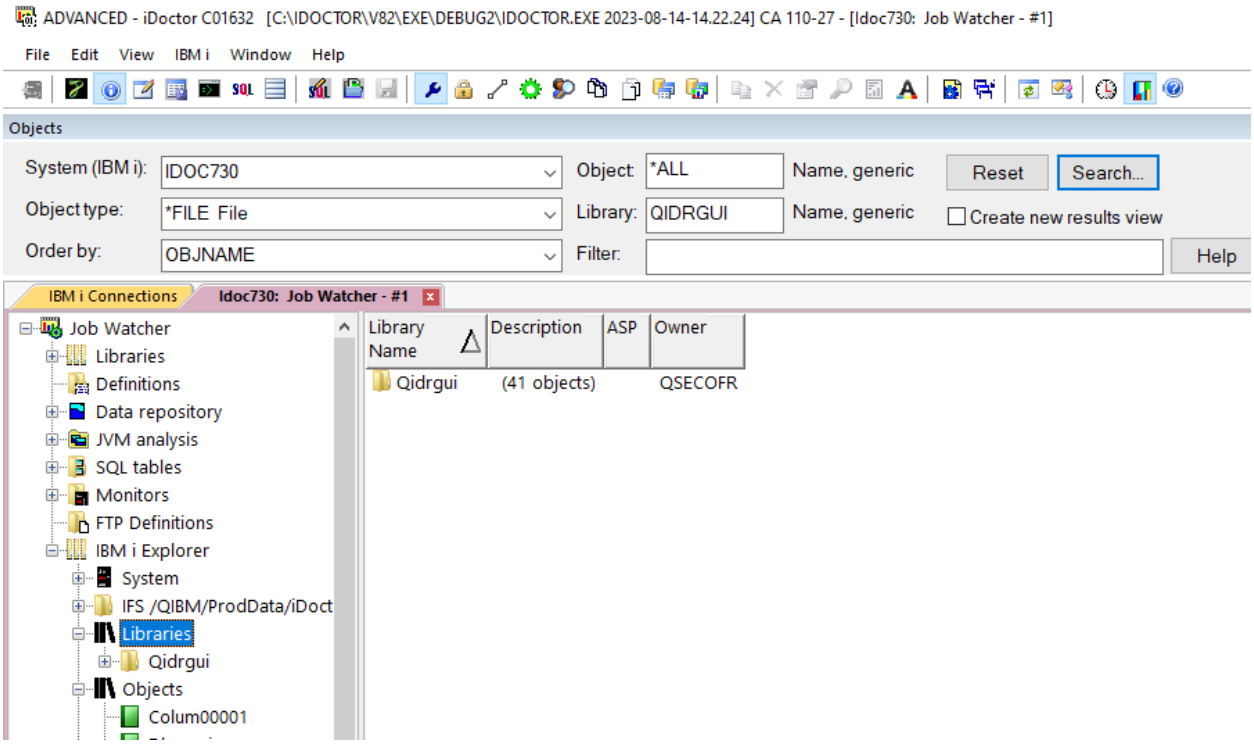


Objects Pane and Objects Folder example

Some object types provide additional functionality, and you will be able to drill down further and find more details about an object using the Properties menu.

For example, physical files can be expanded to view the members within them. And the members can be opened as a new report in the Data Viewer.

When clicking the Libraries folder the (library) description column will tell you the number of objects in the library matching your filter.



Libraries folder showing number of objects matching the filter

The Filters text box acts like a where clause in an SQL statement and syntax must be correct when used or the view will fail to produce data To determine the available fields, right-click the Objects folder and use Select fields… menu. Some examples can be found using the Help button as well.

2.10.1 Interface

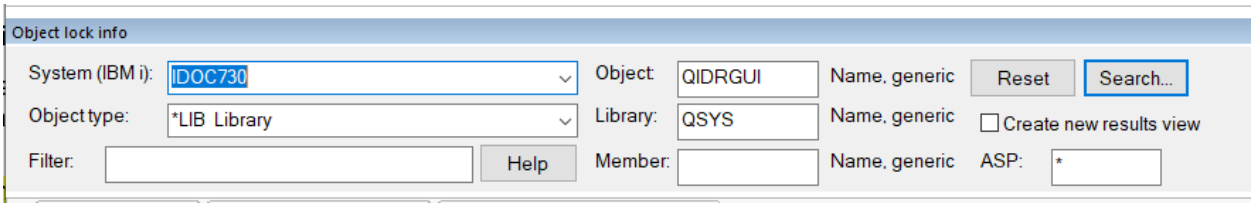
Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Object	This can be *ALL (or blank), a specific name, or generic object name.
Object type	This is the type of object and can be *ALL or a specific object type.
Library	This is the library the object is located in and can be *ALL, a specific name or generic name.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
Order by	This is the sort order for the results based on the most used field names. Only applies to the Object folder.
Filter	This is where clause used on the SQL statement to further reduce the results in addition to the other values already defined. If SQL syntax is not correct, the view will produce no data. Examples: OBJNAME = 'QAPYJWDFN' OBJATTR = 'PF' OBJTEXT LIKE '%SQL FUNCTION%' OBJOWNER = 'MCCARGAR' OBJTYPE IN('*PGM', '*SRVPGM') KBSIZE > 1
Help	This shows examples for the Filter textbox.
Reset	This clears all filters, sets them to the IBM shipped default values (QAIDR* files in QUSRSYS) and performs a search.
Search	This will perform the search and show results in the Objects folder unless the Libraries folder is currently being used.

2.11 Object lock info Pane

This pane is like the WRKOBJLCK (Work with Object Locks) command and is accessible by clicking this icon  in the toolbar of the Main Window. It allows you to see the jobs that have locks on the specified object and perform actions against those jobs. When pressing the button, the pane will appear near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

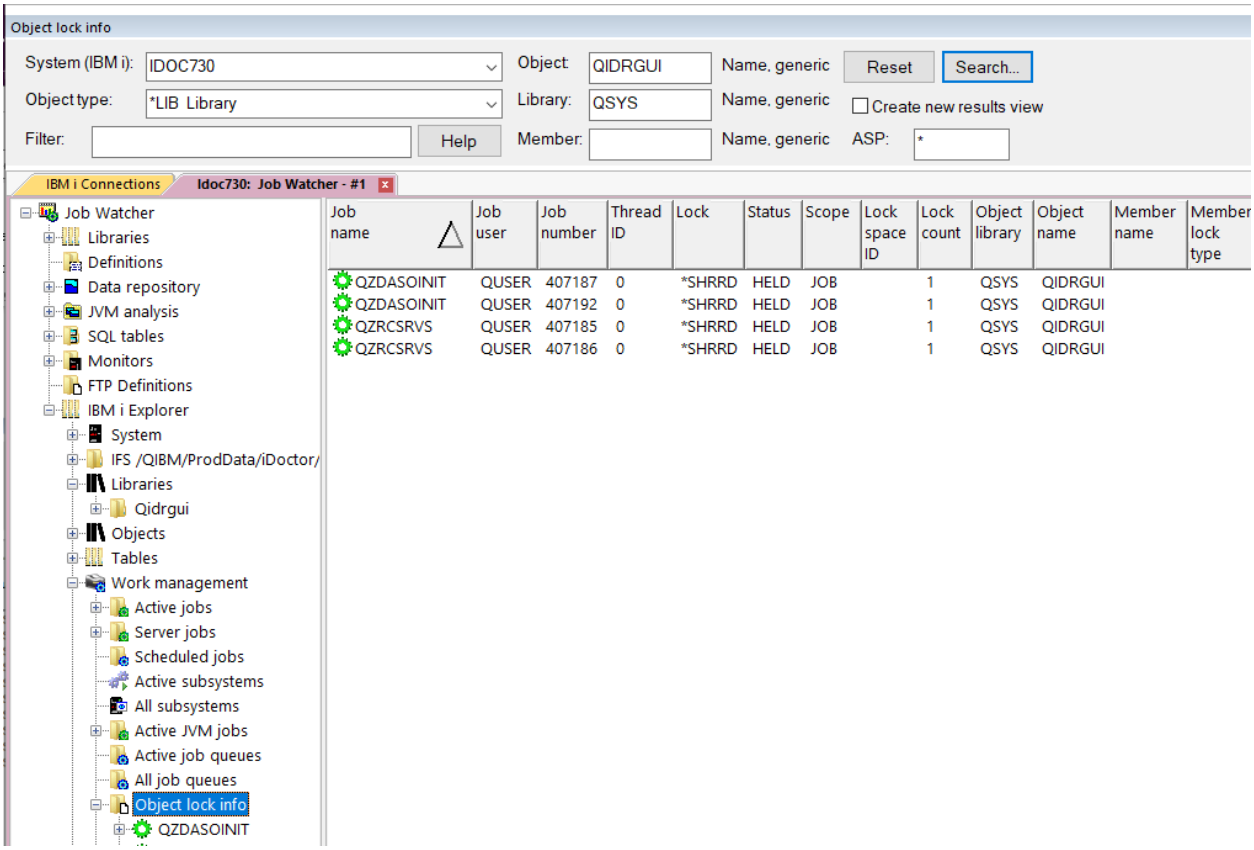
Tip: When using the Object Lock Info folder within IBM i Explorer -> Work management, this pane appears automatically.

Pressing Search will open and navigate to the IBM i Explorer -> Work management -> Object lock info folder if not already open.



Object Lock Info Pane

A user can specify the system, object, library as well as the object type to check. The member name (for files) and/or ASP may also be specified. Clicking search will display the results in a view below the pane.



Object lock info folder

Users can work with these jobs to drill-into them for more information or end them.

For more information on the options available when working with search results for this pane see the Object lock info section.

2.11.1 Interface

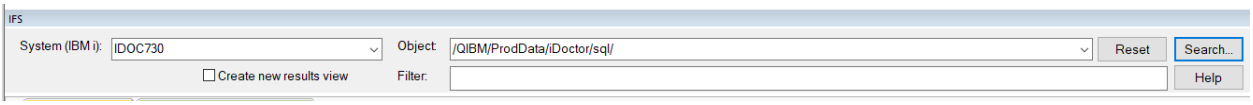
Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Object	This can be *ALL (or blank), a specific name, or generic object name.
Object type	This is the type of object and can be *ALL or a specific object type.
Library	This is the library the object is in and can be *ALL, a specific name or generic name.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
Filter	This is where clause used on the SQL statement to further reduce the results in addition to the other values already defined. If SQL syntax is not correct, the view will produce no data. Examples: JOBNBR = '303113' JOBUSER = 'FRED' JOBNAME LIKE 'QZ%'
Help	This shows examples for the Filter textbox.
Member	This is the member name to use if applicable. Can be blank, a specific name or generic name.
ASP	This is the ASP device name and should be 1 of these values: *** -** The ASPs that are currently part of the thread's library name space will be searched to locate the object. This includes the system ASP (ASP number 1), all configured basic user ASPs (ASP numbers 2-32), and, if the thread has an ASP group, all independent ASPs in the ASP group. ***SYSBAS** - The system ASP and all basic user ASPs will be searched to locate the object. No independent ASPs will be searched, even if the thread has an ASP group. **Name** - The device name of the independent ASP to be searched to locate the object. The independent ASP must have been activated (by varying on the ASP device) and have a status of 'Active' or 'Available'. The system ASP and basic user ASPs will not be searched.
Reset	This clears all filters, sets them to the IBM shipped default values (QIDRGUI library) and performs a search.
Search	This will perform the search and show results in the Object lock info folder.

2.12 IFS Pane

This pane is a bit like the WRKLNK (Work with Object Links) command and is accessible by clicking this icon  in the toolbar of the Main Window. It allows you to browse the directories and files in the IFS that exist in the location you specify. When pressing the button, the pane will appear near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

Tip: When using the IFS folder within IBM i Explorer, this pane appears automatically.

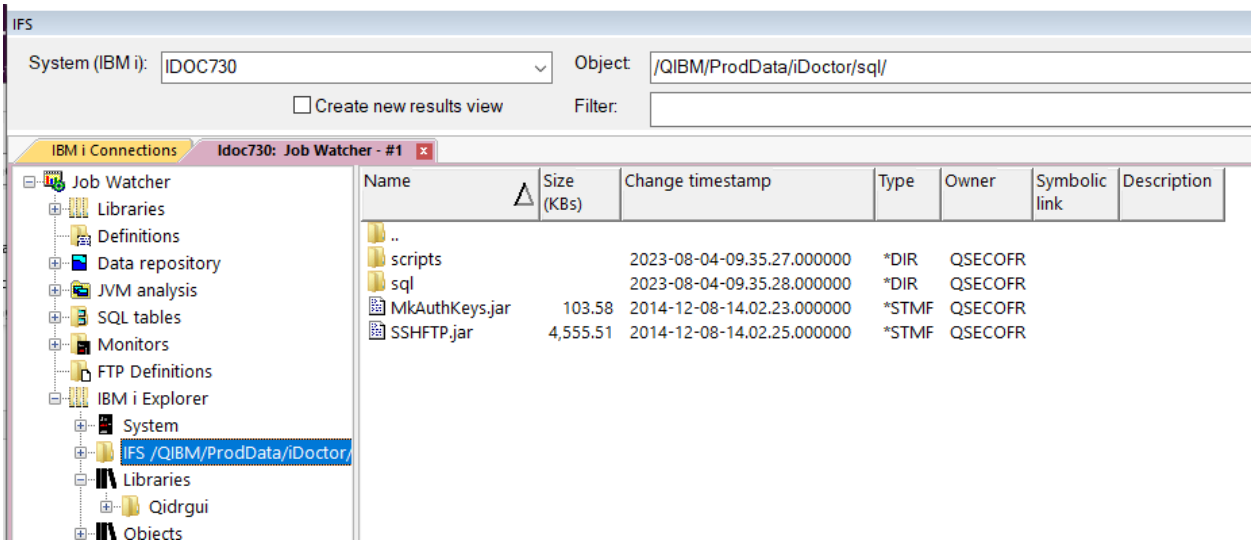
Pressing Search will navigate to the IFS folder if not already open and show the results.



IFS Pane

A user can specify the system and the object (IFS path) to search. Advanced users can use the Filter option to perform SQL like filtering to include the SQL statement that runs that produces the results.

Clicking search will display the results in a new window.



IFS folder

From this view a user can work with the files and directories shown in several ways. Files may be downloaded or opened/viewed. You may also upload additional files to the system by right-clicking one of the folders and using the Upload… menu.

See the IFS folder for more information on the options available when working with the results of the IFS Pane.

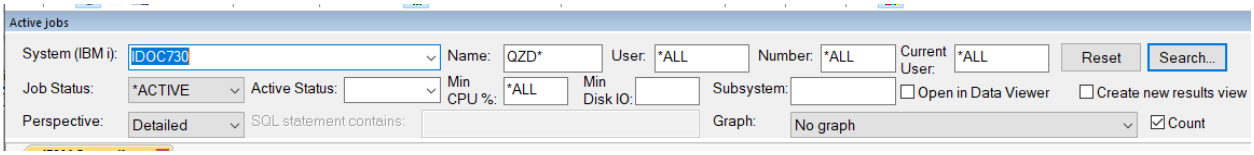
2.12.1 Interface

Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Object	This is the IFS path and/or specific file name to use as the filter. **Note:** This does not support values like *.txt.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
Filter	This is where clause used on the SQL statement to further reduce the results in addition to the other values already defined. If SQL syntax is not correct, the view will produce no data. Examples: PATH2 LIKE '%6671D6%' DATA_SIZE > 1024 OBJECT_TYPE = '*DIR' OBJECT_TYPE = '*DIR' AND UPPER(PATH2) LIKE '%6671D6%' OBJECT_TYPE <> '*DIR' AND UPPER(PATH2) LIKE '%AAAAF%' TEXT_DESCRIPTION LIKE '%test%'
Help	This shows examples for the Filter textbox.
Reset	This clears all filters, sets them to the IBM shipped default values (root folder /) and performs a search.
Search	This will perform the search and show results in the IFS folder.

2.13 Active Jobs Pane

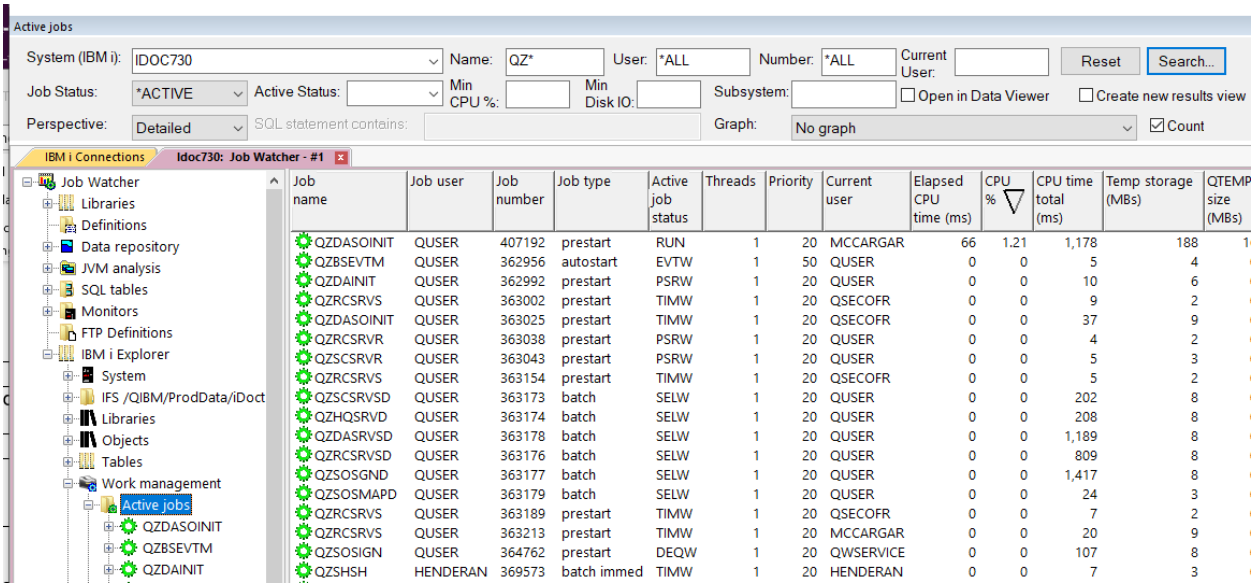
This pane is like the interface for WRKACTJOB to show the active jobs on the system but also provides the capability to view the job logs or spool files for jobs that have ended. For active jobs you can view the threads within each job and the call stacks for each thread. Options are also available to kick off performance collections or define definitions based on the selected active jobs.

The interface is accessible by clicking this icon  in the toolbar of the Main Window or in a Data Viewer.



Active jobs Pane Example

Results are shown in either the Main Window or Data Viewer. If a graph is desired, then the results are required to be shown in the Data Viewer.



Active jobs folder in the Main Window

Tip: This interface collects performance statistics for active jobs only. Each refresh or press of the search button will update these metrics. To reset the performance statistics counters then right-click the Active jobs folder and use the Reset Statistics menu option.

For more information on working with the jobs shown in search results, see the Active jobs folder.

2.13.1 Interface

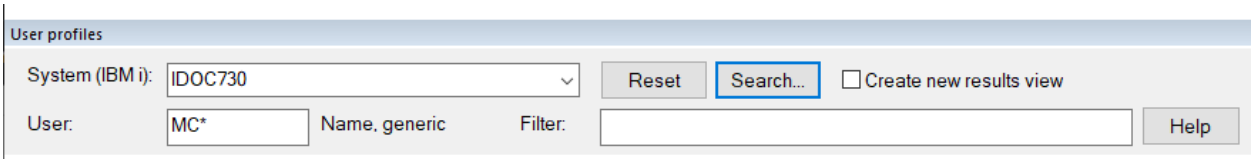
Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Name	This is the job name or generic job name or *ALL to perform the search on.
User	This is the user name or generic user name (or *ALL) to use when performing the search.
Number	The exact 6-digit job number to include in the results or blank (or *ALL) for all.
Current User	The exact current user profile to include in the results or blank (or *ALL) for all. **Note:** This option only appears if the Job Status drop down value is *ACTIVE.
Job Status	This option allows you to indicate the types of jobs to include in the results based on their status. The option used effects the columns returned in the list. ***ACTIVE** – Only active jobs are returned. This will include some performance metrics. ***ALL** – All jobs, active or not will be returned in the list. ***JOBQ** – Only jobs waiting on a job queue will be shown in the list. ***OUTQ** – Only completed jobs containing spool file output are shown. You can expand these jobs to view these spool files.
Active Status	This indicates the type of active job status to further filter the results. You can pick one and only of these types in the list. For more information see the help text for the WRKACTJOB command's Status column. **Note:** This option will only appear if Job Status is *ACTIVE or *ALL.
Min CPU %	This is the desired minimum CPU % to use for filtering the results in the list. Only jobs having a "CPU %" column value greater than or equal to this number will be shown. **Note:** This option only appears if the Job Status drop down value is *ACTIVE.
Min Disk IO	This is the desired minimum Disk IO value to use for filtering the results in the list. Only jobs having a "Disk IO" column greater than or equal to this number will be shown. **Note:** This option only appears if the Job Status drop down value is *ACTIVE.
Subsystem	This is the subsystem name to use to filter the results by. **Note:** This option only appears if the Job Status drop down value is *ACTIVE.
Open in Data Viewer	Check this box if you want to see results as an SQL report in the Data Viewer instead of the default under Work management -> Active jobs in the Main Window.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
Perspective	This setting controls the information displayed in the results. These options are available: - Basic - Detailed - CPU - IOs - Interactive - Temp storage - Locks - SQL (all) - SQL client - SQL cursor

	- SQL server - Advanced - JVM
SQL statement contains	For some types of perspectives, this option lets you filter the results based on something matching in the SQL statement captured.
Graph	The results can be graphed in the Data Viewer if desired. The graphs available will vary based on the Perspective.
Count	This indicates if an extra SQL statement will be ran to count the number of jobs returned in the results. If this is done the results will take longer to appear, but the scrollbar showing the number of jobs will be accurate. In some cases, especially at older releases and/or when job status is set to *OUTQ, the results can take a while to return due to limitations in IBM i SQL Services so this option can help in those situations.
Reset	This clears all filters, sets them to the IBM shipped default values (QZD* active jobs) and performs a search.
Search	This will perform the job search based on the filters given on this pane. If job status is ***ACTIVE** then clicking this button multiple times will update the performance statistics each time the button is pressed.

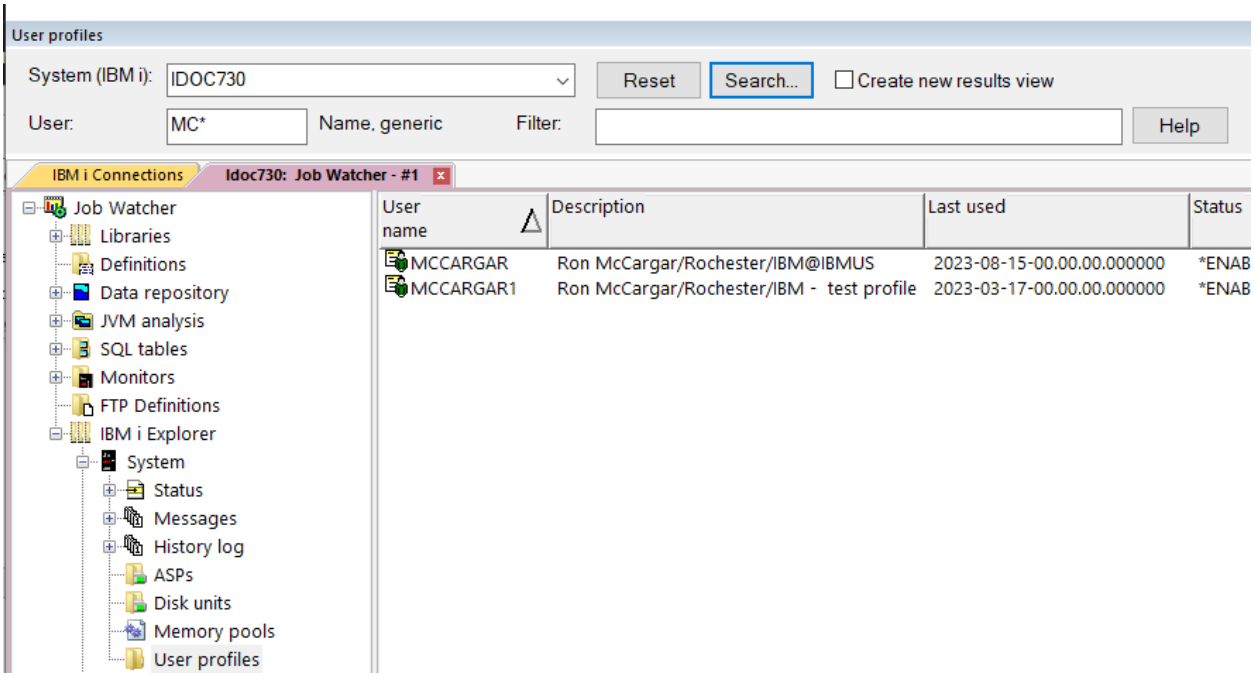
2.14 User Profiles Pane

This pane is an interface for the WRKUSRPRF (Work with User Profiles) command and is accessible by clicking this icon  in the toolbar of the Main Window. It allows you to browse the user profiles that exist on the IBM i and make some modifications as needed. When pressing the button, the pane will appear near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

Tip: When using the User Profiles folder under System, this pane appears automatically.



After specifying the system name and user name criteria, clicking search will display the results in the User Profiles folder under System.



From this view an administrator may create additional user profiles, change, delete or copy user profiles. Right-click a user profile for more options.

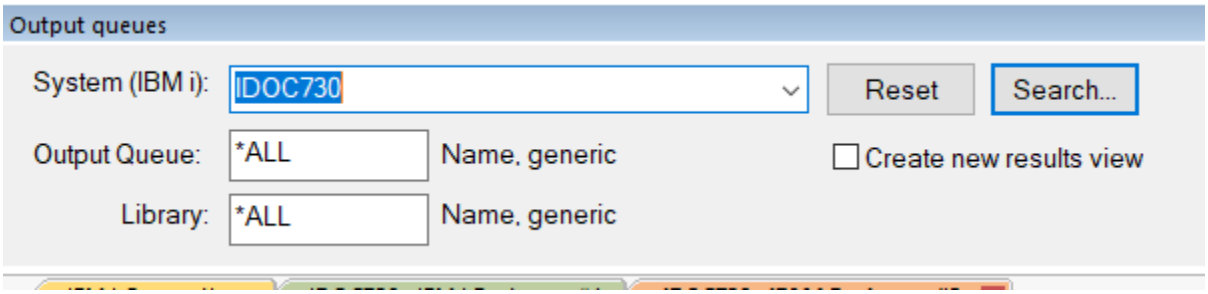
2.14.1 Interface

Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
User	This is the user name or generic user name (or *ALL) to use when performing the search.
Filter	This is where clause used on the SQL statement to further reduce the results in addition to the other values already defined. If SQL syntax is not correct, the view will produce no data. **Tip:** Right-click the User Profiles folder and use the Select fields… menu to see the possible field names. Examples: AUTHORIZATION_NAME = 'QSECOFR' SIGN_ON_ATTEMPTS_NOT_VALID > 0
Help	This shows examples for the Filter textbox.

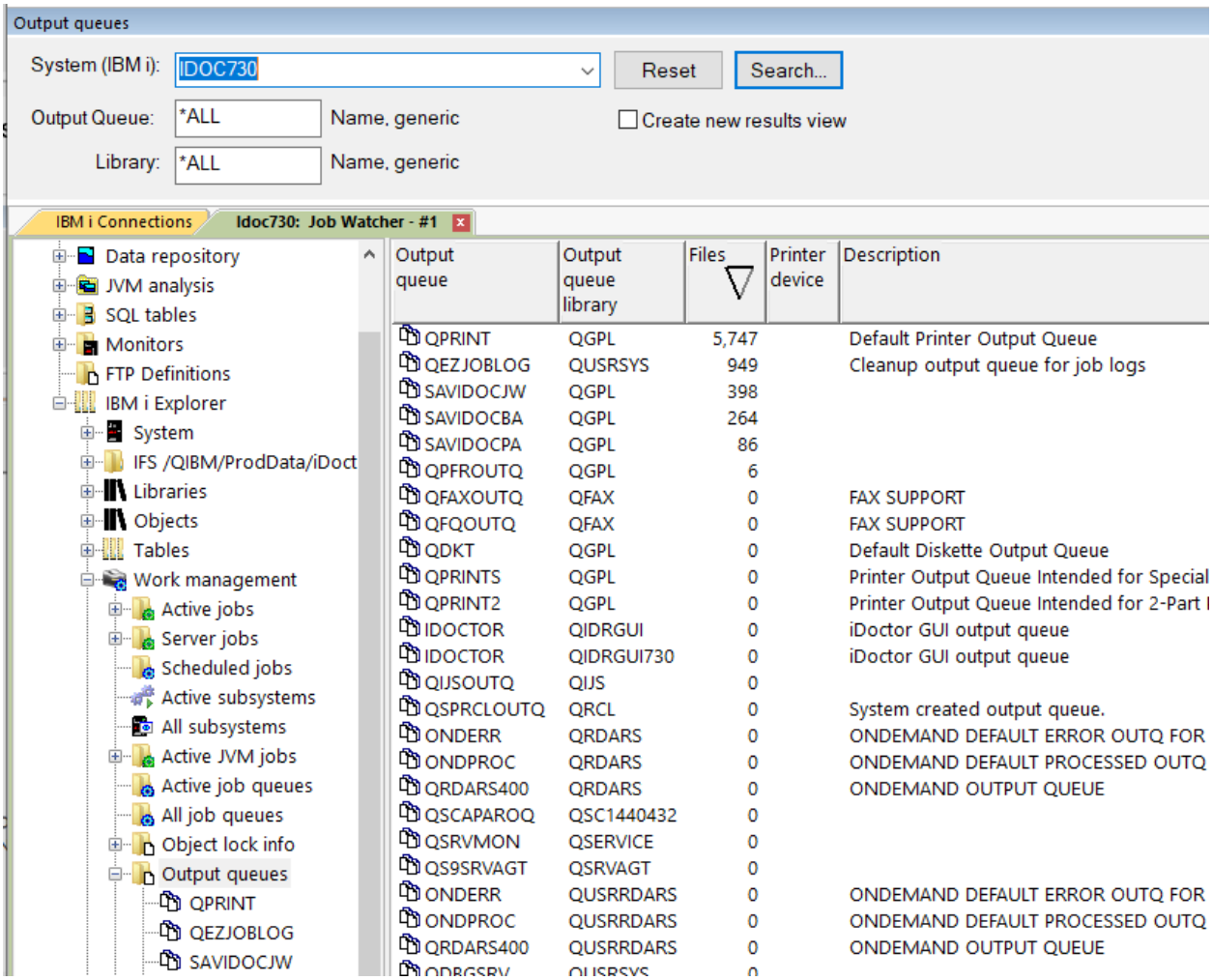
2.15 Output Queues Pane

This pane is an interface for the WRKOUTQ (Work with Output queues) command and is accessible by clicking this icon  in the toolbar of the Main Window. It allows you to view the output queues that exist on the IBM i. When pressing the button, the pane will appear near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

Tip: When using the Output Queues folder under Work management, this pane appears automatically.



After specifying the system name and the desired filters, clicking search will display the results in the IBM i Explorer -> Work management -> Output queues folder below the pane.



From this view, the user may double-click an output queue to view the spool files within it.

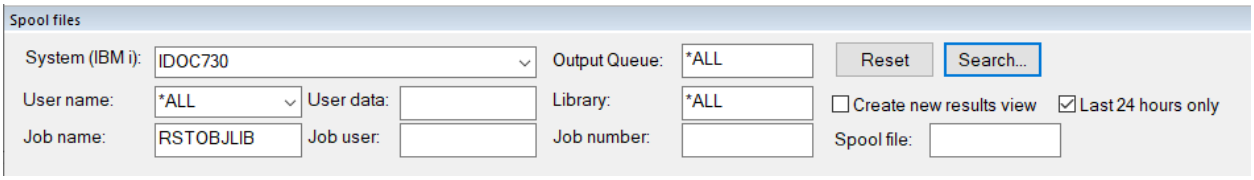
2.15.1 Interface

Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
Output queue	The name of the output queue. This can be *ALL a specific name or a generic name.
Library	The name of the output queue library. This can be *ALL a specific name or a generic name.
Reset	This clears all filters, sets them to the IBM shipped default values (*ALL output queues) and performs a search.
Search	This will perform the search based on the filters given on this pane and show the results in the Output queues folder.

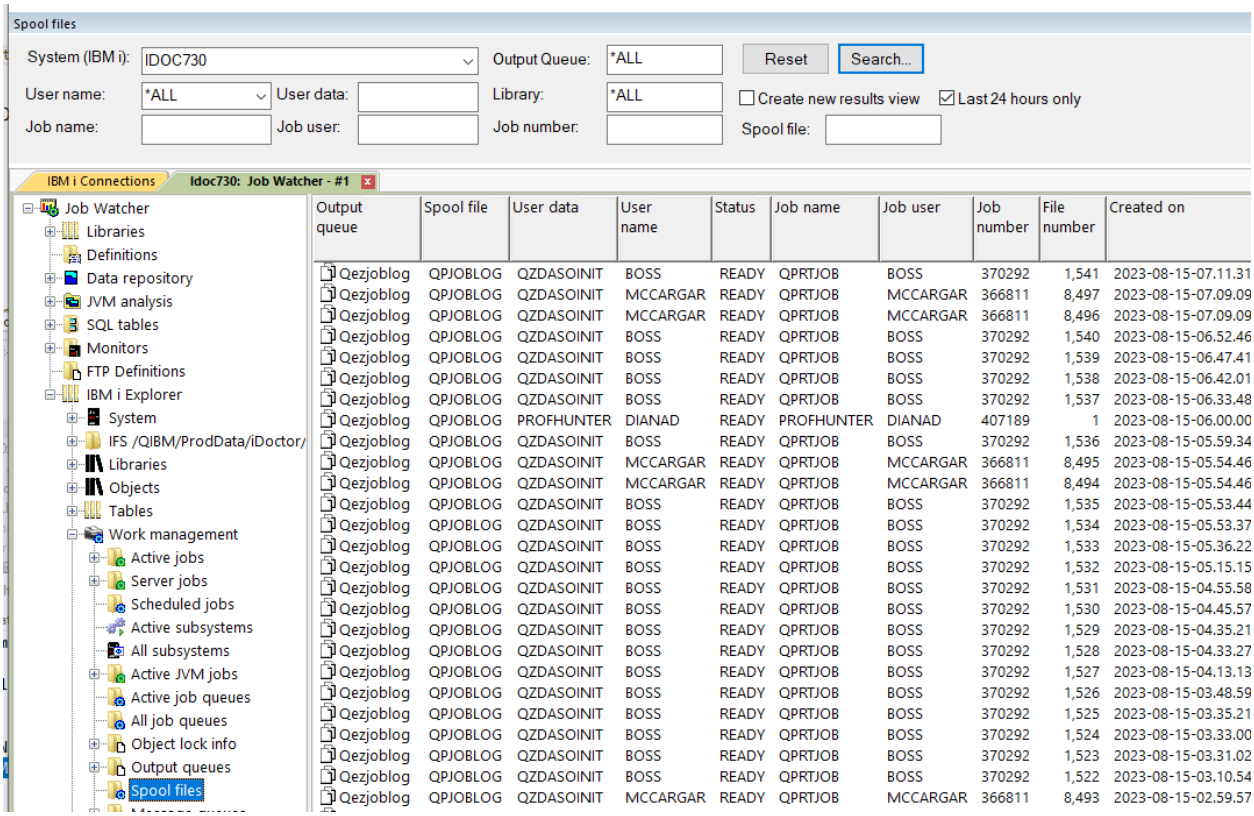
2.16 Spool Files Pane

This pane is an interface for the WRKSPLF (Work with Spool Files) command and is accessible by clicking this icon  in the toolbar of the Main Window. It allows you to view the spool files that exist on the IBM i matching the filters you provide. When pressing the button, the pane will appear near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

Tip: When using the Spool files folder under Work management, this pane appears automatically.



After specifying the system name and the desired filters, clicking search will display the results in the Spool files folder within Work management.



From this view, the user may view spool files, download them as PDFs and view them on the PC.

See the Spool files section for more information.

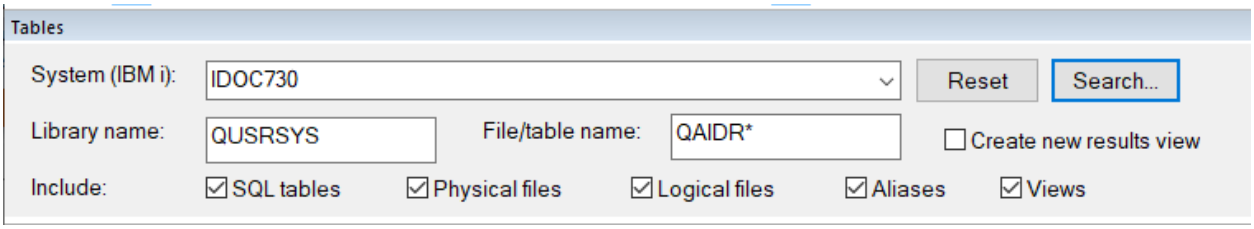
2.16.1 Interface

Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Output queue	The name of the output queue. This can be *ALL or a specific name or generic name.
User name	The user name that created the spool file. This can be *CURRENT, *ALL, or a specific name or a generic name
User data	This a user defined data tab associated with the spool file. Often this will be a job name. This can be *ALL or a specific name or generic name.
Library	The name of the output queue library. This can be *ALL, a specific name or generic name.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
Last 24 hours	If checked, this option is used to reduce the results to show spool files created within the last 24 hours only.
Job name	The job name that created the spool file. This can be *ALL or a specific name or generic name.
Job user	The job user that created the spool file. This can be *ALL or a specific name or generic name.
Job number	The job number that created the spool file. This can be *ALL or a specific name or generic name.
Spool file	The name of the spool file. This can be *ALL or a specific name or generic name.
Reset	This clears all filters, sets them to the IBM shipped default values and performs a search.
Search	This will perform the search based on the filters given on this pane and show the results in the Spool files folder.

2.17 Tables Pane

This pane allows you to browse the IBM i physical files, logical files and/or SQL tables that exist on the system. Click the  icon in the toolbar of the Main Window to display the pane near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.

Tip: When using the Tables folder under IBM i Explorer, this pane appears automatically.



A user may specify the system, library, and generic table name to search. The type of objects returned may also be specified (SQL tables, physical files, logical files, aliases, or views.)

After specifying the system name and the desired filters, clicking search will display the results in the Tables folder.

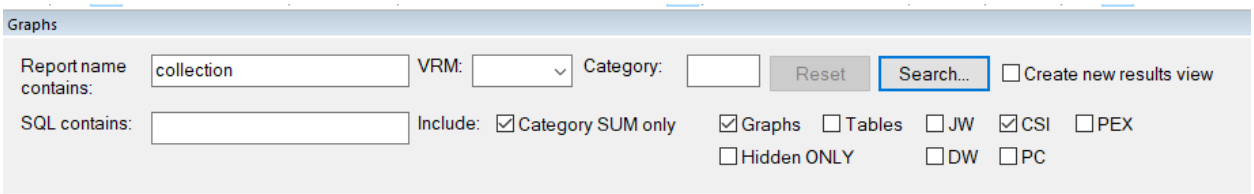
2.17.1 Interface

Option	Description
System (IBM i)	The name of the IBM i system to perform a search on. The values in the drop-down list is built from the list of systems within the IBM i Connections View.
Library name	This is the library name to look for tables name. This can be *ALL or blank to search all libraries or a specific name or generic library name.
File/table name	This is a specific name, generic name or *ALL/blank for the table name.
Create new results view	Check this box if you want the results to be created in a new view upon clicking Search. **Note:** Changing the system name will force this checked temporarily.
SQL tables	Check the box to include these.
Physical files	Check the box to include these.
Logical files	Check the box to include these.
Aliases	Check the box to include these.
Views	Check the box to include these.
Reset	This clears all filters, sets them to the IBM shipped default values and performs a search.
Search	This will perform the search based on the filters given on this pane and show the results in the Tables folder.

2.18 Graphs Pane

This pane allows you to browse or search the iDoctor report databases for graphs or reports of interest. This provides information such as the folder in which the graph or report is located, the VRMs of IBM i where the report will exist as well as any required files or PTFs needed for the report to appear.

Click the  icon in the toolbar of the Main Window to display the pane near the top of the Main Window. Pressing the toolbar button again will dismiss the pane.



Graph Search Pane Example

A user may specify the report name filter, the VRM or specify something to look for in an SQL statement like a filename. You can also specify options such as which components to search.

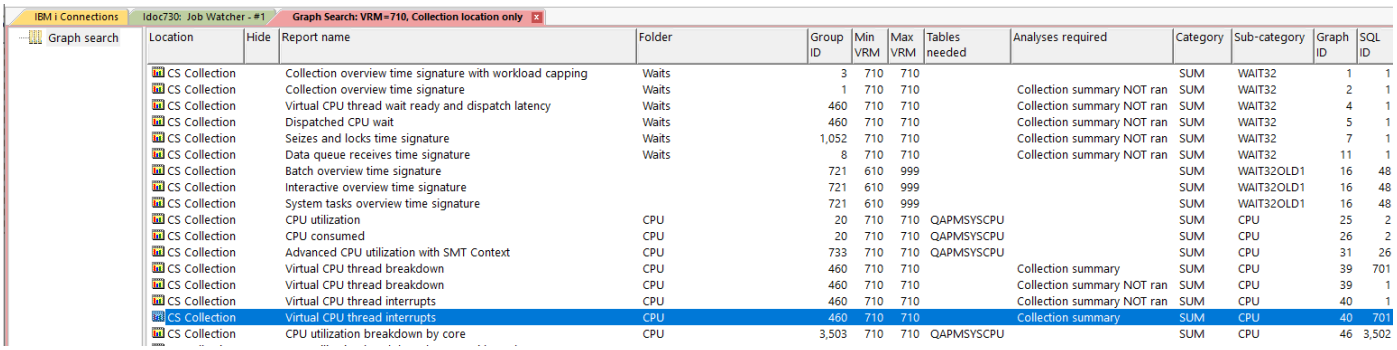
Clicking search will display the results either in a new window or an existing one depending on if the “create new results view” checkbox is checked.

2.18.1 Interface

Option	Description
Report name contains	This is a substring to use when searching for a report or graph name.
VRM	The numeric IBM i OS VRM such as 710, 720, 740, etc.
Category	Within the iDoctor .mdb databases is a SQRYCAT field containing a 3-character identifier for the location within iDoctor that the graph or report appears in. One of these values can be entered into this field to filter on this column. - SUM - Graphs and tables under the collection. - CPS – Collection Services Investigator - Graph History graphs - DDG – Collection Services Investigator – disk graphs over time - EDG – Collection Services Investigator – external storage disk graphs over time - JB* – Job Summary (JW, CSI) - JSM – Job Summary (JW, CSI) - JFB – Collection search browse options (JW, PC, CSI) - JFD – Collection search results (JW, PC, CSI) - ODF – Job statistics selection over time (flattened) - ODG – Job statistics selection over time - COL – These are either iDoctor collection properties SQL statements or used in Interval Details, or Interval Summary interfaces - DTL – Detail reports drill down tables - CS1 – Job Watcher call stack search - ASM – PEX Netsize related reports - DT* – PEX selection over time graphs and reports - SRC - Collection search examples - XXX – PEX Taskswitch
SQL contains	Use this to only show reports whose SQL statement contains something specific (such as a filename.)
Category SUM only	This will only show reports that have SUM for the category value.
Graphs	Check this box to include graphs in the output.
Reports	Check this box to have table reports included in the output.
JW	If checked, then Job Watcher reports are included in the results.
CSI	If checked, then Collection Services Investigator reports are included in the results.
PEX	If checked, then PEX Analyzer reports are included in the results.
Hidden ONLY	Some reports have been removed from IDoctor. This option lets you view their information if they still exist. If you want them restored, contact iDoctor support.
DW	If checked, then Disk Watcher reports are included in the results.
PC	If checked, then Plan Cache Analyzer reports are included in the results.

2.18.2 Graph Search Folder

An example of graph search folder is shown below:



Location	Hide	Report name	Folder	Group ID	Min VRM	Max VRM	Tables needed	Analyses required	Category	Sub-category	Graph ID	SQL ID
CS Collection		Collection overview time signature with workload capping	Waits	3	710	710			SUM	WAIT32	1	1
CS Collection		Collection overview time signature	Waits	1	710	710		Collection summary NOT ran	SUM	WAIT32	2	1
CS Collection		Virtual CPU thread wait ready and dispatch latency	Waits	460	710	710		Collection summary NOT ran	SUM	WAIT32	4	1
CS Collection		Dispatched CPU wait	Waits	460	710	710		Collection summary NOT ran	SUM	WAIT32	5	1
CS Collection		Seizes and locks time signature	Waits	1,052	710	710		Collection summary NOT ran	SUM	WAIT32	7	1
CS Collection		Data queue receives time signature	Waits	8	710	710		Collection summary NOT ran	SUM	WAIT32	11	1
CS Collection		Batch overview time signature		721	610	999			SUM	WAIT32OLD1	16	48
CS Collection		Interactive overview time signature		721	610	999			SUM	WAIT32OLD1	16	48
CS Collection		System tasks overview time signature		721	610	999			SUM	WAIT32OLD1	16	48
CS Collection		CPU utilization	CPU	20	710	710	QAPMSYSCPU		SUM	CPU	25	2
CS Collection		CPU consumed	CPU	20	710	710	QAPMSYSCPU		SUM	CPU	26	2
CS Collection		Advanced CPU utilization with SMT Context	CPU	733	710	710	QAPMSYSCPU		SUM	CPU	31	26
CS Collection		Virtual CPU thread breakdown	CPU	460	710	710		Collection summary	SUM	CPU	39	701
CS Collection		Virtual CPU thread breakdown	CPU	460	710	710		Collection summary NOT ran	SUM	CPU	39	1
CS Collection		Virtual CPU thread interrupts	CPU	460	710	710		Collection summary NOT ran	SUM	CPU	40	1
CS Collection		Virtual CPU thread interrupts	CPU	460	710	710		Collection summary	SUM	CPU	40	701
CS Collection		CPU utilization breakdown by core	CPU	3,503	710	710	QAPMSYSCPU		SUM	CPU	46	3,502

This list includes the following columns described in the table below:

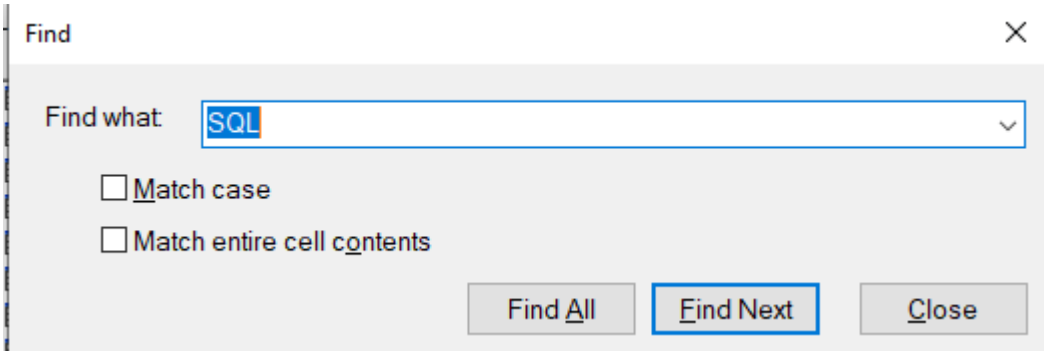
Column	Description
Location	Indicates where in iDoctor you can find this graph or report. The location description maps to a category and component. For example, category “CPS” is location “CS Graph History”. In some cases, graphs or reports are only found by drilling down from another graph and this will be noted here if this is required.
Hide	An X in this column means the report is hidden from view. **Note:** This can’t be modified by the user.
Report name	The graph or report name
Folder	The folder name and sometimes sub folder as well to find this graph or report in.
Min VRM	The minimum IBM i release in nnn format such as 710, 720, 730, etc where this report will appear.
Max VRM	The maximum IBM i release in nnn format this report should appear at. Use a value of 0 if no max.
Tables needed	A list of critical tables needed for the graph or report to appear. The core files of the component are also needed but not included here for simplicity.
Analyses required	This column indicates if any iDoctor analyses must be ran before this graph or report will appear.
Category	Identifies the folder within the component that this graph or report appears in (within the .mdb iDoctor databases such as iDocCS.mdb.) See the QAIDRCATS table within the .mdb file.
Sub-category	Identifies the sub folder within the component that this graph or report appears in (within the .mdb iDoctor databases such as iDocCS.mdb)
Graph ID	Identifies the unique identifier for this graph within table QAIDRGPH in the iDoctor reports database.
SQL ID	Identifies the unique identifier for the SQL statement behind this report in table QAIDRSQL in the iDoctor reports database.
SQRYVER	This internal identifier is used to tell the GUI which file(s) are needed in order for this graph or report to appear.

Double-click a report in this list will display additional Properties. Because these are iDoctor-defined reports, the properties are read-only.

2.19 Find Window

This window is shown whenever a user does a Find operation on an active list or table view.

Use the Edit -> Find menu (or Ctrl+F) to show this option.

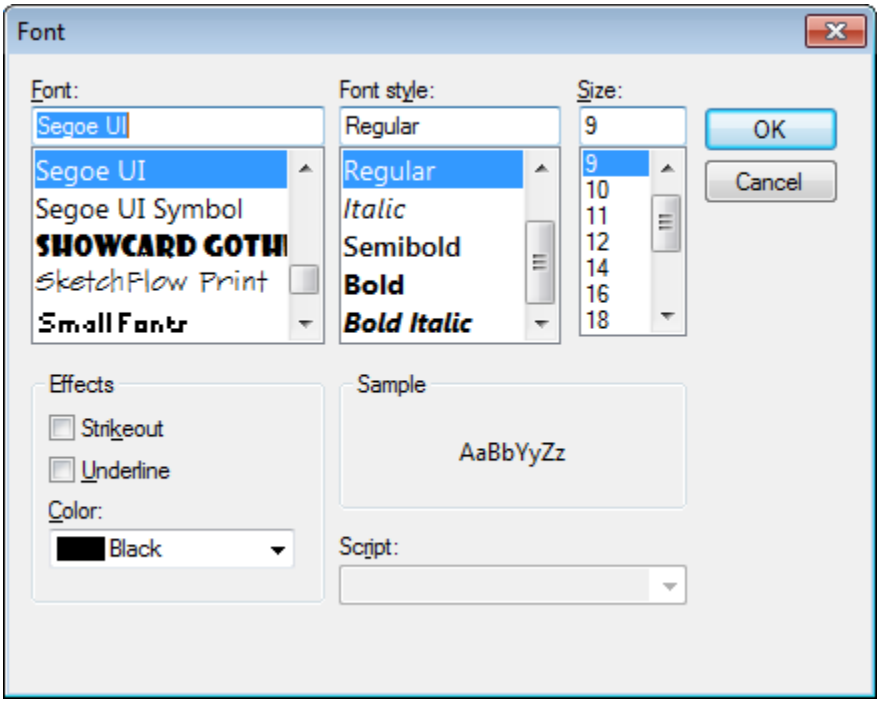


Find Window

After providing a search term to look for you can close the window and use the Edit -> Find Next (F3) or Edit -> Find Previous (Shift+F3) menu to look for the next/previous occurrences without needing to have this window visible.

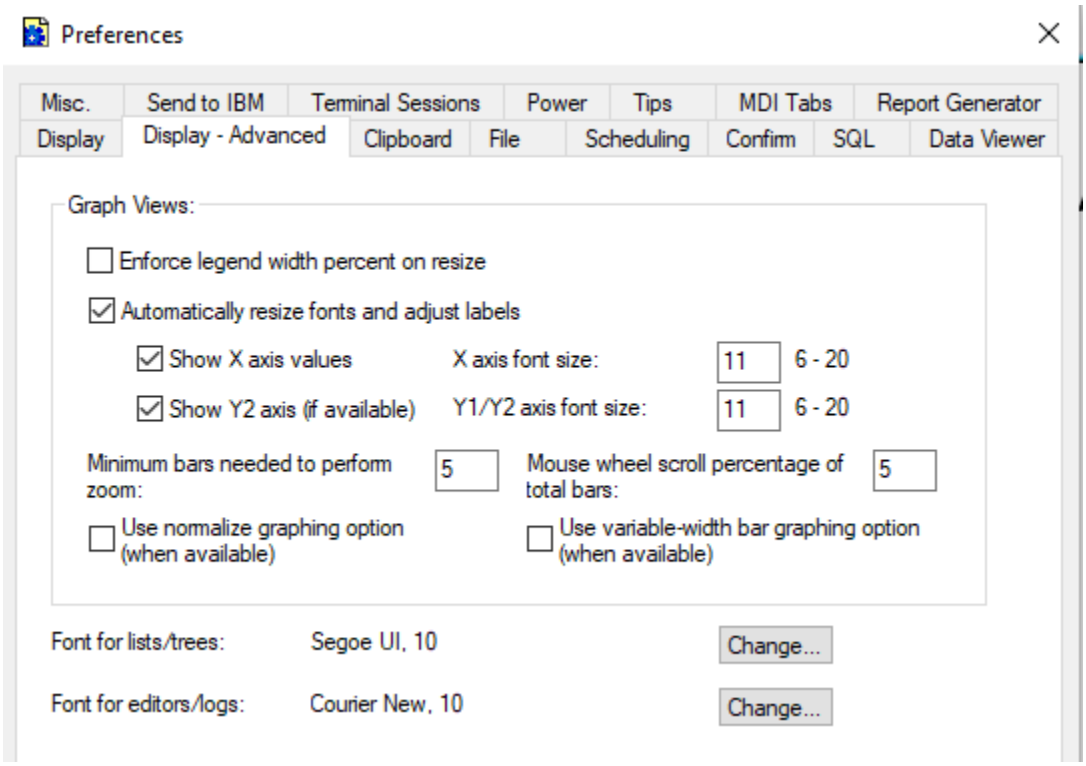
2.20 Set Font

Another feature of iDoctor is the ability to customize the font used in many of the interfaces. The Set Font dialog provides the user with this flexibility. To change the font, use the Edit->Set Font menu from the Main Window or Data Viewer (or right-click on an active Table View and use the Set Font... menu).



Font window

This window is also accessible in Preferences -> Display – Advanced at the bottom and there are two types of interfaces that can have different fonts:



Preferences -> Display – Advanced

Note: The set font window when used from the main window or toolbar button will change the font based on the view currently open and with focus (either lists/trees or the font for editors/logs)

2.21 Wait Bucket Preferences

The Wait Bucket Preferences window allows a user to work with desired colors and patterns to use when graphing the wait buckets in iDoctor. The Wait Bucket Preferences are accessible via the Edit -> Wait Bucket Preferences menu from the iDoctor Main Window.

Note: Any changes made to this interface will not immediately take effect on already open graphs. You must first refresh the list of collections within the desired collection library and then open the desired graph to see any changes made to the Wait Bucket Preferences.

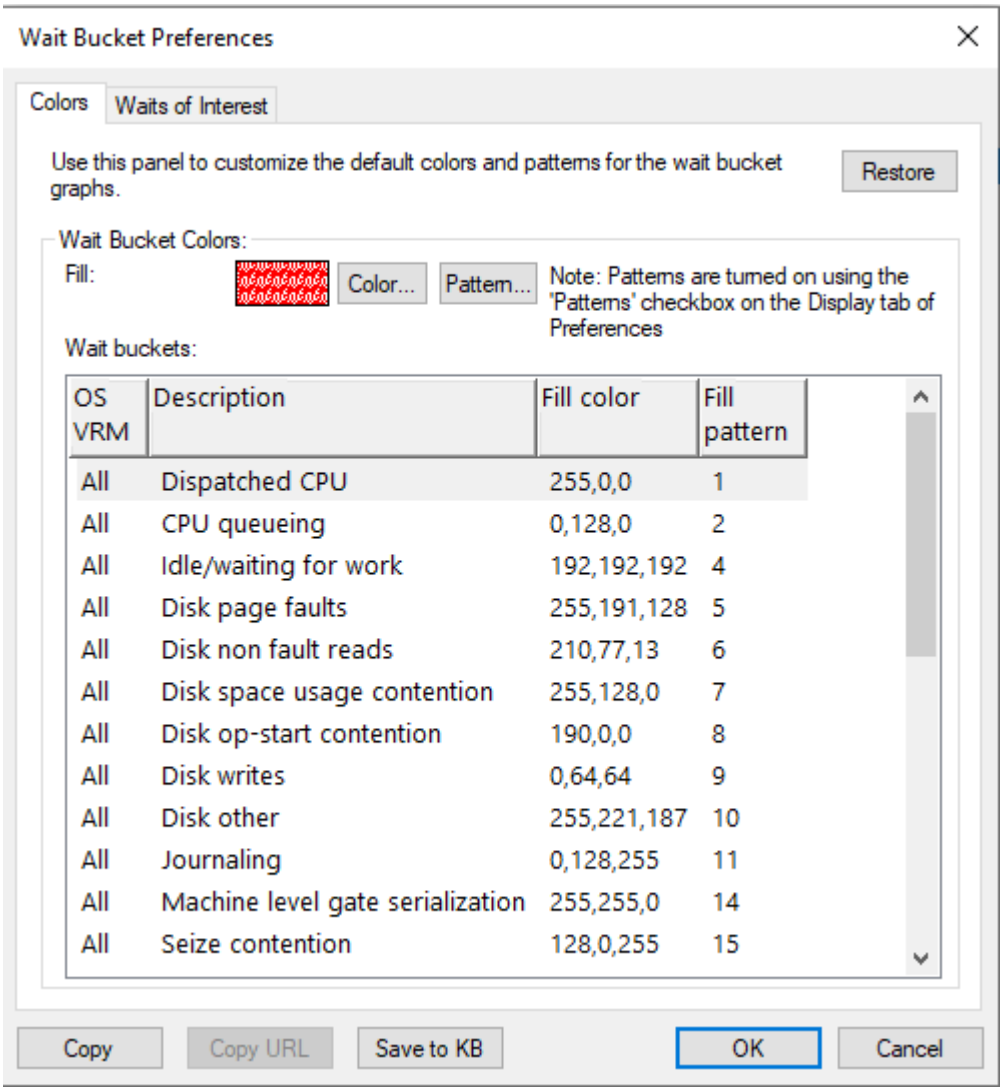
See the next sections for information on each page in this interface.

2.21.1 Colors

The Colors page allows the user to change the default colors for any desired wait bucket. In some cases, the wait bucket description only applies to a specific OS VRM and this VRM is listed in the 1st column.

This panel also allows a user to specify the pattern to use if the Display patterns preference is enabled.

An example of this interface is shown below:



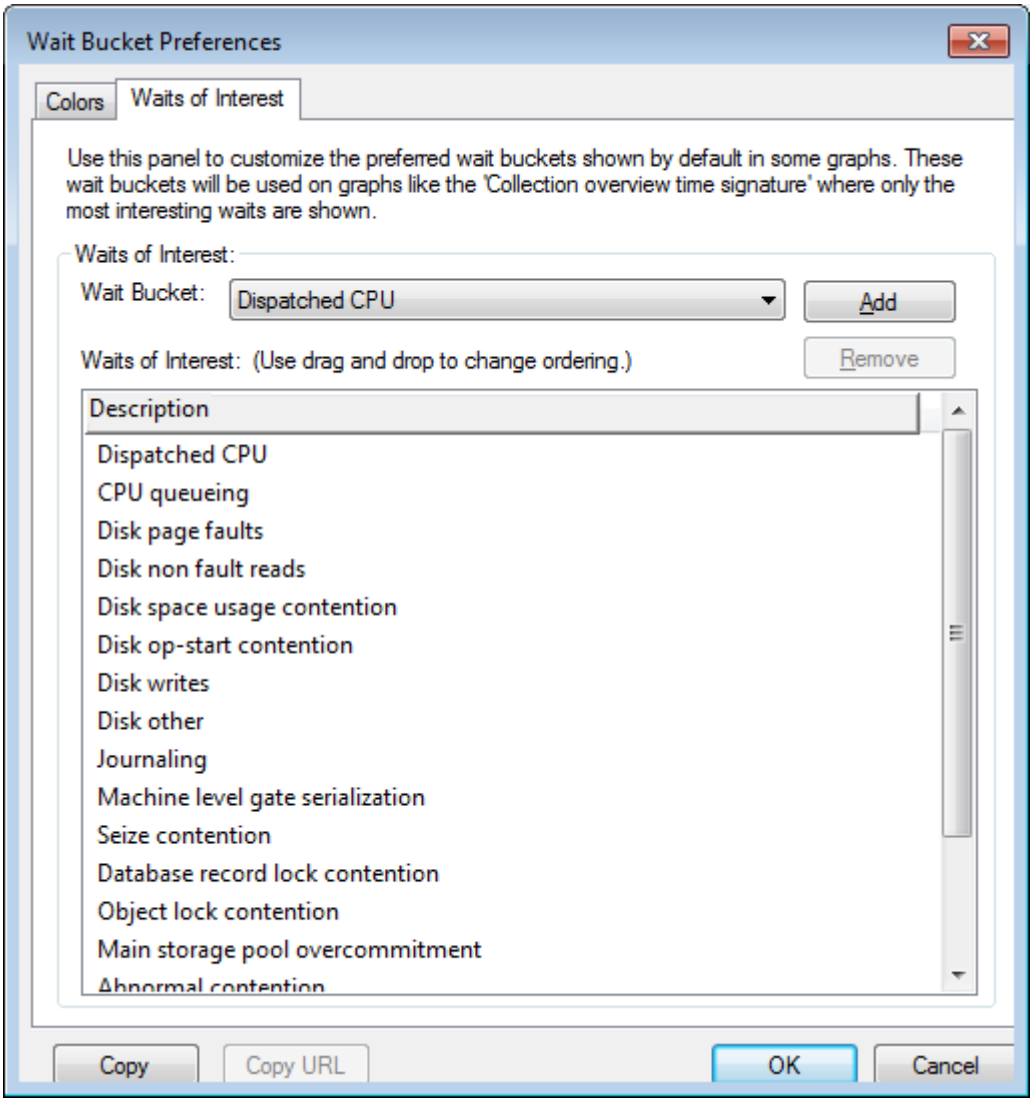
The options available on this page are summarized below:

Options	Description
Color… button	Allows you to modify the color for the selected wait bucket.
Pattern… button	Allows you to modify the pattern/hatching for the selected wait bucket. **Note:** These are only visible if the Preferences -> Display – Patterns checkbox is checked.
Restore button	This button will discard any changes made to the wait bucket colors, patterns and waits of interest. The IBM-supplied defaults will be used.
List of buckets	List of wait buckets and the VRM, color and pattern that currently applies to it.

2.21.2 Waits of Interest

The Waits of Interest page lets you pick which wait buckets to display on the wait bucket graphs in iDoctor. It's important to only add wait buckets that will be helpful in solving performance problems. Therefore, it is unwise to add wait buckets to the list where jobs are frequently spending most of their time idle.

An example of this interface is shown below:

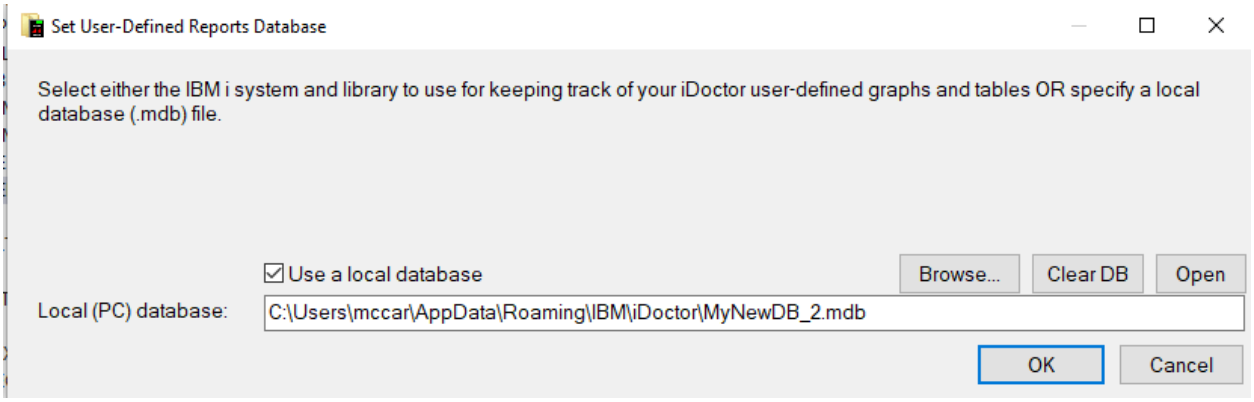


Note: Keep in mind that not all of these waits will be displayed in the graph's legend, because the graph legend (in the Y-axis) only contains buckets that experienced values greater than zero.

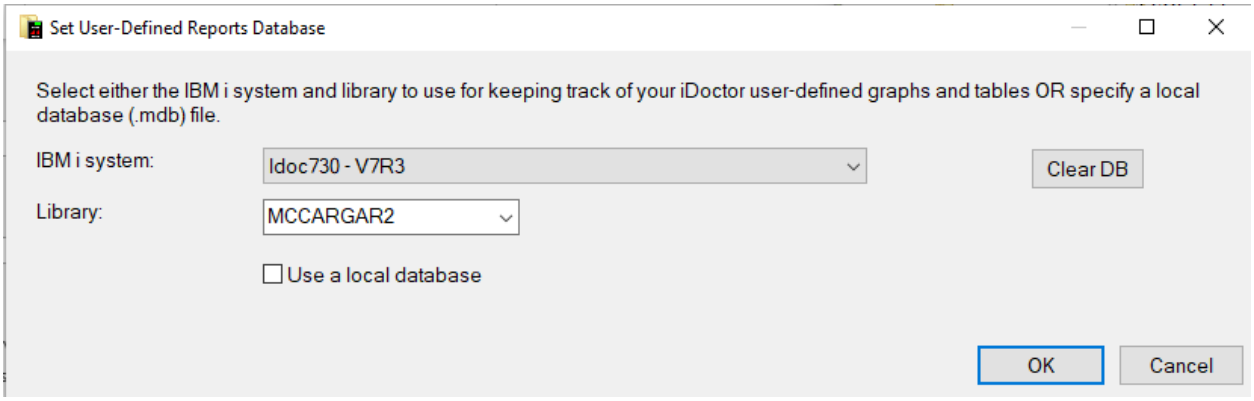
2.22 Set User-Defined Reports Database

This window allows the user to specify the database where iDoctor user-defined graphs and tables are located. This allows for multiple users to potentially access the same user-defined reports.

The database used can be either an IBM i library or an MS Access database file residing on the PC or a shared network drive.



Set User-Defined Reports Database window with a local database selected



Set User-Defined Reports Database with an IBM i library selected

The easiest way to share your reports with other users is to use the same library on a shared IBM i. If all users configure their Set User-Defined Reports database, then those users will be able to share the same reports that they create with iDoctor.

When the window is first opened the current setting for the user-defined reports DB will be shown.

If using an IBM i library as the database, these are the tables that will exist on the library making up the database.

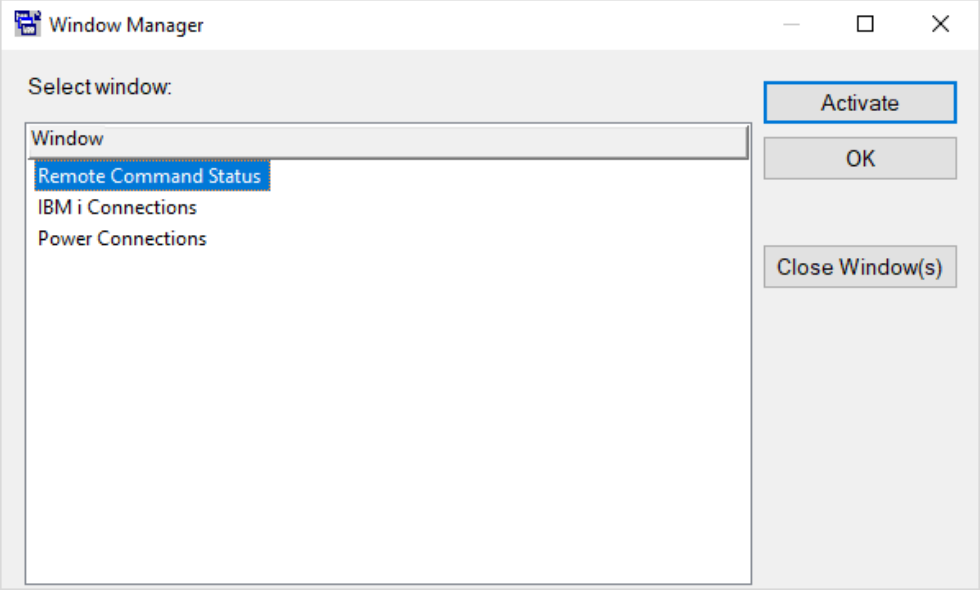
COLUM00001 - This is the COLUMNDESCS SQL table which is typically named COLUM0001.
QAIDRCATS - This defines the folders
QAIDRGPH - Graph definitions
QAIDRRGEN - Report generator lists
QAIDRSQL - SQL statements (for graphs and/or reports)

You can move these tables to other libraries/systems to backup or reuse them as needed.

2.23 Window Manager

The Window Manager is an option found by pressing the button on the Main Window or Data Viewer toolbars. The window allows a user to see a list of all windows (or views) open and to pick the desired one to activate.

Tip: You can double-click a window in the list to activate it.

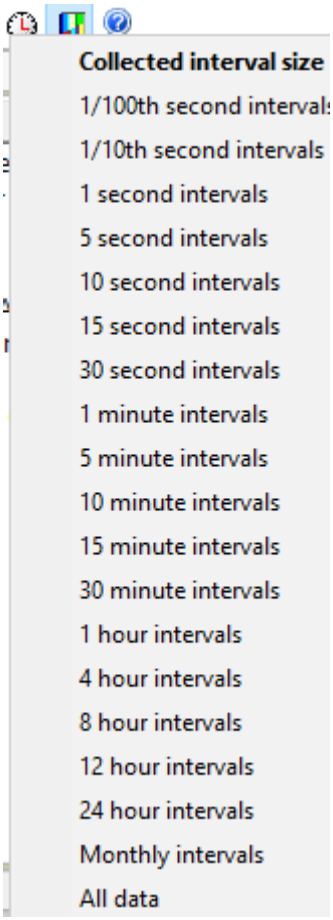


Window Manager

2.24 Set default time grouping (clock icon)

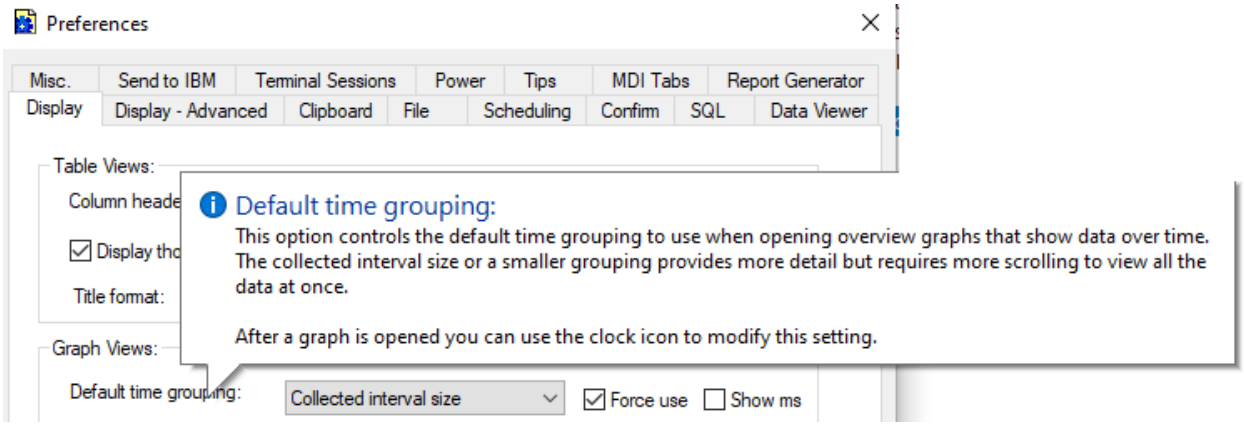
The clock icon on the Main Window toolbar allows a user to modify the default time grouping on all iDoctor time-based graphs. Many groupings are available and make it easier to get a summarized view over larger volumes of data. It is often not feasible to scroll through many pages of data or try to graph thousands of points on a single screen.

To enable this option, press this button and a list of options will be shown. Picking the desired grouping will change the current default value for the time interval size. The current default setting will be shown in bold font.



Clock icon menu

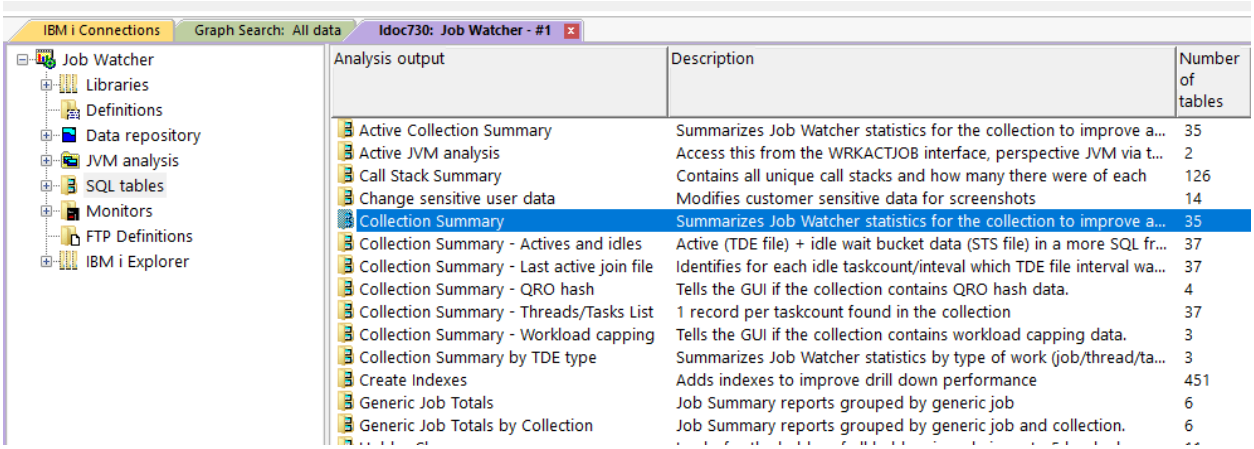
Note: This same preference may also be set using the **Preferences -> Display -> Default time grouping** setting.



Preferences -> Display -> Default time grouping

2.25 SQL Tables

The SQL tables folder in iDoctor is used to manage and work with the SQL tables generated by iDoctor analyses. This view organizes each type of SQL table into its own folder called "Analysis Output". This allows the user to more easily merge, graph and compare results from these tables by selecting the ones of the same type across different libraries and collections.

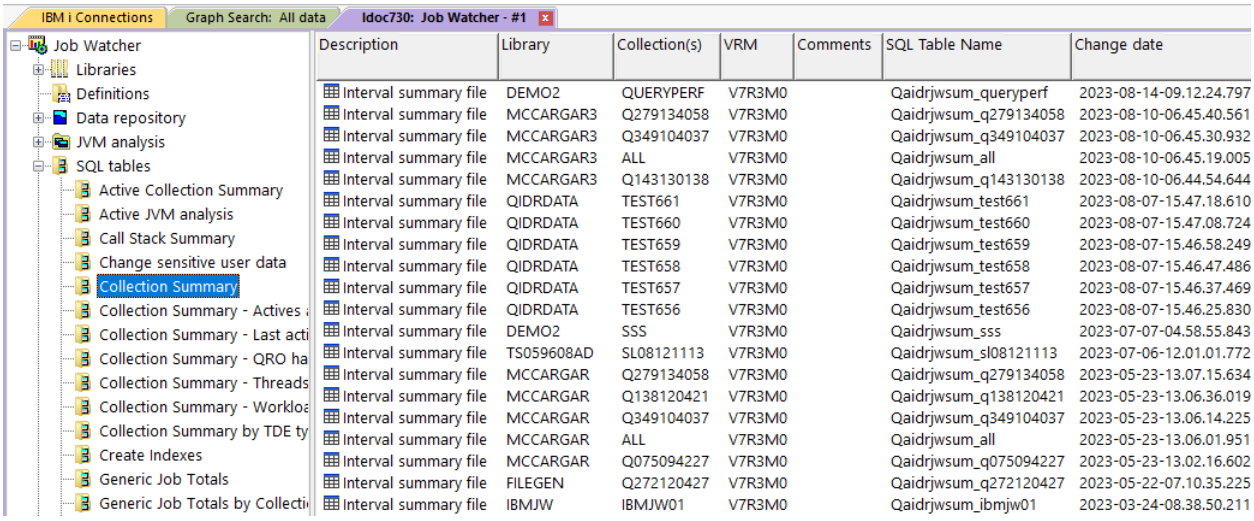


Some analyses such as the Collection Summary, generate more than one SQL table. In those cases, you may see an Analysis Output folder for each SQL table generated by the analysis.

The SQL tables interface is also available under each library shown, and under each collection. This filters down the SQL tables to only include those in the current library (and/or collection.)

2.25.1 Analysis Output

Within each analysis output folder will be a list of SQL tables found on the system that match the output folder you are working with.



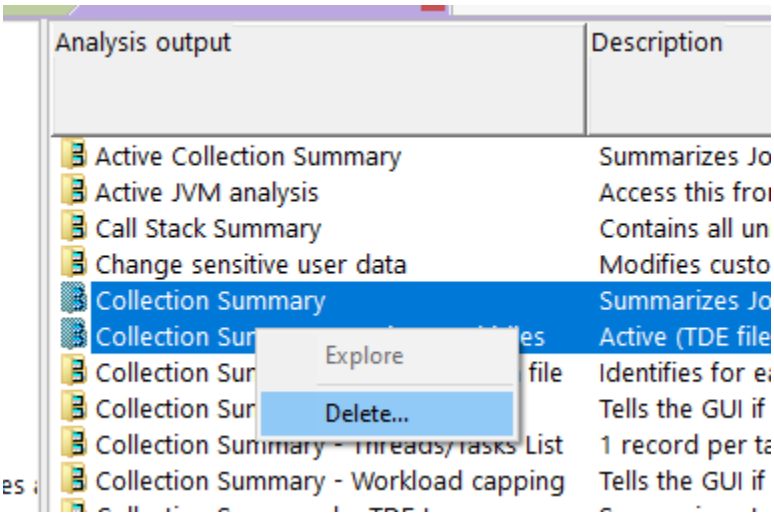
Double-click a table to view it.

Right-clicking one or more SQL tables shows the following menu options:

Menu	Description
Open Table(s)	Opens the desired SQL tables in the Data Viewer.
Record Quick View	Lists the information about the selected SQL tables vertically in a new window.
Open merged table	This option will be a report that combines all the selected table's data into 1 report. The data is simply UNIONed together and is not summarized.
Create merged table…	This option allows you to build a new table from the contents of all selected tables. You will be prompted for the name and library for the new table.
Edit comment	This option allows the user to modify the comment for the given SQL table.
Delete	This option lets the user delete the selected SQL table(s).
Properties	Displays property information for the SQL table.

2.25.2 Deleting

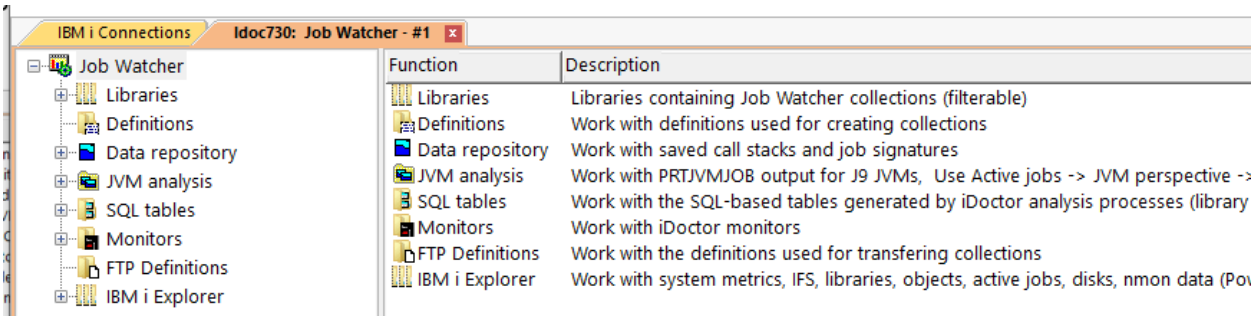
The SQL tables can be cleaned up (deleted) if desired by right-clicking the selected analysis output folders and using the Delete... menu. You can also select multiple folders when doing this action if desired.



Tip: To delete all iDoctor created SQL tables on a system, right-click the SQL tables folder itself under the Root Folder and use the Delete… option.

3 Component Views

Component views are the primary means of working with any of the iDoctor components. You can have as many component views open within a Main Window as desired.



Job Watcher Component View

Component views look and feel consistently across the various components. The tree represents the hierarchy of options available within the component you are using.
Under the libraries folder, you will find all libraries on the system that contain data for the component you are working with. Under libraries you can find collections, and the reporting options available within.
Your current selection in the tree is always displayed in the list portion of the tree/list.

Tip: Because of the tendency to deal with large amounts of data and a desire to have the client perform optimally (reduce network traffic, etc.), refresh has been implemented in a way unlike most other applications. The refresh toolbar button  or menu will refresh only the contents of the selected tree branch. For example, if a library is selected in the tree, only the contents of the library will be refreshed, not the list of libraries in the tree. Refreshing the list of libraries would require selecting the folder above the list of libraries (typically the Libraries folder.)

3.1 Menu Options

The menu options for an IDoctor component includes:

Menu	Description
Explore	This expands the component and shows the available options.
Active Data	The Active data menu provides the ability to access commonly used graphs or other functions for the currently running Job Watcher monitor collection or Collection Services collection.
Open Knowledge Base	This opens the Knowledge Base component on whatever system in the list of IBM I connections defined as the default system (with a checkmark icon next to it.) This is a repository for storing your notes about performance data captured in iDoctor.
Open new Data Viewer	Opens an empty Data Viewer.
Find Collections…	This option displays the Find Collections interface which provides the ability to look for collections matching user-defined characteristics. Example SQL statements are provided. The results of these queries are available under the IBM i Explorer -> Find collections results folder.
Set User-Defined Reports Database	This option allows a user to load/use another user's iDoctor user-defined reports/graphs that they have previously created. When saving user-defined reports these are saved into the specified database. This can either be an IBM i library or a local database on the PC (MDB file). To find the current user-defined reports DB settings, either use this menu option or see the application properties (Help -> About menu) and then look for the "User-defined reports DB" location.
Clear GUI Cache	This option deletes most temporary data loaded in the GUI's memory. This includes things like preferences, column orderings, reports and graph definitions, stored procedure information and more.
Work with iDoctor scheduled jobs	This option will navigate to the Work management -> Scheduled jobs folder under IBM i Explorer.
Collections Database	These functions allow you to work with the Collections Database which is used to keep track of collections on the system.
Properties	Displays basic information about the component including build level information.

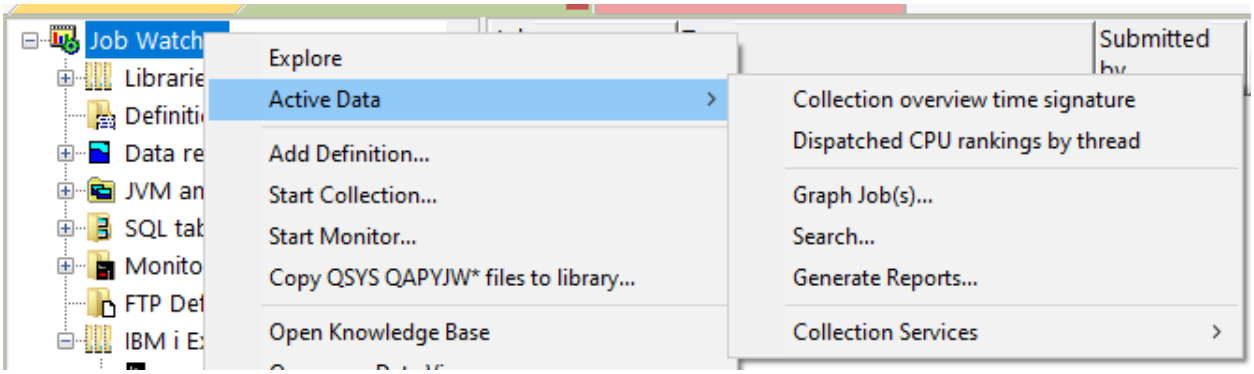
Note: Additional options will also appear but are discussed in the documentation for the component you are working with.

3.2 Active Data

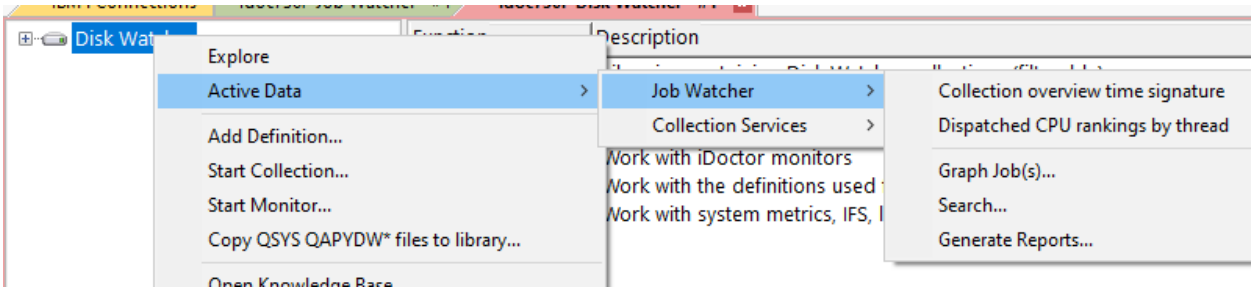
These options allow you to work with the currently running Job Watcher collection **if using STRJWMON** to collect data or the current Collection Services collection if CS is active.

Note: These options will fail with an error if JW and/or CS is not running.

The **Active data** menu options will vary if currently using Job Watcher or Collection Services Investigator and shows the options for the current component being used first.



If not using either, then a Job Watcher or Collection Services submenu appears with each set of identical options.

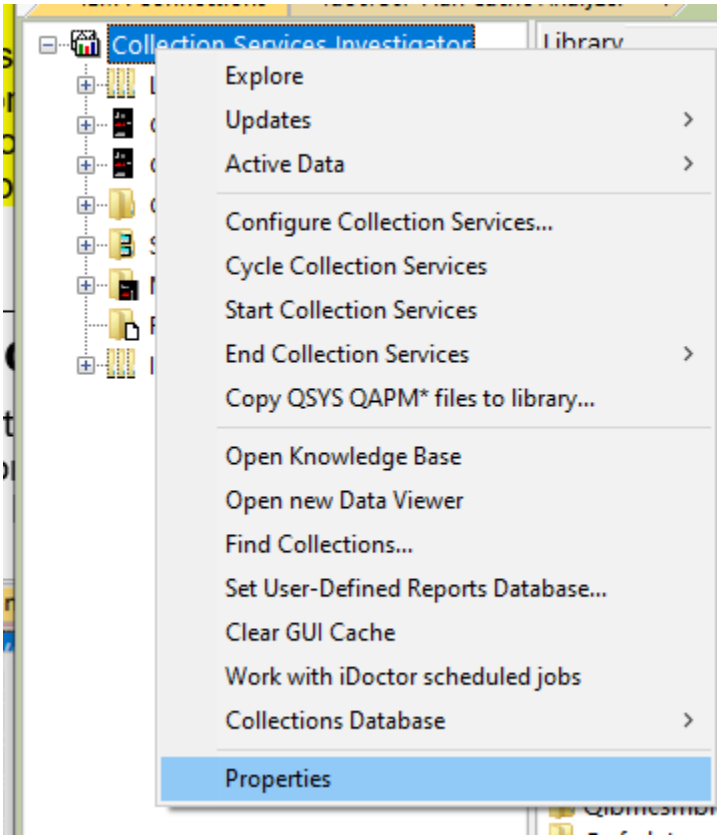


Tip: These functions are described in more detail in the documentation for Job Watcher or Collection Services Investigator.

Menu	Description
Collection overview time signature	This option will open the Collection overview time signature graph for the actively running collection in either JW or CSI.
Dispatched CPU rankings by thread	This option will graph the jobs in the currently active collection showing the ones using the most CPU first.
Graph Job(s)	The Graph jobs function is used to select a job from the currently active collection and then pick and graph from any graph available the job's data over time. See the documentation for Job Watcher or Collection Services Investigator for more details.
Search	The Search function is used to find something of interest in the currently active JW or CS collection.
General reports	This function is used to produce a report by choosing which graphs or reports to run against the active collection and then a single HTML or PDF output file is created.

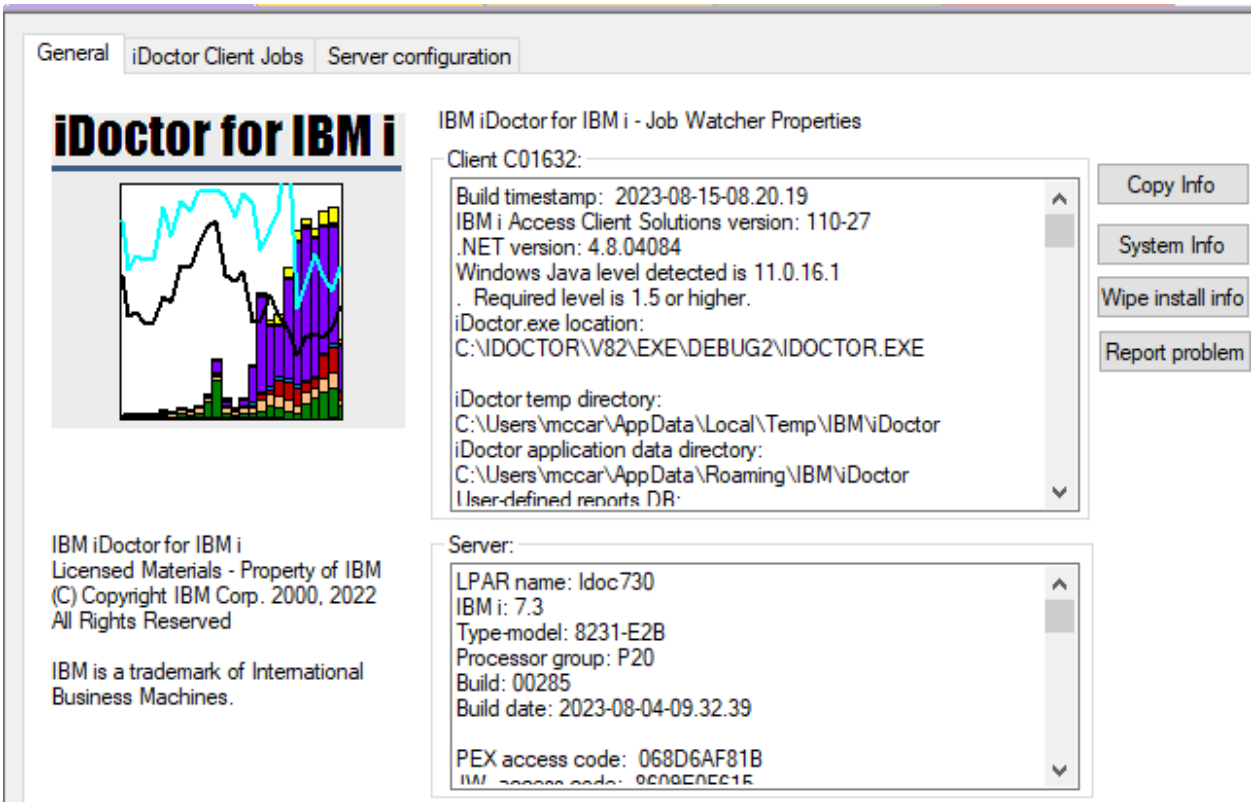
3.3 Properties

The Properties for the component have a similar interface for each of the iDoctor components. This interface contains high-level configuration settings such as: the build levels, configuring iDoctor job run priorities or listing any missing PTFs. Access this interface by right-clicking the component icon (root folder) and using the Properties menu.



3.3.1 General

An example of the General property page for Job Watcher is shown below:



3.3.1.1 Interface

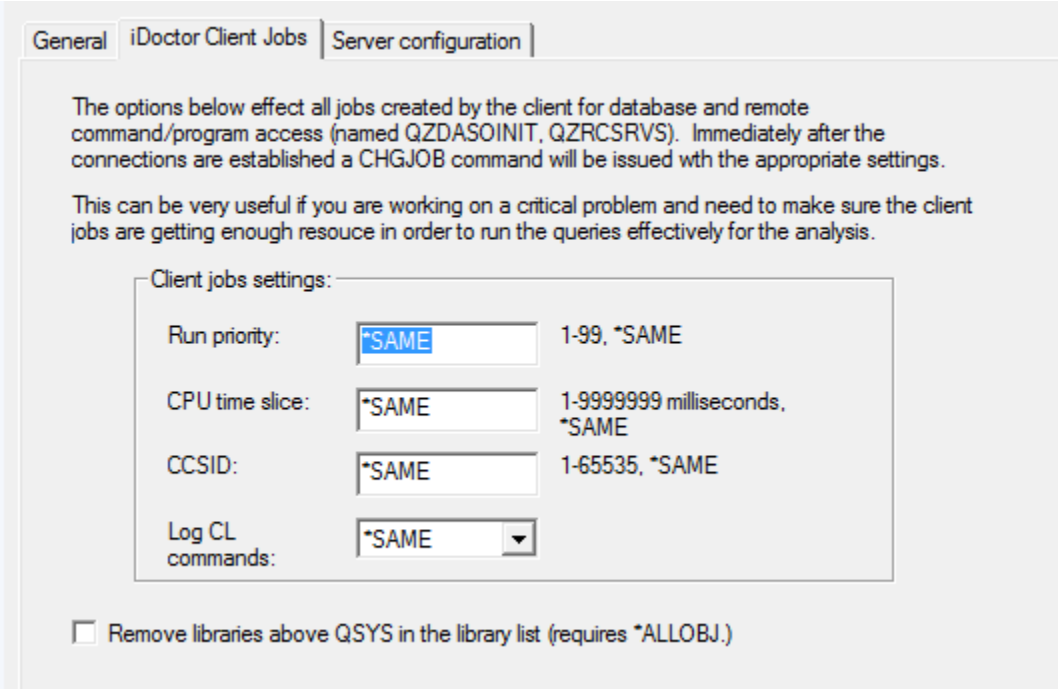
The following information is supplied within the General tab of this window:

Client Version Information	Description
Client Cnnnnn	The client build number installed is listed near the top of this window.
Build timestamp	The date/time the build was produced.
IBM i access	The installed VRM and service pack level for IBM i Access Client Solutions **with the windows application package!**
.NET version	The version of .NET installed. If not updated to the required levels, then some of the FTP functions will not work.
Java version	Information about the level of Java installed. If not installed, then the user will be unable to use the SSH connections required in the Power Connections component.
iDoctor exe location	The directory and filename for the iDoctor GUI application.
iDoctor temp directory	The directory where temp files and some log files created by iDoctor are stored.
iDoctor application data directory	Files needed by iDoctor are stored in this directory.
User-defined reports DB	This value displays the location of the user-defined reports database.
Copy Info	This option will copy the data on this window to the clipboard as text.
System Info	This option will display the Windows System Information utility.
iDoctor GUI install history	A list of all iDoctor builds installed on the PC. This can be used to tell which build level was previously installed. This information is only removed if the user presses the Wipe install info button.
Wipe install info	This will remove information from the Windows registry that provides the iDoctor GUI install history.
Report problem	This will open the default email program on the PC to send an email to idoctor@us.ibm.com for support purposes. This provides debug information automatically in the email generated and is recommended!

Server Version Information	Description
LPAR name	The system that the current component view is connected to.
IBM i	The version and release of IBM i on the system.
Type-model	The type and model of the system.
Processor Group	The processor group of the system.
Build	Build number of this component installed on the server side. **Note:** We now prefer to reference server builds by date instead of build number when contacting support.
Build timestamp	The date/time the server build was produced. This value is shown in yyyy-mm-dd-hh.mm.ss format.
PEX access code	The last PEX Analyzer access code applied on this system.
JW access code	The last Job Watcher access code applied on this system.
PTF levels	This lists information about the JW PTFs installed (if working with Job Watcher), or the PEX PTFs installed (if working with PEX Analyzer).
Stored procedure versions	This provides a list of iDoctor stored procedures and their versions installed in the QIDRGUI library.

3.3.2 iDoctor Client Jobs

The following is an example of the iDoctor Client Jobs interface:



Job Watcher Properties – iDoctor Client Jobs

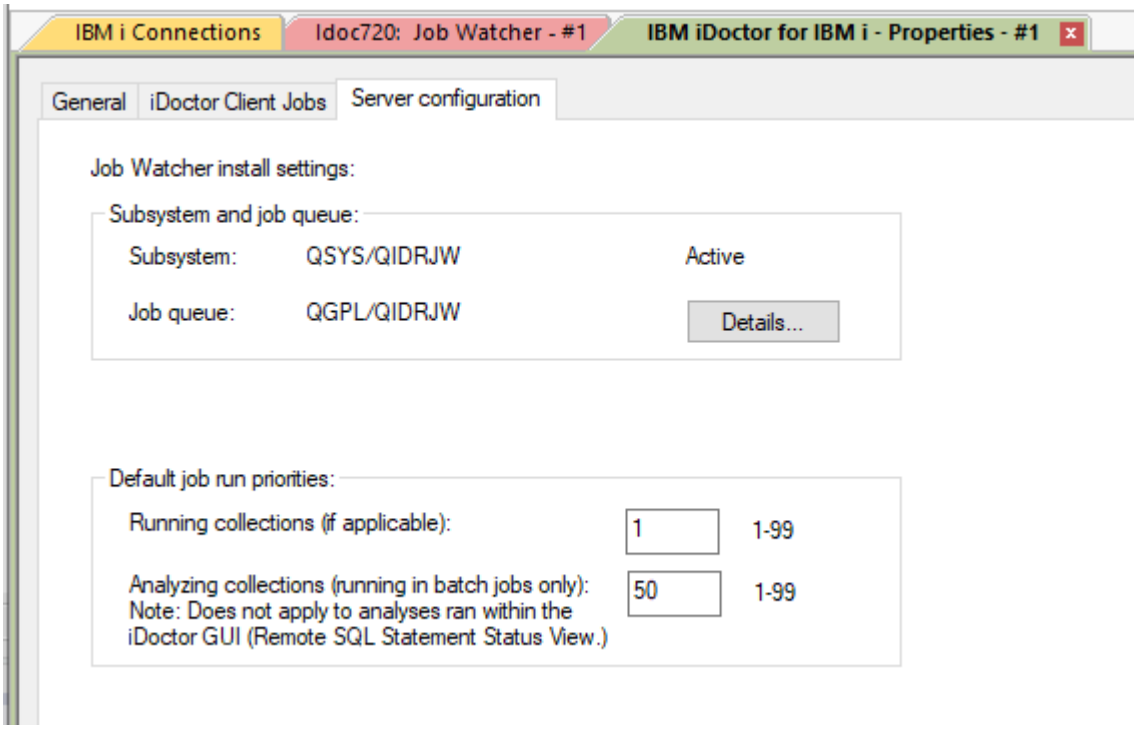
This page lets you set the run priority and CPU time slice of all iDoctor client jobs. You can increase the run priority of the jobs that execute SQL statements that perform real-time analysis using the iDoctor GUI. This should only be set by advanced users and does require that the user profile you are connecting to the system with has *JOBCTL special authority. You must shut down the client and restart for any changes made on this screen to take effect.

3.3.2.1 Interface

Client job settings	Description
Run priority	Effects the run priority of all QZDASOINIT and QZRCSRVS jobs created by the iDoctor GUI. After the connections are started, the client will attempt to issue a CHGJOB command to adjust its run priority.
CPU time slice	Specifies the maximum amount of processor time (in milliseconds) given to each thread in the job before other jobs on the system are given an opportunity to run.
CCSID	The CCSID the job(s) should run under. Typically this should be set to 37 for best results.
Log CL commands	Indicates if CL commands should be logged to the job log or not (when possible.)
Remove libraries above QSYS in the library list	Use this option if you have other libraries above QSYS that have unexpected implementation of IBM i commands causing the GUI functions to fail. This option requires *ALLOBJ authority.

3.3.3 Server configuration

The following is an example of the Server configuration page.



Job Watcher Properties – Server configuration

The subsystem and job queue used for batch jobs created by iDoctor is shown on this page.

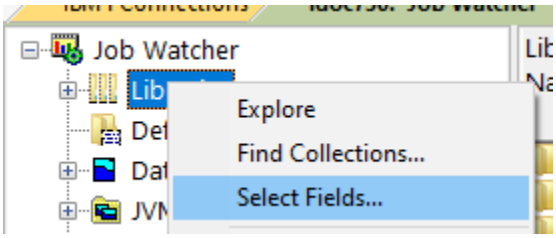
If any of the required PTFs are not installed, they will be listed on this screen at the bottom. It's not recommended to run collections until these PTFs are installed.

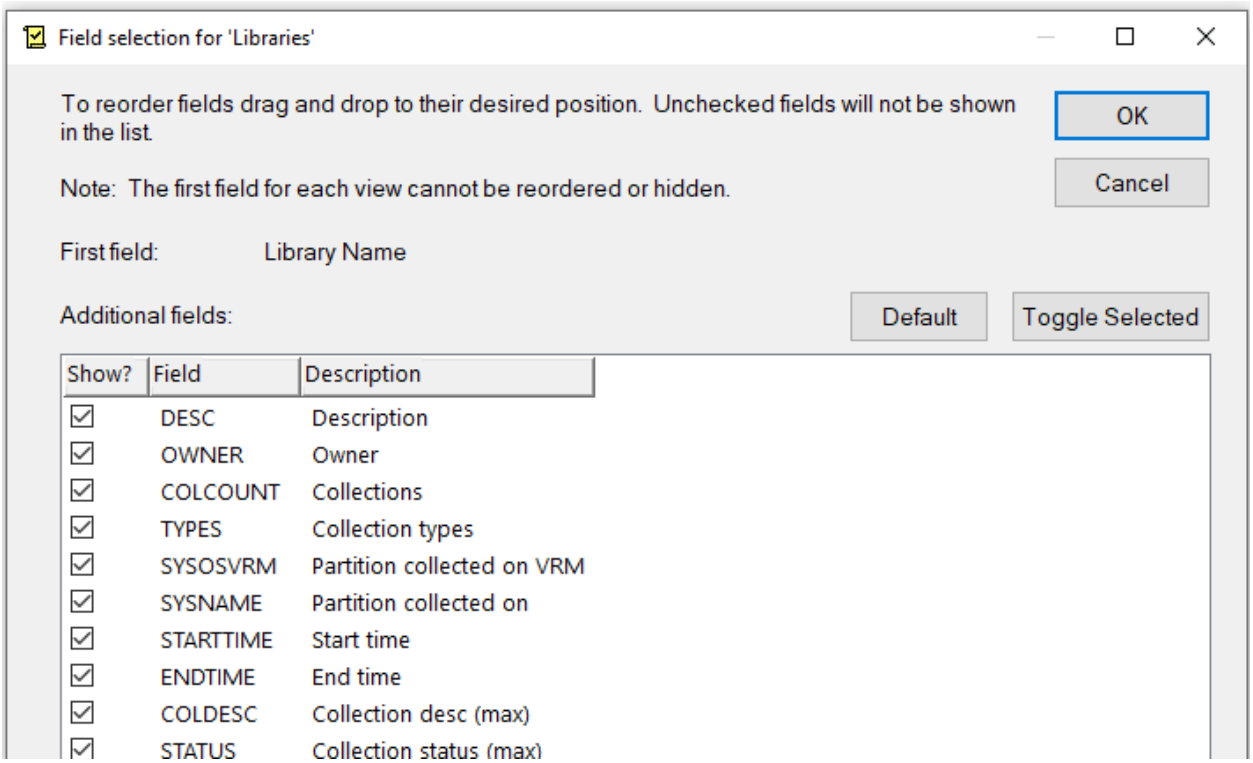
The default run priorities used when running collections and analyzing collections are shown and may be modified if desired from this page.

Note: The analyzing collections value only applies when running the analyses in batch instead of a QZDASOINIT client job. Use the iDoctor client jobs tab to affect the priority of the analysis process at those releases.

3.4 Field Selection Window

The Field Selection Window is a generic way to work with the fields shown in the list portion of a tree/list view. This window is available via the 'Select fields...' menu from any objects that has field selection enabled. Not all folders in the tree have field selection enabled.





Field Selection Window

Any changes you make are saved to your PC's registry and reused the next time you open the view you are working with. To restore to the iDoctor-ship default ordering click the "Default" button. The "Toggle Selected" button is a fast way to toggle the show checkbox for several selected fields in the list at once. To select multiples, hold down the ctrl or shift key while clicking your mouse on entries in the list.

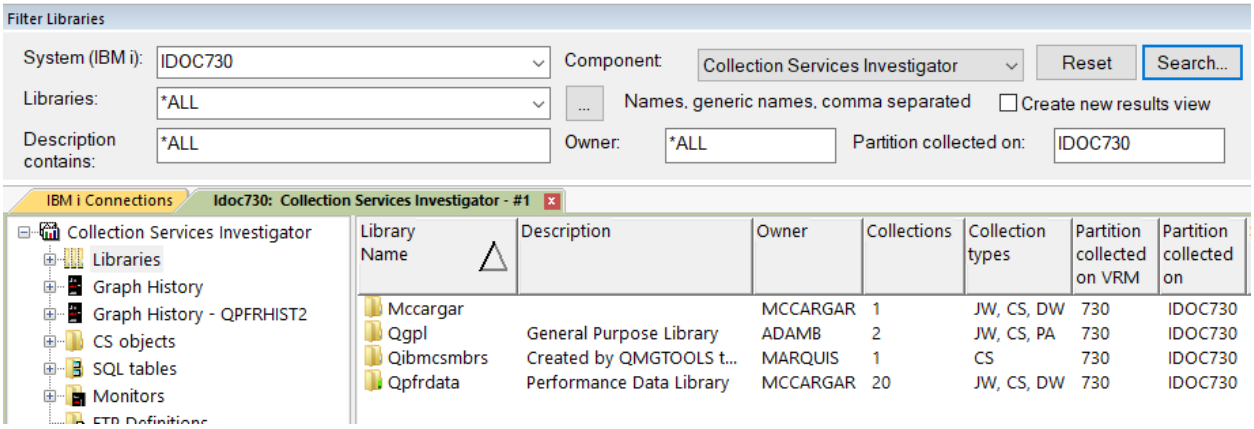
3.4.1 Interface

Option	Description
First field	Lists the first field in the list. It cannot be removed or changed.
Default button	Discards all changes and reorders the list of fields to the IBM-shipped defaults.
Toggle Selected button	Hides or shows the selected fields in the list by toggling the checkbox.
Additional fields list	List of available fields to include. You can press the space bar or click the Toggle Selected button to check/uncheck the box for the selected fields. Use drag and drop to reorder the fields in the list.

3.5 Libraries Folder

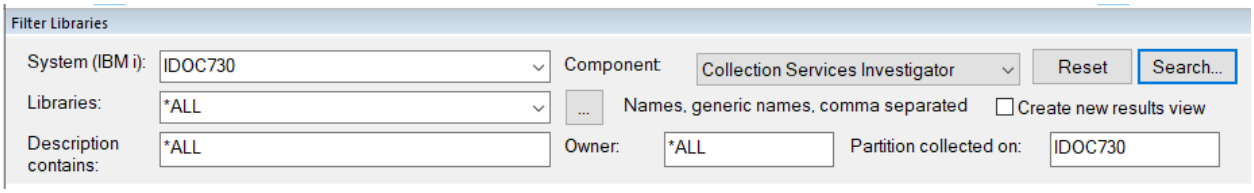
Most components in iDoctor contain the Libraries folder. This folder displays all libraries on the system that contain applicable data for the component you are working with.

Use the Filter Libraries Pane at the top of the interface to control which libraries appear in the listing. Several options are available to filter by partition name, library name or library description.



3.5.1 Filter Libraries Pane

This interface automatically appears whenever working with the Libraries folder to control filtering of the data shown.



Tip: All values will accept blank as an alternative to using *ALL or use the Reset button to clear all filters.

This interface will appear automatically when using most folders in iDoctor that either lists libraries or offer library filtering except for the IBM i Explorer -> Libraries folder.

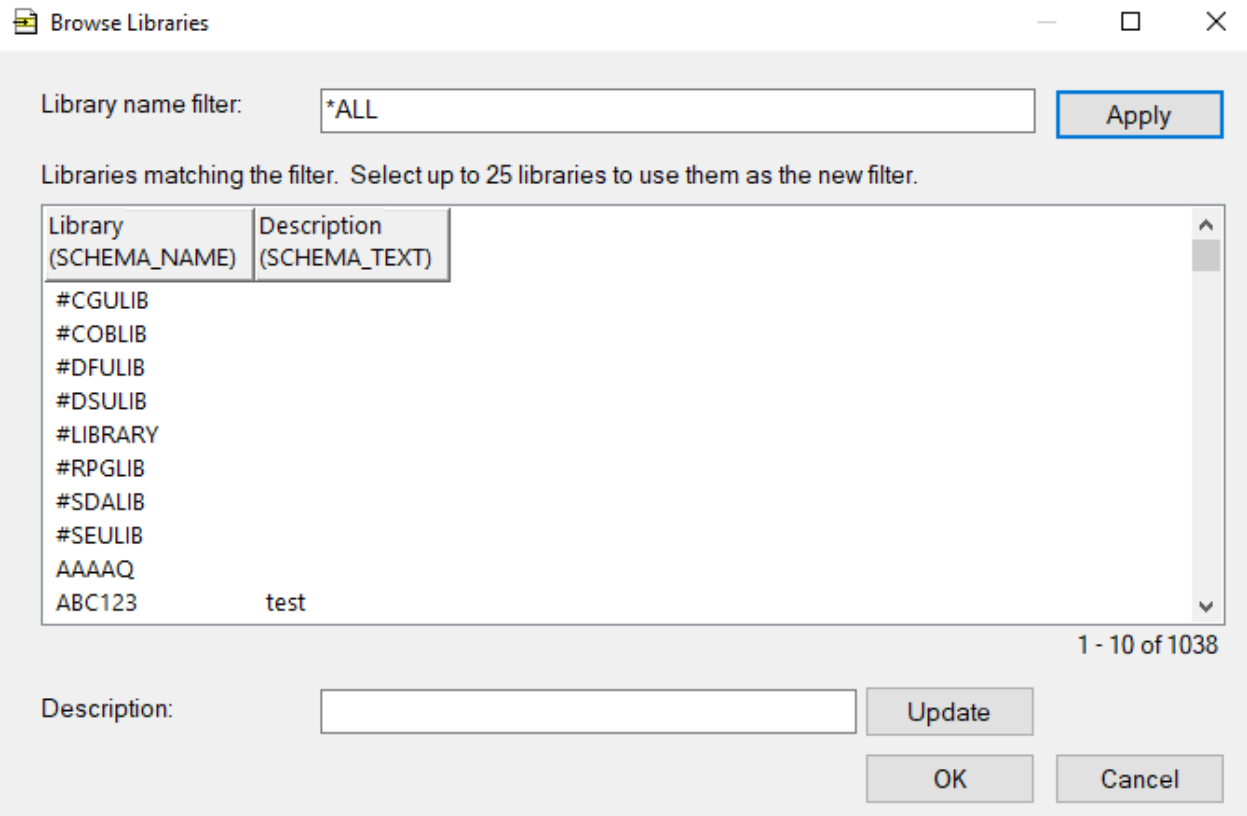
3.5.1.1 Interface

The options on this pane are described below:

Option	Description
System	This is the system you are currently working with. You can change this value to another, but then a new results view will need to be used when pressing Search.
Component	This is a way to switch from one component to another, but when doing so, a new results view will be used to show the results.
Libraries	This is a library name filter that is either *ALL or a comma separated list of library names and/or generic library names. Press the … button to use that filter and open the Browse Libraries window to see all libraries on the system matching the filter supplied.
Create new results view	This indicates if a new view is launched each time a Search is performed. Changing the System or Component will force this to be checked temporarily.
Description contains	This is a case sensitive filter against the library description.
Owner	This is a filter on the owner of the *FILE object used to perform the search. In CSI, this is QAPMCONF. In JW it is QAPYJWRUNI, DW is QAPYDWRUNI and PEX is QAYPERUNI. The value can be *ALL, a specific name, or a generic name.
Partition collected on	This is a filter on the partition name where the data was collected. The value can be *ALL, a specific name, or a generic name.
Reset	Clears all filters and refreshes the listing to show all libraries.
Search	Uses the current filters to rebuild the Libraries folder.

3.5.1.2 Browse Libraries

This window shows all libraries matching the libraries filter provided on the pane. This may include libraries that do not have any data for the component you are working with.

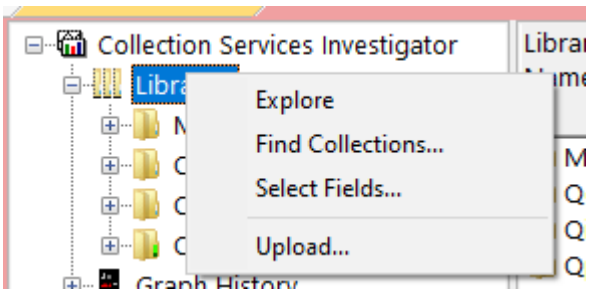


Interface

Option	Description
Library name filter	This is the Libraries filter provided from the Filter Libraries pane or you can change it here.
Apply	Press this button to update the list of libraries matching the filter.
Libraries matching the filter.	You can select a library to modify its description using the text box at the bottom and Update button. Or select up to 25 libraries and press OK to display those libraries in the GUI (if they also contain performance data for the component you are using).
Description	This text box allows the library description to be modified.
Update	Use this to update a library description for the one selected in the list.

3.5.2 Menu Options

The Libraries folder (when right-clicked) provides the following menu options:



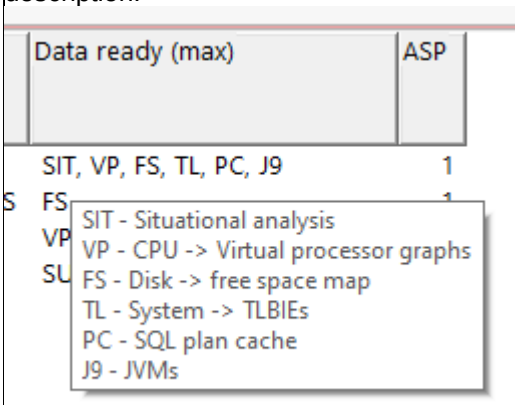
Menu	Description
Find Collections…	This option displays the Find Collections interface which provides the ability to look for collections matching user-defined characteristics. Example SQL statements are provided. The results of these queries are available under the IBM i Explorer -> Find collections results folder.
Select fields…	This option allows you to modify the columns shown in this folder.
Upload…	This allows data to be sent to the IBM i (typically a SAVF containing performance data.)

3.5.3 Fields

This section discusses the columns shown within the Libraries folder.

The columns with a (*) are shown by default. The other columns can be added by right-clicking the Libraries folder and using the Select Fields… menu.

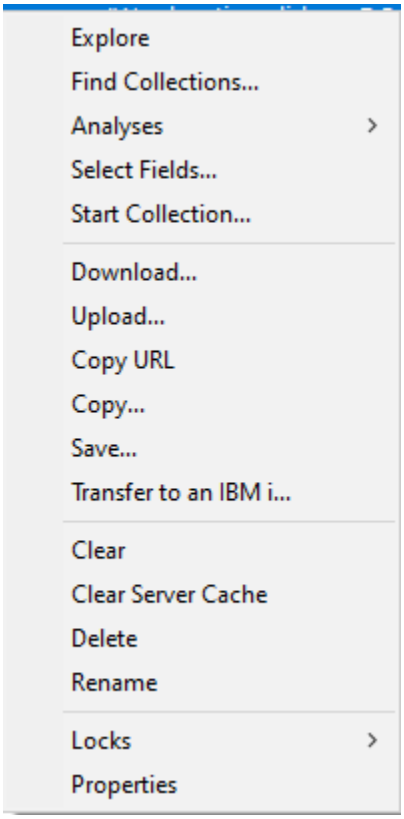
Tip: If many fields are shown blank, then the collections database should be refreshed using the **Collections database -> Refresh all** menu from the root folder in the component view interface. This database is cleared after each reinstall of the server builds.

Field	Description
Library name (*)	Library that contains performance data matching the component you are using.
Description (*)	Library description
Owner (*)	**Note:** This is the owner of the table being searched (i.e. QAPMCONF for CS, or QAPYJWRUNI for JW) and not the library *LIB object in QSYS.
Collections (*)	Number of collections in the library (as of last refresh.)
Collection types (*)	This is a comma separated list of collection types found in the library. JW – Job Watcher CS – Collection Services DW – Disk Watcher PA - PEX
Partition collected on VRM (*)	The VRM of the system where the data was captured.
Partition collected on (*)	The name of the system where the data was captured. This is a max value and if data exists from multiple libraries, then only the 1 value is shown.
Start time (*)	The start time of the oldest collection in the library.
End time (*)	The end time of the newest collection in the library.
Collection desc (max) (*)	The max collection description value from the list of collections in the library.
Collection status (max) (*)	The max status from the list of collections in the library. This indicates if any critical data is missing, and putting your mouse of a value in this column will shown if any non-critical files are also missing.
Data ready (max) (*)	This column indicates which types of data has been captured and in some cases it indicates which iDoctor analyses have been ran. For more information about the values shown, use a flyover which will translate the codes into a more meaningful description. 
ASP (*)	This identifies the ASP information applicable for each library.
Created by	The user profile that originally created the library.

3.6 Library Folders

Each library folder in iDoctor has a set of common menu options available which are described in more detail in this section.

3.6.1 Menu Options



Library menu in Job Watcher

Menu	Description
Explore	Show the collections within the library.
Find Collections…	Displays the Find Collections interface and presets the library filter to match the current one.
Analyses	Provides a list of analyses you can run against all collections in the selected libraries. **Note:** In some cases, this will show analyses that do not apply to the data found in the library and won't produce usable data.
Select fields...	Displays the Field Selection Window. This allows you to configure and reorder the fields that are displayed when showing the list of collections within a library.
Download…	This is used to save the selected library to a save file then download it to the PC.
Upload…	This option is used to upload a save file to a library.
Copy URL	Creates a reusable URL to the component and library.
Copy...	Allows you to copy the library's contents into a new library or into an existing one.
Save...	This option lets you save the library's contents into a save file on the server.
Transfer to an IBM i...	Allows a user to transfer one or more libraries to another IBM i.
Clear	This option clears a library (deletes all objects in the library).
Clear Server Cache	This option clears the iDoctor cache that keeps track of collections. It is sometimes helpful to use this if the collections show incorrect status information such as missing files or analyses data is not being displayed correctly.
Delete	Deletes the library.
Rename	Renames the library.
Locks	This provides options to view the jobs locking the library or all object locks in the library.
Properties	Displays the property pages for the library.

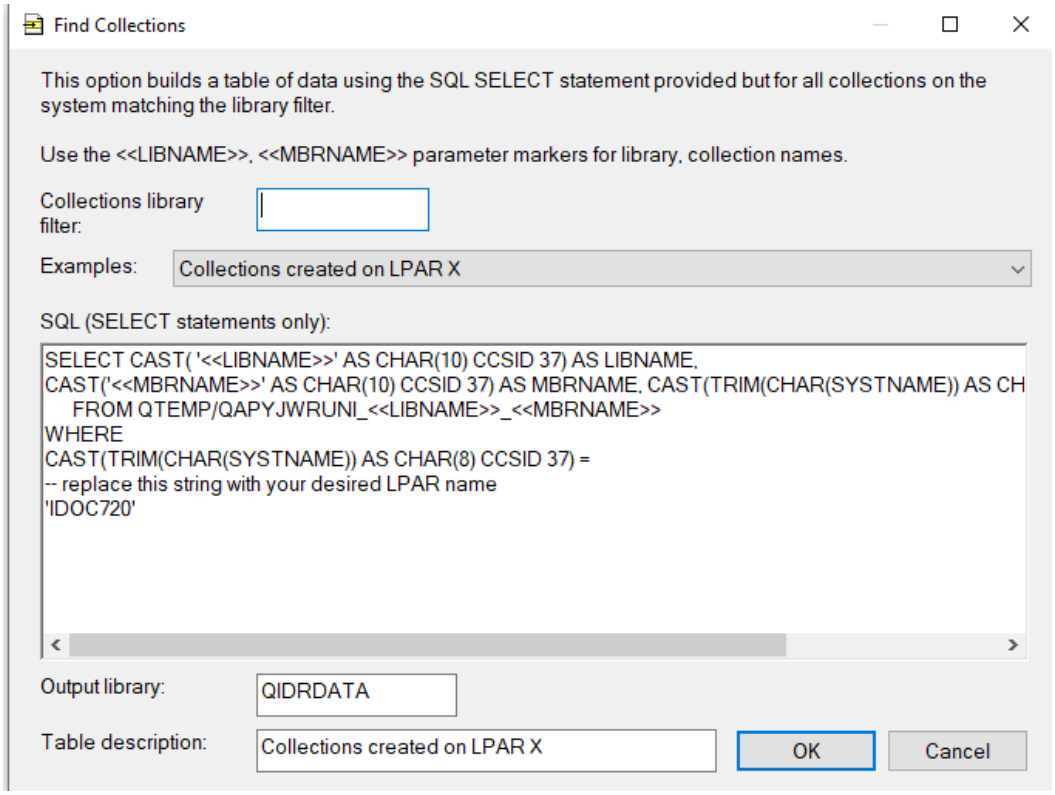
Depending on the component, library folders may have additional options.

3.6.2 Find Collections

This option appears in Job Watcher, Collection Services Investigator, Disk Watcher and PEX Analyzer. Access it by right-clicking the component icon (or library) and choosing the Find Collections menu. It provides the ability to search a system or specific libraries for performance data of interest based on user-defined criteria. Example SQL statements are provided and cover the most needed scenarios.

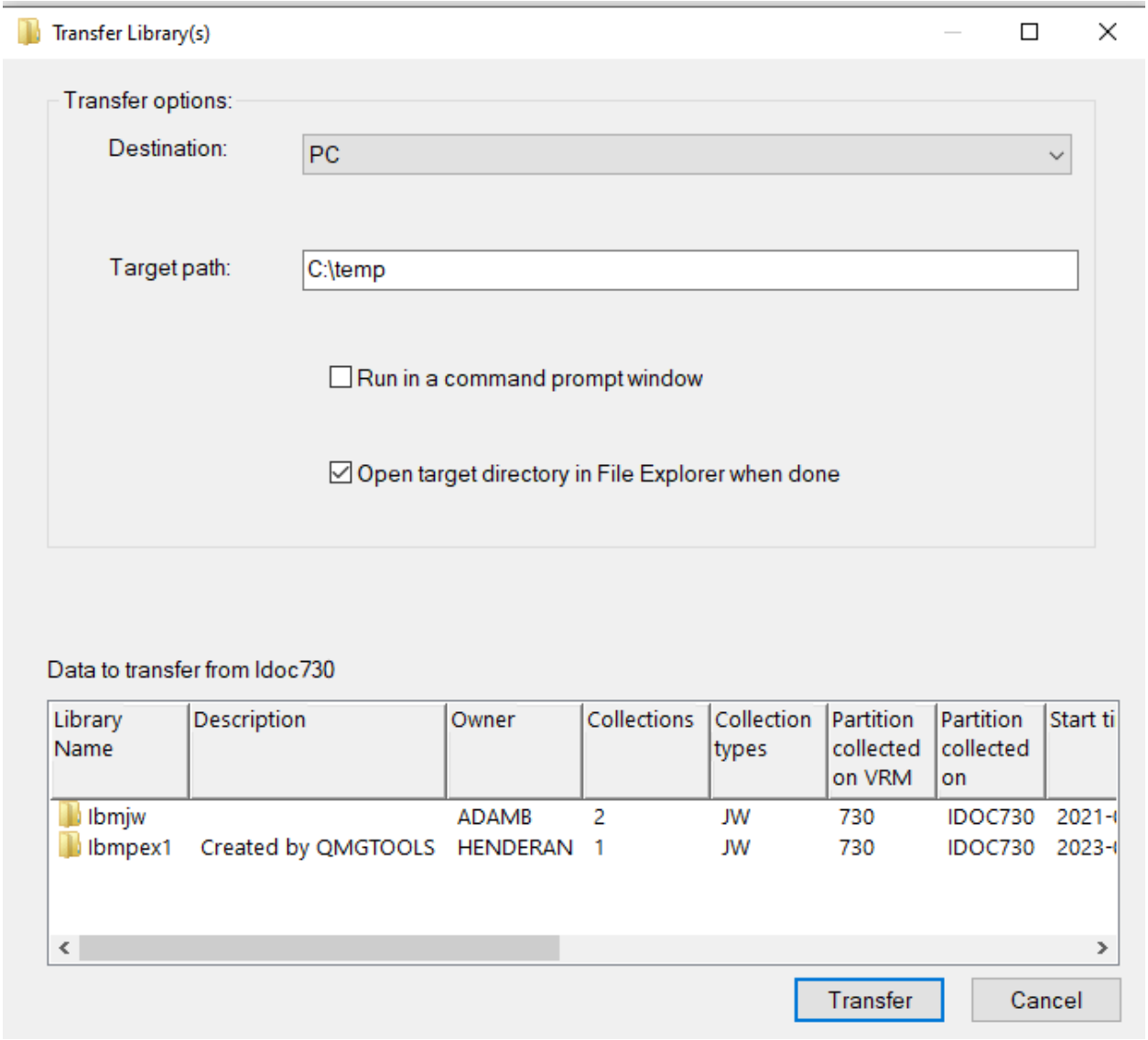
This interface creates a single member SQL table in the Output library specified. These results are shown within the IBM i Explorer -> Find collections results folder and will be executed in the Remote SQL Statement Status View.

Note: Depending on the number of collections on the system, this option could run for several minutes or even hours.



3.6.3 Download

The download option when used for the selected libraries will show the Transfer Library(s) window.



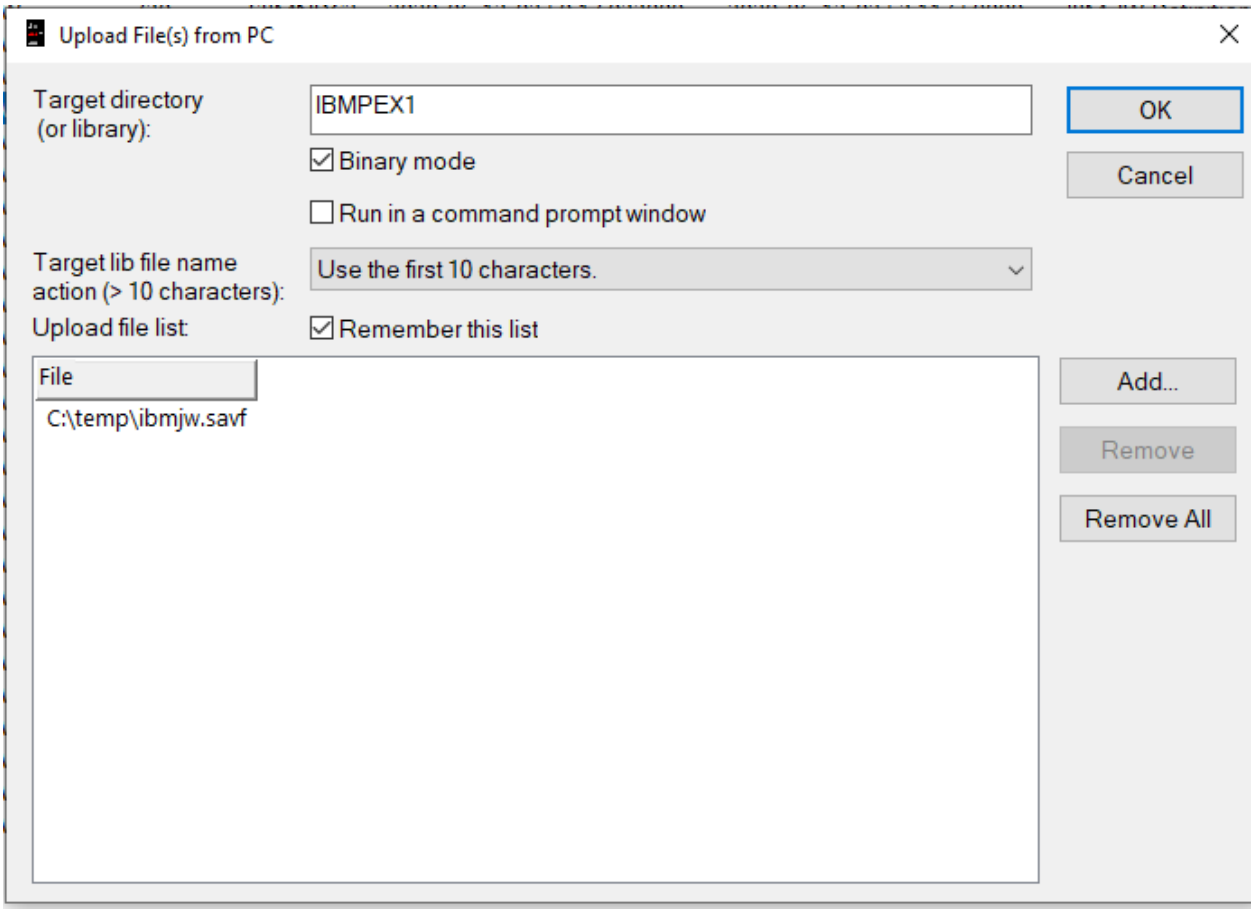
3.6.3.1 Interface

Option	Description
Destination	Indicates where the data will be sent. For a download operation, PC is assumed, although it could be changed here.
Target path	The location on the PC where the save file(s) will be sent. A save file will be created for each library name.
Run in a command prompt window	Indicates if the status of transfers should be visible in a command prompt window. **Note:** This only appears if the IBM i Connection's file transfer method is SSL or SSH.
Open target directory in File Explorer when done	Indicates if Window's File Explorer should be opened and navigated to the path after the transfer is complete.

3.6.4 Upload

This option when used from a Library folder shows the Upload File(s) from PC window and fills in the target directory or library textbox with the library selected.

Press the Add button to add the save files to transfer to the library and select them from the window that appears.



3.6.4.1 Interface

Option	Description
Target directory or library	This window can be initiated from an IFS directory or IBM i library. Depending on the context the value will be one or the other.
Binary mode	Check this box to have the data sent in binary mode, which should always be used unless transferring text files to an IFS directory.
Run in a command prompt window	Indicates if the status of transfers should be visible in a command prompt window. **Note:** This only appears if the IBM i Connection's file transfer method is SSL or SSH.
Target lib file name action	Only if data is being sent to a library and the file name is greater than 10 characters, then one of these actions will be taken to determine the file name to use: - Use the first 10 characters. - Use the last 10 characters. - Use the first 7 characters and a 3-digit unique number. **Note:** This only appears when sending data to a library.
Remember this list	Use this option if you want the GUI to remember the list of files and repopulate the list again with the same set of files. This can be handy if sending the same files to multiple LPARs.
Upload file list	This is the list of files on the PC that will be transferred to the remote server.
Add button	Use this button to add files from the PC to the list.
Remove button	This button removes the selected files from the list.
Remove all button	Removes everything from the list.

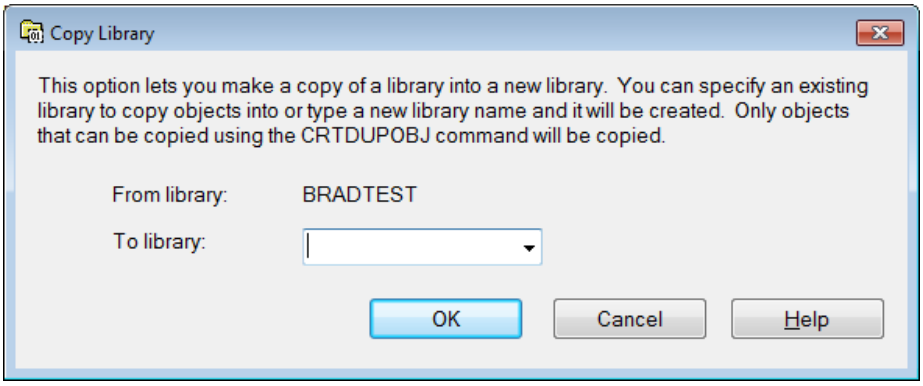
3.6.5 Copy URL

Use this option to copy and paste a URL into an email or instant messaging program to allow another user to access the same interface currently being viewed. Using this option from a library, will bring up the iDoctor GUI on the PC and open the component and library that was being viewed when this option was taken.

The URL generated by this option starts with idoctor:// and tells your web browser to launch iDoctor and perform the desired action.

3.6.6 Copy…

A library may have its contents copied into a new library or into an existing library by using the Copy... menu. The progress of the library being copied may be viewed using the Remote Command Status View.

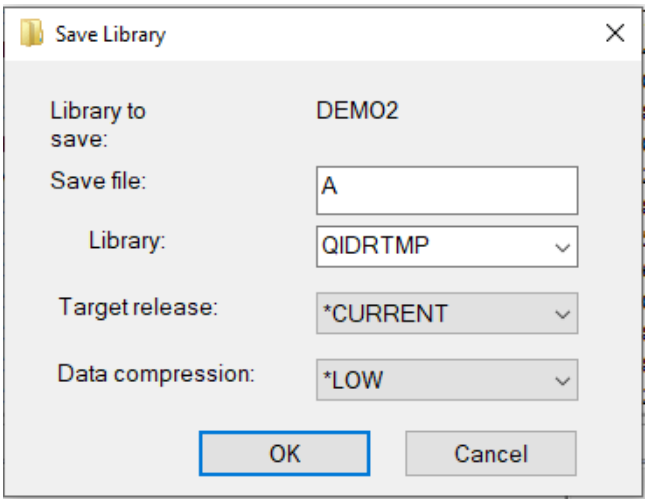


3.6.6.1 Interface

Option	Description
From library	Displays the name of the library to be copied.
To library	The name of the library that will receive the contents of the from library. By clicking the down arrow you can choose from a list of all libraries on the system.

3.6.7 Save…

A library's contents can be saved using the Save... menu. The progress of the library being saved may be viewed using the Remote Command Status View.

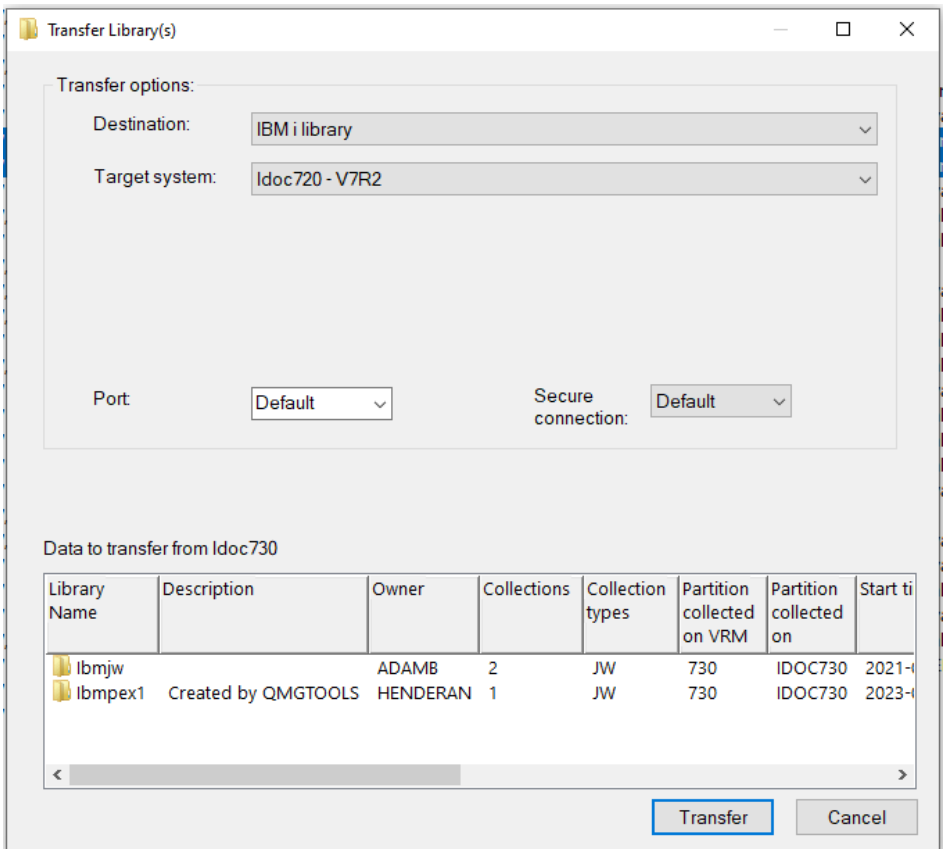


3.6.7.1 Interface

Option	Description
Library to save	The name of the library to be saved.
Save file/library	The name of the save file and library to save the contents of the library into. If the save file doesn't exist it is created. If the save file does exist, you will be asked for confirmation before continuing.
Target release	Specifies the release of the operating system on which you intend to restore and use the object.
Data compression	Specifies the data compression setting from the SAVLIB command. The choices are: *NO *YES ***LOW** *MEDIUM *HIGH

3.6.8 Transfer to an IBM i

This option is used to save and send one or more libraries to another IBM i. When using this option, the Transfer Library(s) window appears with the destination set as IBM i library.



Transfer Library(s) to an IBM i

3.6.8.1 Interface

Option	Description
Destination	This indicates where you will be sending data to.
Target system	The IBM i to save and restore the library(ies) to.
Port	The FTP port to use for the transfer. (1-65535 are valid) **Default:** 21 **Secure:** 990 **Note:** This parameter is passed down to the PORT parameter on the FTP command on the IBM i.
Secure connection	Specifies the type of security mechanism to be used for protecting information transferred on the FTP connection (which includes the password used to authenticate the session with the FTP server). Transport Layer Security (TLS) and Secure Sockets Layer (SSL) are compatible protocols which use encryption to protect data from being viewed during transmission and verify that data loss or corruption does not occur. **Default**: If the PORT parameter specifies Secure or 990, Implicit is used; otherwise, None is used. **Implicit:** The FTP client immediately attempts to use TLS/SSL when connecting to the specified FTP server (without sending an AUTH subcommand to the server). If the server does not support implicit TLS/SSL on the specified port, or the TLS/SSL negotiation fails for any reason, the connection is closed. **SSL:** After connecting to the specified FTP server, the FTP client sends an AUTH (authorization) subcommand requesting a TLS/SSL protected session. If the server supports TLS/SSL, a TLS/SSL negotiation performed. If the server does not support TLS/SSL or the TLS/SSL negotiation fails, the connection is closed. **None:** The FTP client does not use encryption when connecting to the specified FTP server. **Note:** This parameter is passed down to the SECCNN parameter on the FTP command on the IBM i.
Data to transfer	This is the list of libraries to transfer

3.6.9 Clear

A library's contents may be cleared using the Clear... menu available by right-clicking on a library. The progress of the library being cleared may be viewed using the Remote Command Status View.

3.6.10 Clear Server Cache

This option clears the iDoctor cache that keeps track of collections. This is also known as the Collections Database. It exists to speed up listing collections in libraries in iDoctor. This data is stored in tables QUSRSYS/QAIDRLIBS and QUSRSYS/QAIDRCOLS.

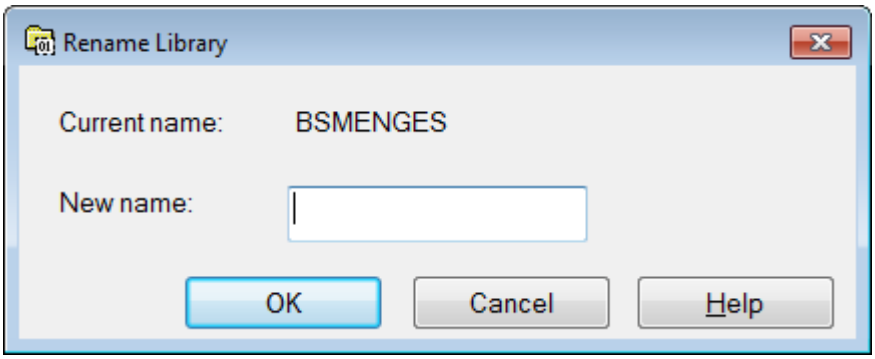
It is sometimes necessary to use this option if the collections show incorrect status information such as missing files or analyses data is not being displayed correctly.

3.6.11 Delete

A library may be deleted using the Delete... menu available by right-clicking on a library. The progress of the library being deleted may be viewed using the Remote Command Status View.

3.6.12 Rename

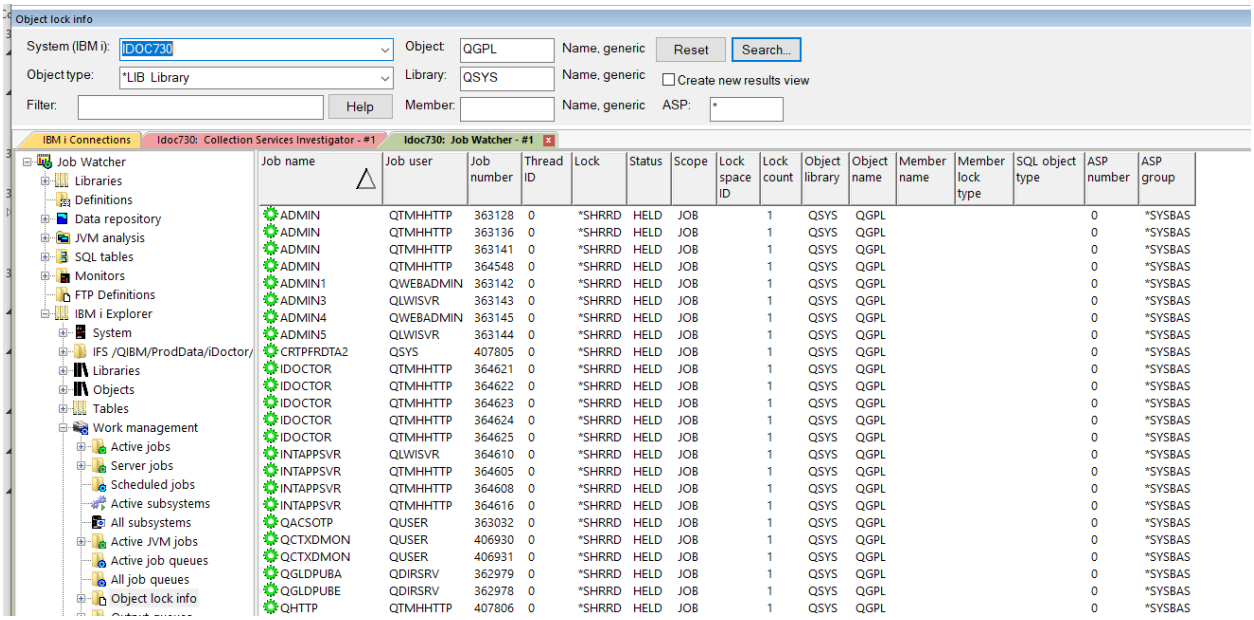
A library may be renamed using the Rename... menu.



Rename Library Window

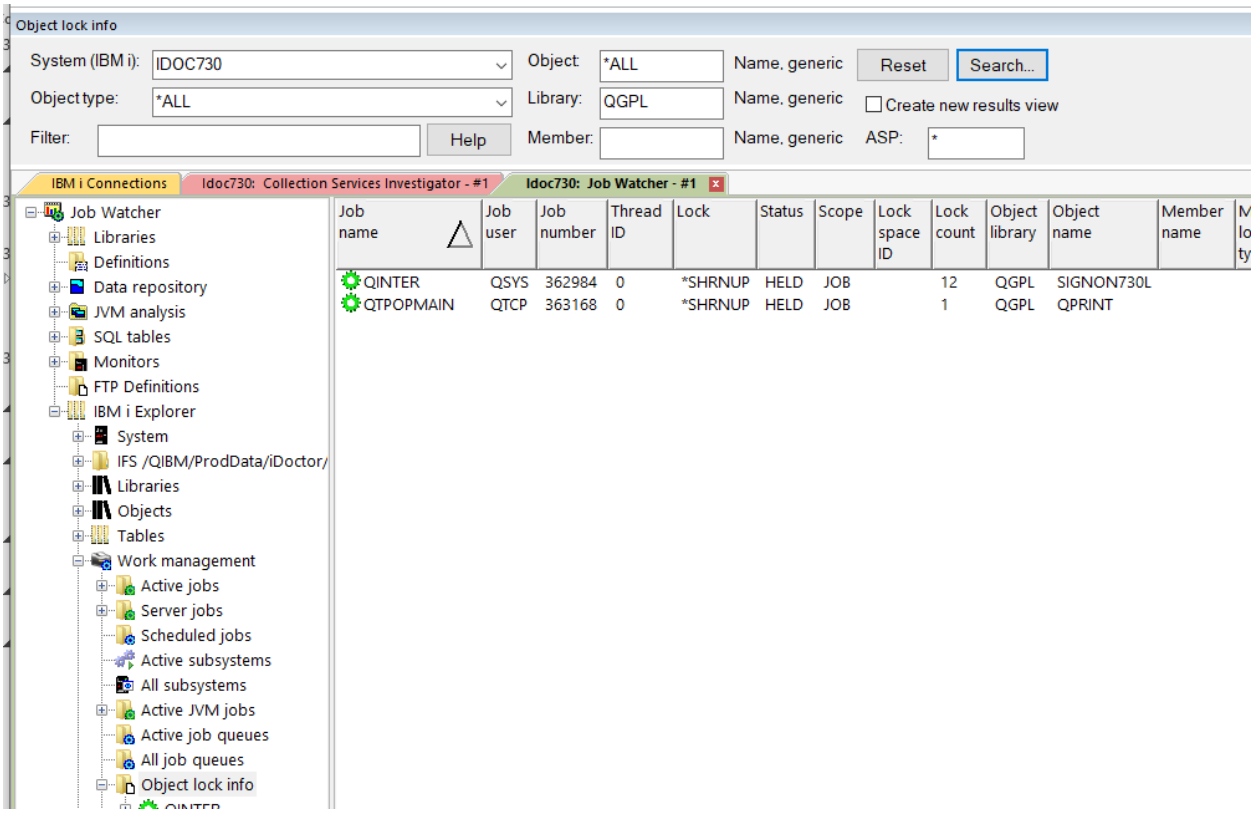
3.6.13 Locks -> Library

This option opens the Object lock info folder for the selected library object.



3.6.14 Locks -> All objects

This option opens the Object lock info folder for the selected library showing the locks on any objects found in the library.

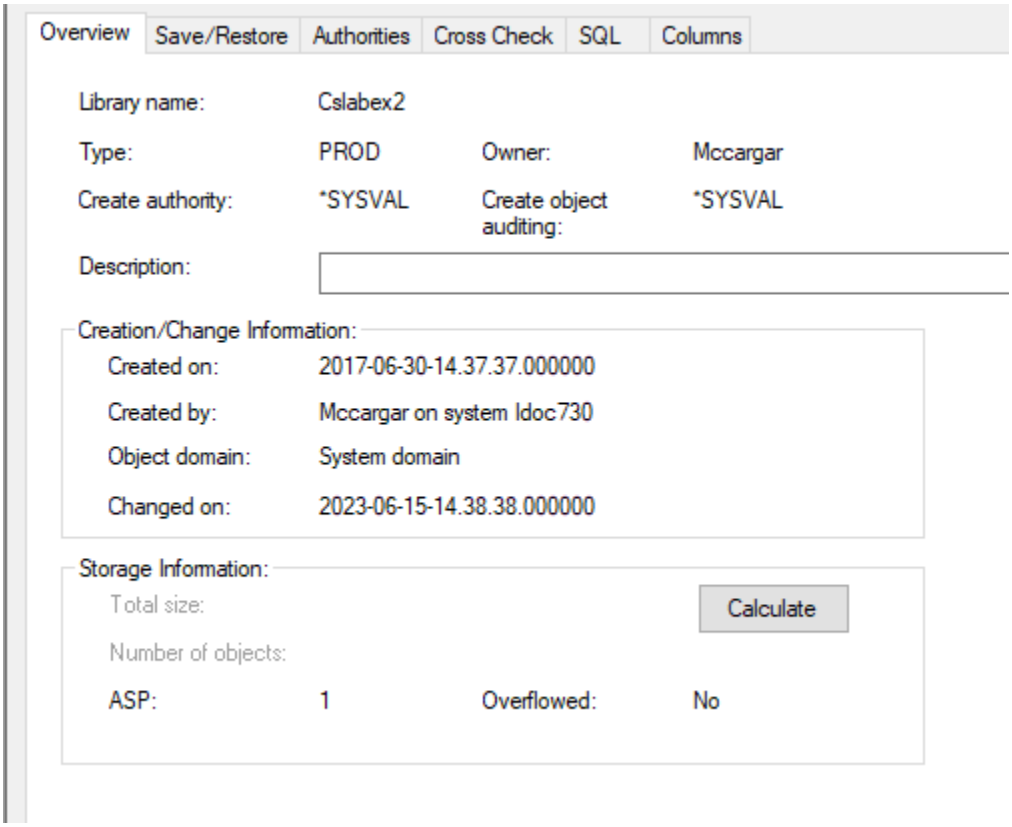


3.6.15 Properties

The library property pages are accessible by right-clicking on a library and choosing the Properties menu. The next section discusses the library properties pages.

3.6.15.1 Overview

The Overview tab for libraries displays basic information about the library, including the type, owner and total size of all objects in the library.



Interface

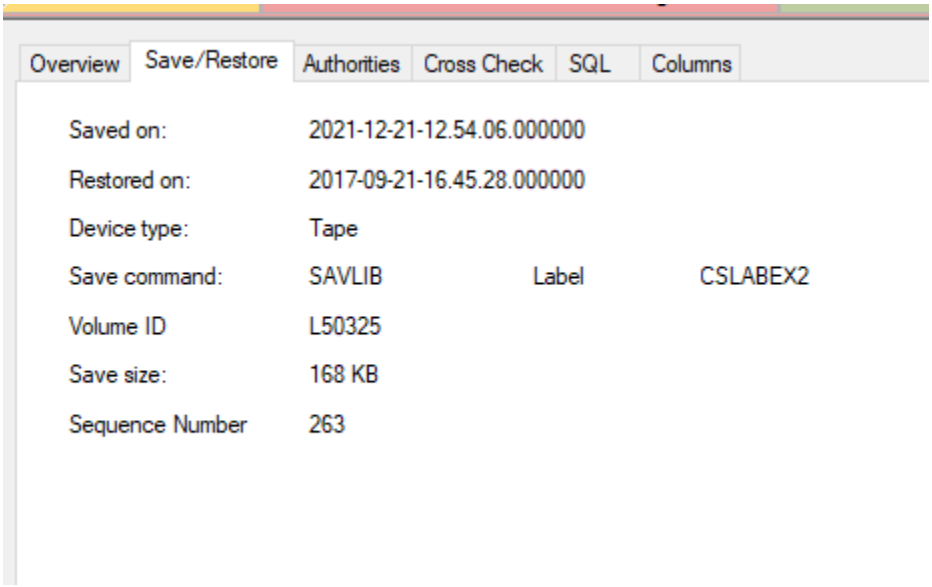
Option	**Description**
Type	Indicates if the library is a production (**PROD**) or **TEST** library.
Owner	The user profile that owns the library.
Create authority	The default public authority for an object created into this library.
Create object auditing	The auditing value for objects created into this library.
Description	Library description. You can change this value if you wish.

Created on	The timestamp when the library was created.
Created by	The user that created the library.
Object domain	The domain of the library. **User** - The object may be accessed directly by user-state programs at all system security levels. This is not a supported programming interface unless it is explicitly stated in the software product documentation. **System** - The object cannot be accessed directly by user-state programs when the system security level is set to level 40. The object can only be accessed by system-supplied programs at security level 40. This object is not a supported programming interface. At security levels below 40, the object can be referred to but access will be recorded in the audit journal if the journal QAUDJRN has been created.
Changed on	The timestamp when the library was last changed.

Total Size	Total size of all objects in the library including the library itself. Click the **Calculate** button to compute this value. **Note:** This calculation can take a long time (minutes or worse) depending on the number of objects and members in the library. The GUI may appear to freeze during this time as well.
Number of objects	Number of objects in the library. Click the Calculate button to determine this.
ASP	The ASP the library resides in.
Overflowed	Indicates if the object has overflowed the ASP it resides in.

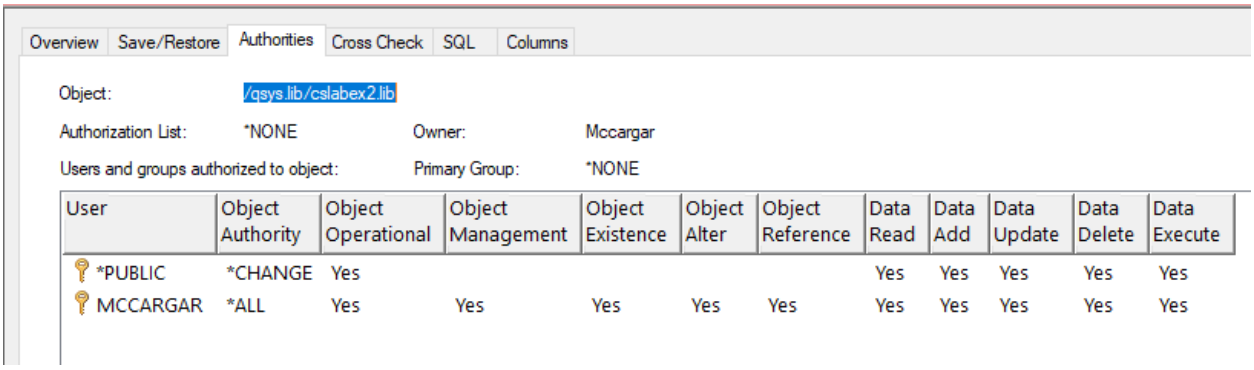
3.6.15.2 Save/Restore

The save/restore property page displays information about how and when the library was last saved or restored.



3.6.15.3 Authorities

The Authorities tab shows a list of users that have authority to the library and each authority setting. This interface is like the DSPOBJAUT command.



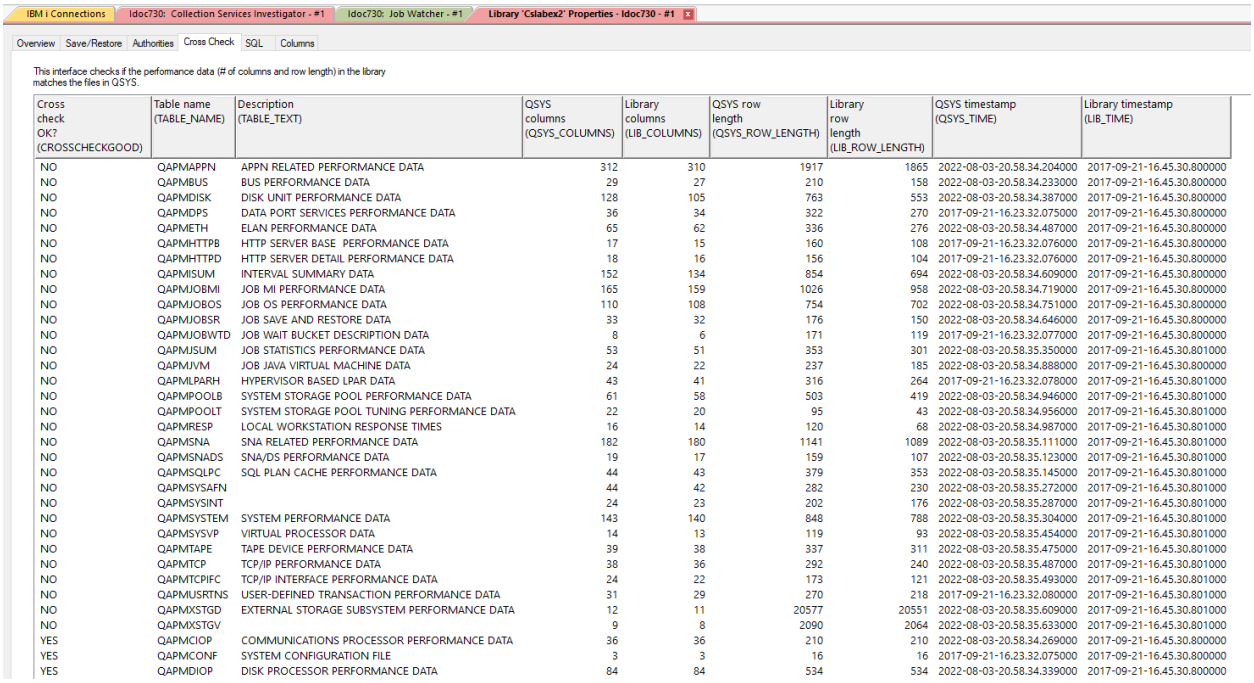
Interface

Option	Description
User	The names of users who are authorized to use the object. The value *PUBLIC is used to indicate the authorities of users who are not specifically named and are not in the object's authorization list.
Group	A group from which the user receives authority.
Obj Authority	The user's authority to the object. This field contains one of the following values: ***ALL** The user has all object (operational, management, existence, alter, and reference) and data (read, add, update, delete, and execute) authorities to the object. ***CHANGE** The user has object operational and all data authorities to the object. ***USE** The user has object operational, and data read and execute authorities to the object. ***EXCLUDE** The user has none of the object or data authorities to the object, or authorization list management authority to the authorization list. ***AUTL** The public authority for the object comes from the public authority on the authorization list securing the object. This value can only be returned if there is an authorization list securing the object and the authorized user is *PUBLIC. **USER DEF** The user has some combination of object and data authorities that do not relate to a special value. The individual authorities for the user should be checked to determine what authority the user has to the object.
Obj Opr	Object operational authority provides authority to look at the object's attributes and to use the object as specified by the data authorities that the user has to the object.
Obj Mgmt	Object management authority provides authority to specify security, to move or rename the object, and to add members if the object is a database file.
Obj Exist	Object existence authority provides authority to control the object's existence and ownership.
Obj Alter	Object alter authority provides authority to change the attributes of an object, such as adding or removing triggers for a database file.
Obj Ref	Object reference authority provides authority to specify the object as the first level in a referential constraint.
Data Read	Read authority provides authority to access the contents of the object.
Data Add	Add authority provides authority to add entries to the object.
Data Update	Update authority provides authority to change the content of existing entries in the object.
Data Delete	Delete authority provides authority to remove entries from the object.
Data Execute	Execute authority provides authority to run a program or search a library or directory.

3.6.15.4 Cross Check

This interface is used to validate that the physical files in the library match the same record formats as those in QSYS. This tab is only available in Job Watcher, Disk Watcher, Collection Services Investigator and PEX Analyzer.

Tip: If any files indicate NO in the first column, then new data should not be captured in this library.



Cross check OK? (CROSSCHECKGOOD)	Table name (TABLE_NAME)	Description (TABLE_TEXT)	QSYS columns (QSYS_COLUMNS)	Library columns (LIB_COLUMNS)	QSYS row length (QSYS_ROW_LENGTH)	Library row length (LIB_ROW_LENGTH)	QSYS timestamp (QSYS_TIME)	Library timestamp (LIB_TIME)
NO	QAPMAPPN	APPN RELATED PERFORMANCE DATA	312	310	1917	1865	2022-08-03-20.58.34.204000	2017-09-21-16.45.30.800000
NO	QAPMBUS	BUS PERFORMANCE DATA	29	27	210	158	2022-08-03-20.58.34.233000	2017-09-21-16.45.30.800000
NO	QAPMDISK	DISK UNIT PERFORMANCE DATA	128	105	763	553	2022-08-03-20.58.34.387000	2017-09-21-16.45.30.800000
NO	QAPMDPS	DATA PORT SERVICES PERFORMANCE DATA	36	34	322	270	2017-09-21-16.23.32.075000	2017-09-21-16.45.30.800000
NO	QAPMETH	ELAN PERFORMANCE DATA	65	62	336	276	2022-08-03-20.58.34.487000	2017-09-21-16.45.30.800000
NO	QAPMHTTPB	HTTP SERVER BASE PERFORMANCE DATA	17	15	160	108	2017-09-21-16.23.32.076000	2017-09-21-16.45.30.800000
NO	QAPMHTTPD	HTTP SERVER DETAIL PERFORMANCE DATA	18	16	156	104	2017-09-21-16.23.32.076000	2017-09-21-16.45.30.800000
NO	QAPMISUM	INTERVAL SUMMARY DATA	152	134	854	694	2022-08-03-20.58.34.609000	2017-09-21-16.45.30.800000
NO	QAPMJOBMI	JOB MI PERFORMANCE DATA	165	159	1026	958	2022-08-03-20.58.34.719000	2017-09-21-16.45.30.800000
NO	QAPMJOBOS	JOB OS PERFORMANCE DATA	110	108	754	702	2022-08-03-20.58.34.751000	2017-09-21-16.45.30.800000
NO	QAPMJOBSR	JOB SAVE AND RESTORE DATA	33	32	176	150	2022-08-03-20.58.34.646000	2017-09-21-16.45.30.800000
NO	QAPMJOBWTD	JOB WAIT BUCKET DESCRIPTION DATA	8	6	171	119	2017-09-21-16.23.32.077000	2017-09-21-16.45.30.800000
NO	QAPMJSUM	JOB STATISTICS PERFORMANCE DATA	53	51	353	301	2022-08-03-20.58.35.350000	2017-09-21-16.45.30.801000
NO	QAPMJVM	JOB JAVA VIRTUAL MACHINE DATA	24	22	237	185	2022-08-03-20.58.34.888000	2017-09-21-16.45.30.800000
NO	QAPMLPARH	HYPERVISOR BASED LPAR DATA	43	41	316	264	2017-09-21-16.23.32.078000	2017-09-21-16.45.30.801000
NO	QAPMPOOLB	SYSTEM STORAGE POOL PERFORMANCE DATA	61	58	503	419	2022-08-03-20.58.34.946000	2017-09-21-16.45.30.801000
NO	QAPMPOOLT	SYSTEM STORAGE POOL TUNING PERFORMANCE DATA	22	20	95	43	2022-08-03-20.58.34.956000	2017-09-21-16.45.30.801000
NO	QAPMRESP	LOCAL WORKSTATION RESPONSE TIMES	16	14	120	68	2022-08-03-20.58.34.987000	2017-09-21-16.45.30.801000
NO	QAPMSNA	SNA RELATED PERFORMANCE DATA	182	180	1141	1089	2022-08-03-20.58.35.111000	2017-09-21-16.45.30.801000
NO	QAPMSNADS	SNA/DS PERFORMANCE DATA	19	17	159	107	2022-08-03-20.58.35.123000	2017-09-21-16.45.30.801000
NO	QAPMSQLPC	SQL PLAN CACHE PERFORMANCE DATA	44	43	379	353	2022-08-03-20.58.35.145000	2017-09-21-16.45.30.801000
NO	QAPMSYSAFN		44	42	282	230	2022-08-03-20.58.35.272000	2017-09-21-16.45.30.801000
NO	QAPMSYSINT		24	23	202	176	2022-08-03-20.58.35.287000	2017-09-21-16.45.30.801000
NO	QAPMSYSTEM	SYSTEM PERFORMANCE DATA	143	140	848	788	2022-08-03-20.58.35.304000	2017-09-21-16.45.30.801000
NO	QAPMSYSVP	VIRTUAL PROCESSOR DATA	14	13	119	93	2022-08-03-20.58.35.454000	2017-09-21-16.45.30.801000
NO	QAPMTAPE	TAPE DEVICE PERFORMANCE DATA	39	38	337	311	2022-08-03-20.58.35.475000	2017-09-21-16.45.30.801000
NO	QAPMTCP	TCP/IP PERFORMANCE DATA	38	36	292	240	2022-08-03-20.58.35.487000	2017-09-21-16.45.30.801000
NO	QAPMTCPIFC	TCP/IP INTERFACE PERFORMANCE DATA	24	22	173	121	2022-08-03-20.58.35.493000	2017-09-21-16.45.30.801000
NO	QAPMUSRTNS	USER-DEFINED TRANSACTION PERFORMANCE DATA	31	29	270	218	2017-09-21-16.23.32.080000	2017-09-21-16.45.30.801000
NO	QAPMXSTGD	EXTERNAL STORAGE SUBSYSTEM PERFORMANCE DATA	12	11	20577	20551	2022-08-03-20.58.35.609000	2017-09-21-16.45.30.801000
NO	QAPMXSTGV		9	8	2090	2064	2022-08-03-20.58.35.633000	2017-09-21-16.45.30.801000
YES	QAPMCIOP	COMMUNICATIONS PROCESSOR PERFORMANCE DATA	36	36	210	210	2022-08-03-20.58.34.269000	2017-09-21-16.45.30.800000
YES	QAPMCONF	SYSTEM CONFIGURATION FILE	3	3	16	16	2017-09-21-16.23.32.075000	2017-09-21-16.45.30.800000
YES	QAPMDIOP	DISK PROCESSOR PERFORMANCE DATA	84	84	534	534	2022-08-03-20.58.34.339000	2017-09-21-16.45.30.800000

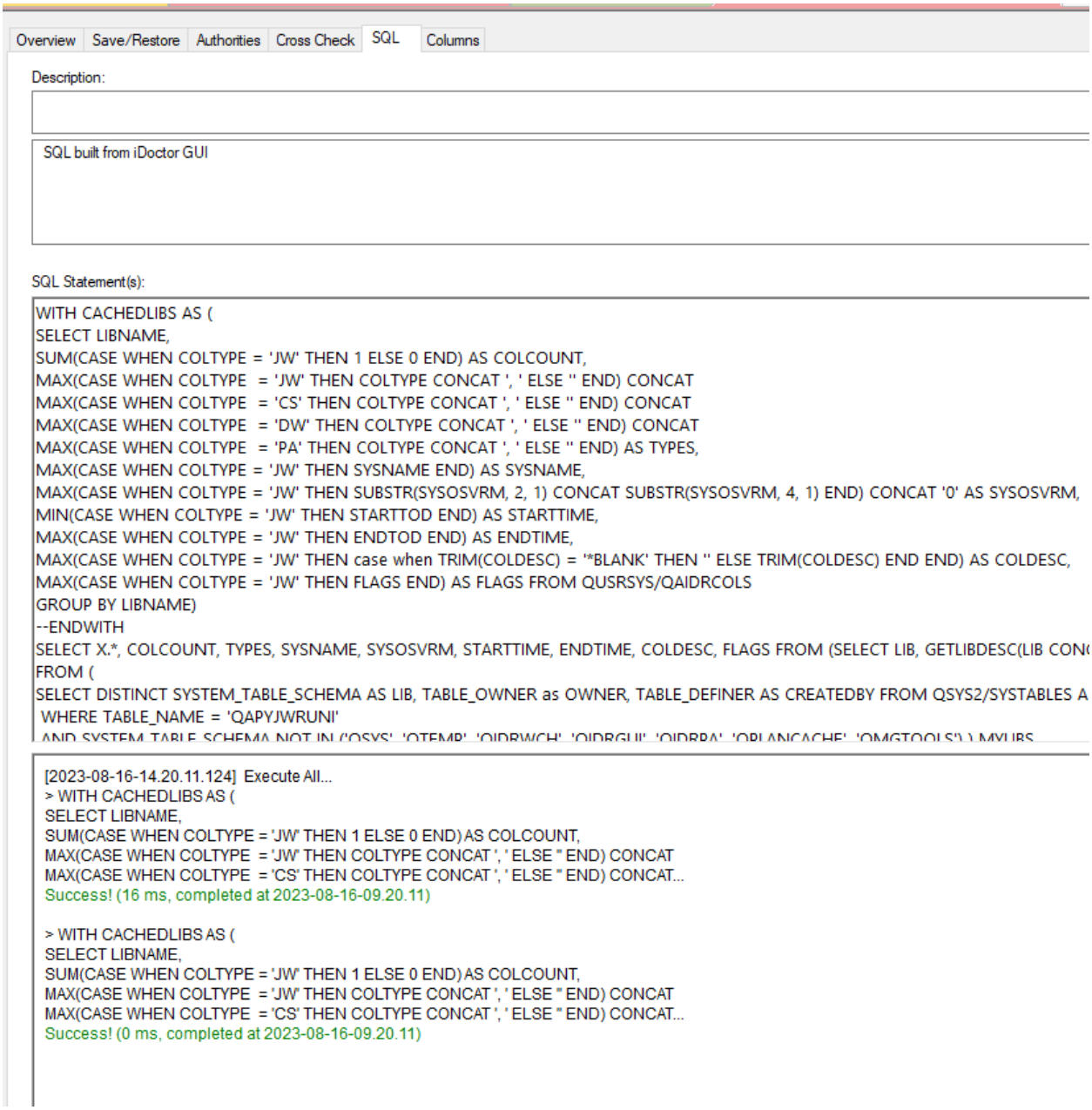
3.6.15.5 SQL

This tab provides information about the last SQL statement ran for the component view this option was initiated from. It does not apply to the library itself, but to the iDoctor SQL statement used that built the list of libraries.

This interface is mostly for IBM internal use.

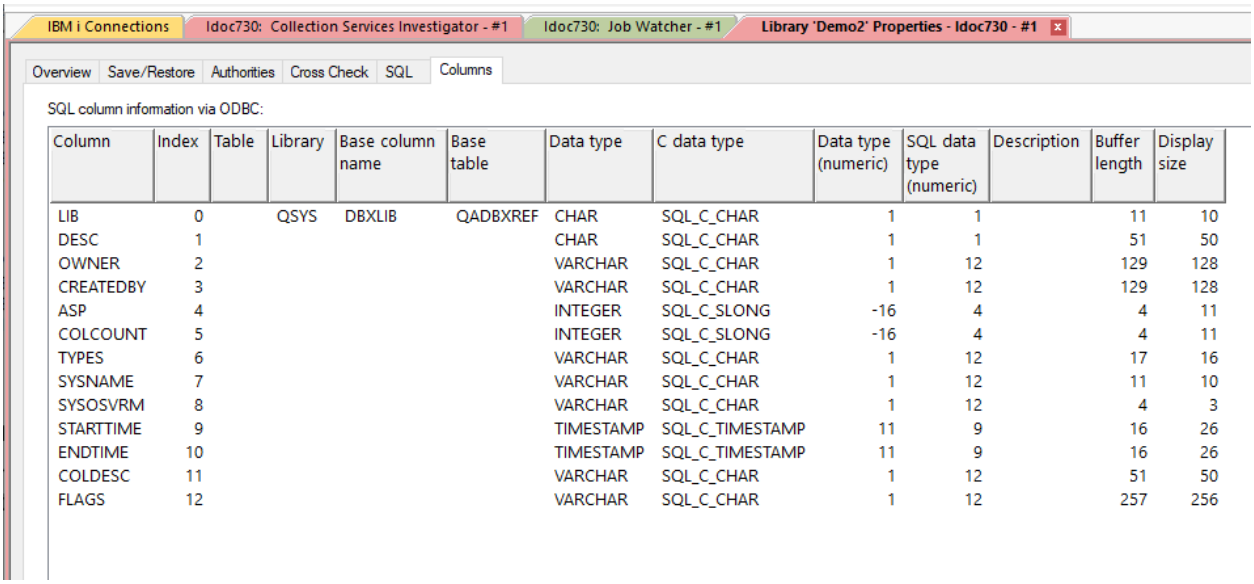
If desired, there is an Open in Data Viewer button available, which allows you to modify the SQL statement.

The bottom of the window contains information about the success of the SQL statements ran to produce the list of libraries and how long each took.



3.6.15.6 Columns

This tab provides information about the columns found in the last SQL statement ran for the component view this option was initiated from. This data comes from the ODBC driver. It is intended primarily for IBM internal use.

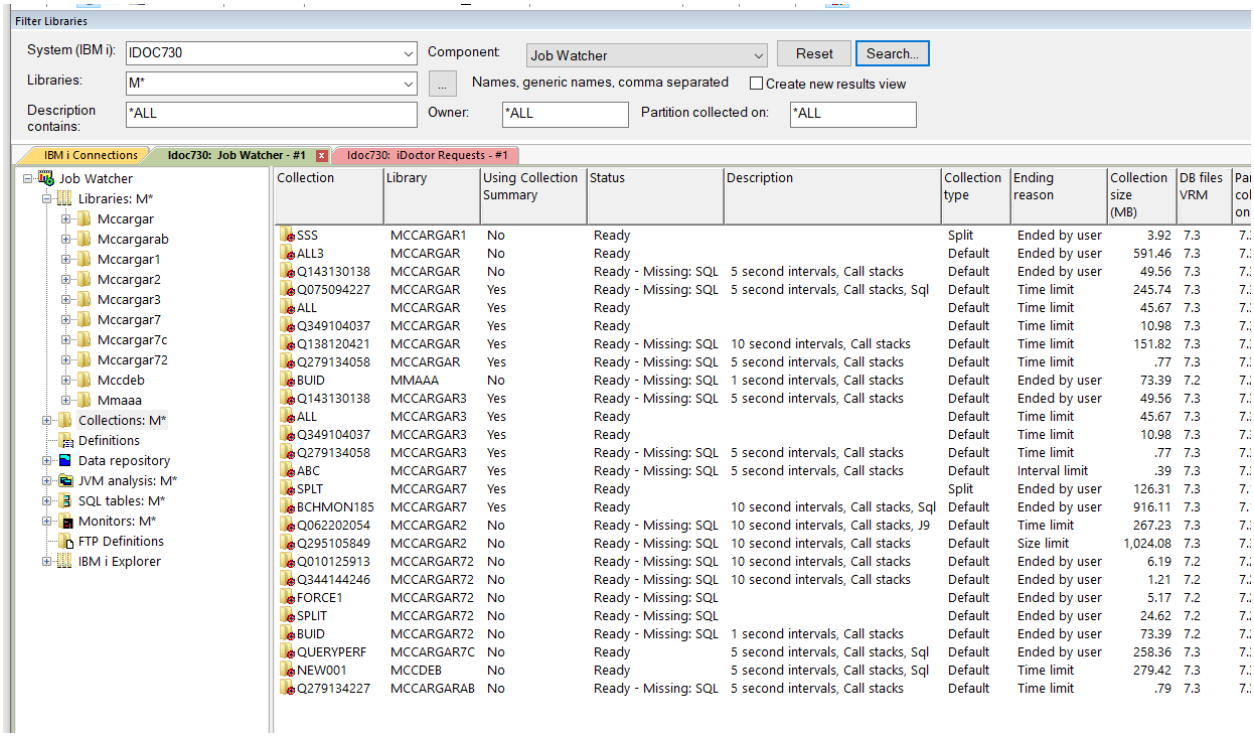


Column	Index	Table	Library	Base column name	Base table	Data type	C data type	Data type (numeric)	SQL data type (numeric)	Description	Buffer length	Display size
LIB	0		QSYS	DBXLIB	QADBXREF	CHAR	SQL_C_CHAR	1	1		11	10
DESC	1					CHAR	SQL_C_CHAR	1	1		51	50
OWNER	2					VARCHAR	SQL_C_CHAR	1	12		129	128
CREATEDBY	3					VARCHAR	SQL_C_CHAR	1	12		129	128
ASP	4					INTEGER	SQL_C_SLONG	-16	4		4	11
COLCOUNT	5					INTEGER	SQL_C_SLONG	-16	4		4	11
TYPES	6					VARCHAR	SQL_C_CHAR	1	12		17	16
SYSNAME	7					VARCHAR	SQL_C_CHAR	1	12		11	10
SYSOSVRM	8					VARCHAR	SQL_C_CHAR	1	12		4	3
STARTTIME	9					TIMESTAMP	SQL_C_TIMESTAMP	11	9		16	26
ENDTIME	10					TIMESTAMP	SQL_C_TIMESTAMP	11	9		16	26
COLDESC	11					VARCHAR	SQL_C_CHAR	1	12		51	50
FLAGS	12					VARCHAR	SQL_C_CHAR	1	12		257	256

3.7 Collections Folder

If the Filter Libraries Pane has been used to reduce the number of libraries displayed, then this folder will also appear in **Job Watcher** and **Collection Services Investigator** as another way for working with the collections on the system.

Tip: This folder is the only way to create a graph against data in different libraries at the same time by selecting the desired collections and right-clicking.



Collection	Library	Using Collection Summary	Status	Description	Collection type	Ending reason	Collection size (MB)	DB files VRM	Pa col on
SSS	MCCARGAR1	No	Ready		Split	Ended by user	3.92	7.3	7.
ALL3	MCCARGAR	No	Ready		Default	Ended by user	591.46	7.3	7.
Q143130138	MCCARGAR	No	Ready - Missing: SQL	5 second intervals, Call stacks	Default	Ended by user	49.56	7.3	7.
Q075094227	MCCARGAR	Yes	Ready - Missing: SQL	5 second intervals, Call stacks, Sql	Default	Time limit	245.74	7.3	7.
ALL	MCCARGAR	Yes	Ready		Default	Time limit	45.67	7.3	7.
Q349104037	MCCARGAR	Yes	Ready		Default	Time limit	10.98	7.3	7.
Q138120421	MCCARGAR	Yes	Ready - Missing: SQL	10 second intervals, Call stacks	Default	Time limit	151.82	7.3	7.
Q279134058	MCCARGAR	Yes	Ready - Missing: SQL	5 second intervals, Call stacks	Default	Time limit	.77	7.3	7.
BUID	MMAAA	No	Ready - Missing: SQL	1 second intervals, Call stacks	Default	Ended by user	73.39	7.2	7.
Q143130138	MCCARGAR3	Yes	Ready - Missing: SQL	5 second intervals, Call stacks	Default	Ended by user	49.56	7.3	7.
ALL	MCCARGAR3	Yes	Ready		Default	Time limit	45.67	7.3	7.
Q349104037	MCCARGAR3	Yes	Ready		Default	Time limit	10.98	7.3	7.
Q279134058	MCCARGAR3	Yes	Ready - Missing: SQL	5 second intervals, Call stacks	Default	Time limit	.77	7.3	7.
ABC	MCCARGAR7	Yes	Ready - Missing: SQL	5 second intervals, Call stacks	Default	Interval limit	.39	7.3	7.
SPLT	MCCARGAR7	Yes	Ready		Split	Ended by user	126.31	7.3	7.
BCHMON185	MCCARGAR7	Yes	Ready	10 second intervals, Call stacks, Sql	Default	Ended by user	916.11	7.3	7.
Q062202054	MCCARGAR2	No	Ready - Missing: SQL	10 second intervals, Call stacks, J9	Default	Time limit	267.23	7.3	7.
Q295105849	MCCARGAR2	No	Ready - Missing: SQL	10 second intervals, Call stacks	Default	Size limit	1,024.08	7.3	7.
Q010125913	MCCARGAR72	No	Ready - Missing: SQL	10 second intervals, Call stacks	Default	Ended by user	6.19	7.2	7.
Q344144246	MCCARGAR72	No	Ready - Missing: SQL	10 second intervals, Call stacks	Default	Ended by user	1.21	7.2	7.
FORCE1	MCCARGAR72	No	Ready - Missing: SQL		Default	Ended by user	5.17	7.2	7.
SPLIT	MCCARGAR72	No	Ready - Missing: SQL		Default	Ended by user	24.62	7.2	7.
BUID	MCCARGAR72	No	Ready - Missing: SQL	1 second intervals, Call stacks	Default	Ended by user	73.39	7.2	7.
QUERYPERF	MCCARGAR7C	No	Ready	5 second intervals, Call stacks, Sql	Default	Ended by user	258.36	7.3	7.
NEW001	MCCDEB	No	Ready	5 second intervals, Call stacks, Sql	Default	Time limit	279.42	7.3	7.
Q279134227	MCCARGARAB	No	Ready - Missing: SQL	5 second intervals, Call stacks	Default	Time limit	.79	7.3	7.

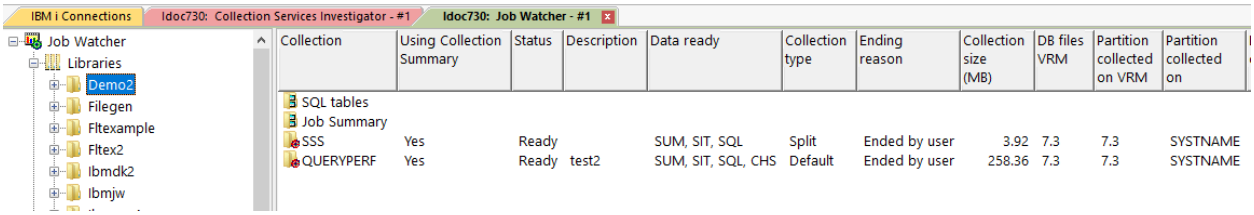
Note: For performance reasons the maximum number of libraries that will be displayed in this folder is 25. It is also a good idea but not required to make sure the collections database has been refreshed before using.

4 Collections

This section describes interface options for collections which are available for any of the components.

Collections exist under a Monitor, Library or within the Collections folder in iDoctor.

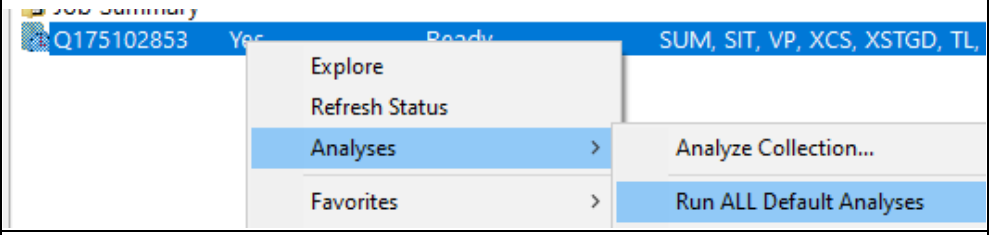
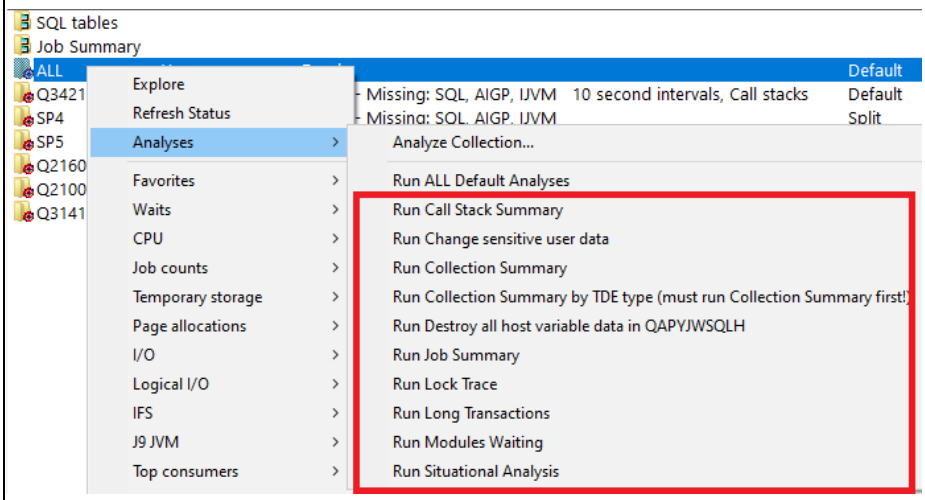
Below is an example of a list of collections in a library within Job Watcher:

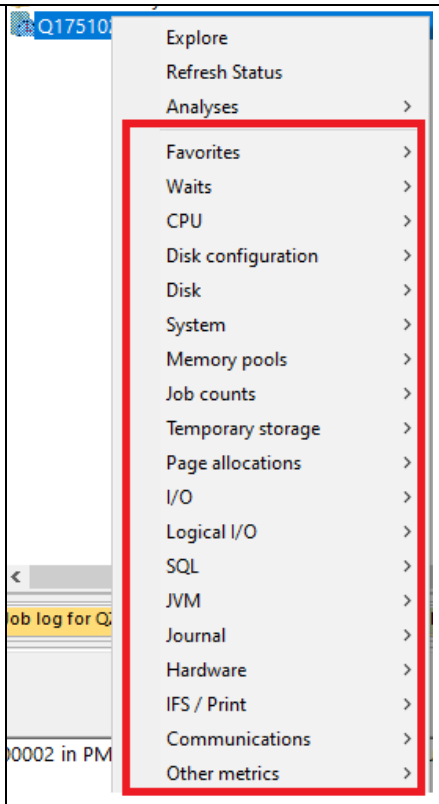


Collections in a library in Job Watcher

4.1 Menu Options

A collection in iDoctor has the following menu options available (right-click):

Menu	Description
Explore	Show the contents of the collection.
Refresh Status	In some situations, the Status column may indicate files are missing incorrectly. This option is used to refresh the collections cache for the selected collection(s) to be sure that the files are truly missing. This also can be used in cases where report folders are missing.
Analyses -> Analyze Collection…	This interface lets you see more details about each analysis and decide which ones to run on your collection. It also provides options for editing which situations to run when using the Situational Analysis in the CSI and JW components.
Analyses -> Run ALL default analyses	In some of the components this will run the “default” set of analyses on the selected collections. This list of “default” analyses varies by component and can be viewed by using the previous option “Analyses -> Analyze Collection” and looking for the “Run All Default” column in the list of analyses. 
Analyses -> Run analysis	Provides a list of all available analyses you can run against the selected collection(s.) By picking the desired one the analysis will run immediately (unless a prompt is required.)  **Tip:** If you wish these to run in batch job rather than a QZDASOINIT job use the Preference -> Miscellaneous -> Always run analysis in a batch job.
Report menu options	Most collections provide menu options that allow a user to open graphs or tables by right-clicking the desired collection(s) and picking a report.

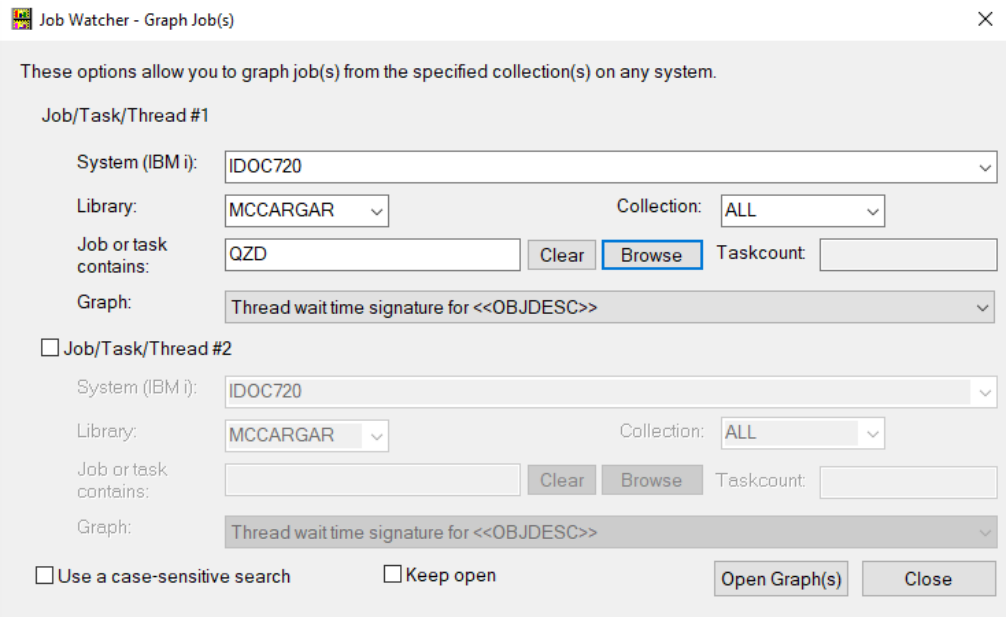
	 **Tip:** You can also select multiple collections by using the Ctrl or Shift keys on the keyboard. This allows you to graph multiple collections at once for many reports in iDoctor. If it's available, you will be asked if you wish to combine the collections into a single graph / report or not.
Graph Job(s)	Use this option to graph one or more jobs over time in Job Watcher or Collection Services Investigator.
Search	Some components allow a search capability. This typically will give you different types of data to look and a list of results that match the search. From the search results you will be able to drill down to retrieve more detail. See the CSI or Job Watcher documentation for more details.
Generate Reports…	This option can be used to build a report of the desired set of graphs or reports. The report consists of a screenshot of each graph along with its title and collection information. The reports are built into a HTML page and displayed in a web browser when completed.
Download…	This is used to save the selected collection(s) to a save file then download it to the PC.
Change Description…	This option is used to modify the description shown in the list for a single collection.
Copy URL	Creates a link to the component, library and collection that can be accessed later, or sent to another user.
Copy...	Allows you to copy the collection(s) to another location.
Delete	Deletes the selected collection(s).
Rename	Rename the selected collection.
Save...	This option lets you save the collection(s) into a save file on the server.
Split…	Divides a large collection into 1 or more smaller collections based on time filtering you specify. This option is only available in the Job Watcher and PEX Analyzer components and is covered in the applicable documentation.
Transfer to...	Allows a user to create a save file of the selected collection(s) and transfer it to another system, the PC or to IBM.
Locks	Use this option to check for object locks against the collection files, either the OS

	QAPM* files if using CSI, QAPYJW* for Job Watcher, QAPYDW* for Disk Watcher or QAYPE* for PEX. Another option will check for locks against any QAIDR* in the collection library. Results are shown in the Object lock info view.
Properties	Displays the property pages for the collection.

4.2 Graph Job(s)

This interface is found only in the Job Watcher and Collection Services Investigator and is used to graph the desired job in any collection over time. This allows a user to graph and compare 1 job with another job on the same system or any system and collection they wish.

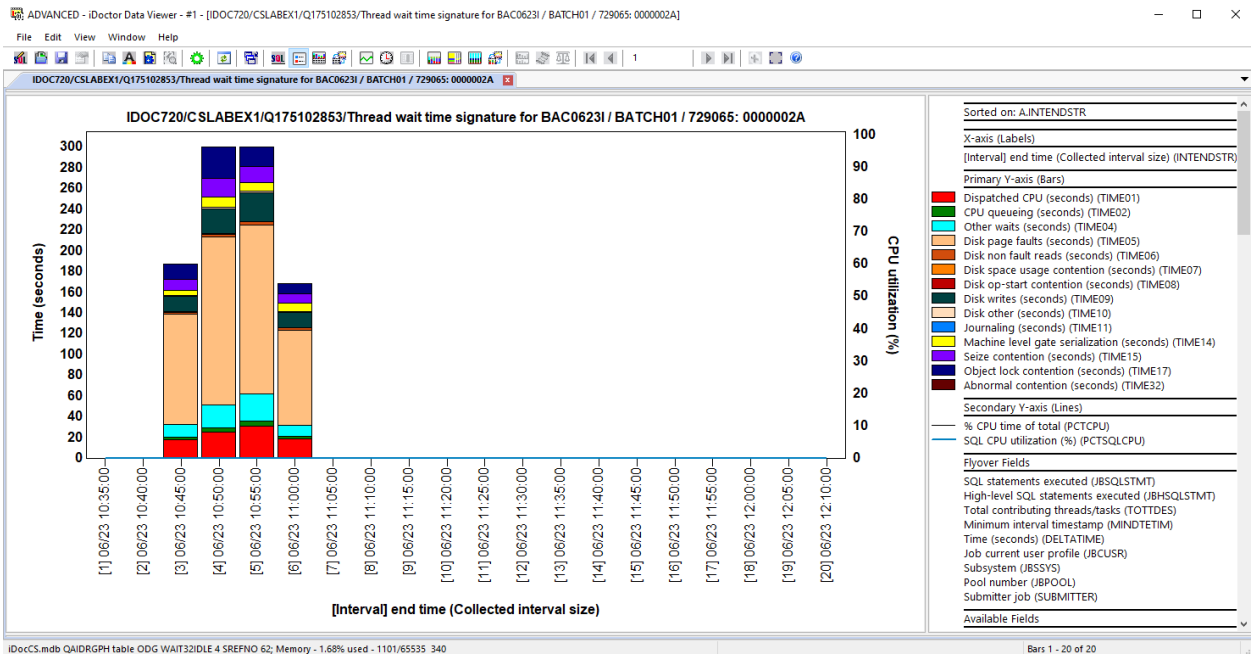
An example follows:



Graph Job(s) Window

Some of the less obvious columns are described below:

Option	Description
Job or task contains	This allows you to enter part of the job name to reduce results when pressing the Browse button which is recommended.
Taskcount	The taskcount is the unique identifier for the job and/or task. It must be provided using the Browse option before using the Open Graph(s) button.
Graph	This is the name of the selection over time graph to open.
Keep open	Check this box if you wish to keep this interface open after pressing the Open Graph(s) button. This will let you open several different graphs at once into a Data Viewer more easily before reviewing them.



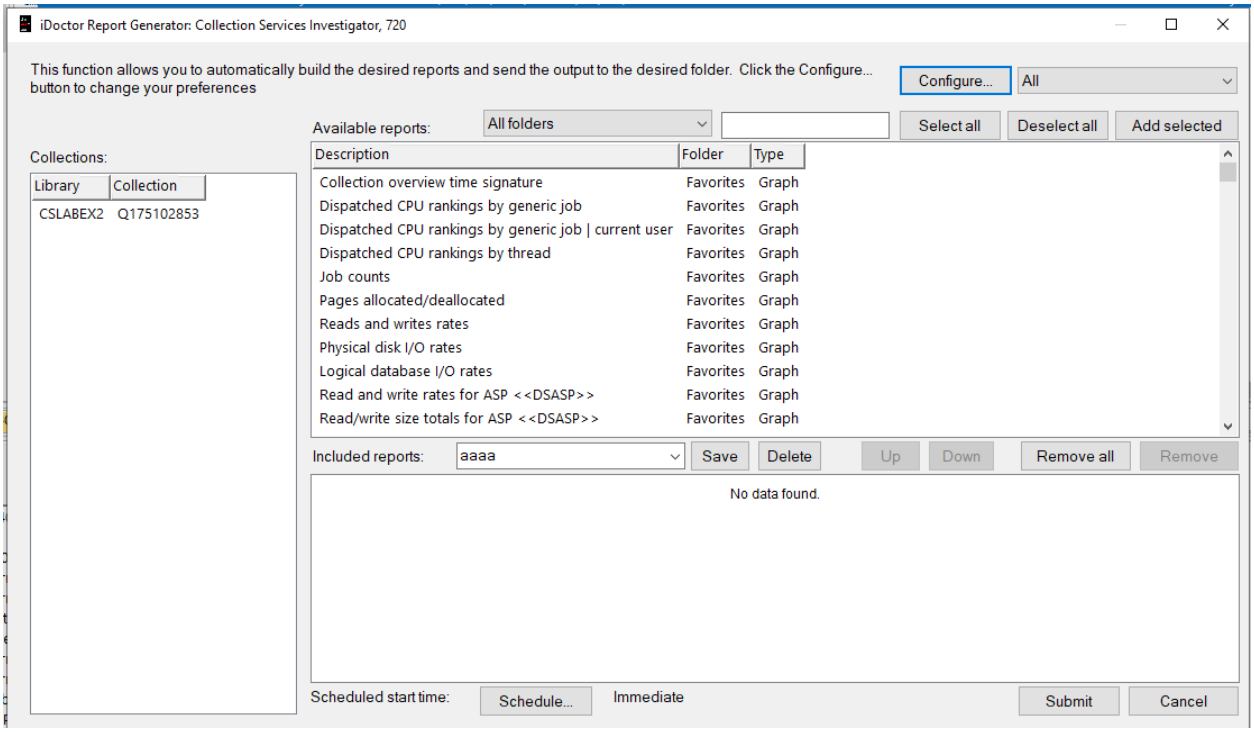
Graph Job(s) Example graph

4.3 Report Generator

This interface allows a user to generate an HTML report for the desired graphs or tables. The user can select the reports of interest, and the GUI will automatically open each report, capture a screenshot and then build an HTML page showing all the reports in a single window for review. This feature is intended to allow a user to easily save a series of graphs for comparison with other collections or for a consultant to present their findings to a client.

In most components this feature is accessible by right-clicking a collection and choosing the Generate Reports… menu option.

An example of this interface is:



iDoctor Report Generator

To use this interface, select the desired reports from the list of available reports and press the “Add Selected” button to add them to the “Included reports” list. To save the list of included reports for future use, enter a name in the drop-down box next to the Save button and press the Save button.

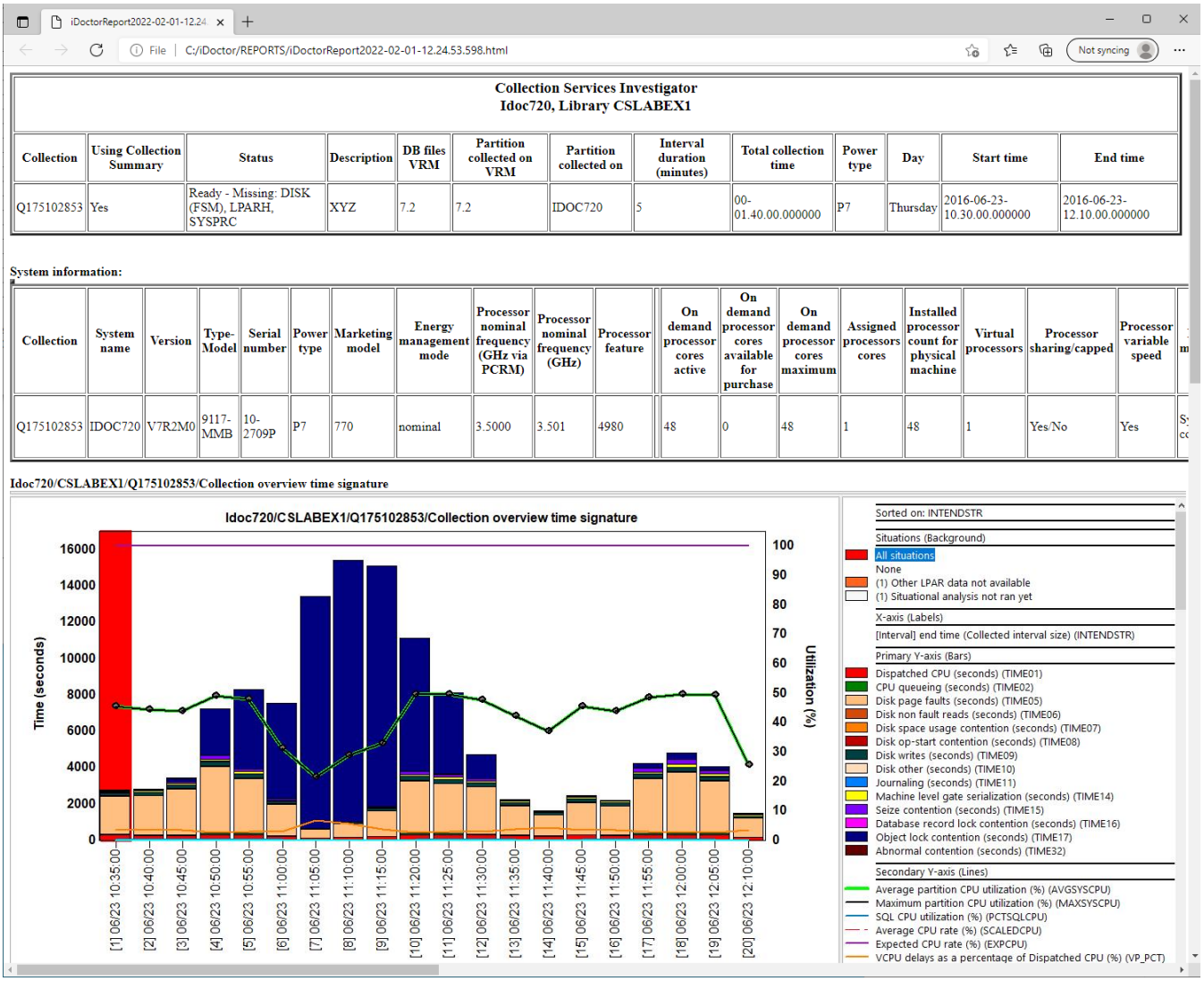
The Configure button at the top of the screen will take you to the Preferences for the Report Generator window. These preferences control various aspect to how the reports will look and whether the resulting file generated is an HTML file or a PDF file.

After pressing Submit, each table or graph will be opened into the Data Viewer capturing a screenshot for each one. If you wish to cancel this process, close the Data Viewer while the Report Generator is running. After all reports are loaded, a file is built to show all the screenshots captured. This page will be opened with the default web browser installed on the PC. Depending on how many reports are selected this could take a long time. You can also use the Schedule button at the bottom of the window to have the graphs/reports be opened later.

The following table describes some of the less obvious options available on the iDoctor Report Generator window:

Option	Description
Configure button	This button opens the Preferences for the iDoctor Report Generator. This controls where the reports are generated and how they will look. This is also used to control if the reports will be emailed to someone else
Graph type drop-down	In the top right corner of the window is a drop-down list that allows the user to filter the graphs shown by type. The options are: - All - No rankings - Only rankings - No graphs - Only graphs
Folders drop-down	This drop-down list provides a list of all primary folders that appear under a collection. By selecting one of these you will be able to filter the list of available reports to a smaller number.
Description filter box	The textbox next to the folders drop-down allows the user to enter a text string to reduce results in the list.
Saved reports drop down list	This is a list of saved lists of reports that are available. Selecting a name from the list will update the list of reports selected to the ones indicated in the list. You can define a new list by typing a name into the drop-down box and pressing the Save button. These lists are saved into the User-defined reports database which allows them to be reused by other users. **Note:** Saved report lists you created are also visible under the Favorites folder (under a collection) in Job Watcher and Collection Services Investigator.
Schedule	This option allows you to schedule the reports to be generated later using the Windows task scheduler. Options are available to have this occur repeatedly. The PC must be on, and the current user must be still logged in at the indicated date/time for this to work.
Use newest collection	This option appears only when the scheduling option is used. If this option is checked then when the report is generated it will use the newest collection in the library rather than the one used to launch the Report Generator interface originally.

An example of a report generated by this interface follows:



Collection Services Investigator
Idoc720, Library CSLABEX1

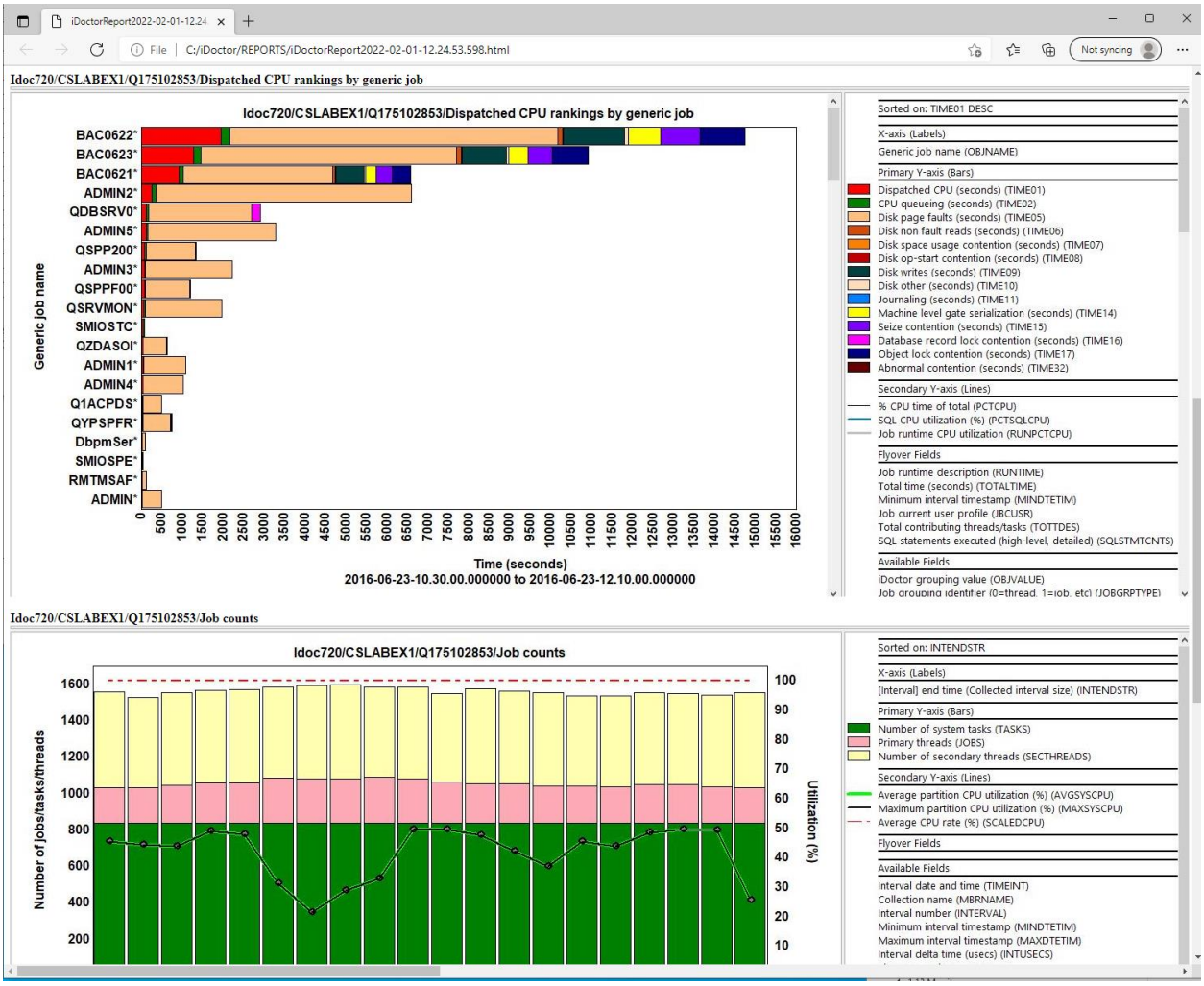
Collection	Using Collection Summary	Status	Description	DB files VRM	Partition collected on VRM	Partition collected on	Interval duration (minutes)	Total collection time	Power type	Day	Start time	End time
Q175102853	Yes	Ready - Missing: DISK (FSM), LPARH, SYSPRC	XYZ	7.2	7.2	IDOC720	5	00-01.40.00.000000	P7	Thursday	2016-06-23-10.30.00.000000	2016-06-23-12.10.00.000000

System information:

Collection	System name	Version	Type-Model	Serial number	Power type	Marketing model	Energy management mode	Processor nominal frequency (GHz via PCRM)	Processor nominal frequency (GHz)	Processor feature	On demand processor cores active	On demand processor cores available for purchase	On demand processor cores maximum	Assigned processors cores	Installed processor count for physical machine	Virtual processors	Processor sharing/capped	Processor variable speed	m
Q175102853	IDOC720	V7R2M0	9117-MMB	10-2709P	P7	770	nominal	3.5000	3.501	4980	48	0	48	1	48	1	Yes/No	Yes	S cc

Idoc720/CSLABEX1/Q175102853/Collection overview time signature

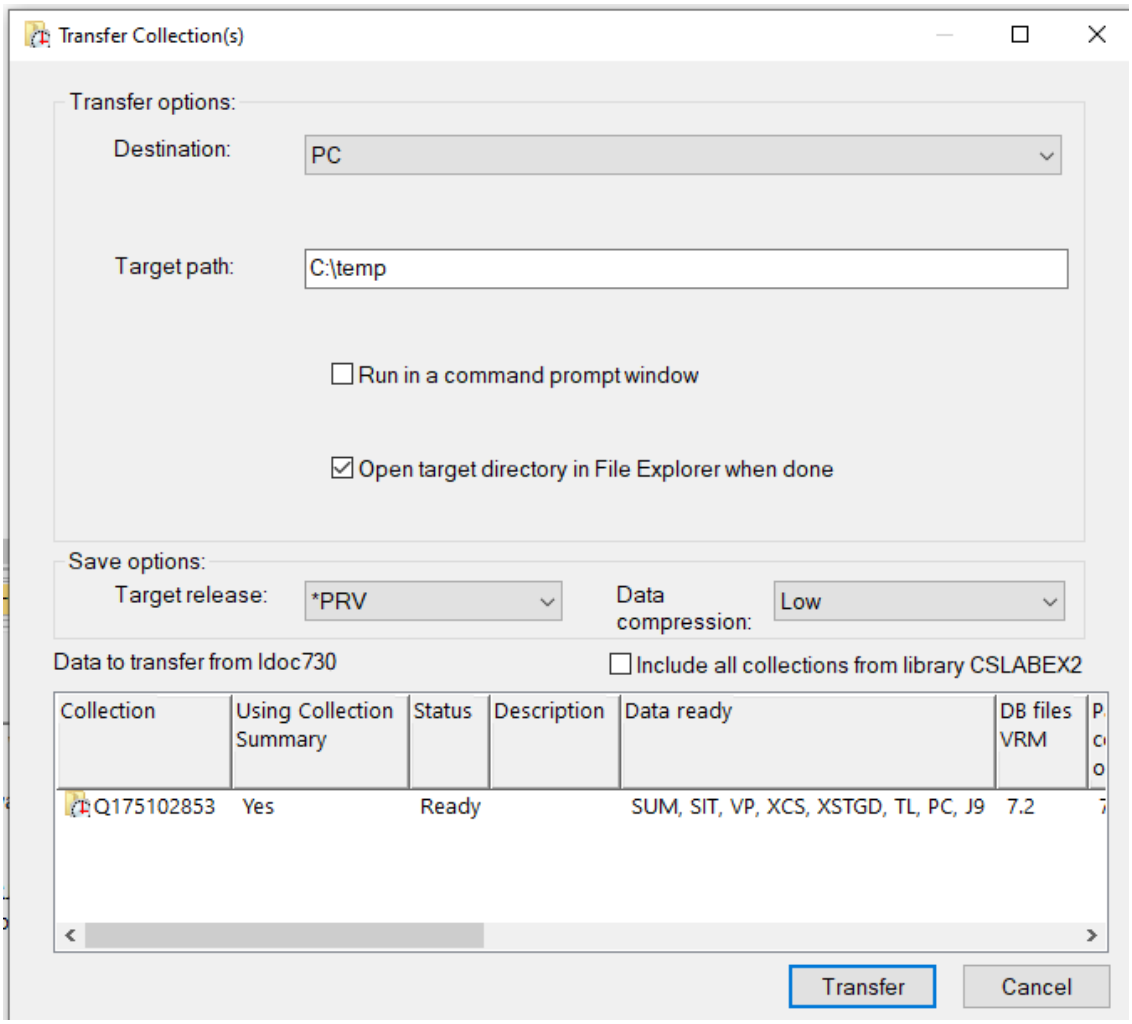
Report generator example - page 1



Report generator example - page 2

4.4 Download

This option will transfer one or more collections to the specified location on the PC.


Transfer Collection(s)
Transfer options:
Destination:
PC
Target path:
C:\temp
Run in a command prompt window
Open target directory in File Explorer when done
Save options:
Target release:
*PRV
Data compression:
Low
Data to transfer from Idoc730
Include all collections from library CSLABEX2
Collection
Using Collection Summary
Status
Description
Data ready
DB files VRM
Q175102853
Yes
Ready
SUM, SIT, VP, XCS, XSTGD, TL, PC, J9
7.2
Transfer
Cancel

Option	Description
Target path	The directory on the PC to send the collection(s) to. If a filename is not provided, then a random IDRDATAnnn.savf name is generated. Multiple collections are saved into a single save file.
Run in a command prompt	This option appears only if the File transfer method setting on the IBM i connection is not set to Wininet. A command prompt window will appear showing the status of the transfer when checked.
Open target directory in File Explorer	After transfer has finished, this option will open the File Explorer to show the newly transferred save file.
Target release	This indicates the release of the IBM i you intend to transfer the data to.
Data compression	Specifies whether data compression is used. If the save is running while other jobs on the system are active and software compression is used, the overall system performance may be affected. The choices are: *NO *YES ***LOW** *MEDIUM *HIGH
Include all collections from library XYZ	This option lets you include ALL collections from the library of the collection you opened this option from.

4.5 Copy URL

Use this option to copy and paste a URL into an email or instant messaging program to allow another user to access the same interface currently being viewed. Using this option from a collection, will bring up the iDoctor GUI on the PC and open the component, library and collection that was being viewed when this option was taken.

The URL generated by this option starts with idoctor:// and tells your web browser to launch iDoctor and perform the desired action.

An example URL to open a CSI collection is:

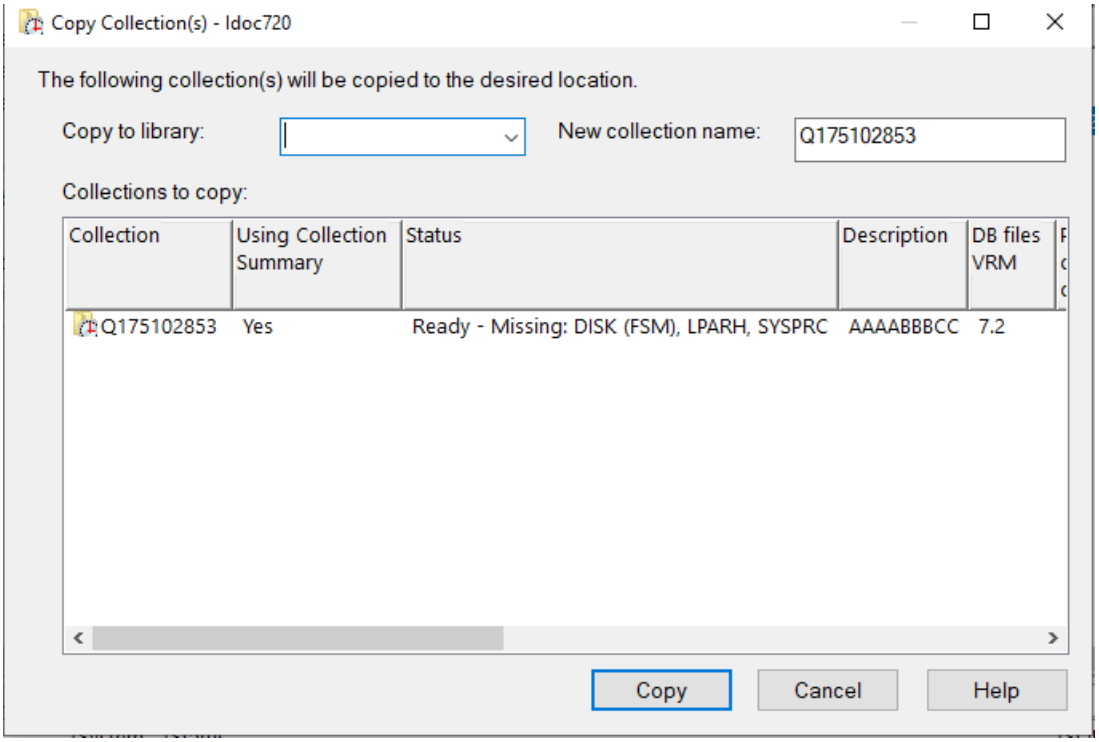
idoctor:///viewinfo1[type=CFolderCollection,sys=Idoc720,lib=CSLABEX1,comp=CS,col=Q175102853]

4.6 Copy

A collection can be copied by using the Copy... menu found by right clicking on a collection within the component view.

This option will execute the appropriate iDoctor collection copy command depending on the type of collection selected. Copying a collection that is still running is not allowed. Multiple collections can be copied at the same time if desired to another library.

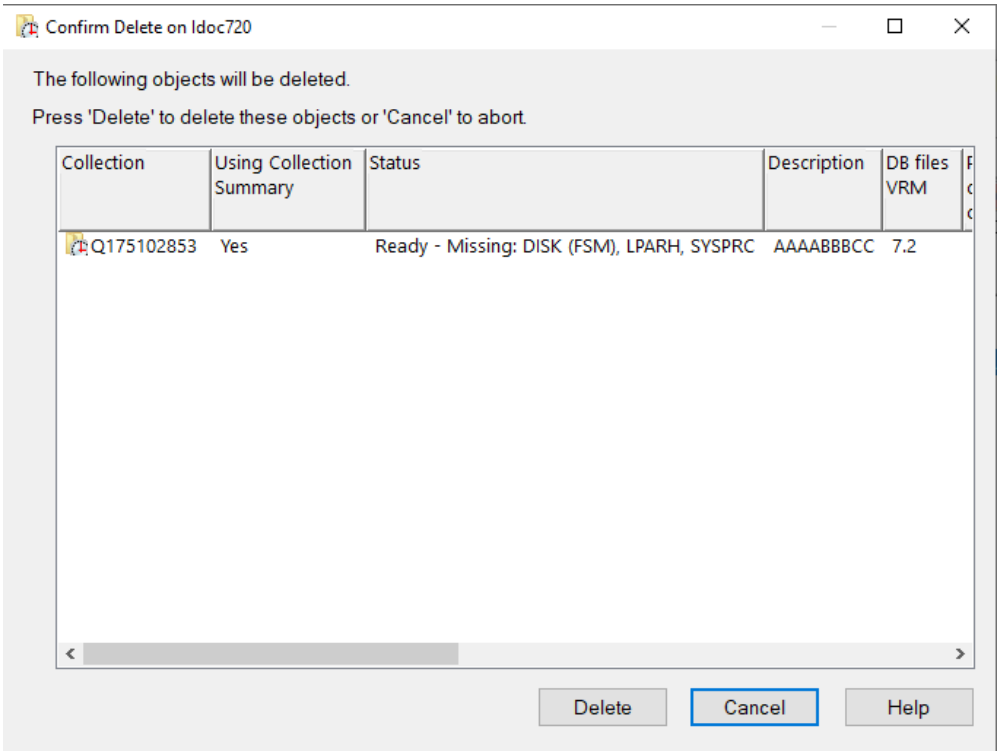
Note: Be sure to only copy a collection to a library with existing performance data of the same type if the collection matches the same IBM i release. If not sure, it's best to copy the collection to a new library.



4.7 Delete

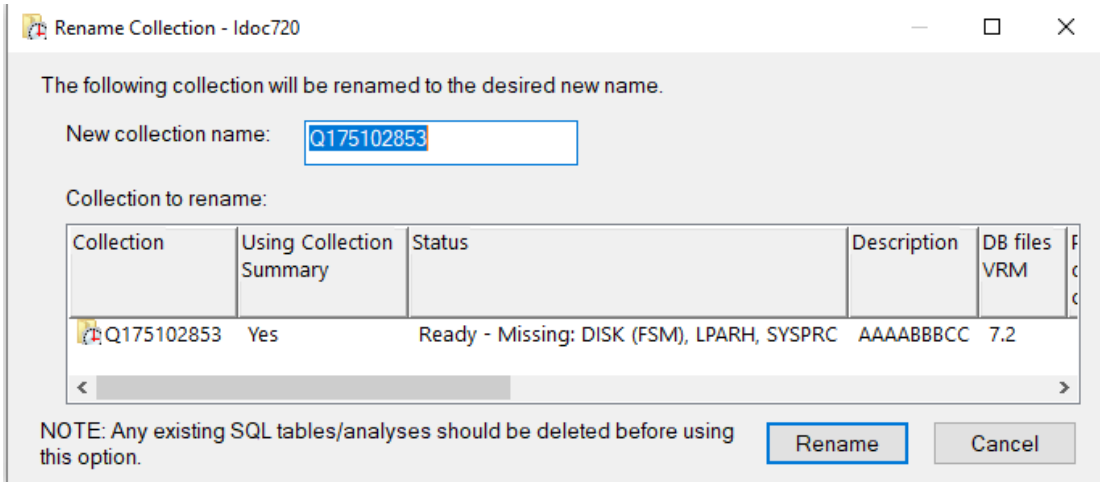
A collection can be deleted by using the Delete... menu found by right clicking on a collection within the component view.

This option will execute the appropriate iDoctor delete collection command depending on the type of collection selected. This option is not allowed if the collection is running.



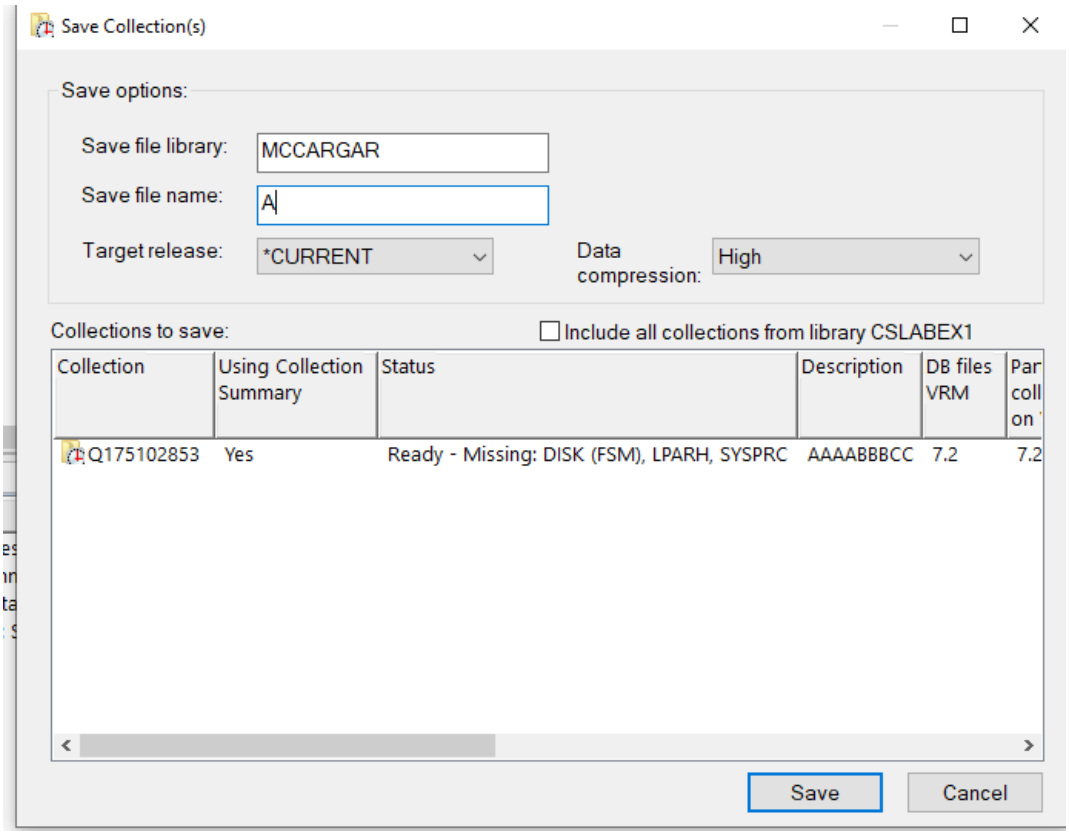
4.8 Rename

This interface allows a user to rename a single collection.



4.9 Save

One or more collections can be saved to a save file by using the Save... menu found on the collection.

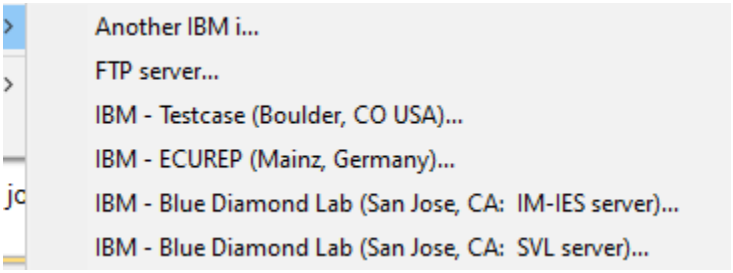


Save Collection(s) Window

4.10 Transfer to…

A collection can be transferred to another system by using the Transfer to... menu found by right clicking on a collection within the component view. Use the Download menu option instead to send the data to the PC. This option is only available for collections that are no longer running.

The transfer options for collections consists of the following choices:



Picking one of these will take you to a Transfer window.

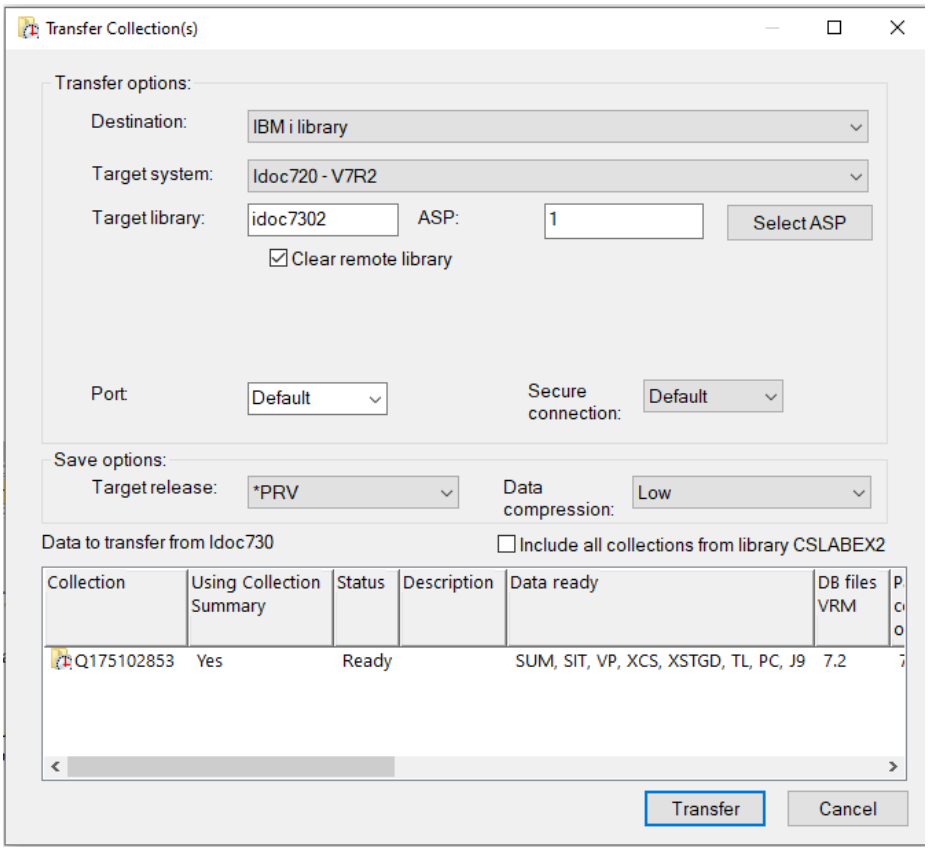
After reviewing the Transfer window and pressing the Transfer button, a validation step takes place to help detect any problems before continuing. Any errors that occur will be shown to the user. Afterwards commands will be issued on the local and remote servers to save, send and restore the data. These commands will be shown in the Remote Command Status View.

In the Remote Command Status View, if an error occurs during the FTP part you can right-click the failing part and use the Show Job Log or Show History Log options. Another option for debugging is to open an SQL Editor (either in iDoctor or STRSQL) and issue the following query:

SELECT * FROM QIDRGUI/FTPLOG

4.10.1 Transfer to another IBM i

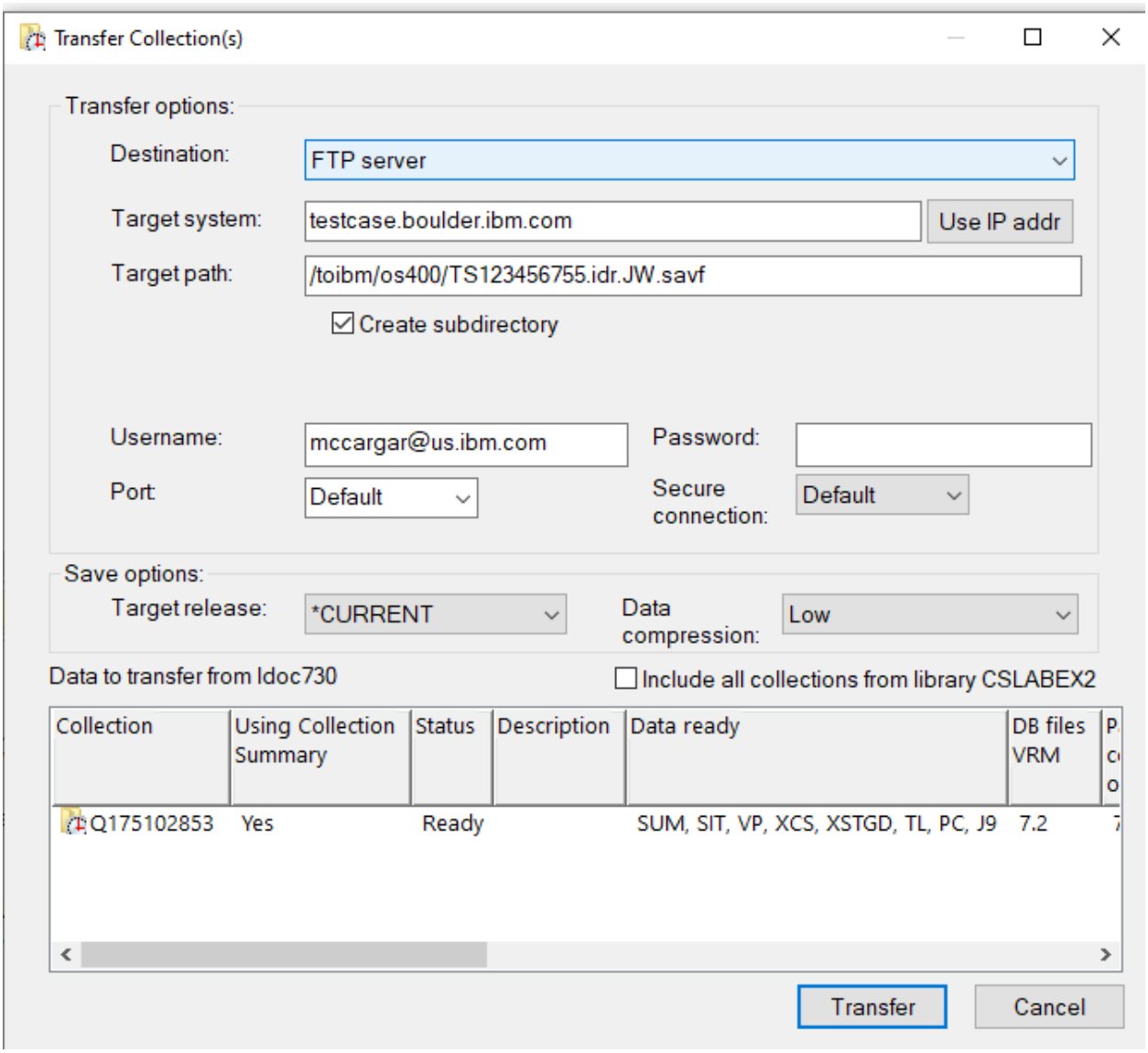
This option allows you to transfer one or more collections to another IBM i and have them automatically restored.


Transfer Collection(s)
Transfer options:
Destination:
IBM i library
Target system:
Idoc720 - V7R2
Target library:
idoc7302
ASP:
1
Select ASP
Clear remote library
Port:
Default
Secure connection:
Default
Save options:
Target release:
*PRV
Data compression:
Low
Data to transfer from Idoc730
Include all collections from library CSLABEX2
Collection
Using Collection Summary
Status
Description
Data ready
DB files VRM
Q175102853
Yes
Ready
SUM, SIT, VP, XCS, XSTGD, TL, PC, J9
7.2
Transfer
Cancel

Option	Description
Target system	The IBM i to transfer data to. This is the same list of systems found in the IBM I connections view and can be modified there.
Target library	The library on the target system to send data to.
ASP	The ASP of the target library. Only applies if the library does not exist and you want to create a new one.
Clear remote library	Indicates if the remote library should be cleared before restoring the data. Sometimes this is necessary if existing library contains existing performance data of the same type.
Port	The FTP port to use for the transfer. (1-65535 are valid) **Default:** 21 **Secure:** 990 **Note:** This parameter is passed down to the PORT parameter on the FTP command on the IBM i.
Secure connection	Specifies the type of security mechanism to be used for protecting information transferred on the FTP connection (which includes the password used to authenticate the session with the FTP server). Transport Layer Security (TLS) and Secure Sockets Layer (SSL) are compatible protocols which use encryption to protect data from being viewed during transmission and verify that data loss or corruption does not occur. **Default**: If the PORT parameter specifies Secure or 990, Implicit is used; otherwise, None is used. **Implicit:** The FTP client immediately attempts to use TLS/SSL when connecting to the specified FTP server (without sending an AUTH subcommand to the server). If the server does not support implicit TLS/SSL on the specified port, or the TLS/SSL negotiation fails for any reason, the connection is closed. **SSL:** After connecting to the specified FTP server, the FTP client sends an AUTH (authorization) subcommand requesting a TLS/SSL protected session. If the server supports TLS/SSL, a TLS/SSL negotiation performed. If the server does not support TLS/SSL or the TLS/SSL negotiation fails, the connection is closed. **None:** The FTP client does not use encryption when connecting to the specified FTP server. **Note:** This parameter is passed down to the SECCNN parameter on the FTP command on the IBM i.
Target release	This indicates the release of the IBM i you intend to transfer the data to.
Data compression	Specifies whether data compression is used. If the save is running while other jobs on the system are active and software compression is used, the overall system performance may be affected. The choices are: *NO *YES ***LOW** *MEDIUM *HIGH
Include all collections from library XYZ	This option lets you include ALL collections from the library of the collection you opened this option from.

4.10.2 Transfer to FTP server

This option allows you to transfer one or more collections to a directory on another system. The collection(s) are combined into a single save file and sent the path/filename specified.



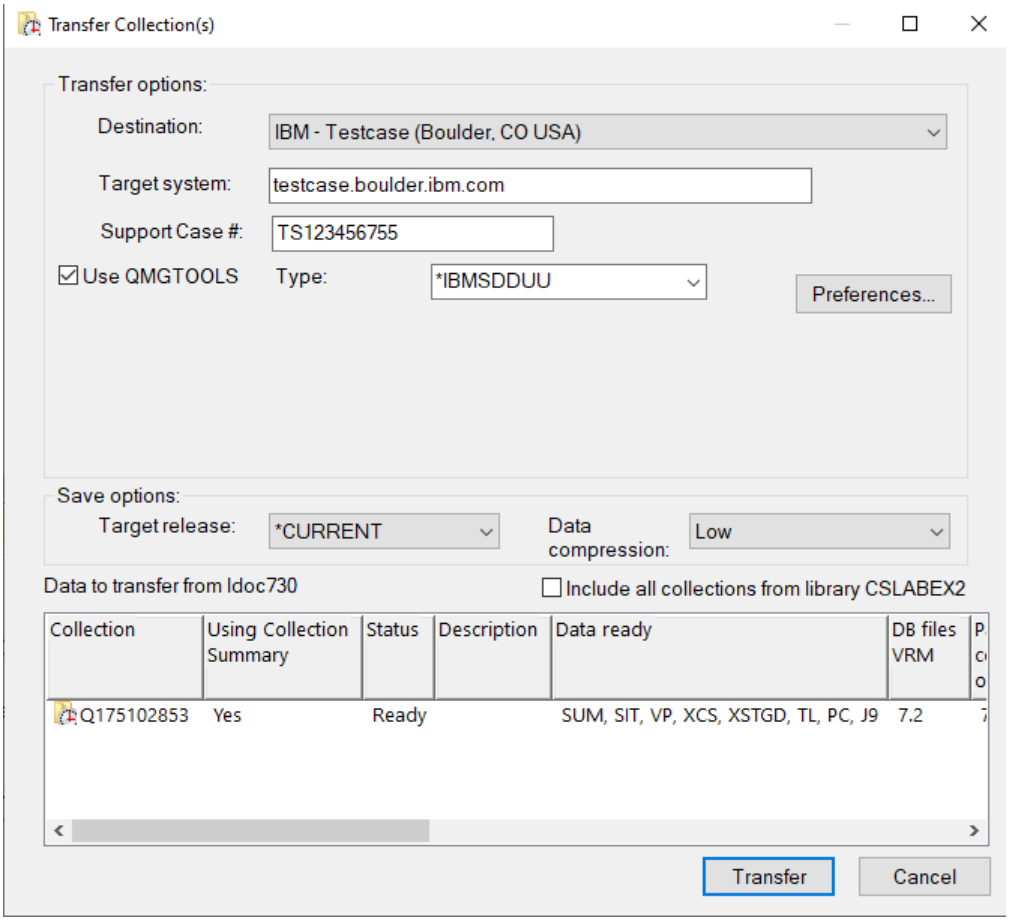
Option	Description
Target system	The IBM i to transfer data to. This is the same list of systems found in the IBM I connections view and can be modified there.
Target path	The location and filename of where to send the data.
Create subdirectory	This option (if checked) will create on the target system any subdirectories required by using the target path specified. Otherwise the transfer will fail if the location does not already exist or the user lacks the ability to create directories.
Port	The FTP port to use for the transfer. (1-65535 are valid) **Default:** 21 **Secure:** 990 **Note:** This parameter is passed down to the PORT parameter on the FTP command on the IBM i.
Secure connection	Specifies the type of security mechanism to be used for protecting information transferred on the FTP connection (which includes the password used to authenticate the session with the FTP server). Transport Layer Security (TLS) and Secure Sockets Layer (SSL) are compatible protocols which use encryption to protect data from being viewed during transmission and verify that data loss or corruption does not occur. **Default**: If the PORT parameter specifies Secure or 990, Implicit is used; otherwise, None is used. **Implicit:** The FTP client immediately attempts to use TLS/SSL when connecting to the specified FTP server (without sending an AUTH subcommand to the server). If the server does not support implicit TLS/SSL on the specified port, or the TLS/SSL negotiation fails for any reason, the connection is closed. **SSL:** After connecting to the specified FTP server, the FTP client sends an AUTH (authorization) subcommand requesting a TLS/SSL protected session. If the server supports TLS/SSL, a TLS/SSL negotiation performed. If the server does not support TLS/SSL or the TLS/SSL negotiation fails, the connection is closed. **None:** The FTP client does not use encryption when connecting to the specified FTP server. **Note:** This parameter is passed down to the SECCNN parameter on the FTP command on the IBM i.
Target release	This indicates the release of the IBM i you intend to transfer the data to.
Data compression	Specifies whether data compression is used. If the save is running while other jobs on the system are active and software compression is used, the overall system performance may be affected. The choices are: *NO *YES ***LOW** *MEDIUM *HIGH
Include all collections from library XYZ	This option lets you include ALL collections from the library of the collection you opened this option from.

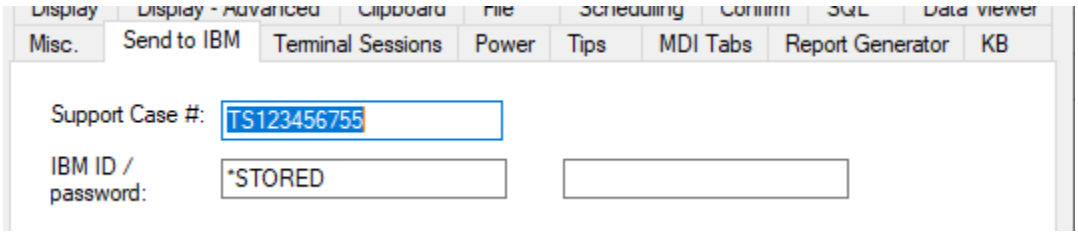
4.10.3 Transfer to IBM

These options are used to send your data to IBM for analysis. Typically, you will need a case # to associate this data with.

The options for these modes are the same as the previous section (Transfer to FTP server), except there is also an option to transfer using QMGTOOLS. Command FTP2IBMCMD is used. If using that then the interface looks like this instead and most of the settings are controlled through preferences.

Tip: In order for the *IBMSDDUU option to be successful, your password must have been previously set on the IBM I using the GO MG menu option 25 (STORFTPPWD command.) Also, within the Send to IBM Preferences the IBM ID/password fields should be set to *STORED and blank.





Option	Description
Type	These options are the same as found on the QMGTOOLS/FTP2IBMCMD FTPTYPE parameter.

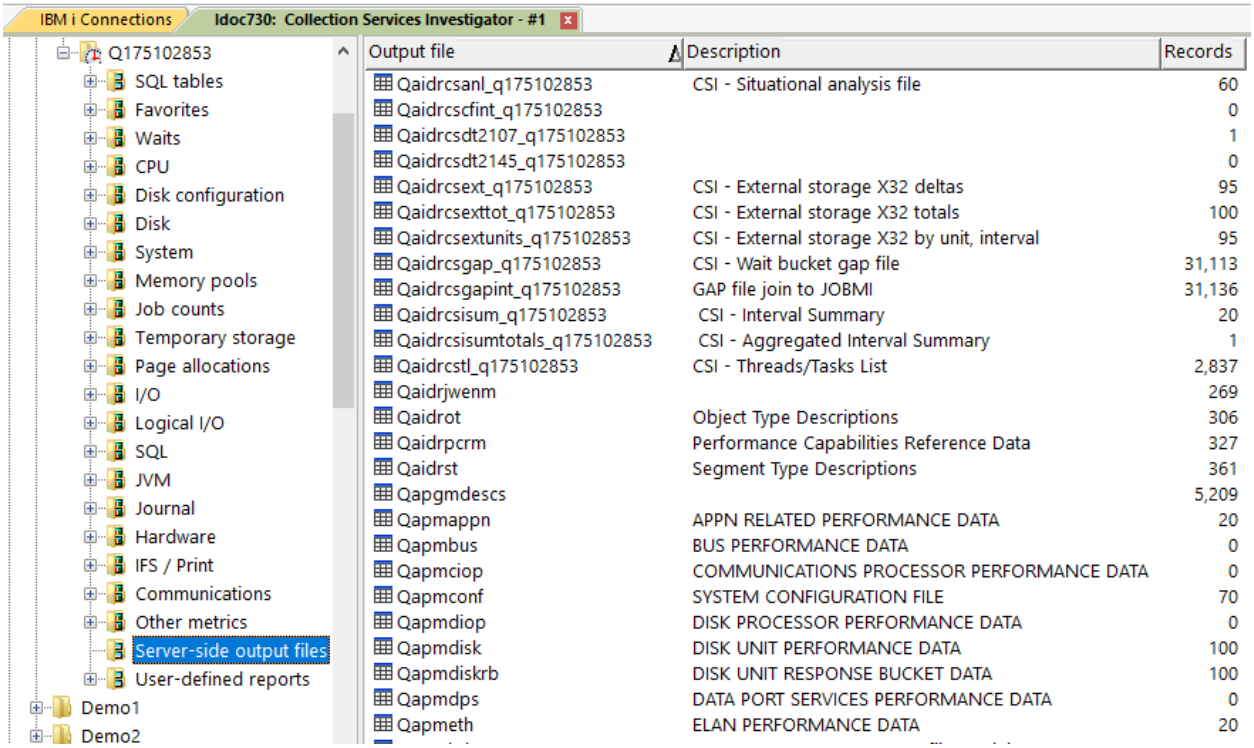
4.11 Server-side output files

Most collections provide a folder called Server-side output files. This provides access to a list of tables applicable to the current collection. This list contains both iDoctor created files and files created by IBM i performance data collection mechanisms.

You can right-click this folder and use the Select fields… menu to configure the list of fields shown in this list.

Tip: The number of records found in each table is also shown, which if 0 can help indicate a problem in some situations. This view is also used to tell if certain expected tables do not exist (and presumably did not get transferred successfully)

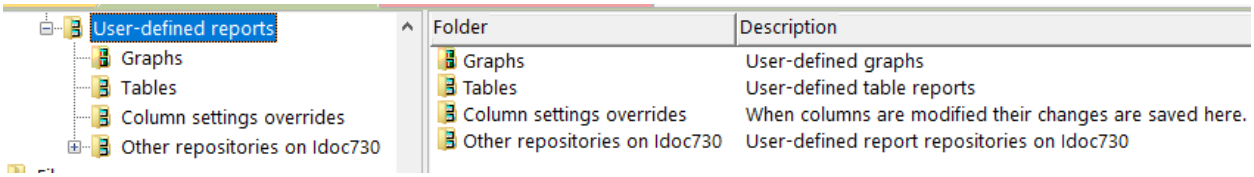
Note: For performance data like QAPYJW* files in Job Watcher, this information applies to the member name in the file matching the collection name.



4.12 User-Defined Reports

When viewing collections in most iDoctor components an option called “User-defined reports” will be shown. This option allows you to show reports from your user-defined reports database but applied to the current collection. This folder contains both graph and table views.

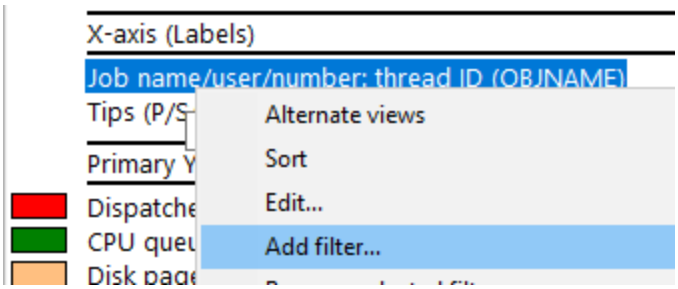
Note: Before using this feature some graphs and/or table reports must be created first. This is typically done by modifying features of an iDoctor graph/table (either SQL statement, columns shown, labels and/or colors) and using the Graph Definition -> Save As… menu for graphs or Query Definition -> Save As… menu for tables.



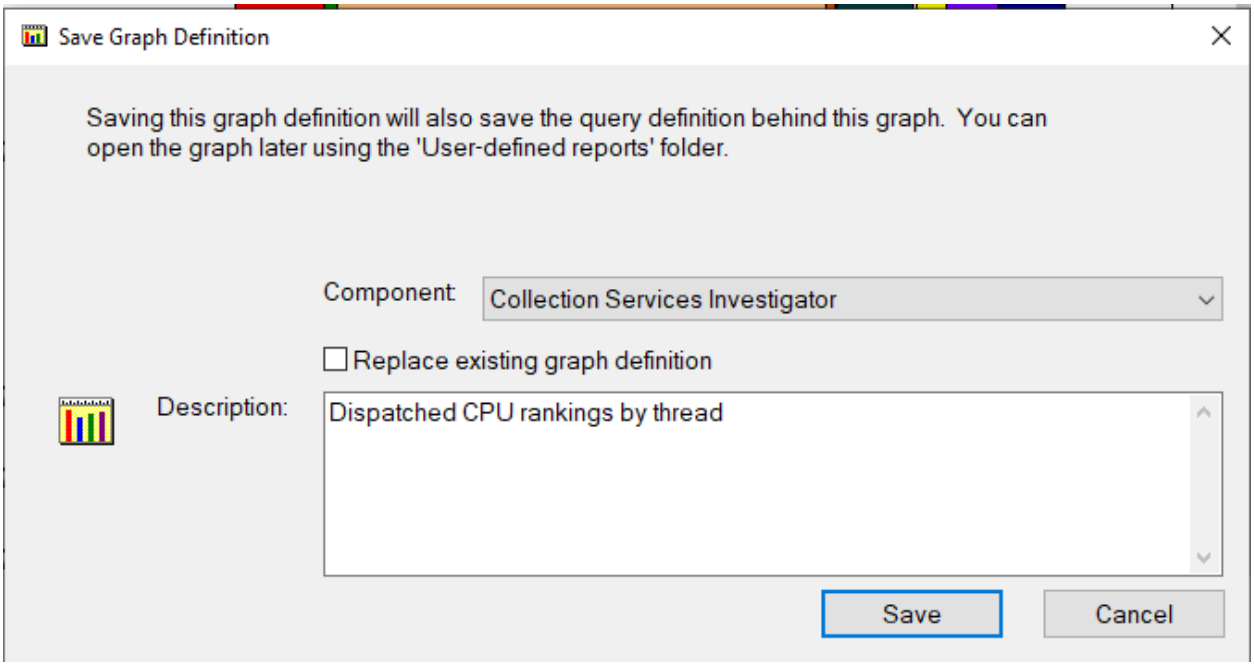
4.12.1 Creating a user-defined graph

In CSI to create a user-defined graph showing only the QSQ* server jobs, a user could follow these steps:

1. Open the Waits -> Dispatched CPU rankings by thread graph.
2. Right-click in the legend on the X-axis label field Job name/user/number: Thread ID (OBJNAME) and choose Add Filter…



3. Type in the value **QSQ** into the box and change the Operator to **Starts with**.
4. Click the Add Filter button then Apply button.
5. Right-click on the graph and use the Graph Definition -> Save As option

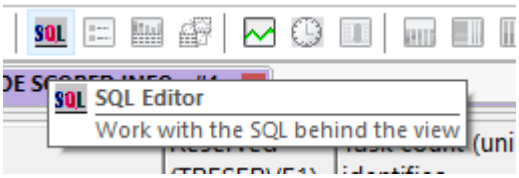


6. Updated the description if desired then press the Save button

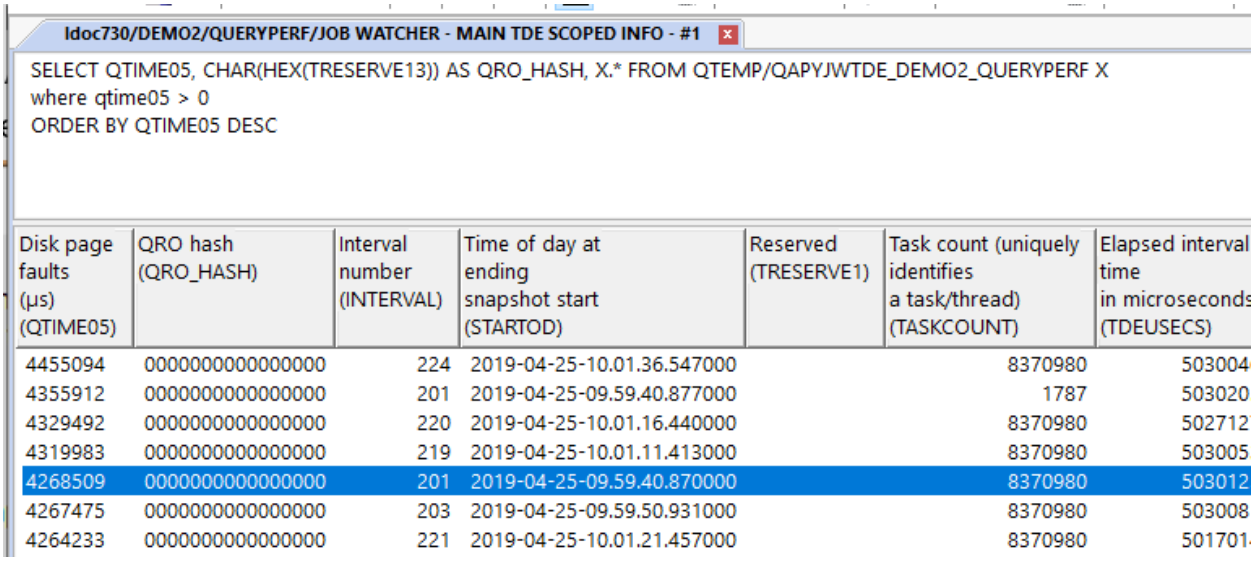
4.12.2 Creating a user-defined report

In Job Watcher a user-defined report showing only QAPYJWTDE file records with page fault time could be created by following these steps:

1. In Job Watcher, expand the server-side output files folder and open the QAPYJWTDE file.
2. Click the SQL button on the toolbar to view the SQL statement.

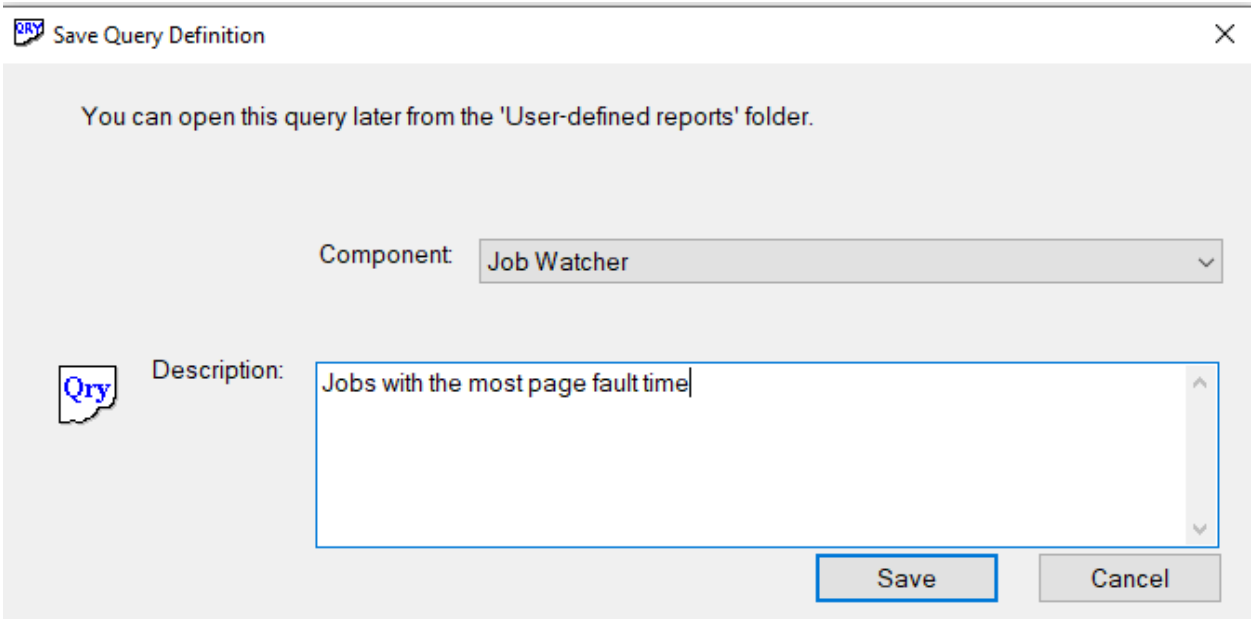


3. Modify the SQL statement to include a where clause such as WHERE QTIME05 > 0 and include QTIME05 near the front for the list of columns displayed.



Disk page faults (µs) (QTIME05)	QRO hash (QRO_HASH)	Interval number (INTERVAL)	Time of day at ending snapshot start (STARTOD)	Reserved (TRESERVE1)	Task count (uniquely identifies a task/thread) (TASKCOUNT)	Elapsed interval time in microseconds (TDEUSECS)
4455094	0000000000000000	224	2019-04-25-10.01.36.547000		8370980	503004
4355912	0000000000000000	201	2019-04-25-09.59.40.877000		1787	503020
4329492	0000000000000000	220	2019-04-25-10.01.16.440000		8370980	502712
4319983	0000000000000000	219	2019-04-25-10.01.11.413000		8370980	503005
4268509	0000000000000000	201	2019-04-25-09.59.40.870000		8370980	503012
4267475	0000000000000000	203	2019-04-25-09.59.50.931000		8370980	503008
4264233	0000000000000000	221	2019-04-25-10.01.21.457000		8370980	501701

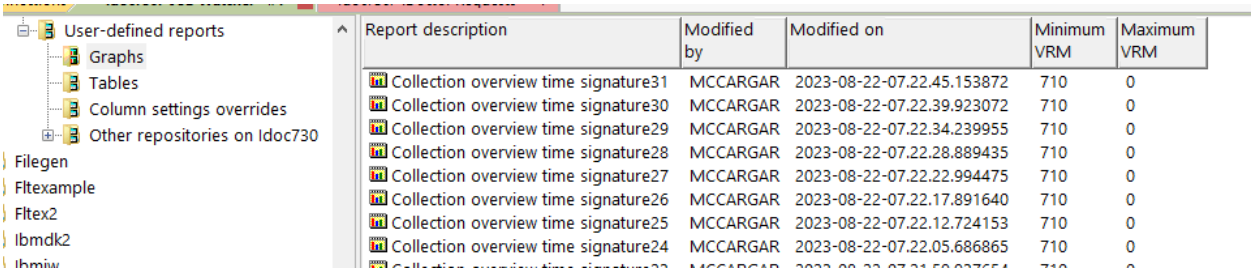
4. Press F4 to rerun the SQL statement
5. Right-click the report and use the Query Definition -> Save As… option



4.12.3 Graphs

This folder contains all user-defined graphs that are applicable to the current collection.

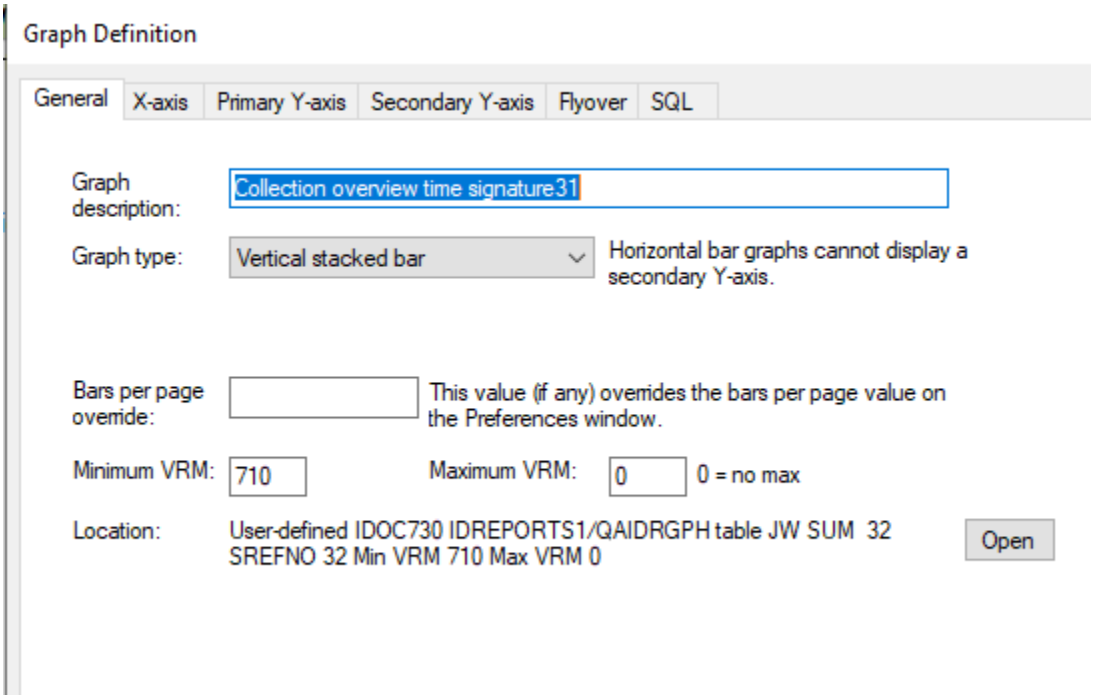
Double-click a graph to open it. You may also right-click the graph and use the Properties option to view and change some of the settings for the graph such as the SQL statement used.



4.12.3.1 Properties

User-defined graphs have properties pages that let you change several settings with how the graph looks. **Tip:** You can also change these same settings by opening the graph and saving the user-defined graph there instead.

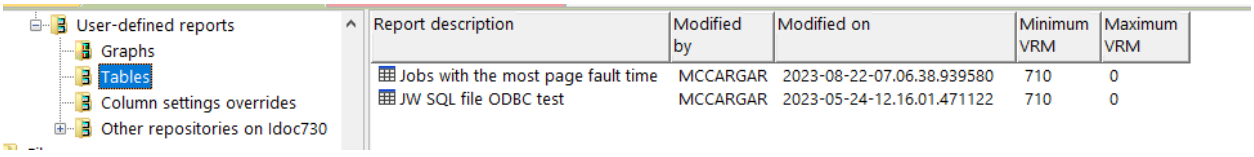
These properties for user-defined graphs are mostly identical to those for iDoctor supplied graph definition properties. The main differences are you can edit user-defined graph definitions and the SQL statement and your changes will be saved.



This interface is covered in the Data Viewer documentation.

4.12.4 Tables

This folder contains all user-defined table-based reports that are applicable to the current collection.

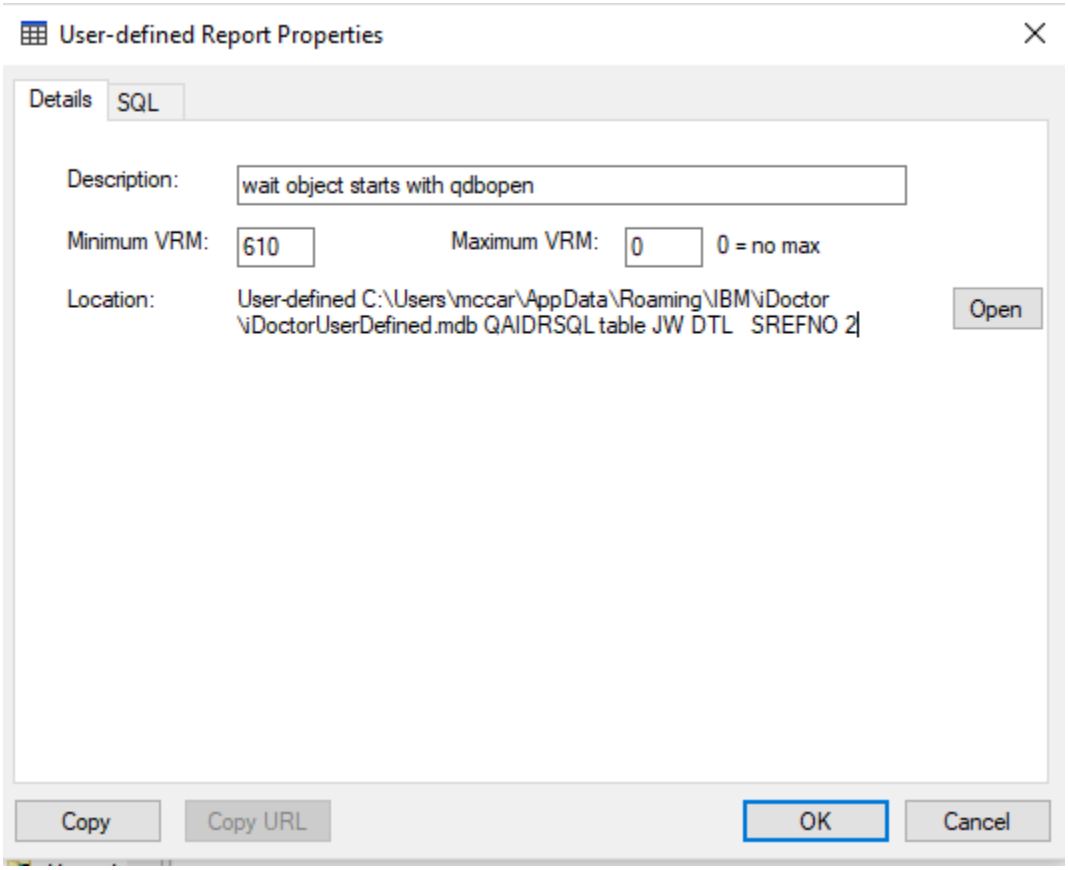


4.12.4.1 Properties

User-defined reports have properties pages that let you change several settings with how the graph looks. **Note:** You can also change these same settings by opening the table and resaving the report as a user-defined report instead.

4.12.4.1.1 Details

The details page lets you change the title for the report or modify the IBM i VRM levels that the report should apply to.

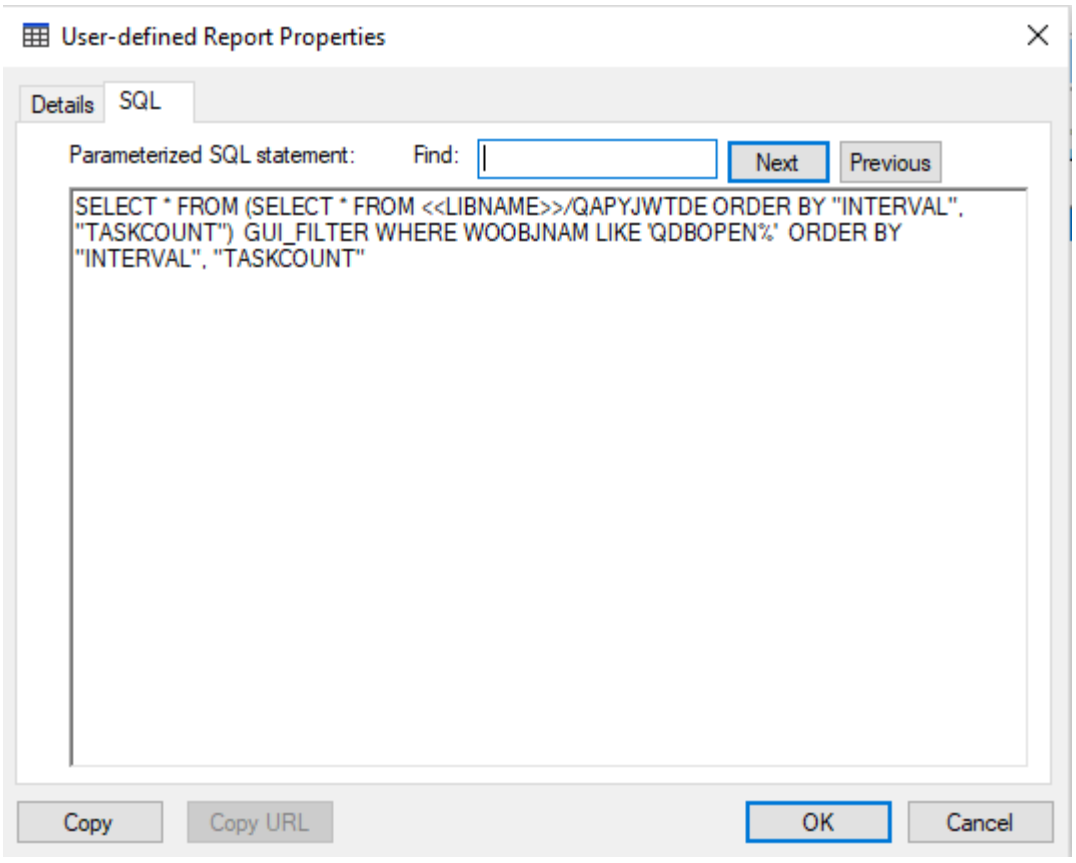


User-Defined Report Properties – Details

Option	Description
Description	The name to give the user-defined report.
Minimum VRM	The minimum IBM i release in nnn format such as 610, 710, 720, 730, etc. The minimum release currently functions at is V6R1 (i.e. 610)
Maximum VRM	The maximum IBM I release in nnn format this report should appear at. Use a value of 0 if no max.
Location	Identifies where this report exists in the user-defined reports database. User-defined reports are located within the database (either the .mdb file or IBM I library) in table QAIDRSQL. Within table QAIDRSQL the following columns are used in the example in the screenshot above: SIDCOMP = JW (component identifier) SQRYCAT = DTL (folder identifier – also see table QAIDRCATS) SREFNO = 2 (unique report identifier within this component and folder)
Open	Opens the user-defined reports database. **Note:** If using a local .mdb database, the QAIDRSQL table is not opened. You will need to open the table from the Tables section of MS Access manually and find the record using the information in the Location field above.

4.12.4.1.2 SQL

The SQL statement tab lets you change the parameterized SQL statement behind the report.



User-Defined Report Properties - SQL

Option	Description
Find	Lets you find the entered text within the SQL statement by pressing the Next or Previous button.
Parameterized SQL statement	This is the SQL statement including parameters such as: <<LIBNAME>> = library name <<MBRNAME>> = collection/member name **Tip:** If parameters are included in the SQL statement but are not known to iDoctor then you will be prompted to enter a value when running the report by the Change SQL Parameters window.

4.12.5 Menu Options

Each user-defined graph or report in these folders has the following menu options when right-clicked:

Menu	Description
Open Graph / Table	Opens the selected report in a new or existing data viewer depending on the sub-menu option taken.
Edit	Opens the selected report into the SQL Editor. The SQL statement will not be ran until requested by the user. This is most useful if the queries are long running and you wish to modify them before execution.
Delete...	Removes the selected user-defined reports from the user-defined reports database.
Properties	Displays details about the current user-defined graph definition or query definition that can be modified such as the SQL statement or fields shown on the graph.

4.12.6 Column settings overrides

This folder contains each column that has been modified in iDoctor by any user using the currently defined user-defined reports database. Whenever a user modifies a graph or table column using the Edit column interface they will be saved here. These overrides apply to iDoctor supplied reports and user-defined reports for any where the column short name in the SQL statement matches the values in this list.

If you delete a column from this view, then the iDoctor-defined settings for this column (colors and description) are used instead (assuming the same column name exists in the iDoctor reports.) **Tip:** After deleting column overrides you may need to Clear the iDoctor cache from the component icon popup menu in order for the changes to take effect.

4.12.7 Other repositories

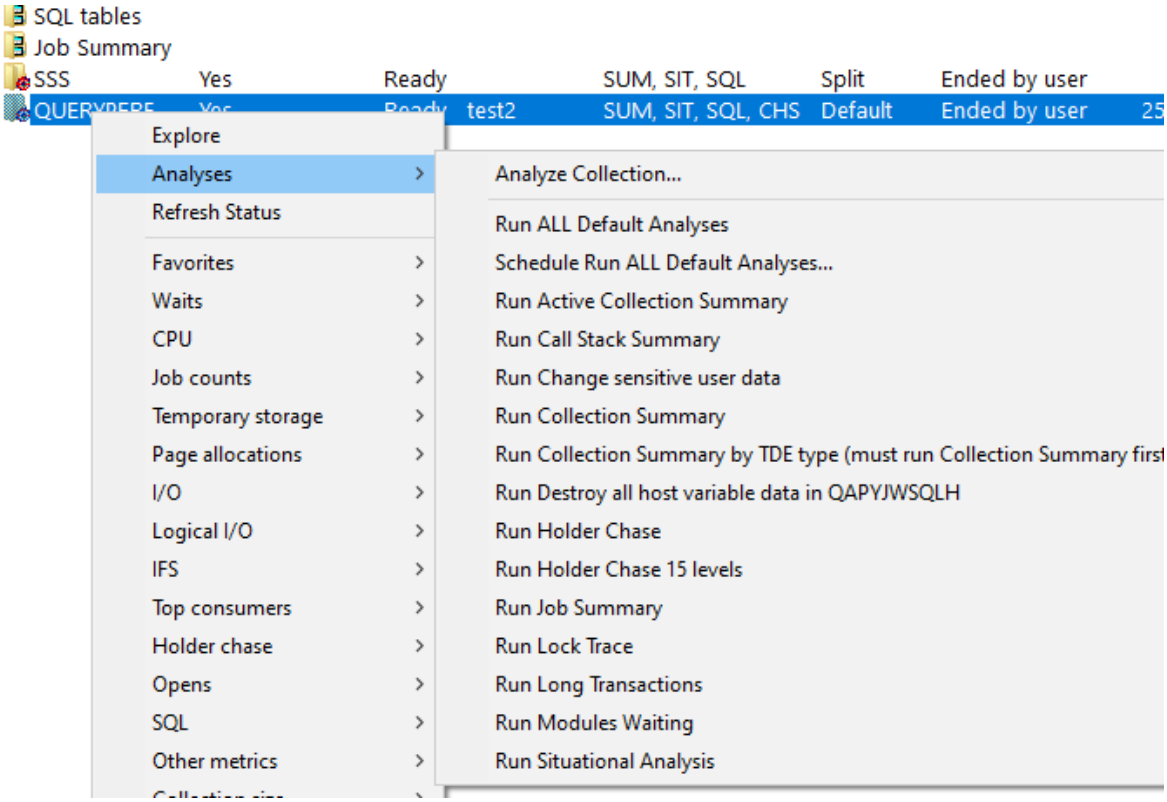
This option allows you to work with any other repositories (libraries) found on the current IBM i you are using. Only libraries will appear that contain the iDoctor repository SQL tables such as QAIDRGPH or QAIDRSQL.

5 Analyses

Analyses in iDoctor are used to process performance data to either summarize the data in some manner or dig deeper and look for specific information for a given performance problem.

Analyses can be found in the main iDoctor components: Job Watcher, PEX Analyzer, Disk Watcher and CSI (Collection Services Investigator).

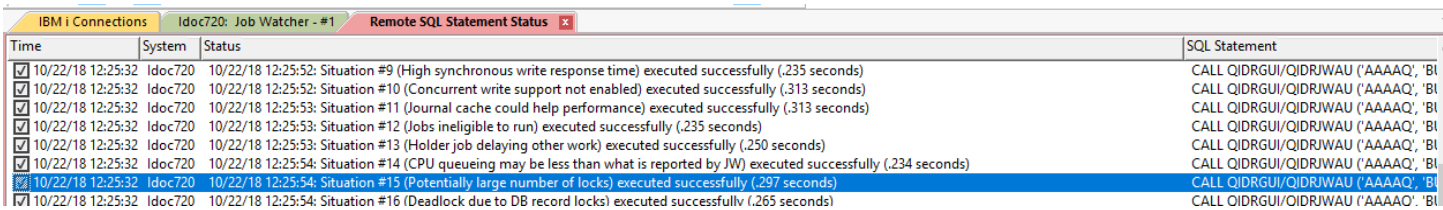
Analyses are initiated by right-clicking collection(s) (or library(ies)) and using the Analyses menu and picking either the Analyze Collection... menu (which shows a window to pick and choose from any available analyses) or pick one of the available "fast path" analysis options such as "Run Collection Summary", "Run Situational Analysis", etc.



A list of available analyses for a collection in Job Watcher.

Tip: The Analyses menu is also available if you select multiple collections and right-click. This will run the desired analyses on all the selected collections.

Analyses in iDoctor are SQL stored procedures. When an analysis runs it runs in the Remote SQL Statement Status View at the bottom of the main window. This window shows the progress of the analysis and from there completion or error messages will be shown. If an error is shown, you should right-click the error and use the Display job log menu to view the job log and try to determine the error. If you are unable to determine the reason for the error, send the job log and related information about the component, collection you are trying to analyze to iDoctor@us.ibm.com.



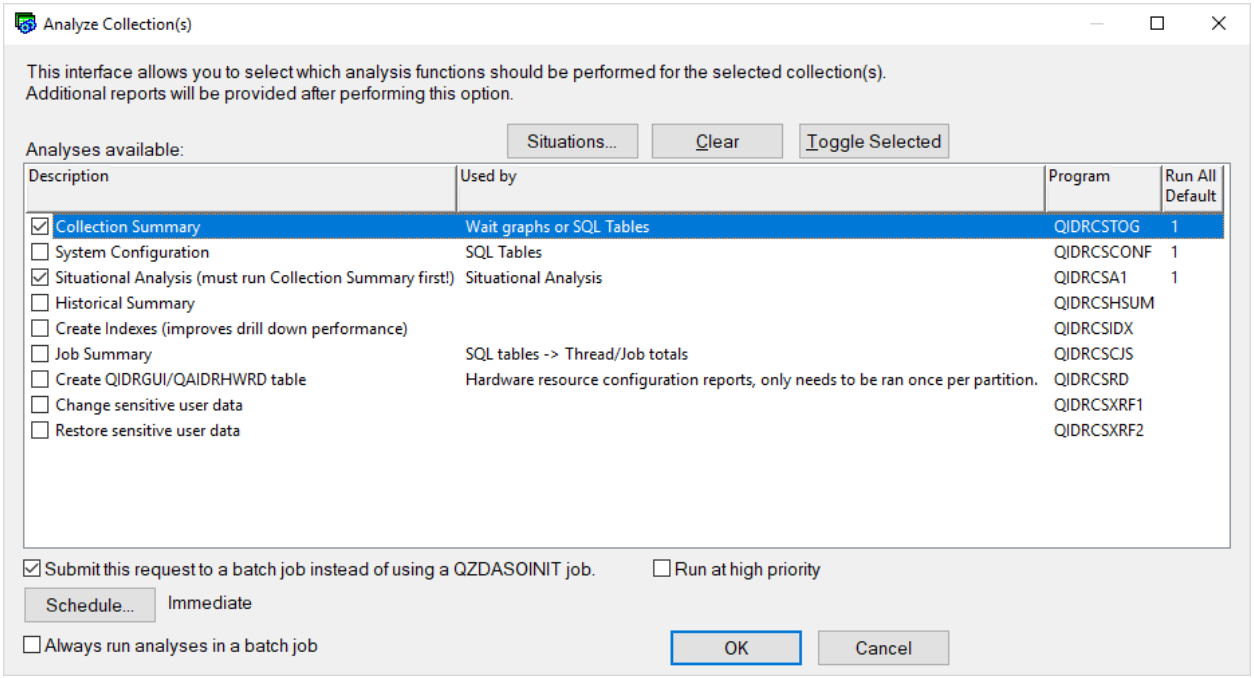
Remote SQL Statement Status View

After an Analysis is complete, the tables it creates can be accessed under the SQL Tables folder found in iDoctor under the component icon or under each library within the Libraries folder. Reports are often available from the SQL tables generated by the analysis. In many cases additional reporting options are also available under the collection, by right-clicking the collection and accessing a new menu option applicable to the new analysis.

5.1 Analyze Collection(s) Window

Use this option to be presented with a list of possible analyses to run against the selected collections. You can select one or more analyses to run by checking the checkbox next to each. In the Job Watcher and Collection Services Investigator components, a Situations button will exist that allows you to configure options related to the Situational Analysis.

If you want the analyses to run in a batch job instead of a QZDASOINIT job, then check the checkbox called “Submit this request to a batch job…”. Doing so is usually desired if the collections have large amounts of data or if the analyses are expected to take a long time to run as this will free up the Remote SQL Statement Status View for other actions you may wish to take.

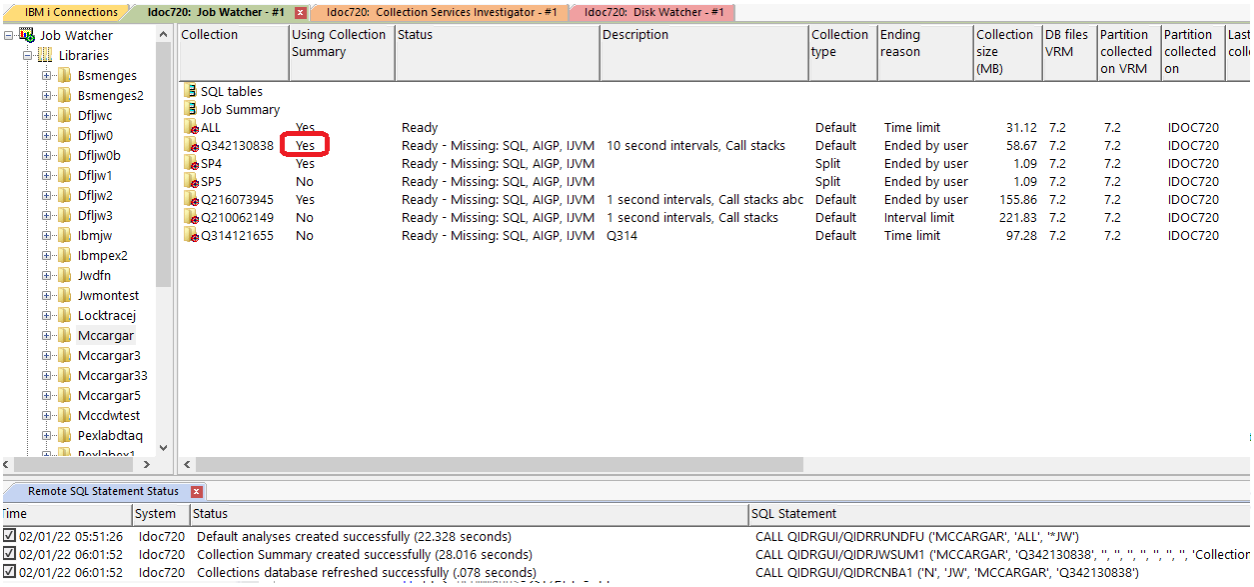


Analyze Collections Window

Option	Description
Situations…	This button opens the interface to work with the situations found in the Job Watcher or Collection Services Investigator components.
Clear	This button will uncheck all selections in the list.
Toggle selected	The selected analyses will either be checked/unchecked (i.e. toggled) from their current values.
Analyses available	This is the list of possible analyses to run. It contains these columns: **Description:** The name of the analysis. Typically, under the SQL Tables folder you will find folder of the same name which allows you to work with the data generated by these analyses. **Used by:** This describes where in the GUI the data created by this analysis is used. **Program:** The name of the program object in the QIDRGUI library. This is the SQL stored procedure that behind each analysis. These programs all have a text description which is a number such 005. This is the version number of the program. **Run all default:** If this value is set to a 1 then the analysis will be executed when using the Run ALL default analyses menu option found when right-clicking a collection.
Submit this request to a batch job instead of using a QZDASOINIT job	This option will run the desired analyses in a batch job on the IBM i using a file sent to the IBM i's IFS with the SQL statements to run and the RUNSQLSTM command. The job name used will be one of the following depending on the component identifier: Collection Services: QIDRCSSUM Job Watcher: QIDRJWSUM PEX Analyzer: QIDRPASUM Etc. **Note:** This option requires a valid FTP connection to the IBM i. Your FTP connection settings can be configured in the IBM i Connections View.
Run at high priority	This will submit the batch job to run the SQL statements at priority 1. **Note:** You probably do not want to use this option on production systems as in some cases the SQL can be intensive.
Schedule	This button is used to specify in the analysis should run now or later.
Always run analyses in a batch job	This option effects the same preference on the Misc tab. If checked then the next time this screen is used the "Submit this request to a batch job…" will be prechecked for you.

After pressing OK, the Remote SQL Statement Status View window will show calls to several stored procedures that are used to create the analysis tables. These tables will appear under the SQL Tables folder under the library and collection.

After the analyses are complete it's important to refresh (F5) the library to ensure that all new data is recognized by the GUI and it used in the reports shown. If a Collection Summary analysis was ran the "Using iDoctor collection summary" flag may also change from "No" to "Yes." This will typically cause additional reports to shown as well.

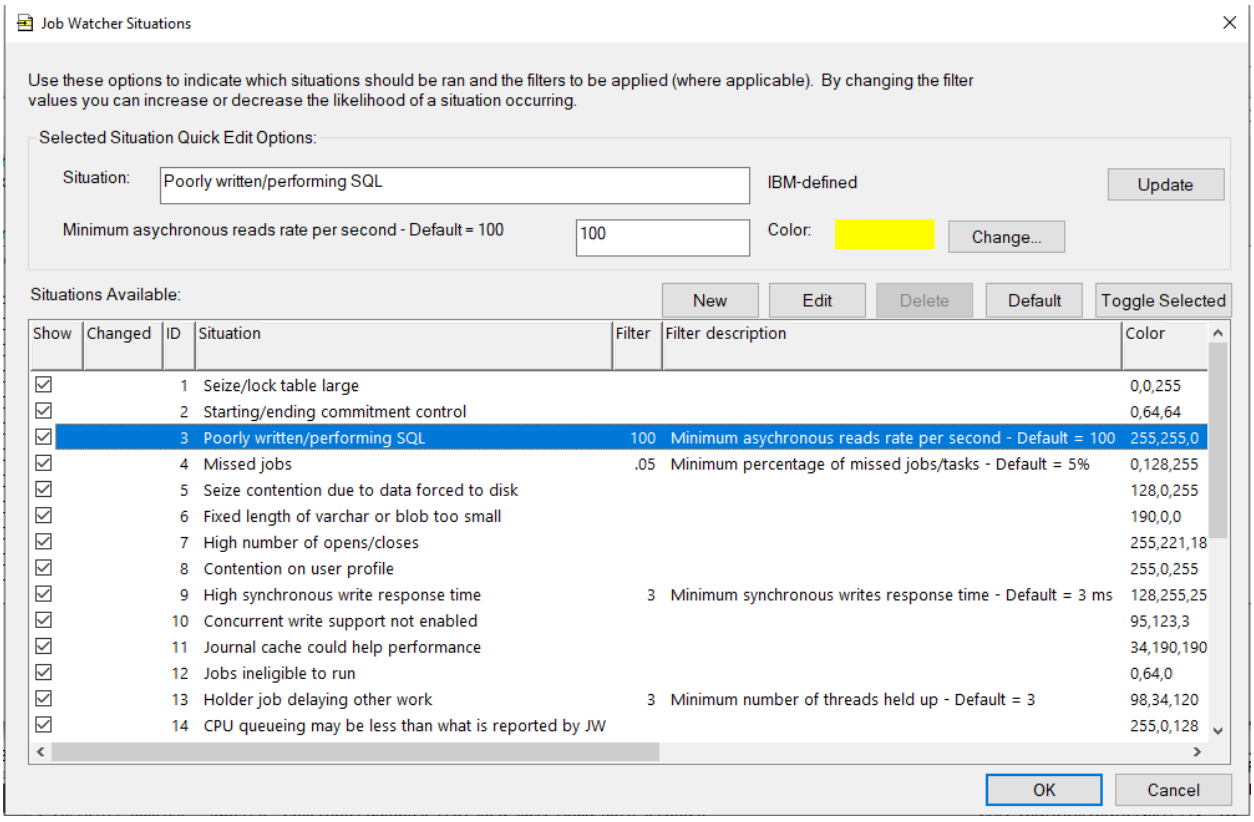


Using iDoctor collection summary flag changed to Yes after analyses complete

5.1.1 Situations Window

The Situations Window allows the user to control parameters used by the IBM defined situations or you may also create new user-defined situations to run against the data in your collections. Using this interface, you may also control which situations should be ran.

An example of this interface is:



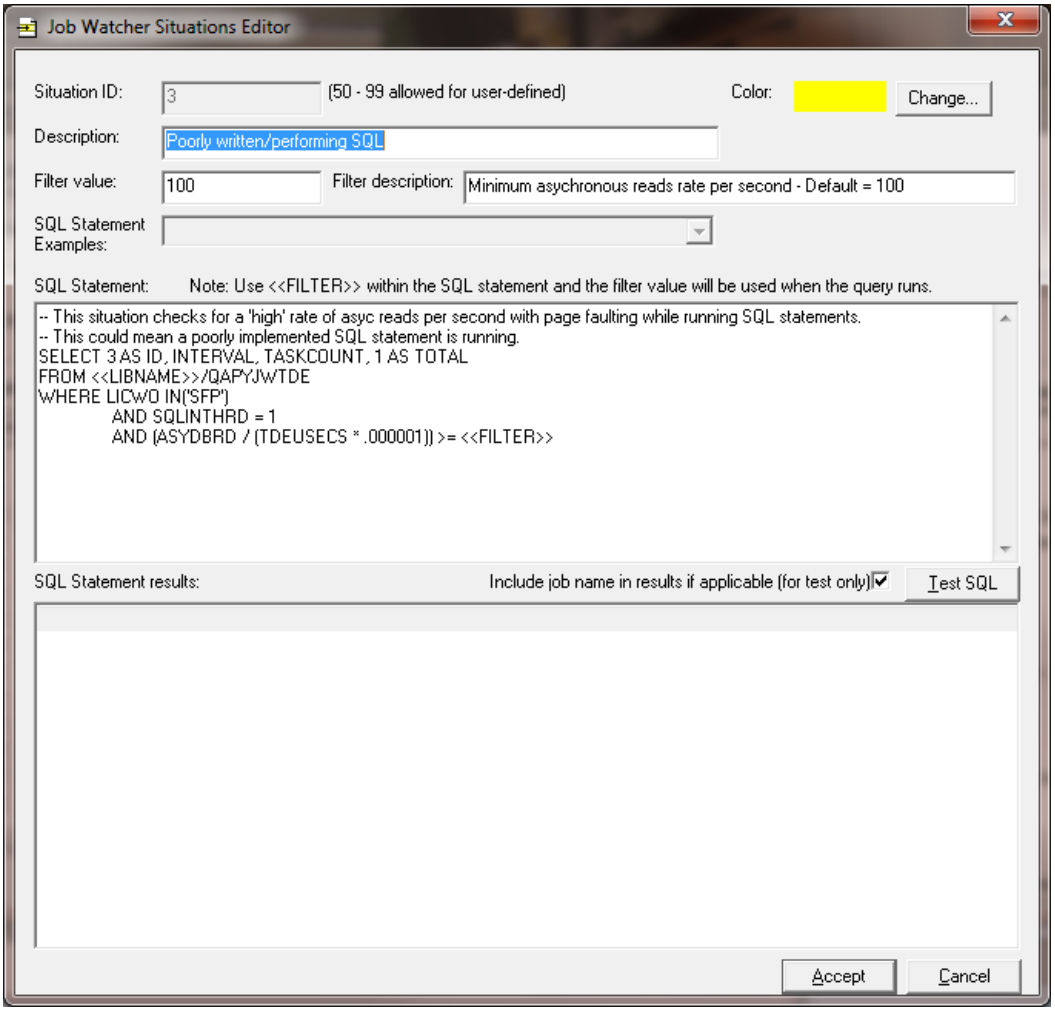
The options on the interface above is described in the table below:

Option	Description
Situation text box	This field allows the user to modify the name of the situation.
Update button	This button will save any changes made within the Selected situation quick edit options frame to the selected situation in the list. These changes are saved in the windows registry.
Filter value text box	The filter value text box lets you modify the filter's value to use. The filter value replaces the <<FITLER>> parameter marker within the SQL statement.
Color change button	Changes the situations color shown as the background color when graphed. If multiple situations occur in a time period, then the color is always red.
Situations available list	This list contains all the IBM-defined and user-defined situations. The following columns are provided: **Show:** The show checkbox/column can be used to avoid running certain situations if desired. **Changed:** If the user has made changes to a situation this column will contain “Yes”. **ID:** The ID number is used to uniquely identify each situation. **Situation:** Name of the situation. **Filter:** Some situations have a <<FILTER>> parameter in the SQL statement. This is the value to use for that parameter and helps indicate if the situation should occur. **Filter description:** Describes the (optional) filter used by this situation. **Color**: Identifies the color of the situation in RGB format (0-255,0-255,0-255). **IBM-defined:** This column indicates if the situation is IBM-defined or user-defined. Typically, the situation ID will be >=50 for user-defined situations. **SQL:** Shows the SQL statement for the situation. It may be modified by pressing the Edit button.
New button	The new button displays the Situations Editor window which allows you to create your own situation.
Edit button	The edit button displays the Situations Editor window and fills in the information for the current situation.
Delete button	This button lets you delete the currently selected user-defined situations. IBM-defined situations cannot be removed.
Default button	This button removes all changes made to the IBM-defined situations, remove all user-defined situations and restores them to their original (shipped-default) state.
Toggle selected button	This button changes the checked state of all selected items in the list.

5.1.2 Situations Editor Window

The Situations Editor window is used to create a new situation or modify advanced settings of an existing one. It allows the user to modify a situation to suit their individual needs. Situations are built from a special SQL statement that meets certain characteristics.

An example of this window looks like this:



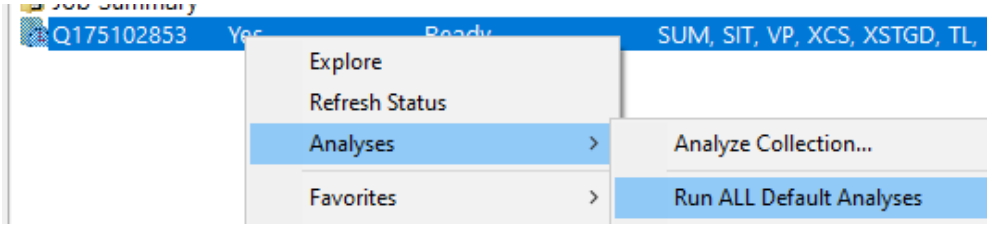
Job Watcher Situations Editor

Option	Description
Situation ID	The situation ID must be unique and needs to be between 50-99 for user-defined situations.
Color change button	Changes the situations color shown as the background color when graphed. If multiple situations occur in a time period, then the color is always red.
Description text box	This field allows the user to modify the name of the situation.
Filter value text box	The filter value text box lets you modify the filter's value to use. The filter value replaces the <<FITLER>> parameter marker within the SQL statement. **Note:** This field is optional and can be blank.
Filter description	The filter description describes the filter that has been included in the SQL statement. **Note:** This field is optional and can be blank.
SQL Statement examples	The SQL statement examples drop down box contains a list of all IBM-defined situations. Selecting one of these situations replaces the current SQL statement shown. These examples contain comments and should help you get a better idea on how to create your own situation to suit your needs.

SQL Statement	The SQL statement that performs the testing to see if the situation has been satisfied in the data. The tables should be referred to using <<LIBNAME>>/QAPYJWTDE syntax where <<LIBNAME>> is a parameter marker replaced at runtime with the current library and QAPYJWTDE is the desired file. **Note:** Aliases will be automatically created for you to point to the current collection member and do not need to be referred to here. The outer select must contain the following 4 fields (in this order): 1. ID = situation ID (User-defined situations are numbered 50+. IBM-defined situations are 1-49.) 2. INTERVAL = interval number when the situation occurred 3. TASKCOUNT = unique identifier for the job/task. Use a value of 0 if the situation applies to the entire collection and not a specific job or task. 4. TOTAL = The number of occurrences of this situation for this job/task and interval. If the situation does not apply to any specific job or task, then a value of 1 should be used.
Include job name in results	This option will modify the SQL statement slightly under the covers to display the Job name and thread ID associated with each taskcount found. Because Job name and thread ID are not returned in the situation analysis table they are only shown here for test purposes.
Test SQL	This button executes the current SQL statement shown above against the current collection. If any results are found, they will be shown in the SQL Statement results list. For testing purposes, use the Test SQL button and the “Include job name in results checkbox” to see the jobs in your test collection that match your situation before using. In this way you can modify the SQL Statement to control verbosity to best suit your needs.
SQL Statement results	This list contains the result set returned by running the SQL Statement shown above.
Accept button	Accepts all changes made and closes the window, returning to the Situations Window.

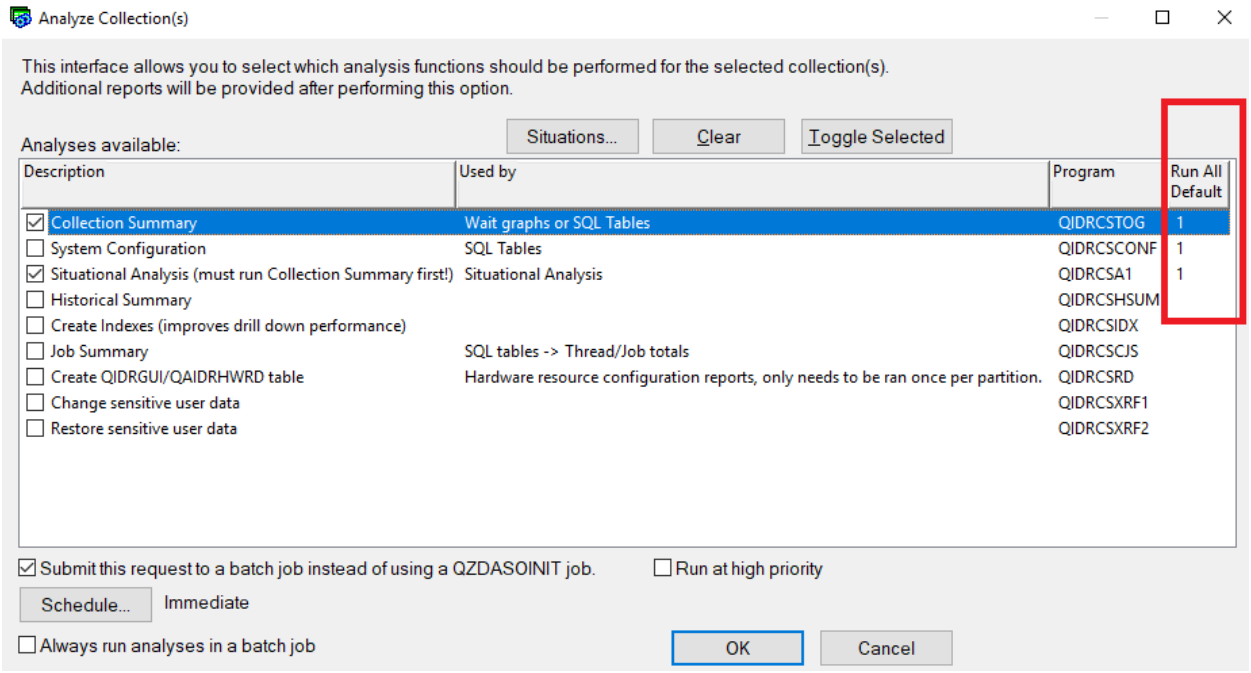
5.2 Run ALL Default Analyses

In some of the components this will run the “default” set of analyses on the selected collections.



Collection menu -> Analyses -> Run ALL Default Analyses

This list of “default” analyses varies by component and can be viewed by using the menu option “Analyses -> Analyze Collection” and looking for the “Run All Default” column in the list of analyses.



Analyze Collection(s) Window -> Run All Default column example

Tip: On the green screen these default analyses are ran when using the QIDRGUI/STRIDRSUM and QIDRGUI/RSTIDRDTA SUM(*YES) commands.

5.3 Analyses -> Run analysis menu

This option (by default) when used on a collection, will kick off the desired analysis in the Remote SQL Statement Status View. If the submit to batch preference is used instead, then you must wait until the batch job created finishes.

When complete additional reports will become available (after refreshing the component view).

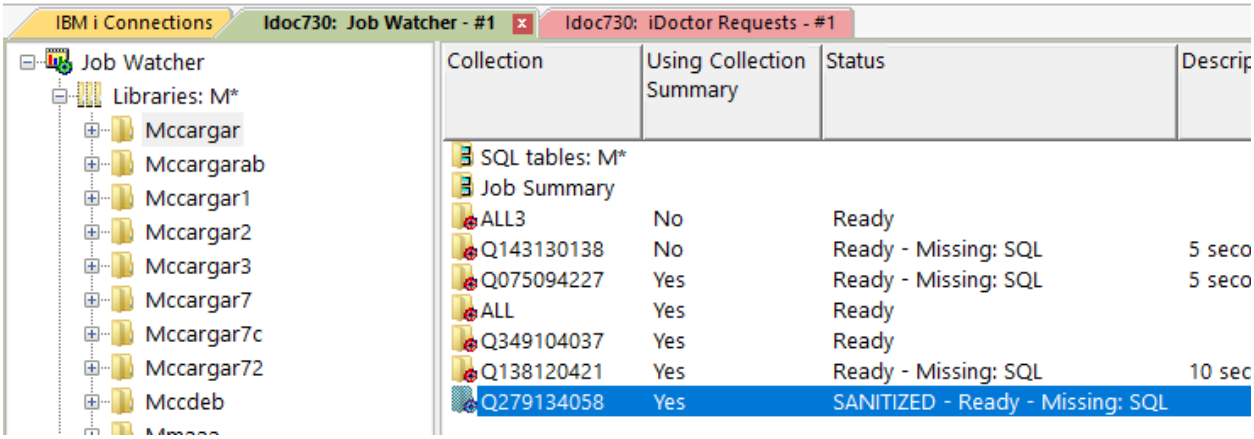
5.4 Change sensitive user data

Most components include this analysis which can be ran to ***modify*** the performance collection in order to hide/rename potentially sensitive data such as system names, job names, user profiles, etc. The data modified varies by component.

It is a good idea to create a backup of the collection before using this feature since the changes are permanent except when using **PEX Analyzer**.

Note: This analysis does NOT modify existing iDoctor-created QAIDR* SQL tables. If you want that data to be sanitized as well, you should run this analysis first and then run the desired analyses after.

After running this analysis, the collection status should indicate **SANITIZED** which means the original data has been changed by this analysis.



In PEX, a **Restore sensitive user data** analysis also exists that can be used to restore the data back.

5.5 Restore sensitive user data

This analysis appears **ONLY in PEX Analyzer** and can be used to restore the data that was sanitized back to the original contents. This only works if the QAIDR* tables that were originally created by the **Change sensitive user data** analysis still exists in the same library and the collection has not been renamed.

6 Monitors

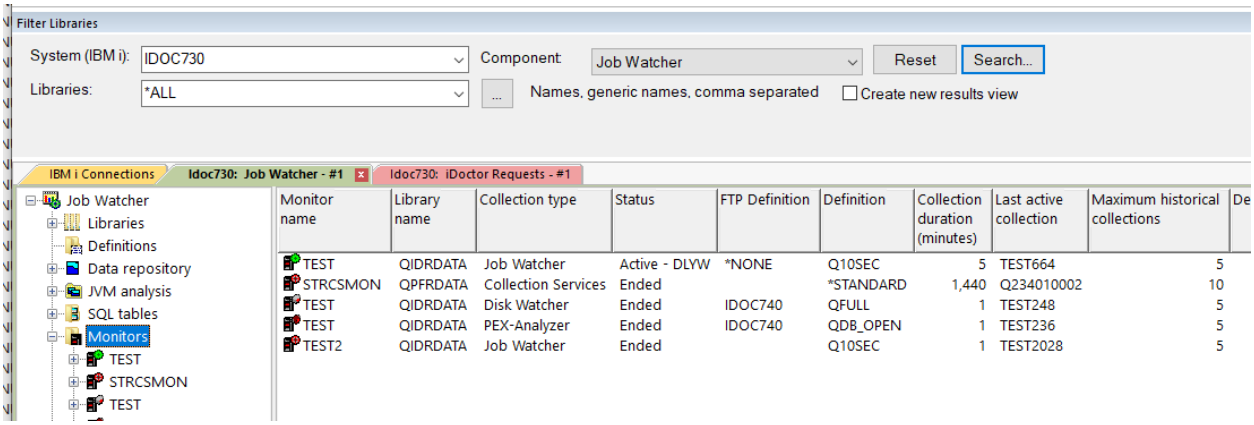
All components provide an option to start and work with monitors. Monitors allow the user to continuously collect Job Watcher, Disk Watcher and/or PEX data.

Tip: Data in monitors can be optionally sent to another LPAR using an FTP definition.

Note: For Collection Services, a monitor of that type allows data to be sent to another LPAR automatically after each cycle is completed. Only 1 CS monitor can be started at a time. Multiple JW, DW or PEX monitors can be running at the same time if desired.

Monitors run continuously storing only the desired number of collections. Monitors will run until ended manually by the user or when ended via a scheduled job. Monitors can be held and released if the user wishes to stop collecting data, and then continue collection again later. Monitors can also be scheduled to start and end at the desired times.

Once a monitor has been completed, it must be restarted using the Restart Monitor option.



Monitors Folder

6.1 Commands

The green screen commands related to monitors (and the collections they contain) in the QIDRWCH library are:

Addftpdfn - Create a definition for sending data

Cpycscol - Copy a Collection Services Collection

Cpydwcol - Copy a Disk Watcher Collection

Cpyjwcol - Copy a Job Watcher Collection

Dltcscol - Delete a Collection Services collection

Dltdwcol - Delete a Disk Watcher Collection

Dltdwmon - Delete a Disk Watcher Monitor

Dltjwcol - Delete a Job Watcher Collection

Dltjwmon - Delete a Job Watcher Monitor

Dltpamon - Delete a PEX Analyzer Monitor

Endcsmon - End the Collection Services monitor (if active)

Enddwcol - End a Disk Watcher Collection

Enddwmon - End a Disk Watcher Monitor

Endjwcol - End a Job Watcher Collection

Endjwmon - End a Job Watcher Monitor

Endpamon - End a PEX Analyzer Monitor

Ftpcol - Transfer perf collection to another system

Hlddwmon - Hold a Disk Watcher Monitor

Hldjwmon - Hold a Job Watcher Monitor

Hldpamon - Hold a PEX Analyzer Monitor

Rlsdwmon - Release a Disk Watcher Monitor

Rlsjwmon - Release a Job Watcher Monitor

Rlspamon - Release a PEX Analyzer Monitor

Rmvftpdfn - Remove a definition for sending data

Strcsmon - Start a Collection Services Monitor

Strdwmon - Start a Disk Watcher Monitor

Strjwmon - Start a Job Watcher Monitor

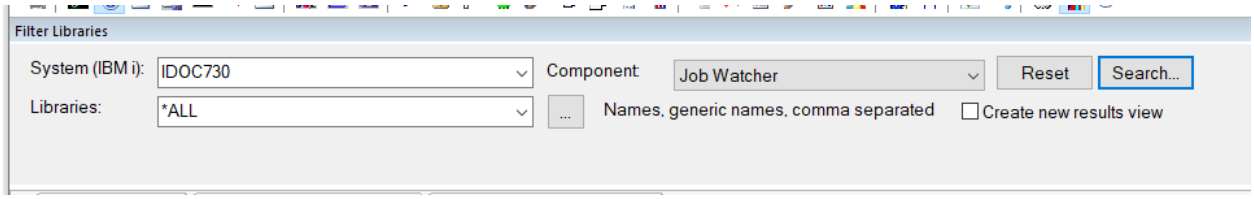
Strpamon - Start a PEX Analyzer Monitor

Tip: Many of these commands contain help text. See the command help text for more details on usage.

Note: When using a FTP definition, the QIDRGUI/FTPFILE command is used to send performance data to other LPARs. This creates a script and uses the IBM I FTP command.

6.2 Filter Libraries pane

This interface automatically appears whenever working with the Monitors folder to control which libraries are included.



6.3 Menu Options

The menu options found when right-clicking on one or more monitors in the list are:

Menu	Description
Explore	This option will expand the monitor and view the collections it contains.
Explore data on remote LPAR	If this monitor has an FTP definition set, this option will open a new component view to the remote LPAR of the applicable component to view the data there.
Edit FTP definition	Use this option to change the FTP definition behind the monitor. Changes can be made while the monitor is still running if desired.
View definition	This option will display the definition used when creating the monitor. **Note:** This is not applicable to CS monitors.
Edit definition	This option displays the interface to modify the definition used when creating the monitor. **Note:** This is not applicable to CS monitors.
Select fields…	This is used to control which fields are shown in the list of collections found by double-clicking or using the Explore menu.
Start New Monitor	Opens the Start iDoctor Monitor Wizard to create a new monitor.
Restart Monitor	Opens the Start iDoctor Monitor Wizard to restart the selected monitor. This option is only enabled if 1 monitor is selected.
Hold/Release	This option allows the selected monitor to be held. If held the active collection will be ended immediately and no more collections will be started until the monitor is released.
End immediately	This option will end the monitor and all active collections defined within immediately.
End after current collection	This option will end the monitor once the current collection running completes.
Clear Server Cache	This will clear the collections cache for the library and type matching the selected monitor.
Delete	Removes the monitor and all collections within it from the system. **Note:** This does not remove collections on the remote LPAR if an FTP definition has been set.
Save	Creates a save file containing all collections within the monitor.
Transfer to	Use these options to send data to another LPAR or the PC.

6.4 Fields

All columns are shown by default. You can hide or rearrange columns using the Select Fields… menu by right-clicking the Monitors folder.

Field	Description
Monitor name	The name of the monitor. Monitor names cannot be greater than 7 characters. The collections within the monitor use the monitor name concatenated with 001 through 999. **Note:** Collection Services monitors are always named **STRCSMON** and there is only 1 on a system.
Library name	The name of the library containing the performance data collected by the monitor.
Collection type	Either Job Watcher, Disk Watcher, PEX Analyzer or Collection Services.
Status	This is either Ended or Active. If Active it will include the current job status for the job running the monitor.
FTP Definition	This is optionally used to send data in the monitor to a remote LPAR. In the case of Collection Services, this is required.
Definition	This is the name of the definition used when creating the monitor. **Note:** For Collection Services this is the default collection profile setting on the CFGPFRCOL command.
Collection duration (minutes)	This is the elapsed time that each collection should contain.
Last active collection	The name of the last active or currently running collection.
Maximum historical collections	This is the number of collections to retain.
Description	An optional description to give the monitor. **Note:** Does not apply to Collection Services monitors.
Partitions count	If the monitor is collecting data simultaneously over multiple partitions this field indicates the number of partitions data is being collected for.
Start time	The date and time when the monitor started. **Note:** For Collection Services this is the time when the currently running collection started.
Maximum collection size (megabytes)	This option indicates the maximum collection size for each collection created within the monitor. This value only applies to Disk Watcher and Job Watcher. **Tip:** If this maximum size is reached before the collection duration has elapsed, then NO DATA is captured.
Monitor job	That job that is running or ran the monitor.
ENDPEX data option	This option applies only to PEX monitors and can be one of the following: 1) **Create DB files** - The data is dumped into the PEX DB files when each collection ends 2) **Create *MGTCOL** - The PEX data is dumped into a PEX *MGTCOL object when each collection ends 3) **Suspend** - The PEX data is not dumped and the collection will move to suspended status. After the desired maximum historical collections have been created, the PEX monitor will end. At that point the data must be dumped to database files or *MGTCOL objects manually using either the ENDPEX command or the Active collections folder within PEX Analyzer.

6.5 Start iDoctor Monitor Wizard

This section describes the interface used when starting (or restarting) an iDoctor monitor.
Monitors for all types can be started at the same time using this interface if desired. A separate job is used to collect data for each type.

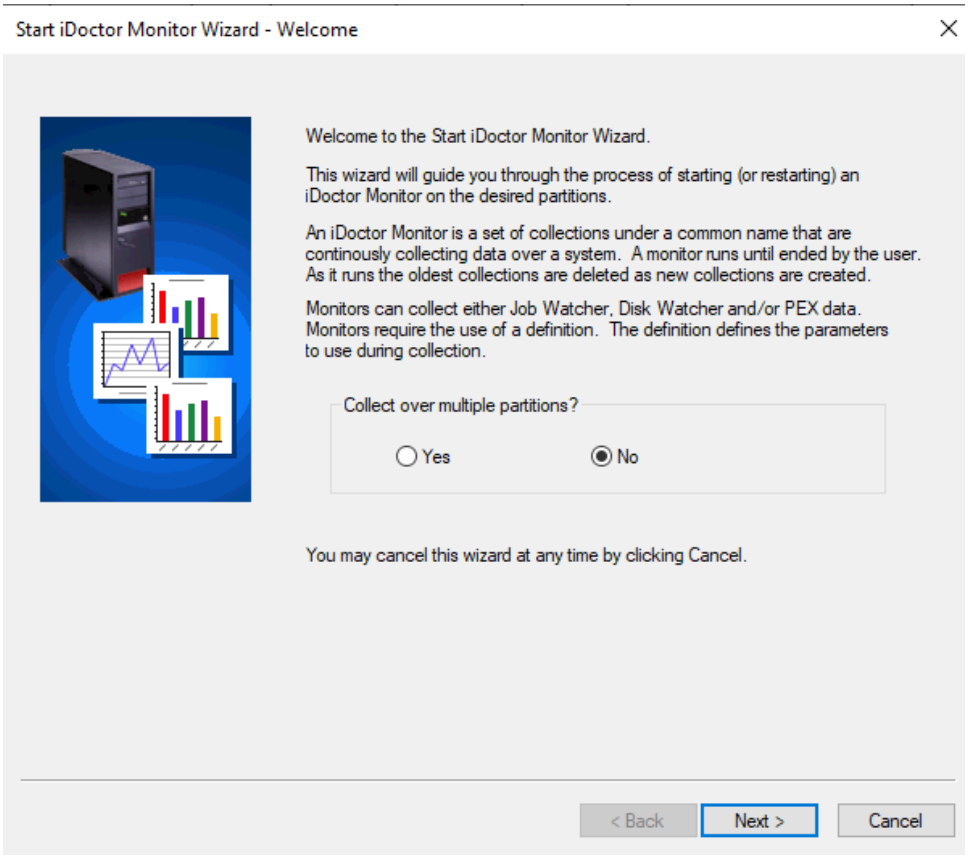
Tip: Data can be optionally sent to another system using an FTP definition.

When restarting a monitor, the parameters that were used to last start the monitor are preloaded into this interface.

6.5.1 Welcome

The Welcome page introduces the user to the Monitor.

Selecting Yes on this screen will allow you to pick the partitions to collect data on.

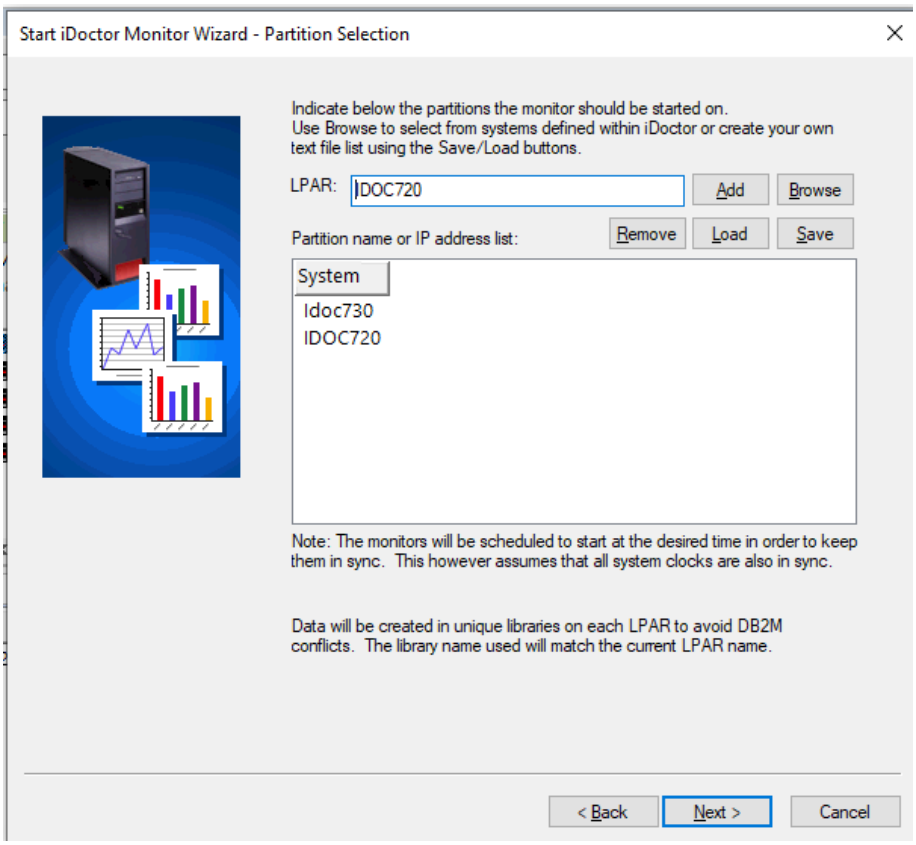


Pressing Next on the Welcome page shows the Partition Selection screen if Yes is selected on this page.

6.5.2 Partition Selection

The Partition Selection screen lets the user configure the list of partitions to collect data on.

Tip: In order to make it easier to analyze the data, the system clocks on the partitions used should be in sync.

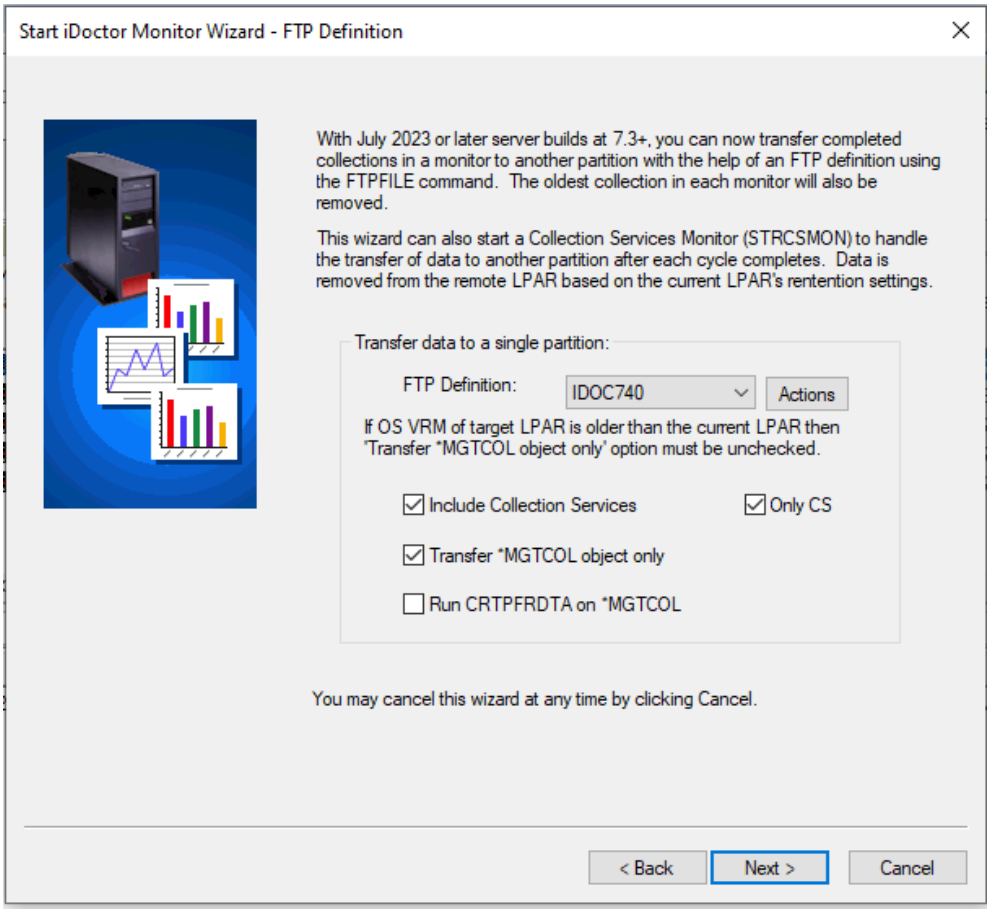


Option	Description
Add	Adds the partition name or IP address in the text box to the list.
Browse	Shows a list of IBM i connections to select from.
Remove	Removes the selected partitions from the list
Load	Loads a list of partition names from a text file. The file should have a partition name or IP address, 1 per line.
Save	Saves the current list of partitions to a text file that can be used later via the Load option.

6.5.3 FTP Definition

This screen is used to optionally send data collected by the monitor to another LPAR.

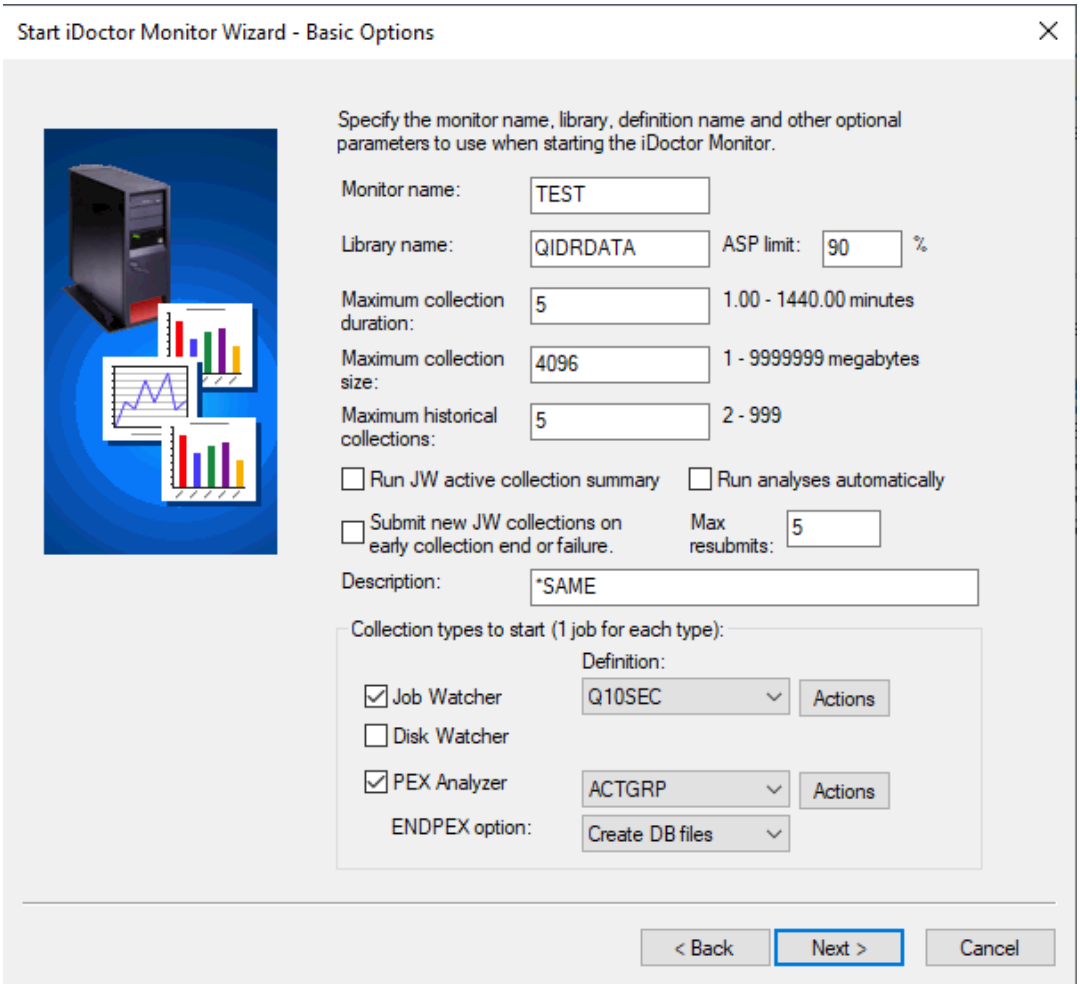
For Collection Services, additional options exist to control how the data is sent.



Option	Description
FTP definition	The name of the definition to use or *NONE. **Tip:** Only 1 FTP definition can be used at a time. If you wish to use a different FTP definition for each type of collection, then you will need to use this interface multiple times.
Actions	This button shows menu options that can be used against the selected FTP definition. These options are **View**, **Change**, **New** and **Delete**.
Include Collection Services	This indicates that collection services data should be sent to another LPAR based on the FTP definition.
Only CS	If this is checked, then none of the additional panels except **Finish** will appear and only a CS monitor will be started.
Transfer *MGTCOL object only	This indicates that only the *MGTCOL object for the CS collection will be sent. **Note:** This should only be used if the target system is at the same OS VRM or newer.
Run CRTPFRDTA on *MGTCOL	If the previous checkbox is checked, this indicates if the data should be automatically created as QAPM* files from the *MGTCOL object.

6.5.4 Basic Options

This page allows the user to enter the parameters like the monitor name, library, and the type(s) of monitors to create.
None of these settings apply to Collection Services monitors.



The following section lists the parameters available on this interface:

Option	Description
Monitor name	The name of the monitor. Monitor names cannot be greater than 7 characters. The collections within the monitor use the monitor name plus 001 through 999.
Library	The library name the monitor's collections should reside in.
ASP limit	This value indicates the maximum allowed ASP percentage used. If while the monitor is running this value is exceeded the monitor will end. **Note:** The ASP checked is the same as the ASP that the library resides in.
Maximum collection duration	Indicates how long each collection should run for (in minutes). **Tip:** Ensure that the definitions specified would allow the collection to run for at least this long to avoid having gaps in the monitor data where no data is being collected.
Maximum collection size	This parameter indicates the maximum size to allow for each collection in the monitor. If the size is exceeded, then the collection will stop and there will be a gap in the collection data until the monitor starts the next collection in the sequence. **Note:** This parameter only applies to Job Watcher and Disk Watcher Monitors. For PEX monitors you will need to change this value in the PEX definition instead..
Maximum historical collections	This parameter indicates how many collections the monitor should contain at 1 time. As time progresses and this maximum is reached, the oldest collections are replaced as new collections are added.
Run JW active collection summary	If starting a Job Watcher monitor, this option indicates that data should be summarized as it is being collected. **Tip:** This is used for the **Active Data** menu options found under the Job Watcher component popup menu.
Run analyses automatically	If checked, the Run ALL default analyses option will be used. All default analyses will be executed for each collection after it completes. This is NOT all analyses but only a select few that are most commonly needed. **WARNING:** In some situations, this can be very resource intensive and typically should not be used on production systems.

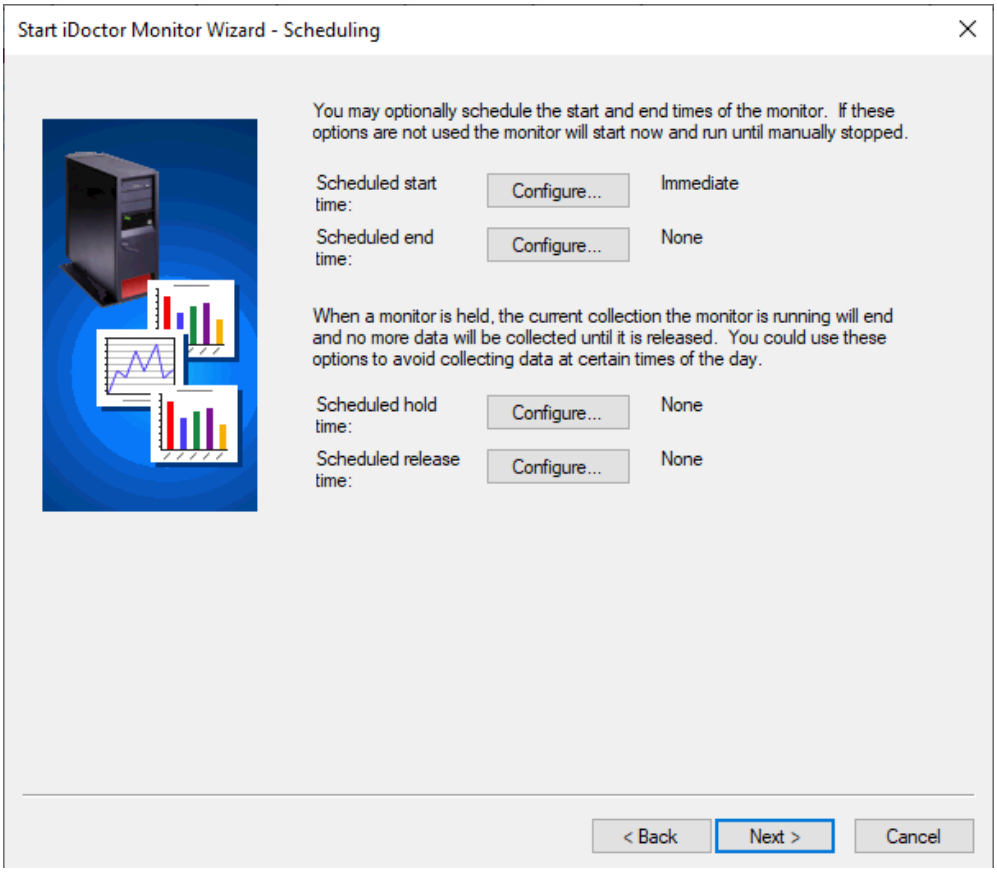
Submit new JW collections on early collection end or failure	This optional parameter indicates if the Job Watcher monitor should attempt to submit a new collection if it's detected that the current collection has ended prematurely (for any reason). If this option is enabled, a new collection will be submitted up to the maximum specified by the max resubmits parameter if the current collection has stopped running. Use caution when using this option; your collection may have ended early because of disk space limits.
Max resubmits	The parameter indicates the number of times collections will be resubmitted if the previous field is enabled.
Description	A description given to the monitor.
Collection types to start	The user can collect Job Watcher, Disk Watcher and/or PEX. If multiple choices are selected a different monitor job is started one for each collection type.
Definition	This list provides the definitions available on the current system to pick from of the applicable type.
Actions	The definition actions include: **View** – Displays the Properties interface for the selected definition. **Change** – Displays the Add Definition Wizard with the selected definition's parameters filled into the interface. **New** – Displays the Add Definition Wizard in order to create a new definition. **Reload IBM-supplied definitions** – Runs a stored procedure to ensure that the IBM-supplied definitions are loaded and up to date.
ENDPEX option	The ENDPEX option is only applicable to PEX Analyzer monitors. It indicates how the collections generated by the monitor should be handled by providing 3 options: 1) **Create DB files** - The data is dumped into the PEX DB files when each collection ends 2) **Create *MGTCOL** - The PEX data is dumped into a PEX *MGTCOL object when each collection ends 3) **Suspend** - The PEX data is not dumped and the collection will move to suspended status. After the desired maximum historical collections have been created, the PEX monitor will end. At that point the data must be dumped to database files or *MGTCOL objects manually using either the ENDPEX command or the Active collections folder within PEX Analyzer.

6.5.5 Scheduling

This page allows the user to determine how to when the monitor should be started/ended, held or released.

Note: This interface does not apply to Collection Services monitors.

To run the monitor right away, click Next.



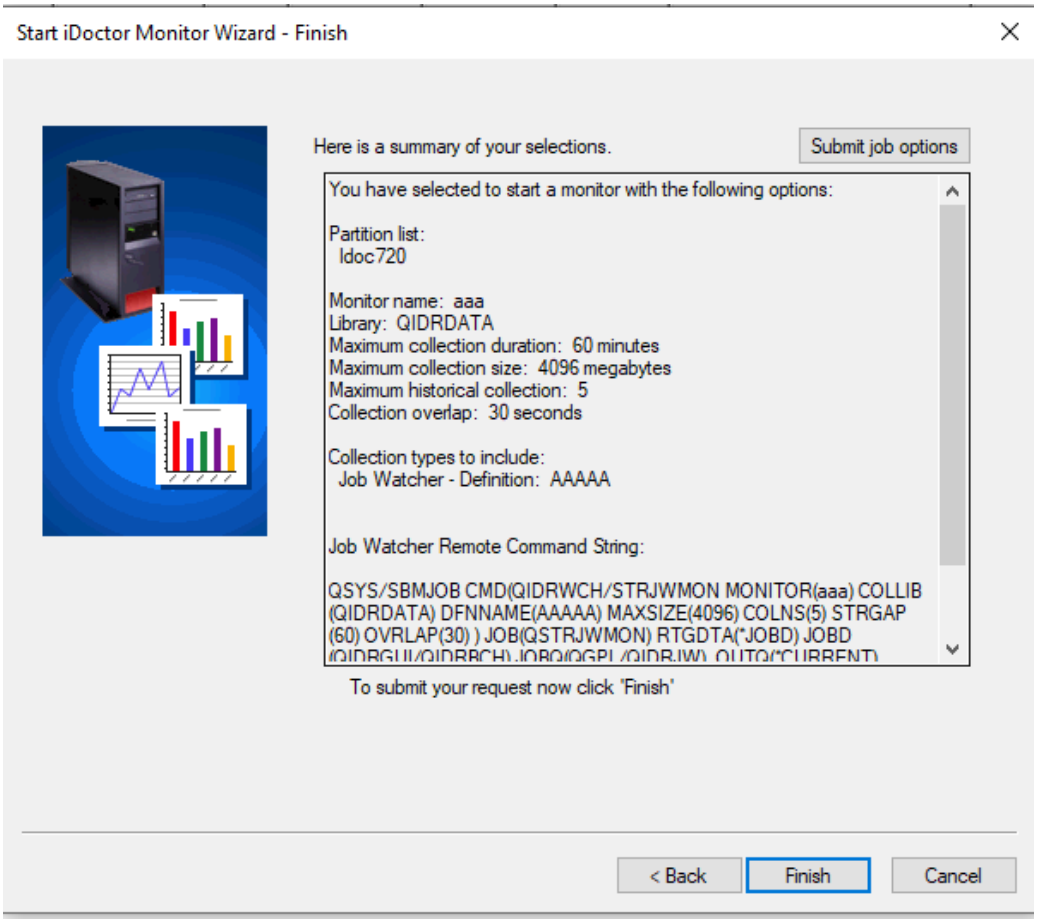
The following section lists the parameters available on this interface:

Option	Description
Scheduled start time	Use this option to schedule the monitor to start later..
Scheduled end time	Use this option to schedule the monitor to end at a desired date and time.
Scheduled hold time	Use this option to hold the monitor at the desired date and time.
Scheduled release time	Use this option to release the monitor (assuming it's in a held state) at the desired date and time.

6.5.6 Finish

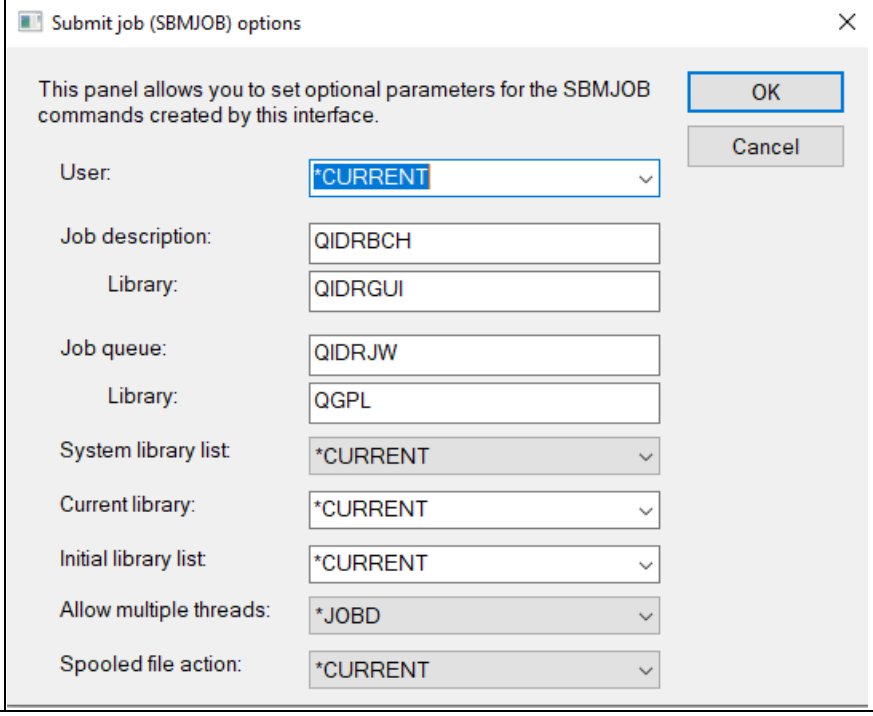
This screen provides a summary of the monitor that will be started/restart on the current system.

For your convenience the remote commands that will be executed to start the monitor(s) are listed at the bottom of this page.



Start iDoctor Monitor Wizard – Finish

The following section lists the parameters available on this interface:

Option	Description
Submit job options	This button allows you to change parameters on the SMBJOB command(s) used to start the monitor(s). 

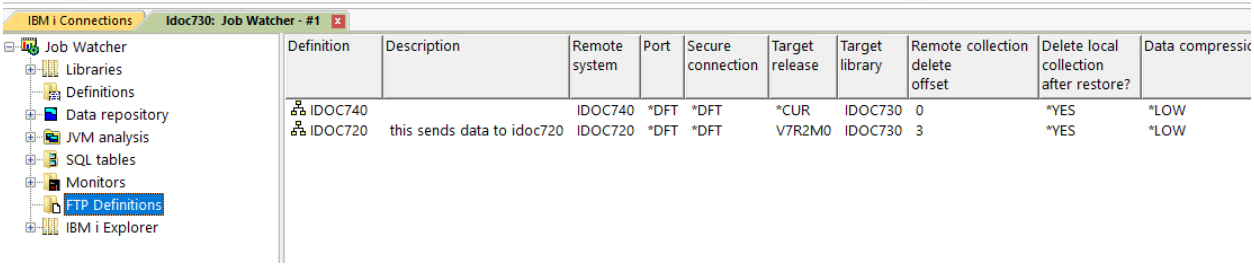
7 FTP Definitions

An FTP definition is used to send performance data to another LPAR. It is used in the monitor commands found in the QIDRWCH library.

FTP Definitions are stored in file QUSRSYS/QAIDRXDFN.

These can be created or removed using commands QIDRWCH/ADDFTPDFN and QIDRWCH/RMVFTPDFN.

The **FTP Definitions** folder shows the FTP definitions found on the current system.



7.1 Menu Options

The menu options found when right-clicking on one or more definitions in the list are:

Menu	Description
Edit…	This option shows the interface used to modify the definition. **Tip:** You can also double-click to open this.
Add FTP definition	Use this option to create a new FTP definition.
Delete	This option removes the selected FTP definitions from the system.
Properties	This option displays a read-only version of the FTP Definition window.

7.2 Fields

All columns are shown by default. You can hide or rearrange columns using the Select Fields… menu

Field	Description
Definition	The name of the FTP definition. This doesn't necessarily need to match the remote system name.
Description	An optional description to give the FTP definition.
Remote system	This is the remote LPAR name or IP address where data will be sent.
Port	The FTP port to use for the transfer. (1-65535 are valid) **Default:** 21 **Secure:** 990 **Note:** This parameter is passed down to the PORT parameter on the FTP command on the IBM i.
Secure connection	Specifies the type of security mechanism to be used for protecting information transferred on the FTP connection (which includes the password used to authenticate the session with the FTP server). Transport Layer Security (TLS) and Secure Sockets Layer (SSL) are compatible protocols which use encryption to protect data from being viewed during transmission and verify that data loss or corruption does not occur. **Default**: If the PORT parameter specifies Secure or 990, Implicit is used; otherwise, None is used. **Implicit:** The FTP client immediately attempts to use TLS/SSL when connecting to the specified FTP server (without sending an AUTH subcommand to the server). If the server does not support implicit TLS/SSL on the specified port, or the TLS/SSL negotiation fails for any reason, the connection is closed. **SSL:** After connecting to the specified FTP server, the FTP client sends an AUTH (authorization) subcommand requesting a TLS/SSL protected session. If the server supports TLS/SSL, a TLS/SSL negotiation performed. If the server does not support TLS/SSL or the TLS/SSL negotiation fails, the connection is closed. **None:** The FTP client does not use encryption when connecting to the specified FTP server. **Note:** This parameter is passed down to the SECCNN parameter on the FTP command on the IBM i.
Target release	This indicates the release of the IBM i you intend to transfer the data to.
Targe library	This is the library on the remote LPAR where data will be sent.
Remote collection delete offset	This is a positive or negative number indicating which collection to delete on the remote system in relation to the current one beyond the current system's number of collections to retain. Does not apply to Collection Services, only JW/DW/PEX. For example. if normally 5 collections are retained, make this value 3 to retain 8 instead on the remote system, or -3 to retain 2.
Delete local collection after restore?	This value indicates if the collection on the local system should be deleted after it has been successfully transferred and restored. Does not apply to Collection Services, only JW/DW/PEX. **Note:** If this is set to ***YES**, this option requires that another collection already exists in the library where data is being collected NOT matching the monitor. Otherwise, when the local collection is deleted the performance database files will be deleted as well, and future save/restores will fail on the target system saying the files where from a different version.
Data compression	Specifies whether data compression is used. If the save is running while other jobs on the system are active and software compression is used, the overall system performance may be affected.

	The choices are: *NO *YES ***LOW** *MEDIUM *HIGH
Change timestamp	This is the time when the FTP definition was last changed.
Log output	If Y is specified, then the remote job name used to do the transfer will be saved to the local logfile (QIDRGUI/FTPLOG). This will only work if program QIDRGUI/QIDRGETJBI exists on the remote system.
Function	Should always be P. (*PUT option on QIDRGUI/FTPFILE)
User	The name of the user profile to use when doing the transfer.
App ID	Specifies the name of the application identifier to use when using Secure Sockets Layer (SSL) protection. The client application identifier must be configured in the Digital Certificate Manager (DCM) application database. ***DFT** The system supplied default client application identifier QIBM_QTMF_FTP_CLIENT is used. character-value Specify the DCM configured client application ID. The first character of the application identifier must be an uppercase character ('A' to 'Z'); the remaining characters can be alphanumeric (uppercase 'A' to 'Z' or digits '0' to '9'). You can also use a period ('.') or underscore ('_').
Pre-transfer command 8-10	These are additional commands that will be ran on the remote system **before** the transfer occurs. **Note:** commands 1-7 are reserved for iDoctor use.
Post-transfer commands 18-20	These are additional commands that will be ran on the remote system **after** the transfer occurs. **Note:** commands 11-17 are reserved for iDoctor use.

7.3 FTP Definition Window

This interface is used to create a new FTP definition or modify/view an existing one.

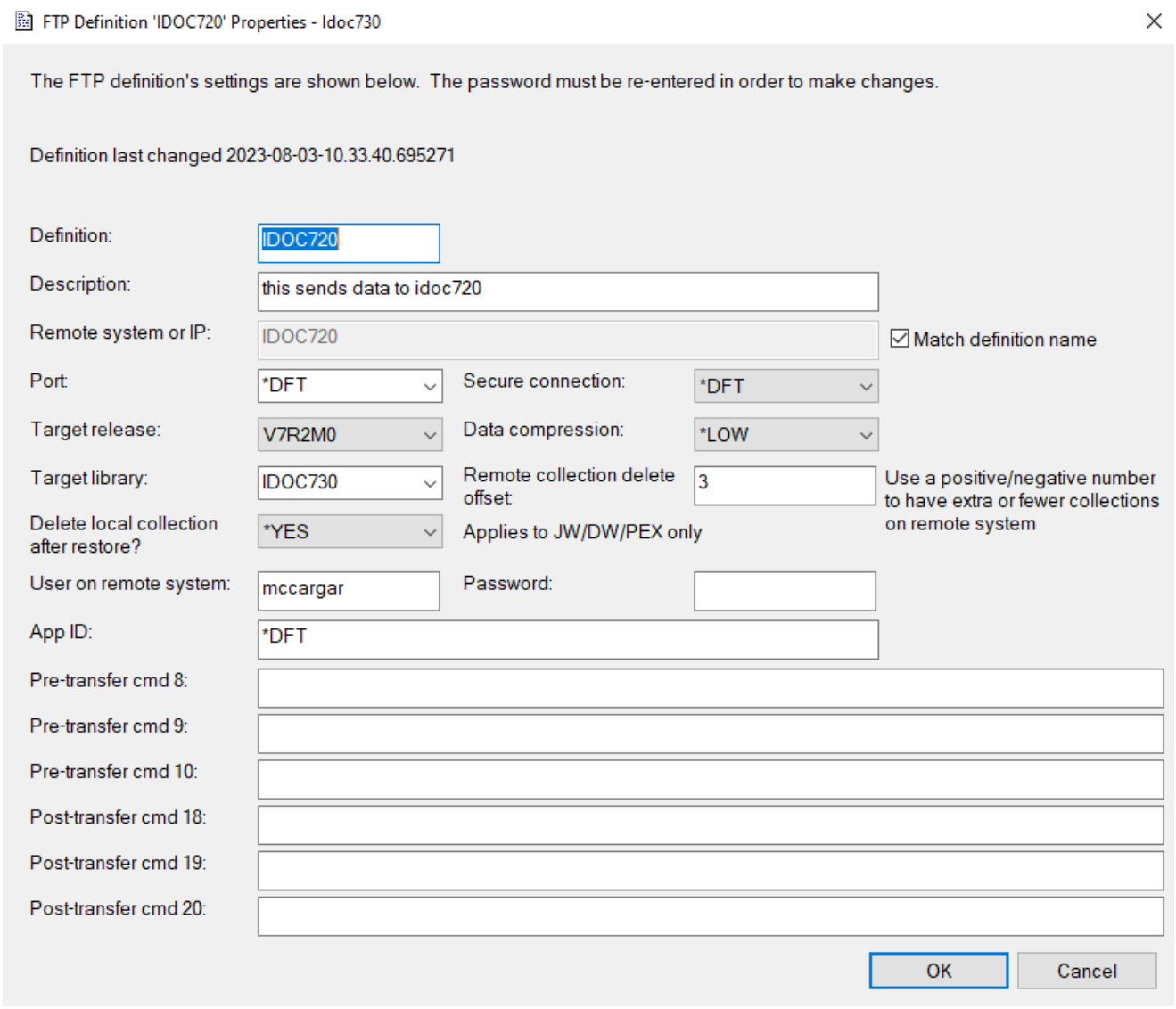
This is an interface over the QIDRWCH/ADDFTPDFN command.

Regarding delete local collection after restore option: STRPAMON/STRDWMON/STRJWMON with an FTP definition using DLTLOCAL(*YES) will only work properly if the source system has an existing collection in the library being used (not named the same as the monitor). Otherwise, when the local data is deleted after the 1st collection is transferred/restored, DLTPFRCOL will delete the perf files and the next recreated collection will be unable to be restored on the target system due to a possible bug in RSTPFRCOL.

Job log says the source and target are not at the same code level. Using RSTOBJ with ALWOBJDIF(*ALL) will copy / replace certain files which obviously won't work for this so best to avoid deleting the source collection files if you want to use DLTLOCAL(*YES). (i.e.) It won't work on a clean library with nothing in it to start with.

The password must be reentered each time changes are made using this interface.

See the previous section for more information about the data to supply on this interface.


FTP Definition 'IDOC720' Properties - Idoc730
The FTP definition's settings are shown below. The password must be re-entered in order to make changes.
Definition last changed 2023-08-03-10.33.40.695271
Definition:
IDOC720
Description:
this sends data to idoc720
Remote system or IP:
IDOC720
Match definition name
Port:
*DFT
Secure connection:
*DFT
Target release:
V7R2M0
Data compression:
*LOW
Target library:
IDOC730
Remote collection delete offset:
3
Use a positive/negative number to have extra or fewer collections on remote system
Delete local collection after restore?
*YES
Applies to JW/DW/PEX only
User on remote system:
mccargar
Password:
App ID:
*DFT
Pre-transfer cmd 8:
Pre-transfer cmd 9:
Pre-transfer cmd 10:
Post-transfer cmd 18:
Post-transfer cmd 19:
Post-transfer cmd 20:
OK
Cancel

8 Preferences

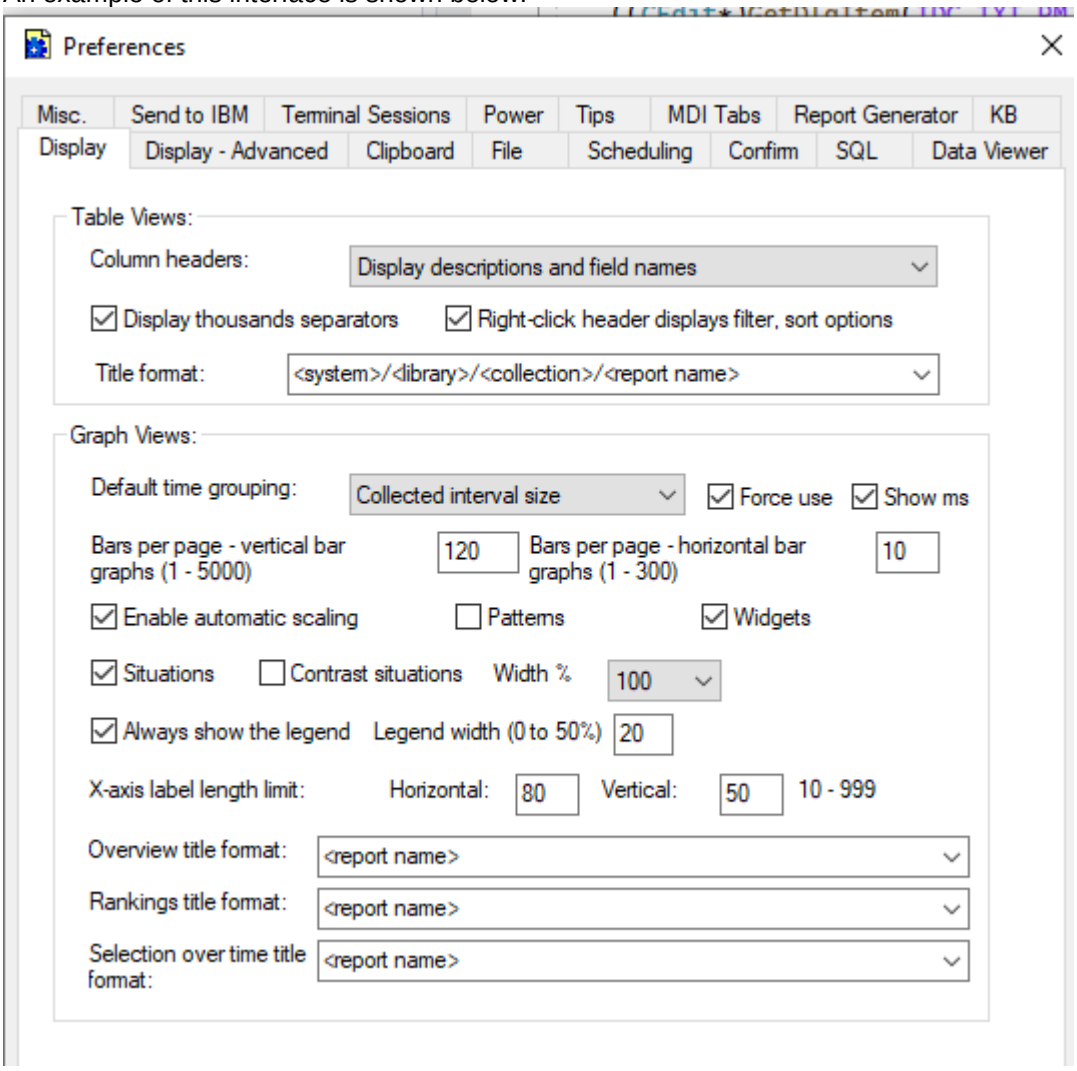
The Preferences window allows a user to work with the customizable options in the GUI. Several different categories of options are available.

The Preferences window is accessible via the Edit -> Preferences menu in the Data Viewer or from the Main Window.

8.1 Display

The Display page on the Preferences window lets the user work with options that effect the visible presentation of table or graph views in the IBM iDoctor for IBM i client.

An example of this interface is shown below:

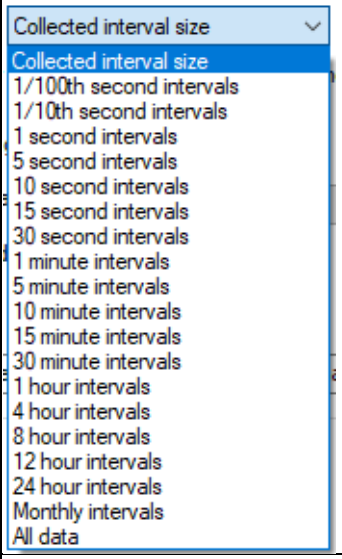
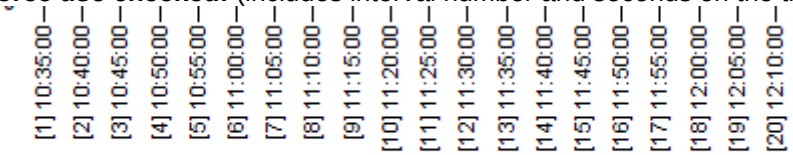
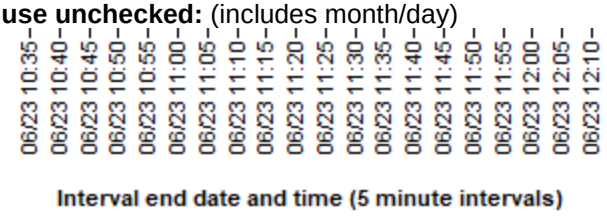


The options available on this page apply to either table views or graph views and each have their own section.

Title format options: Use these options to identify how the titles of iDoctor reports should be named. A different format can be used based on the type of graph or report. The dropdown list contains several different possible name formats. Other possible titles are available by modifying the value in the list and including any of the tabs listed below in <>.

<system> - The current system the data resides on
<collection system> - The name of the system the collection was created on (if known).
<library> - Library name for the collection
<library desc> - Description for the library
<collection> - Collection name
<collection start> - time the collection started (if known)
<collection end> - time the collection ended (if known)
<report name> - The report description.

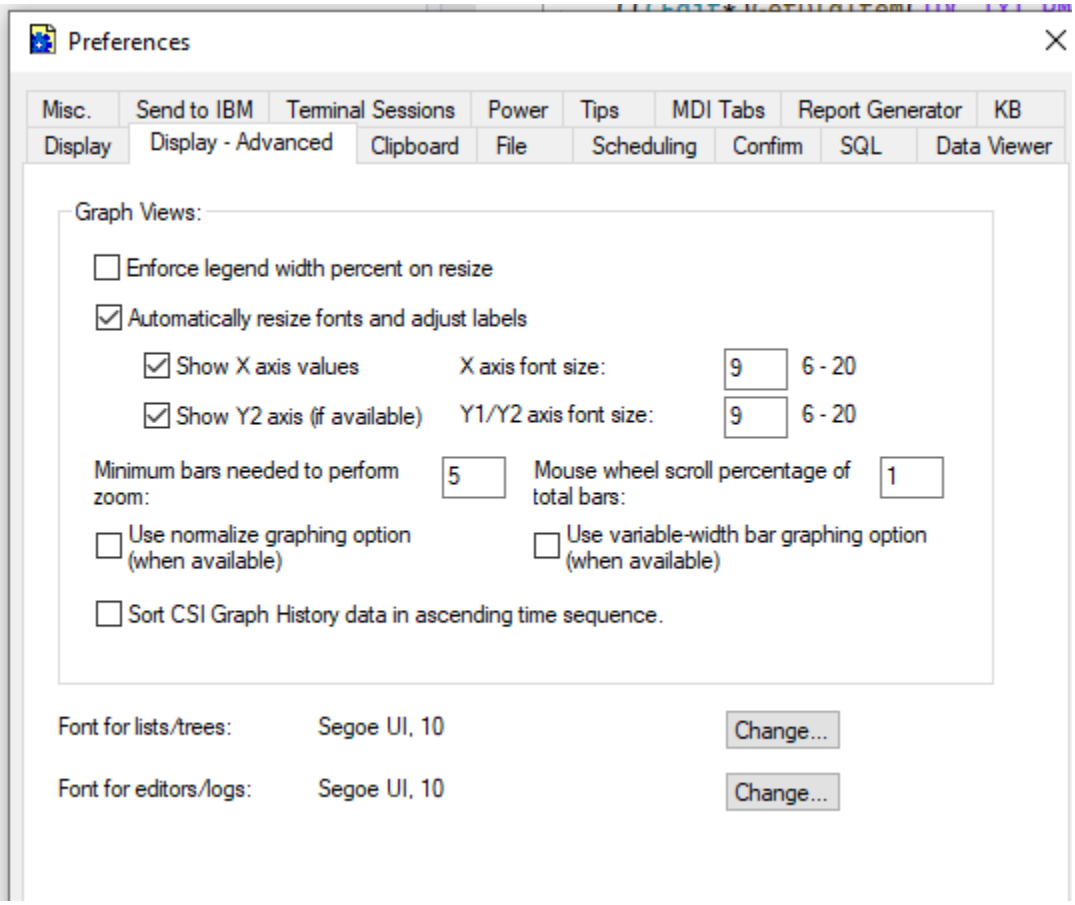
Table Views Options	**Description**
Column headers	This drop down lets the user determine if field descriptions or short (SQL generated) field names or both should be displayed in the column headings for of all table views. The choices are: - Display field names - Display descriptions - Display descriptions and field names **Note:** Field names will be displayed if the descriptions are not available within the report being viewed.
Display thousands separators	This option will display thousands separators (as commas) for numeric fields in the table views. (i.e. 1000 will be displayed as 1,000)
Right-click headers displays filter, sort options	If checked, right-clicking columns headers in tables shows a menu with options instead of sorting the table in descending sequence.

Graph Views Options	Description
Default time grouping	This option allows the user to control the default time grouping for all time interval graphs in iDoctor. This option can be used to summarize many thousands of intervals in the data into a smaller set of bars in order to graph all of the data onto a single screen. For example, if you have 1000 1 second intervals in the data, and you pick 1 minute intervals as the time range size, you will end up with a graph of 17 bars summarized together instead of 1000 (the collected interval size). The available options are: 
Force use	This checkbox is only available if the default time range size is set to the Collected interval size. If checked (the default), then the collected interval size option is used instead of the minimum detected interval size (such as 5 min intervals in a CSI collection.) This mainly causes slight differences in the look of the X-axis label depending on if checked or not. **Force use checked:** (includes interval number and seconds on the timestamp)  **Force use unchecked:** (includes month/day) 
Show ms	If checked, then collected interval size x-axis labels will include millisecond granularity.
Bars per page - vertical	Indicates how many bars (or points if the graph is a line graph) should be displayed per page in a graph. Up to 5000 bars per page are allowed although realistically you should get this number down to perhaps 300-500 max.

	Note: Unless your monitor can display 5000 pixels it will be impossible to physically display that many bars/points. This also greatly consumes GDI objects which means you won't be able to open very many graphs at a time per iDoctor session and it also will slow down GUI response time.
Bars per page - horizontal	Indicates how many bars (or points) should be displayed per page in a horizontal bar graph. Up to 300 bars per page are allowed.
Enable automatic scaling	Indicates if the graph should automatically resize the scale on the Y-axis each time a new page is opened. If this option is turned off the scale will be fixed based on the maximum and minimum values of the first page of the graph when it is opened.
Patterns	When checked, graph patterns or hatchings will be displayed to fill bars instead of solid colors. The graph patterns are configurable using the Primary Y-axis panel of the graph definition interface.
Widgets	Indicates if widgets (shapes) will be added to points on lines shown on the Y2-axis of graphs. This primarily is used in iDoctor to indicate options to allow for drilling down between one component to another.
Situations	This preference indicates if situation background colors will be displayed on the graph. You can also control this option by using the  button on the Main Window toolbar.
Contrast situations	If checked, CSI and JW 'situations' will be displayed on the graph as the opposite of the Y1 setting for patterns. If patterns are in use, then solid background colors are used for situations. If solid colors are used for the bar graph then situations will be patterns.
Width %	This determines how wide each situation background is drawn as a percentage of each bar's width. 50% must be used if you wish to display a max of 2 situations per bar. 25% is used to display a max of 4 situations per bar. Note: In the case when each bar is only 15 pixels or less wide then this setting is ignored.
Always show the legend	Indicates if the graph legend should always be shown when the graph is first opened. If checked this will override the option in some IBM-supplied graph definitions that indicates the graph legend should not be shown.
Legend width percent	Indicates what percentage of the graph window the legend should consume by default. For example, if this value were 50%, graphs would be displayed with the graph on the left and the graph legend on the right with equal size.
X-axis label length limit	Indicates the maximum number of characters to include in X-axis labels. Different values are given for horizontal or vertical bar graphs.

8.2 Display – Advanced

This page contains less frequently used option related to the display of graphs. It also contains options to control the fonts used in lists, trees, editors and log files.

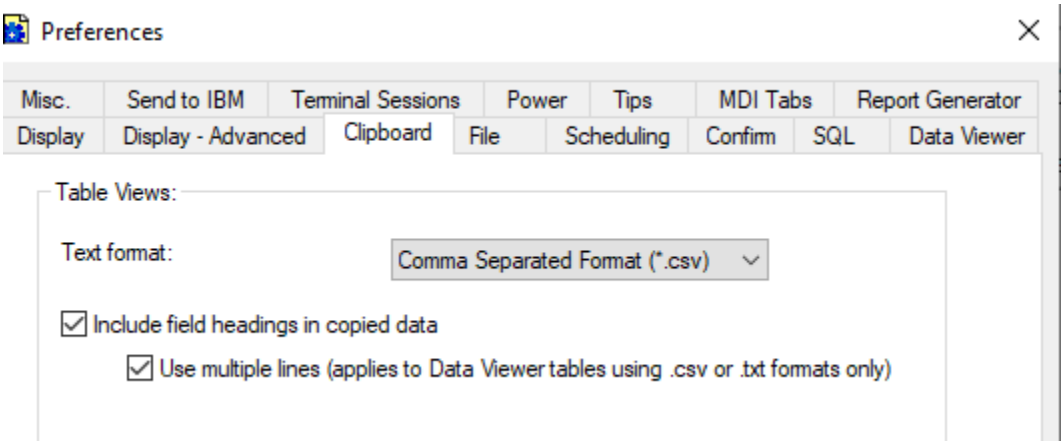


The options available on this page are:

Option	Description
Enforce legend width percent on resize	Check this option if you want to have width percentage of the graph legend shown be automatically adjusted each time the graph view window is resized. **Note:** If this option is checked then adjusting the percentage of the legend that is shown manually is not possible.
Automatically resize fonts and adjust labels	This option controls whether or not the fonts and labels should be automatically resized and adjusted (recommended on).
Show X-Axis values	Indicates if labels for the X-Axis values should be displayed.
X-axis font size	Indicates the font size to use for values on the X-Axis. The higher the number the larger the font will appear.
Show Y2-Axis (if available)	Indicates if the Y2-Axis (the secondary Y-Axis) should be displayed. This axis is not used on all graphs.
Y1/Y2 axis font size	Indicates the font size to use for values on the Y-Axis. The higher the number the larger the font will appear.
Minimum bars needed to perform zoom	This option can be used to change how many bars are needed to perform a zoom operation. If this value is set to a small number, then it will be more likely that the user will accidentally perform a zoom.
Mouse wheel scroll percentage of total bars	This option is used to change how much of the graph to scroll when the mouse wheel is used.
Use normalize graphing option	Indicates if the graph normalize option should be used when the graph is first opened. This option divides each time value by the interval's duration to provide a flattening effect to bar heights in the graph. This option is only available for the vertical bar time range graphs.
Use variable-width bar graphing option	Indicates if the graph variable-width bar option should be used when the graph is first opened. This option draws longer duration intervals with wider bars. This option is only available for the vertical bar time range graphs.
Sort CSI Graph History data in ascending time sequence	Check this box if you prefer to see graph history data in ascending sequence (oldest data first.) **Note:** By default, data is shown newest data first when using CSI – Graph History data only.
Font for lists/trees	This font is used for lists and trees.
Font for editors/logs	This font is used for things like the SQL editor, when opening a file from the IFS and displaying the results, displaying a PEX definition, and displaying some error messages.

8.3 Clipboard

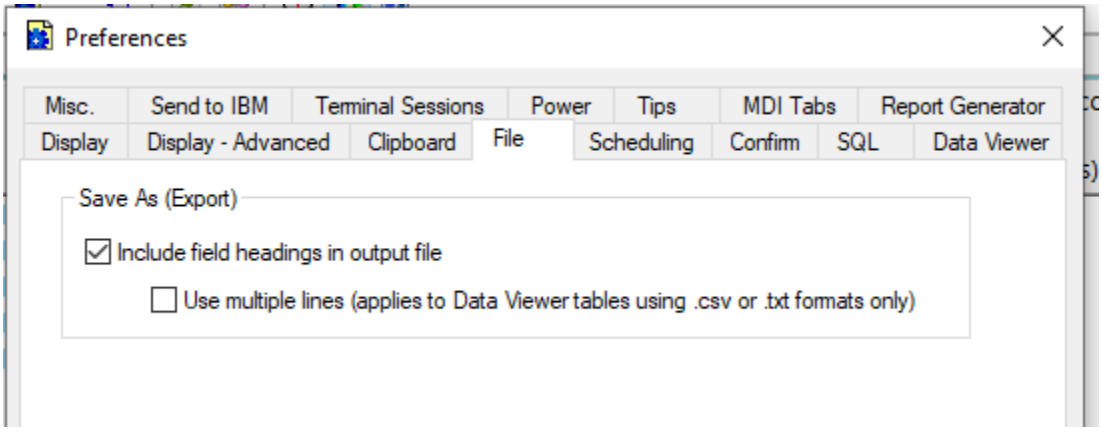
The Clipboard page on the Preferences window lets the user work with the 'Copy to Clipboard' options available for table views in iDoctor.



Option	Description
Text format	Select the desired text format when copying records or cell selections to the clipboard. The possible choices are: **comma separated, tab separated, rich text format** and **HTML**.
Include field headings in copied data	Check this option to indicate that field headings (column descriptions) should be included as the first record of data when copying data to the clipboard.
Use multiple lines	This option only appears and applies when the **Include heading option** is checked and the **Text format** is *.csv or *.txt.

8.4 File

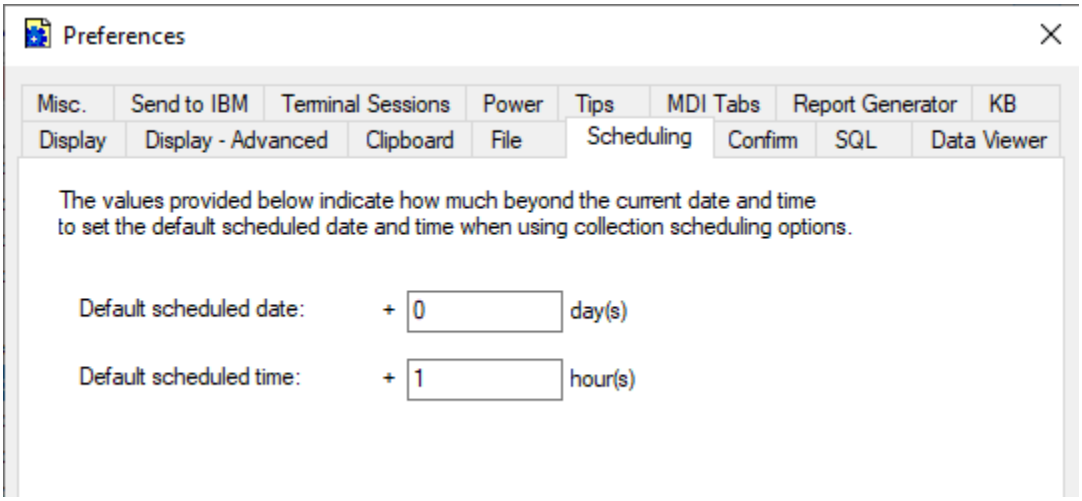
The File page on the Preferences window lets the user work with options related to creating output files from a table view's data.



Option	Description
Include field headings in output file	Check this option to indicate that field headings should be included as the first record(s) of data when generating the output file. If this option is checked the user may choose to use short field names or long descriptions in the output file. To generate an output file use the File -> Save -> View As... menu for an active Table View in the Data Viewer.
Use multiple lines	This option only appears and applies when the **Include heading option** is checked and the **Text format** when saved is *.csv or *.txt.

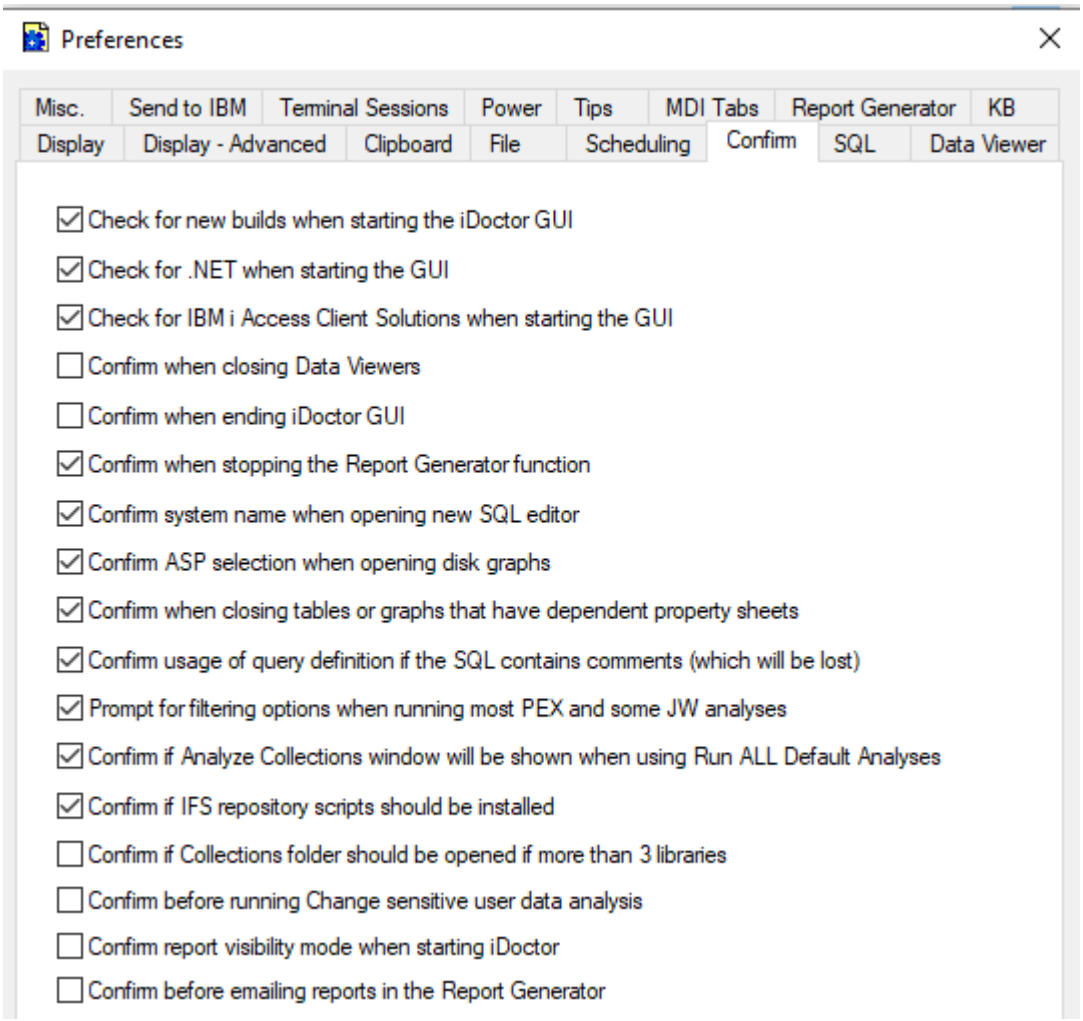
8.5 Scheduling

The scheduling page allows you to define the default start time when scheduling collections in iDoctor. The default is 1 hour from the current date and time.



8.6 Confirm

This page contains a set of preferences to control whether you are prompted for confirmation before performing various actions in the GUI.

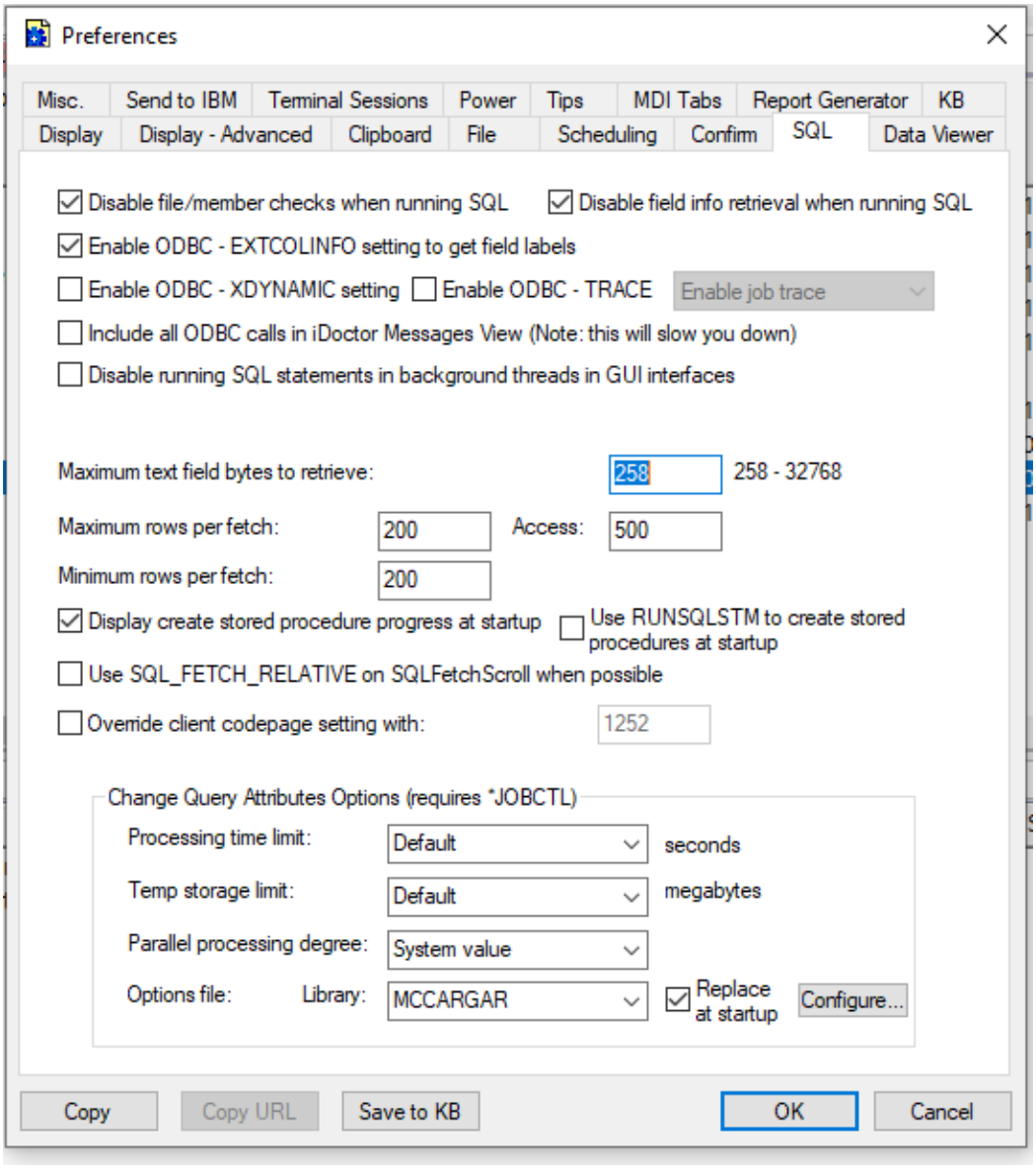

Preferences
Misc.
Send to IBM
Terminal Sessions
Power
Tips
MDI Tabs
Report Generator
KB
Display
Display - Advanced
Clipboard
File
Scheduling
Confirm
SQL
Data Viewer
Check for new builds when starting the iDoctor GUI
Check for .NET when starting the GUI
Check for IBM i Access Client Solutions when starting the GUI
Confirm when closing Data Viewers
Confirm when ending iDoctor GUI
Confirm when stopping the Report Generator function
Confirm system name when opening new SQL editor
Confirm ASP selection when opening disk graphs
Confirm when closing tables or graphs that have dependent property sheets
Confirm usage of query definition if the SQL contains comments (which will be lost)
Prompt for filtering options when running most PEX and some JW analyses
Confirm if Analyze Collections window will be shown when using Run ALL Default Analyses
Confirm if IFS repository scripts should be installed
Confirm if Collections folder should be opened if more than 3 libraries
Confirm before running Change sensitive user data analysis
Confirm report visibility mode when starting iDoctor
Confirm before emailing reports in the Report Generator

Option	Description
Check for new builds…	This option will check for a new build each time the GUI is started and if a new version is available you will be prompted to download and install it. This feature will only work if a connection to the internet is available.
Check for .NET when starting the GUI	This option will check for the required level of .NET when starting the GUI. If not found, then you will be prompted to install it. If the required level does not exist, then some functions in the Power Connections interface will not work.
Check for IBM i Access Client Solutions…	This option will check for the required level of IBM i Access Client Solutions (ACS) when starting the GUI. **Note**: Installing the IBM i Access Client Solutions **Windows Application Package** is REQUIRED!
Confirm when closing Data Viewers	Indicates if the user should be warned before closing a Data Viewer. If unchecked and a Data Viewer is closed all views within it are shut down without confirmation.
Confirm when ending iDoctor GUI	Indicates if the user should be warned before closing the iDoctor application. If unchecked and the application is ended (close main window or Use File ->Exit menu) then all Data Viewers and views within them are shut down without confirmation.
Confirm when stopping the Report Generator function	Indicates if the user should be warned before stopping the reporting generator function while it is in progress. Closing the Data Viewer the reports are being loaded into is the method for stopping this function.
Confirm system name when opening new SQL editor	When opening a new **SQL Editor**, the default action is to prompt the user for the desired system to open the editor for. By unchecking this option the system will default to whichever system the user is currently working with.
Confirm ASP selection when opening disk graphs	If checked and opening disk graphs in **CSI**, **DW** or **PEX** that contain data from multiple ASPs, you will be prompted for the desired ASP to view the data for. From this window you will be able to select either a specific ASP or all of them if you desire. Typically for time interval and disk unit ranking graphs performance experts prefer to segregate the data ASP rather than averaging data together across the various ASPs.

Confirm when closing tables or graphs that have dependent property sheets	This option indicates if you should be prompted when closing a graph or table that has child windows opened associated with it that also must be closed at the same time.
Confirm usage of query definition if SQL contains comments	This option will prompt you if the current SQL statement contains comments and you wish to use the Query Definition interface instead of the SQL editor to modify the query. The comments and formatting are lost when using the Query Definition interface.
Prompt for time filtering options when running most PEX and some JW analyses	If checked, the user will be presented with a screen to allow them to filter the time range to include in most PEX Analyzer analyses and some in Job Watcher.
Confirm if Analyze Collections window will be shown when using Run ALL default analyses	When using the Analysis option Run ALL default analyses this option will indicate if the Analyze Collection window will be shown first so the user can pick and choose which individual analyses to run.
Confirm if IFS repository scripts should be installed	If checked, you will be notified if the IFS scripts are out of date and will be asked if the latest version should be installed. Depending on the FTP settings and environment this option may fail so this option is provided to avoid this message.
Confirm if Collections folder should be opened…	This option will prompt you when opening the Collections folder in CSI or JW if more than **3** libraries exist in the generic name value provided from the Filter Libraries pane. **Tip:** The maximum libraries displayable in the Collections folder is 25.
Confirm before running Change sensitive user data	This indicates if a prompt if shown before running the Change sensitive user data analysis.
Change report visibility mode when starting iDoctor	This setting either disables/enables the prompt about the report visibility setting (**basic, detailed, advanced**) at startup.
Confirm before emailing reports in the Report Generator	This indicates if a warning is shown before running the Report Generator if the email option is selected in preferences.

8.7 SQL

This page contains a set of preferences related to the ODBC driver, SQL statement processing, field and row limits and CHGQRYA defaults on the IBM i to use.


Preferences
Misc.
Send to IBM
Terminal Sessions
Power
Tips
MDI Tabs
Report Generator
KB
Display
Display - Advanced
Clipboard
File
Scheduling
Confirm
SQL
Data Viewer
Disable file/member checks when running SQL
Disable field info retrieval when running SQL
Enable ODBC - EXTCOLINFO setting to get field labels
Enable ODBC - XDYNAMIC setting
Enable ODBC - TRACE
Enable job trace
Include all ODBC calls in iDoctor Messages View (Note: this will slow you down)
Disable running SQL statements in background threads in GUI interfaces
Maximum text field bytes to retrieve:
258
258 - 32768
Maximum rows per fetch:
200
Access:
500
Minimum rows per fetch:
200
Display create stored procedure progress at startup
Use RUNSQLSTM to create stored procedures at startup
Use SQL_FETCH_RELATIVE on SQLFetchScroll when possible
Override client codepage setting with:
1252
Change Query Attributes Options (requires *JOBCTL)
Processing time limit:
Default
seconds
Temp storage limit:
Default
megabytes
Parallel processing degree:
System value
Options file:
Library:
MCCARGAR
Replace at startup
Configure...
Copy
Copy URL
Save to KB
OK
Cancel

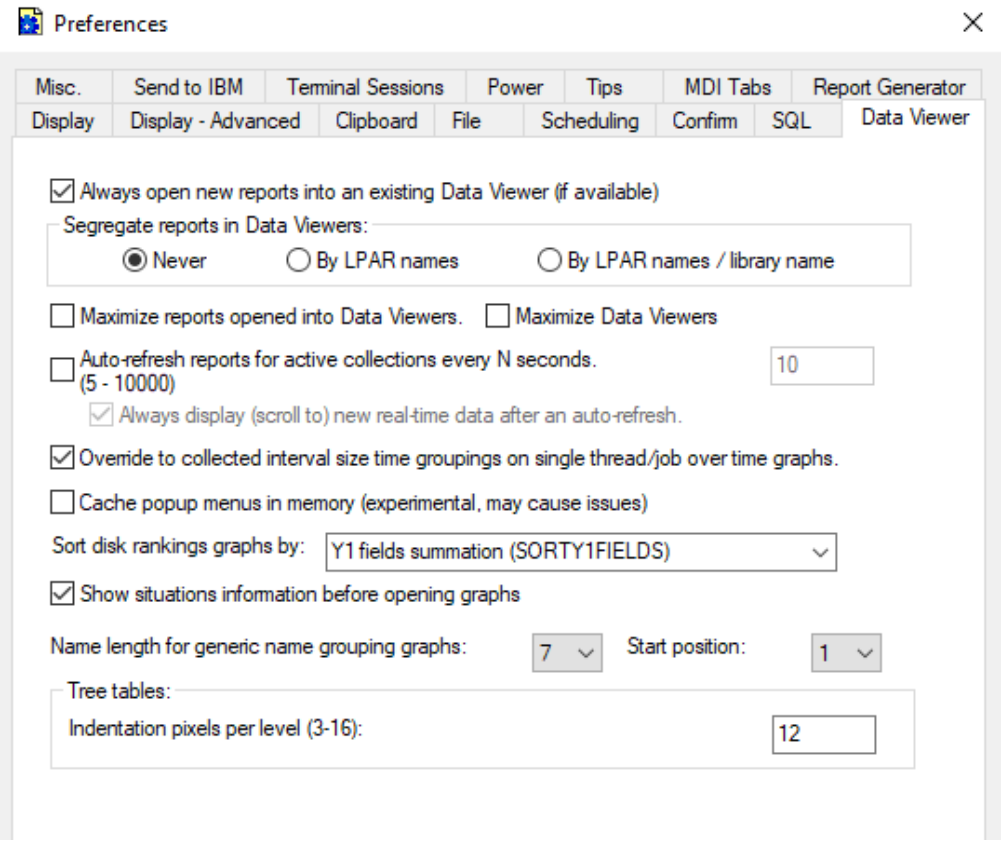
Option	Description
Disable file/member checks when running SQL	By keeping this option checked it will improve performance but potentially cause errors if data is missing. This is mostly obsolete now with the new collections database (added in 2021) and may be removed later.
Disable field info retrieval when running SQL	In older versions of iDoctor, each file encountered in an SQL statement would cause APIs to be called to retrieve all field information. This was helpful but hurts performance. Uncheck this to have the most possible field column descriptions available, but at the cost of slower performance in the GUI.
Enable ODBC – EXTCOLINFO setting	This is used to get field descriptions from the ODBC driver instead of using IBM i API calls if the previous setting is unchecked. Checked by default and recommended.
Enable ODBC – XDYNAMIC setting	This is an option on the ODBC driver for extended dynamic support but has not been tested or supported.
Enable ODBC – TRACE	This enables various trace options on the ODBC driver when debugging issues but are not tested or supported.
Include all ODBC calls in iDoctor Messages View	This will report the status of every ODBC API call done by the GUI in the iDoctor Messages View.
Disable running SQL statements in background threads in GUI interfaces	This will turn off the multithreading support in the GUI. This is not recommended, your GUI session will hang during long running operations, but this is available in case of problems are encountered relating to multithreading.

Maximum text field bytes to retrieve	This value represents the maximum number of bytes to retrieve for any text field in an SQL statement (32K max). Keep in mind that specifying a very large number for this value can result in more fetches being required and slower responses from the GUI. Note: This value * max row set size preference cannot exceed 512K bytes. **Note:** It certain functions, this limit is exceeded automatically for usability reasons. In other functions like viewing data within a table, data will be **truncated** when this limit is exceeded. In table views a **blue column heading** indicates that the data in that column has been truncated.
Maximum rows per fetch (IBM i)	This value is the maximum number of rows to load per ODBC fetch. This is also used to indicate how many rows are skipped/jumped when using the Previous Row Set or Next Row Set buttons on the toolbar to navigate through data. **Note:** This value * max text field bytes preference cannot exceed 512K bytes. **Note:** Due to problems in the ACS ODBC driver this value should generally not exceed **200** unless this has been fixed later.
Maximum rows per fetch (MS Access)	This value is the maximum number of rows to load per ODBC fetch when loading data from iDoctor's mdb databases. This has not been well tested with large values.
Minimum rows per fetch (IBM i)	This value is the minimum number of rows to load per ODBC fetch. It should generally match the same value as maximum rows per fetch and different settings has not been well tested.
Display Create Stored Procedure SQL script progress	Indicates if the user should be able to view the progress of stored procedures being created when connecting to a system.
Use RUNSQLSTM to create stored procedures at startup	This option is used to speed up the creation of any needed stored procedures when the GUI starts by building a list of SQL statements and having it run on the server via the RUNSQLSTM command. **Note:** This requires a working FTP connection, or this process will fail. Otherwise, these statements will be processed one at a time in the GUI either in the Remote SQL Statement Status View or within the GUI thread.
Use SQL_FETCH_RELATIVE	This is for IBM debug use only and should not be used. It is used to improve performance when scrolling through large data sets but may cause incorrect results. There are problems with the ODBC driver.
Override client code page setting with	Check the box only in rare cases when the iDoctor GUI is unable to translate API calls or data sent/received using IBM i Access for Windows or IBM i Access Client Solutions. Work with support for assistance with this setting.
Change query attributes options	These options control additional advanced preferences for how the query should be ran. *JOBCTL special authority is required in order to use them. **Tip:** The Options file configure button allows a few of these QAQQINI options to be overridden when using iDoctor. See the **CHGQRYA** command for more information on these settings.

8.8 Data Viewer

The Data Viewer tab in the Preferences window lets the user work with options only related to the Data Viewer window within iDoctor.

An example of this interface is shown below:



Preferences - Data Viewer

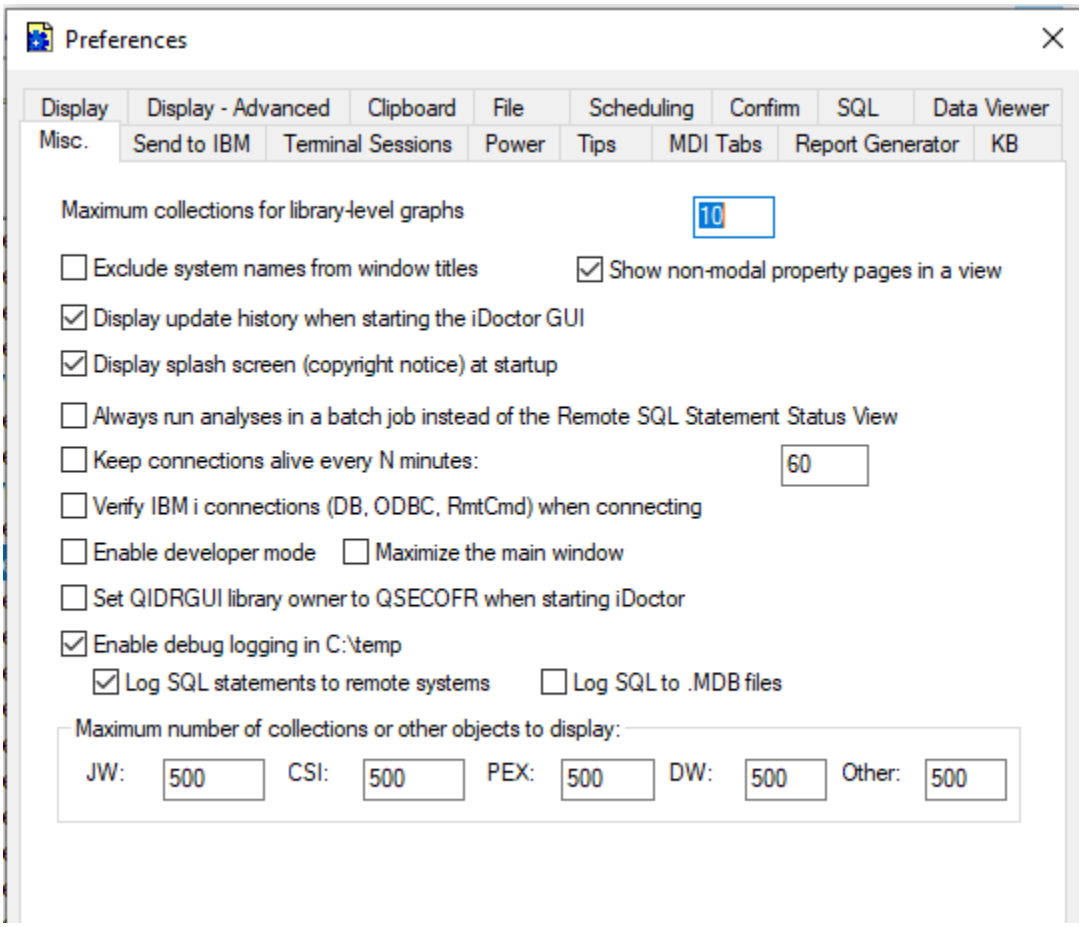
The options available on this page are:

Option	Description
Always open new reports into an existing Data Viewer	If checked and opening iDoctor tables/graphs, an existing Data Viewer will be used if one is available.
Segregate reports in Data Viewers	3 options are provided to control which Data Viewer a newly opened report will go into (if not otherwise specified): **Never** - Use this option if you do not wish to group your reports by LPAR names. **By LPAR names** - Use this option if you wish to group your reports by LPAR names. Two LPAR names will be shown in this format [current system / collected on system]. **By LPAR names / library name** - Use this option if you wish to group your reports by LPAR name and library name. Two LPAR names will be shown in this format [current system / collected on system]. The library name on the current system where the data resides will also be shown.
Maximize reports opened into Data Viewers	When checked every view opened into a Data Viewer is maximized. **Tip:** This only applies if the MDI tabbed style is set to None.
Maximize Data Viewers	This option indicates if Data Viewers should be automatically maximized when they are opened.

Auto refresh reports for active collections every N seconds	This option lets the user specify how often to auto refresh reports in the Data Viewer that are over currently active collections. **Note:** only the report with the current mouse pointer focus will get refreshed every N seconds.
Always display (scroll to) new data after refresh	This option indicates that after an auto refresh occurs the scrollbar should be adjusted to scroll to the end of the table or graph. This can be useful if new data is consistently being added to the end of the report.
Override to collected interval size time grouping	Normally the overtime graphs will honor the default time range size preference. However, if this option is checked, when opening a graph showing a single job/thread over time, the time range will always be set to the collected interval size. **Note:** This option is checked by default.
Cache popup menus in memory	This option is used to improve performance when building drill down menus in the Data Viewer, but has not been well tested.
Sort disk rankings graphs by	This option controls how disk graphs are sorted in CSI, PEX and Disk Watcher.
Show situations information before opening graphs	This indicates if the Situations found in a collection are displayed in the graph background as a graph is loaded in both CSI and JW.
Name length for generic name grouping graphs	This option can be used to indicate how many characters of the name to use for the generic name graphs shown in iDoctor and also the start position within the name to use. This option can apply to job names, disk resource names, etc.
Tree table indentation pixels per level	This option indicates how much indentation is used in the tree tables per level. The value provided is in pixels.

8.9 Misc.

This page contains a set of preferences to control some miscellaneous features.



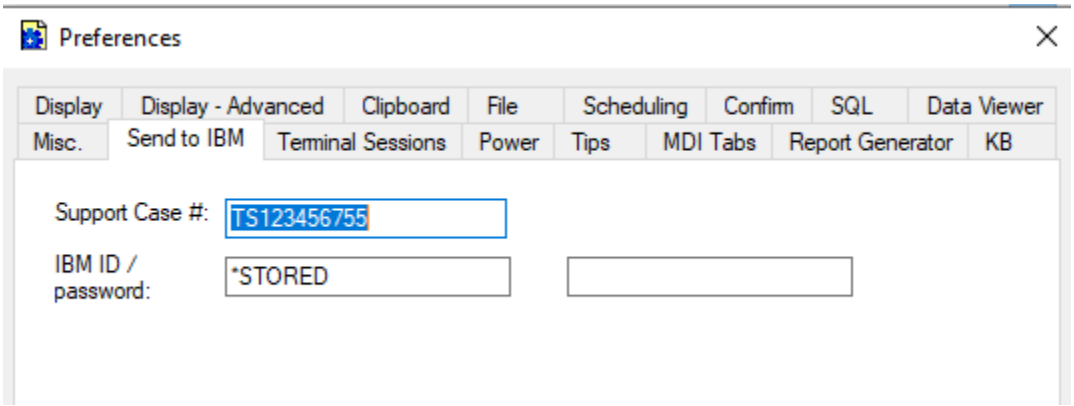
Option	Description
Maximum collections for library-level graphs	This indicates the maximum number of collections that can exist in a library in order for the library popup menu graphing options to appear. Keep in mind the larger this number, the more complex and slower the SQL statement will be.
Exclude system names from window titles	This option is used to remove system names from the window titles shown in iDoctor.
Show non-modal property pages in a view	Indicates if property pages should be shown in a view. (**Recommended**) If this is not used property pages for interfaces such as call stacks will appear outside of the bounds of the Data Viewer window and drill down options from the call stack will appear behind the call stack (or inside of the Data Viewer).
Display update history	Indicates if the iDoctor Update History screen should be shown when starting the iDoctor client. This panel lists the most recent changes made to iDoctor.
Display splash screen	Indicates if the iDoctor splash screen with copyright notice is shown when iDoctor is started.

Option	Description
Always run analyses in a batch job	This option will cause the Analyses -> Run Analysis XYZ menu options to always run the analysis in a batch job instead of the Remote SQL Statement Status View. If you are working with large collections this may be preferred.
Keep connections alive	This option can be used if connections are regularly dropped on your network to keep your iDoctor connections alive by sending small requests over all iDoctor connections at the specified time interval (in minutes.)
Verify IBM I connections	This does extra checks when first connecting to an IBM i. Uncheck this to improve performance.
Enable developer mode	This option is intended by used by iDoctor development only.
Maximize the Main Window	This option if checked will always maximize the iDoctor Main Window when the GUI starts.
Set QIDRGUI library owner to QSECOFR	In some environments, this may be necessary to avoid problems when trying to analyze nmon data.
Enable debug logging to C:\temp	If checked, each iDoctor session will create a log file in C:\temp. This should only be enabled when debugging issues. This can slow down the GUI a bit.
Log SQL statements to remote systems	If checked, then the debug logging will include SQL statements to IBM i.
Log SQL to .MDB	If checked, then the debug logging will include SQL statements to the local MS Access databases on the PC.
Maximum number of collections to display	These options are used to control how many collections are returned when displaying a list of collections in a library or other type of containing folder. This is most useful in cases where you have performance delays building lists of collections and only need to see the top N collections. **Note:** With the redesigned collections database, the maximum collections any library can display is now 500.

8.10 Send to IBM

This page contains a set of preferences to control how data will be sent to IBM. These settings apply to the Transfer to IBM functions.

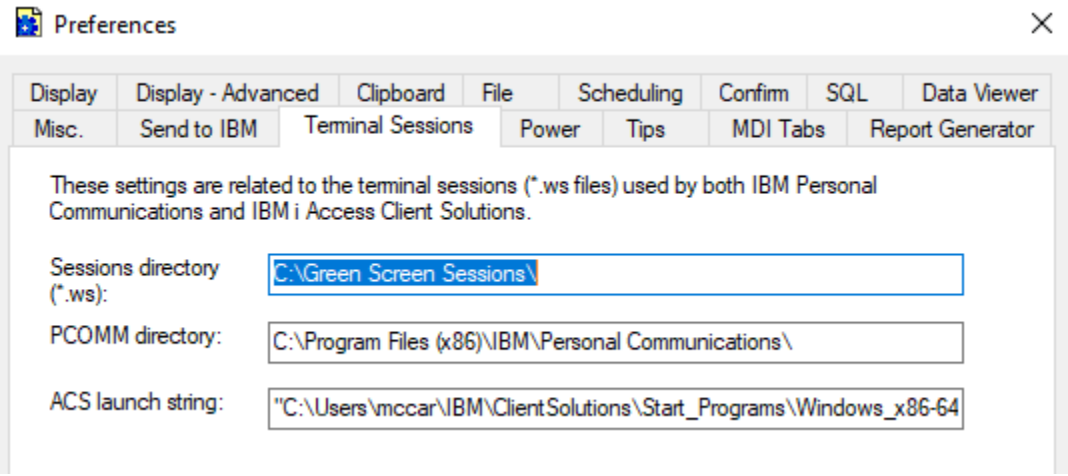
Tip: In order for the Use QMGTOOLS FTP2IBMCMD *IBMSDDUU option to be successful, your password must have been previously set on the IBM I using the GO MG menu option 25 (STORFTPPWD command.) Afterwards, within this interface the IBM ID/password fields should be set to ***STORED** and blank



Option	Description
Support case #	This value will be prefilled on the Transfer Collections window.
IBM ID / password	If using QMGTOOLS/FTP2IBMCMD to send data to IBM, the IBM ID value should be ***STORED** and password should be blank. If not using QMGTOOLS, then these values are used to make the connection to IBM using QIDRGUI/FTPFILE command.

8.11 Terminal Sessions

This tab contains a set of preferences related to IBM Personal Communications (PCOMM) as well as IBM i Access Client Solutions terminal (green screen) sessions.

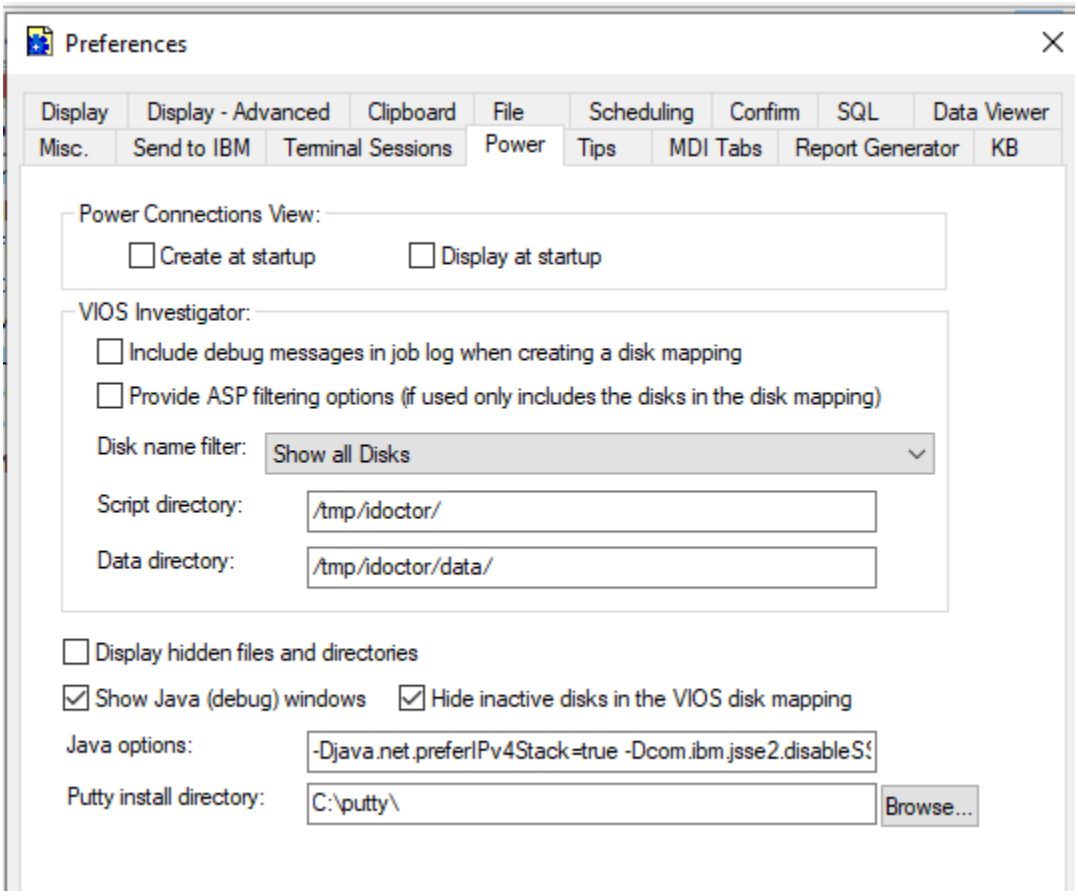


The options available on this page are:

Options	Description
Sessions directory	This is the localion where .ws files are stored that iDoctor should utilize.
PCOMM directory	This is the directory where IBM Personal Communications is installed.
ACS launch string	This is a copy of the ACS launch string used when starting green screen sessions. It is stored in the Windows registry but listed here to your awareness. Be careful with changing this value.

8.12 Power

The Power page on the Preferences window lets the user work with options that only apply to non IBM i systems (HMC or VIOS.)



Option	Description
Create at startup	If checked, then the Power Connections View will be created when the iDoctor GUI starts.
Display at startup	If checked, then the Power Connections View will be initially shown at startup rather than displaying the IBM i Connections View when the iDoctor GUI starts.

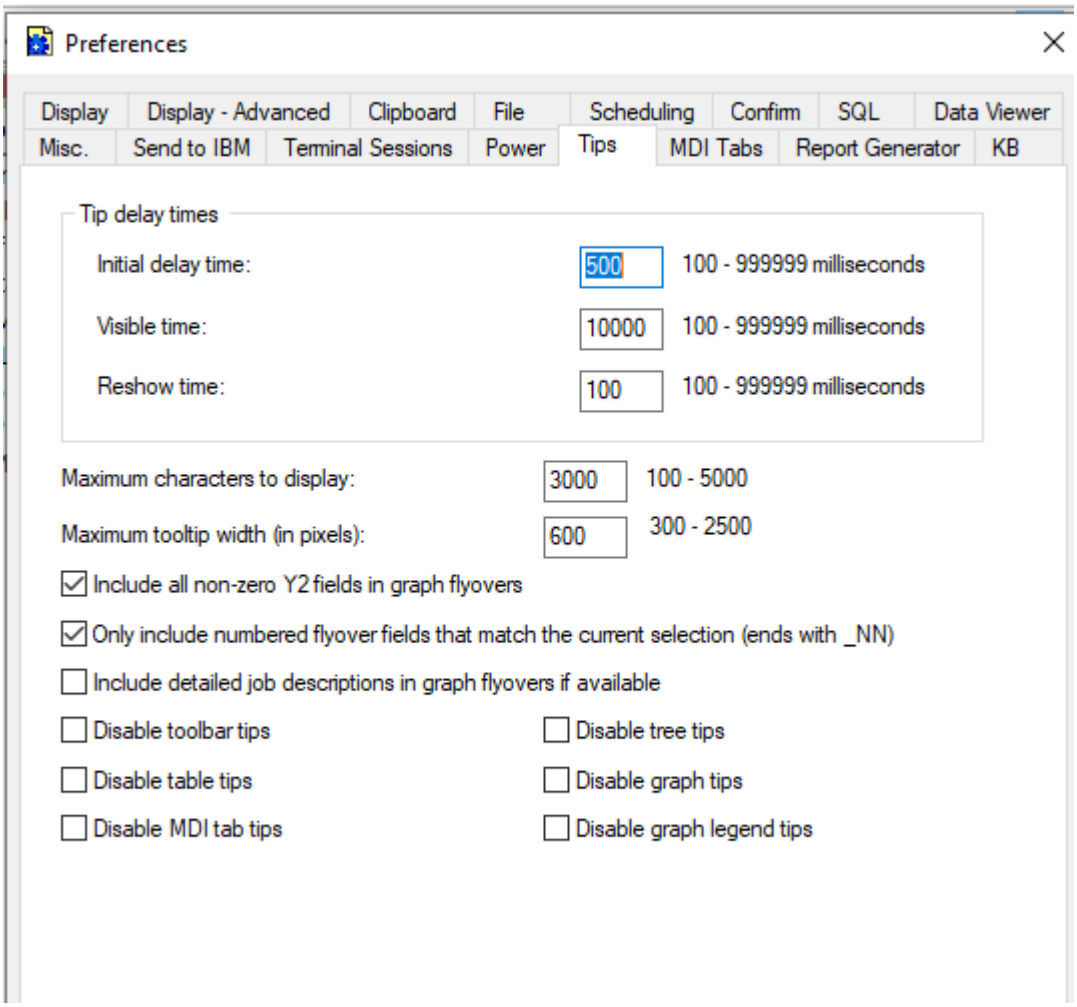
VIOS Investigator	Description
Include debug messages in job log when creating a disk mapping	When running the VIOS to IBM disk mapping this option can be used to add extra information to the logs for IBM support purposes.
Provide ASP filtering options	When disk graphs are opened, indicates if the ASP filtering options will be shown to the user. This means a window will be shown allowing the user to select the desired ASP(s) to graph before the graph is opened. **Note:** NMON data collected on a VIOS will sometimes contain disks that are not used and not included by the LPAR the disk mapping was created at. Therefore using this option will either exclude these disks or (if disabled) include them.
Disk name filter	This option allows the user to select whether all disks will be shown on the disk graphs or only EMC/Powerpath will be shown or EMC/Powerpath will be excluded.
Script directory	The VIOS directory where the iDoctor scripts should be installed to.
Data directory	This VIOS directory indicates the default location where iDoctor created data should be stored.

Option	Description
Display hidden files and directories	When listing directories on VIOS, this option controls whether hidden files and directories are displayed.
Show Java debug windows	Java is used under the covers by the GUI to communicate via SSH to HMC and VIOS. This option allows you to see these windows.
Hide inactive disks	Removes inactive disks from the disk mapping report.
Java options	These options are added to each java command/session started by the iDoctor GUI. In some environments, the SSH connections may fail if these default settings are not used: -Djava.net.preferIPv4Stack=true -Dcom.ibm.jsse2.disableSSLv3=false **Note: In order to debug the SSH connections add the following to this field: -Dcom.ibm.ssh.trace=true**
Putty install directory	This path should indicate the directory where Putty has been installed.

8.13 Tips

The Tips tab on the Preferences window lets the user work with preferences related to tooltips that appear in dialogs, wizards and property pages.

Note: Tables and lists use tracking tooltips by design that are shown immediately when needed and these settings do not apply to them.

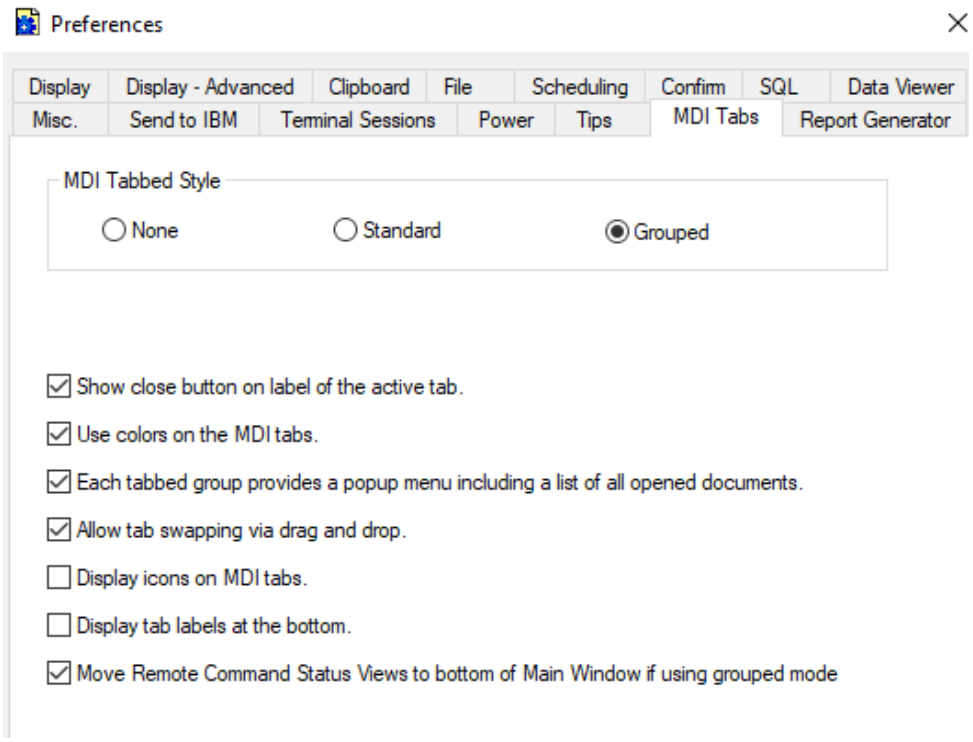


Tip delay times	Description
Initial delay time	The amount of time (in milliseconds) the mouse pointer must remain stationary before showing a tooltip/flyover in a window for the first time.
Visible time	The amount of time (in milliseconds) the tooltip window will remain visible if the mouse pointer remains stationary.
Reshow time	The amount of delay time (in milliseconds) before showing subsequent tooltips.

Option	Description
Maximum characters to display	This is the maximum number of characters that should be displayed in an iDoctor tooltip.
Maximum tooltip width	Maximum number of pixels wide for tooltips.
Include all non-zero Y2 fields in graph flyovers	If checked, when viewing graph tooltips, then all Y2 fields (that are > 0) will be displayed. Otherwise only the Y2 field that has current focus will be shown in the tooltip/flyover.
Only include numbered flyover fields that match the current selection	Include only numbered flyover fields (fields that are named XYZ_01, XYZ_02, etc) that match the current selection in graph flyovers. i.e. If enabled and field ABC_02 is selected, then XYZ_02 is shown and not XYZ_03.
Include detailed job descriptions…	This controls whether details about the job name is included in tooltips in Job rankings graphs.
Disable tips options	These options allow the user to customize if tooltips should be disabled for different parts of the GUI.

8.14 MDI Tabs

The MDI Tabs page on the Preferences window lets the user work with preferences related to the MDI Tabs style interface.



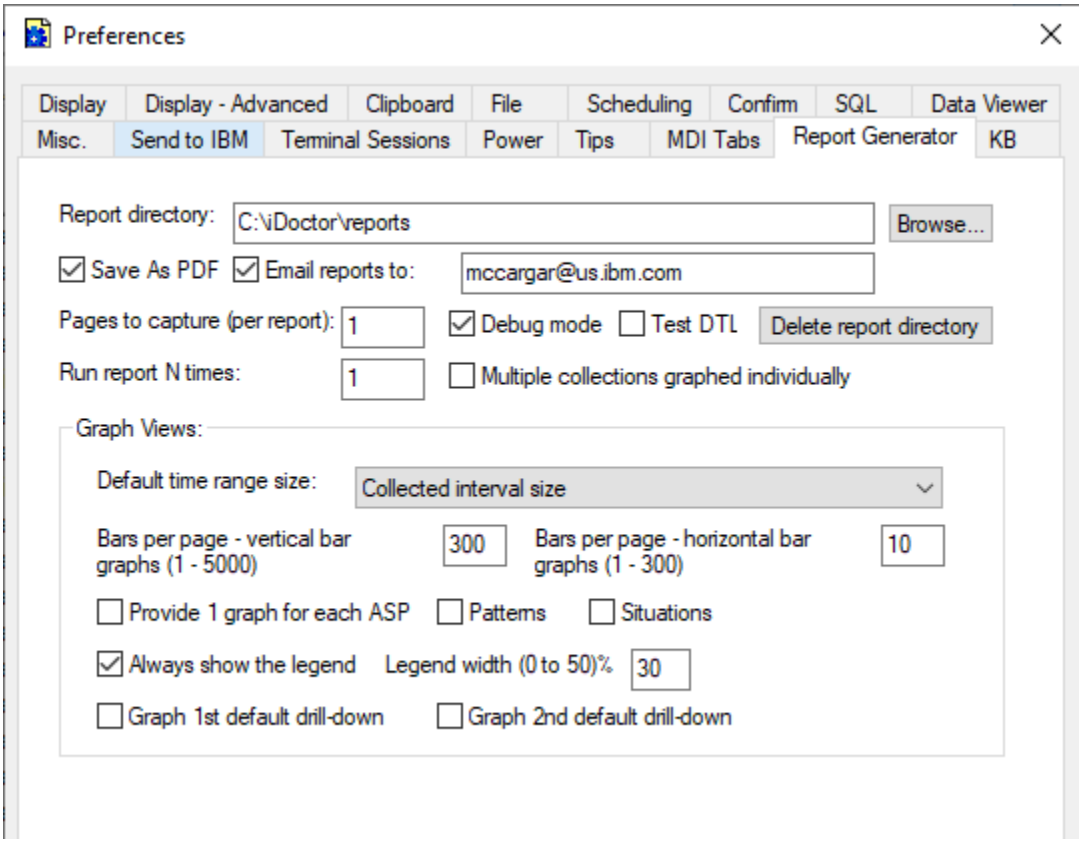
MDI Tabbed Style	Use this option to change the current MDI tabbed style being used. There are 3 styles of MDI tabs available in iDoctor: • None – this is a classic Windows MDI without tabs • Standard – allows users to tile and cascade but you cannot create groups of MDI tabs to compare with other tabs. • Grouped – Tabs cannot be tiled or cascaded but you can create groups of MDI tabs in order to make comparisons. **Tip:** This can also be set under the View menu -> MDI Tabbed Style.

Note: The rest of these options do not apply if the MDI Tabbed Style is set to None.

Option	Description
Show close button on label of the active tab	If checked, then the close button will be visible on the active tab. If unchecked then the close button will be placed at the far right-side of the tabbed group.
Use colors on the MDI tabs	If checked, then automatically assign a color to each tab opened.
Each tabbed group provides a popup menu	If checked, then a popup menu to show all opened views in the tabbed group will be available on the right-side of each tabbed group. If unchecked, then a left and right arrow buttons can be used to navigate through the open views.
Allow tab swapping via drag and drop	If checked, then allow tabs to be reorganized within a tabbed group via drag and drop.
Display icons on MDI tabs	If checked, then icons will be displayed on each tab.
Display tab labels at the bottom	If checked, then the tabs will be displayed at the bottom of each tabbed group rather than at the top.
Move Remote Command Status Views to bottom of Main Window if using grouped mode	This option will automatically move the Remote Command Status View and Remote SQL Statement Status View to the bottom of the main window if checked when **grouped MDI tabbed style** is enabled. If this option is unchecked, then the tab will be created when needed and occupy the entire visible area of the Main Window.

8.15 Report Generator

This tab is used to control preferences related only to the iDoctor Report Generator. You can access this function by right-clicking on most types of collections in iDoctor and using the Generate Reports menu.

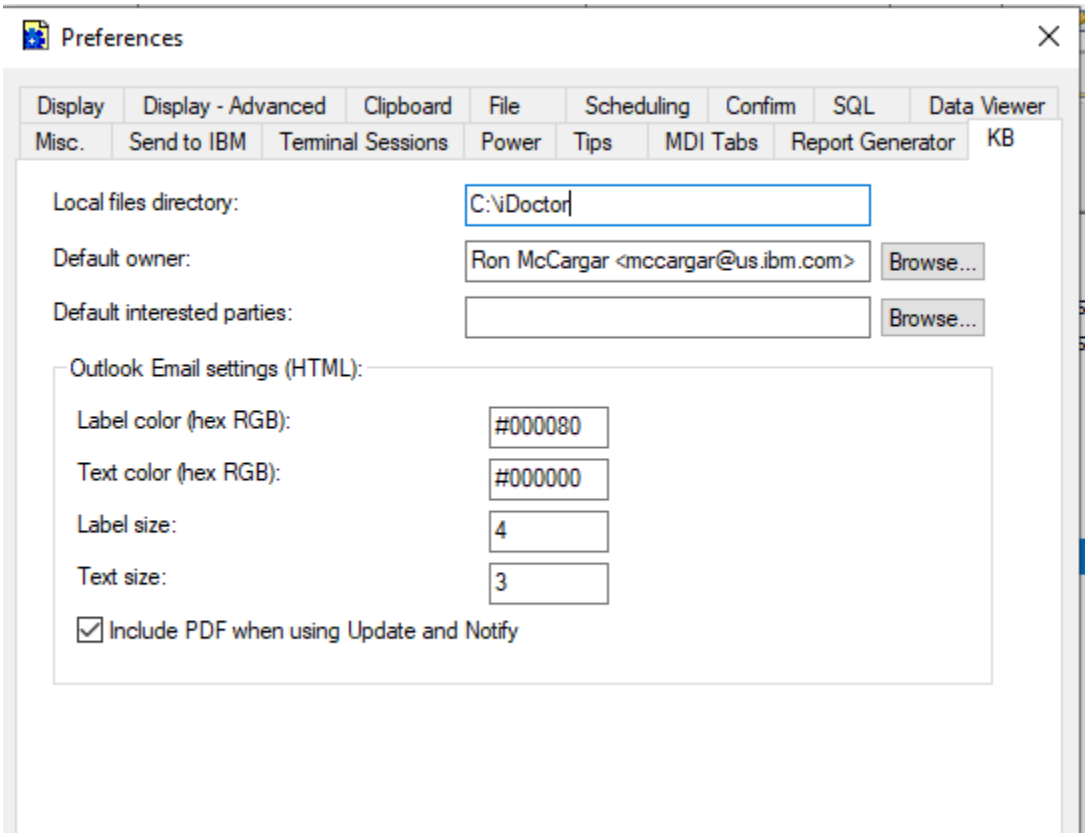

Preferences
Display
Display - Advanced
Clipboard
File
Scheduling
Confirm
SQL
Data Viewer
Misc.
Send to IBM
Terminal Sessions
Power
Tips
MDI Tabs
Report Generator
KB
Report directory:
C:\iDoctor\reports
Browse...
Save As PDF
Email reports to:
mccargar@us.ibm.com
Pages to capture (per report):
1
Debug mode
Test DTL
Delete report directory
Run report N times:
1
Multiple collections graphed individually
Graph Views:
Default time range size:
Collected interval size
Bars per page - vertical bar graphs (1 - 5000)
300
Bars per page - horizontal bar graphs (1 - 300)
10
Provide 1 graph for each ASP
Patterns
Situations
Always show the legend
Legend width (0 to 50)%
30
Graph 1st default drill-down
Graph 2nd default drill-down

Option	Description
Report directory	This indicates the location where iDoctor Report Generator files should be generated.
Save as PDF	If checked, the report generator will be a PDF instead of an HTML file + additional JPG images.
Email reports to	This option when checked will send the report generated to the email address listed. This requires **Outlook** to be installed on the PC. Manual setup in **Outlook** is also required and iDoctor must be launched as the administrator. The Outlook setup steps are: a. In the outlook search box type macros, then click on Run Macros in the list b. In the macros popup, if no macros exist, type a name like "test" and click Create or if a macro exists, then click it and use the Edit button instead. c. Within the Visual Basic for Applications window, use the File -> Import File option, then navigate and select the SendiDoctorMail.bas file which is located in the directory where iDoctor was installed with 1548 or higher. d. This will load the SendiDoctorMail macro into your outlook installation. e. In the outlook search box type "security" and click Security action. f. In the Trust Center window, under Macro Security you will need to select Enable all macros. (or digitally sign the SendiDoctorMail macro yourself instead. **Note:** When auto emailing the PDF from the report generator this requires that any open instances of Outlook will be closed after the report generator is finished in order for the macro to successfully work and send the email.
Pages to capture (per report)	This is the number of pages/screenshots to capture per graph or table. If the amount of data in the report cannot be shown on a single page and this value is greater than 1, this means the data will be scrolled and an additional screenshot taken N times.
Debug mode / Test DTL	IBM use only.
Delete report directory	This option will delete the report directory and everything in it.
Run report N times	IBM use only.
Multiple collections graphed individually	If checked and if selecting multiple collections before running the Report Generator this option will cause the graphs to be created once for each collection rather than combining the data into a single graph.

Option	Description
Default time range size	This option indicates the default time range grouping to use for the report generator graphs. You may wish to use a larger value here than you would normally so more data from the collection will be summarized and visible on a single page/graph.
Bars per page – vertical bar graphs	This is the max number of bars to show on vertical bar graphs. If you wish to show more data on a single graph another option is to increase the default time range size to a larger value.
Bars per page – horizontal bar graphs	This is the max number of bars to show on horizontal bar graphs. If you wish to have the labels visible next to each bar, then it is best to keep this value fairly small (10-40.)
Provide 1 graph for each ASP	This option is used for disk graphs that contain multiple ASPs in the data. If checked for those types of graphs then a screenshot will be generated for each ASP, per report selected.
Patterns	This option uses hatchings in addition to colors to aid those with color-blindness.
Situations	This option indicates if the situational analysis background colors will be displayed on the graphs or not.
Always show the legend	This option simply indicates if the legend shall be shown or not.
Legend width percent (0 to 50)	This option indicates how much (as a percentage) of the graph window the graph legend shall consume. It only applies if the “Always show the legend” option is checked.
Graph 1st default drill-down	For each report opened, the 1st default (right-click on 1st bar in graph) option will be taken and also captured.
Graph 2nd default drill-down	For each report opened, then a 2nd (1st default option) graph is opened and captured. This typically is used only when the 1st default option is also checked. For an overview graph included in the Report generator checking both options would mean capturing all 3 graphs for Overview, Rankings and Selection over time.

8.16 KB

These preferences apply to the Knowledge Base component.



Option	Description
Local files directory	This directory indicates where the local files will be stored on the PC relating to the Knowledge Base. A KB subdirectory will be created.
Default owner	When creating a KB doc, this value is used as the owner by default.
Default interested parties	When creating a KB doc, this value is used for the interested parties field by default.
Outlook email settings	
Label color (hex RGB)	This a RGB color in hex. The format must be #RRGGBB.
Text color (hex RGB)	This a RGB color in hex. The format must be #RRGGBB.
Label size	HTML font size for labels
Text size	HTML font size for text
Include PDF when using Update and Notify	Indicates if a PDF attachment should be included in the email containing the KB document.

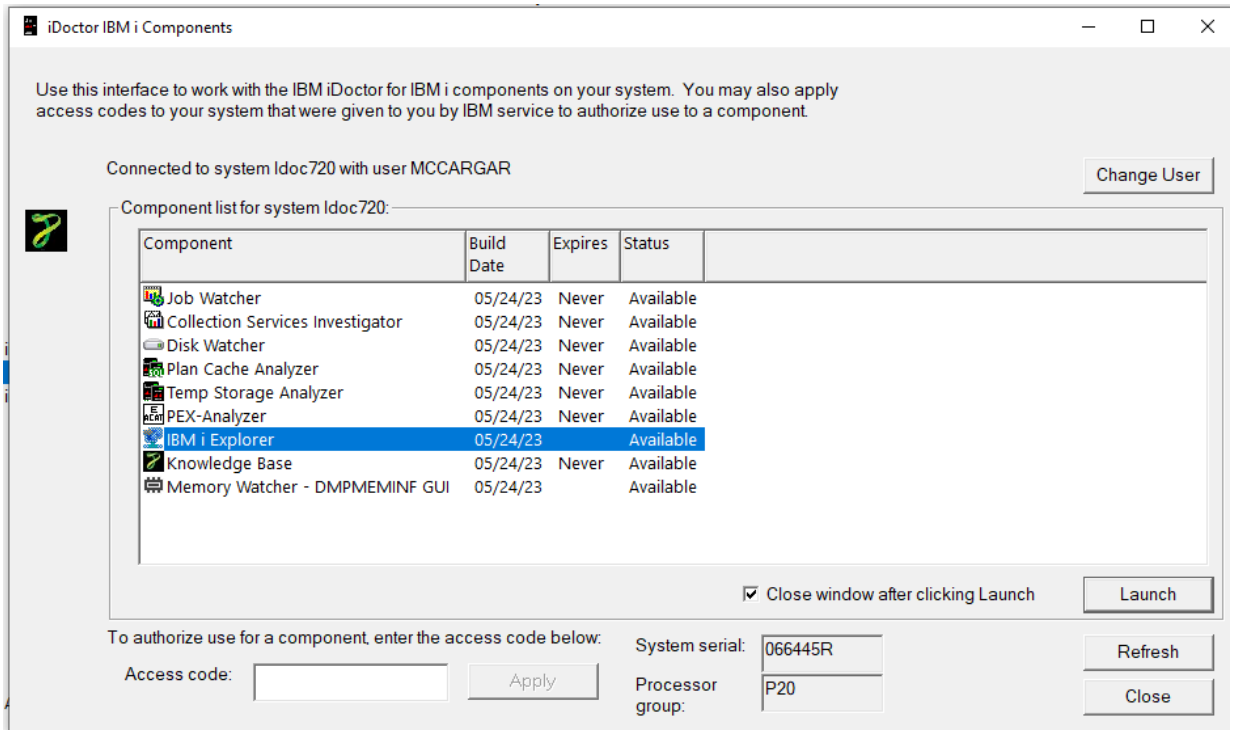
9 IBM i Explorer

This section covers the free IBM i Explorer component. This provides functions to access many areas on the system including the IFS, libraries, and objects.

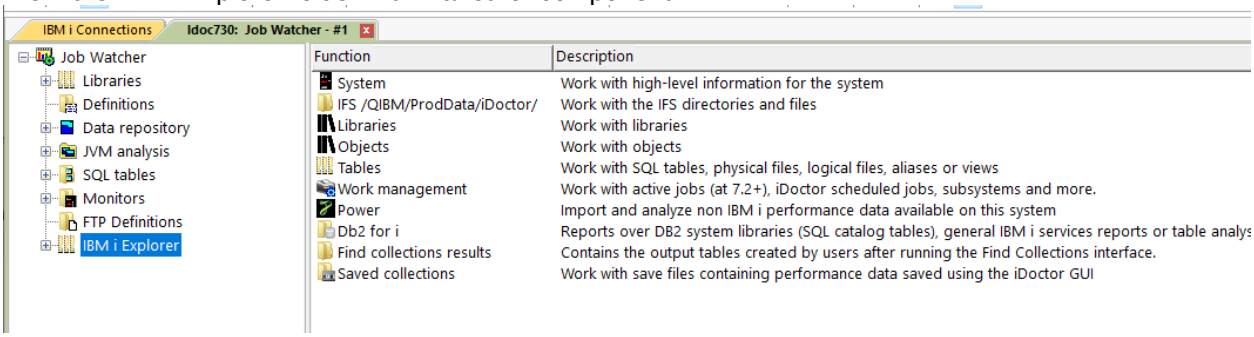
This section covers the interfaces specific to IBM i connections. For Power (non-IBM i connections), the interface to work with file systems/directories is discussed in the document on Power Connections.

This interface can be launched in two ways:

1) Double-click the IBM i connection and it will exist in the iDoctor components window:



2) From the IBM i Explorer folder within another component.



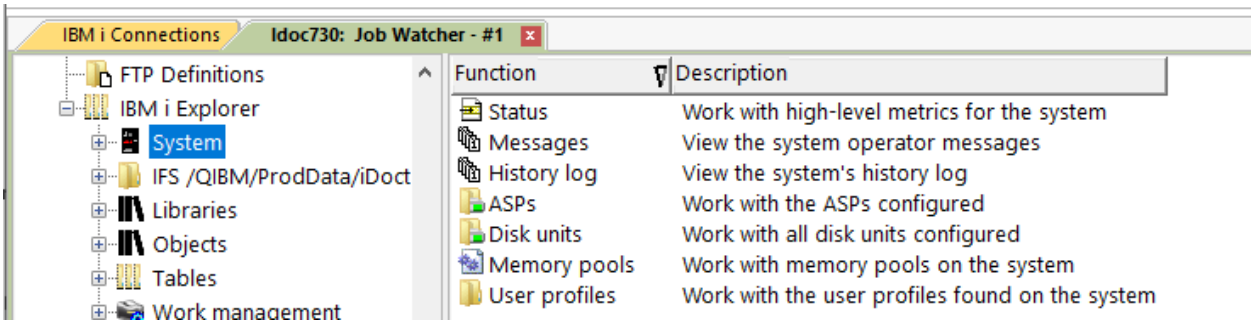
Job Watcher -> IBM i Explorer folder

The contents of the IBM i Explorer folder are described in more detail in the next sections, but high-level descriptions are described in the table below.

Folder	Description
System	The system folder contains options that pertain to the entire system including: - System status metrics (like WRKSYSSTS) - System operator messages - History log - ASPs - Disk Units - Memory pools - User profiles
IFS /	This allows the user to browse the IFS starting at the directory listed which will vary. Change the directory using the IFS pane.
Libraries	This folder is used to browse the libraries on the system and work with the objects within them. This can be filtered using the Objects Pane.
Objects	This allows you to browse objects on the system in any library, but an object filter must be set before using it via the Objects Pane.
Tables	This allows you to browse files on the system in any library, but a filter must be set before using it via the Tables Pane.
Work management	These options allow you to work with active jobs, subsystems, job queues, output queues, spool files and message queues.
Power	These options apply to data collected on non IBM i systems like HMC or VIOS. The primary data collected is nmon.
Db2 for i	This folder contains reports relating to or using IBM i SQL services and index advisor.
Find collections results	The folder contains results after running the Find Collections function.
Saved collections	This folder contains save files created by the Save function on any collection. By default these are stored in library QIDRTMP.

9.1 System

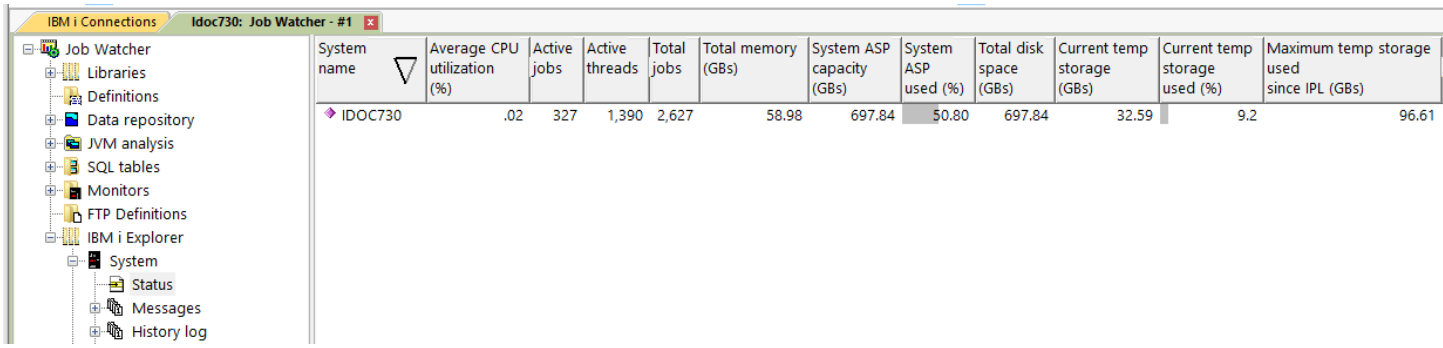
This folder contains high-level options pertaining to the IBM i.



9.1.1 Status

This folder contains a report like that provided by the WRKSYSSTS command. It provides information like current temp storage used, system ASP percentage used and system serial number.

This report is produced using the QSYS2/SYSTEM_STATUS SQL table function as well as the SYSTEM_ACTIVITY_INFO SQL table function.


IBM i Connections
Idoc730: Job Watcher - #1
Job Watcher
Libraries
Definitions
Data repository
JVM analysis
SQL tables
Monitors
FTP Definitions
IBM i Explorer
System
Status
Messages
History log
System name
Average CPU utilization (%)
Active jobs
Active threads
Total jobs
Total memory (GBs)
System ASP capacity (GBs)
System ASP used (%)
Total disk space (GBs)
Current temp storage (GBs)
Current temp storage used (%)
Maximum temp storage used since IPL (GBs)
IDOC730 .02 327 1,390 2,627 58.98 697.84 50.80 697.84 32.59 9.2 96.61

9.1.1.1 Fields

Field	Description
System name	HOST_NAME Name of the system where this information was generated. This is the name set by CHGNETA.
Average CPU utilization (%)	AVGCPU_UTIL The average CPU utilization for all the active processors.
Active jobs	ACTIVE_JOBS_IN_SYSTEM The number of jobs active in the system (jobs that have been started, but have not yet ended), including both user and system jobs.
Active threads	ACTIVE_THREADS_IN_SYSTEM The number of initial and secondary threads in the system (threads that have been started, but have not yet ended), including both user and system threads.
Total jobs	TOTAL_JOBS_IN_SYSTEM The total number of user and system jobs that are currently in the system. The total includes: - All jobs on job queues waiting to be processed. - All jobs currently active (being processed). - All jobs that have completed running but still have output on output queues to be produced.
Total memory (GBs)	MAIN_STORAGE_SIZE_GB The amount of main storage, in gigabytes, in the system.
System ASP capacity (GBs)	SYSTEM_ASP_STORAGE_GB The storage capacity of the system auxiliary storage pool (ASP number 1) in gigabytes. This value represents the amount of space available for storage of both permanent and temporary objects.
System ASP used (GBs)	SYSTEM_ASP_USED The percentage of the System ASP that has been consumed.
Total disk space (GBs)	TOTAL_AUXILIARY_STORAGE_GB The total auxiliary/disk storage, in gigabytes, on the system.
Current temp storage (GBs)	CURRENT_TEMPORARY_STORAGE_GB The current amount of storage, in gigabytes, in use for temporary objects.
Current temp storage used (%)	CURRENT_TEMPORARY_PERCENTAGE_USED The percentage of temp storage used on the System ASP of the space remaining.
Maximum temp storage used since IPL (GBs)	MAXIMUM_TEMPORARY_STORAGE_USED_GB The largest amount of storage, in gigabytes, used for temporary objects at any one time since the last IPL.
Interactive jobs	INTERACTIVE_JOBS_IN_SYSTEM The percentage of interactive performance assigned to this logical partition. This value is a percentage of the total interactive performance available to the entire physical system.
Elapsed average CPU used (%)	ELAPSED_CPU_USED The average of the elapsed time during which the processing units were in use.
Elapsed shared CPU utilization (%)	ELAPSED_CPU_SHARED The percentage of the total shared processor pool capacity used by all partitions using the pool during the elapsed time. Returns null if this is a dedicated partition.
Elapsed CPU uncapped capacity (%)	ELAPSED_CPU_UNCAPPED_CAPACITY The percentage of the uncapped shared processing capacity for the partition used since the last time statistics were reset. Returns null if this partition cannot use more that its configured processing capacity.
Elapsed seconds	ELAPSED_TIME The time that has elapsed, in seconds, between the measurement start time and the current system time.
Configured CPUs	CONFIGURED_CPUS Total number of configured CPUs for the partition.

Virtual processors	VIRTUAL_PROCESSORS The number of virtual processors currently used by this partition.
CPU sharing	CPU_SHARING_ATTRIBUTE This attribute indicates whether this partition is sharing processors. If the value indicates the partition does not share physical processors, then this partition uses only dedicated processors. If the value indicates the partition shares physical processors, then this partition uses physical processors from a shared pool of physical processors. **CAPPED -** Partition shares processors. The partition is limited to using its configured capacity. **UNCAPPED -** Partition shares processors. The partition can use more than its configured capacity. Contains the null value if this is a dedicated partition.
Current CPU capacity	CURRENT_CPU_CAPACITY The current processing capacity specifies the processor units that are being used in the partition. For a partition sharing physical processors, the current processing capacity represents the share of the physical processors in the pool it is running. For a partition using dedicated processors, the current processing capacity represents the number of virtual processors that are currently active in the partition.
Average CPU rate (%)	AVGCPU_RATE The average CPU rate expressed as a percentage where 100% indicates the processor is running at its nominal frequency. A value above or below 100% indicates how much the processor has been slowed down (throttled) or speeded up (turbo) relative to the nominal frequency for the processor model. For instance, a value of 120% indicates the processor is running 20% faster against its nominal speed.
Perm addresses (%)	PERMANENT_ADDRESS_RATE The percentage of the maximum possible addresses for permanent objects that have been used.
Temp addresses (%)	TEMPORARY_ADDRESS_RATE The percentage of the maximum possible addresses for temporary objects that have been used.
Temp 256 MB addresses used (%)	TEMPORARY_256MB_SEGMENTS The percentage of the maximum possible temporary 256MB segments that have been used.
Temp 4 GB addresses used (%)	TEMPORARY_4GB_SEGMENTS The percentage of the maximum possible temporary 4GB segments that have been used.
Perm 256 MB addresses used (%)	PERMANENT_256MB_SEGMENTS The percentage of the maximum possible permanent 256MB segments that have been used.
Perm 4 GB addresses used (%)	PERMANENT_4GB_SEGMENTS The percentage of the maximum possible permanent 4GB segments that have been used.
LPAR ID	PARTITION_ID The identifier for the partition in which this view is being run.
Number of partitions	NUMBER_OF_PARTITIONS The number of partitions on the physical machine. This includes partitions that are currently powered on (running) and partitions that are powered off.
Restricted state	RESTRICTED_STATE Whether the system is in restricted state. **NO -** System is not in restricted state. **YES -** System is in restricted state.
Machine type	MACHINE_TYPE

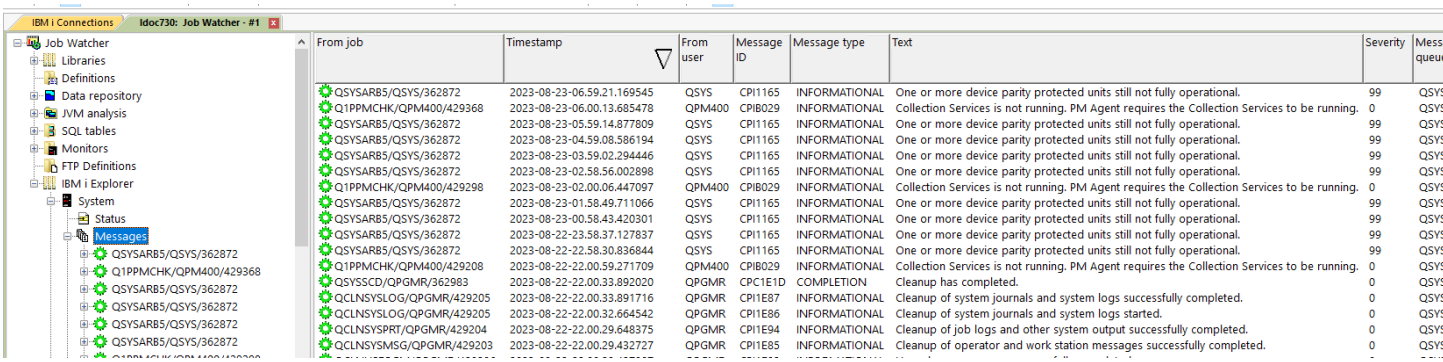
	The machine type
Machine model	MACHINE_MODEL The machine model
Serial number	SERIAL_NUMBER The machine serial number
Attention light	ATTENTION_LIGHT The status of the system attention light. **OFF -** The light is off. **ON -** The light is on.
IPL mode	IPL_MODE The current IPL mode setting. **AUTOMATIC -** Used for automatic remote IPL, automatic IPL by date and time, and automatic IPL after a power failure. **MANUAL -** An operator uses the control panel to direct the system for special needs. **NORMAL -** Requires no operator intervention during the IPL. **SECURE -** Prevents use of the control panel to perform an IPL.
Hardware multithreading	HARDWARE_MULTITHREADING Indicates whether hardware multi-threading is enabled. **NO -** Hardware multi-threading is not enabled. **YES -** Hardware multi-threading is enabled.
Threads per processor	THREADS_PER_PROCESSOR The number of hardware threads per processor when hardware multi-threading is enabled. Contains the null value if HARDWARE_MULTITHREADING is NO.
Jobs signed on	JOBS_SIGNED_ON The number of jobs currently signed on the system. System request jobs and group jobs are not included in this number.
Jobs disconnected	JOBS_DISCONNECTED The number of jobs that have been disconnected due to either the selection of option 80 (Temporary sign-off) or the entry of the Disconnect Job (DSCJOB) command.
Bound hardware threads	BOUND_HARDWARE_THREADS Whether hardware threads are bound. **NO -** Hardware threads are not bound. **YES -** Hardware threads are bound.
Dispatch latency (ms)	DISPATCH_LATENCY_MS The maximum time in milliseconds between dispatches of this partition on a physical processor.
Dispatch wheel rotation time (ms)	DISPATCH_WHEEL_ROTATION_TIME_MS The number of milliseconds in the hypervisor's scheduling window. Each virtual processor will be given the opportunity to execute on a physical processor some time during this period. The amount of time each virtual processor is able to use a physical processor is determined by partition processing capacity.
CPU used since IPL (ms)	TOTAL_CPU_TIME_MS The number of milliseconds of CPU time used by this partition since IPL.
Interactive CPU used since IPL (ms)	INTERACTIVE_CPU_TIME_MS The amount of CPU time, in milliseconds, used by interactive processes in this partition since partition IPL. An interactive process is any process doing 5250 display device I/O.
Interactive CPU used above threshold since IPL (ms)	INTERACTIVE_CPU_TIME_ABOVE_THRESHOLD_MS The amount of CPU time, in milliseconds, used by interactive processes while exceeding the interactive threshold. This is a total since IPL.
Idle unused shared	UNUSED_CPU_TIME_SHARED_POOL_MS

CPU time (ms)	The number of milliseconds of CPU time that the physical processors in a shared processor pool have been idle since system IPL. Contains the null value if DEDICATED_PROCESSORS is YES or if the partition is not authorized to retrieve shared pool data.

9.1.2 Messages

This view allows you to work with the QSYSOPR messages and the jobs associated with each message.

Right-click on a message/job for Active job options to view the call stack or job log (if the job is still active).

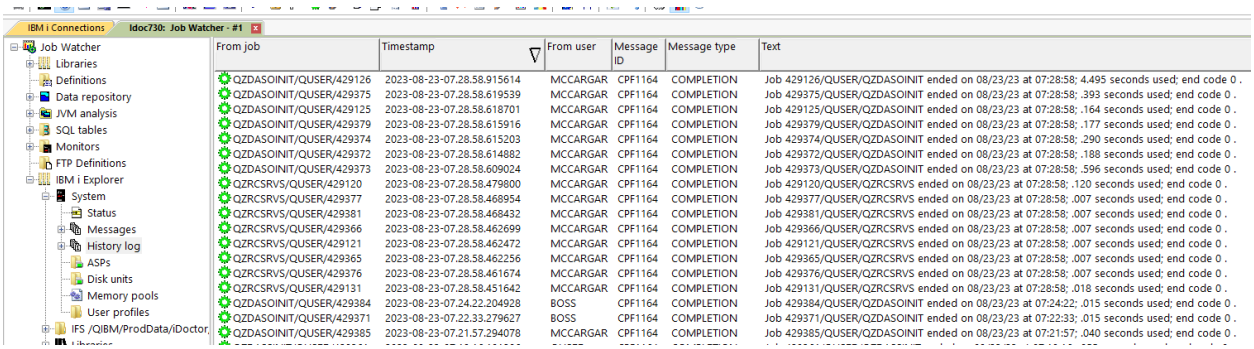


For information on the fields shown in this view, see the MESSAGE_QUEUE_INFO view documentation.

9.1.3 History log

This option allows you to view and work with the contents of the history log.

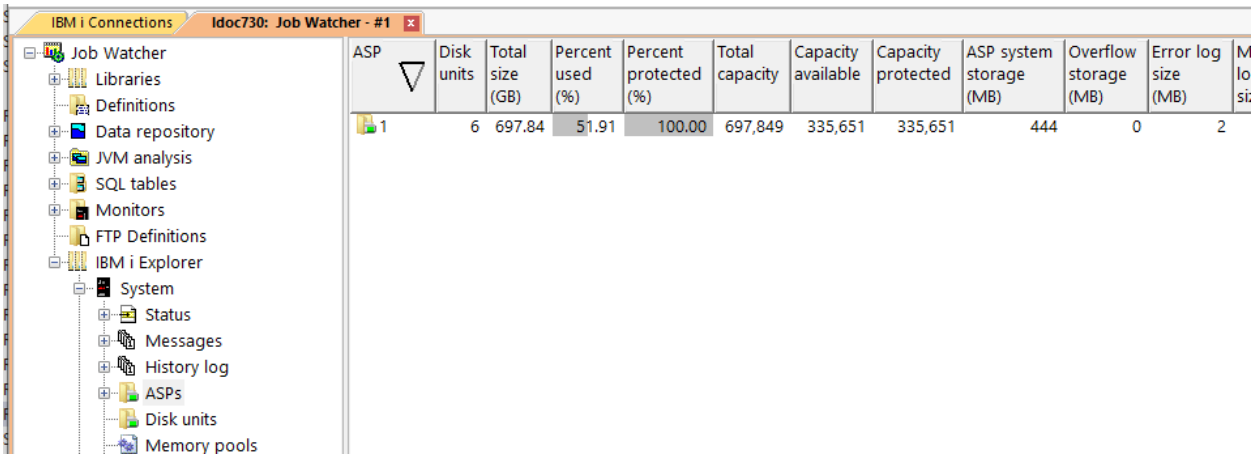
Right-click on a message/job for Active job options to view the call stack or job log (if the job is still active).



For information on the fields shown in this view, see the HISTORY_LOG_INFO SQL table function documentation.

9.1.4 ASPs

The ASPs folder displays disk information for the current system on a per ASP basis. You can also expand the ASPs to see information about the disk units within the selected ASP. This information is similar to WRKDSKSTS but includes extra fields not found there.



The folder contains a row for every ASP found on the system. By right-clicking on an ASP within the list the user can reset statistics visible in this session for the disk units shown in the selected ASP.

Expanding the ASP will show the disk units within.

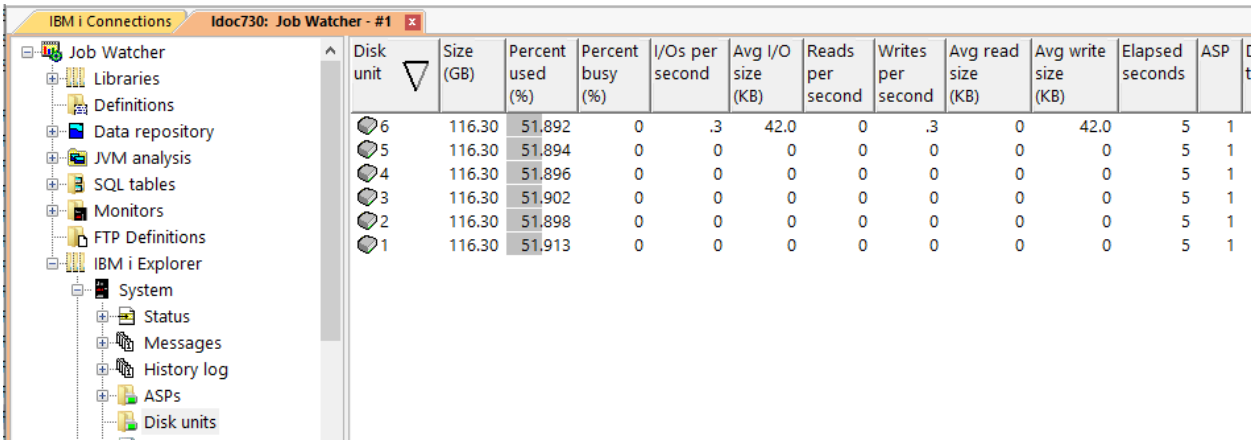
Tip: Right-click the **ASPs** folder and pick the Select fields menu to rearrange or add/remove fields from the view.

For information on the fields shown in this view, see the ASP_INFO SQL view documentation.

9.1.5 Disk units

The Disk Units folder displays disk information for the current system. This information is similar to WRKDSKSTS but includes extra fields not found there.

Tip: Right-click the **Disk units** folder and pick the Select fields… menu to rearrange or add/remove fields from this view.



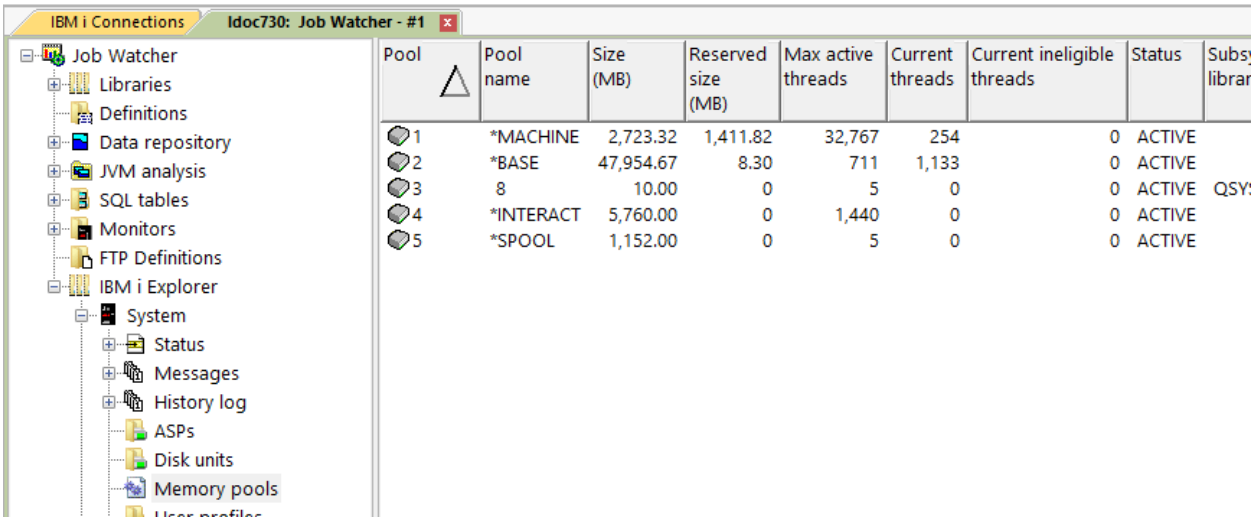
The folder contains a row for every disk unit found on the system.

For information on the fields shown in this view, see the SYSDISKSTAT SQL table function documentation.

9.1.6 Memory pools

The Memory pools folder displays the memory pools that exist for the current system.

Tip: Right-click the **Memory pools** folder and pick the Select fields… menu to rearrange or add/remove fields from this view.

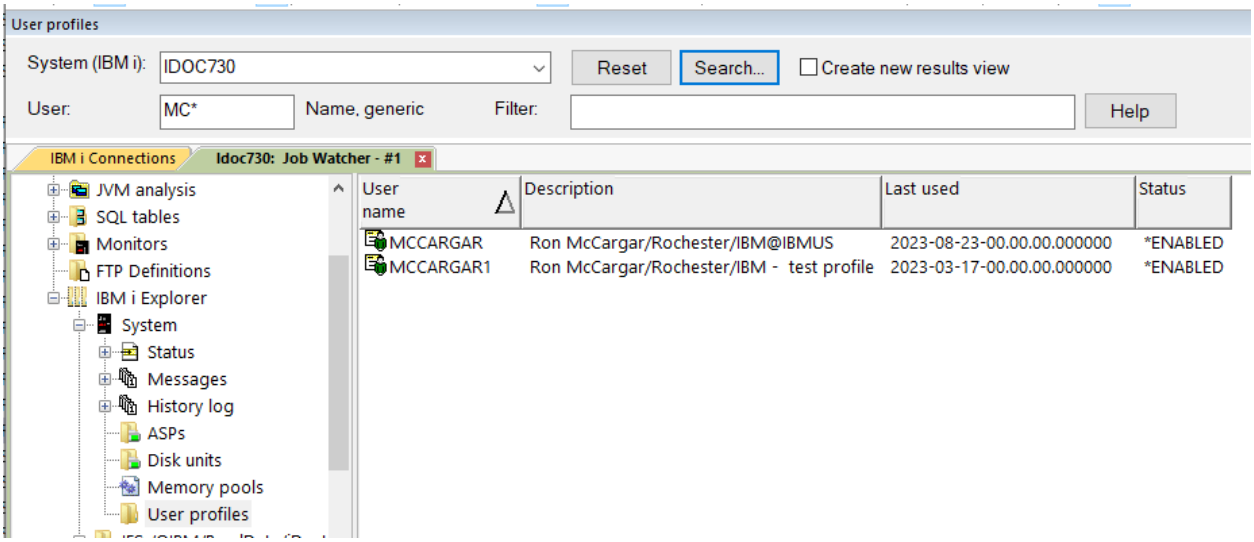


For information on the fields shown in this view, see the MEMORY_POOL SQL table function documentation.

9.1.7 User Profiles

This folder allows the user to work with the user profiles found on the system.

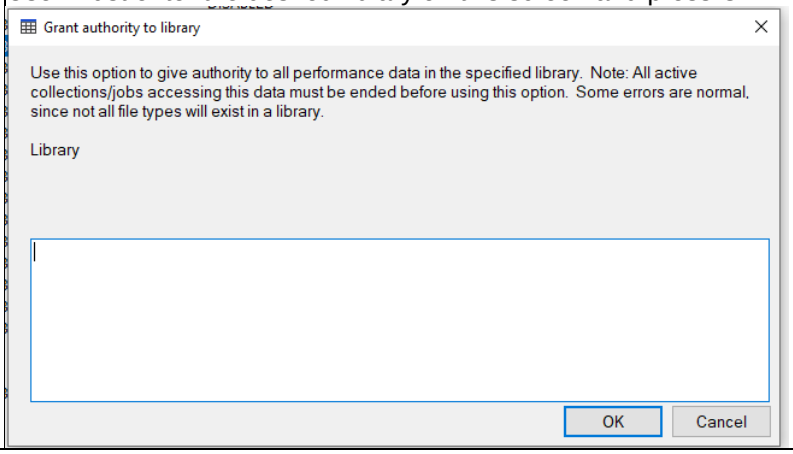
Note: The User profiles pane will automatically appear when using this interface to allow for filtering the results.



For information on the fields shown in this view, see the USER_INFO SQL view documentation.

9.1.7.1 Menu Options

Right-clicking a user profile provides these functions:

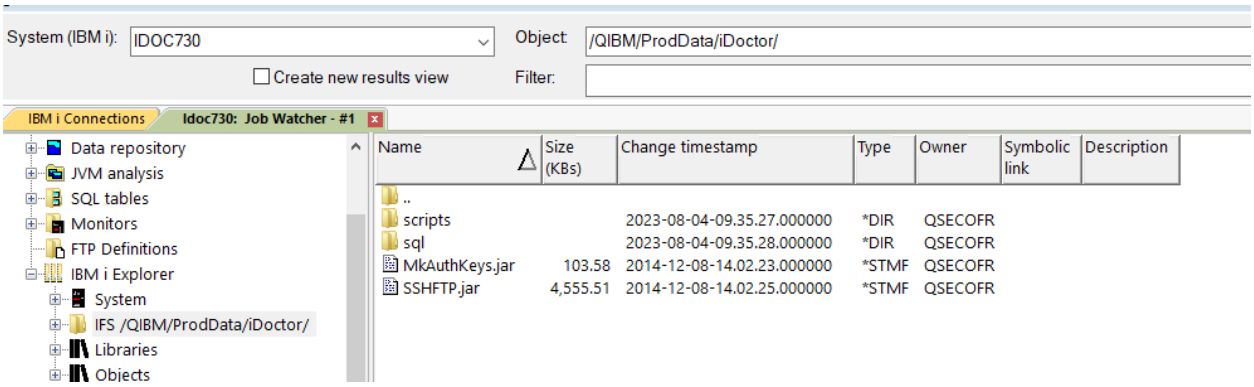
Menu	Description
Delete	Removes the user profile from the system.
Run QIDRGUI/ADDIDRUSR	This runs the CL command QIDRGUI/ADDIDRUSR to grant minimum required authorities for the user to be able to use most iDoctor functions. See the help text for this command for more information.
Grant authority to use performance data in library…	This option grants *USE authority to JW, DW, PEX and CS types of performance data in the specified library. User must enter the desired library on this screen and press OK. 

9.2 IFS

This folder lets users work with directories and files on the current system they are using in the Integrated File System. By default, the starting point is the root folder (/) but this can be modified.

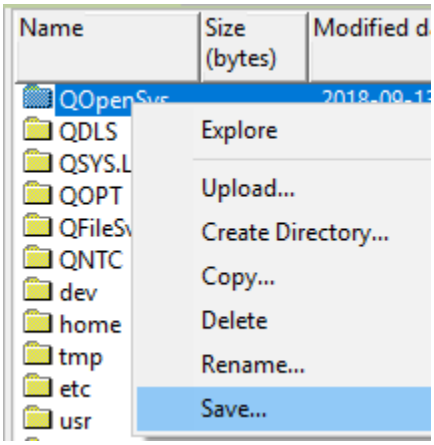
Tip: Up to 20 selections for IFS paths can be saved in the Object drop down list in the IFS pane.

Note: The IFS pane will appear automatically when using this interface.



9.2.1 Directory menu options

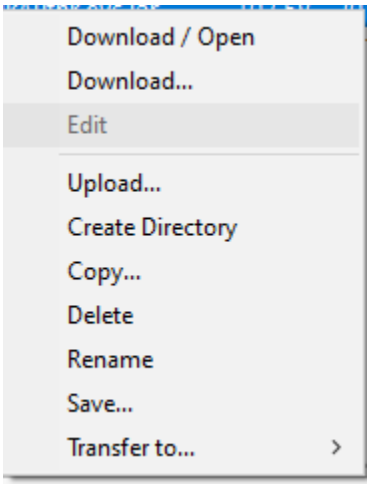
The default right-click menu options available for any directory in this view are:



Menu	Description
Explore	Expands the current folder and displays the results in the list.
Upload	This will present an interface to transfer one or more files from the PC to the remote system.
Create Directory	This option will create a new directory on the IFS in the desired location.
Copy…	This will present an interface that allows the user to copy the directory and all its contents to another location on the system.
Delete	This will delete the directory from the system.
Rename	This option will rename the directory.
Save	Use this option to save the directory and its contents to a save file. **Tip:** Afterwards you can use the Saved Collections folder to download the save file or work with it if desired.

9.2.2 File menu options

The default menu options for a file within the IFS are:



Menu	Description
Download / Open	This option will first download the file to the PC and then attempt to open it using the default program for the current file type.
Download	This can be used to download the selected file(s) to the PC.
Edit	This option will download the file to the PC and then present an interface that lets you edit the results. When finished the file is sent back to the remote system.
Analyze NMON Data…	This option will display the Analyze Data window which allows .nmon files to be analyzed and DB files created in the desired location. This menu option only appears if an .nmon file has been selected. **Note:** For more details, see the documentation on Power Connections.
Upload	This will present an interface to transfer one or more files from the PC to the remote system.
Create Directory	This option allows the user to create a directory on the system.
Copy…	This will present an interface that allows the user to copy the selection to another location on the system.
Delete	This will delete the selection from the system.
Rename	This option will rename the currently selected file.
Save	Use this option to save the selection to a save file.
Transfer to	This option presents an interface that allows the user to transfer the current file(s) to another system, to IBM or to the PC.

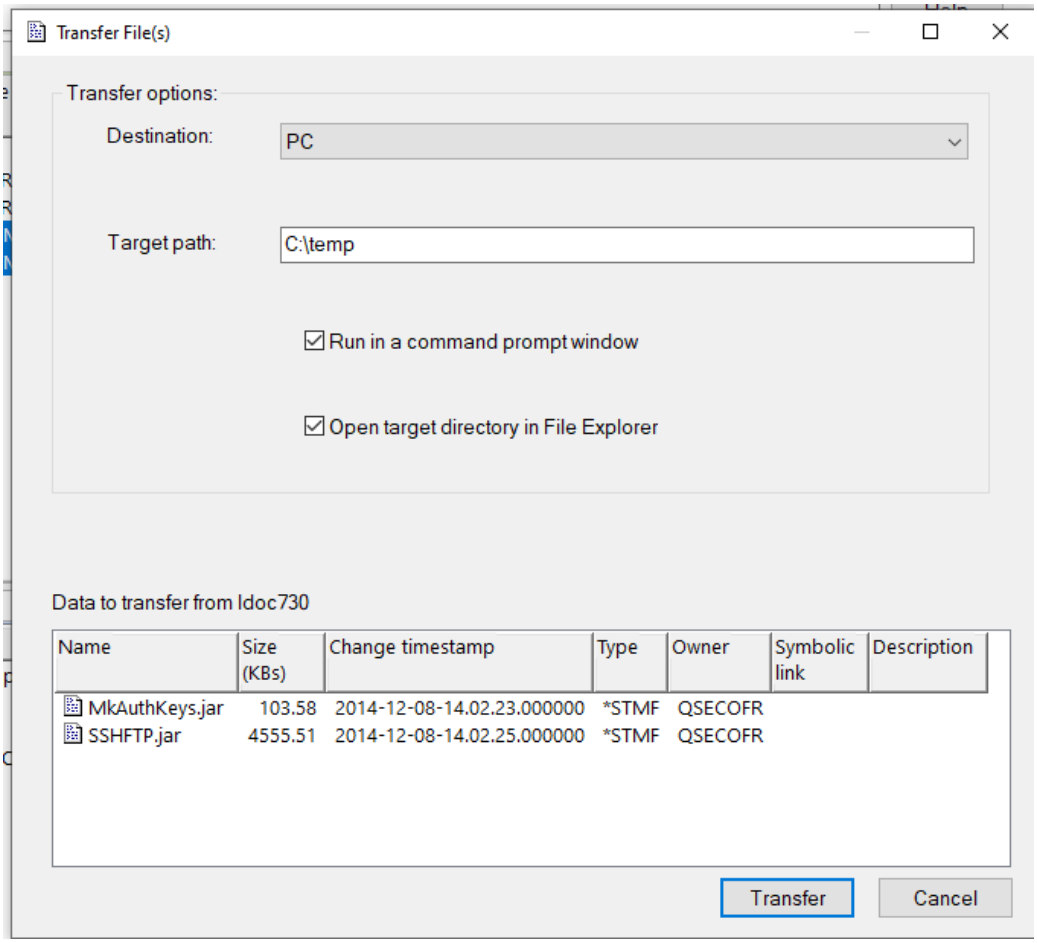
9.2.3 Download / Open

This option is used to download and then execute the default Windows program for the file type being opened. For example, using this option on a .txt file would probably open the file in Notepad.

Note: Files are downloaded into the iDoctor temp directory. This path can be determined by viewing the application properties. (Help -> About menu)

9.2.4 Download

This option can be used to download the selected file(s) to the PC. The files will be placed in the directory specified.



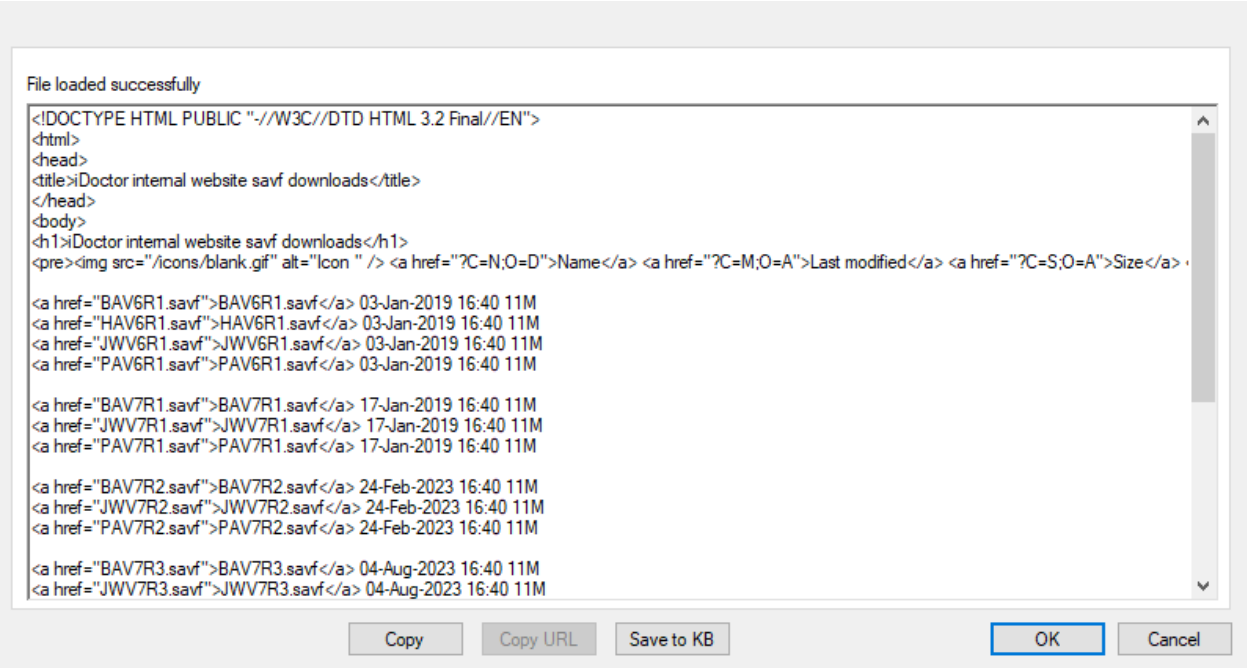
9.2.4.1 Interface

Option	Description
Destination	Indicates where the data will be sent. For a download operation, PC is assumed, although it could be changed here.
Target path	The location on the PC where the file(s) will be sent.
Run in a command prompt window	Indicates if the status of transfers should be visible in a command prompt window. **Note:** This only appears if the IBM i Connection's file transfer method is SSL or SSH.
Open target directory in File Explorer	Indicates if Window's File Explorer should be opened and navigated to the path after the transfer is complete.

9.2.5 Edit

This option can be used to download an IFS file to the PC and then open it within an editor inside of iDoctor.

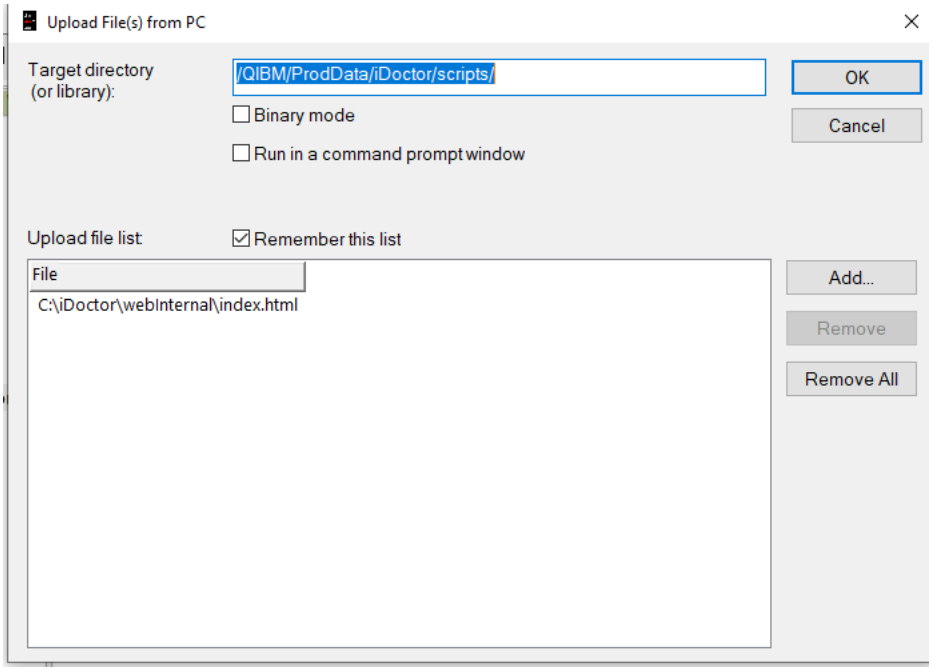
Note: Files greater than 10 MBs cannot be edited with this interface.



Option	Description
OK	If changes have been made this will send the file back to the remote system and replace it. You will be prompted to confirm.

9.2.6 Upload

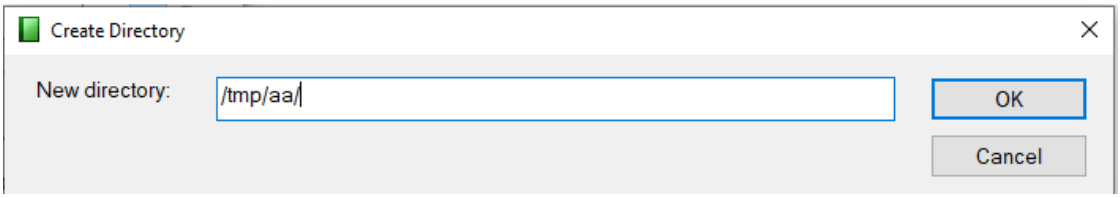
The Upload file(s) window allows the user to transfer 1 or more files from the PC to the desired directory on the remote system. These transfers occur via the Remote Command Status View and the results of which can be viewed there.



Option	Description
Target directory (or library)	This value contains the desired location to send the file(s) on the PC to.
Binary mode	Check this box if you wish to use binary mode to send the files.
Run in a command prompt window	Indicates if the status of transfers should be visible in a command prompt window. **Note:** This only appears if the IBM i Connection's file transfer method is SSL or SSH.
Remember this list…	Use this option is you want the GUI to remember the list of files and repopulate the list again with the same set of files. This can be handy if sending the same files to multiple LPARs.
Upload file list	This is the list of files on the PC that will be transferred to the remote server.
Add button	Use this button to add files from the PC to the list.

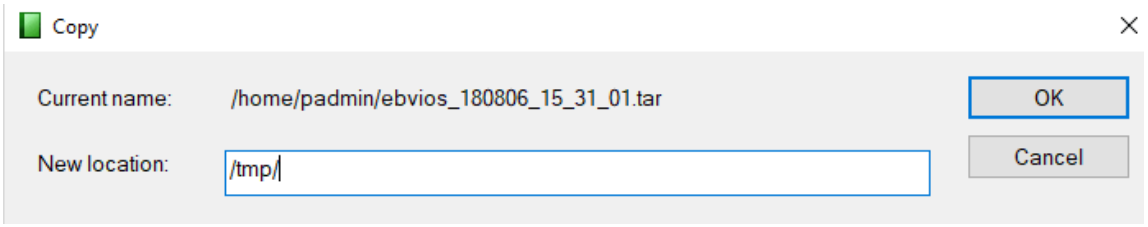
9.2.7 Create Directory

This option is used to create a directory on the remote server. By default, the window will show the path for the current directory and you will need to modify this path appropriately.



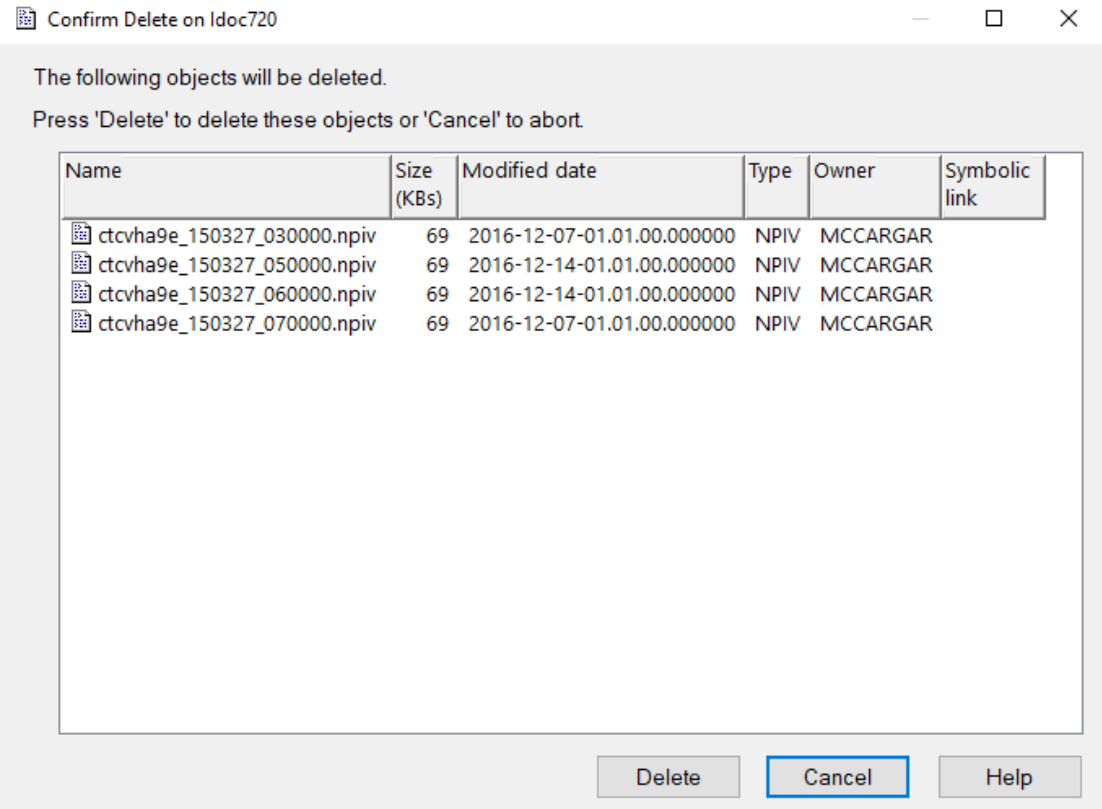
9.2.8 Copy

This option copies one or more files/directories to the desired new location. Only if copying a single file should the new value entered contain a file name. Otherwise, the value provided should be the directory to copy the files or directories into.



9.2.9 Delete

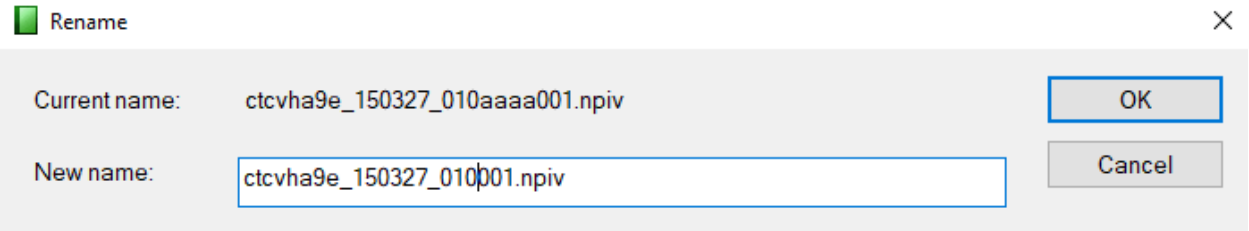
The Delete option will remove the file(s) and/or directories and their contents from the remote server.



9.2.10 Rename

The Rename menu option allows you to change a specific file or directory and give it a new name.

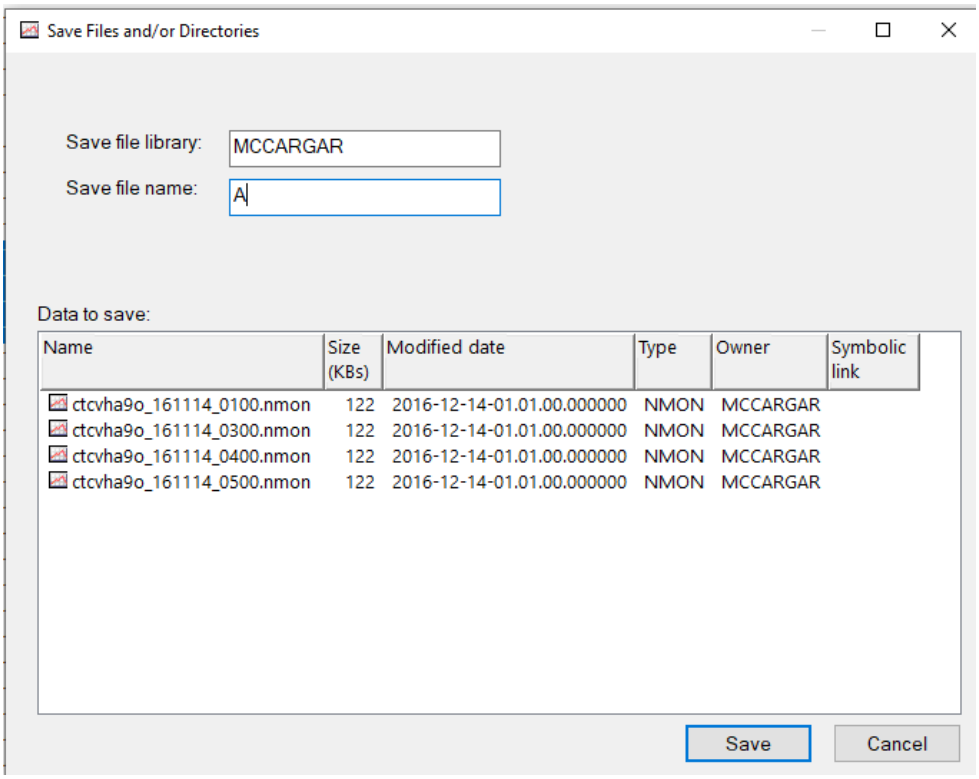
The interface looks like this:



9.2.11 Save

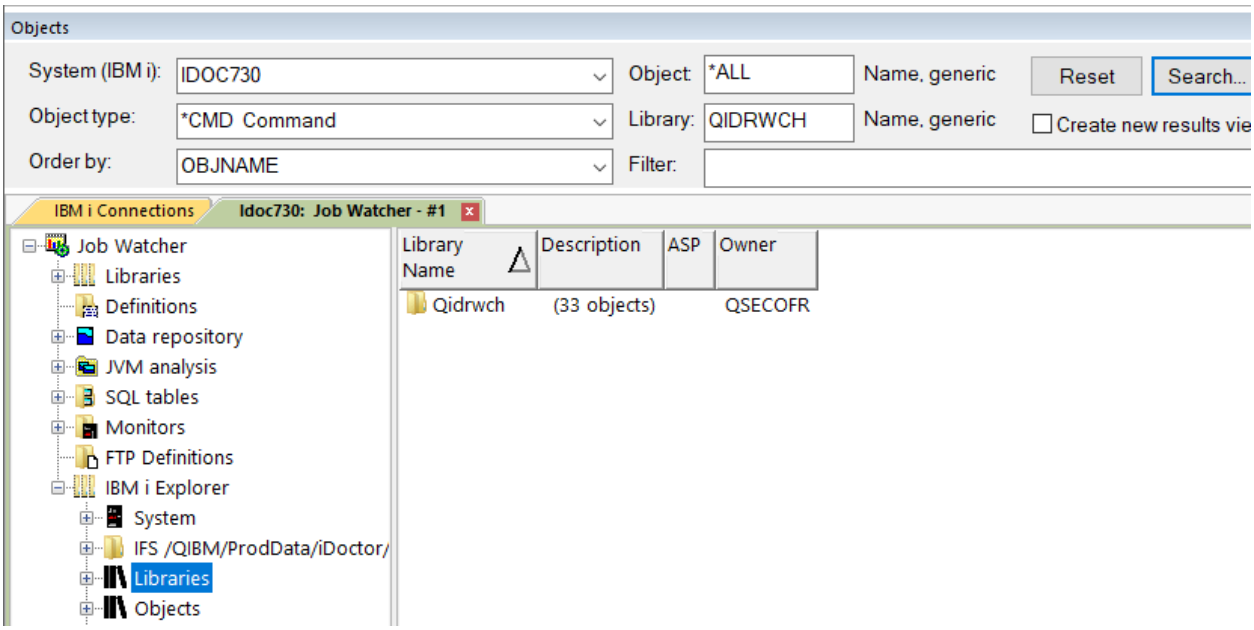
This option will save all selected directories and files to a save file file that you specify.

You can work with this save file afterwards using the Saved Collections folder.



9.3 Objects Pane

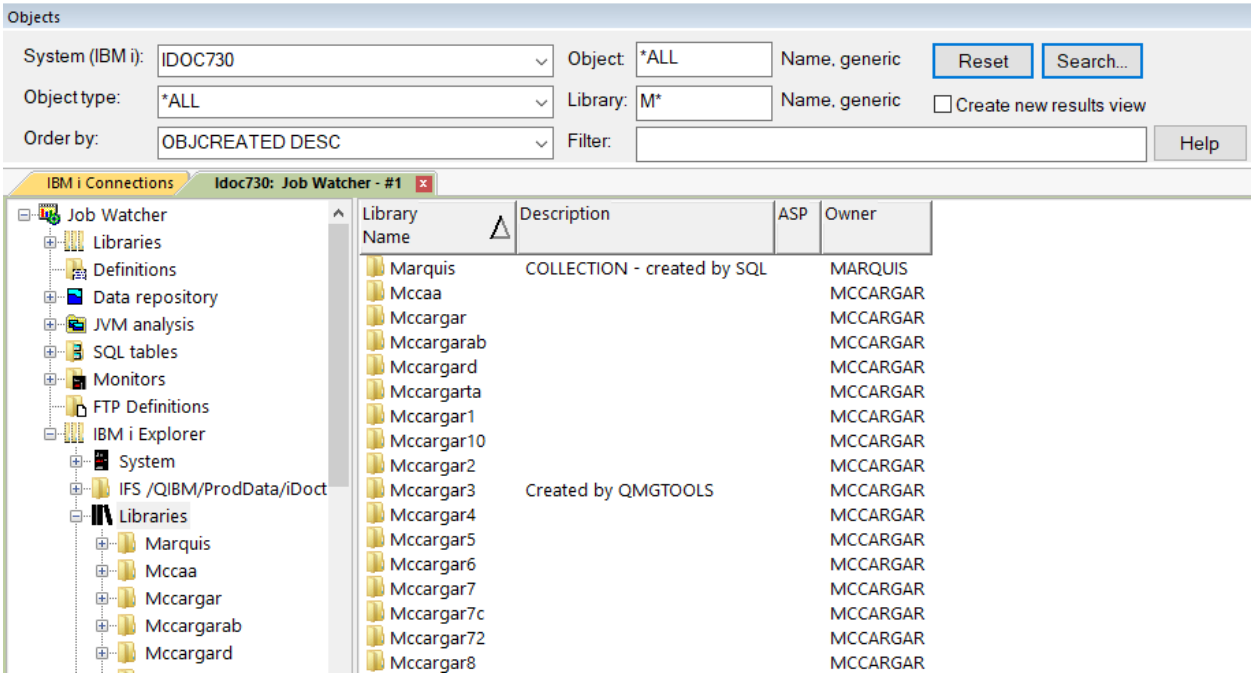
This Objects Pane is used to filter the contents of the Libraries and Objects folders within IBM i Explorer. This interface appears automatically when either folder is used.



9.4 Libraries

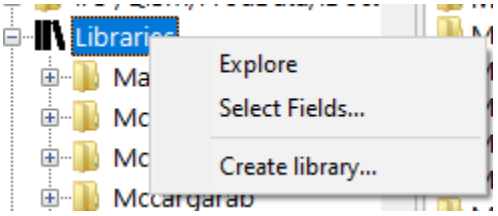
The IBM i Explorer's libraries folder is an interface over the IBM i objects and libraries that exist on the system. The list of libraries shown can be filtered down and reduced if necessary.

This interface can be used to work with any IBM i objects such as physical files, save files and output queues.



9.4.1 Menu options

Right-click the Libraries folder to display the available options:

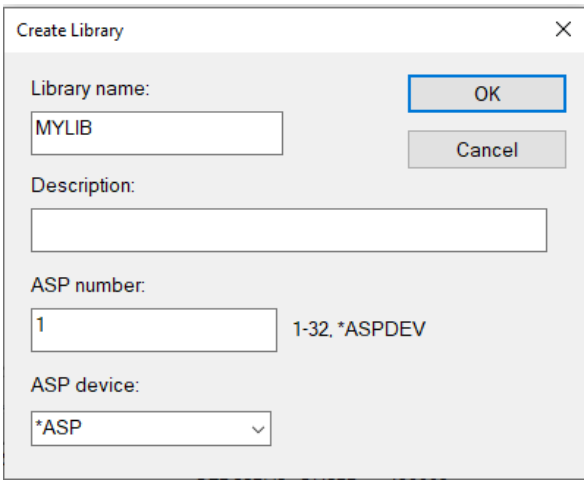


Menu Item	Description
Select fields…	This option allows you to modify the columns shown in this folder.
Create library…	This option creates a library on the IBM i. It may or may not appear in the list depending on the current filters set.

9.4.2 Create Library

This window is used to create a new library on the IBM i. The action is performed in the Remote Command Status View.

Note: Creating a library in an Independent ASP that has not been configured as viewable within the IBM i Connection for the current system would mean it would not show up in the GUI until this has been done.

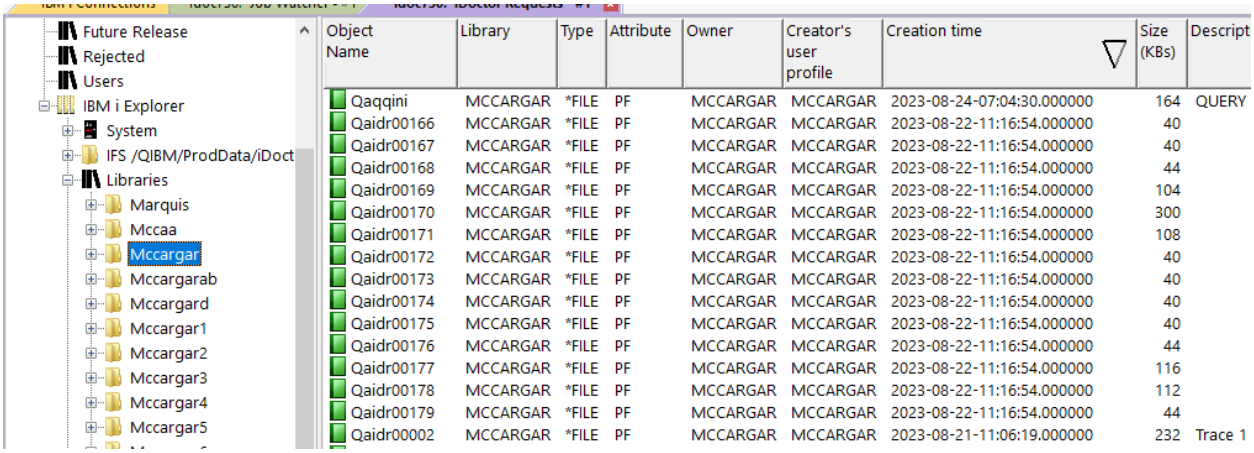

Create Library
Library name:
MYLIB
OK
Cancel
Description:
ASP number:
1
1-32, *ASPDEV
ASP device:
*ASP

9.4.2.1 Interface

Option	Description
Library name	Name of the library to create
Description	Specifies the text that briefly describes the library.
ASP number	Specifies the number of the system or basic user auxiliary storage pool (ASP) where storage for the library is allocated. For libraries created in an ASP, all objects in the library must be in the same ASP as the library. When a value other than *ASP is specified for the ASP device (ASPDEV) parameter, *ASPDEV is the only valid value that can be specified for the ASP number (ASP) parameter, if specified. Also when a value other than *ASP is specified for the ASPDEV parameter, the ASP parameter can be omitted and its defaulted value will be ignored. **1** The storage space for the library is allocated from the system auxiliary storage pool ASP 1. ***ASPDEV** The storage for the library is allocated from the primary or secondary ASP specified for the ASPDEV parameter. **number** Specify a value ranging from 1 through 32 that is the number of the system or basic user ASP.
ASP device	Specifies the auxiliary storage pool (ASP) device name where storage is allocated for the library. When a value other than *ASPDEV is specified for the ASP number (ASP) parameter, ASPDEV(*ASP) is the only valid value for the ASP device (ASPDEV) parameter, if specified. Other values for the ASPDEV parameter are valid if the ASP parameter is omitted. In this case, the defaulted value for the ASP parameter is ignored. ***ASP** The storage for the library is allocated from the system or basic user ASP specified for the ASP parameter. ***ASPGRPPRI** The storage for the library is allocated from the primary ASP of the thread's ASP group. If no ASP group is associated with the thread an error message is sent. ***SYSTEM** The storage for the library is allocated from the system ASP (ASP 1). **name** Specify the name of a primary or secondary ASP device. The storage for the library is allocated from the primary or secondary ASP. The primary or secondary ASP must have been activated (by varying on the ASP device) and have a status of 'Available'. **Note:** To specify a specific auxiliary storage pool (ASP) device name, you must have use (*USE) authority for each ASP device in the ASP group.

9.4.3 Library Folders

A library within the Libraries folder displays a list of objects within the library that match the filters set in the Objects Pane.

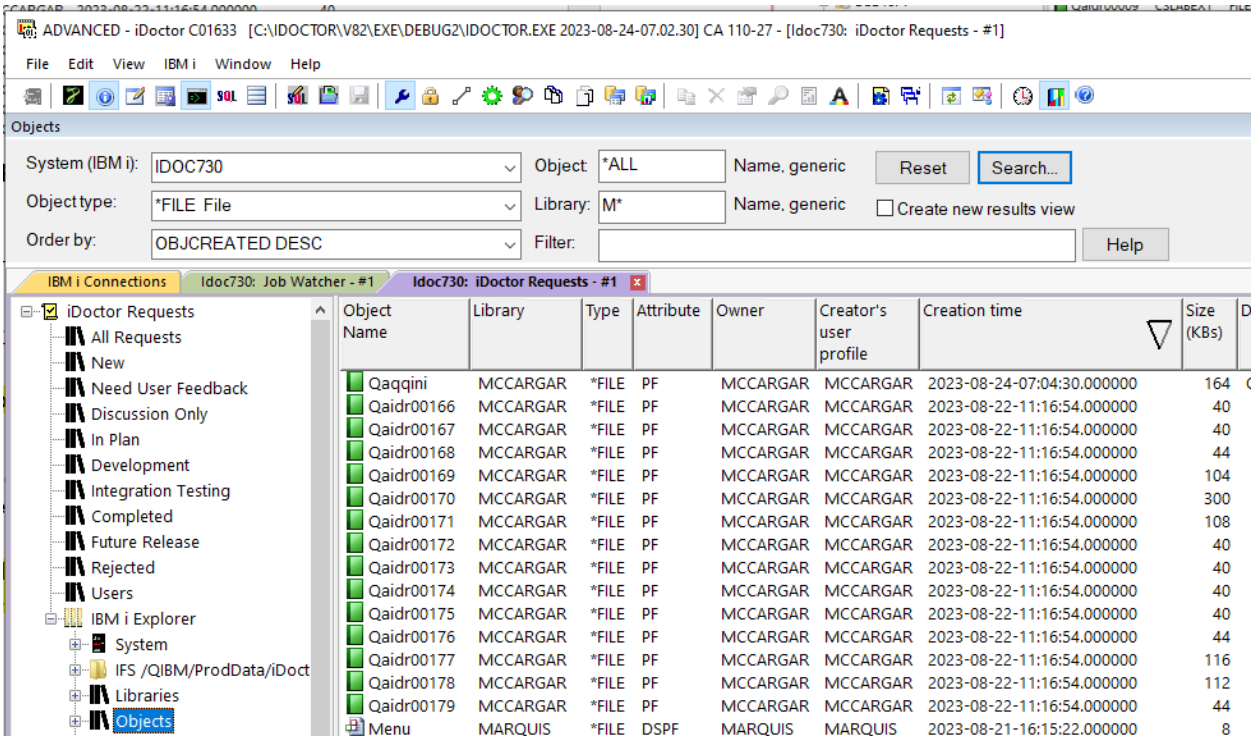


For more information see the Library Folders section within the Component Views chapter.

9.5 Objects

This folder contains a list of objects that match the filters set in the Objects Pane. It is required to set a filter before using this interface.

Note: Using a filter that is too broad will cause a much longer response time.



Depending on the object type, several additional options are available on a right-click of the object. Some object types can also be expanded like multiple member physical files will show a list of members, and output queues will contain spool files.

Tip: If this folder is taking a long time to build and you wish to cancel the operation, then click the X on the tab for this view and the SQL statement will be canceled. This is only possible if the mouse pointer is an hourglass/pointer combination.

9.5.1 Fields

The columns with a (*) are shown by default. The other columns can be added using Select Fields… menu.

Tip: These same columns are used and shown by expanding a library under the Libraries folder.

Field	Description
Object name (*)	Name of the object
Library (*)	Library
Object type (*)	The object type. This describes the kind of object shown.
Attribute (*)	This is used to further describe the type of object. For example, *FILE objects will have an attribute of SAVF, PF, DSPF or LF.
Owner (*)	The user profile that owns the object.
Creator's user profile (*)	The user profile that created the object.
Creation time (*)	The timestamp when the object was created.
Size (KBs) (*)	Size of the object in kilobytes.
Description (*)	The text that briefly describes the object.
IASP (*)	IASP name or ASP number.
Days-used count	The number of days an object has been used on the system.
System created on	The name of the system on which the object was created.
System version	The VRM of the system on which the object was created.
Licensed program	The name of the licensed program if the object is part of a licensed program.
Licensed program version	The VRM of the licensed program if the object is part of a licensed program.
Compiler	The licensed program identifier of the compiler that created the object (if applicable.)
Compiler version	The VRM of the compiler that created the object (if applicable.)
Object control level	The object control level for the object.
PTF	The Program Temporary Fix that resulted in the creation of this object.
APAR	The authorized program analysis report (APAR) with this identification number is associated with the last change. Will contain the value CHGDFT for a command that is changed using CHGCMDDFT. The Change Object Description (QLICOBJD) API can change this field to any value.
User-defined attribute	Further defines an object type. This field is set by the user by using the QLICOBJD API.
Allow change by program	Identifies whether or not any changes other than the text or the days used count and reset date can be made to the object's description by the Change Object Description (QLICOBJD) API.
Changed by program	Identifies whether the object has been modified by the Change Object Description (QLICOBJD) API.
Compressed	Indicates whether the object is compressed or decompressed. **NO -** Permanently decompressed and compressible. **YES -** Compressed. **TEMP -**Temporarily decompressed. **FREE -** Saved with storage freed; compression status cannot be determined. Contains the null value if the object is permanently decompressed and not compressible.
Primary group	The name of the user profile that is the primary group for the object.
Storage freed	The storage status of the object data. **NO -** The storage for the object data has not been freed. **YES -** The storage for the object data has been freed. See the SAVOBJ or SAVLIB command, STG parameter, for more details.
Overflow storage	Indicates if the object has overflowed the auxiliary storage pool it

	resides in.
Object domain	The domain that contains the object.
Object audit	The type of auditing for an object. ***ALL -** Audit all access to this object by all users on the system. All access is defined as a read or change operation. ***CHANGE -** Audit all change access to this object by all users on the system. ***NONE -** No auditing occurs for this object when it is read or changed regardless of the user who is accessing the object. ***USRPRF -** Audit this object only if the current user is being audited. The current user is tested to determine if auditing should be done for this object. The user profile can specify if only change access is audited or if both read and change accesses are audited for this object. Contains the null value if you do not have either all object (*ALLOBJ) or audit (*AUDIT) special authority.
Object signed	Indicates whether the object has a digital signature.

9.5.2 Menu Options

The popup menu options for objects will vary based on the object type.

All objects will have these options:

Menu	Description
Cut	This initiates a 2-part operation to move an object to another library using the MOVOBJ command. Use the Paste menu option on the desired library to complete the process.
Copy	This initiates a 2-part operation to copy an object to another library using the CRTDUPOBJ command. Use the Paste menu option on the desired library to complete the process.
Save…	This will save the selected objects to a save file.
Delete	Removes the objects from the system
Rename	Renames an object.
Properties	Displays object properties. Some object types will have additional tabs.

9.5.3 Physical/Logical Files (*FILE PF/LF)

Physical and logical files have additional options available described in this section.

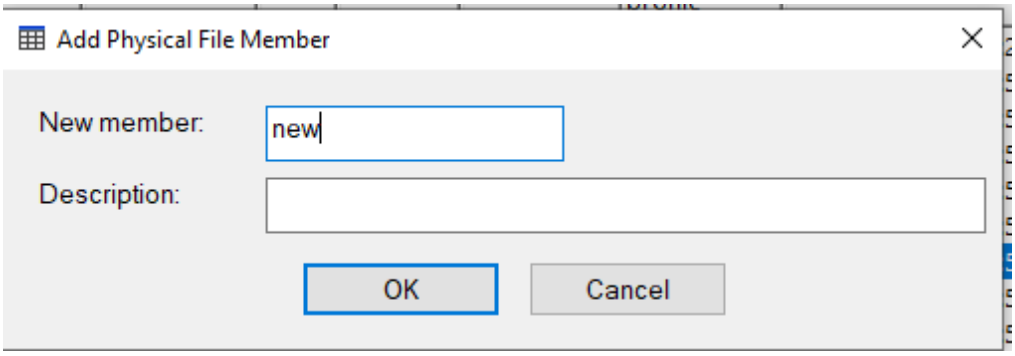
9.5.3.1 Menu Options

Menu	Description
Explore	This views the members within the file.
Select fields…	This option allows you to modify the columns shown within this folder.
Add Member	This is used to add a member to a physical file.
Clear (remove all members)	This option will issue a RMVM command to remove all members from the selected file. This only works for multi-member physical files.
Properties	The properties for PF/LF files will contain additional tabs File and Field.

9.5.3.2 Add Member

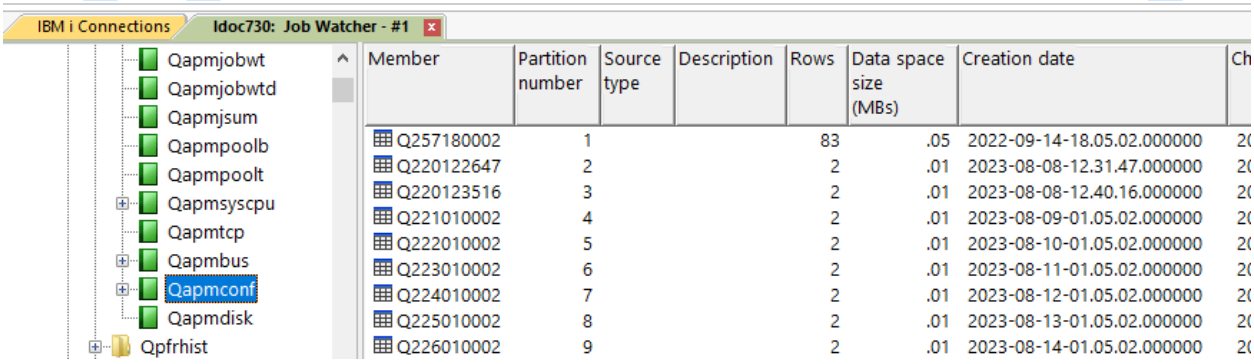
If a **physical file** is selected, this presents a window that allows an additional member to be added to the file selected.

Note: This only works if the maximum allowed members setting on the file has not been exceeded.



9.5.3.3 Members

The following is an example of the contents of a physical file in iDoctor.



9.5.3.3.1 Menu Options

Menu	Description
Open Table(s)	This creates a table view in the Data Viewer, 1 for each selected member.
Save…	Saves the selected member(s) to a save file.
Clear	This option will run an SQL statement to delete all data in the selected member but leaves the member.
Delete	This option will remove the selected member(s) from the system.
Rename	This option renames the member.
Properties	These are the properties for the selected member, rather than the file.

9.5.3.3.2 Open Table(s)

This option opens the selected member(s) in the Data Viewer, each in a separate view.

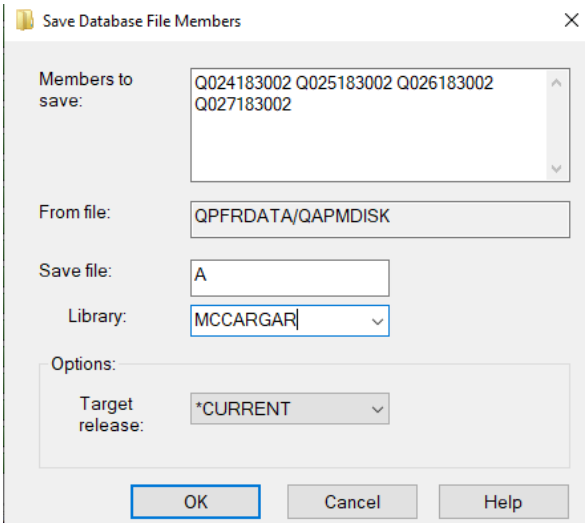
Idoc730/MCCARGAR/QAQQINI - #1

```
CREATE OR REPLACE ALIAS QTEMP/QAQQINI_MCCARGAR_QAQQINI FOR MCCARGAR/QAQQINI(QAQQINI);
SELECT * FROM QTEMP/QAQQINI_MCCARGAR_QAQQINI;
```

Parameter (QQPARM)	Parameter Value (QQVAL)	Query Option Text (QQTEXT)
APPLY_REMOTE	*DEFAULT	
PARALLEL_DEGREE	*DEFAULT	
ASYNC_JOB_USAGE	*DEFAULT	
QUERY_TIME_LIMIT	*DEFAULT	
UDF_TIME_OUT	*DEFAULT	
MESSAGES_DEBUG	*DEFAULT	
PARAMETER_MARKER_CONVERSION	*NO	
OPEN_CURSOR_THRESHOLD	*DEFAULT	
OPEN_CURSOR_CLOSE_COUNT	*DEFAULT	
OPTIMIZE_STATISTIC_LIMITATION	*DEFAULT	
OPTIMIZATION_GOAL	*DEFAULT	
FORCE_JOIN_ORDER	*DEFAULT	
COMMITMENT_CONTROL_LOCK_LIMIT	*DEFAULT	

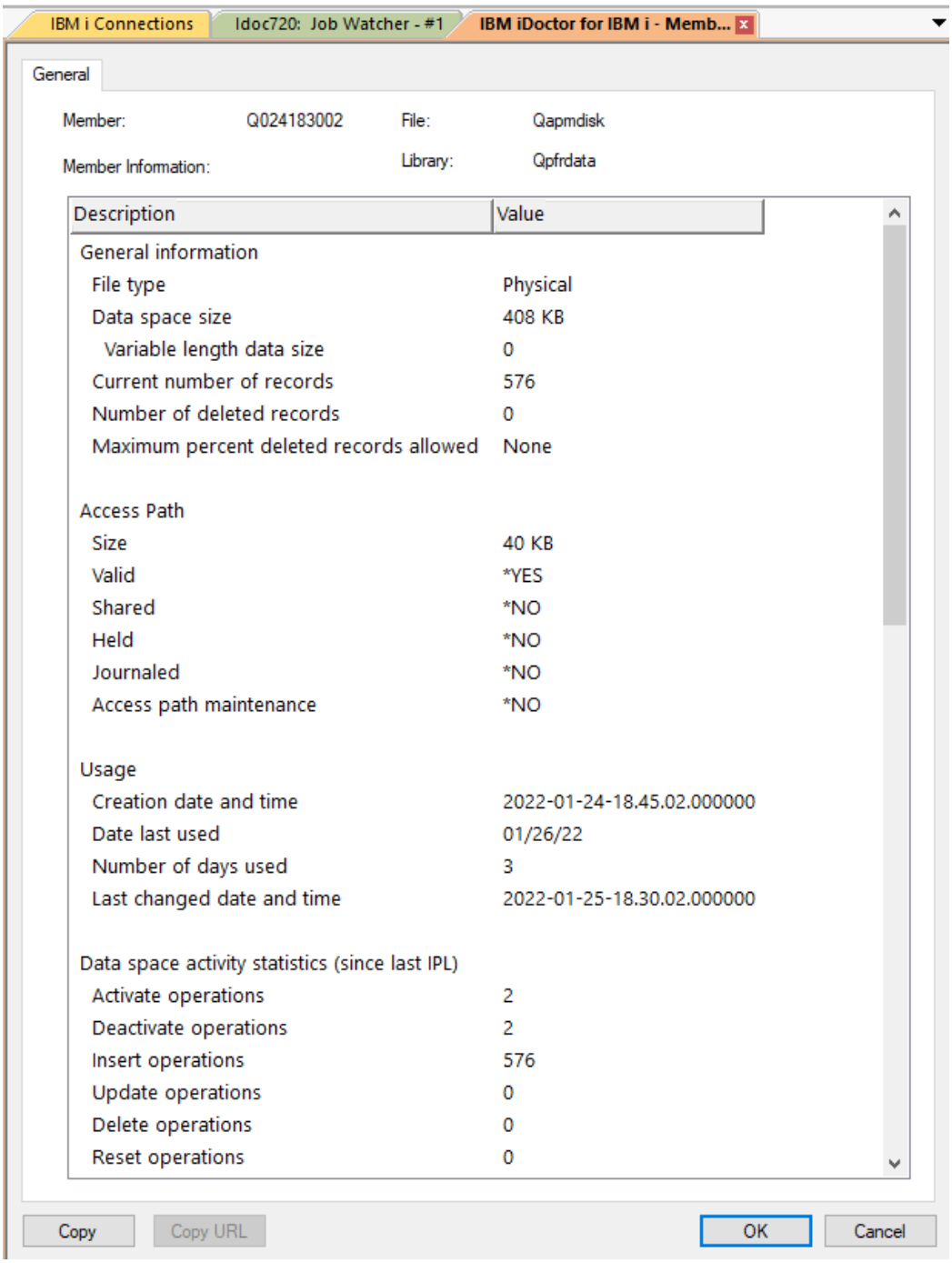
9.5.3.3.3 Save

This window is used to save one or more physical or logical file members to a save file using the SAVOBJ command.



9.5.3.3.4 Properties

Member properties provide many details about the physical file/member. For more information on these values, see the QUSRMBRD API documentation.

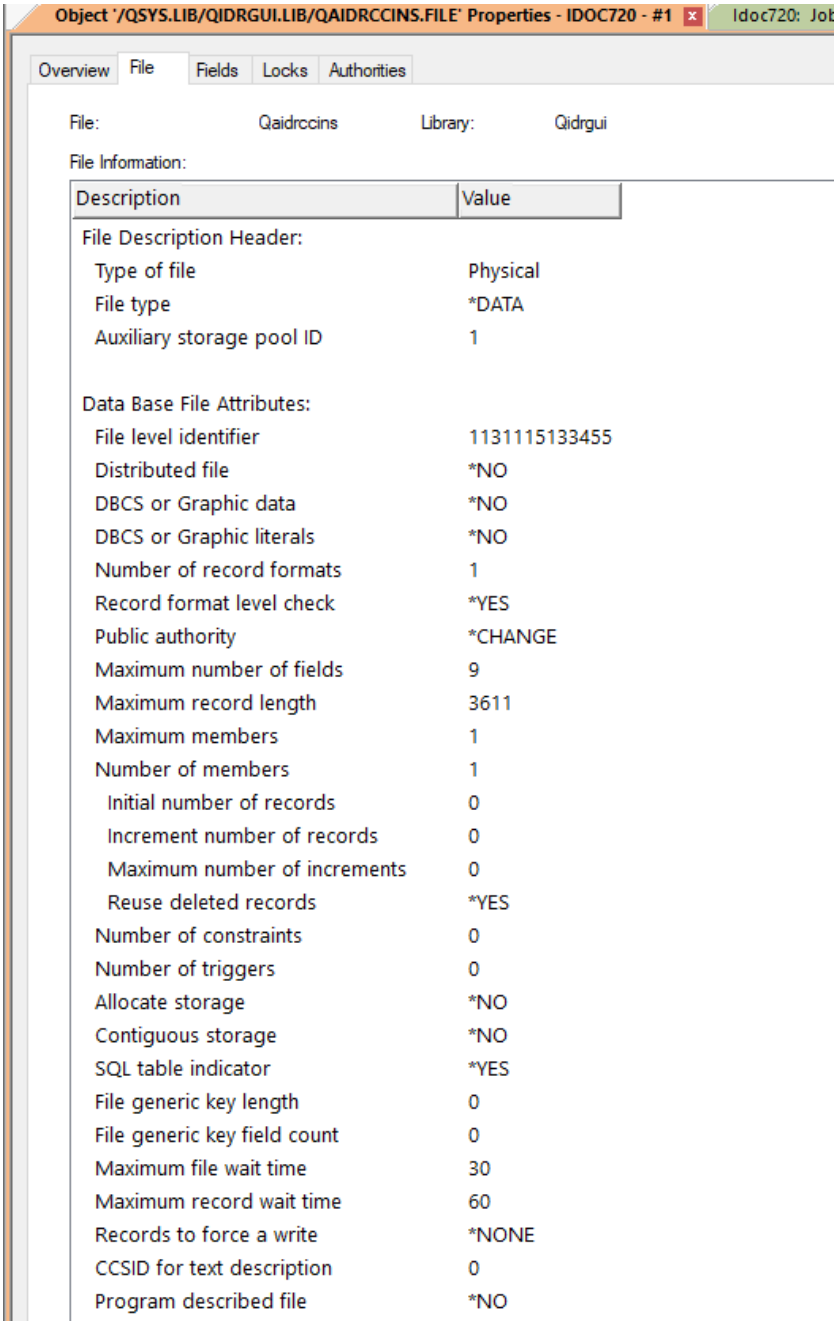


9.5.3.4 Properties

This section describes the additional properties that only applies to *FILE object types.

9.5.3.4.1 File

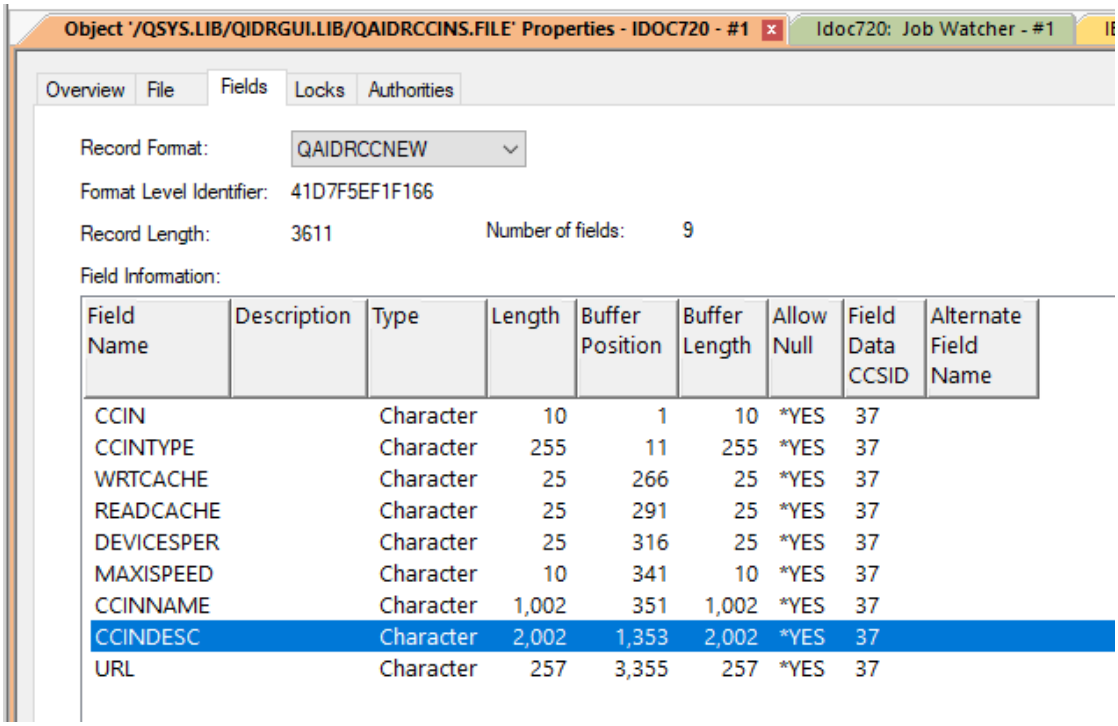
This tab provides a large amount of detail about the File like that displayed when using the DSPFD command on the IBM i.



9.5.3.4.2 Fields

This tab includes the list of record formats in a drop-down list, along with a list of fields that exist within the record format selected.

This information returned is like the DSPFFD command on the IBM i.



Field Name	Description	Type	Length	Buffer Position	Buffer Length	Allow Null	Field Data CCSID	Alternate Field Name
CCIN		Character	10	1	10	*YES	37	
CCINTYPE		Character	255	11	255	*YES	37	
WRTCACHE		Character	25	266	25	*YES	37	
READCACHE		Character	25	291	25	*YES	37	
DEVICESPER		Character	25	316	25	*YES	37	
MAXISPEED		Character	10	341	10	*YES	37	
CCINNAME		Character	1,002	351	1,002	*YES	37	
CCINDESC		Character	2,002	1,353	2,002	*YES	37	
URL		Character	257	3,355	257	*YES	37	

9.5.4 Save files (*FILE SAVF)

Save files are often used as a compression and transport mechanism to move data to another system.

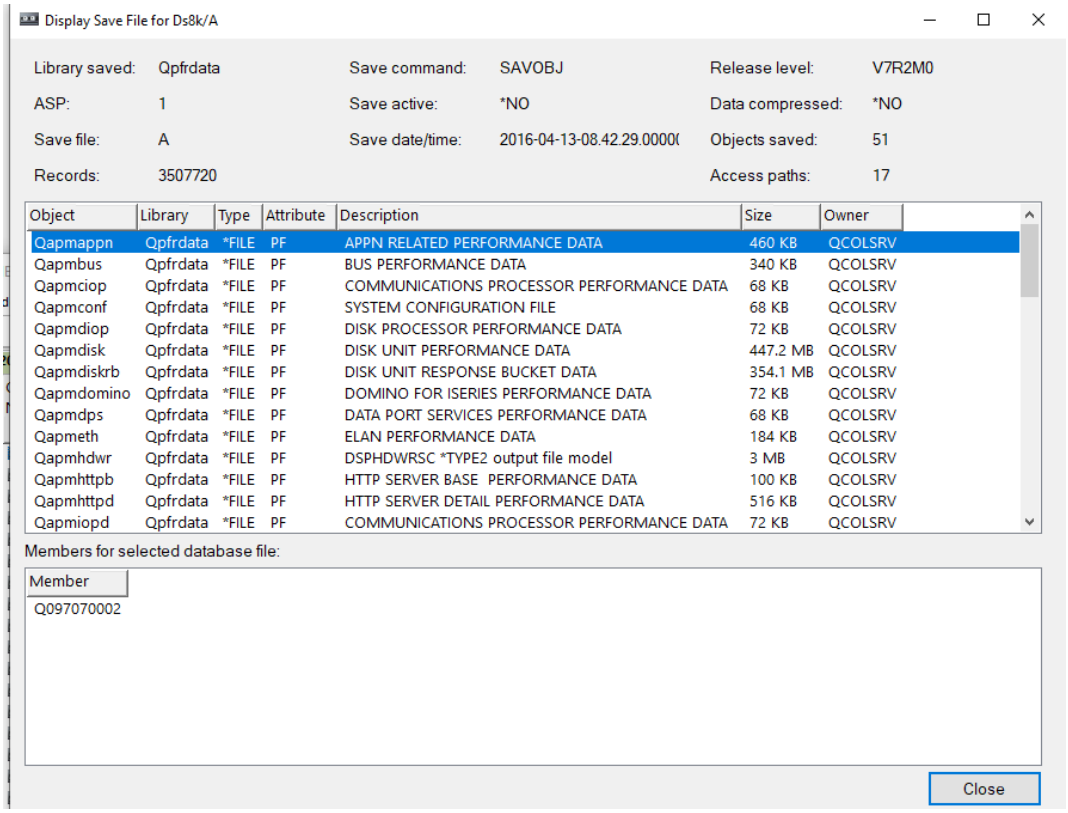
9.5.4.1 Menu Options

Menu	Description
Display	This option displays the contents of the save file in a new window.
Download	This can be used to download the selected file(s) to the PC.
Restore	This option will present either the Restore Library or Restore Objects window depending on the contents of the data within the save file.
Transfer to...	Allows a user to transfer one or more save files to another system.
Clear	This option runs the CLRSAVF command against the save file to clear its contents.

9.5.4.2 Display

This interface is used to display the contents of a save file. Changing the selection to include a *FILE PF/LF will update the member list shown in this window to indicate the members saved within the selected field.

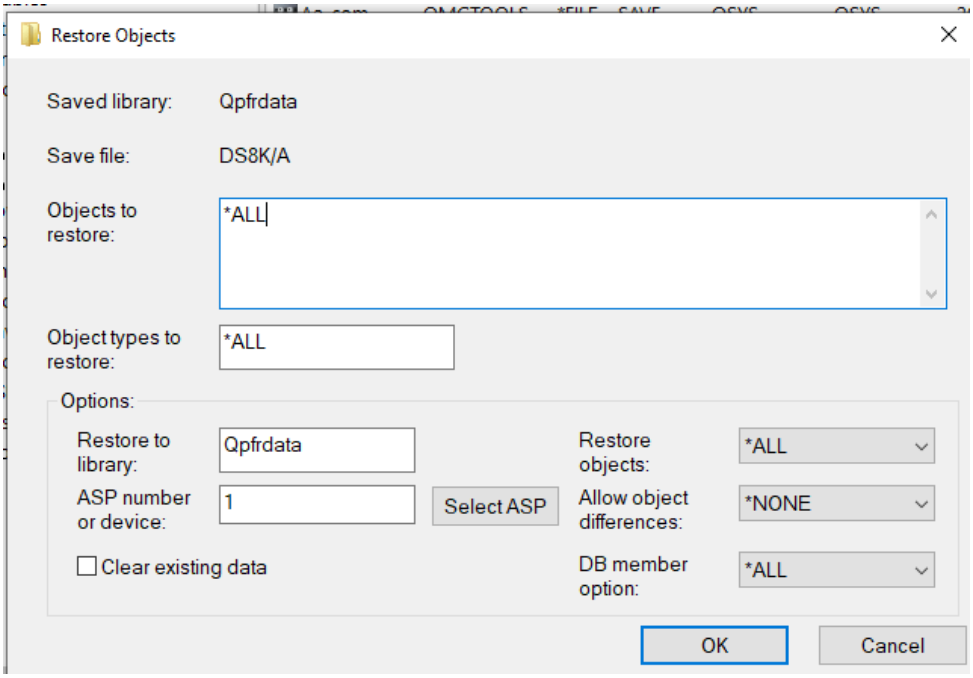
Note: This option does not work for save files created using the SAV command.



9.5.4.3 Restore Objects

This interface is used to restore a save file's contents created using the SAVOBJ command. After confirming the desired options and pressing OK, a RSTOBJ command will be built and executed in the Remote Command Status View.

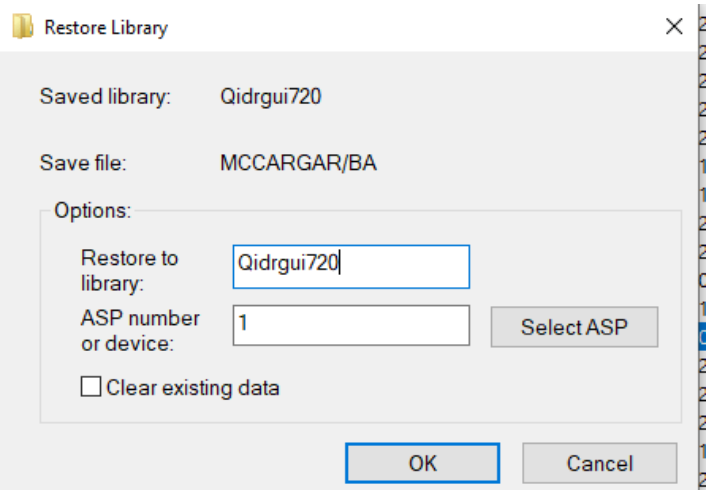
See the RSTOBJ command help text for more information about the parameters shown in this interface.



9.5.4.4 Restore Library

This interface is used to restore a save file's contents created using the SAVLIB command. After confirming the desired options and pressing OK, a RSTLIB command will be built and executed in the Remote Command Status View.

See the RSTLIB command help text for more information about the parameters shown in this interface.



9.5.5 Display files (*FILE DSPF)

Display files contain logic that determines how a green screen interface will appear.

The Source tab may appear in Properties if available.

9.5.6 DDM files (*FILE DDMF)

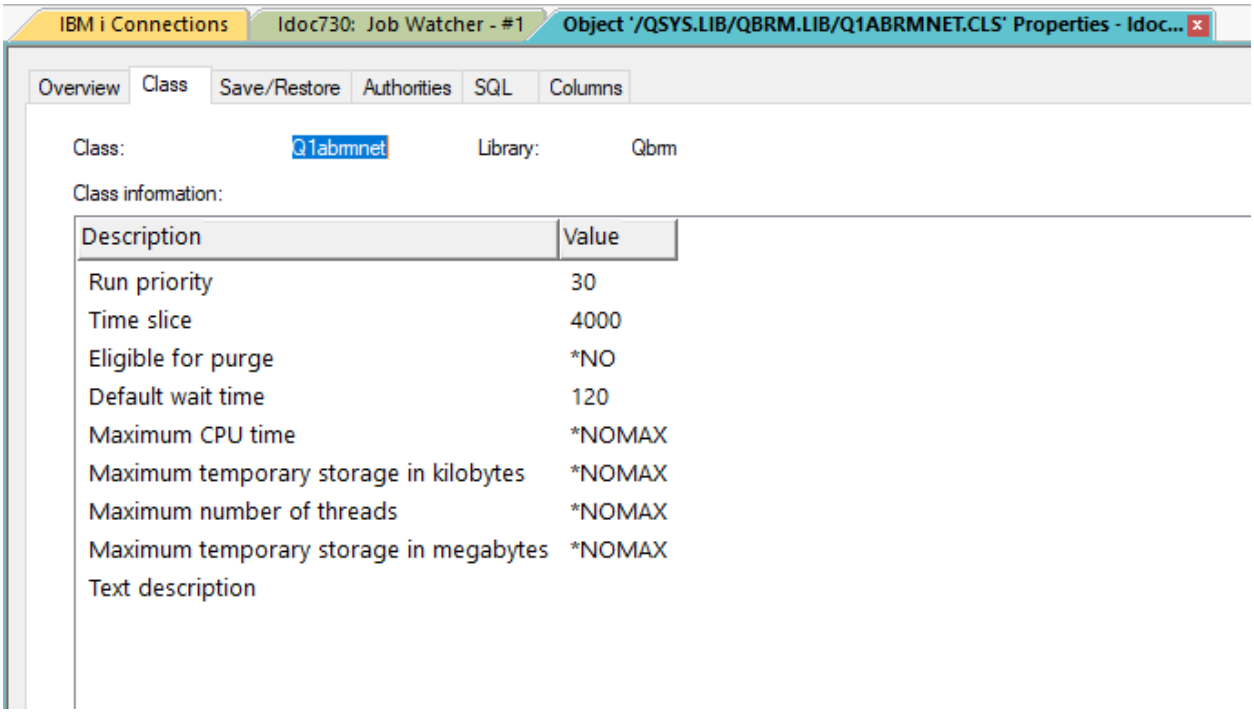
No additional information is provided for these files.

9.5.7 Class (*CLS)

A class contains parameters that control the running of a routing step (related to subsystems).

9.5.7.1 Properties

Class objects have an additional **Class** tab in the Object properties. See the QWCRCLSI API for more information.

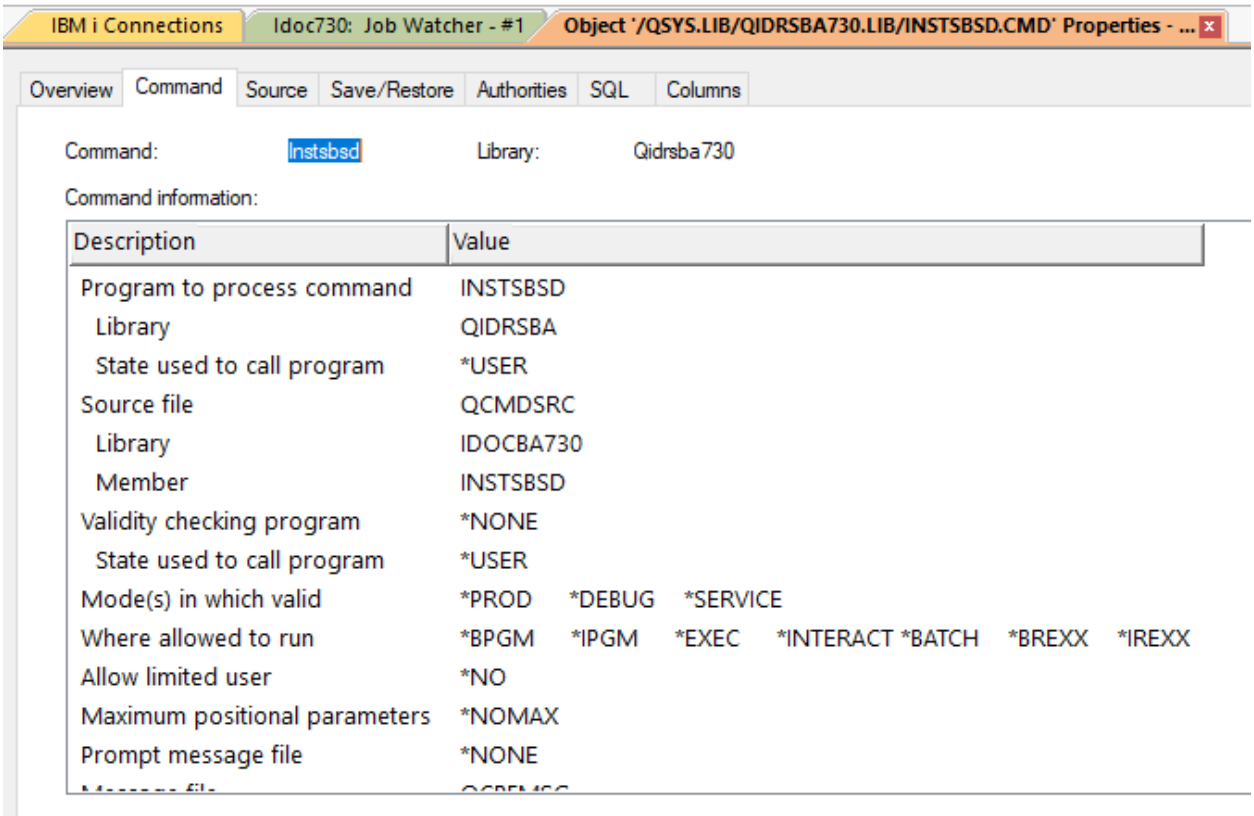


9.5.8 Command (*CMD)

Commands are used to perform some action on the system.

9.5.8.1 Properties

Command objects provides an additional **Command** tab. See the QCDRCMDI API for more information.



The Source tab will appear as well if the source code is available.

9.5.9 Data Area (*DTAARA)

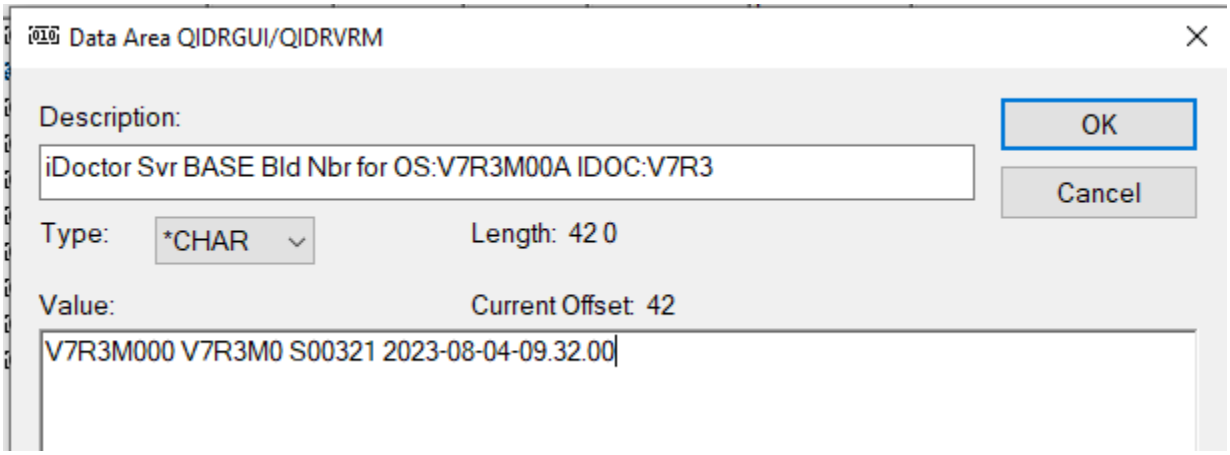
Data areas are an object type used to store a small amount of information on the system.

9.5.9.1 Menu Options

Menu	Description
Change…	Use this to view or modify the data area. **Tip:** Double-click will also perform this action.

9.5.9.2 Change

Use this interface to modify or view a data area or its description.



9.5.10 Data Queue (*DTAQ)

Data queues are used in certain programs where a data management sequence is needed.

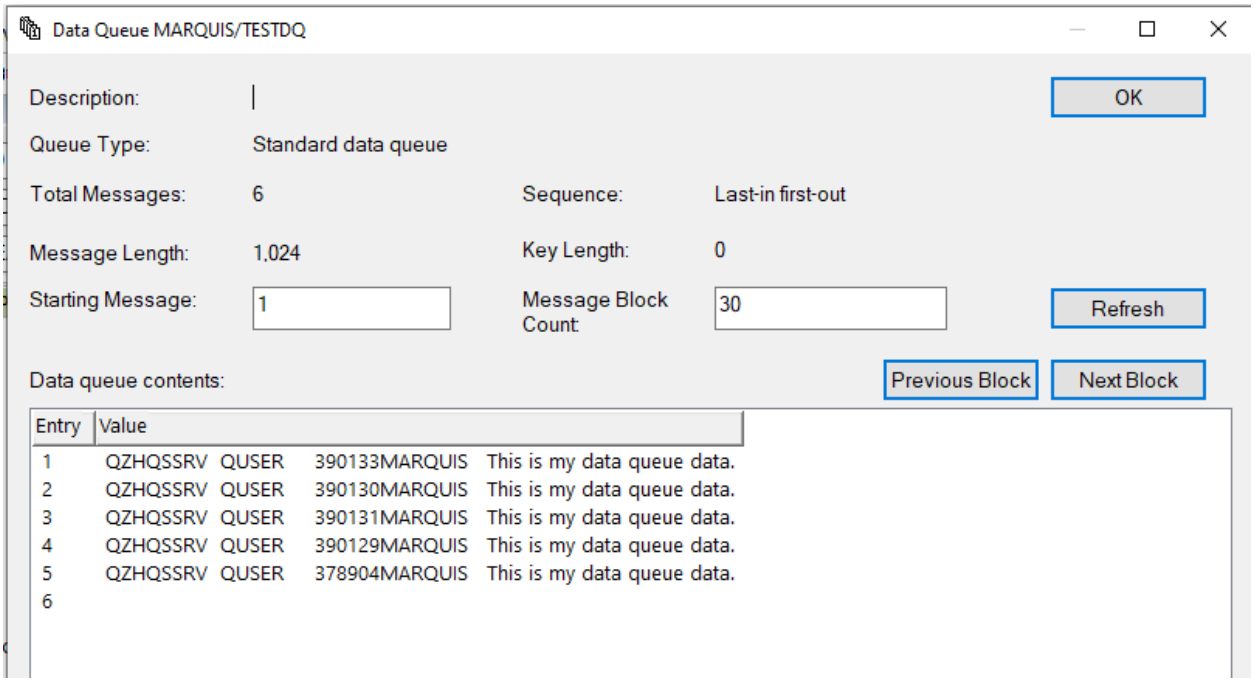
9.5.10.1 Menu Options

Menu	Description
Display	This action will display information about the data queue and its contents.

9.5.10.2 Display

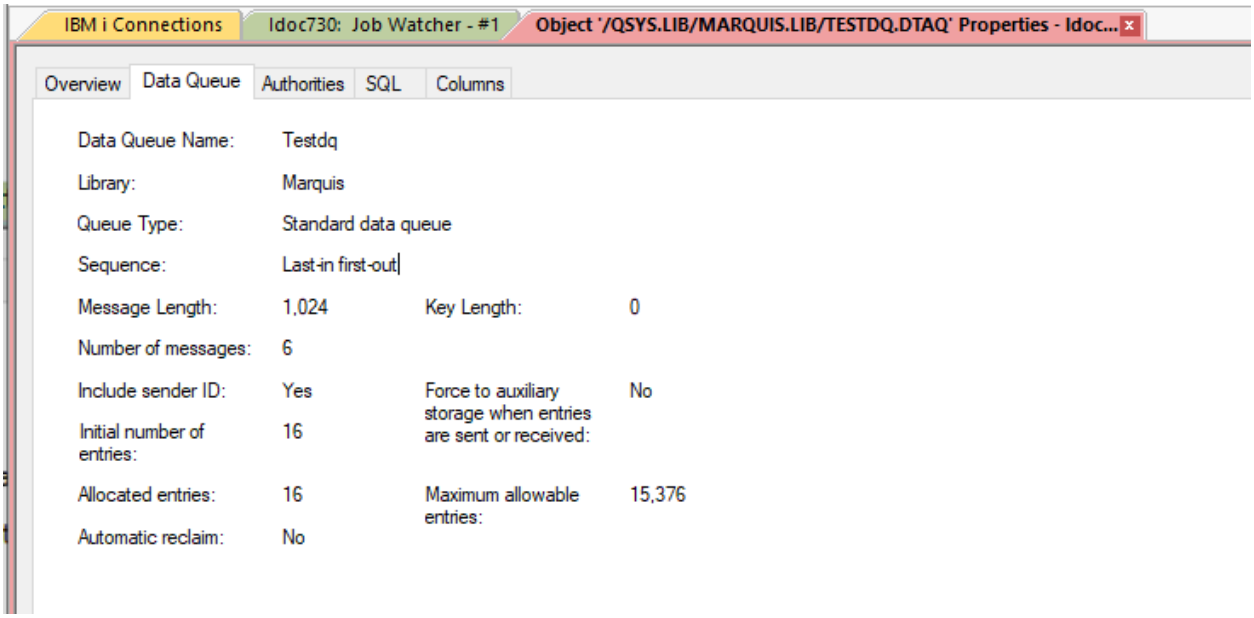
This window displays information about the data queue and its contents (if not empty).

The entries in the data queue are retrieved only for the range specified.



9.5.10.3 Properties

This Data Queue tab in Properties provides additional information. See the QMHQRDQD API for more information.

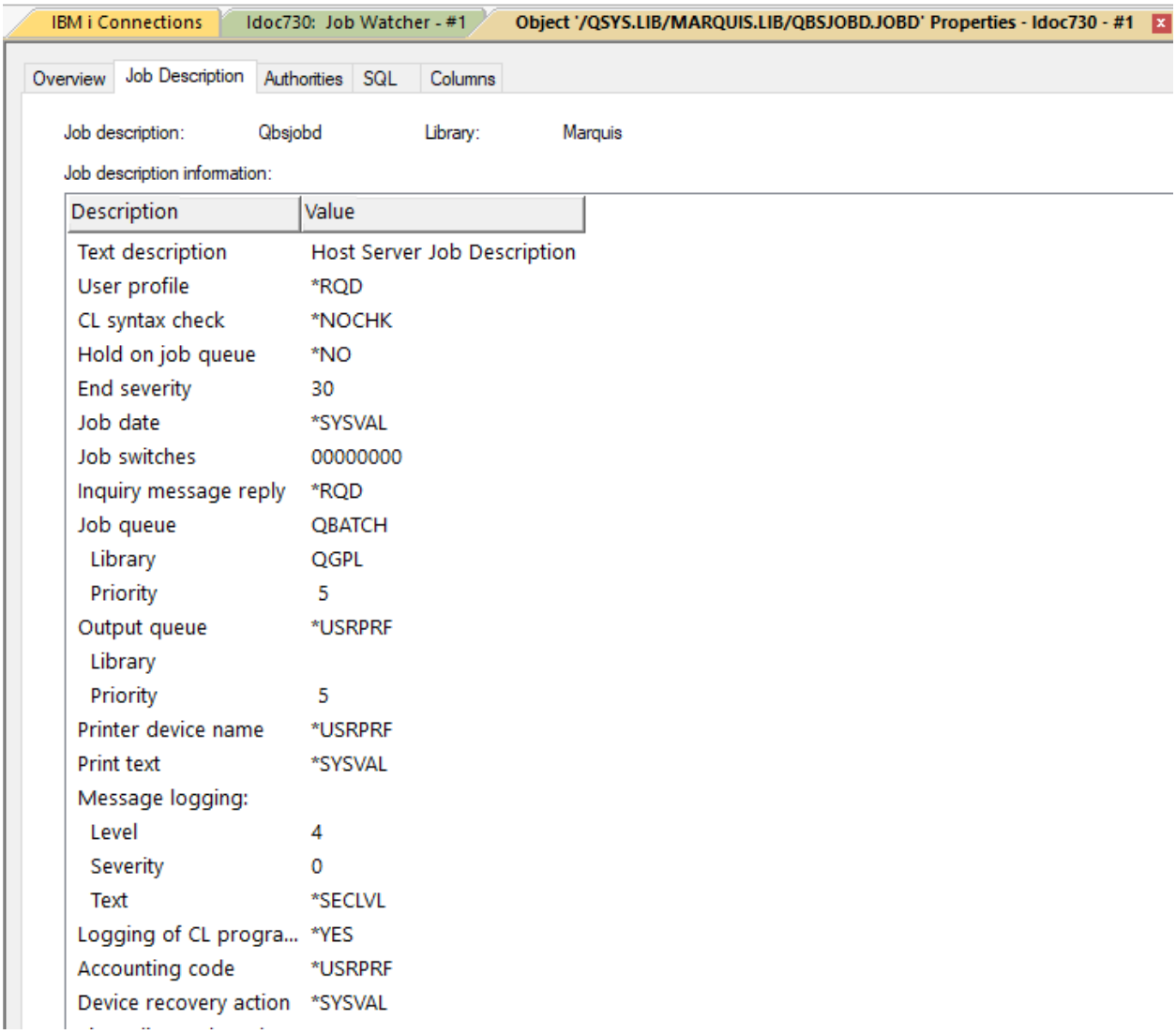


9.5.11 Job Description (*JOBD)

Job descriptions control aspects of how a job will run.

9.5.11.1 Properties

The Job descriptions tab will appear in Properties with more details. See the QWDRJOBD API for more information.



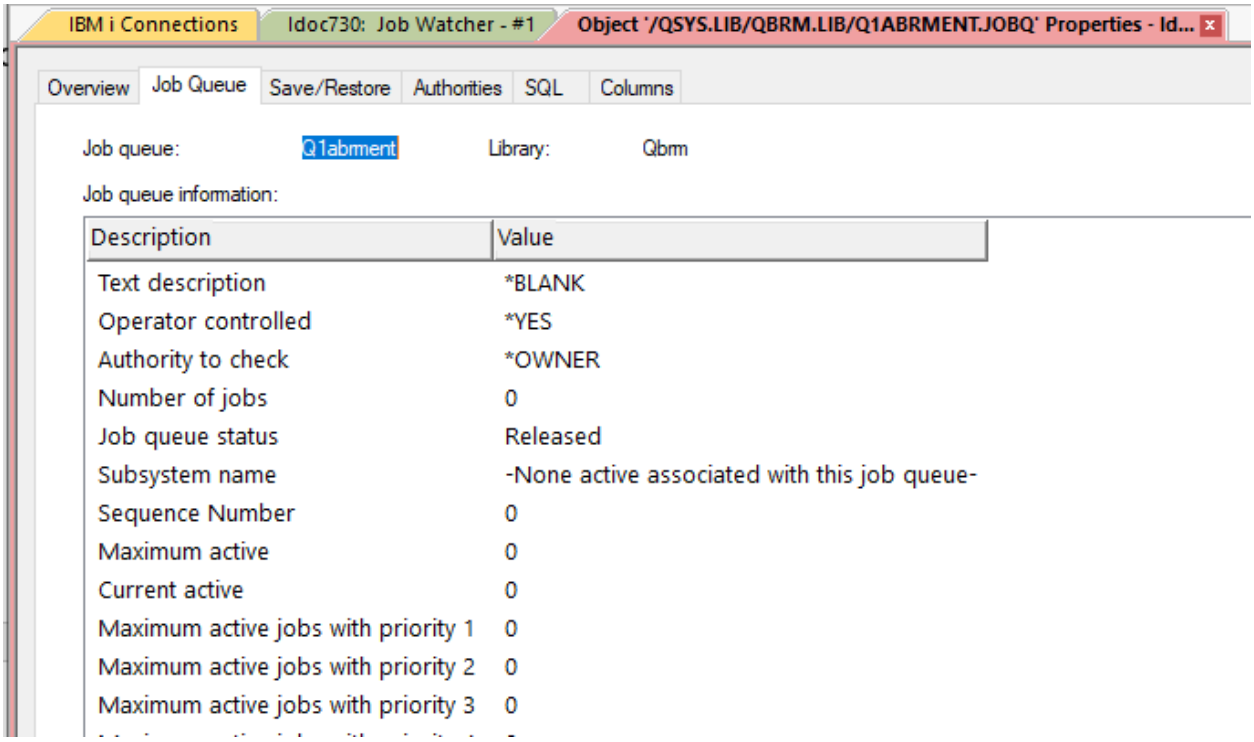
9.5.12 Job Queue (*JOBQ)

A job queue contains an ordered list of jobs waiting to be processed by a subsystem. The job queue is the first place that a submitted batch job goes before becoming active in a subsystem. The job is held here until a number of factors are met.

Tip: Viewing a job queue object within a library or the Objects folder does not contain status information or the number of jobs in the job queue. Use the Work management -> Active job queues folder for those functions.

9.5.12.1 Properties

The Job queue tab provides information relating to the job queue. See the QSPRJOBQ API for more information.



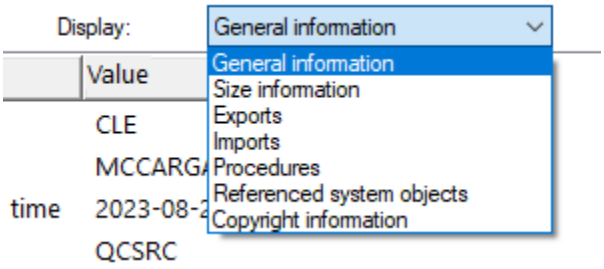
9.5.13 Module (*MODULE)

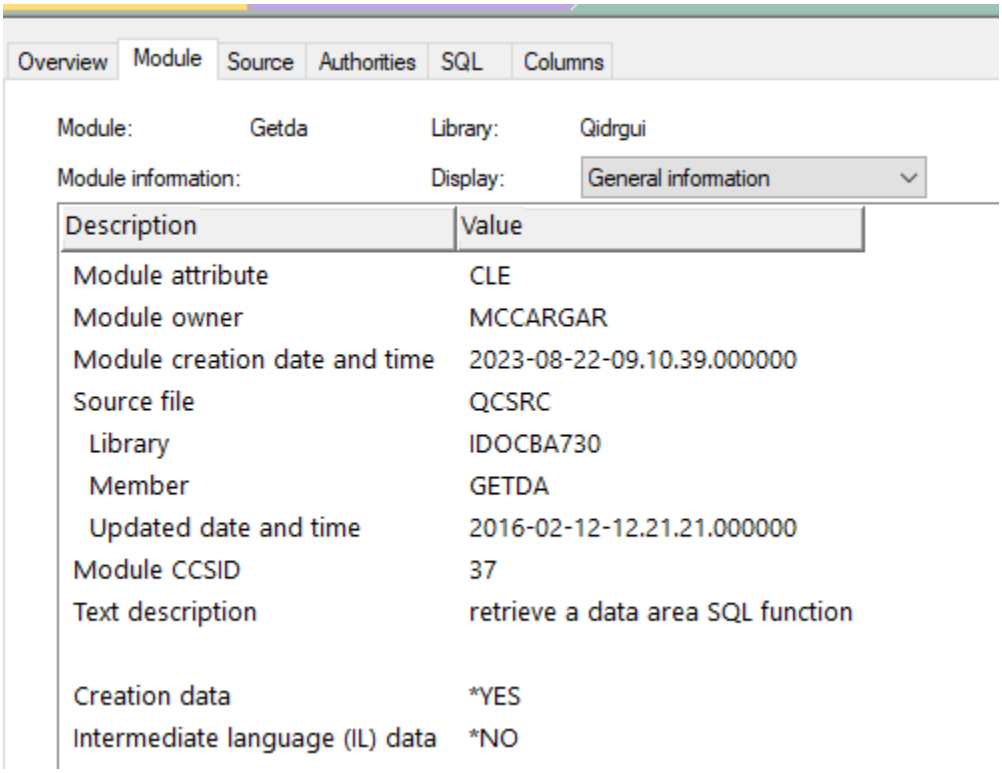
Modules are used *PGM or *SRVPGM objects on IBM i.

9.5.13.1 Properties

The Module tab provides information found within the module object.

Use the Display drop-down list to toggle between these choices:





See the QBNRMODI (Retrieve Module Information) API for more information.

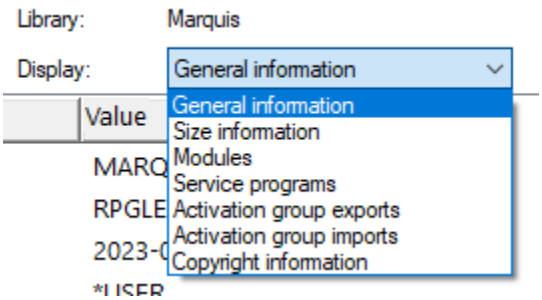
9.5.14 Program (*PGM)

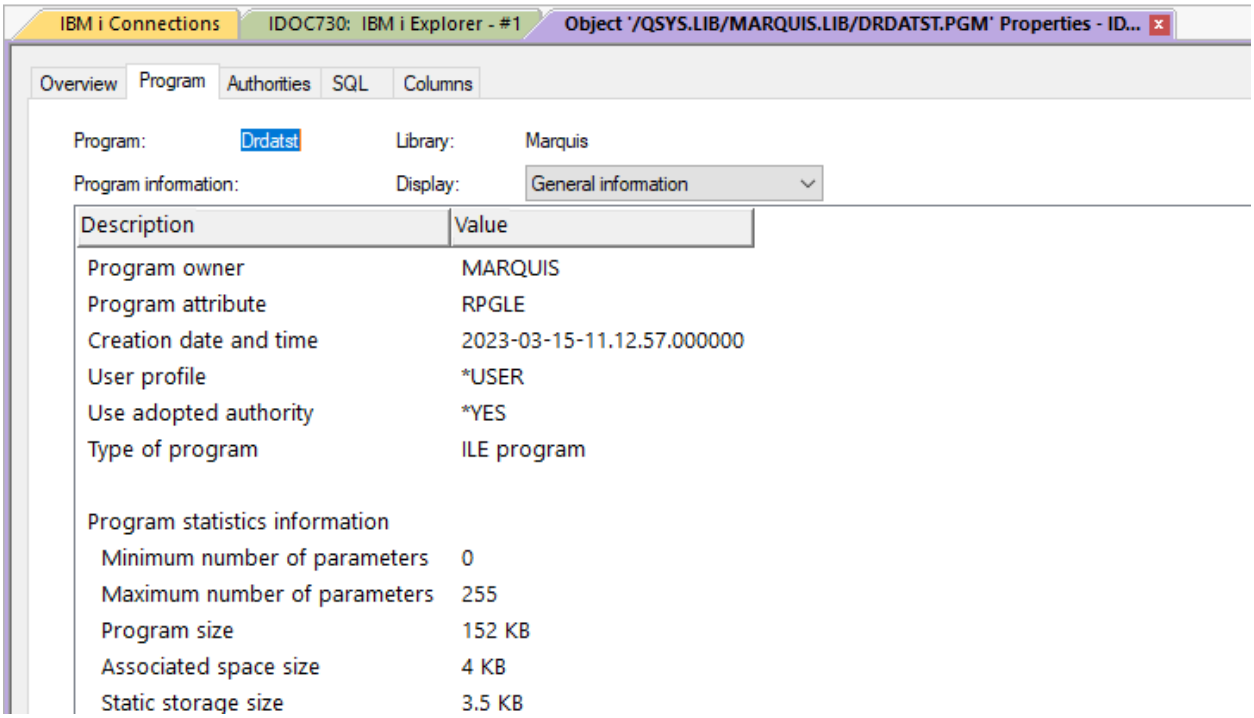
Programs are used to perform work on IBM i.

9.5.14.1 Properties

The **Program** tab provides information found within the program object.

Use the Display drop-down list to toggle between these choices:





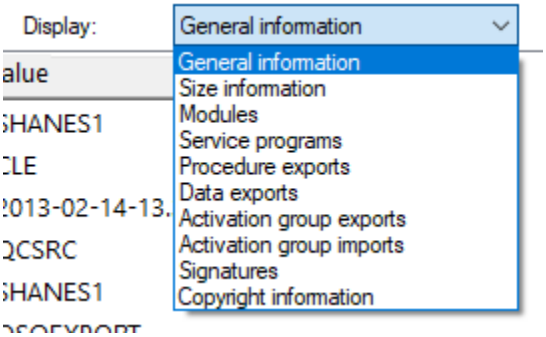
9.5.15 Service Program (*SRVPGM)

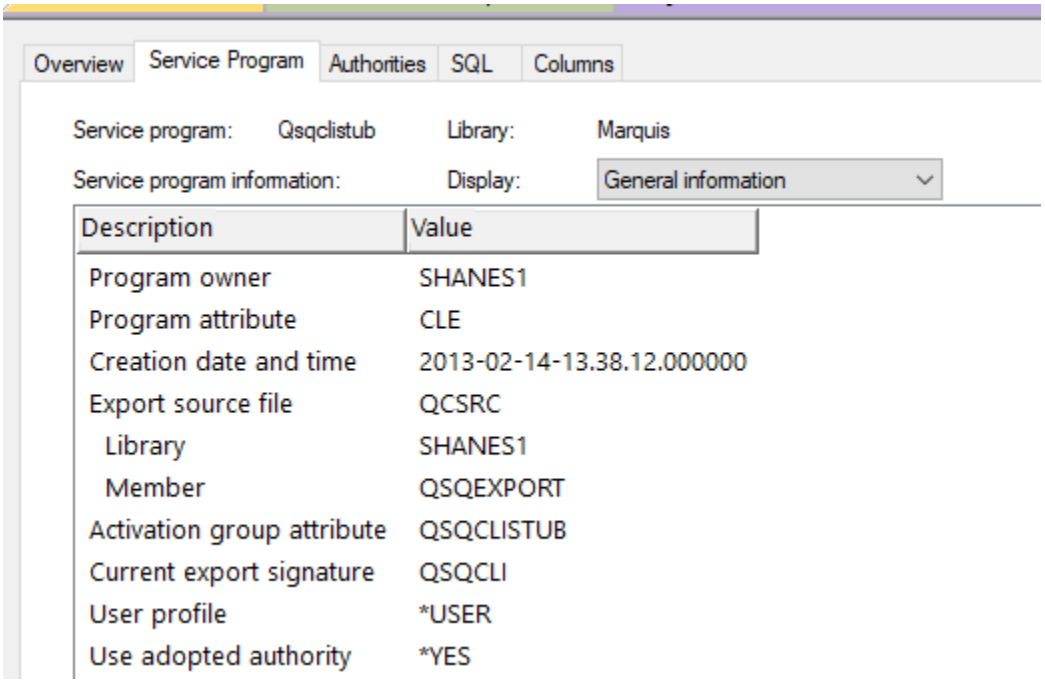
Service programs are used to perform work on IBM i.

9.5.15.1 Properties

The **Service program** tab provides information found within the service program object.

Use the Display drop-down list to toggle between these choices:





9.5.16 User index (*USRIDX)

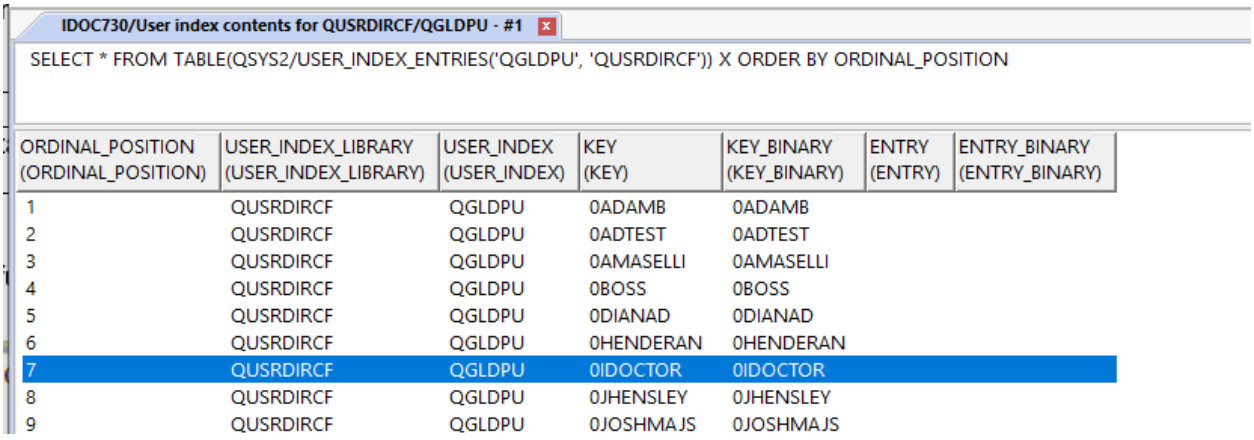
User indexes contain data commonly used by many APIs.

9.5.16.1 Menu Options

Menu	Description
Display	This action will run an SQL statement to display the contents of the user index in the Data Viewer.

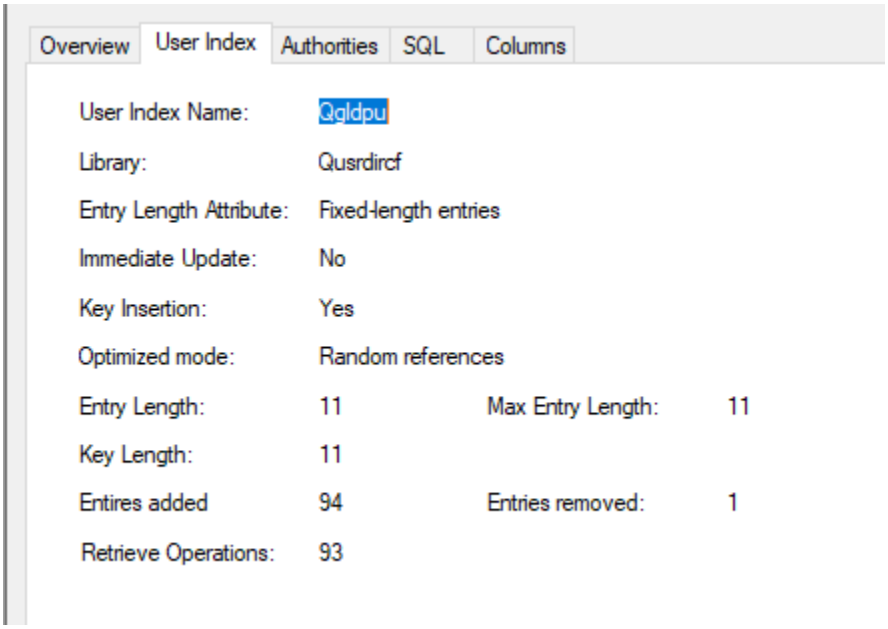
9.5.16.2 Display

This function uses the USER_INDEX_ENTRIES SQL table function to provide the contents of the user index within a table view in the Data Viewer.



9.5.16.3 Properties

The **User index** tab provides information found within the user index object.



9.5.17 User space (*USRSPC)

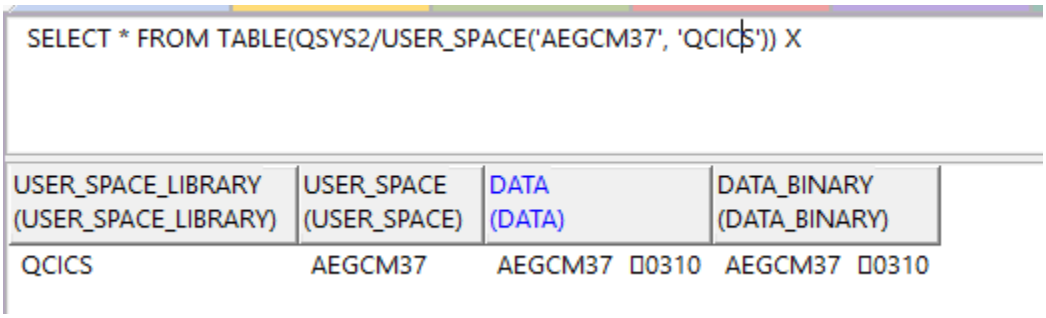
User spaces contains data commonly used by many APIs.

9.5.17.1 Menu Options

Menu	Description
Display	This action will run an SQL statement to display the contents of the user space in the Data Viewer.

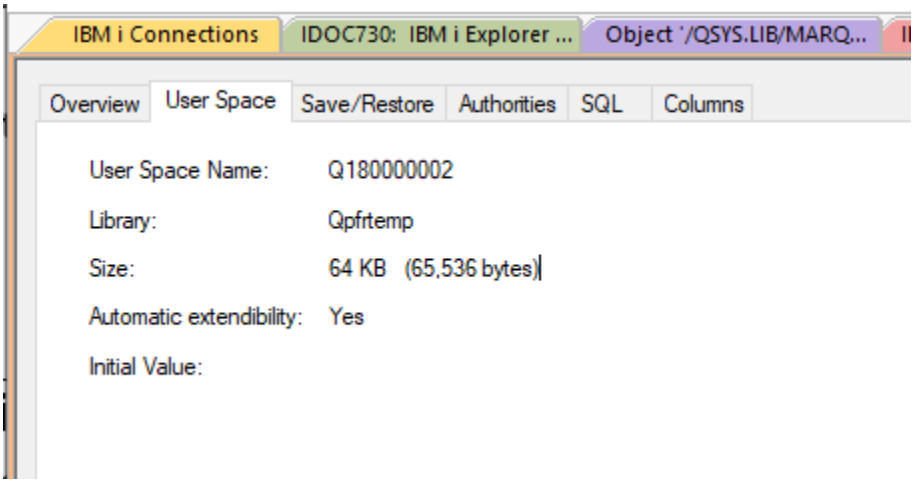
9.5.17.2 Display

This function uses the USER_SPACE SQL table function to provide the contents of the user space within a table view in the Data Viewer.



9.5.17.3 Properties

The **User space** tab provides information found within the user space object.



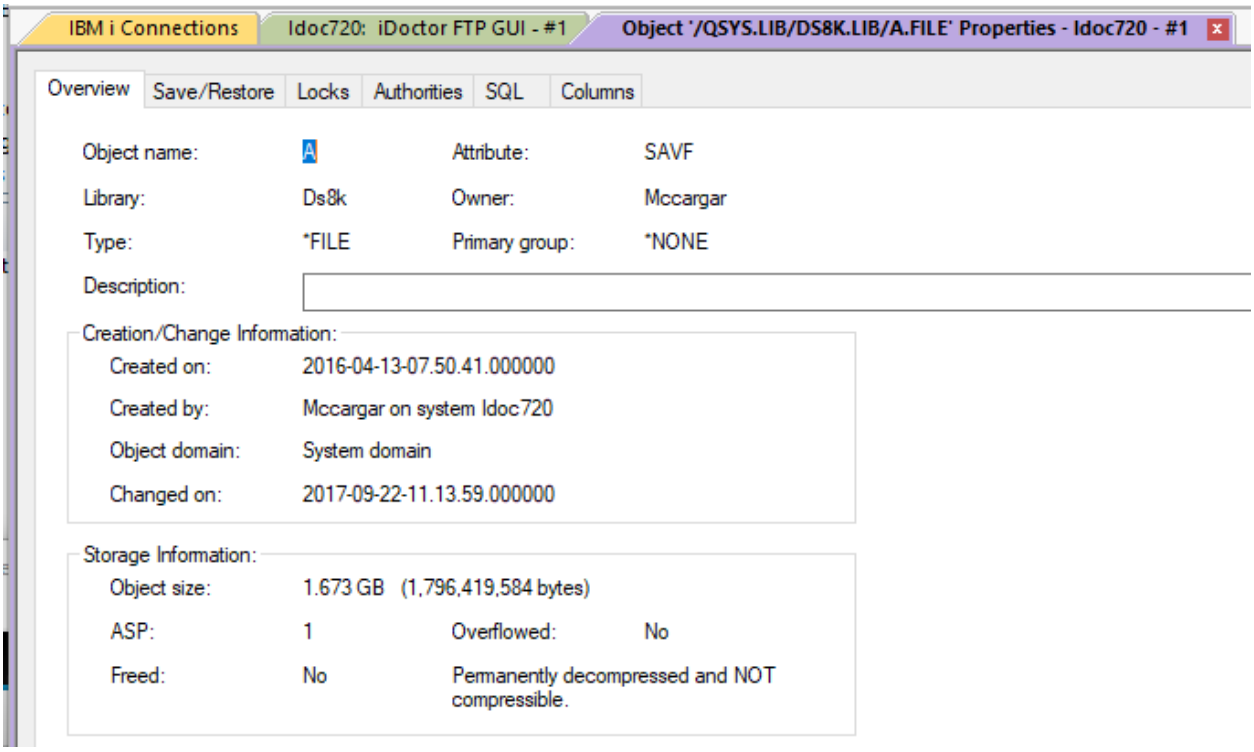
9.5.18 Object Properties

The properties for objects consist of several tabs providing more details about the object.

In some cases, additional tabs will appear based on the object type. For example, *FILE objects contain File and Fields tabs within their properties.

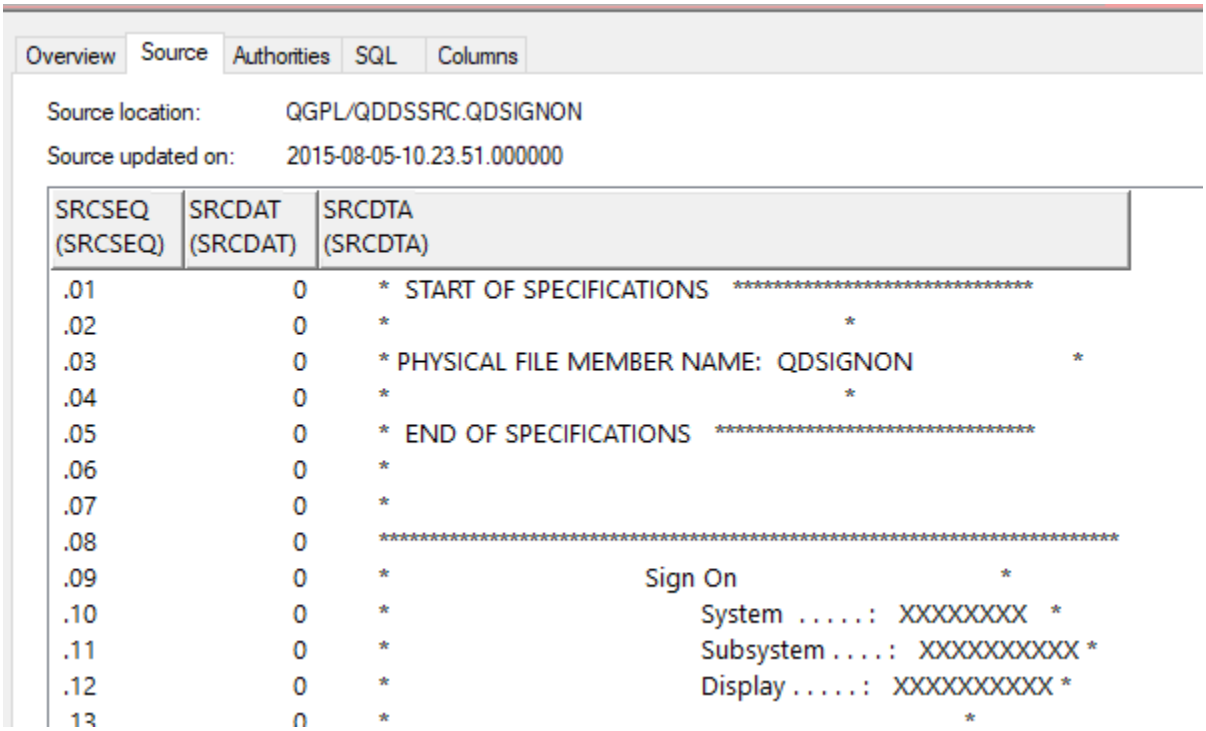
9.5.18.1 Overview

The Overview tab contains general information about the object. It offers the ability to modify the object description by typing in a new value and pressing OK.



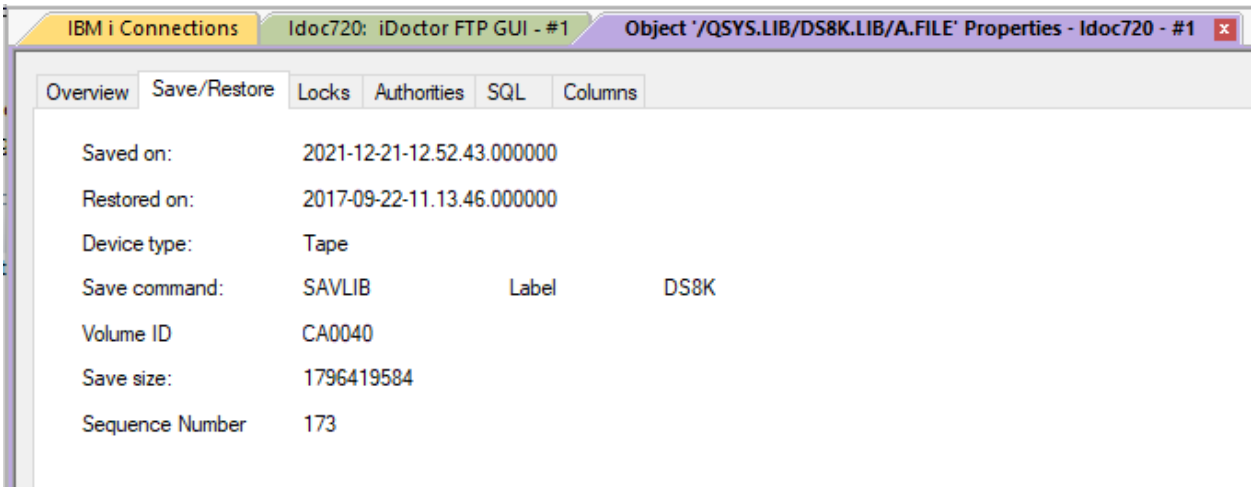
9.5.18.2 Source

If the object contains source code information and that source code exists on the system, it will be displayed on this tab.



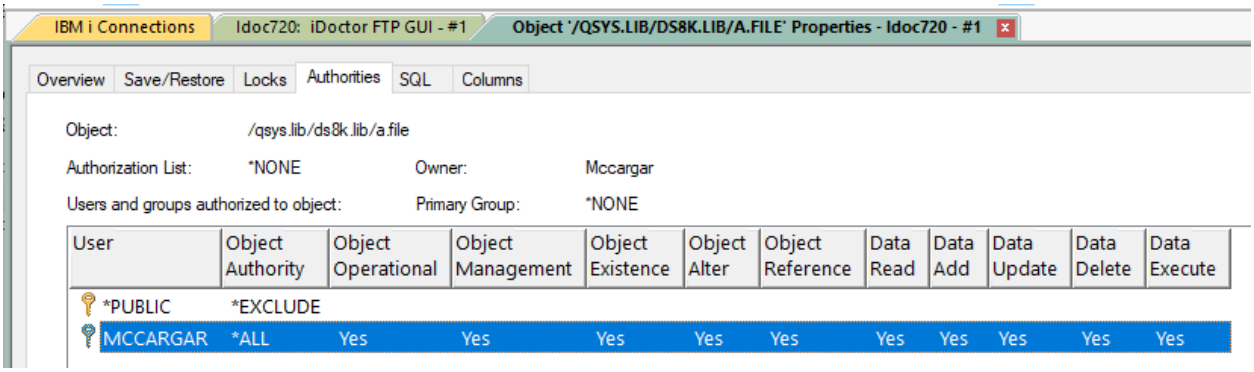
9.5.18.3 Save/Restore

This tab provides information about the last save or restore operation done on the object.



9.5.18.4 Authorities

The Authorities tab shows a list of users that have authority to the object and each authority setting. This interface is like the DSPOBJAUT command.



The following information is shown for each user in the list.

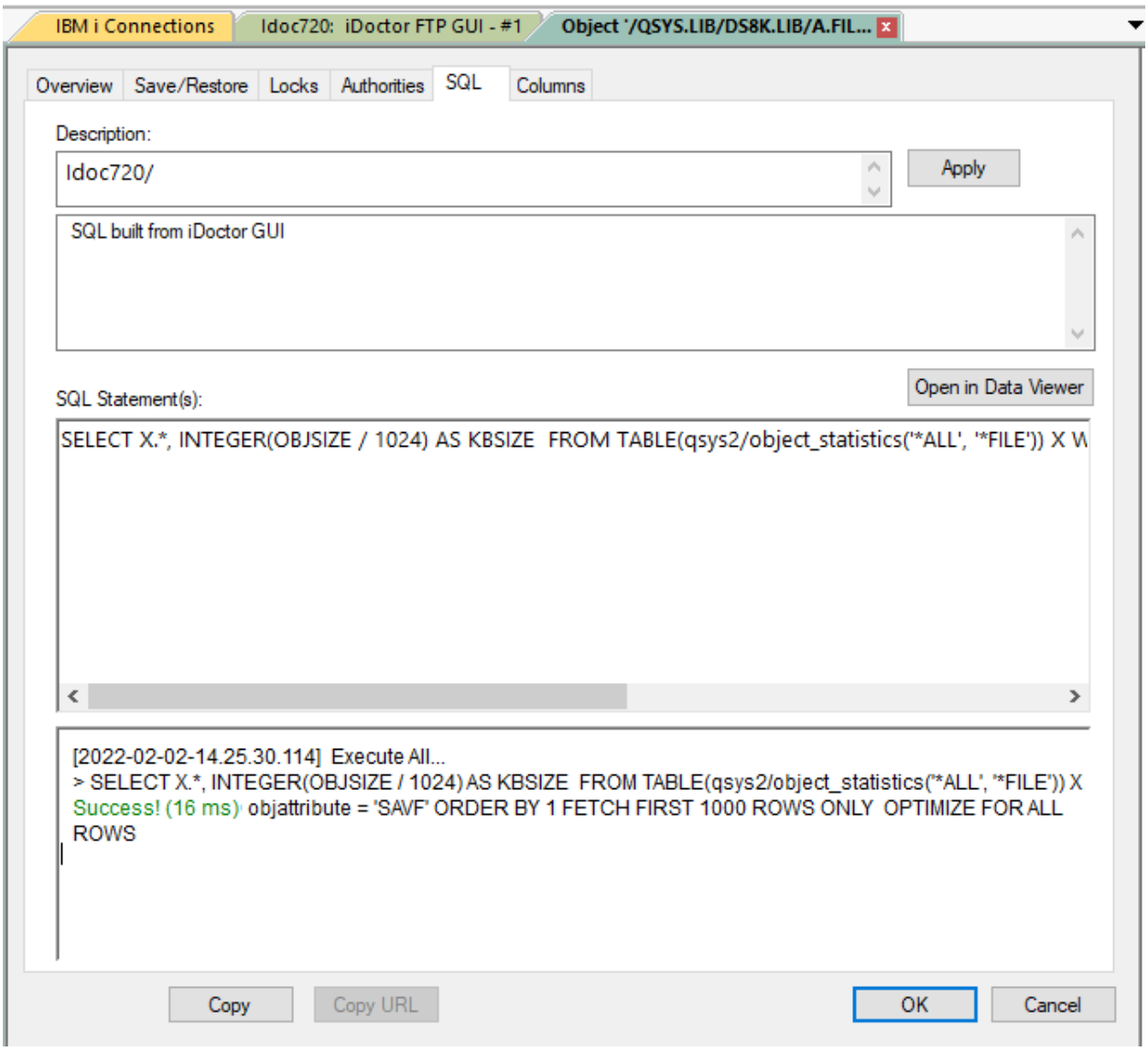
Option	Description
User	The names of users who are authorized to use the object. The value *PUBLIC is used to indicate the authorities of users who are not specifically named and are not in the object's authorization list.
Group	A group from which the user receives authority.
Obj Authority	The user's authority to the object. This field contains one of the following values: ***ALL** The user has all object (operational, management, existence, alter, and reference) and data (read, add, update, delete, and execute) authorities to the object. ***CHANGE** The user has object operational and all data authorities to the object. ***USE** The user has object operational, and data read and execute authorities to the object. ***EXCLUDE** The user has none of the object or data authorities to the object, or authorization list management authority to the authorization list. ***AUTL** The public authority for the object comes from the public authority on the authorization list securing the object. This value can only be returned if there is an authorization list securing the object and the authorized user is *PUBLIC. **USER DEF** The user has some combination of object and data authorities that do not relate to a special value. The individual authorities for the user should be checked to determine what authority the user has to the object.
Obj Opr	Object operational authority provides authority to look at the object's attributes and to use the object as specified by the data authorities that the user has to the object.
Obj Mgmt	Object management authority provides authority to specify security, to move or rename the object, and to add members if the object is a database file.
Obj Exist	Object existence authority provides authority to control the object's existence and ownership.
Obj Alter	Object alter authority provides authority to change the attributes of an object, such as adding or removing triggers for a database file.
Obj Ref	Object reference authority provides authority to specify the object as the first level in a referential constraint.
Data Read	Read authority provides authority to access the contents of the object.
Data Add	Add authority provides authority to add entries to the object.
Data Update	Update authority provides authority to change the content of existing entries in the object.
Data Delete	Delete authority provides authority to remove entries from the object.
Data Execute	Execute authority provides authority to run a program or search a library or directory.

9.5.18.5 SQL

This tab provides information about the SQL statement that built the list that this object appears in.

If desired, there is an Open in Data Viewer button available, which allows you to view the results and modify the SQL statement within that interface.

The bottom of the window contains information about the success of the SQL statements ran to produce the list and how long it took.

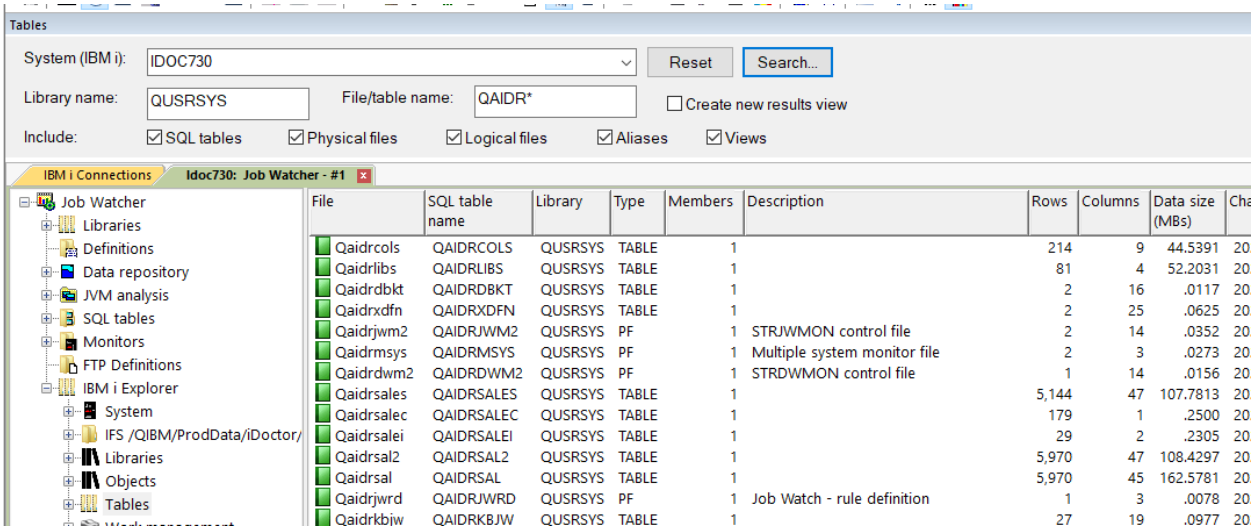


9.5.18.6 Columns

This tab provides information about the Columns used in the SQL statement that built the list of libraries. This data comes from the ODBC driver. It is intended primarily for IBM internal use.

9.6 Tables

This folder contains a list of tables filtered by the Tables pane.

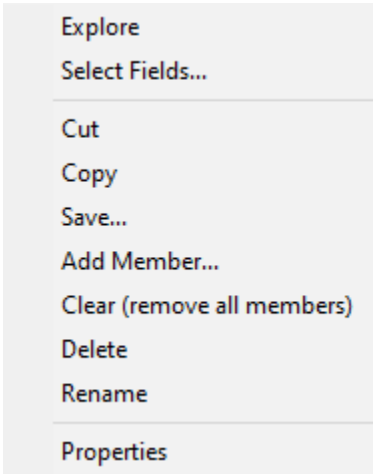


Double-click a file object to view its contents if it's a single member table, or to see the list of members if it's a multi-member table.

Note: The menu options will vary based on the type of table indicated by the Type column.

9.6.1 Menu Options (PF)

These menu options are available by right-clicking a PF or LF type table and are documented in a previous section:



9.6.2 Menu Options (TABLE)

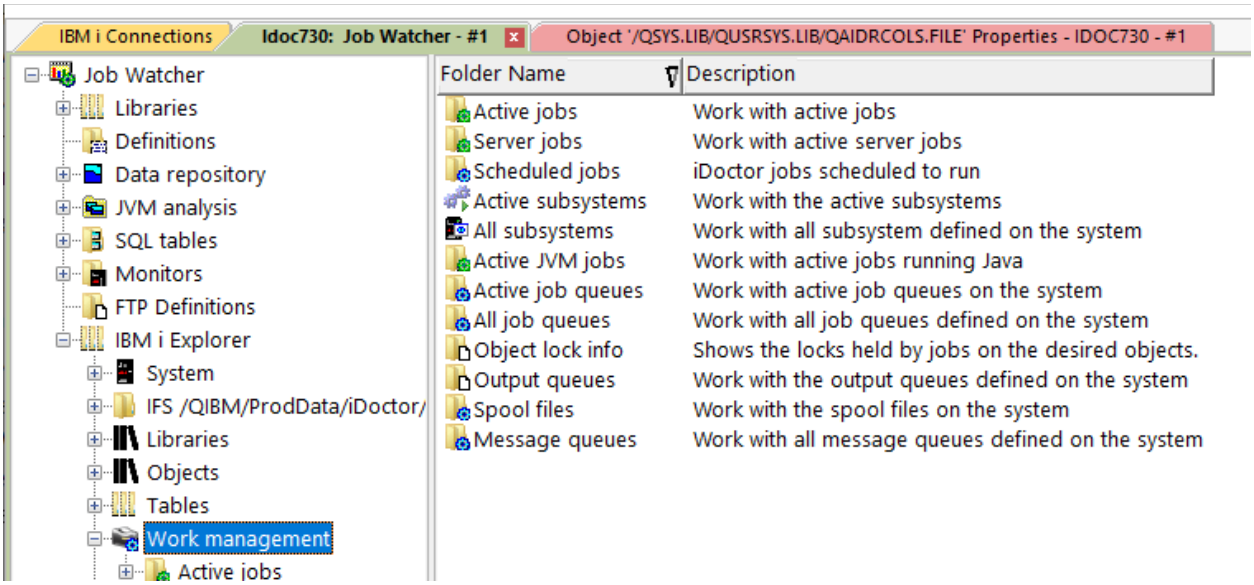
These are SQL created tables.

These options will appear if right-clicking a TABLE type of table:

Menu	Description
Open Table(s)	This action will run an SQL statement to display the contents of the table in the Data Viewer.
Edit	This action will prepare an SQL statement and open it in the Data Viewer with the SQL editor visible but does not run the statement.
Delete	This option will remove the table from the system.
Properties	Displays object properties for the table.

9.7 Work Management

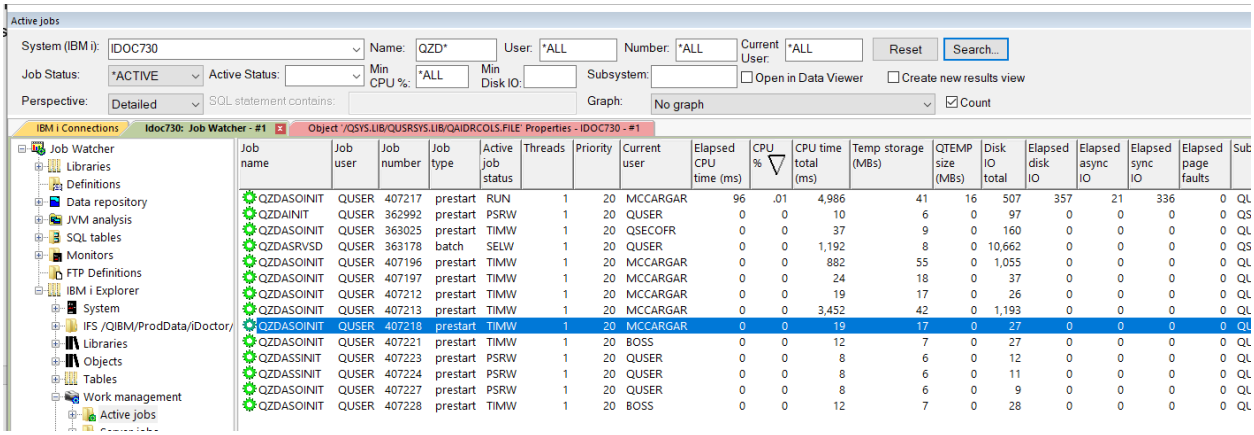
This folder contains functions relating to work management on the IBM i.



9.7.1 Active jobs

The Active jobs folder shows the jobs matching the filters provided on the Active Jobs Pane.

The columns shown in the report will vary based on the **Perspective** setting on the pane.

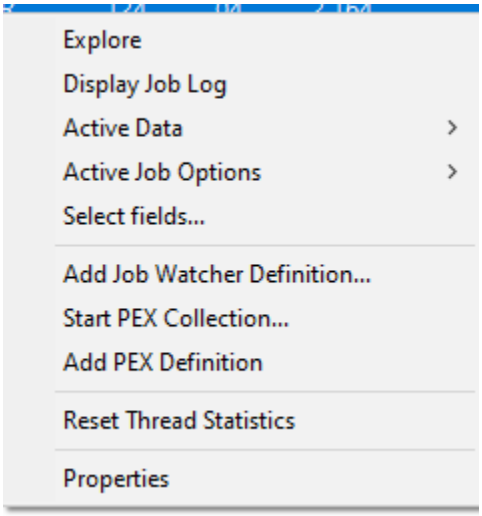


Detailed perspective – Active jobs folder

See the ACTIVE_JOB_INFO SQL table function for more information on the columns shown in this interface.

9.7.1.1 Menu options

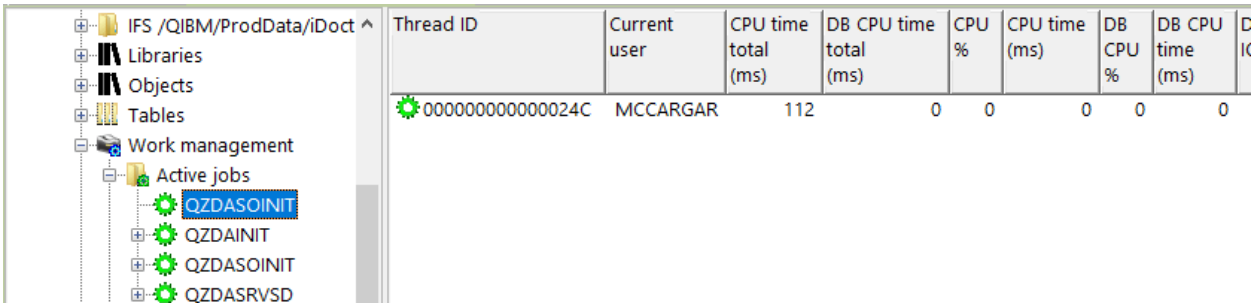
By right clicking on an active job there are several options available.



Menu	Description
Explore	Displays the list of threads found within the job. The list of threads contains performance statistics that are updated on each refresh of the view. You can reset these statistics by using the Reset Thread Statistics menu option.
Display Job Log	Displays the job log for the selected job.
Active Data	This option provides a shortcut to view commonly used graphs for the desired job using either Collection Services or Job Watcher data if a STRJWMON is currently running.
Active Job Options	This contains a set of options applicable to the selected job such as viewing the call stack, open files, or searching the job log.
Select fields…	This option allows you to select the fields to display for the list of threads within the job.
Add Job Watcher Definition	Defines a new Job Watcher definition that collects data only for the selected jobs using the Add Job Watcher Definition Wizard.
Start PEX Collection	Launches the Start PEX Collection Wizard and preselects the selected jobs in the interface so that the collection only contains data for these jobs.
Add PEX Definition	Defines a PEX definition that will collect data over the selected jobs. You will need to indicate within the wizard if you want to have a *STATS or *TRACE type PEX collection.
Reset Thread Statistics	This option resets the collected thread level statistics for the selected job. This applies to the threads shown below the job when it is expanded in the tree.
Properties	This option displays the active job property pages for the selected job. This contains additional details about the job such as the call stack, and locks currently present.

9.7.2 Threads

When expanding an active job, the list of threads is shown within it.



Performance data shown in this list like CPU and IOs is based on the time between the initial refresh of this view and the most recent one. You can also reset these statistics by right-clicking the job and using the **Reset Thread Statistics** menu.

9.7.2.1 Menu Options

Each thread has these options available on a right-click in the popup menu.

Menu	Description
Active Data	This option provides a shortcut to view commonly used graphs for the desired job/thread using either Collection Services or Job Watcher data if a monitor (STRJWMON command) is currently running.
Properties	This option will display the call stack and additional information for the selected thread. This action is also taken by double-clicking on a thread.

9.7.2.2 Fields

The less obvious columns in the list of threads are described below:

Field	Description
Thread status	The status may be one of the following values: - **Blank** The status of the thread is unknown. - **CMTW** The thread is waiting for the completion of save-while-active checkpoint processing in another job. This wait is necessary to prevent a partial commitment control transaction from being saved to the media. - **CNDW** The thread is waiting for a condition. - **DEQA** The thread is waiting for completion of a dequeue operation in the pool activity level. - **DEQW** The thread is waiting for completion of a dequeue operation. For example, a server may wait for work by waiting for a dequeue operation - **EVTW** The thread is waiting for an event. - **HLD** The thread is in a job that is being held. - **HLDT** The thread is being held. - **INEL** The thread is ineligible and not currently in the pool activity level. - **JVAA** The thread is waiting for completion of a Java program operation in the pool activity level. - **JVAW** The thread is waiting for completion of a Java program operation. - **LCKW** The thread is waiting for a lock. - **LSPA** The thread is waiting for a lock space to be attached while in a pool activity level. - **LSPW** The thread is waiting for a lock space to be attached. - **MTXW** The thread is in a mutex wait. A mutex is a synchronization function that is used to allow multiple threads to serialize their access to shared data. - **RUN** The thread is currently running in the activity level. - **SELW** The thread is in a select wait. More information on the select() function is in the Sockets APIs chapter in the System API Reference, SC41-5801. - **SEMW** The thread is waiting for a semaphore. A semaphore is a synchronization function that is used to allow multiple jobs or threads to serialize their access to shared data. - **SIGS** The thread has been held by a signal. - **SIGW** The thread is waiting for a signal. - **THDW** The thread is waiting for another thread to complete an operation. - **TIMA** The thread is waiting, in the activity level, for a time interval to end. - **TIMW** The thread is waiting for a time interval to end.
Thread type	The thread type indicates how the thread was created. If this field is requested for a job, the value for the initial thread of the job will be returned. The type of a thread may be one of the

	following values: **User** - The thread was created either as the initial thread of the job or explicitly by the application. **System** - The thread was created by an operating system function.

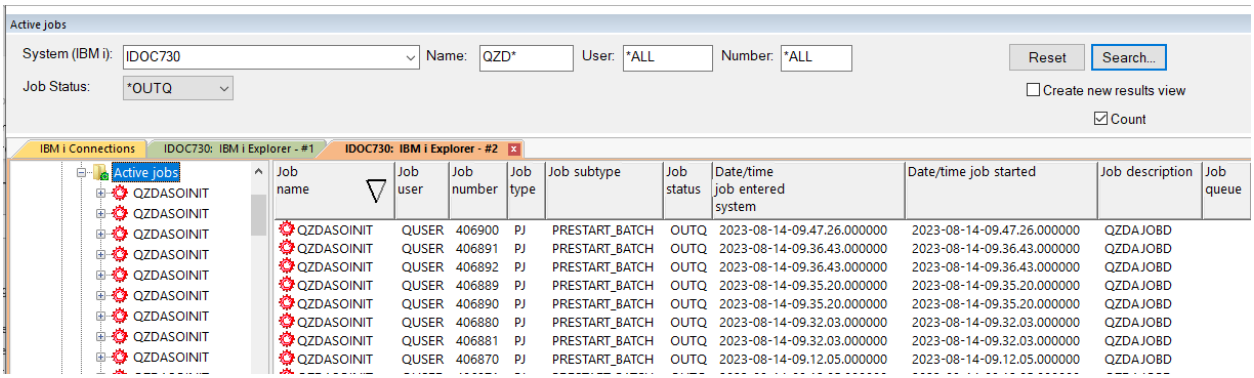
9.7.3 Completed Jobs

Jobs that have completed, are listed with a red icon within the Active jobs folder.

Expanding a completed job in the list displays a list of any spool files they contain.

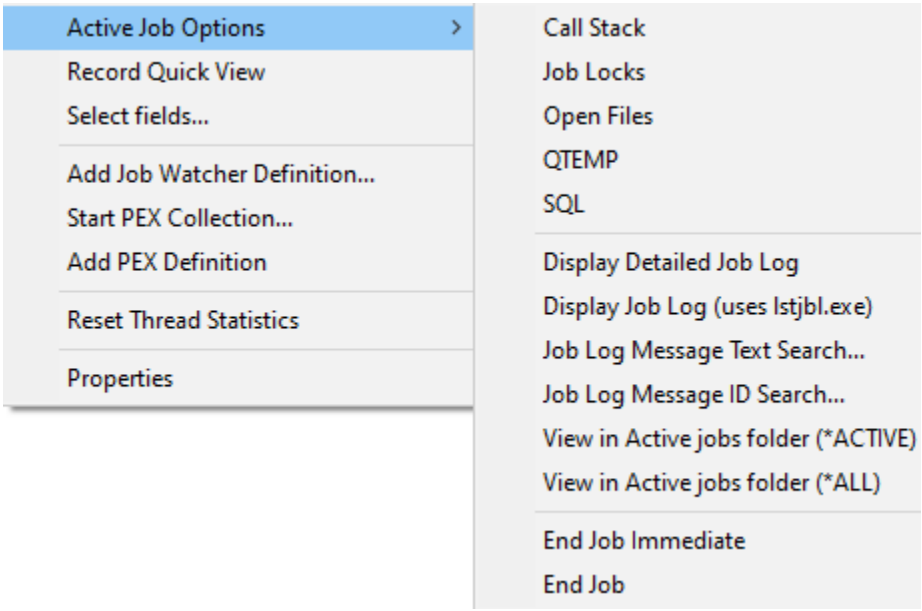
Note: These types of jobs are only listed if the Job Status in the Active Pane is set to *ALL or *OUTQ.

Tip: Often completed jobs will NOT contain any spool files. If you are looking for spool files, use the Spool Files Pane instead.



9.7.4 Active Job Options

This section covers the Active Jobs Options popup menu shown for Active Jobs. This appears in a variety of interfaces where an active job is either shown or accessible behind a view.

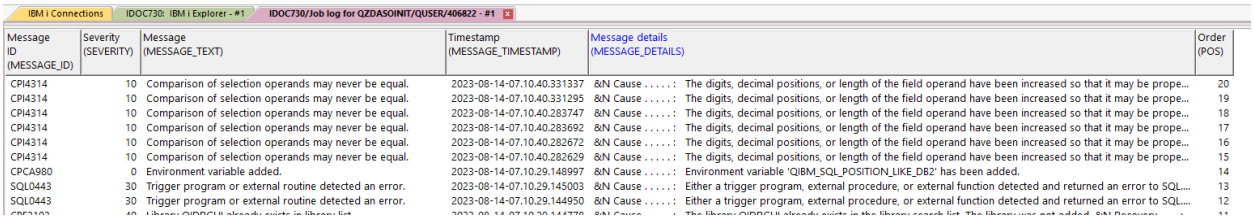


Active Job Options menu

Menu	Description
Call Stack	Displays the Active Job Properties – Call Stack interface.
Job Locks	Displays the Active Job Properties – Job Locks interface.
Open Files	Displays the Active Job Properties – Open Files interface.
QTEMP	Displays the Active Job Properties – QTEMP interface.
Open IFS Files	Displays the Active Job Properties – Open IFS Files interface.
SQL	Displays the Active Job Properties – SQL interface.
Display Detailed Job Log	This produces a job log that includes the message details for each message entry.
Display Job Log (uses lstjbl.exe)	This shows the job log using the older but simple Client Access GUI function lstjbl.exe
Job Log Message Text Search…	This prompts the user for something to look for in the selected job(s). The MESSAGE_TEXT column within the job logs will be searched.
Job Log Message ID Search…	This prompts the user for a specific message ID (7 characters) to look for in the selected job(s). The MESSAGE_ID column within the job logs will be searched and only the exact matches will be returned.
View Job in Active jobs folder	These options shown the results in the Active jobs folder but only showing the selected job.
End Job Immediate	This ends the selected job(s) using the ENDJOB command immediate option.
End Job	This ends the selected job(s) using the ENDJOB command.

9.7.4.1 Display Detailed Job Log

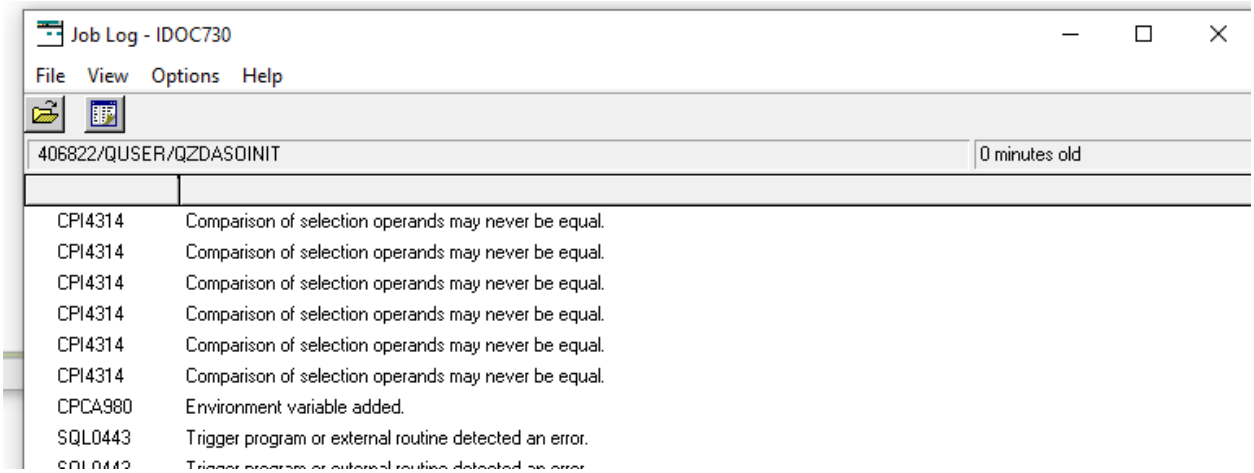
Use this option to display the selected job's job log. The message details column will be included.



Tip: You can double-click a row for more details about a specific message like from, to program information.

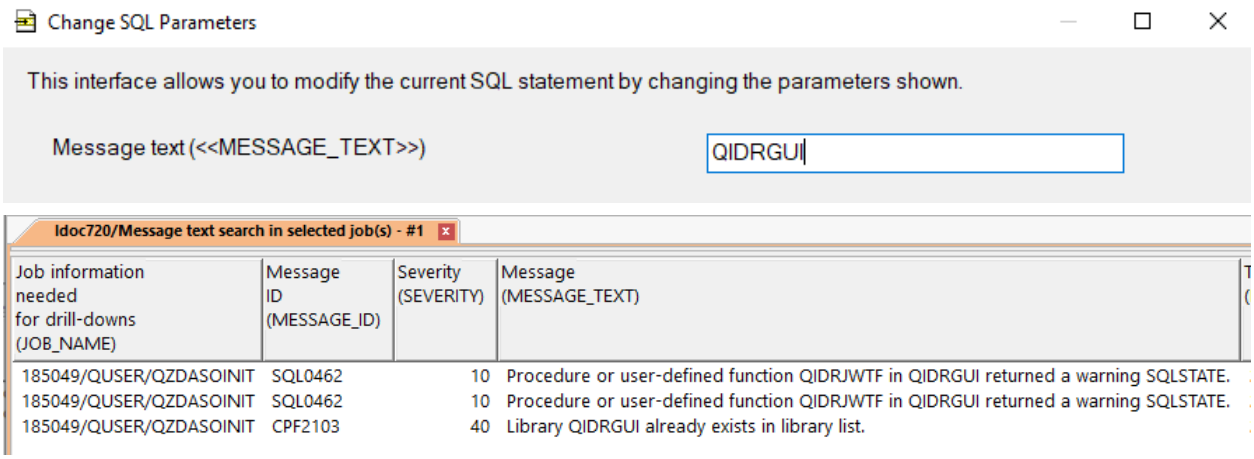
9.7.4.2 Display Job Log (uses lstjbl.exe)

Use this option to display the selected job's job log in lstjbl.exe.



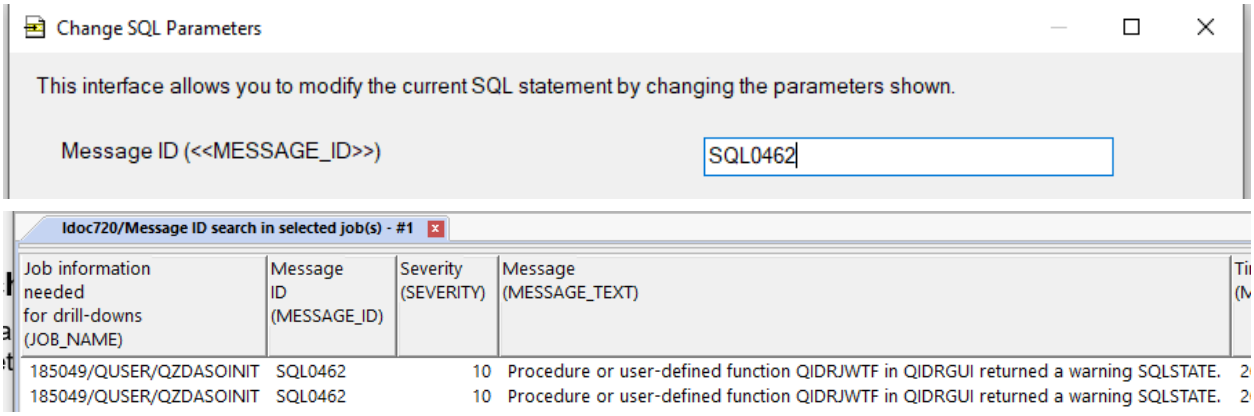
9.7.4.3 Job Log Message Text Search

Use this option to search one or more active jobs for a specific text string in within the job log messages. Only messages that contain the string provided are returned.



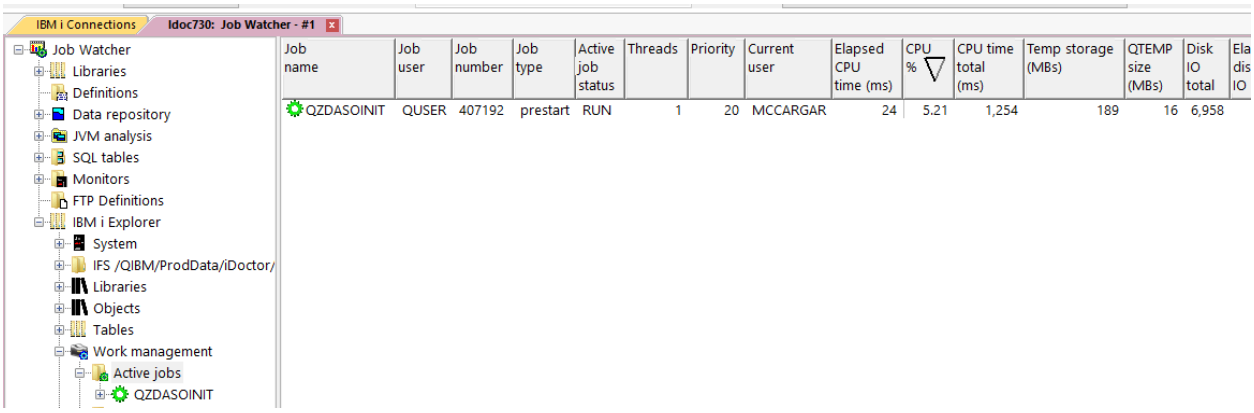
9.7.4.4 Job Log Message ID Search

Use this option to search one or more active jobs for a specific message ID in within the job log messages. Only messages that match the 7-character message ID provided are returned.



9.7.4.5 View Job in Active jobs folder

This opens the Active Jobs folder under Work management and filters by the selected job and desired status.



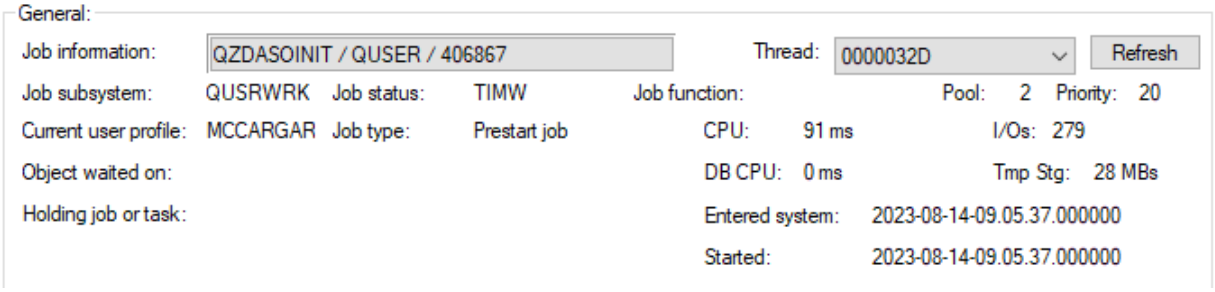
9.7.5 Active Job Properties

The properties for an active job consist of general information about the job at the top of the window for all tabs and additional information that varies for each individual tab selected.

These screens are designed to be like the ones found in Job Watcher. They provide the wait object and holder information if one exists for the current job.

9.7.5.1 General

The General part of every tab in this interface has the same layout and allows the user to switch between threads for the job if desired using the Thread drop-down list.



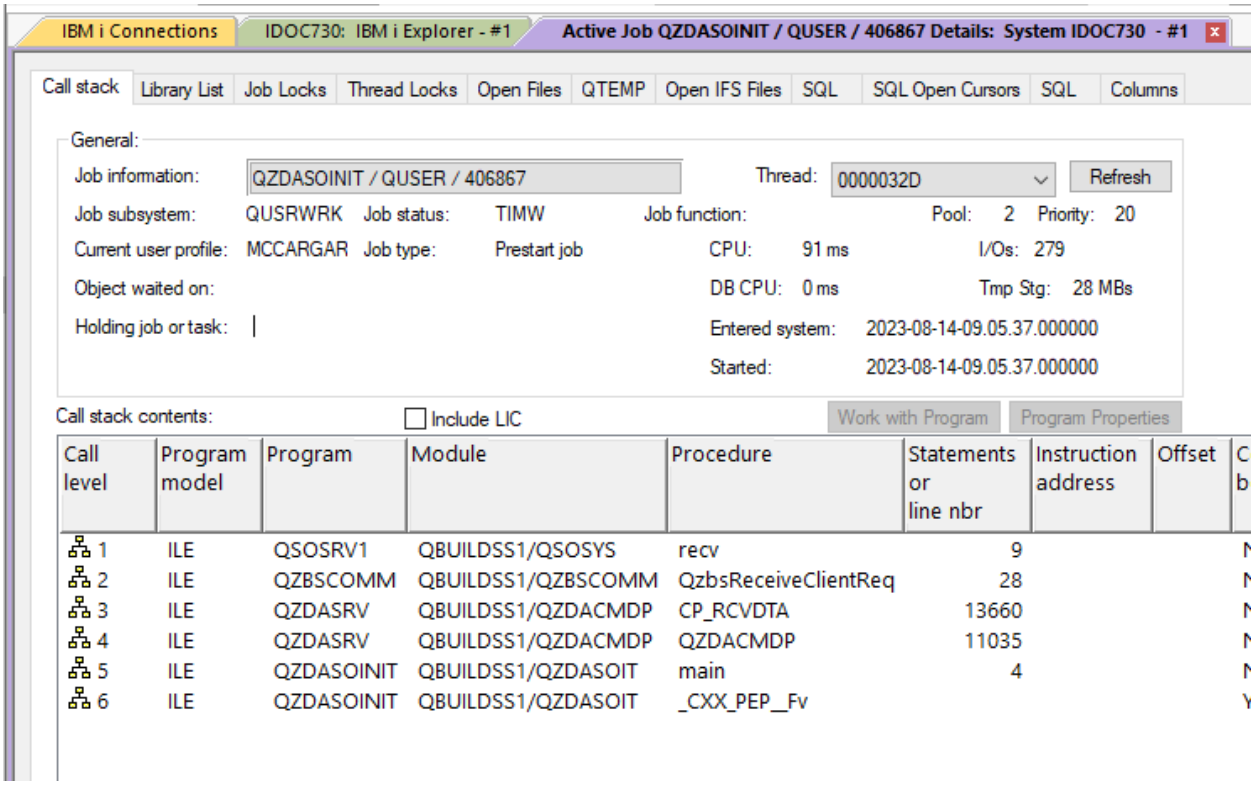
Interface

Option	Description
Job information	This lists the job name/user/number.
Thread	From here you can select which thread to display information for (such as the call stack.)
Job subsystem	Subsystem the job is running in.
Job status	Active job status (see WRKACTJOB help text for more information)
Job function	The function the job is running in if applicable.
Pool	Pool number the job is running in.
Priority	XPF current run priority.
Current User	The name of the user profile the job is running under.
Job type	Indicates the type of job, such as Batch.
CPU	CPU time consumed by the job since it started.
I/Os	I/O operations performed by the job since it started.
Objects waited on	If the job is waiting to get a lock on an object, this will list the object information (if known.) This means QWCRJBLCK api lock status is 2 or 3 and the library and extended object name will be returned.
DB CPU	CPU time consumed related to DB operations since the job started.
Tmp Stg	Current temporary storage space consumed in megabytes.
Holding job or task	If an object is being waited on, this provides the job information that is holding or locking the object.
Entered system	The time the job entered the system.
Started	The time the job started.

9.7.5.2 Call stack

This tab displays the call stack for the active job/thread. If a program is listed, the Work with Program and Program Properties buttons can be used to drill down and get more information about a program.

The Include LIC option checkbox is an easy way to hide/show LIC call levels in the stack.



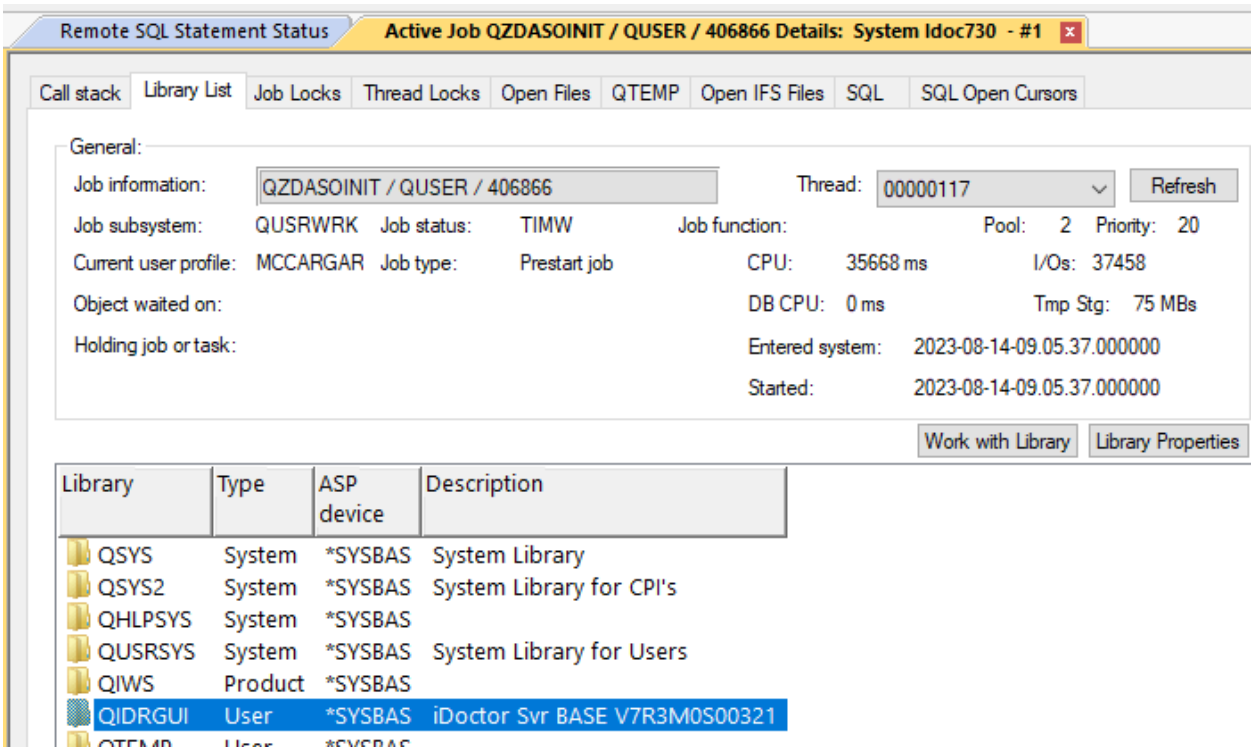
Active job properties – Call stack

Interface

Option	Description
Include	Checks the box to include LIC call levels in the call stack.
Work with program	Select a call level that contains a MI program and this option will allow you to view the program within the Objects folder.
Program properties	This option goes directly to the Properties for the selected MI program object.

9.7.5.3 Library List

This tab displays the library list for the active job/thread. It cannot be manipulated from here. The Work with Library and Library Properties buttons may be used to drill-down into a library.



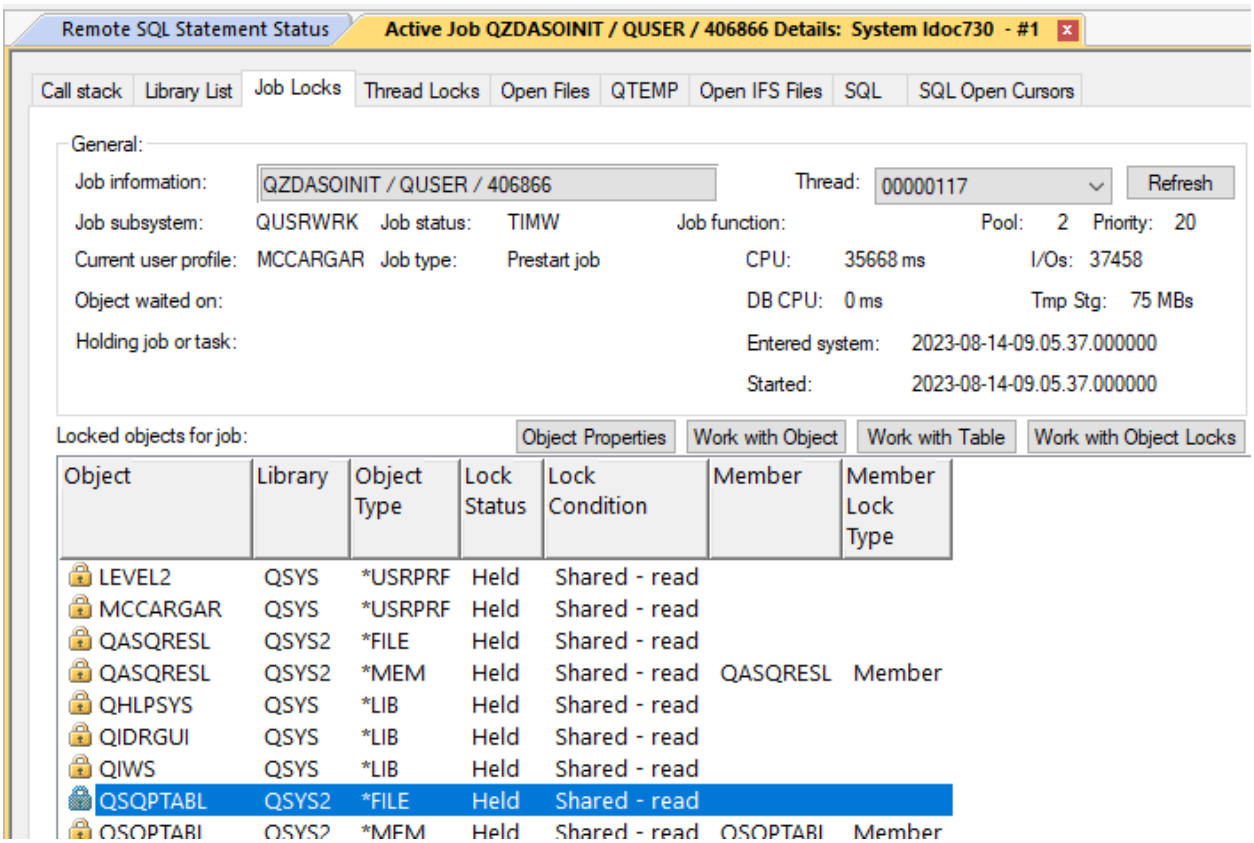
Active job properties – Library List

Interface

Option	Description
Work with library	Select a library and use this option to view it within the Objects folder.
Library properties	This option goes directly to the Properties for the selected library.

9.7.5.4 Job Locks

This tab shows the job-scoped locks for the active job/thread. It provides several drill-down options using the buttons shown on the screen.



Active job properties – Job Locks

Interface

Option	Description
Object properties	This option goes directly to the Properties for the selected object.
Work with object	This option will view the selected object within the Objects folder.
Work with table	This option will view the selected table (*FILE object) within the Tables folder.
Work with object locks	This option will view the locks on the selected object within the Object lock info folder.

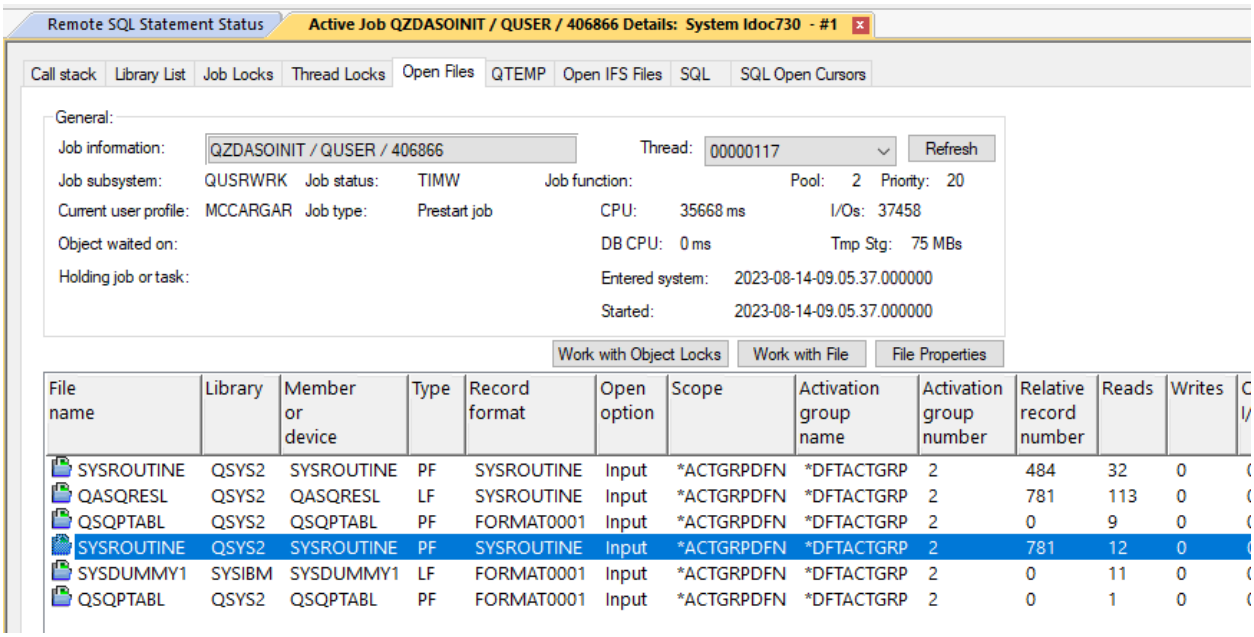
9.7.5.5 Thread Locks

This tab is the same as the Job Locks tab, but shows the thread scoped locks instead.

9.7.5.6 Open Files

This tab provides information about the files currently open by the active job/thread.

Use the buttons to drill-down to get more information.



Active job properties – Open Files

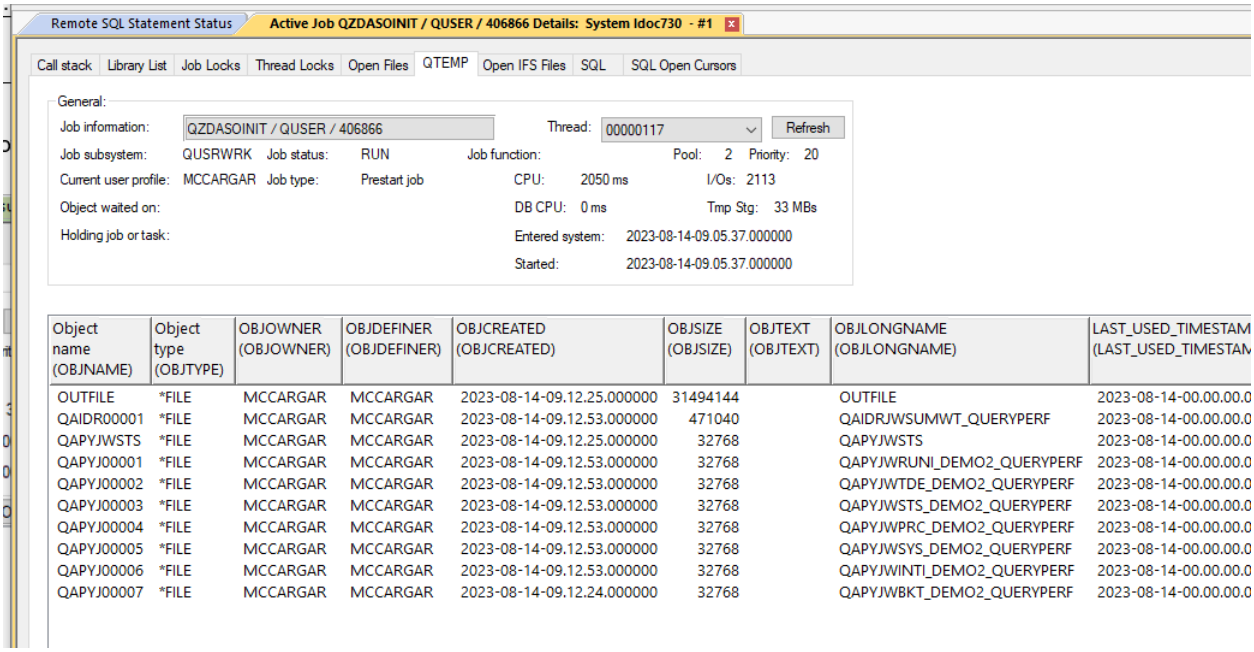
Interface

Option	Description
Work with object locks	This option will view the locks on the selected object within the Object lock info folder.
Work with file	This option will view the selected file within the Tables folder.
File properties	This option goes directly to the Properties for the selected file.

9.7.5.7 QTEMP

This tab provides information about the objects found in QTEMP for the current job.

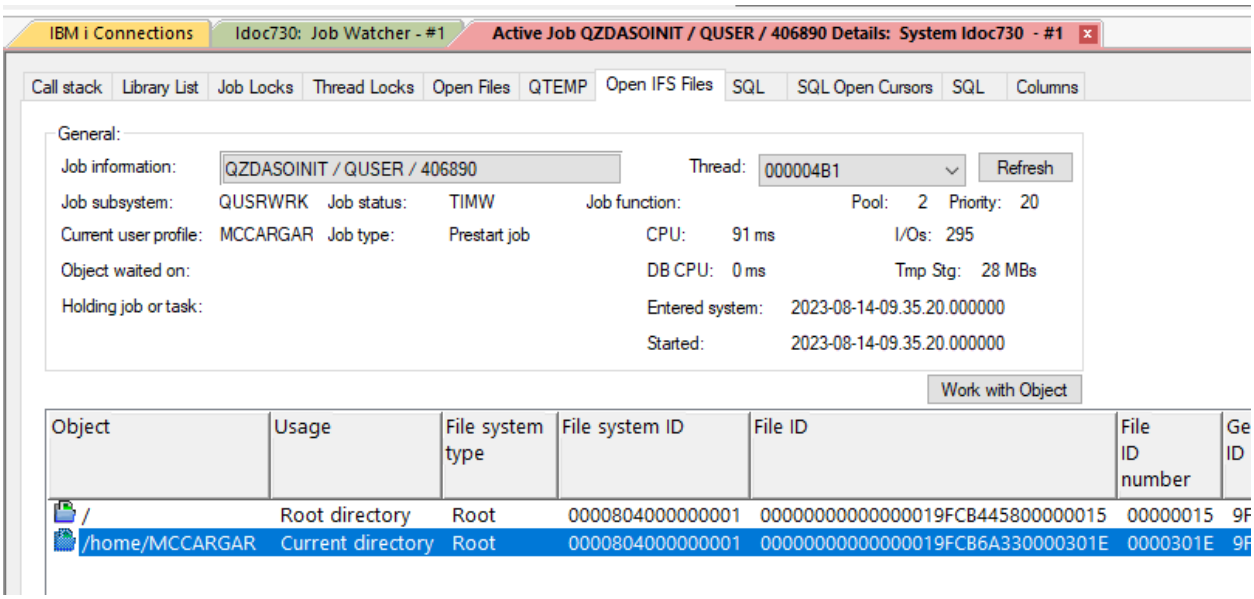
Note: This only works for QZDASOINIT jobs.



Active job properties – QTEMP

9.7.5.8 Open IFS Files

This tab shows Open IFS files and directories for the active job/thread.



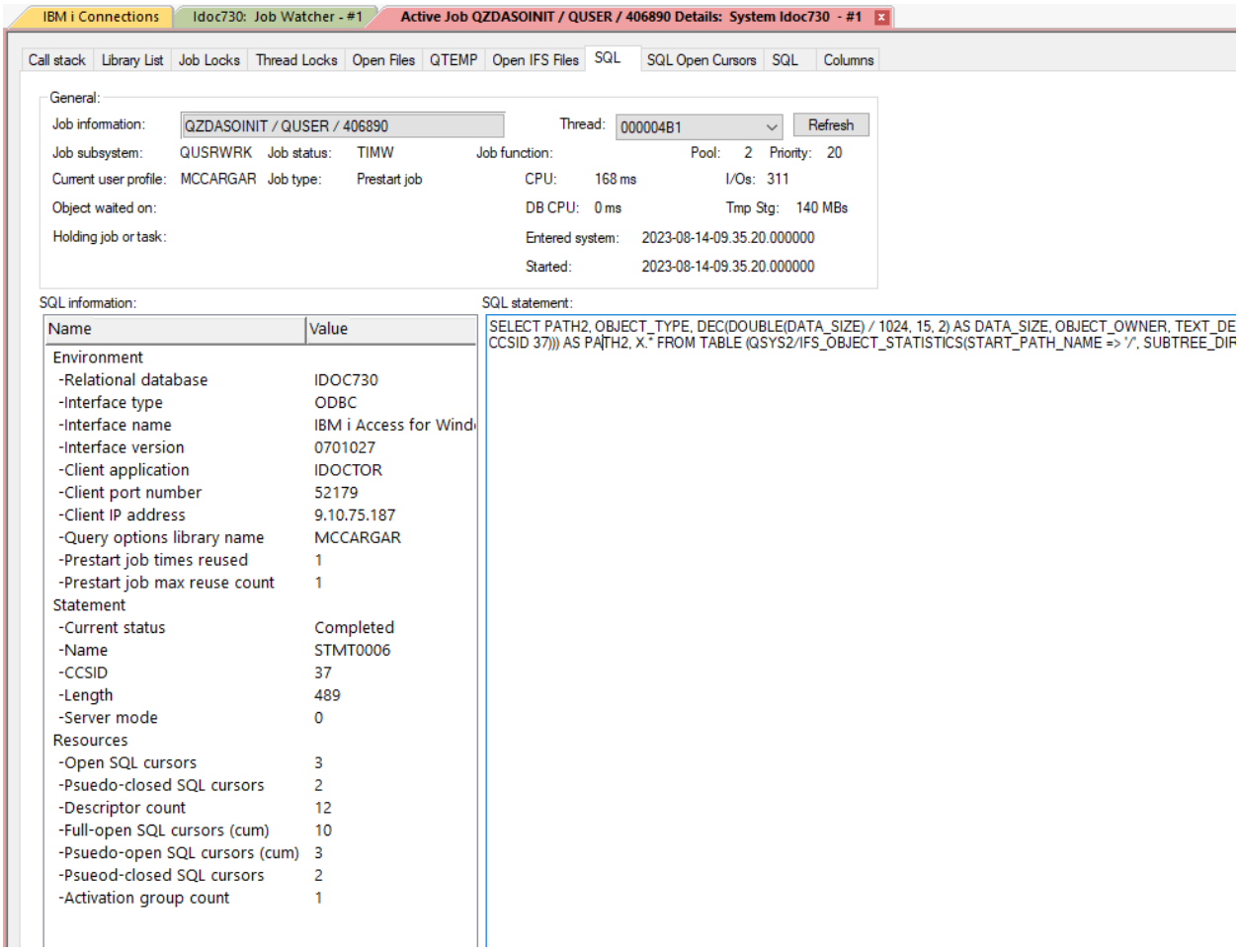
Active job properties – Open IFS Files

Interface

Option	Description
Work with object	This option will view the selected object within the IFS folder

9.7.5.9 SQL

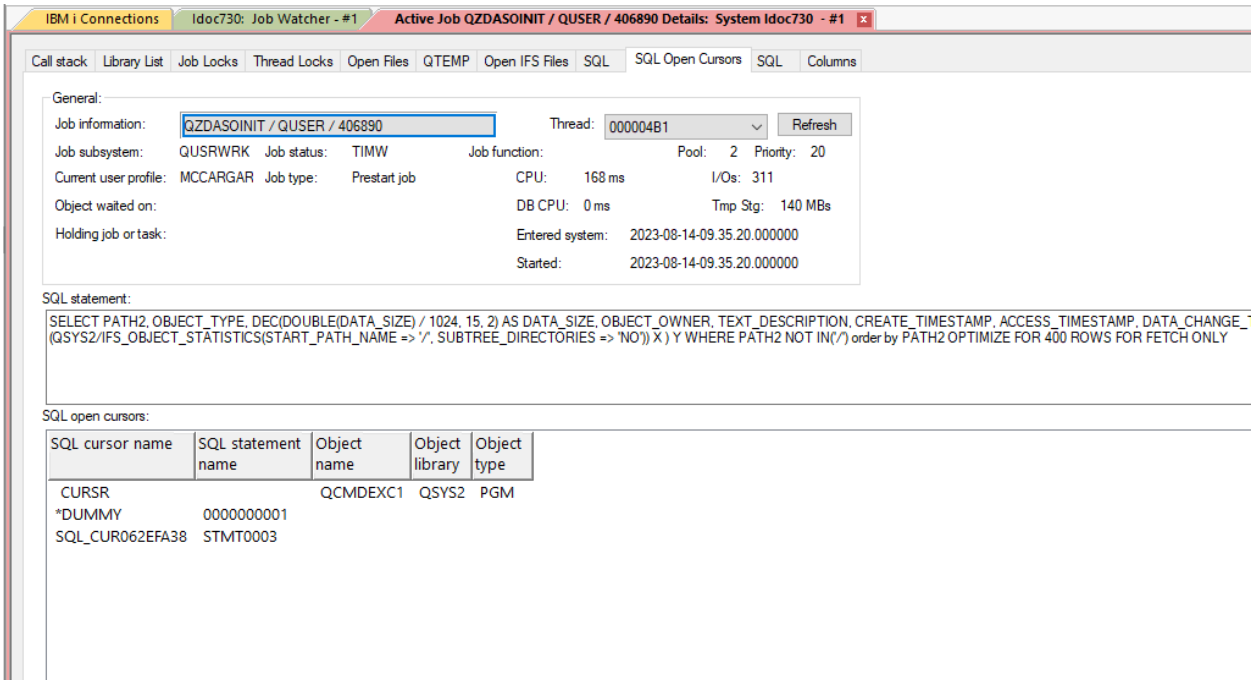
The SQL tab provides detailed about the SQL environment, resource counts and last ran SQL statement if available.



Active job properties – SQL

9.7.5.10 SQL Open Cursors

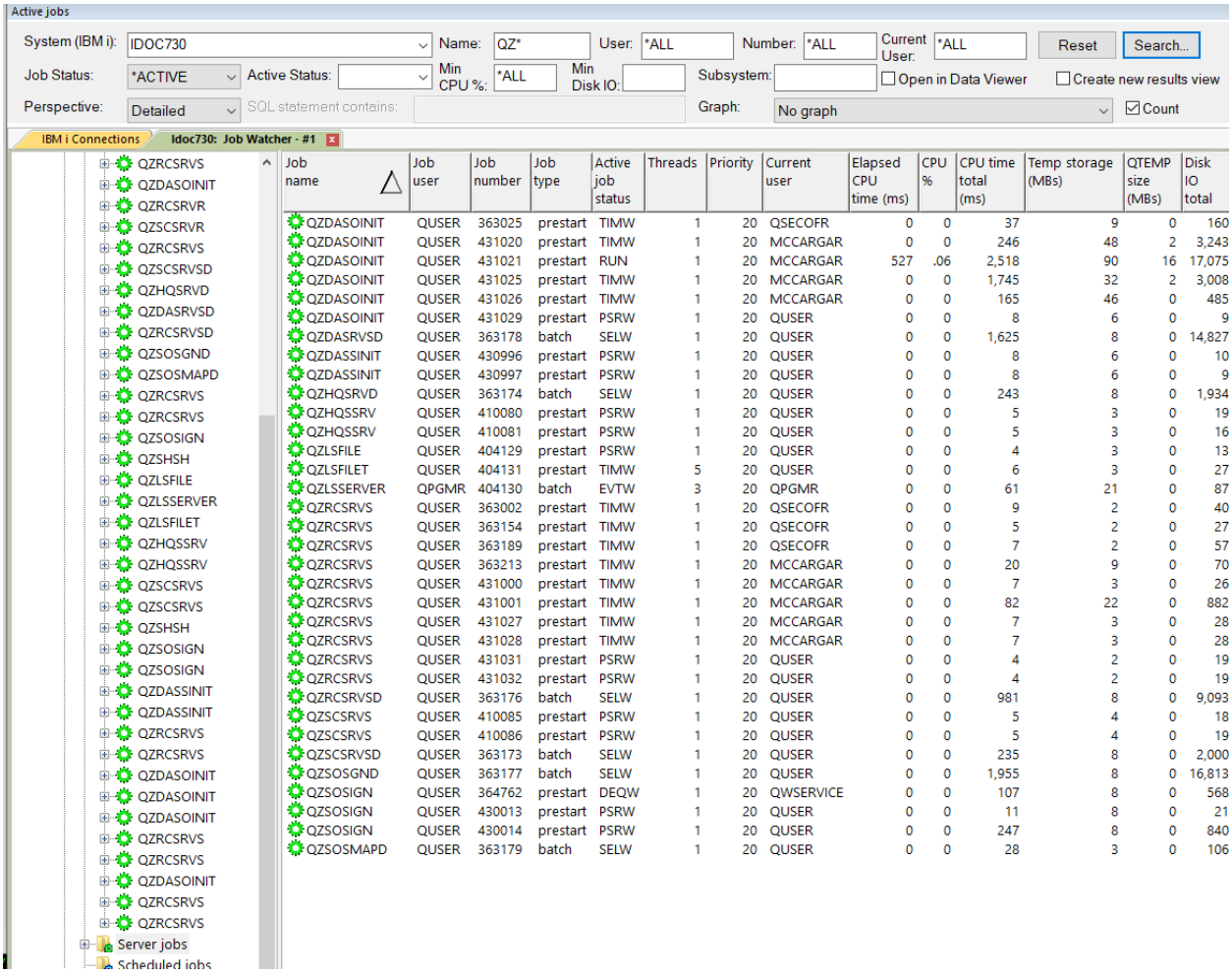
This tab provides the last ran SQL statement and a list of open cursor information if available.



Active job properties – SQL Open Cursors

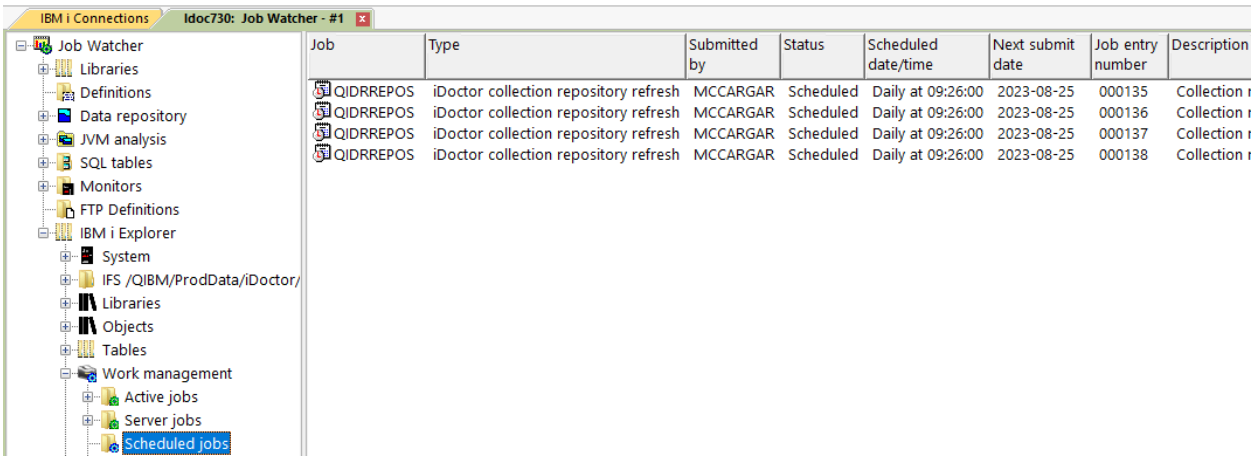
9.7.6 Server jobs

This folder is like the Active jobs folder and utilizes the Active Jobs Pane to filter results, but further reduces the results to only include server jobs.



9.7.7 Scheduled jobs

The Scheduled Jobs folder allows you to work with the iDoctor created scheduled jobs on the system.



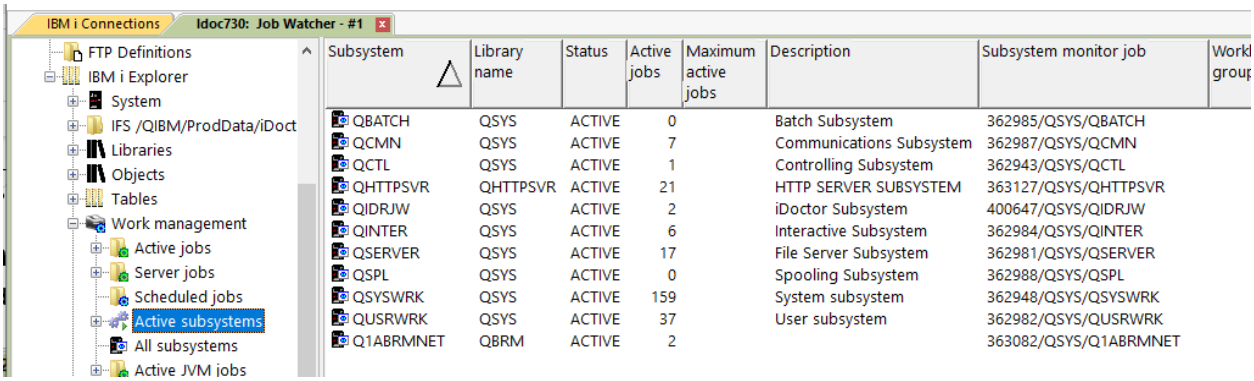
The folder contains a row for every iDoctor scheduled job defined on the system. By right-clicking on a scheduled job entry the job can be submitted immediately, held/released or removed from the system.

9.7.7.1 Fields

Field	Description
Job	Name of the job that will run.
Type	An iDoctor defined description based on the job name.
Submitted by	This is the user that scheduled this job.
Status	The status of the scheduled job. This will either be Scheduled or Held. If the status is Held the scheduled job must be released before it will run.
Scheduled date/time	This indicates when the job will run.
Next submit date	The day when the next submission will occur (in ISO format).
Job entry number	The entry number of the scheduled job as defined on the system.
Command	The command string that will be executed when the scheduled job runs.

9.7.8 Active subsystems

This folder displays all active subsystems on the IBM i.



Expand a subsystem to view the jobs running within it.

For more information on the columns shown, see the SUBSYSTEM_INFO SQL view documentation.

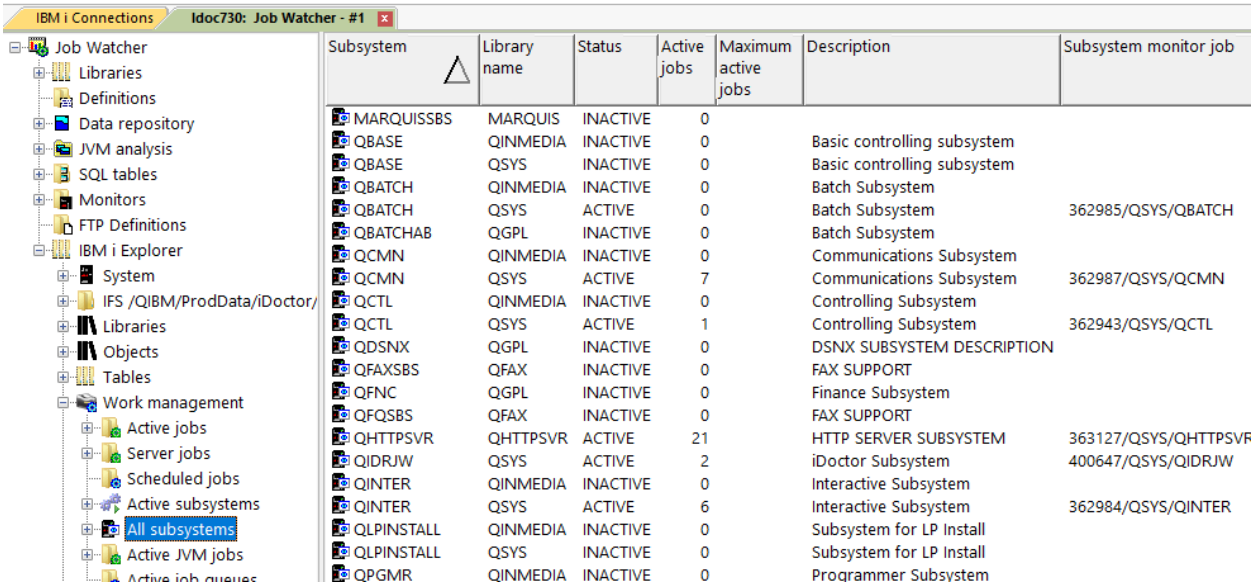
9.7.8.1 Menu Options

Right-click a subsystem for additional options:

Menu	Description
Explore	Displays the jobs running in the subsystem.
Select fields…	This option allows you to select the fields to display for the list of jobs within the subsystem.
Start subsystem	This will issue a STRSBS command for the selected subsystem.
End subsystem	This will issue a ENDSBS command for the selected subsystem.
Reset Statistics	This option will reset the statistics shown in the list of jobs within the selected subsystem.

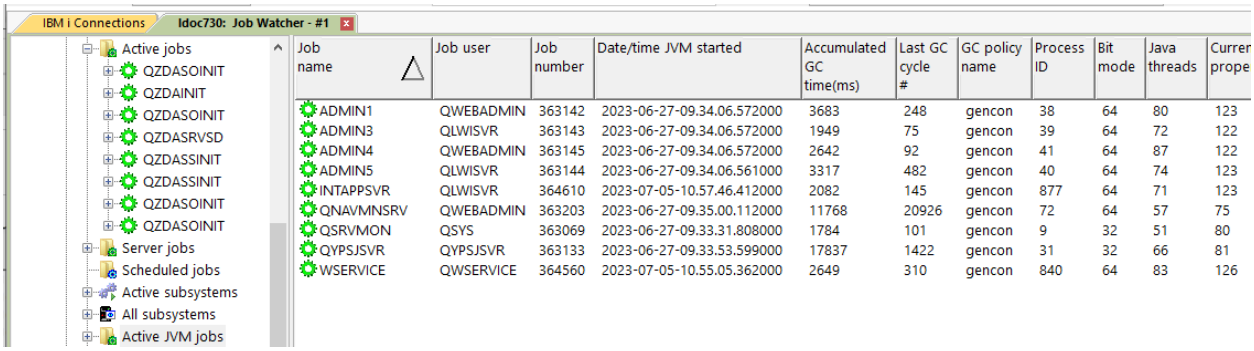
9.7.9 All subsystems

This folder displays all subsystems on the IBM i. This works the same as described in the previous section except shows both INACTIVE and ACTIVE subsystems.



9.7.10 Active JVM jobs

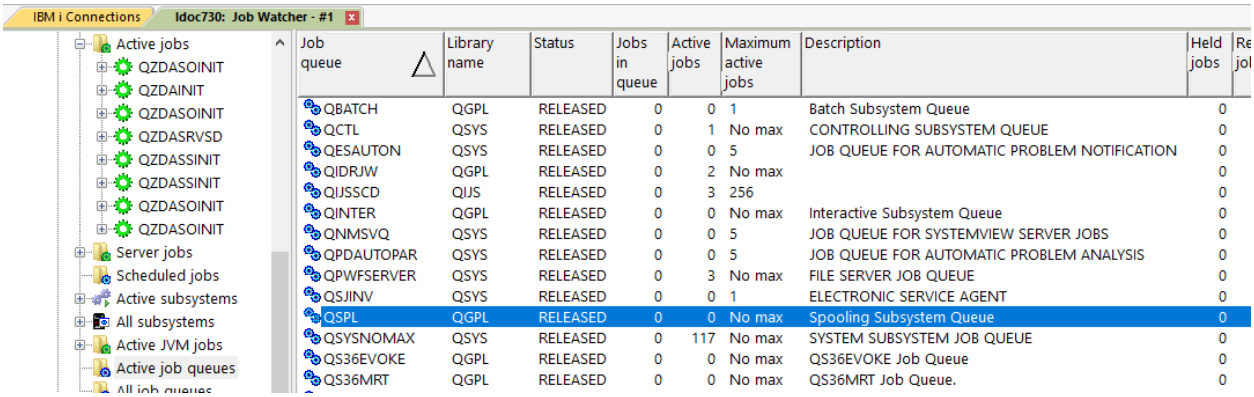
This folder shows **all** jobs using a JVM on the system. It does **NOT** utilize the job filters within the Active Jobs Pane.



See the JVM_INFO SQL table function for details regarding the columns displayed in this interface.

9.7.11 Active job queues

This folder shows all job queues that are active and attached to a subsystem on the system.



See the JOB_QUEUE_INFO SQL view for details about the columns shown in this interface.

9.7.11.1 Menu Options

Right-click a job queue for additional options:

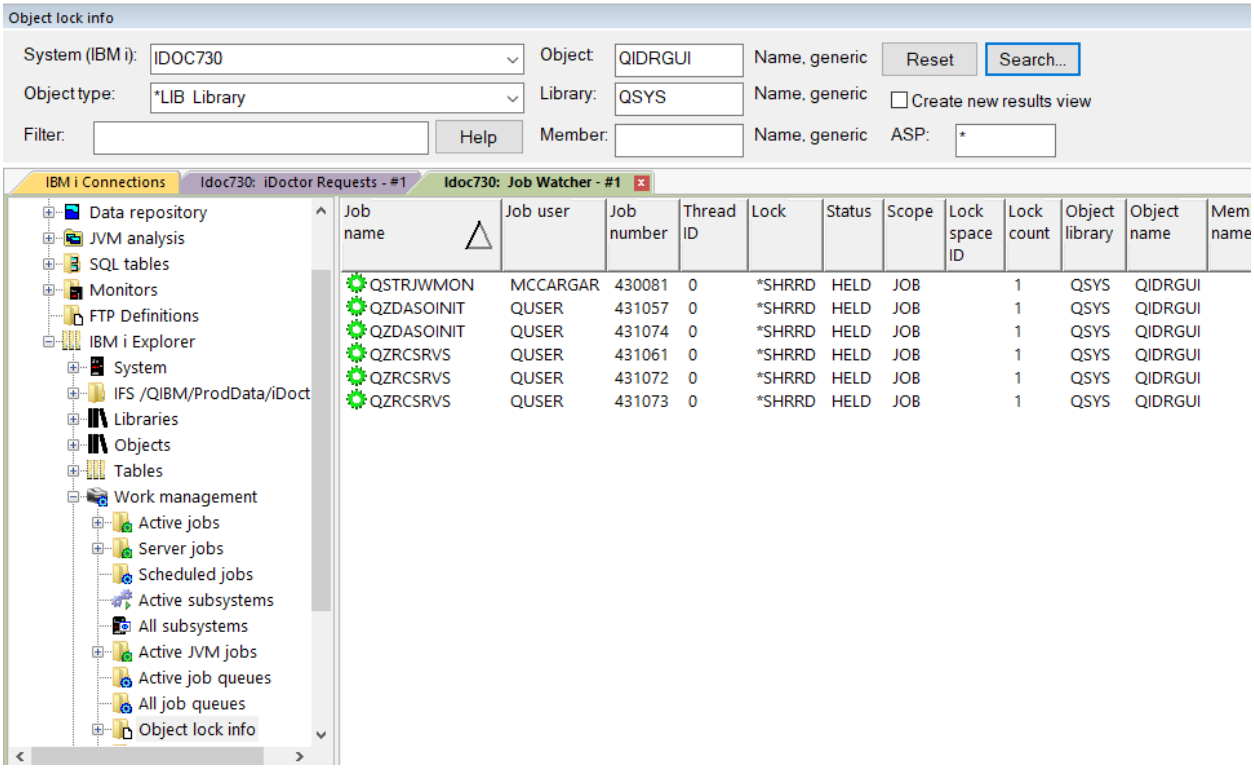
Menu	Description
Explore	Displays the jobs waiting in the job queue. **Note:** This is only enabled only if jobs in queue value is > 0.
Hold/Release	Use this option to hold or release the job queue.
Clear	This option removes all jobs waiting on the job queue.
Select fields…	This option allows you to select the fields to display for the list of jobs within the job queue.
Delete	This option deletes the job queue.
Properties	Use this option to display object properties for the job queue.

9.7.12 All job queues

This folder is the same as the previous one except also includes job queues that are not active.

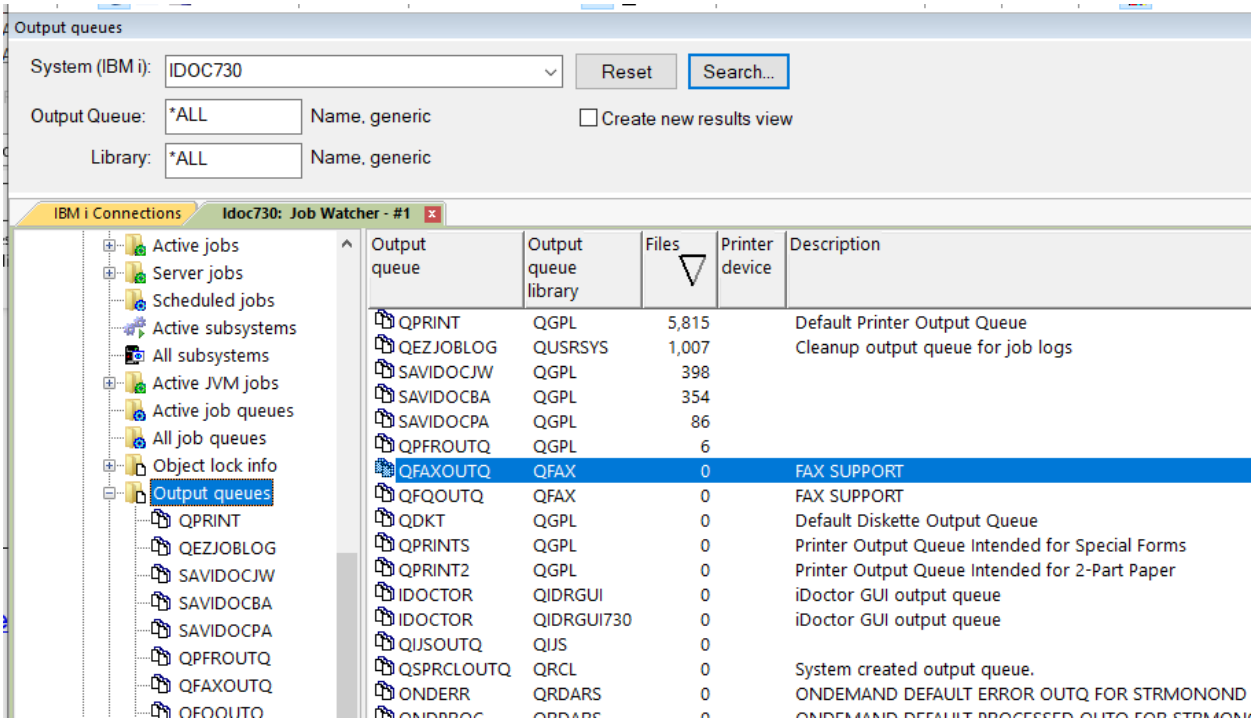
9.7.13 Object lock info

This folder displays the results from using the Object lock info Pane. It provides a list of jobs that are locking the specified object and/or member.



9.7.14 Output queues

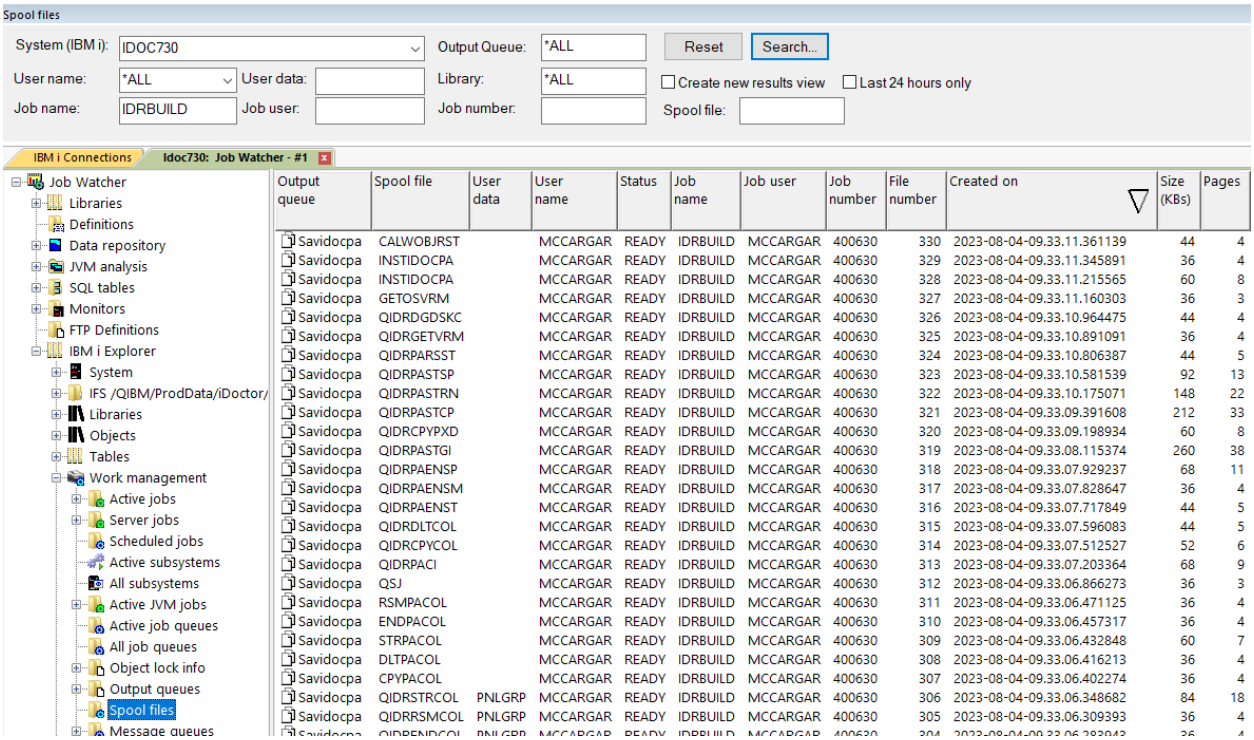
This folder contains the output queues on the system based on the filters provided in the Output Queues Pane. Double-click one to view the spool files within (if any).



9.7.15 Spool files

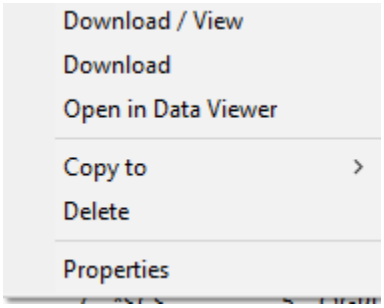
This folder shows the spool files found on the system based on the filters provided in the Spool Files Pane.

Tip: These same results are displayed if accessed from an output queue described in the previous section.



9.7.15.1 Menu Options

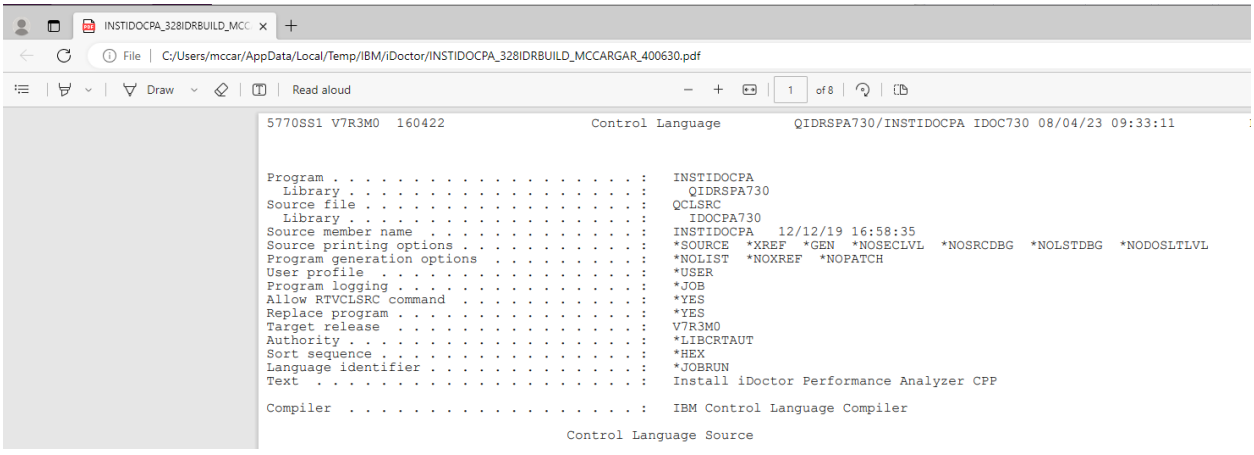
The following options are available when right-clicking a spool file in iDoctor:



Menu	Description
Download / View	This will download and open the spool file as a PDF in the default web browser.
Download	This will download the spool file as a PDF to the PC to the %AppData%\Local\Temp\IBM\iDoctor directory.
Open in Data Viewer	This opens the spool file in the Data Viewer. This will be a long running operation for very large spool files and not recommended for large files. You can also do this by double-clicking on a spool file.
Copy to -> IFS	Make a copy of the spool file in the IFS at the desired location
Copy to -> Database File	This option will copy the spool file to a database file on the IBM i. This allows it to be manipulated using SQL.
Delete	Removes the spool file from the system
Properties	This provides an interface with more details about the spool file.

9.7.15.2 Download / View

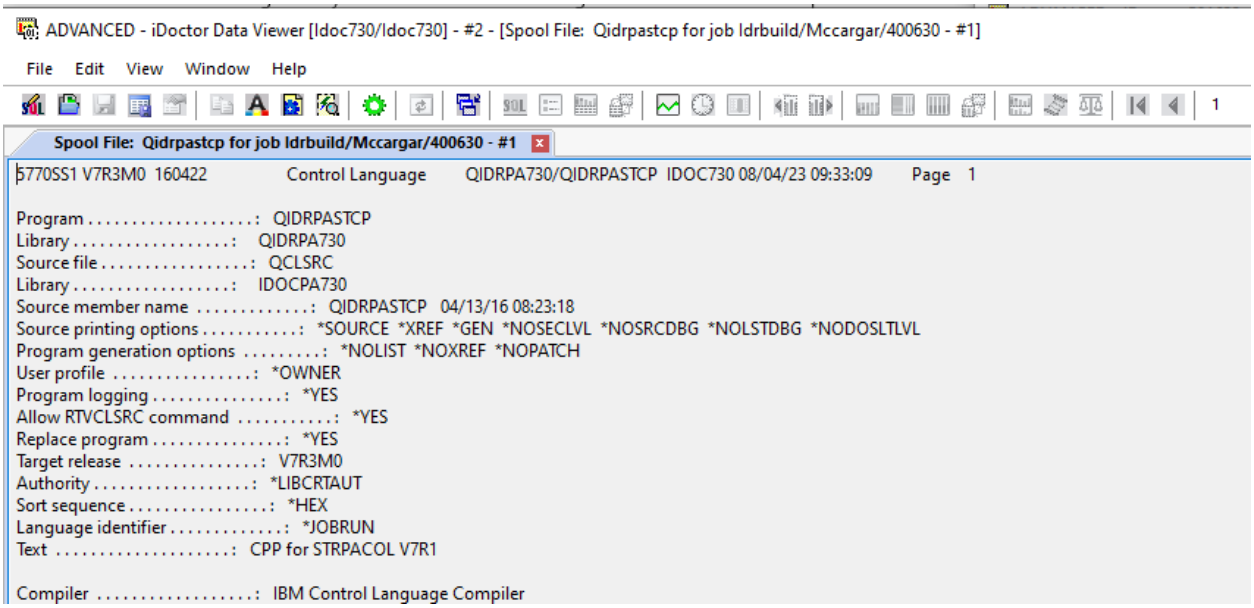
This will download and open the spool file as a PDF in the default web browser.



9.7.15.3 Open in Data Viewer

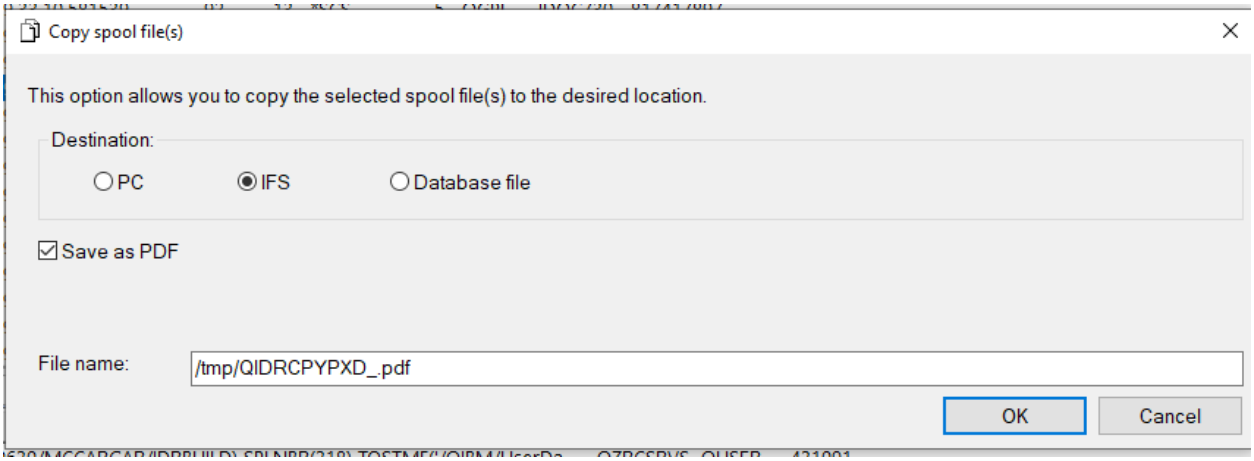
This option opens the file in the Data Viewer using IBM i APIs to access the data.

Note: This is not recommended for very large files since it does not support only retrieving what is visible on the current screen and all data will be loaded.



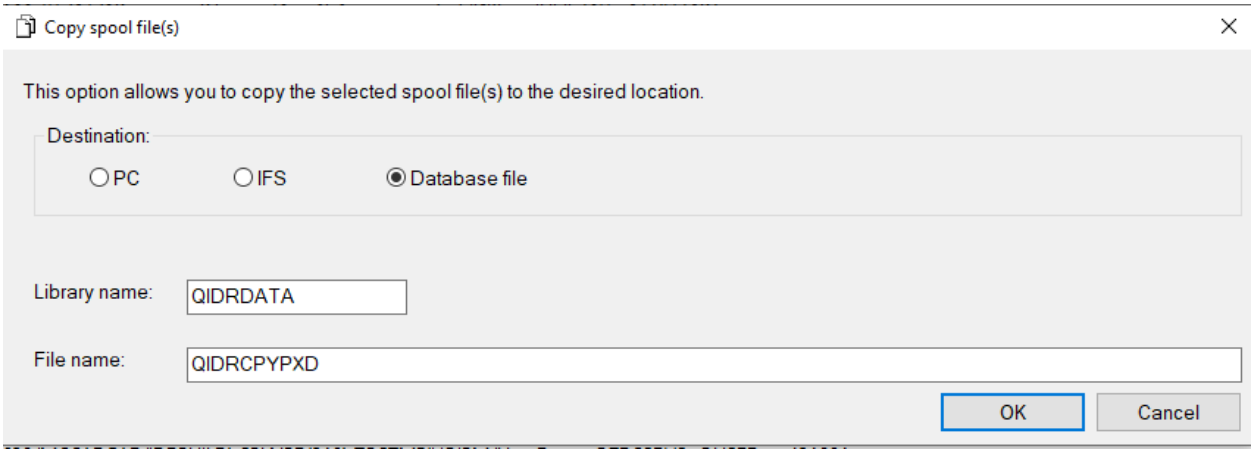
9.7.15.4 Copy to IFS

This interface is used to copy a spool file to the IFS on the specified location. The data can be copied as a stream file or converted and saved as a PDF.



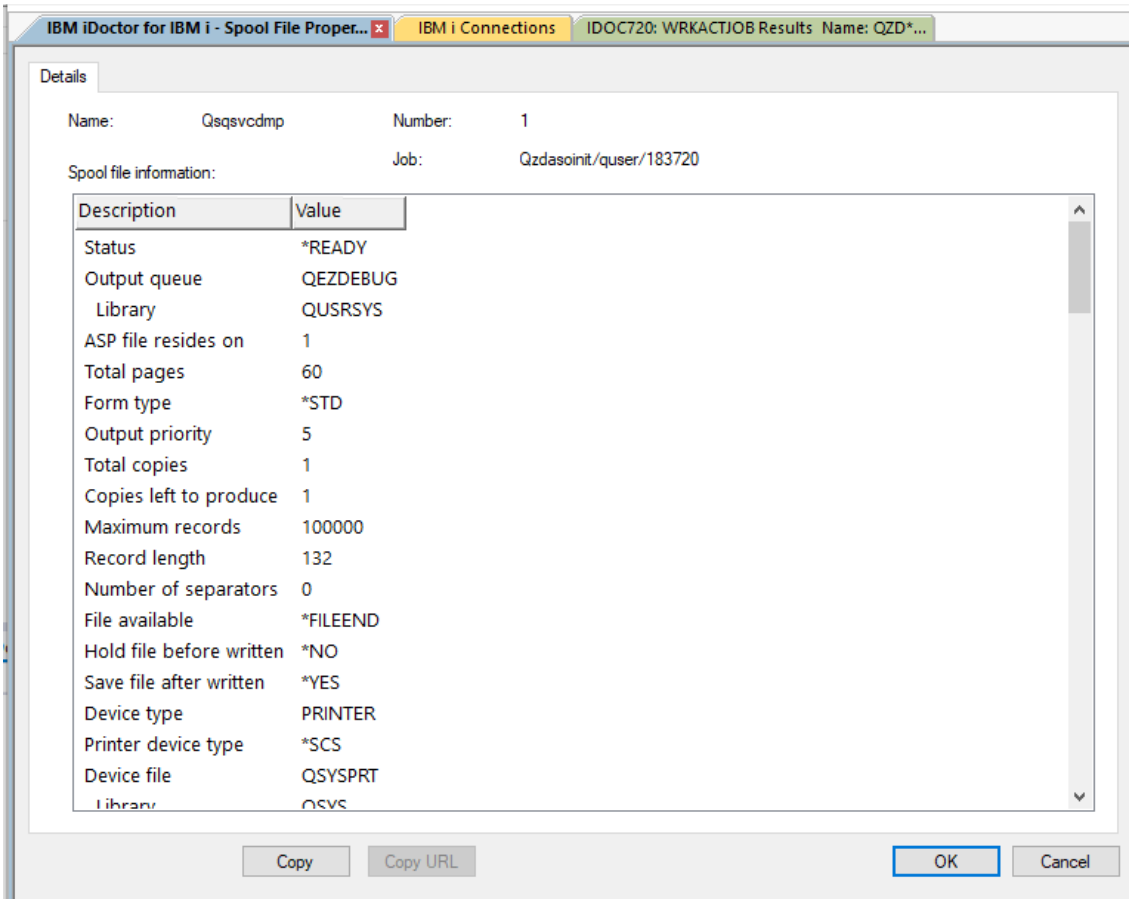
9.7.15.5 Copy to Database file

This interface is used to copy a spool file to a library and file. This can be helpful in some situations if you need to use SQL to access the data.



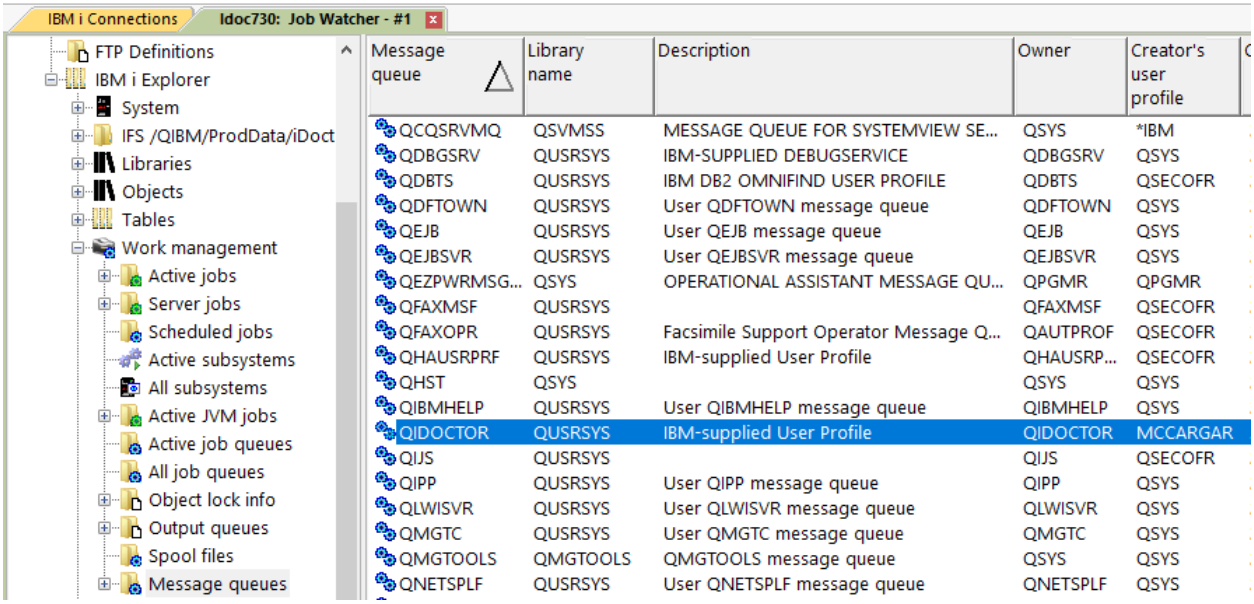
9.7.15.6 Properties

Spool files have additional details that are viewable in the Properties interface.



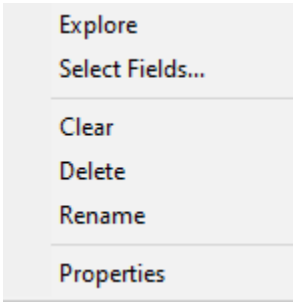
9.7.16 Message queues

This folder contains the message queues found on the IBM i.



9.7.16.1 Menu Options

The following options are available when right-clicking a message queue in iDoctor:

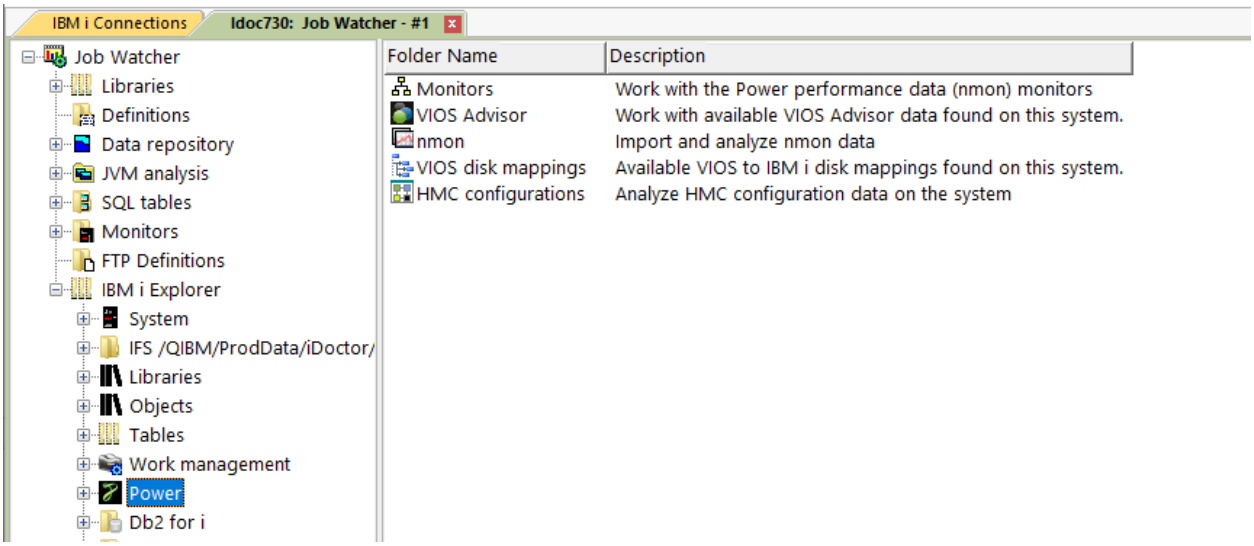


Menu	Description
Explore	This will list the messages found in the message queue.
Select fields…	This option allows you to select the fields to display for the list of messages within the message queue.
Clear	Use this function to clear all messages from the selected message queue.
Delete	Removes the message queue from the system
Rename	This option can be used to rename the message queue.
Properties	This provides an interface with more details about the message queue.

9.8 Power

The Power folder provides access to analysis functions for non-IBM i data such as NMON, VIOS advisor and more. It is provided here as a way for users to analyze already collected data that exists on the IBM i when they may not have authority to connect to the VIOS, HMC directly.

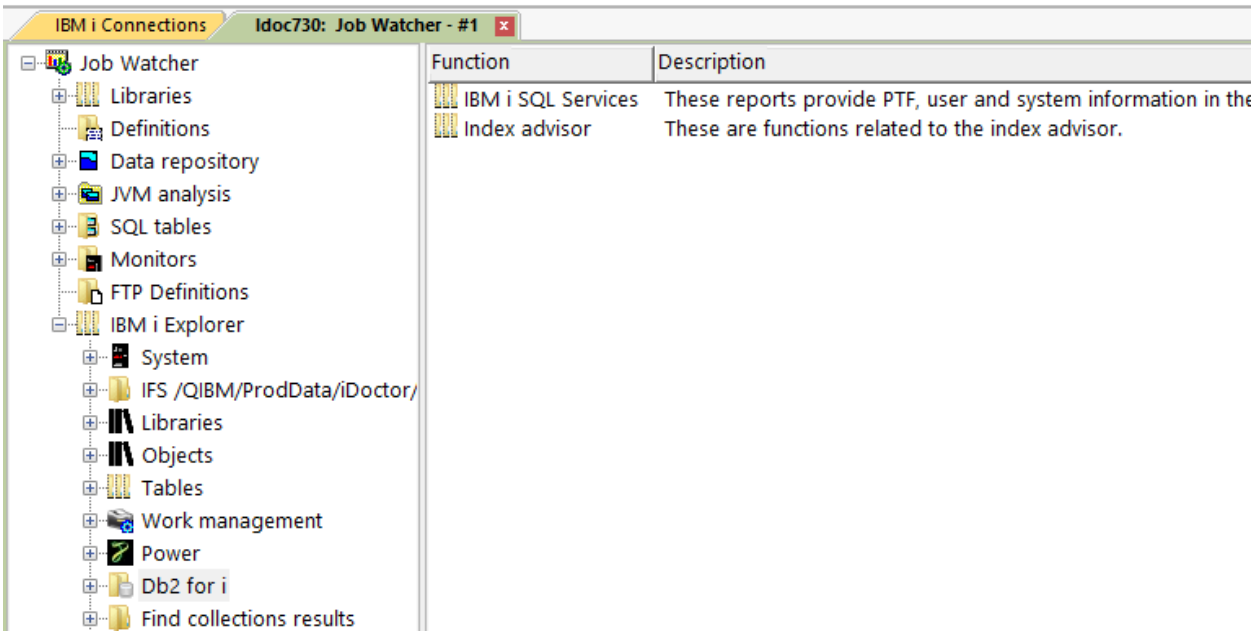
A different subfolder is provided for each type of data supported.



For more information on the Power-based (non-IBM i) functions, please read the PDF on Power Connections.

9.9 DB2 for i

This folder provides functions related to database support (such as IBM i SQL Services) on the IBM i.



Folder	Description
IBM i SQL Services	These reports utilize the IBM i Services (SQL) information on a variety of topics. More information: https://www.ibm.com/support/pages/ibm-i-services-sql
Index Advisor	This contains graphs and reports utilizing the Index Advisor support on IBM i.

9.9.1 IBM i SQL Services

Over the last several IBM i releases, many functions have been added to IBM i SQL services. This provides the ability to gather information about the system from a variety of differnet topics and areas using only SQL.

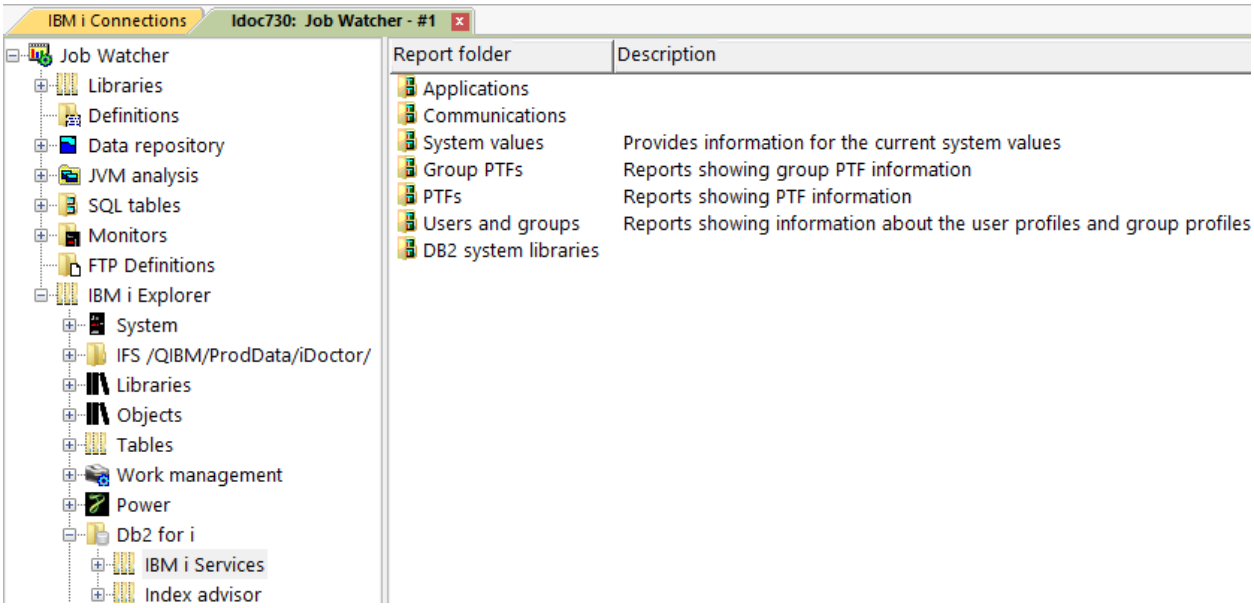
Several IBM i Services are used in the development of iDoctor, but this document focuses on the stand-alone reports that are available.

For more information see the following:

https://www.ibm.com/support/pages/ibm-i-services-sql

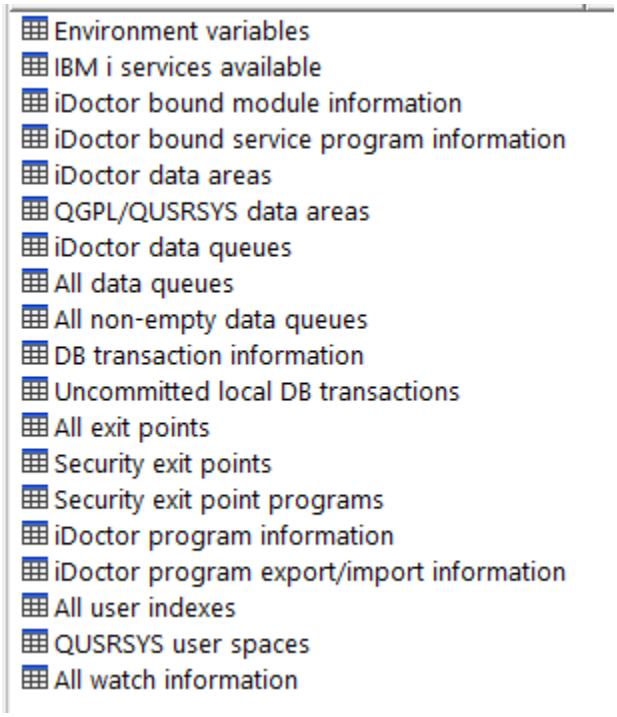
https://www.ibm.com/docs/en/i/7.4?topic=optimization-i-services

The IBM i Services folder provides the following options:



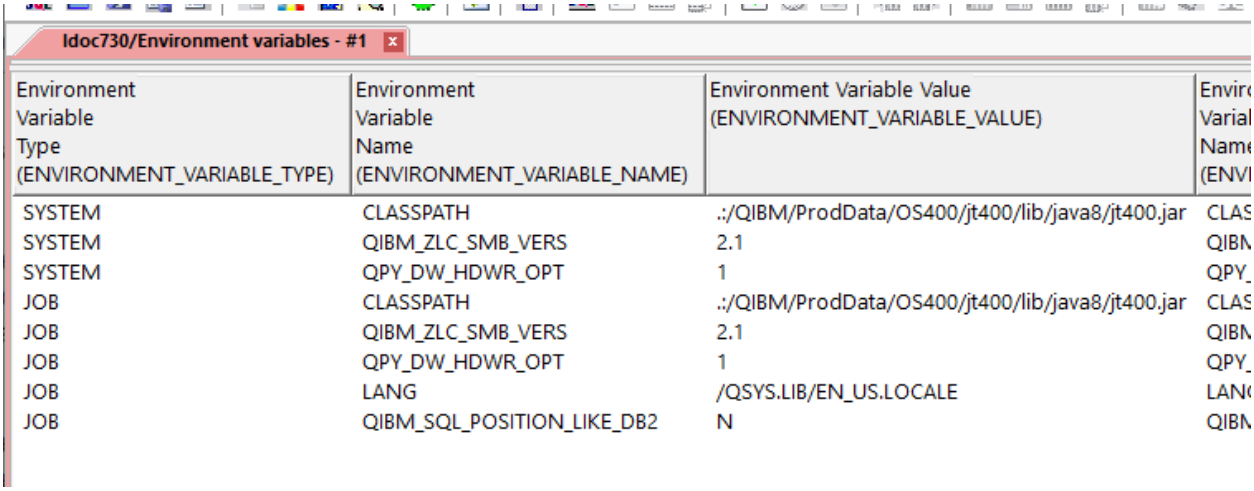
Expand one of these to see the reports available.

9.9.1.1 Applications



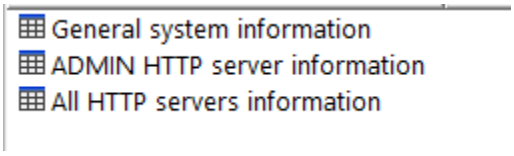
These reports use the Application services. Several options were added that are iDoctor-specific but could be modified to suite your own needs.

An example follows:



Environment Variable Type (ENVIRONMENT_VARIABLE_TYPE)	Environment Variable Name (ENVIRONMENT_VARIABLE_NAME)	Environment Variable Value (ENVIRONMENT_VARIABLE_VALUE)	Envir Varial Name (ENVI
SYSTEM	CLASSPATH	.:/QIBM/ProdData/OS400/jt400/lib/java8/jt400.jar	CLAS
SYSTEM	QIBM_ZLC_SMB_VERS	2.1	QIBM
SYSTEM	QPY_DW_HDWR_OPT	1	QPY_
JOB	CLASSPATH	.:/QIBM/ProdData/OS400/jt400/lib/java8/jt400.jar	CLAS
JOB	QIBM_ZLC_SMB_VERS	2.1	QIBM
JOB	QPY_DW_HDWR_OPT	1	QPY_
JOB	LANG	/QSYS.LIB/EN_US.LOCALE	LANG
JOB	QIBM_SQL_POSITION_LIKE_DB2	N	QIBM

9.9.1.2 Communications



These reports use the communications functions from IBM i SQL Services.

General system information

This provides high-level system information.

Os Name (OS_NAME)	Os Version (OS_VERSION)	Os Release (OS_RELEASE)	Host Name (HOST_NAME)	Total Cpus (TOTAL_CPUS)	Configured Cpus (CONFIGURED_CPUS)	Configured Memory (CONFIGURED_MEMORY)	Total Memory (TOTAL_MEMORY)
IBM i	7	3	IDOC730.RCHLAND.IBM.COM	8	8	57600	57600

ADMIN HTTP server information

This lists the ADMIN HTTP server information only.

Server Name (SERVER_NAME)	Job information needed for drill-downs (JOB_NAME)	Server Start Time (SERVER_START_TIME)	Server Restart Time (SERVER_RESTART_TIME)	Server Current Time (SERVER_CURRENT_TIME)	Server Normal Connections (SERVER_NORMAL_CONNECTIONS)	Server Conne (SERV
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-09.53.58.000000	9589	
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-09.53.58.000000	9589	
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-09.53.58.000000	9589	
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-09.53.58.000000	9589	

All HTTP servers information

This lists the HTTP server information.

Server Name (SERVER_NAME)	Job information needed for drill-downs (JOB_NAME)	Server Start Time (SERVER_START_TIME)	Server Restart Time (SERVER_RESTART_TIME)	Server Current Time (SERVER_CURRENT_TIME)	Server Normal Connections (SERVER_NORMAL_CONNECTIONS)	Server SSL Connections (SERVER_SSL_CONNECTIONS)	Ser Thr (SE
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-10.19.08.000000	9589	0	
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-10.19.08.000000	9589	0	
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-10.19.08.000000	9589	0	
ADMIN	363128/QTMHHTTP/ADMIN	2023-06-27-09.33.54.000000	2023-06-27-09.33.54.000000	2023-08-25-10.19.08.000000	9589	0	
IDOCTOR	364621/QTMHHTTP/IDOCTOR	2023-07-05-10.57.59.000000	2023-07-05-10.57.59.000000	2023-08-25-10.19.08.000000	9454	0	
INTAPPSVR	364605/QTMHHTTP/INTAPPSVR	2023-07-05-10.57.45.000000	2023-07-05-10.57.45.000000	2023-08-25-10.19.08.000000	0	8277	
INTAPPSVR	364605/QTMHHTTP/INTAPPSVR	2023-07-05-10.57.45.000000	2023-07-05-10.57.45.000000	2023-08-25-10.19.08.000000	0	8277	
WSERVICE	364555/QTMHHTTP/WSERVICE	2023-07-05-10.55.03.000000	2023-07-05-10.55.03.000000	2023-08-25-10.19.08.000000	8171	0	
WSERVICE	364555/QTMHHTTP/WSERVICE	2023-07-05-10.55.03.000000	2023-07-05-10.55.03.000000	2023-08-25-10.19.08.000000	8171	0	

9.9.1.3 System values

These reports show the current IBM i system values. The reports are:

- All system values
- QMAX* system values

All system values

Idoc730/All system values - #1

System Value Name (SYSTEM_VALUE_NAME)	Value (VALUE)
QABNORMSW	1
QACGLVL	*NONE
QACTJOB	200
QADLACTJ	30
QADLSPLA	2048
QADLTOTJ	30
QALWJOBITP	0
QALWOBJRST	*ALL
QALWUSRDMN	
QASTLVL	*INTERMED
QATNPGM	QEZMAIN QSYS
QAUDCTL	*AUDLVL
QAUDENDACN	*NOTIFY
QAUDFRCLVL	0
QAUDLVL	*SYSMGT
QAUDLVL2	
QAUTOCFG	1
QAUTORMT	1
QAUTOSPRPT	0
QAUTOVRT	32767

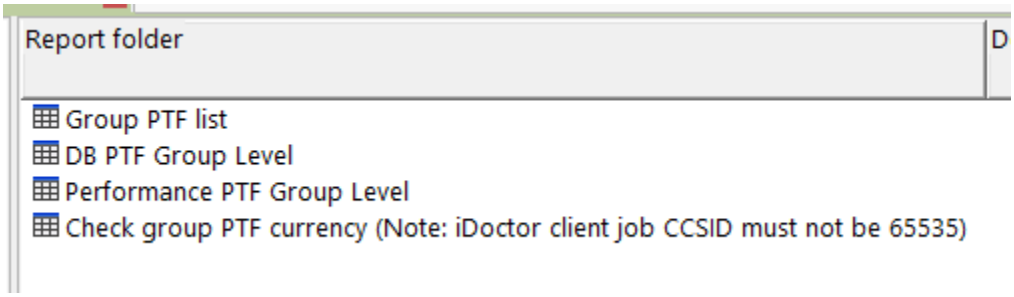
QMAX* system values

Idoc730/QMAX* system values - #1

System Value Name (SYSTEM_VALUE_NAME)	Value (VALUE)
QMAXACTLVL	32767
QMAXJOB	163520
QMAXSGNACN	1
QMAXSIGN	000003
QMAXSPLF	9999
QPWDMAXLEN	10

9.9.1.4 Group PTFs

These reports provide information relating to group PTFs.



Group PTF list

This report lists all group PTFs found on the system and the PTF group level installed.

Idoc730/Group PTF list - #1

PTF Group Name (PTF_GROUP_NAME)	PTF_GROUP_LEVEL (PTF_GROUP_LEVEL)	PTF_GROUP_DESCRIPTION (PTF_GROUP_DESCRIPTION)	PTF Group Target Release (PTF_GROUP_TARGET_RELEASE)	PTF Group Status (PTF_GROUP_STATUS)
SF99225	6	IBM OPEN SOURCE SOLUTIONS FOR I	V7R3M0	INSTALLED
SF99252	24	CONTENT MANAGER ONDEMAND FOR I - 5770-RD1 7.3	V7R3M0	INSTALLED
SF99333	5	DB2 WEB QUERY FOR I V2.2.0	V7R3M0	RELATED GROUP
SF99433	13	DB2 WEB QUERY FOR I V2.2.1	V7R3M0	RELATED GROUP
SF99533	8	DB2 WEB QUERY FOR I V2.3.0	V7R3M0	RELATED GROUP
SF99581	16	WEBSPHERE APP SERVER V8.5	V7R3M0	INSTALLED
SF99703	32	DB2 FOR IBM I	V7R3M0	INSTALLED
SF99722	45	IBM HTTP SERVER FOR I	V7R3M0	INSTALLED
SF99723	13	PERFORMANCE TOOLS	V7R3M0	INSTALLED
SF99724	63	BACKUP RECOVERY SOLUTIONS	V7R3M0	INSTALLED
SF99725	28	JAVA	V7R3M0	INSTALLED
SF99727	13	TECHNOLOGY REFRESH	V7R3M0	INSTALLED
SF99728	85	GROUP SECURITY	V7R3M0	INSTALLED
SF99729	180	GROUP HIPER	V7R3M0	INSTALLED
SF99730	23103	CUMULATIVE PTF PACKAGE C3103730	V7R3M0	INSTALLED
SF99731	12	ALL PTF GROUPS EXCEPT CUMULATIVE PTF PACKAGE & MQ	V7R3M0	INSTALLED
SF99867	13	730 TCP/IP PTF	V7R3M0	INSTALLED
SF99875	18	HARDWARE AND RELATED PTFS	V7R3M0	INSTALLED
SF99876	21	HIGH AVAILABILITY FOR IBM I	V7R3M0	INSTALLED

DB PTF Group Level

This report lists the DB PTF Group level.

Idoc730/DB PTF Group Level - #1

PTF Group Name (PTF_GROUP_NAME)	PTF_GROUP_LEVEL (PTF_GROUP_LEVEL)	PTF_GROUP_DESCRIPTION (PTF_GROUP_DESCRIPTION)	PTF Group Target Release (PTF_GROUP_TARGET_RELEASE)	PTF Group Status (PTF_GROUP_STATUS)
SF99703	32	DB2 FOR IBM I	V7R3M0	INSTALLED

Performance PTF Group Level

Idoc730/Performance PTF Group Level - #1

PTF Group Name (PTF_GROUP_NAME)	PTF_GROUP_LEVEL (PTF_GROUP_LEVEL)	PTF_GROUP_DESCRIPTION (PTF_GROUP_DESCRIPTION)	PTF Group Target Release (PTF_GROUP_TARGET_RELEASE)	PTF Group Status (PTF_GROUP_STATUS)
SF99723	13	PERFORMANCE TOOLS	V7R3M0	INSTALLED

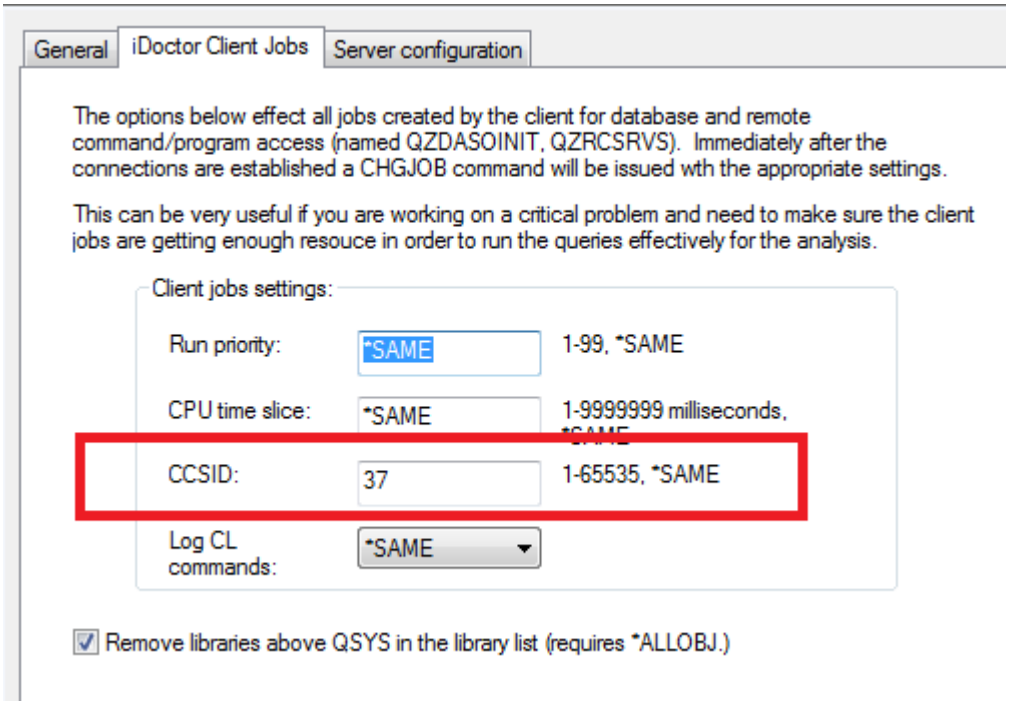
Check group PTF currency

This option will check each group PTF and look for any updates available. It will inform you of the level installed and the level that is available.

Idoc730/Check group PTF currency (Note: iDoctor client job CCSID must not be 65535) - #1

PTF_GROUP_CURRENCY (PTF_GROUP_CURRENCY)	PTF_GROUP_ID (PTF_GROUP_ID)	PTF_GROUP_TITLE (PTF_GROUP_TITLE)	PTF Group Level (PTF_GROUP_LEVEL_INSTALLED)	PTF_GROUP_LEVEL_AVAILABLE (PTF_GROUP_LEVEL_AVAILABLE)	LAST_UPDATED_BY_IBM (LAST_UPDATED_BY_IBM)	PTF (PT
UPDATE AVAILABLE	SF99728	SF99728 730 Group Security	85	90	2023-08-22	R7
UPDATE AVAILABLE	SF99729	SF99729 730 Group Hiper	180	185	2023-08-08	R7
UPDATE AVAILABLE	SF99722	SF99722 730 IBM HTTP Server for i	45	49	2023-07-28	R7
UPDATE AVAILABLE	SF99724	SF99724 730 Backup Recovery Solutions	63	65	2023-08-21	R7
UPDATE AVAILABLE	SF99533	SF99533 730 Db2 Web Query for i V2.3.0	8	9	2023-07-19	R7
UPDATE AVAILABLE	SF99725	SF99725 730 Java	28	29	2023-08-18	R7
UPDATE AVAILABLE	SF99867	SF99867 730 730 TCP/IP PTF	13	14	2023-05-27	R7
UPDATE AVAILABLE	SF99876	SF99876 730 High Availability for IBM i	21	22	2023-07-26	R7
INSTALLED LEVEL IS CURRENT	SF99225	SF99225 730 IBM Open Source Solutions for i	6	6	2017-11-06	R7
INSTALLED LEVEL IS CURRENT	SF99252	SF99252 730 Content Manager OnDemand for i - 5770-RD1 7.3	24	24	2023-02-22	R7
	SF99333	SF99333 730 DB2 Web Query for i V2.2.0	5	5	2018-05-13	R7
	SF99433	SF99433 730 Db2 Web Query for i V2.2.1	13	13	2022-03-29	R7
INSTALLED LEVEL IS CURRENT	SF99581	SF99581 730 WebSphere App Server V8.5	16	16	2023-02-08	R7
INSTALLED LEVEL IS CURRENT	SF99703	SF99703 730 DB2 for IBM i	32	32	2022-11-18	R7
INSTALLED LEVEL IS CURRENT	SF99723	SF99723 730 Performance Tools	13	13	2022-11-03	R7
INSTALLED LEVEL IS CURRENT	SF99727	SF99727 730 Technology Refresh	13	13	2022-12-01	R7
INSTALLED LEVEL IS CURRENT	SF99730	Current Cumulative PTF Media Documentation	23103	23103	2023-06-28	R7
INSTALLED LEVEL IS CURRENT	SF99731	SF99731 730 All PTF Groups except Cumulative PTF Package & MQ	12	12	2021-03-19	R7
INSTALLED LEVEL IS CURRENT	SF99875	SF99875 730 Hardware and Related PTFs	18	18	2020-01-16	R7

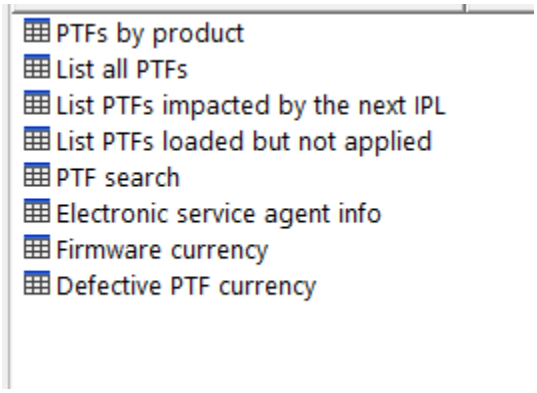
Note: In order for this report to work, the iDoctor client QZDASOINIT jobs' CCSID must not be 65535. You can check or change this by right-clicking the component icon (i.e. Job Watcher, PEX Analyzer, etc.) in the component view and using Properties -> iDoctor Client Jobs then change the CCSID to 37 if necessary.



Component properties -> iDoctor Client Jobs -> CCSID setting

9.9.1.5 PTFs

This folder contains several reports relating to PTFs. Several of these use the PTF_INFO view.

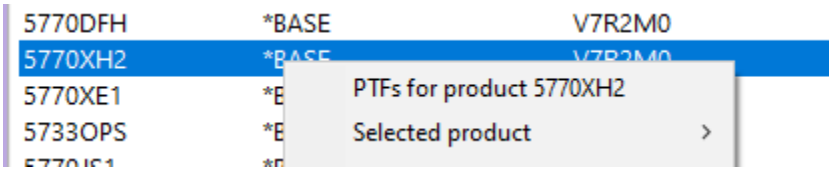


PTFs by product

This shows the total PTFs by product ID.

PTF Product ID (PTF_PRODUCT_ID)	PTF Product Option (PTF_PRODUCT_OPTION)	PTF Product Release Level (PTF_PRODUCT_RELEASE_LEVEL)	Description (DESC)	TOTPTFS (TOTPTFS)	SEQ (SEQ)
5770999	*BASE	V7R3M0	Licensed Internal Code	3477	1
5770SS1	*BASE	V7R3M0	IBM i	4566	2
5770BR1	*BASE	V7R3M0	Backup Recovery and Media Services for IBM i	37	3
5761CM1	*BASE	V6R1M0	Communications Utilities	1	3
5770RD1	*BASE	V7R3M0	Content Manager OnDemand Base	205	3
5733CY3	*BASE	V7R3M0	Cryptographic Device Manager	5	3
5770DFH	*BASE	V7R2M0	CICS TS for i	1	3
5770XH2	*BASE	V7R2M0	IBM i Access for Web	11	3
5770XE1	*BASE	V7R1M0	IBM i Access for Windows	2	3
5733OPS	*BASE	V1R1M0	IBM i Open Source Solutions	186	3
5770JS1	*BASE	V7R2M0	IBM Advanced Job Scheduler for i	17	3
5733ARE	*BASE	V1R1M0	IBM Application Runtime Expert for i	43	3
5770JV1	*BASE	V7R3M0	IBM Developer Kit for Java	432	3
5770ST1	*BASE	V7R3M0	IBM DB2 Query Manager and SQL Development Kit for i	42	3

Tip: From this report you can right-click to drill-down to list the PTFs for a specific product.



List all PTFs

Idoc730/List all PTFs - #1

PTF Product ID (PTF_PRODUCT_ID)	PTF Product Option (PTF_PRODUCT_OPTION)	PTF Product Release Level (PTF_PRODUCT_RELEASE_LEVEL)	PTF Product Description (PTF_PRODUCT_DESCRIPTION)	PTF Identifier (PTF_IDENTIFIER)	PTF Release Level (PTF_RELEASE_LE
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	RS00068	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI11314	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI11476	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI11873	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI12118	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI12136	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI12180	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI13970	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI14201	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI14239	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI14636	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI14719	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI15532	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI15572	V5R3M0
5722IP1	*BASE	V5R3M0	IBM Infoprint Server for iSeries	SI17143	V5R3M0

List PTFs impacted by the next IPL

This lists the PTFs that have an action set in the PTF_IPL_ACTION column within the **PTF_INFO** view.

List PTFs loaded but not applied

This lists all PTFs loaded by not applied (if any).

PTF search

This option will prompt you to enter a PTF ID. Only an exact match is allowed.

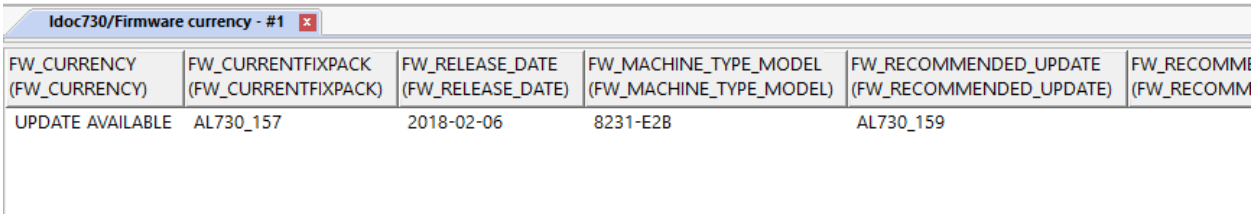
Tip: Right-click a connection within the IBM i connections view and use the **Check -> PTF Search…** function if you wish to do a generic PTF name search or search for multiple PTFs.

Electronic service agent info (7.3+)

This option shows the contents from the ELECTRONIC_SERVICE_AGENT_INFO view.

Firmware currency (7.3+)

This option can be used to check firmware levels and whether there is a recommended upgrade available. It uses the FIRMWARE_CURRENCY view.

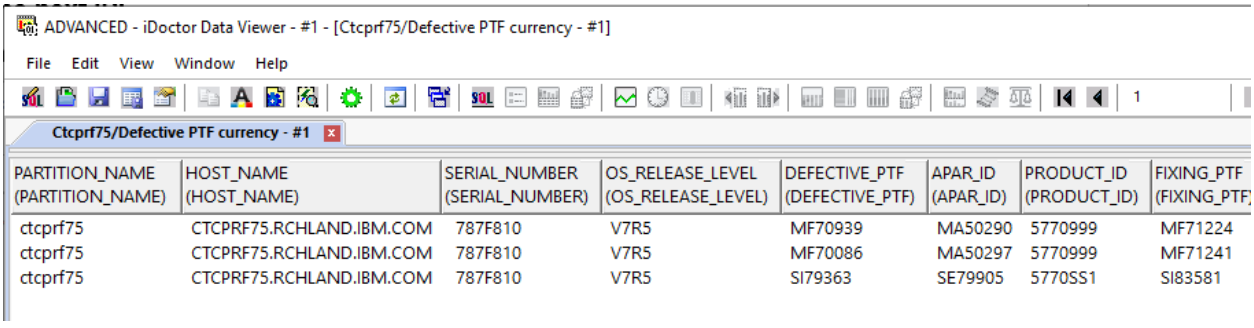


FW_CURRENCY (FW_CURRENCY)	FW_CURRENTFIXPACK (FW_CURRENTFIXPACK)	FW_RELEASE_DATE (FW_RELEASE_DATE)	FW_MACHINE_TYPE_MODEL (FW_MACHINE_TYPE_MODEL)	FW_RECOMMENDED_UPDATE (FW_RECOMMENDED_UPDATE)	FW_RECOMME (FW_RECOMM
UPDATE AVAILABLE	AL730_157	2018-02-06	8231-E2B	AL730_159	

Defective PTF currency (7.5)

The DEFECTIVE_PTF_CURRENCY is a view which returns a list of defective PTFs on the system that do not have the corrective PTF applied.

The data returned by this view is the same data that is returned by GO QMGTOOLS/MG option 24 (PTF Menu), then taking option 3 (Compare DEFECTIVE PTFs from IBM).

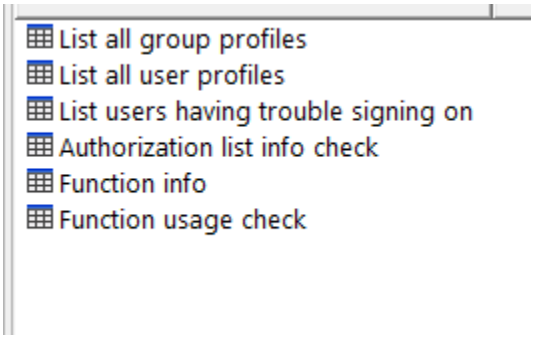


PARTITION_NAME (PARTITION_NAME)	HOST_NAME (HOST_NAME)	SERIAL_NUMBER (SERIAL_NUMBER)	OS_RELEASE_LEVEL (OS_RELEASE_LEVEL)	DEFECTIVE_PTF (DEFECTIVE_PTF)	APAR_ID (APAR_ID)	PRODUCT_ID (PRODUCT_ID)	FIXING_PTF (FIXING_PTF
ctcprf75	CTCPRF75.RCHLAND.IBM.COM	787F810	V7R5	MF70939	MA50290	5770999	MF71224
ctcprf75	CTCPRF75.RCHLAND.IBM.COM	787F810	V7R5	MF70086	MA50297	5770999	MF71241
ctcprf75	CTCPRF75.RCHLAND.IBM.COM	787F810	V7R5	SI79363	SE79905	5770SS1	SI83581

9.9.1.6 Security

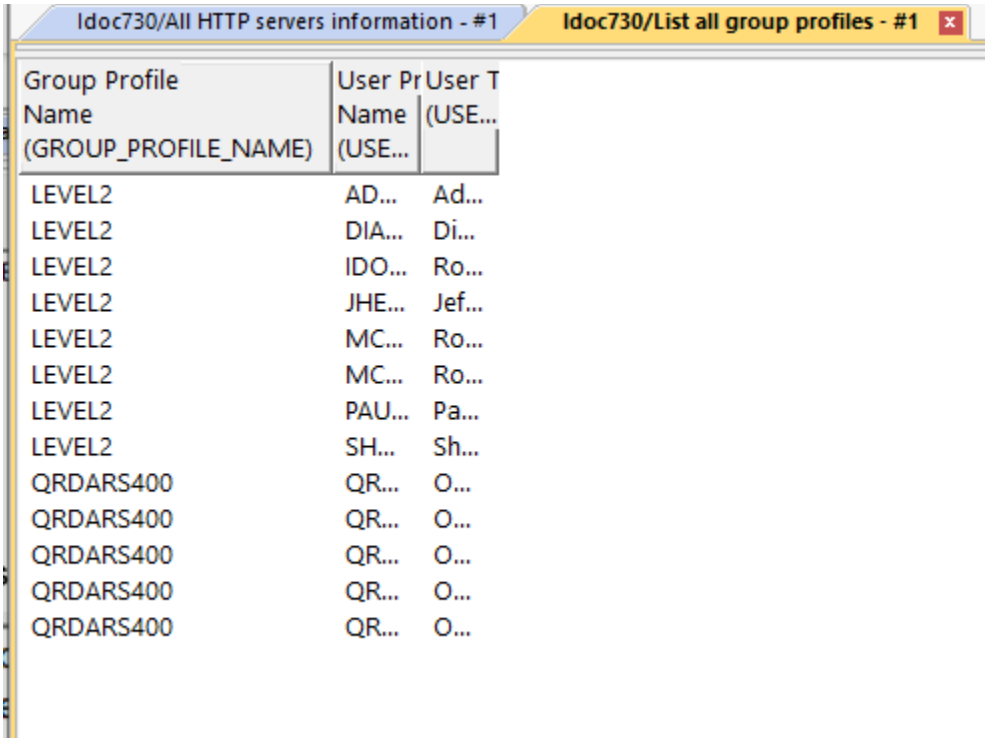
These reports show information about user profiles, authorization lists and more.

Tip: Additional options are available under the IBM i Explorer -> System -> User profiles folder.



List all group profiles

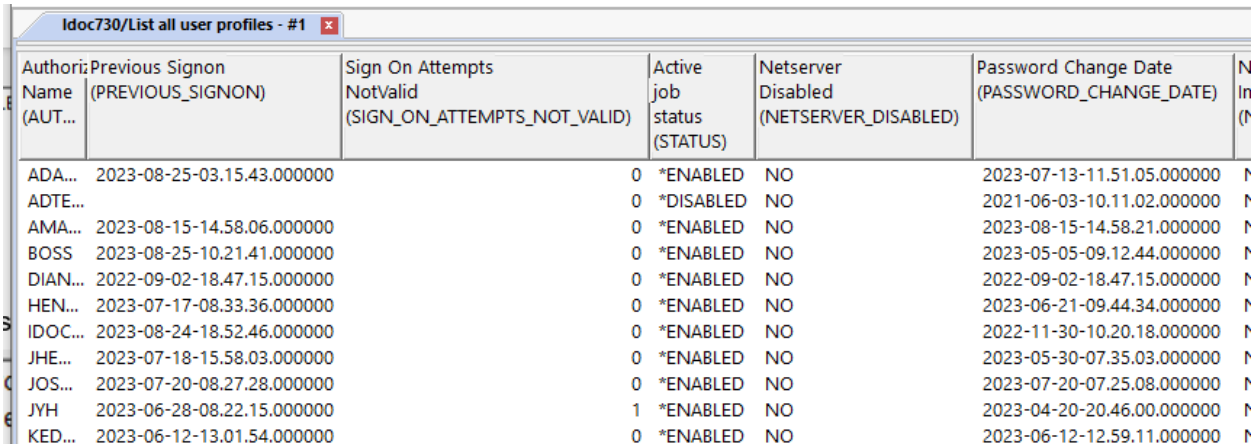
This report lists all the group profile names and the user profiles that belong to each.



Group Profile Name (GROUP_PROFILE_NAME)	User Pr Name (USE...	User T (USE...
LEVEL2	AD...	Ad...
LEVEL2	DIA...	Di...
LEVEL2	IDO...	Ro...
LEVEL2	JHE...	Jef...
LEVEL2	MC...	Ro...
LEVEL2	MC...	Ro...
LEVEL2	PAU...	Pa...
LEVEL2	SH...	Sh...
QRDARS400	QR...	O...
QRDARS400	QR...	O...
QRDARS400	QR...	O...
QRDARS400	QR...	O...
QRDARS400	QR...	O...

List all user profiles

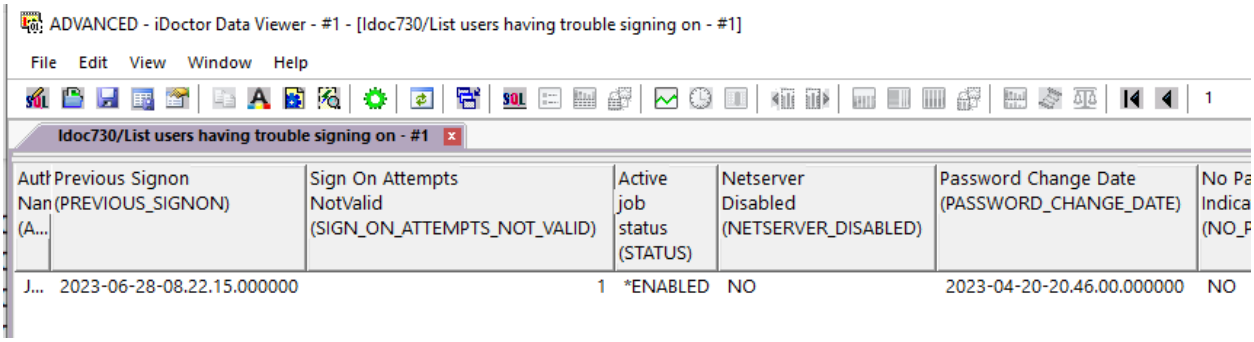
This report provides detailed information about all user profiles on a system.



Authori: Name (AUT...	Previous Signon (PREVIOUS_SIGNON)	Sign On Attempts NotValid (SIGN_ON_ATTEMPTS_NOT_VALID)	Active job status (STATUS)	Netserver Disabled (NETSERVER_DISABLED)	Password Change Date (PASSWORD_CHANGE_DATE)	N In (N
ADA...	2023-08-25-03.15.43.000000	0	*ENABLED	NO	2023-07-13-11.51.05.000000	N
ADTE...		0	*DISABLED	NO	2021-06-03-10.11.02.000000	N
AMA...	2023-08-15-14.58.06.000000	0	*ENABLED	NO	2023-08-15-14.58.21.000000	N
BOSS	2023-08-25-10.21.41.000000	0	*ENABLED	NO	2023-05-05-09.12.44.000000	N
DIAN...	2022-09-02-18.47.15.000000	0	*ENABLED	NO	2022-09-02-18.47.15.000000	N
HEN...	2023-07-17-08.33.36.000000	0	*ENABLED	NO	2023-06-21-09.44.34.000000	N
IDOC...	2023-08-24-18.52.46.000000	0	*ENABLED	NO	2022-11-30-10.20.18.000000	N
JHE...	2023-07-18-15.58.03.000000	0	*ENABLED	NO	2023-05-30-07.35.03.000000	N
JOS...	2023-07-20-08.27.28.000000	0	*ENABLED	NO	2023-07-20-07.25.08.000000	N
JYH	2023-06-28-08.22.15.000000	1	*ENABLED	NO	2023-04-20-20.46.00.000000	N
KED...	2023-06-12-13.01.54.000000	0	*ENABLED	NO	2023-06-12-12.59.11.000000	N

List users having trouble signing on

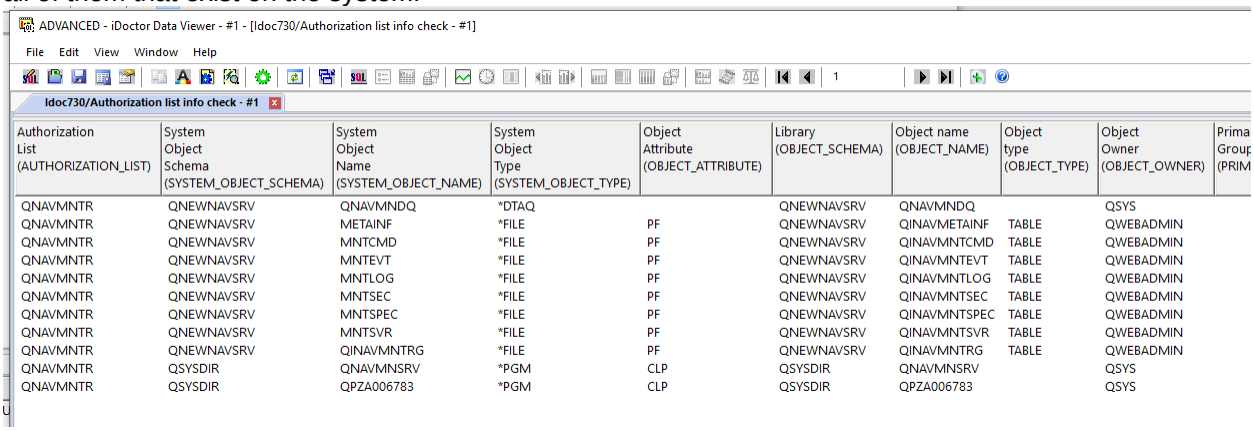
This report will list all user profiles that have invalid signon attempts to the system.



Autl Nan (A...	Previous Signon (PREVIOUS_SIGNON)	Sign On Attempts NotValid (SIGN_ON_ATTEMPTS_NOT_VALID)	Active job status (STATUS)	Netserver Disabled (NETSERVER_DISABLED)	Password Change Date (PASSWORD_CHANGE_DATE)	No Pa Indica (NO_P
J...	2023-06-28-08.22.15.000000	1	*ENABLED	NO	2023-04-20-20.46.00.000000	NO

Authorization list info check

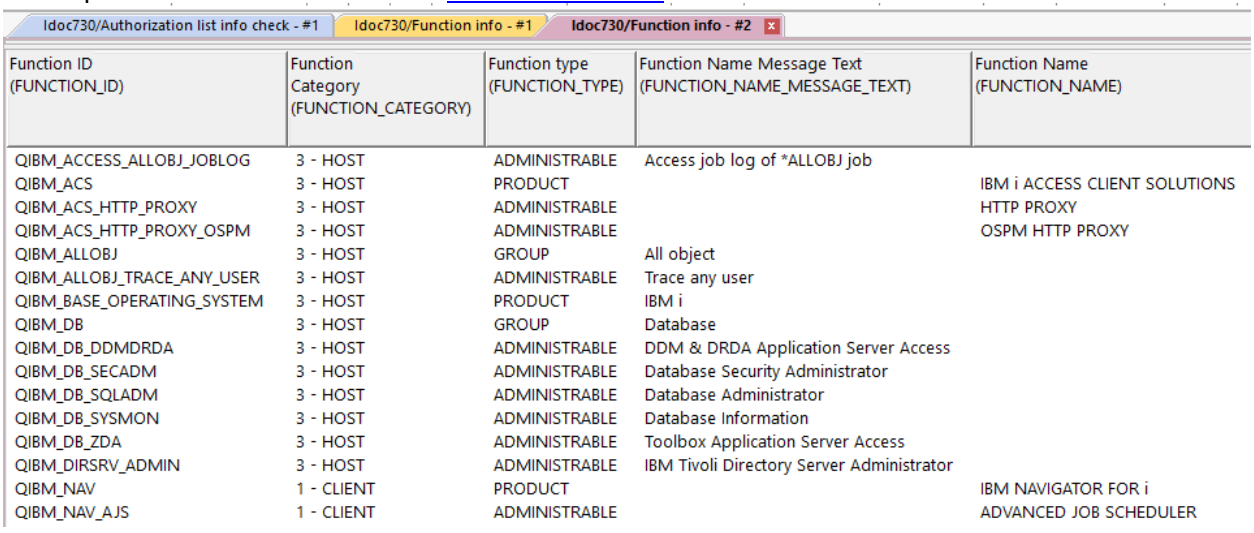
This option prompts the user to enter an authorization list name and then displays information for that authorization list from the AUTHORIZATON_LIST_INFO view. You can use the Browse option to display all of them that exist on the system.



Authorization List (AUTHORIZATION_LIST)	System Object Schema (SYSTEM_OBJECT_SCHEMA)	System Object Name (SYSTEM_OBJECT_NAME)	System Object Type (SYSTEM_OBJECT_TYPE)	Object Attribute (OBJECT_ATTRIBUTE)	Library (OBJECT_SCHEMA)	Object name (OBJECT_NAME)	Object type (OBJECT_TYPE)	Object Owner (OBJECT_OWNER)	Prima Group (PRIM
QNAVMNTR	QNEWNAVSRV	QNAVMNDQ	*DTAQ		QNEWNAVSRV	QNAVMNDQ		QSYS	
QNAVMNTR	QNEWNAVSRV	METAINF	*FILE	PF	QNEWNAVSRV	QINAVMETAINF	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	MNTCMD	*FILE	PF	QNEWNAVSRV	QINAVMNTCMD	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	MNTEVT	*FILE	PF	QNEWNAVSRV	QINAVMNTEVT	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	MNTLOG	*FILE	PF	QNEWNAVSRV	QINAVMNTLOG	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	MNTSEC	*FILE	PF	QNEWNAVSRV	QINAVMNTSEC	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	MNTSPEC	*FILE	PF	QNEWNAVSRV	QINAVMNTSPEC	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	MNTSVR	*FILE	PF	QNEWNAVSRV	QINAVMNTSVR	TABLE	QWEBADMIN	
QNAVMNTR	QNEWNAVSRV	QINAVMNTRG	*FILE	PF	QNEWNAVSRV	QINAVMNTRG	TABLE	QWEBADMIN	
QNAVMNTR	QSYSDIR	QNAVMNSRV	*PGM	CLP	QSYSDIR	QNAVMNSRV		QSYS	
QNAVMNTR	QSYSDIR	QPZA006783	*PGM	CLP	QSYSDIR	QPZA006783		QSYS	

Function info

This report shows the contents of the FUNCTION_INFO view.



Function ID (FUNCTION_ID)	Function Category (FUNCTION_CATEGORY)	Function type (FUNCTION_TYPE)	Function Name Message Text (FUNCTION_NAME_MESSAGE_TEXT)	Function Name (FUNCTION_NAME)
QIBM_ACCESS_ALLOBJ_JOBLOG	3 - HOST	ADMINISTRABLE	Access job log of *ALLOBJ job	
QIBM_ACS	3 - HOST	PRODUCT		IBM i ACCESS CLIENT SOLUTIONS
QIBM_ACS_HTTP_PROXY	3 - HOST	ADMINISTRABLE		HTTP PROXY
QIBM_ACS_HTTP_PROXY_OSPM	3 - HOST	ADMINISTRABLE		OSPM HTTP PROXY
QIBM_ALLOBJ	3 - HOST	GROUP	All object	
QIBM_ALLOBJ_TRACE_ANY_USER	3 - HOST	ADMINISTRABLE	Trace any user	
QIBM_BASE_OPERATING_SYSTEM	3 - HOST	PRODUCT	IBM i	
QIBM_DB	3 - HOST	GROUP	Database	
QIBM_DB_DDMDRDA	3 - HOST	ADMINISTRABLE	DDM & DRDA Application Server Access	
QIBM_DB_SECADM	3 - HOST	ADMINISTRABLE	Database Security Administrator	
QIBM_DB_SQLADM	3 - HOST	ADMINISTRABLE	Database Administrator	
QIBM_DB_SYSMON	3 - HOST	ADMINISTRABLE	Database Information	
QIBM_DB_ZDA	3 - HOST	ADMINISTRABLE	Toolbox Application Server Access	
QIBM_DIRSRV_ADMIN	3 - HOST	ADMINISTRABLE	IBM Tivoli Directory Server Administrator	
QIBM_NAV	1 - CLIENT	PRODUCT		IBM NAVIGATOR FOR i
QIBM_NAV_AJS	1 - CLIENT	ADMINISTRABLE		ADVANCED JOB SCHEDULER

Function usage check

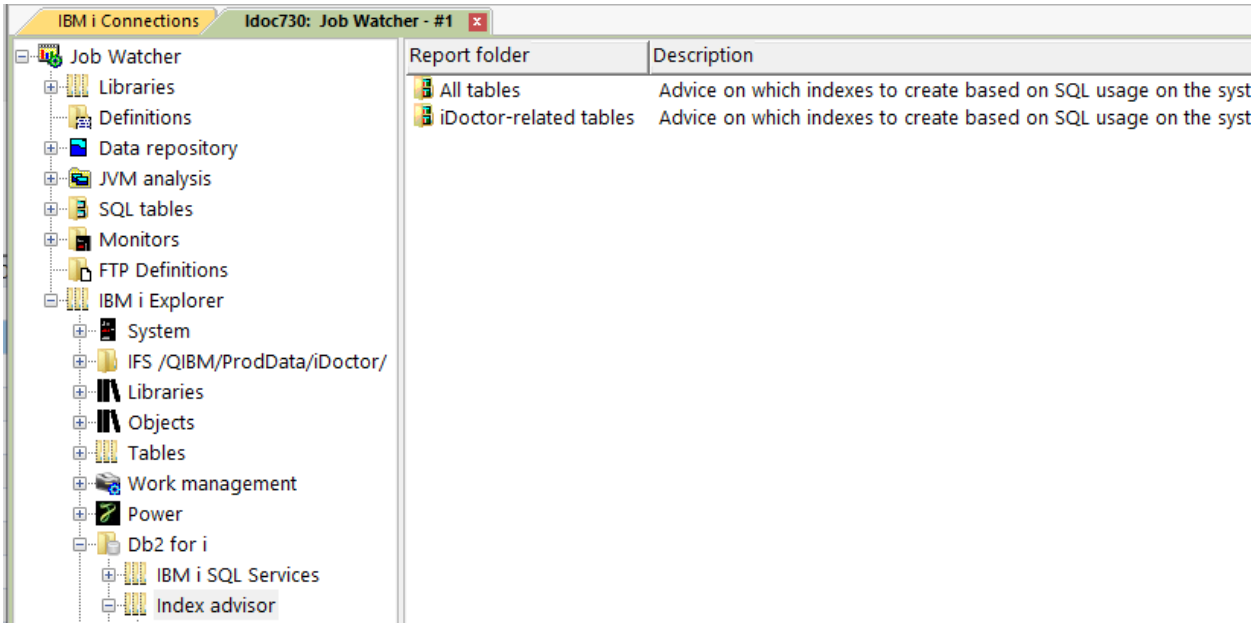
This option prompts the user to enter an function ID and then displays information for that function from the FUNCTION_USAGE view. You can use the Browse option to display all of them that exist on the system.

9.9.1.7 DB2 system libraries

These reports are intended for IBM use.

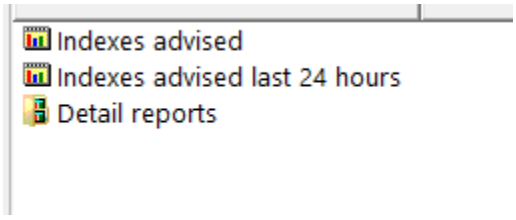
9.9.2 Index Advisor

This folder provides graphs and reports relating to the Index Advisor function on IBM i.



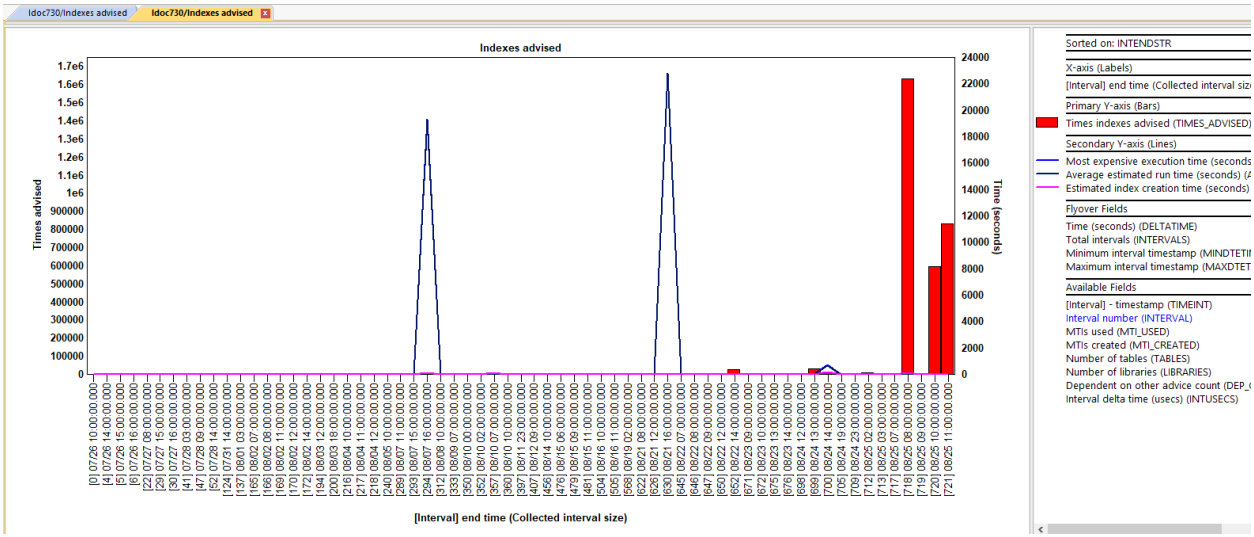
9.9.2.1 All tables

This folder contains these options:



Indexes advised

This graph shows the number of time indexes were advised over time.



Tip: Right-click a time period to drill-down to see the specific tables where indexes were advised.

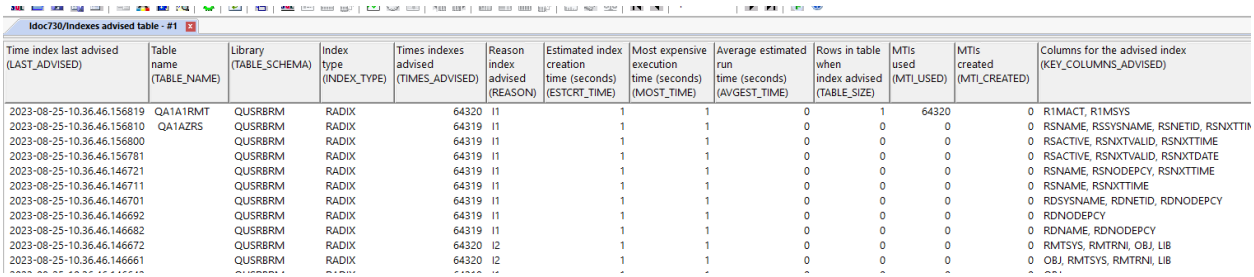
Indexes advised last 24 hours

This graph is identical to the previous one except only shows data for the previous 24 hours.

Detail reports -> Indexes advised table

This report identifies which tables where indexes are advised, the type of index to create and which columns to create the index over.

Sorted by the time last advised.



Time index last advised (LAST_ADVISED)	Table name (TABLE_NAME)	Library (TABLE_SCHEMA)	Index type (INDEX_TYPE)	Times indexes advised (TIMES_ADVISED)	Reason index advised (REASON)	Estimated index creation time (seconds) (ESTCRT_TIME)	Most expensive execution time (seconds) (MOST_TIME)	Average estimated run time (seconds) (AVGEST_TIME)	Rows in table when index advised (TABLE_SIZE)	MTIs used (MTI_USED)	MTIs created (MTI_CREATED)	Columns for the advised index (KEY_COLUMNS_ADVISED)
2023-08-25-10.36.46.156819	QA1A1RMT	QUSRBRM	RADIX	64320	I1	1	1	0	1	64320	0	R1MACT, R1MSYS
2023-08-25-10.36.46.156810	QA1AZRS	QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RSNAME, RSSYSNAME, RSNETID, RSNXTTI
2023-08-25-10.36.46.156800		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RSACTIVE, RSNXTVALID, RSNXTTIME
2023-08-25-10.36.46.156781		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RSACTIVE, RSNXTVALID, RSNXTDATE
2023-08-25-10.36.46.146721		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RSNAME, RSNODEPCY, RSNXTTIME
2023-08-25-10.36.46.146711		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RSNAME, RSNXTTIME
2023-08-25-10.36.46.146701		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RDSYSNAME, RDNETID, RDNODEPCY
2023-08-25-10.36.46.146692		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RDNODEPCY
2023-08-25-10.36.46.146682		QUSRBRM	RADIX	64319	I1	1	1	0	0	0	0	RDNAME, RDNODEPCY
2023-08-25-10.36.46.146672		QUSRBRM	RADIX	64320	I2	1	1	0	0	0	0	RMTSYS, RMTRNI, OBJ, LIB
2023-08-25-10.36.46.146661		QUSRBRM	RADIX	64320	I2	1	1	0	0	0	0	OBJ, RMTSYS, RMTRNI, LIB

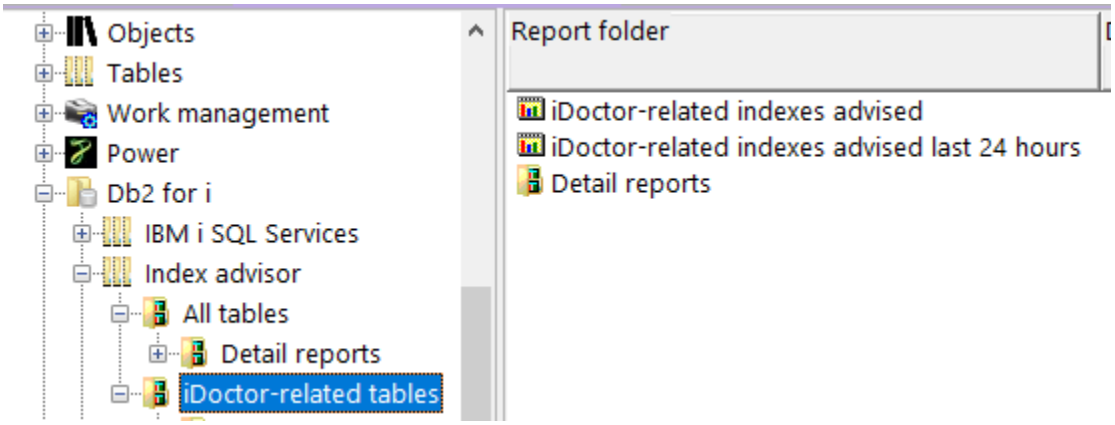
Detail reports -> Indexes advised by table, columns

This report is like the previous one except groups the data by system_table_name, index_type and key columns_advised. This is sorted by times_advised.

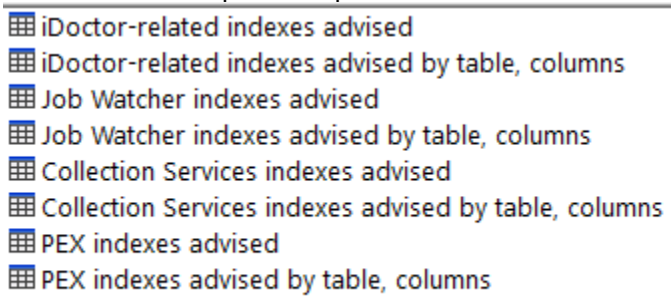
Table name (SYSTEM_TABLE_NAME)	Index type (INDEX_TYPE)	Columns for the advised index (KEY_COLUMNS_ADVISED)	Times indexes advised (TIMES_ADVISED)	Estimated index creation time (seconds) (ESTCRT_TIME)	Most expensive execution time (seconds) (MOST_TIME)	Average estimated run time (seconds) (AVGEST_TIME)	MTIs used (MTI_USED)
QINAVMNTRG	RADIX	OBSOLETE	274701	1	1	0	0
QAPMCCCNTB	RADIX	CCSTATUS, CCCLNFMT, CCSTRDT	274481	1	1	0	274481
QAPMJOBMI	RADIX	INTNUM, JBPTDE	150292	7	3	.0018	34040
QAPMDISKRB	RADIX	INTNUM, DSDRN	118191	1	1	0	41895
QAPMDISK	RADIX	DSIP, DSARM	118191	1	1	0	41181
QAPMDISK	RADIX	INTNUM, DSARM, DATETIME, UTCTIME	117879	1	1	0	0
QAPMJOBOS	RADIX	INTNUM, DATETIME, UTCTIME, JBTDE	85388	2	2	.0388	3354
QAPMDISK	RADIX	INTNUM, DSASP	78320	1	1	0	0
QA1AZRS	RADIX	RSNAME, RSNXTTIME	68431	1	1	0	0
QA1AZRS	RADIX	RSNAME, RSNODEPCY, RSNXTTIME	68431	1	1	0	0
QA1A1RMT	RADIX	R1MACT, R1MSYS	68431	1	1	0	68431
QA1AZRD	RADIX	RDSYSNAME, RDNETID, RDNODEPCY	68431	1	1	0	0
QA1ANET2	RADIX	OBJ, RMTSYS, RMTRNI, LIB	68431	1	1	0	0

9.9.2.2 iDoctor-related tables

The graphs and 1st 2 detail reports under this folder are the same as the ones described in the previous section except only show indexes advised for performance data tables and iDoctor-created SQL tables.



Additional detail reports are provided to break down the list of tables shown by component.

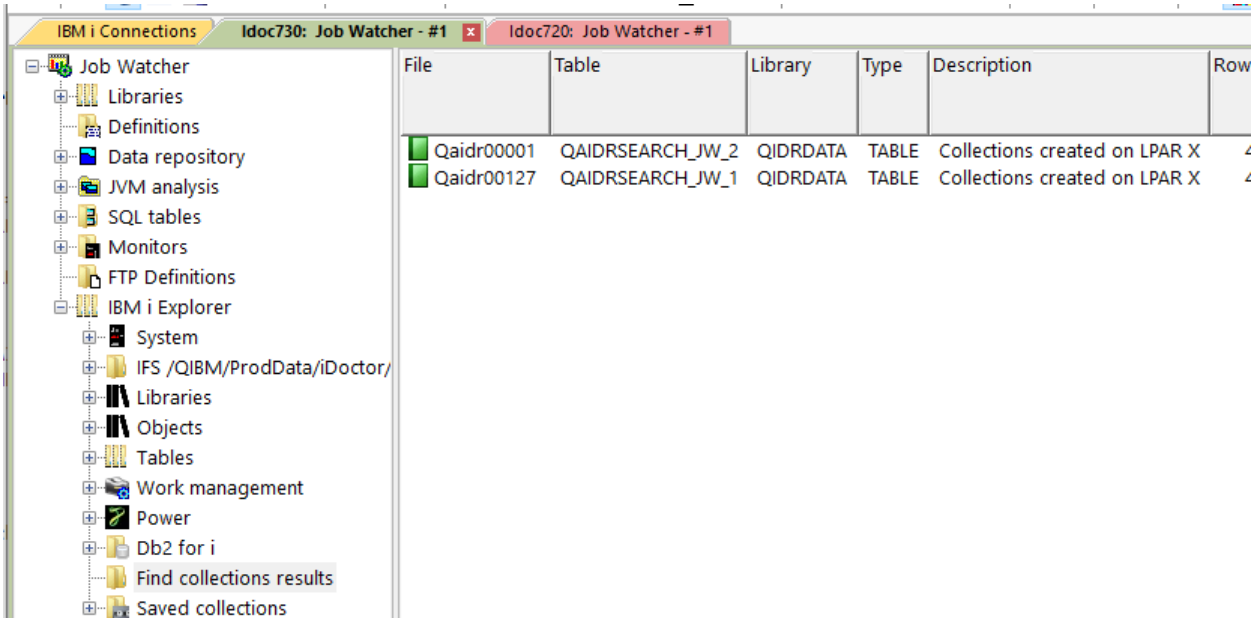


9.10 Find Collections results

This function displays the SQL tables created by the Find Collections option. These tables can be opened in the Data Viewer or deleted from the system.

Tip: The Find Collection interface is accessible by right-clicking the root folder icon (in PEX, CS, JW, DW) and using the **Find Collections… m**enu.

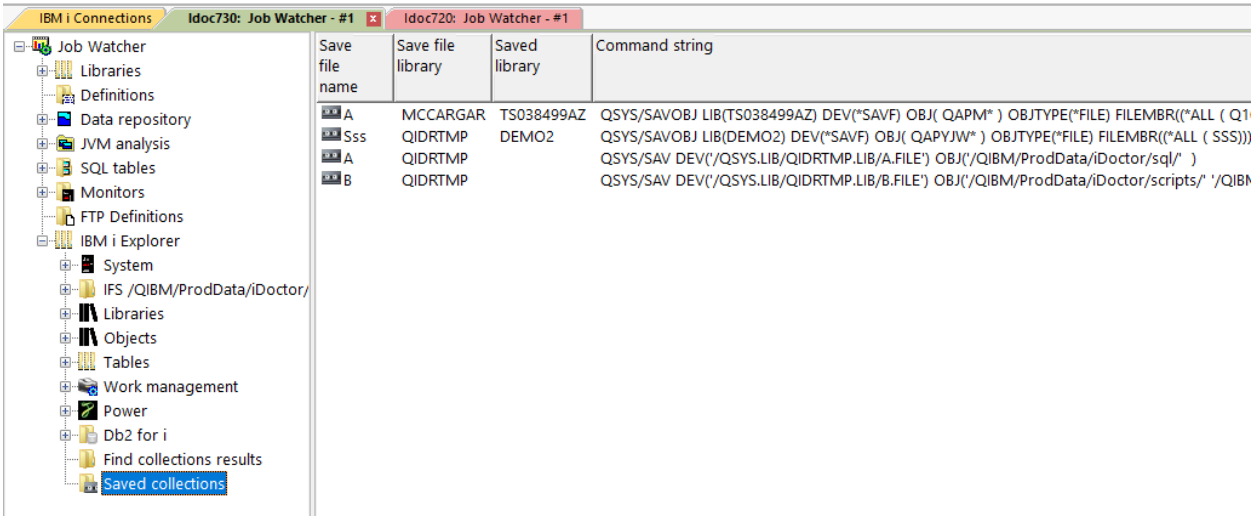
Only the tables applicable to the current component you are working with are displayed within this folder.



9.11 Saved collections

Most components allow you to save iDoctor collections to a save file. The Saved Collections folder within a component allows you to work with any saved collections found on the system. See the section on save files for more information.

Note: This interface will only show collections that were saved using the iDoctor GUI.



See the section on Save files for information regarding the actions that can be performed on save files.

10 Knowledge Base

This chapter covers the Knowledge Base component which is a free tool for keeping track of data, graphs, notes within iDoctor.