

Update History for IBM iDoctor for IBM i – PEX-Analyzer V6R1

April 23, 2010

---> C00783 - Pex Analyzer - Bug Fix Request

Removed the classic - child analyses report folder. It was not working properly and users should move to the SQL-based analyses at this time

---> C00783 - Pex Analyzer - Bug Fix Request

Fixed several drill down problems in the SQL-based PEX Analyzer analyses when multiple types of analyses are possible due to conflicts with the menu IDs assigned.

Also changed some drill down orderings and names slightly to improve usability.

---> C00783 - Pex Analyzer - Bug Fix Request

Fixed a bug with SQL-based taskswitch where it fails after reinstalling the server code with an error regarding program QIDRCRTFM not found.

---> C00783 - Pex Analyzer - Bug Fix Request

In PEX, the call stacks analysis reports were not using a correct order by so it was possible the call stacks with the most hits may not have been listed first.

Also changed the SQL so that records with all UNKNOWN values for program, module, procedure will not be shown in the report.

---> C00783 - Pex Analyzer - Bug Fix Request

Fix a bug with the TPROF analysis that was preventing it from being ran multiple times on the same collection.

---> C00782 - Pex Analyzer - Enhancement

Made additional changes to the SQL-based Taskswitch analysis at 6.1 and higher.

---> C00782 - General - Usability

If the window title contains the <Collection system> parameter (the system the collection was created on) it will be shown as blank if the <system> parameter is the same system.

---> C00782 - Pex Analyzer - Bug Fix Request

In PEX Analyzer, when running analyses via the prompter window, need to make sure QIDRSTRSUM/QIDRENDSUM exist.

---> C00782 - Installation - Enhancement

Add option to the install on the summary panel to allow a user to create the setup log files in the desired directory. This can be required if doing a server-side only install and the default of C:\program files\ibm\idoctor for iseries\setuplogs will not work due to lack of ADMIN rights for the user.

---> C00781 - General - Enhancement

Graph flyover window now contains the system name and the system the data was collected on (if different from the system name where data resides now).

---> C00781 - General - Bug Fix Request

Time range selections were broken with the previous client.

---> C00781 - General - Bug Fix Request

Fix a crash with the report generator function if opening a tree table view (CSI disk configuration or PEX TPROF reports).

---> C00780 - Pex Analyzer - Enhancement

In PEX Analyzer, doing a flyover over field QTITIMN will show the value in a more readable form (seconds/minutes) depending on how large it is.

---> C00780 - Pex Analyzer - Enhancement

PEX Analyzer reports now support doing flyovers in table views to show bucket descriptions on reports that include fields named "BUCKET" or "BLOCKBCKT".

It can also show Enum descriptions on reports that include "ENUM" or "BLOCKENUM"

---> C00780 - Pex Analyzer - Enhancement

Updated 6.1 and 7.1 SQL-based Taskswitch analysis with new reporting (chase/etc) options.

---> C00780 - General - Bug Fix Request

When writing your own SQL, if you specify the same table name in multiple libraries the data would not be queried correctly because iDoctor's use of OVRDBF. With this change, when the GUI encounters multiple files in the same query but with different libraries, OVRDBF will not be used for these files. If the files contain multiple members then a warning will be shown explaining that only results from the 1st member in each file can be shown and if this is not desired SQL aliases will need to be written to point to the correct members.

---> C00780 - Pex Analyzer - Enhancement

The SQL-based PDIO analysis will now produce data if only DASD starts and not ends were collected. Previously the summary files would not contain any data in this situation.

---> C00780 - Pex Analyzer - Bug Fix Request

Fixed an overflow problem with the SQL-based Netsize analysis on the USECS field. Also converted several similar numeric fields to BIGINTs.

In addition, fixed an issue that caused the analysis not to run in batch mode.

---> C00780 - Pex Analyzer - Bug Fix Request

In PEX Analyzer 6.1+, added additional error handling to STRPACOL.

If the jobq the QIDRPACOL job is submitted to is held or incorrect routing data on the subsystem is used a message will be shown to the user at the end of the job log indicating this so the problem is more obvious.

Also if the ASP is nearly full and wrksyssts called by STRPACOL returns a message

"CPI099B Critical storage condition exists". then the job will immediately end so the reason the collection is not starting is easier to see.

---> C00780 - Installation - Bug Fix Request

Renamed the install program from setup.exe to InstalliDoctor.exe to avoid the possibility at install time that a different setup program will be launched (from the user's path environment variable)

Additionally, registry entries at install time will no longer be written to HKEY_CLASSES_ROOT and will instead be placed under HKEY_CURRENT_USER to resolve an issue on Windows 7.

---> C00780 - General - Usability

Add cancel button to the Choose database members window that will cancel running the current query.

---> C00780 - Pex Analyzer - Bug Fix Request

In PEX Analyzer monitors (STRPAMON command) added checks to ensure that the monitor does not end up in a situation where PEX sessions are continually being added with none removed (due to a PEX issue). If this happens the monitor will end and the reason the PEX sessions are not ending will need to be investigated.

Also added a check to see if the Job Watcher JOBQ is held before the monitor submits each collection. If the JOBQ is held the monitor will issue a message and then end.

---> C00779 - Pex Analyzer - Enhancement

In SQL-based TPROF, corrected the title of the Hits by program report to Hits by program/module

Also added a new report Hits by program.

---> C00779 - General - Bug Fix Request

In the previous client, the open report into new data viewer and open into existing data viewer options were not working correctly.

---> C00779 - General - Bug Fix Request

Switching the graph type to step or a line graph causes the colors defined in the legend to not be used in the lines and instead all black lines are shown.

---> C00777 - Pex Analyzer - Bug Fix Request

At 5.4 and higher, the STRPACOL command CPP was shipped with the user profile parameter set to *USER instead of *OWNER. This caused the command not to work unless the user had *ALLOBJ special authorities

---> C00777 - General - Enhancement

Users can now right-click the legend to change the graph type using the "set graph type (primary Y)" menu.

---> C00776 - General - Usability

The iDoctor main window titlebar will now contain the iDoctor client build number.

---> C00775 - General - Bug Fix Request

On the main window the copy to clipboard function (ctrl+C) from the list side of the component views and the clock icon was not working after the changes that added user-defined queries and graphs to the collection menu. This was due to a conflict in the command IDs used.

---> C00775 - Pex Analyzer - Bug Fix Request

With the previous internal client, using the query definition interface in PEX Analyzer could cause SQL error messages regarding file QAPYJWINTI.

---> C00775 - Pex Analyzer - Bug Fix Request

The PDIO classic analysis graph I/O totals by IO type was not being drawn correctly (each bar showed the same value 6 times).

---> C00775 - Installation - Bug Fix Request

If an ODBC error occurs during installation when trying to make the connection, the connection string used will now be returned in the error message.

---> C00775 - Pex Analyzer - Bug Fix Request

The PEX Analyzer SQL-based netsize analysis had an error that caused not all records to be written output files used by the reports.

---> C00774 - General - Bug Fix Request

When saving a user-defined query or graph, Data Explorer was missing as a possible component.

---> C00774 - Pex Analyzer - General

In PA 7.1, in collection properties the Collection Size tab has been removed (it didn't work at that release). The collection size is now shown in the list of collections in the library.

---> C00774 - Pex Analyzer - Enhancement

In PEX Analyzer 6.1+, the list of collections in a library (or collections in a PEX monitor) now includes the collection size (of all the PEX file/members) You may have to add this field to the list of available fields using the Select fields.... menu on a library.

---> C00774 - Pex Analyzer - Enhancement

In PA 5.4+, in collection properties on the system tab added new values from QAYPERUNI including PowerPC special register values, calibration state and affinity balancer state.

---> C00774 - Pex Analyzer - Bug Fix Request

When displaying the PEX collections in a library, the field "job creating collection" was only filled properly when the collection was created with STRPACOL and not with the STRPEX command.

---> C00774 - Pex Analyzer - Enhancement

In PA 7.1+ in collection properties on the System tab, added many new fields from QAYPERUNI including: processor folding, power save mode, power draw mode, mobility action, processor counts at start/end.

---> C00774 - General - Usability

If the SQL statement contains comments, and the user tries to use query definition interface, prompt them asking if they really want to because the comments will be lost.

Also add a preference on the Confirm tab called "Confirm usage of query definition if the SQL contains comments (which will be lost)" which controls whether the confirmation is shown.

---> C00774 - General - Usability

When using the Duplicate as temporary SQL view option add a check to see if the query contains physical files with multiple members. This option cannot work in that instance so a message will be shown blocking the attempt. SQL views cannot be created over aliases or multi member physical files, only over SQL tables or physical files with only 1 member.

---> C00774 - General - Enhancement

In the iDoctor Report Generator add an option that has allows for N pages of data to be captured per graph/table. In tables the pages captured are vertical pages (rows) not horizontal ones (columns).

---> C00773 - General - Bug Fix Request

If the system contained a very large number of disk units and the user tried to use the Disk units folder or the disk unit selection option in the Add Disk Watcher Definition interface, the GUI would crash due to the receiver variable being set too small.

---> C00773 - General - Usability

On the manage and import query and graph definition screens, removed the VRM filter option since the VRM is no longer used when deciding which user-defined queries/graphs to show.

Also removed the Copy and Edit options on the Manage query/graph definitions window since they were only needed to move query/graph definitions to a new release.

On the manage query definitions and import query definitions windows, also added the SQL statement within the query definition to the list of fields. You can place the mouse over it for a more readable flyover and/or copy/paste the SQL statement cell contents to the clipboard.

---> C00773 - Pex Analyzer - Enhancement

At 7.1, in the Add PEX Definition Wizard added support to define stats counters into buckets 5-8.

---> C00773 - Pex Analyzer - Enhancement

Updated the PEX Analyzer Add/Change PEX Definition interface to support the latest event additions/removals at 6.1/7.1.

Program events:

(6.1+) - Removed *MIPRECALL , *MIPOSTCALL , *JVAPRECALL , *JVAPOSTCALL

Base events

(6.1+) - Added *CPUSWT

(7.1) - Added *PRCFLDSUSPEND, *PRCFLDRESUME , *LPARSUSPEND, *LPARRESUME

Storage events

(7.1) - Added *CHGSEGATR

OS events

(6.1+) Added *ARMTRC

Sync events

(6.1+) Added *MTXCLEANUP

---> C00773 - General - Usability

Display the x-axis label when using variable width mode so that the time range size (collected interval size, 1 min intervals, etc) is still shown on the graph.

---> C00773 - Pex Analyzer - Enhancement

For PEX collections created on release 7.1 (displayed on 6.1 or higher systems), changed the method used for retrieving information about collections to a stored procedure (replacing an older RPG program). This should also resolve an issue where it was common to see the status message "ENDPEX is still running" when it really wasn't.

---> C00773 - General - Enhancement

In Preferences, removed the PEX Analyzer and Job Watcher title format preferences and replaced this with a Window title format preference at the top of the Display tab that covers all components.

Also added new parameter markers for the title format including

<collection system> = The system the collection was created on

<collection start> = Start time of the collection in MM/DD HH:MM AM/PM format

<collection end> = End time of the collection in MM/DD HH:MM AM/PM format

Note: In some IBM internal components like Plan Cache Analyzer not all of these fields are available.

---> C00773 - Collection Services;Pex Analyzer - Bug Fix Request

When working with a generic job ranking graph in CSI and PEX, using the Change SQL Parameters option to change the generic job name length worked fine, but drilling down did not work because it didn't use the changed length value for the next graph. This issue has been corrected.

---> C00773 - Pex Analyzer - Enhancement

In PEX, the active collections folder now contains the start and resume times for the collections listed. Also the properties interface from collections in this folder will show the status and start time now.

---> C00773 - General - Bug Fix Request

When saving a user-defined graph containing multiple x axis fields the 2nd and 3rd x axis fields will now be saved properly and shown when the graph is reopened.

---> C00772 - General - Bug Fix Request

Added a fix if using kerberos authentication, in the previous client it would still prompt you for a password because the cwbcO_SetUserIDEx API was still being called.

---> C00772 - General - Enhancement

When defining drilldowns inside of an SQL statement's comments and you are filtering on multiple selections, you can define a field called <<MAXXYZ>> where the MAX part of the field name indicates that the last record of the selection should be used when substituting the parameter marker. If the parameter marker does not start with MAX then the 1st record of the selection is used to retrieve the replacement value.

You can also define filter using a parameter marker like FIELD <<IN_FIELD>> where the replacement output will create an IN clause taking the value for FIELD from every row selected. FIELD IN(1, 2, 3, 4, 5)

---> C00771 - Pex Analyzer - Enhancement

The SQL-based Taskswitch analysis has been updated.

---> C00771 - Installation - Bug Fix Request

In the install wizard, when checking to make sure the JW or PEX subsystem description exists and it already exists, ensure that the subsystem pool number is set properly to the value specified in the wizard by the user by issuing a CHGSBSD command on it.

---> C00771 - General - Enhancement

Added a new preference to the misc tab (default off) called "Add column table names to the Record Quick View window"

Also on the Record Quick View window the column's table name will be show next to each column's name if it is known (not derived from an expression).

---> C00771 - General - Enhancement

The dynamic drill down support (added from sql comments) provided in the previous client has changed so that all the drill downs created contain all the comments from initial query at the top before the sql statement to run.

---> C00771 - General - Bug Fix Request

Allow selections to be made in graphs that show negative values.

---> C00771 - General - Bug Fix Request

The dynamic drill downs embedded within the SQL statement added in the previous client should work now in Job Watcher, CSI, DW.

---> C00771 - General - Bug Fix Request

Fixed a possible crash in the Component views related to the improper clean up of property sheets attached to a folder in the tree.

---> C00771 - General - Enhancement

Add support for the following new graph types:

Step

Area

Vertical overlapping bar

Horizontal overlapping bar

These graph types can be set on the general tab of the graph definition properties.

---> C00771 - General - Enhancement

In the record quick view, show the table alias name before the column name if it is known.

---> C00771 - General - Enhancement

When signing on to a system, iDoctor will now make use of the configured signon setting defined in System i Navigator (Properties -> Connection tab for a system). You can use the options like "Use Windows username and password" to avoid needing to signon through iDoctor if your Windows password matches the username and password of the System i you are connecting to. Also makes use of the Client Access password cache to avoiding prompting for a password unless needed.

If you still wish to be prompted for a password everytime you start iDoctor, just make sure you have the "Prompt every time" option set within System i Navigator. (Properties->Connection tab).

The 1st time you transfer a file to another system you will typically be prompted for a password to the remote system now since it was not provided at startup.

---> C00771 - General - Usability

If the connection is dropped reestablish connections automatically. This should be a lot better than before although you most likely will need to close and reopen any graphs.

If you still have failures or crashes with this client, let me know what you were doing in iDoctor when you tried to reestablish connections at idoctor@us.ibm.com.

---> C00770 - Pex Analyzer - Bug Fix Request

With the collection menu caching changes in previous client, the PEX Analyzer SQL-based reporting options would no longer show after the 1st right-click in the popup menu for a collection.

---> C00770 - General - Bug Fix Request

Fixed a memory leak with the cache for collection popup menus.

---> C00770 - General - Bug Fix Request

Fixed possible crash when using the Generate Reports option with the previous client.

---> C00770 - General - Enhancement

Added support for drill downs to be dynamically added into iDoctor using comments in the SQL statement. This works for both user-defined and iDoctor supplied table views (should we desire to add some this way in the future).

Here is an example of the syntax required to add a drill-down menu called "QAYPEPROCI queries":

```
-- Examples of "Dynamic drill downs"
-- based on data (row selections) in the current query
-- take advantage of current substitution parameters << >> in iDoctor SQL editor
-- Filter on any field in the next drill down like this WHERE FIELD1 = '<<FIELD1>>'
--00--HEADER QAYPEPROCI queries
--00--END
```

```

--01--HEADER List <<LIBNAME>>/QAYPEPROCI rows by Names
--01--
SELECT * FROM <<LIBNAME>>/QAYPEPROCI ORDER BY QPRPGN, QPRMNM, QPRPNM
--01--END
--02--HEADER Sum <<LIBNAME>>/QAYPEPROCI by Header Type
--02--SELECT COUNT(*) AS CNT, QPRHDR FROM <<LIBNAME>>/QAYPEPROCI GROUP BY QPRHDR
ORDER BY CNT DESC
--02--END
--03--HEADER List all <<LIBNAME>>/QAYPEPROCI Type MI rows
--03--SELECT * FROM <<LIBNAME>>/QAYPEPROCI WHERE QPRHDR = 'MI' ORDER BY QPRPGN,
QPRMNM, QPRPNM
--03--END
--04--HEADER Sum <<LIBNAME>>/QAYPEPROCI Header Type MI by name
--04--SELECT COUNT(*) AS CNT, QPRPGN FROM <<LIBNAME>>/QAYPEPROCI WHERE QPRHDR =
'MI' GROUP BY QPRPGN ORDER BY CNT DESC, QPRPGN
--04--END
--05--HEADER List all <<LIBNAME>>/QAYPEPROCI Header Type MI rows with non-Q names
--05--SELECT * FROM <<LIBNAME>>/QAYPEPROCI WHERE QPRHDR = 'MI' and
SUBSTR(QPRPGN,1,1) <> 'Q' ORDER BY QPRPGN, QPRKEY
--05--END
--06--HEADER Sum <<LIBNAME>>/QAYPEPROCI Header Type MI by non-Q names
--06--SELECT COUNT(*) AS CNT, QPRPGN FROM <<LIBNAME>>/QAYPEPROCI WHERE QPRHDR =
'MI' and SUBSTR(QPRPGN,1,1) <> 'Q' GROUP BY QPRPGN ORDER BY CNT DESC, QPRPGN
--06--END
--07--HEADER List <<QPRKEY>> occurrences in <<LIBNAME>>/QAYPEIAD
--07--SELECT * FROM <<LIBNAME>>/QAYPEIAD WHERE x'<<QPRKEY>>' in
(QIAKEY1,QIAKEY2,QIAKEY3,QIAKEY4,QIAKEY5,QIAKEY6,QIAKEY7,QIAKEY8,QIAKEY9,QIAKEY10,QI
AKEY11,QIAKEY12,QIAKEY13,QIAKEY14,QIAKEY15,QIAKEY16) ORDER BY QRECN
--07--END

```

---> C00770 - General - Bug Fix Request

After opening property sheets (record quick view/query properties) from a table view or graph a crash would occur if the user closed the table or graph view while leaving the property sheet open and then tried to navigate to other tabs in the property sheet.

The fix for this problem is to close the child property sheets of a table or graph view when the user tries to close the table or graph. When this happens the user will be given a message indicating that N dependent property sheet views are open and must also be closed. At this point the user can continue and close the table or graph and all dependent property sheets or cancel the operation.

This confirmation only happens when working with tables and graphs in the Data Viewer and not from the iDoctor main window.

Also add a new preference on the Confirm tab that controls whether or not a confirmation message is shown.

---> C00769 - General - Usability

Right-clicking a collection is faster now. Added caching of collection menus so that if the same type of menu is opened twice the response time will be greatly reduced.

---> C00769 - Pex Analyzer - Bug Fix Request

The PA 6.1 builds now contains data area QPTFS611 which will allow the strpacol command to do PTF checking properly on 6.1.1 systems if not using the GUI.

---> C00768 - General - Enhancement

Add an option to the iDoctor Report Generator window that allows the user to filter the list of available graphs by the graph folder (top level) such as "wait graphs, cpu graphs, user-defined graphs, etc"

Because of this change also needed to modify how items were selected, instead of using checkboxes, you now need to select and press the Add Selected buttons to add reports to the included list.

---> C00768 - Collection Services;Disk Watcher;Job Watcher;Pex Analyzer;External Storage;Dir Dump;Plan Cache Analyzer;Memory Watcher;NMON Investigator - Enhancement

When right-clicking a collection in most iDoctor components, user-defined graphs and user-defined queries menus will be available to allow you to quickly access any user-defined queries and graphs you have defined.

---> C00768 - General - Usability

Removed some unnecessary code called (needed for the server-side output files folder but not for user-defined) when building the list of user-defined queries and graphs.

---> C00768 - General - Usability

When building a list of objects in a component view made a change so that any CHKOBJS done are never done twice for the same object and/or file/member. The main spot where you may notice a big performance improvement is when listing the user-defined queries and user-defined graphs folder contents.

---> C00768 - Pex Analyzer - Enhancement

Add option to PA to just generate the SMTRMOD files for a PEX collection at V5R4 and V6R1. This can be done via command QIDRPA/CRTSMTRMOD or using the GUI menu option Classic Analyses -> Create SMTRMOD files. The latest PEX Analyzer server builds are required.

---> C00768 - General - Enhancement

Add user-defined reports to the list of reports available from the iDoctor Report Generator

---> C00768 - Collection Services - Enhancement

Added pool size and pool faulting rate graphs to CSI under the new folder "Memory pool graphs".
The following set of graphs were added:

- Memory pool consumption (by percentage)
- Memory pool sizes (by percentage)
- Memory pool sizes
- Memory pool faulting rates
- Memory pool activity levels
- Transitions to ineligible state
- Machine pool sizes and rates

Support was also added to allow multiple collections to be graphed at the same time using these graphs (although adding many is slow)

---> C00767 - General - Enhancement

In the connection list view the menu shown when right-clicking a system now includes an option called Delete Obsolete Analysis Files with 4 suboptions (JW/CSI/PEX/All). This allows you to remove any iDoctor analysis files that are no longer used by the GUI or in the case of PEX Analyzer have been replaced by SQL-based analyses.

---> C00767 - Pex Analyzer - Usability

In PEX Analyzer, after deleting or creating SQL-based analysis fixed a refresh issue where the GUI may still show or not show the analysis folder incorrectly (depending on the action). This was previously requiring the

list of collections in the library to be refreshed rather than just the contents of the SQL-based analyses folder.

---> C00767 - Pex Analyzer - Bug Fix Request

The delete function for the PEX Analyzer PDIO analysis (SQL-based) was not properly handling the error if one of the expected analysis files didn't exist. This caused the rest of the files not to be deleted.

---> C00767 - Pex Analyzer - Enhancement

Add support to submit PEX Analyzer (SQL-based) and CSI analyses to a batch job on the server rather than having them run in a GUI QZDASOINIT job.

---> C00767 - General - Usability

Make the Filter libraries values saved specific for each system rather than use the same filter for all systems.

---> C00767 - General - Enhancement

Add a new command called QIDRGUI/DLTOLDSUM at V5R4 and higher that will remove all iDoctor obsolete summary and analysis files from the current system. The command includes a collection type parameter (default value *JW) with possible values of:

*JW - Job Watcher (CRTWCHSUM output files)

*CS - Collection Services Investigator (CRTCSSUM output files)

*PA - PEX Analyzer classic analyses (except taskswitch)

*ALL

A menu option will be added in the GUI on the Connection list view to run this command.

---> C00766 - Pex Analyzer - Enhancement

Enable the ability to view 7.1 PEX collections on a 6.1 system.

---> C00766 - General - Enhancement

On the Connections View added a new menu called "Load iDoctor Stored Procedures" that will load all iDoctor stored procedures on the desired system that are needed for the new QIDRGUI/STRIDRSUM or QIDRGUI/RSTIDRDTA commands.

---> C00765 - General - Enhancement

Created a new iDoctor command at 5.4/6.1 in library QIDRGUI called RSTIDRDTA. (Restore iDoctor Data)

This command restores the iDoctor data found in the given save file to the desired library and afterwards will optionally run the STRIDRSUM command.

---> C00765 - Pex Analyzer - Bug Fix Request

At 6.1 the STRPACOL command was not checking PTFs for release 6.1.1 correctly. The command would attempt to check ptf for 6.1.0 instead.

---> C00765 - General - Enhancement

Created a new iDoctor command at 5.4 and up in library QIDRGUI called STRIDRSUM (Start iDoctor Summaries).

This command will start all iDoctor summary and analysis processes (with the default parameters used by the GUI) for any collections found in the library. It will also expand any *MGTCOL objects found in the library into the same library if this has not yet been done.

This command requires that the stored procedures created by the GUI on the system exist in QIDRGUI. If some do not exist, then some analyses will not be performed. Typically these get created by summarizing/analyzing something once on a system using the GUI.

In the future a "load all stored procedures" option will be added to the GUI from the Connections view to make it easy to load all the possible stored procedures used by iDoctor onto the desired system..

---> C00765 - Pex Analyzer - Enhancement

In the PDIO detail reports add the object type /subtype field OBJTYPE to the reports where the object name is shown.

Also add the capability to display the object type/subtype description if the mouse is placed over the field value.

---> C00765 - General - Enhancement

Add a 4 hour time grouping to the clock icon.

---> C00764 - General - Bug Fix Request

Changed the authorities on the iDoctor report databases shipped so that Windows users with restricted access user accounts no longer get several database access authority errors at startup.

---> C00764 - Pex Analyzer - Enhancement

Added several drilldown options for the PEX Analyzer taskswitch analysis at 6.1+. These are still works in progress but includes a chase on the desired TDE.

---> C00764 - Pex Analyzer - Enhancement

In PEX Analyzer, the PDIO and taskswitch analyses have a new report called XSM I/O events for collection duration, showing details about the XSM events.

---> C00763 - Pex Analyzer - Usability

The popup menu for a PEX collection, is faster now after the 1st click if no analyses are currently running. When building the menu a check is performed to see which analysis files have been built, but if no analyses are running it's not done again

---> C00763 - Pex Analyzer - Enhancement

In the PDIO analysis, in cases where multiple object types are selected (thread and object or generic job and unit for example), the Detail reports will now filter on both object types.

This is possible when coming from the Selected XYZ object rankings or the Selected XYZ unit rankings graphs.

---> C00762 - Pex Analyzer - Bug Fix Request

The PEX Analyzer events analysis was not working at 710 due to the addition of the new group 2 base events. The analysis runs correctly now.

---> C00762 - Pex Analyzer - Enhancement

Added a preference on the PEX Analyzer tab called "Sort PDIO I/O times ranking graphs by read time instead of total i/o time" to assist with SSD analysis. This will change the default sort from total I/O time (seconds) to total read time (seconds).

---> C00762 - Pex Analyzer - Enhancement

In the PDIO analysis added more groupings to rankings graphs so it nows contains 10 possible groupings instead of 5.

The possible ways to group the data in the rankings graphs are now:

Thread, job, generic job, memory pool, disk unit, ASP, object, object type, object location and IO adapter.

This allows users to drill down from the time intervals graphs in more ways for the desired time range.

---> C00762 - Pex Analyzer - Enhancement

Added a "Detail reports" drilldown menu to PDIO for any PDIO graph, for the selected time period, and object/job/unit/etc selection. These allow you to see the raw IO details for the selection made in several ways.

The possible reports includes:

Threads/tasks, objects and units causing I/Os

Threads/tasks, objects causing I/Os

Threads causing I/Os

Objects causing I/Os

Units causing I/Os

Physical disk I/O event details

---> C00761 - General - Enhancement

All graphs now have new options available in the popup menu under a submenu called "Duplicate".

"Duplicate -> using a Temporary SQL View" will reopen the graph using an SQL View defined in QTEMP over the existing report. This can be used to simplify the SQL statement, allowing the Query Definition interface to work against nearly all graphs defined in iDoctor. The only exception are graphs defined over multiple collections, since aliases are used in those SQL statements and a view can't be created over an alias. The Query Definition interface doesn't work against some complex queries so this action will allow it to work properly.

"Duplicate -> as Table" replaces the previous Duplicate as table option that creates a table view over the current graphs data into a new Data Viewer or an existing one.

"Duplicate -> as Graph" allows you to reopen the same graph in a new Data Viewer or an existing one. .

---> C00761 - Pex Analyzer - Usability

Renamed the Convert to PEX collection window found when using the "Create Collection" option on a PEX object within the PEX objects folder to Create PEX database files.

---> C00761 - Pex Analyzer - Usability

The "Analyses" field shown when listing PEX collections in a library has been renamed to "Classic Analyses" as it only applies to classic.

---> C00761 - General - Bug Fix Request

When listing the threads for a job within the Active jobs folder, the run priority field was shown twice.

---> C00760 - General - Bug Fix Request

Identified a rare but annoying crash when viewing/scrolling graphs from within the graph control code. Had to do with the mechanism used for the caching of pen objects used for drawing.

---> C00759 - General - Enhancement

The math mode icon in the Data Viewer now works for the table view beneath each graph.

---> C00759 - Installation - Bug Fix Request

Fixed some issues if the user used the Enter key on the keyboard to move through the install. Holding it down on the Wizard's summary screen would cause the finish button to be hit multiple times causing the install to fail. Pressing the enter key on the install status window would also abort the install prematurely without warning.

---> C00758 - Pex Analyzer - Enhancement

In PEX Analyzer the delete option for a collection is now available for collections of a release prior than the current one.

Also the delete option will now kick off a stored procedure to remove all PEX Analyzer SQL-based analyses that might exist for the current collection.

---> C00758 - Pex Analyzer - Bug Fix Request

If the force variable width bar graph preference on the Display tab was checked, some horizontal bar graphs (rankings graphs) could end up displaying a graph without X axis labels.

An example where this occurred was in PEX Analyzer , the events analysis, Event totals by thread graph.

---> C00758 - Pex Analyzer - Bug Fix Request

In 7.1 the CPYPACOL command was not working against 7.1 collections.

---> C00758 - Pex Analyzer - Bug Fix Request

For 6.1 and higher PEX Analyzer, collections that are missing files and show a status of "Job that created collection ended in error" will now have a red icon.

At 6.1 the delete option (over collections showing the above status) will also work now. Previously the control file record was not being removed. The latest server builds are required for this fix.

---> C00758 - General - Enhancement

Added a new button on the toolbar in the Data Viewer (far right) that allows math to be performed over cells from the selected rows (in a flyover) as the user moves their mouse pointer over the data. The options are None (normal flyover behavior), Sum, Average, Min and Max, Percent of, Delta (current - prior) and Delta (prior - current).

Note: This feature works off of data loaded into the table view's memory cache. If you try to select rows outside of the cache and they aren't loaded in you will get a warning in the flyover message. Right now a maximum of 2000 rows can be loaded. You load this data in by scrolling through the desired rows.

---> C00757 - Pex Analyzer - Enhancement

PEX monitors are now started using SBMJOB ALWMLTTHD(*YES) in order to take advantage of multithreaded ENDPEX which can speed up dumping the data in a PEX collection.

The same is also done when ending a pex monitor or holding a PEX monitor.

Also when ending a PEX collection from the Active collections folder, the ALWMLTTHD(*YES) parm is now used.

---> C00757 - Pex Analyzer - Enhancement

Add the following additional fields to the SQL based stats flat analysis report

"Summarized CPU and I/O by job/pgm/MI instruction":

1. Inline CPU percent of job-thread total
2. Inline elapsed time percent of job-thread total

Also added these fields to the report:

"Summarized CPU and I/O by pgm/MI instruction":

1. Inline CPU percent of total
2. Inline elapsed time percent of total

---> C00757 - General - Enhancement

On the Import Graph Definitions and Import Query Definitions Windows, added a button to delete user-defined queries/graphs stored on the server (files QAIDRGPH09 and QIDRSQL05) or from the selected local database.

---> C00757 - Pex Analyzer - Enhancement

In the TPROF trees, added reports that show LIC task hit breakdowns. These reports are called "Hits by generic task name" (which is grouped by 1st 2 chars of taskname), and "Hits by LIC Tasks" (grouped by task name).

The other trees still contain a LIC Tasks value but because those are job based groupings you cannot drilldown directly from there. You must come back to the initial list of reports and pick one of the new task reports to see a breakdown of PMCO hits for tasks.

Also added several task specific drilldowns from the 2 new reports.

These are named as follows and are based on the selected tasks or generic task name:

Hits by task/program
Hits by task/procedure
Hits by task/component/procedure
Hits by program model
Hits by component

Also renamed the existing job-based TPROF trees removing the word "task" from their names.

---> C00754 - Pex Analyzer - Enhancement

In PDIO, the SQL-based analysis will provide causing program information now in the Physical disk IO events details file if MI entry/exit events were collected.

---> C00754 - Installation - Usability

Changed the error handling in the install when FTPing the save files to the system fails. More information should be returned in the log now.

---> C00754 - Pex Analyzer - Bug Fix Request

Add PEX Definition Wizard generating incorrect ADDPEXDFN command string if machine instructions are included in the definition.

---> C00753 - General - Bug Fix Request

Fixed an issue with the transfer to testcase.boulder.ibm.com function for a customer where extended passive mode needed to be turned off using the sendepsv 0 command before transferring the data. A checkbox was added to the GUI which disables extended passive mode. This can also be used for other servers where this is needed.

---> C00752 - Pex Analyzer - Bug Fix Request

In PA 540 and up, the "classic" PEX Analyzer analysis "Stats flat for all jobs/threads" been removed. (command GSTATSFALL)

The SQL-based analysis by the same name takes it's place.

In the SQL-based analysis fixed a incorrect value with the Total Threads in the Summarized CPU and I/O by pgm/MI instruction report.

---> C00752 - Pex Analyzer - Bug Fix Request

Fix a bug in the PDIO analysis, the object type in the object summary was not always being set correctly and could sometimes be set to an invalid object type. This could cause problems when trying to work with reports that just show db files.

---> C00752 - General - General

Updated the lists of required PTFs at IBM i 6.1.0 and 6.1.1

---> C00752 - Pex Analyzer - Bug Fix Request

The graphs for the CPU profile by job analysis in PEX Analyzer were not showing up.

---> C00751 - Pex Analyzer - Enhancement

Customer reported that program QIDRGUI/QIDRCKQSYS removed their desired library from the library list when attempting to run a PEX Analyzer classic analysis via green screen. It was not desired in this case to have QSYS at the top of the library list, therefore added a data area to library QIDRGUI called QIDRCKQSYS. If it contains a '1' (the default), qsys will be checked that it is the top of the library list. If the data area contains a '0', this check is not performed.

Latest server builds (lib QIDRGUI) are required.

---> C00751 - Pex Analyzer - Bug Fix Request

In PEX Analyzer when listing collections in a library, the System collected on OS VRM value would be shown as V5R4M0 instead of V5R4M5 on a V5R4M5 system if the Start PEX Collection Wizard or STRPACOL was used to create the collection

---> C00750 - Pex Analyzer - Enhancement

In PEX Analyzer for 5.4+, in the PDIO analysis the categorized graphs have been remapped using the same 11 disk response time buckets used in Collection Services disk data at 7.1 instead of using the 13 bucket mapping provided with Disk Watcher stats mode.

---> C00750 - General - Bug Fix Request

Made fixes to the QIDRGUI/ADDIDRUSR and QIDRGUI/RMVIDRUSR commands at 5.4

They will no longer fail if the QAPEXFTR file doesn't exist yet in QUSRSYS.

It will also update the required files/commands needed to run super collections.

---> C00750 - Pex Analyzer - Enhancement

In the PDIO analysis, the by object "summary" graphs that show i/o times are now showing the times in seconds instead of milliseconds.

---> C00749 - General - Bug Fix Request

When running a "WITH" query in the SQL editor, the file/member overrides in the SQL Statement were not being set properly. This caused some unexpected behavior.

---> C00749 - Pex Analyzer - Bug Fix Request

With client 746, a change was made to the PDIO analysis which increased the number of dasd events matching an object in the SEGI file but also drastically increased the amount of time it took to run the analysis on large collections. With this change, performance is much improved with the SQL-based PDIO analysis. At 5.4 the join is done just on the 1st 10 readable hex chars of QDDVAD and QSGSAD fields (previously the analysis was checking that QDDVAD was within the segment range address fields). At 6.1 this join is done by joining QAYPEDASD.QOBJKEY with QAYPESEGI.QSGSAD.

PLEASE NOTE: It is not advisable to run CRTPEXDTA on a 6.1 system over a 5.4 PEX MGTCOL. The 6.1 file formats will be used, but required fields like QOBJKEY will be null or 0s causing the analysis to fail with undesirable results!

---> C00749 - Pex Analyzer - Usability

In PEX Analyzer when listing collections in a library from a previous release, changed the status field from "Read-only" to "SQL-based analyses OK, Classic analyses cannot be ran". Classic-analysis data can only be viewed if it exists.

---> C00749 - Pex Analyzer - Bug Fix Request

In PEX Analyzer, the object trees in the PDIO analysis would show an SQL error (but complete anyway), if the TPROF analysis had not been ran previously. Removed this message.

---> C00749 - Pex Analyzer - Bug Fix Request

In PEX Analyzer at 5.4 saving a DB files PEX collection and restoring it to another 5.4 system would cause the collection to not be visible in the library. The collection would be visible on a 6.1+ system however.

This is due to the qayperls file not being included on the savpfrcol command. With the latest 5.4 server builds, the qayperls file is no longer required to display the collection.

---> C00749 - General - Enhancement

Made updates to the QIDRGUI/ADDIDRUSR (Add iDoctor User) command and QIDRGUI/RMVIDRUSR (Remove iDoctor user) command based on additional commands/objects used by iDoctor at 6.1 and higher.

The latest server builds are required.

---> C00749 - Pex Analyzer - Enhancement

Add the component description for each call level to the TPROF call stacks.

---> C00749 - General - Enhancement

Make the find window non-modal for easier usability. Added find history, to keep track of previous searches (with a remove button to remove the desired history entry from the list). Also updated the list of columns to include an "All columns" option..

---> C00748 - General - Enhancement

Added a new option to the list of connections called "Remove iDoctor stored procedures". This function will remove all iDoctor stored procedures from library QIDRGUI, which is sometimes helpful if one or more of the stored procedures are not registered properly. The GUI will recreate them as needed.

---> C00748 - General - Enhancement

Added an Edit menu to the list of connections that allows you to modify the connection settings.

---> C00748 - General - Bug Fix Request

Some customers were reporting stored procedures shipped in library QIDRGUI were not being registered properly and as a result they would fail when trying to run Job Watcher summaries. The simple solution to this is to no longer ship the stored procedures in QIDRGUI (which I've done) with the latest server builds. This means at startup the 1st time iDoctor is ran from the GUI there will be anywhere between 3-20 second delay while stored procedures are created on the system via the GUI.

This applies to QIDRGUI library at 5.4+.

---> C00748 - Pex Analyzer - Bug Fix Request

In PEX Analyzer V5R4 and higher, starting a collection in suspended mode would cause the collection to resume collecting after 28 hours. With the latest server builds, the collection will be suspended indefinitely.

---> C00748 - Pex Analyzer - Bug Fix Request

The PEX TPROF trees weren't working right again with clients 746/747 due to the tree cache of data from QAYPEPROCI and QAYPETASKI not being loaded properly.

---> C00747 - Installation - Bug Fix Request

The GUI was not recognizing the install directory if the default was not used.

---> C00747 - Pex Analyzer - Enhancement

The PEX Analyzer SQL-based Call Stacks analysis is available now at V5R3

---> C00746 - Pex Analyzer - Bug Fix Request

The PDIO analysis, had some fields double-counted in the PDIO 1 second interval summary file if both starts and end events were captured.

Also corrected a join against the SEGI that was causing some IOs to be missed.

---> C00745 - Pex Analyzer - Bug Fix Request

At 6.1 and higher, some PDIO drilldowns were listed twice in the menu.

---> C00745 - General - Bug Fix Request

Fix a bug where the act of canceling a long running graph or table was not behaving properly and the client could end up hanging for a long time or crash.

---> C00744 - Pex Analyzer - Enhancement

The STRPACOL command will now capture hardware resource disk information to file QAYPESTG. This name was used to ensure the file will be included when saving the collection.

---> C00744 - Pex Analyzer - Enhancement

Because collecting DASD start events is no longer necessary for the PDIO analysis, updated the STRPACOL command so that specifying the *PDIO_TIME problem type will always collect the events *READEND *WRTEND *RMTWRTSTR *RMTWRTEND. Also removed the *PDIO_COUNTS problem type.

In addition at V5R4 only, the STRPACOL command will set the environment variable QAYPEDASD2 to QAYPEDASD2 to ensure that the required time fields are captured in the PEX collection to file QAYPEDASD. PTF SI27419 is needed at V5R4 to enable this change to the DASD file.

Note: It won't work if the old format QAYPEDASD file already exists in the target lib; a different library should be used instead.

Changes were also made to the GUI Start PEX Collection Wizard based on these changes to the command.

Latest server builds (QIDRPA library) required for this change.

---> C00744 - General - Bug Fix Request

The alternate views menu in the legend was not always showing the currently selected graph (in bold) in the popup menu.

---> C00744 - Disk Watcher;Job Watcher;Pex Analyzer - Usability

Update PTF checking to handle 6.1.1.

---> C00743 - Pex Analyzer - Usability

In PDIO, renamed the by object graphs to have naming conventions consistent with the other PDIO graphs (Object by total times -> I/O times by object)

Also renamed the By unit graphs in the same manner.

---> C00743 - Pex Analyzer - Enhancement

In PDIO, added default drilldowns throughout the analysis, so the most logical next step will be listed as the 1st drilldown menu in the list.

---> C00743 - Pex Analyzer - Enhancement

In PDIO, added graphs that shows the objects with the most I/Os in several ways for the selected job, library, generic object name, generic library name or disk unit..

---> C00743 - Pex Analyzer - Enhancement

In PDIO, added graphs showing I/Os for the selected thread/job/generic job/unit or memory pool over time.

---> C00743 - Pex Analyzer - Enhancement

In PDIO, moved the I/O rates rankings, I/O counts rankings, I/O times rankings graphs under a new folder called Job rankings. Also added a new set of I/O size rankings graphs under the Job rankings folder.

---> C00743 - Pex Analyzer - Enhancement

In PDIO, added several graphs showing I/O rates.

---> C00743 - Pex Analyzer - Enhancement

In PDIO, added the object name and object context name to the PDIO event details file.
The PDIO analysis must be reran.

---> C00743 - Pex Analyzer - Bug Fix Request

TPROF trees were broken (several fields showing blank or 0 when they should not have been) with client 742 but it's fixed now.

---> C00742 - General - Bug Fix Request

The Generate Reports function is working now if Firefox is the default web browser.

---> C00742 - General - Bug Fix Request

The save collection option (from the tree side of a component view) was incorrectly showing the transfer collection window.

---> C00742 - Pex Analyzer - Enhancement

In PEX Analyzer, added a new analysis called Hot Sectors. This SQL-based analysis is only available if the PDIO analysis has been ran previously. It allows disk activity to be measured by portions of the disk address of the I/O in MB chunks of either 1, 16, 256 or 4096.

---> C00742 - Pex Analyzer - Bug Fix Request

In PDIO, loading an object hierarchies tree report for the first time will no longer give an sql error if the tprof analysis has not been ran yet.

---> C00742 - Pex Analyzer - Enhancement

In PDIO, the read and write size distribution graphs have been changed so the Y2 axis shows average response times instead of total I/Os

---> C00741 - Pex Analyzer - Bug Fix Request

The PEX Taskswitch analysis (SQL) should be working now at V5R4/V7R1.

---> C00741 - Pex Analyzer - Enhancement

Redesigned the report flow for the PEX Analyzer SQL-based PDIO analysis at V5R4 and up.

Added reports by object and unit .

Also added tree views for some of the object hierarchies.
Added histograms showing read/write service times and i/o size distributions.

More work is in progress, but let me know if you have a particular drilldown you'd like to see from this first set of reports.

---> C00741 - Pex Analyzer - Bug Fix Request

The bars per page override was not working for IBM-supplied graphs (not loading from DB record correctly)

---> C00741 - General - Bug Fix Request

If users set the bars per page in a graph > 100, it could the client to fail to draw the bars properly when scrolling and crash the client.

---> C00741 - General - Enhancement

You can now click the Save button on the toolbar of the Data Viewer to save the current graph AND legend to a JPG image.

---> C00741 - General - Enhancement

Added a preference to always show the date on time range graphs for the Collected interval size, 30 secs and 1 min time interval groupings. This option is called "Always show dates on time range graph X-axis" on the Miscellaneous tab of the Preferences interface.

---> C00741 - General - Enhancement

Add 15 min time interval grouping option to iDoctor.

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---> C00740 - Pex Analyzer - Enhancement

The PEX TPROF Tree views now supports copy to clipboard, save as/save selection (to CSV file), set font.

---> C00739 - General - Enhancement

If the Tip of the Day videos were not found on the PC when trying to display them, the GUI will ask the user if they wish to download them automatically.

---> C00739 - Pex Analyzer - Enhancement

PEX Analyzer users can now drill down from the Events analysis time interval graphs, to the TPROF trees filtered to just the desired time period. The events analysis must be ran in order to produce the events analysis time interval graphs folder.

---> C00739 - Pex Analyzer - Bug Fix Request

Call stacks shown in PEX Analyzer from the TPROF reports by job/thread/procedure might not have been displayed for the correct job (it could have been the same instruction called by another job).

---> C00738 - General - Enhancement

Any table view column that contains a number (0-100) followed by a % sign will now draw a shaded box (PDV-style) filling the cell's space by the appropriate percentage.

This feature currently just applies to the TPROF table views that show percent hits, but would also work for user-defined tables.

---> C00738 - Pex Analyzer - Usability

In the TPROF SQL-based analyses, the group by option parameter has been removed from the Window displayed when running the analysis and will now always default to "Procedure" level groupings. The

TPROF tree reports make this obsolete but if you wish you can still do these file creation groupings using the TPROF classic analyses.

---> C00738 - Pex Analyzer - Bug Fix Request

At V5R4 the SQL-based taskswitch analysis has been removed. It was not working properly as the SQL procedure was designed using SQL techniques only available at V6R1.

---> C00738 - Pex Analyzer - Bug Fix Request

Fixed broken drill down options in the PEX Analyzer SQL-based PDIO analysis.

---> C00738 - Pex Analyzer - Enhancement

Fixed an SQL error with the PEX Analyzer Events analysis report drilldown: Raw event data -> disk events -> All disk events.

Also added a new report Raw event data -> Disk events -> Disk event starts

---> C00738 - General - Usability

Removed the menu option Query definition -> member selection as it was too confusing to go to the member selection window instead of the query definition window.

Changing the member will require opening a different collection, or using the Choose database members option from the SQL editor.

Also clicking qry dfn button on the toolbar will now show the query definition record selection interface instead of prompting the user for a member.

---> C00738 - General - Usability

In the legend, for the list of "Available fields", changed the color used for fields that have no non-zero values to grey. Previously in some windows schemes it looked like a selection.

---> C00737 - Pex Analyzer - Bug Fix Request

Fixed a memory leak in the TPROF tree views.

---> C00737 - Pex Analyzer - Enhancement

The list of components used to build reports in the TPROF tree views has been increased to include several java and Parse entries. Also fixed a couple of small issues with the list.

The latest PEX server builds are required and existing TPROF SQL-based analyses need to be reran to pick up this change.

---> C00737 - Pex Analyzer - Enhancement

You can now filter the data in the TPROF tree views by right-clicking the desired column header. The 1st column cannot be filtered however.

---> C00736 - Pex Analyzer - Bug Fix Request

Opening tree reports from the collection menu in PEX Analyzer is working now. Previously a table would be opened instead.

---> C00736 - Pex Analyzer - Bug Fix Request

The Procedure <<QPRPGN>>/<<QPRPNM>> by caller reports in PEX Analyzer V5R4 and V7R1 was not the latest version (found in V6R1) and has been corrected

---> C00736 - Pex Analyzer - Enhancement

When drilling down to a report in the TPROF tree views, you can now drill down again to the same set of reports including the "by caller" views.

---> C00736 - Pex Analyzer - Bug Fix Request

Some counts in the TPROF tree reports were being added up incorrectly.

---> C00736 - General - Enhancement

The hierarchical tree reports in the TPROF analysis are now cancelable (by closing the window) and provide progress information in the Data Viewer's status bar.

---> C00734 - General - Usability

On the Save Graph Definition and Save Query Definition windows, IBM internal components are no longer listed unless the user is authorized to use them.

---> C00734 - Pex Analyzer - Bug Fix Request

Fixed a possible overflow problem with the SQL-based netsize analysis on fields LASTNOQ and LASTMIPGM in the output file generated.

---> C00734 - Pex Analyzer - Enhancement

Deleting a PEX TPROF analysis will now properly delete the new files added for the TPROF tree views.

---> C00734 - General - Enhancement

User defined queries/graphs that are usable against V7R1 can be defined now .

Also user-defined queries/graphs are no longer VRM dependent. You no longer need to define your queries and graphs for each release you wish to run them on. When saved the GUI will keep track of the release the user-defined query/graph was defined for and display this information to you when listing the user-defined queries/graphs.

In addition, the version field on the Save Graph Definition and Save Query Definition windows has been removed.

---> C00733 - Pex Analyzer - Enhancement

In V5R4 and higher PEX Analyzer, the SQL-based TPROF Analysis has been redone to include hierarchical (tree) views and drilldowns.

If working with an individual procedure you can also right-click and perform a drill down that shows the possible programs/procedures that called the desired procedure.

---> C00733 - General - Bug Fix Request

Fixed a potential crash/hang when using the query definition interface on a table view and a long running query. Placing the mouse cursor over a column that would normally display a cell flyover while the query is running would cause the crash/hang.

---> C00733 - General - Usability

The member selection page of the query definition has been removed.

Using the menu option Query definition -> Member selection will now reset the members used for the current report, and prompt you for the desired member(s) using the "Choose Database Members for Query" window.

---> C00733 - Website (external) - General

Updated text in section D) Payment Terms, in our Price Quotes document (SOW) sent to US Customers.

---> C00733 - Website (external) - General

The IBM Service Agreements included with the price quotes (for US Customers) has been updated.

---> C00732 - Pex Analyzer - Bug Fix Request

In PEX Analyzer when working with the TPROF drilldown "Call stack hits for procedure XYZ" an SQL error about the function HEXTOI not being found could occur if the TPROF SQL-based analysis had not been previously ran. A check has been added at startup to ensure it exists.

---> C00732 - Pex Analyzer - Bug Fix Request

The FMT2 call stacks were not showing up in the Classic TPROF Analysis in PEX Analyzer. They are available from the last 3 reports in the Classic TPROF analysis, or from any PEX file for a PMCO QRECN record.

---> C00731 - Pex Analyzer - Bug Fix Request

A file needed for the PEX TPROF analysis was missing in the V5R4 builds.

---> C00730 - Pex Analyzer - Bug Fix Request

Fixed a bug with the SQL-based netsize analysis in PEX. Some of the graph's SQL was incorrectly defined.

---> C00730 - Pex Analyzer - Enhancement

Created V7R1 PEX Analyzer builds. Tested monitors, collection creation, SQL-based analyses and drill downs.

Changes:

STRPACOL (collection support) updated for V7R1.

The Classic Analyses are no longer available due to QRECN size increase breaking them. The SQL-based Analyses will be available instead.

The following SQL-based analyses were tested and appear to work at V7R1:

Stats flat, DB LDIO, DB Opens/closes, data area, data queues, (Format 2) Call stacks, TPROF, CPU by job profile, PDIO, Netsize, IFS and SR.

These analyses are currently broken at V7R1:

Events analysis, heap storage, taskswitch

These analyses are incomplete or currently being enhanced:

Taskswitch, TPROF

---> C00729 - Pex Analyzer - Enhancement

In V6R1 PA, running the SQL-based TPROF analysis now includes a new report "Profile by Component" which features a tree/table interface. You can expand the tree to view hits by OS component on the system. No drill downs available yet into call stacks.

---> C00728 - General - Bug Fix Request

Fixed an issue where users may not be able to rerun a query successfully if the query contained an SQL created table and the query to that table failed, and then was later corrected and reran. The data viewer would show no records were found when data should have been available.

---> C00728 - Installation - Bug Fix Request

Fix bug in the uninstaller for the client side, the desktop icon was not being removed.

---> C00728 - Pex Analyzer - Bug Fix Request

The "classic" PEX Analyzer analysis Stats flat for all jobs/threads has a problem where records are not grouped properly in the report by job/pgm/mi instruction.

Created a new SQL-based version of this analysis for PEX stats collection at V5R4 and higher which fixes the problem.

---> C00727 - Installation - Bug Fix Request

Fix bug in installer that was causing the creation of an unnecessary (empty) folder for iDoctor on the desktop.

---> C00727 - Pex Analyzer - Bug Fix Request

Fix a crash in PEX Analyzer, when opening a user-defined query and then modifying the query and rerunning due to a change made in client 726.

---> C00726 - Pex Analyzer - Bug Fix Request

The analyze options under taskswitch reports in PEX Analyzer classic were not working with the latest client due to the member name passed to the command being the analysis member name and not the collection member name.

---> C00726 - General - Bug Fix Request

In the query definition interface, on the record selection tab, the list filter option would add an extra set of commas between values in the SQL statement.

---> C00724 - General - Bug Fix Request

If the ODBC connection was using a QZDASSINIT job name instead of QZDASOINIT several parts of the GUI would not be usable.

Updated server builds (QIDRGUI library) and new client is required to fix.

---> C00723 - General - Enhancement

iDoctor will now properly retrieve and show the field descriptions from SQL created tables that had column names greater than 10 characters.

---> C00722 - General - Bug Fix Request

Fix a possibility in Job Watcher that a user would be prompted to select a member for the query when displaying the call stack for a holder job.

---> C00722 - General - Bug Fix Request

If the monitor commands were ran from the green screen, using the *SAME parameter values for the collection size or collection duration parameters the collections submitted would be submitted with an incorrect command string.

The latest server builds are required for this fix.

---> C00721 - General - Bug Fix Request

If an IBM internal user, and the internal website's security certificate is not trusted, added a message at startup to indicate the client update checking failed for this reason. It must be installed via IE or Firefox in order for the automatic update checking to work for internal users.

---> C00720 - Pex Analyzer - Usability

In PEX Analyzer, the PEX MGTCOL objects are no longer shown under specific libraries within the Libraries folder. They are now only shown within the PEX Objects folder.

This also avoid the problem of being unable to save or transfer a PEX MGTCOL and PEX collection in the same library in the same step as this isn't possible with the save commands.

---> C00720 - Pex Analyzer - Usability

In PEX Analyzer, in the PEX MGTCOL object popup menu, renamed the menu option "Convert into PEX collection" to "Create Collection" to be consistent with the equivalent function in Collection Services Investigator. Also added a Save... option to this menu to allow the PEX MGTCOL objects to be saved via the GUI.

---> C00720 - Pex Analyzer - Bug Fix Request

In PEX Analyzer, right-clicking a PEX MGTCOL object within the PEX objects folder will no longer show unusable menu options from the SQL-based analyses.

---> C00720 - Collection Services;Pex Analyzer - Bug Fix Request

The V5R4 SAVPFCOL command was not saving CS or PEX mgtcol objects correctly. If only 1 collection was specified but multiple CS or PEX MGTCOL objects existed in the library, all of them would be saved. This also effects saving or transferring CS or PEX mgtcol objects to another system.

---> C00720 - Job Watcher;Pex Analyzer - Bug Fix Request

When starting a monitor on the Basic options screen, the maximum collection size parameter will be greyed out if creating a PEX monitor or a JW monitor at V5R4 or earlier since the parameter doesn't apply to those instances (the definition is used instead to define the maximum size of each collection).

Also fixed a remote command error when starting a PEX monitor if the default maximum collection size value of 1024 on the Basic options screen was changed.

---> C00719 - Pex Analyzer - Bug Fix Request

Fixed a problem in PEX Analyzer where it was possible for a user-defined query to not show up after it was saved.

---> C00719 - General - Bug Fix Request

With client 718, the Save -> View As... function would not correctly save all records (the records in the cache from the view would not be included).

August 12, 2009 – C00740

---> C00740 - Pex Analyzer - Enhancement

The PEX TPROF Tree views now supports copy to clipboard, save as/save selection (to CSV file), set font.

---> C00739 - General - Enhancement

If the Tip of the Day videos were not found on the PC when trying to display them, the GUI will ask the user if they wish to download them automatically.

---> C00739 - Pex Analyzer - Enhancement

PEX Analyzer users can now drill down from the Events analysis time interval graphs, to the TPROF trees filtered to just the desired time period. The events analysis must be ran in order to produce the events analysis time interval graphs folder.

---> C00739 - Pex Analyzer - Bug Fix Request

Call stacks shown in PEX Analyzer from the TPROF reports by job/thread/procedure might not have been displayed for the correct job (it could have been the same instruction called by another job).

---> C00738 - General - Enhancement

Any table view column that contains a number (0-100) followed by a % sign will now draw a shaded box (PDV-style) filling the cell's space by the appropriate percentage.

This feature currently just applies to the TPROF table views that show percent hits, but would also work for user-defined tables.

---> C00738 - Pex Analyzer - Usability

In the TPROF SQL-based analyses, the group by option parameter has been removed from the Window displayed when running the analysis and will now always default to "Procedure" level groupings. The

TPROF tree reports make this obsolete but if you wish you can still do these file creation groupings using the TPROF classic analyses.

---> C00738 - Pex Analyzer - Bug Fix Request

At V5R4 the SQL-based taskswitch analysis has been removed. It was not working properly as the SQL procedure was designed using SQL techniques only available at V6R1.

---> C00738 - Pex Analyzer - Bug Fix Request

Fixed broken drill down options in the PEX Analyzer SQL-based PDIO analysis.

---> C00738 - Pex Analyzer - Enhancement

Fixed an SQL error with the PEX Analyzer Events analysis report drilldown: Raw event data -> disk events -> All disk events.

Also added a new report Raw event data -> Disk events -> Disk event starts

---> C00738 - General - Usability

Removed the menu option Query definition -> member selection as it was too confusing to go to the member selection window instead of the query definition window.

Changing the member will require opening a different collection, or using the Choose database members option from the SQL editor.

Also clicking qry dfn button on the toolbar will now show the query definition record selection interface instead of prompting the user for a member.

---> C00738 - General - Usability

In the legend, for the list of "Available fields", changed the color used for fields that have no non-zero values to grey. Previously in some windows schemes it looked like a selection.

---> C00737 - Pex Analyzer - Bug Fix Request

Fixed a memory leak in the TPROF tree views.

---> C00737 - Pex Analyzer - Enhancement

The list of components used to build reports in the TPROF tree views has been increased to include several java and Parse entries. Also fixed a couple of small issues with the list.

The latest PEX server builds are required and existing TPROF SQL-based analyses need to be reran to pick up this change.

---> C00737 - Pex Analyzer - Enhancement

You can now filter the data in the TPROF tree views by right-clicking the desired column header. The 1st column cannot be filtered however.

---> C00736 - Pex Analyzer - Bug Fix Request

Opening tree reports from the collection menu in PEX Analyzer is working now. Previously a table would be opened instead.

---> C00736 - Pex Analyzer - Bug Fix Request

The Procedure <<QPRPGN>>/<<QPRPNM>> by caller reports in PEX Analyzer V5R4 and V7R1 was not the latest version (found in V6R1) and has been corrected

---> C00736 - Pex Analyzer - Enhancement

When drilling down to a report in the TPROF tree views, you can now drill down again to the same set of reports including the "by caller" views.

---> C00736 - Pex Analyzer - Bug Fix Request

Some counts in the TPROF tree reports were being added up incorrectly.

---> C00736 - General - Enhancement

The hierarchical tree reports in the TPROF analysis are now cancelable (by closing the window) and provide progress information in the Data Viewer's status bar.

---> C00734 - General - Usability

On the Save Graph Definition and Save Query Definition windows, IBM internal components are no longer listed unless the user is authorized to use them.

---> C00734 - Pex Analyzer - Bug Fix Request

Fixed a possible overflow problem with the SQL-based netsize analysis on fields LASTNOQ and LASTMIPGM in the output file generated.

---> C00734 - Pex Analyzer - Enhancement

Deleting a PEX TPROF analysis will now properly delete the new files added for the TPROF tree views.

---> C00734 - General - Enhancement

User defined queries/graphs that are usable against V7R1 can be defined now .

Also user-defined queries/graphs are no longer VRM dependent. You no longer need to define your queries and graphs for each release you wish to run them on. When saved the GUI will keep track of the release the user-defined query/graph was defined for and display this information to you when listing the user-defined queries/graphs.

In addition, the version field on the Save Graph Definition and Save Query Definition windows has been removed.

---> C00733 - Pex Analyzer - Enhancement

In V5R4 and higher PEX Analyzer, the SQL-based TPROF Analysis has been redone to include hierarchical (tree) views and drilldowns.

If working with an individual procedure you can also right-click and perform a drill down that shows the possible programs/procedures that called the desired procedure.

---> C00733 - General - Bug Fix Request

Fixed a potential crash/hang when using the query definition interface on a table view and a long running query. Placing the mouse cursor over a column that would normally display a cell flyover while the query is running would cause the crash/hang.

---> C00733 - General - Usability

The member selection page of the query definition has been removed.

Using the menu option Query definition -> Member selection will now reset the members used for the current report, and prompt you for the desired member(s) using the "Choose Database Members for Query" window.

---> C00733 - Website (external) - General

Updated text in section D) Payment Terms, in our Price Quotes document (SOW) sent to US Customers.

---> C00733 - Website (external) - General

The IBM Service Agreements included with the price quotes (for US Customers) has been updated.

---> C00732 - Pex Analyzer - Bug Fix Request

In PEX Analyzer when working with the TPROF drilldown "Call stack hits for procedure XYZ" an SQL error about the function HEXTOI not being found could occur if the TPROF SQL-based analysis had not been previously ran. A check has been added at startup to ensure it exists.

---> C00732 - Pex Analyzer - Bug Fix Request

The FMT2 call stacks were not showing up in the Classic TPROF Analysis in PEX Analyzer. They are available from the last 3 reports in the Classic TPROF analysis, or from any PEX file for a PMCO QRECN record.

---> C00731 - Pex Analyzer - Bug Fix Request

A file needed for the PEX TPROF analysis was missing in the V5R4 builds.

---> C00730 - Pex Analyzer - Bug Fix Request

Fixed a bug with the SQL-based netsize analysis in PEX. Some of the graph's SQL was incorrectly defined.

---> C00730 - Pex Analyzer - Enhancement

Created V7R1 PEX Analyzer builds. Tested monitors, collection creation, SQL-based analyses and drill downs.

Changes:

STRPACOL (collection support) updated for V7R1.

The Classic Analyses are no longer available due to QRECN size increase breaking them. The SQL-based Analyses will be available instead.

The following SQL-based analyses were tested and appear to work at V7R1:

Stats flat, DB LDIO, DB Opens/closes, data area, data queues, (Format 2) Call stacks, TPROF, CPU by job profile, PDIO, Netsize, IFS and SR.

These analyses are currently broken at V7R1:

Events analysis, heap storage, taskswitch

These analyses are incomplete or currently being enhanced:

Taskswitch, TPROF

---> C00729 - Pex Analyzer - Enhancement

In V6R1 PA, running the SQL-based TPROF analysis now includes a new report "Profile by Component" which features a tree/table interface. You can expand the tree to view hits by OS component on the system. No drill downs available yet into call stacks.

---> C00728 - General - Bug Fix Request

Fixed an issue where users may not be able to rerun a query successfully if the query contained an SQL created table and the query to that table failed, and then was later corrected and reran. The data viewer would show no records were found when data should have been available.

---> C00728 - Installation - Bug Fix Request

Fix bug in the uninstaller for the client side, the desktop icon was not being removed.

---> C00728 - Pex Analyzer - Bug Fix Request

The "classic" PEX Analyzer analysis Stats flat for all jobs/threads has a problem where records are not grouped properly in the report by job/pgm/mi instruction.

Created a new SQL-based version of this analysis for PEX stats collection at V5R4 and higher which fixes the problem.

---> C00727 - Installation - Bug Fix Request

Fix bug in installer that was causing the creation of an unnecessary (empty) folder for iDoctor on the desktop.

---> C00727 - Pex Analyzer - Bug Fix Request

Fix a crash in PEX Analyzer, when opening a user-defined query and then modifying the query and rerunning due to a change made in client 726.

---> C00726 - Pex Analyzer - Bug Fix Request

The analyze options under taskswitch reports in PEX Analyzer classic were not working with the latest client due to the member name passed to the command being the analysis member name and not the collection member name.

---> C00726 - General - Bug Fix Request

In the query definition interface, on the record selection tab, the list filter option would add an extra set of commas between values in the SQL statement.

---> C00724 - General - Bug Fix Request

If the ODBC connection was using a QZDASSINIT job name instead of QZDASOINIT several parts of the GUI would not be usable.

Updated server builds (QIDRGUI library) and new client is required to fix.

---> C00723 - General - Enhancement

iDoctor will now properly retrieve and show the field descriptions from SQL created tables that had column names greater than 10 characters.

---> C00722 - General - Bug Fix Request

Fix a possibility in Job Watcher that a user would be prompted to select a member for the query when displaying the call stack for a holder job.

---> C00722 - General - Bug Fix Request

If the monitor commands were ran from the green screen, using the *SAME parameter values for the collection size or collection duration parameters the collections submitted would be submitted with an incorrect command string.

The latest server builds are required for this fix.

---> C00721 - General - Bug Fix Request

If an IBM internal user, and the internal website's security certificate is not trusted, added a message at startup to indicate the client update checking failed for this reason. It must be installed via IE or Firefox in order for the automatic update checking to work for internal users.

---> C00720 - Pex Analyzer - Usability

In PEX Analyzer, the PEX MGTCOL objects are no longer shown under specific libraries within the Libraries folder. They are now only shown within the PEX Objects folder.

This also avoid the problem of being unable to save or transfer a PEX MGTCOL and PEX collection in the same library in the same step as this isn't possible with the save commands.

---> C00720 - Pex Analyzer - Usability

In PEX Analyzer, in the PEX MGTCOL object popup menu, renamed the menu option "Convert into PEX collection" to "Create Collection" to be consistent with the equivalent function in Collection Services Investigator. Also added a Save... option to this menu to allow the PEX MGTCOL objects to be saved via the GUI.

---> C00720 - Pex Analyzer - Bug Fix Request

In PEX Analyzer, right-clicking a PEX MGTCOL object within the PEX objects folder will no longer show unusable menu options from the SQL-based analyses.

---> C00720 - Collection Services;Pex Analyzer - Bug Fix Request

The V5R4 SAVPFCOL command was not saving CS or PEX mgtdcol objects correctly. If only 1 collection was specified but multiple CS or PEX MGTCOL objects existed in the library, all of them would be saved. This also effects saving or transferring CS or PEX mgtdcol objects to another system.

---> C00720 - Job Watcher;Pex Analyzer - Bug Fix Request

When starting a monitor on the Basic options screen, the maximum collection size parameter will be greyed out if creating a PEX monitor or a JW monitor at V5R4 or earlier since the parameter doesn't apply to those instances (the definition is used instead to define the maximum size of each collection).

Also fixed a remote command error when starting a PEX monitor if the default maximum collection size value of 1024 on the Basic options screen was changed.

---> C00719 - Pex Analyzer - Bug Fix Request

Fixed a problem in PEX Analyzer where it was possible for a user-defined query to not show up after it was saved.

---> C00719 - General - Bug Fix Request

With client 718, the Save -> View As... function would not correctly save all records (the records in the cache from the view would not be included).

May 18, 2009 – C00718

---> C00718 - Pex Analyzer - Bug Fix Request

The STRPACOL command at V5R4 and higher, would not collect taskswitch events if the following command was used:

```
STRPACOL COLLECTION(SIMPLE)
        PROBLEM(*TPROF)
        DURATION(5)
        ADDEVTS(*TASKSWITCH)
```

---> C00718 - General - Usability

When using the Save -> View As... (to CSV) file function the query will no longer be rerun upon completion..

---> C00718 - General - Bug Fix Request

Column headings messed up when saving reports to CSV files that contain commas in the headings.

---> C00716 - Collection Services;Disk Watcher;Job Watcher - Enhancement

For all time-based graphs, the interval number will now always be included in the x-axis value on the flyover.

---> C00715 - General - Bug Fix Request

On the main window, the View -> Remote Command Status View menu wasn't working.

---> C00714 - General - Usability

You can now scroll through graph legend vertically with the mouse wheel.

---> C00714 - General - Bug Fix Request

Scrolling the synchronized table view with the mouse wheel will not properly scroll the graph as well.

---> C00714 - General - Enhancement

Added a new menu called "Choose Database Members" to the SQL editor that clears the current member selections and brings up the member selection window.

---> C00714 - General - Usability

When defining a new query in the SQL editor you will no longer be prompted for the desired member every time you run the query (just once!).

---> C00714 - General - Usability

Updated the label shown on the transfer collection window when sending data to IBM to include the full file name format.

Also added .idr. to the filename as this will indicate the data is iDoctor data that should be restored and summarized/ready for analysis on the Ecurep debug system.

---> C00714 - General - Bug Fix Request

The Check PTFs function will fail more gracefully now if the system does not have the required level of the PTF checker program.

---> C00714 - General - Enhancement

Increased the max amount of data read by the FTP "Quick View" function on text files to 512KB from 10KB.

---> C00714 - General - Bug Fix Request

Fixed a bug in table views if the data contained more than 100 million records, no records would be shown. The maximum records that can be shown is 100 million. You can change the sort or filter to see the rest of the data.

---> C00714 - Collection Services;Disk Watcher;Job Watcher;Pex Analyzer - Usability

Running a summary in JW, CS, DW or an analysis in PEX Analyzer will now cause an automatic refresh of the window after the summary completes rather than requiring the user to manually refresh the window.

---> C00714 - General - Enhancement

In the FTP component, if the connection is lost (times out) , it will be reestablished automatically without needing to retype the password.

---> C00714 - General - General

Since the call stacks under the Active jobs folder didn't work at V5R3, I've disabled it. You can still view statistics for jobs/threads however.

---> C00713 - General - Enhancement

All major collection types (PEX, CS, DW, JW) can now be saved using the Save... menu for the collection. You can save multiple collections or monitors as well.

After using this option a the new folder "Saved collections" will show a record identifying the save file which you can use to restore the data, or send the data to another system or ftp server directly from the desired save file.

---> C00713 - General - Bug Fix Request

Removed an SQL error that would be shown when going to the Scheduled jobs folder if the idoctor job scheduler file hasn't been created yet on the system.

---> C00713 - General - Enhancement

In V5R3 and higher, in library QIDRGUI the FTPFILE command has been updated:

Local file/remote file parms increased to 100 chars.

You can specify a *GET or *PUT of the file as the optional FUNCTION parameter.

Most parameters are mixed case now which fixes problems with mixed case passwords or filenames.

User profile has been increased to 50 bytes.

The script/log files size has been increased to support longer path/file names.

Also the FTPBATCH command has been removed since it's no longer needed.

---> C00713 - General - Enhancement

In library QIDRGUI the program that performs PTF checking has been updated (added another parameter). The latest server/client builds are required in order for PTF checking to work correctly. This was done in order to allow PTF checking for Disk Watcher.

---> C00713 - General - Enhancement

At V5R4, library QIDRGUI now includes a command SAVPFCOL which is used to save performance data collections in the desired library. It supports saving of PEX, CS, JW, DW collections as well as PEX/CS MGTCOL object collections. A command of the same name that performs similar function exists in library QSYS at V6R1 and higher.

---> C00713 - General - Enhancement

Added PTF checking when starting a super collection that includes, Disk Watcher or PEX data for the required Disk Watcher or PEX PTFs.

---> C00713 - General - Enhancement

Added PTF checking when starting a Job Watcher, Disk Watcher or PEX monitor for the collection type(s) selected within the monitor wizard on the basic options screen.

---> C00713 - General - Enhancement

Added PTF checking when starting a Disk Watcher collection.

---> C00713 - General - Enhancement

Based on customer request, added an option to the list of connections that allows the user to perform a PTF check for all components that provide PTF checking against the selected system(s). The results of the check and any missing PTFs are shown in the Check PTF Results window.

---> C00712 - Installation - General

Updated the uninstall CL program at 530 and higher to handle removal of the new iDoctor control files QAIDRJWM2, QAIDRDWM2, QAIDRPAM2

---> C00712 - Job Watcher;Pex Analyzer - Enhancement

Updated the monitors wizard on the basic options screen to include the ASP limit option. The value shown is taken from data area QMONASPLMT. If the used disk space is greater than this value then the user will not be able to start the monitor unless the limit is increased up to a max of 99%. Changing the value from this panel will update the data area which is checked by the STRJWMON/STRDWMON/STRPAMON commands.

---> C00712 - Job Watcher;Pex Analyzer - Enhancement

Added several enhancements to the Monitors support at V5R3 and higher (latest server builds required)

PEX Monitors are now available at V5R3 and higher.
Add the Monitors folder to the PEX Analyzer GUI.

Added a data area QIDRWCH/QMONASPLMT which contains the maximum allowed asp limit. If the ASP for the monitor library's available disk space has exceeded the value specified in the data area then the monitor will end. The default is 90%.

The maximum length of a monitor name has decreased from 8 to 7.
The maximum number of collections in a monitor has increased from 99 to 999

The RSTJWMON/RSTDWMON/RSTPAMON commands have been removed. You can now restart a monitor using the start commands: STRJWMON/STRDWMON/STRPAMON

The monitor control files have changed as follows due to parameter changes on the STR monitor commands:

QAIDRJWM1 -> QAIDRJWM2
QAIDRPAM1 -> QAIDRPAM2
QAIDRDWM1 -> QAIDRDWM2

The first time a monitor is started on a system, the existing monitor information will be copied over to the new file.

In STRPAMON added a parameter called ENDPEX data option with these values/meanings:

*LIB = The monitor will create the PEX database files for each collection.

*MGTCOL = The monitor will create PEX MGTCOL objects for each collection.

*SUSPEND = The monitor will issue ENDPEX with the *SUSPEND option instead of dumping any data.

---> C00711 - General - Usability

Changing the bars per page (via the graph definition->set bars per page menu/not via the preferences interface) for a graph, and then changing to a different alternate view will now preserve the bars per page setting when loading the alternate view graph.

---> C00711 - General - Usability

Using the preferences window from a graph view will cause the graph to be refreshed upon closing the preferences window.

---> C00711 - General - Usability

Using the menu within a graph

Graph definition -> Set bars per page -> Set value... will now take the user to the general page of the graph definition properties to set the bars per page override there instead of going to preferences.

---> C00711 - Pex Analyzer - Bug Fix Request

The generic job name length preference did not work in the PEX Analyzer graphs that provided generic job name groupings and drill downs.

---> C00711 - Pex Analyzer - Bug Fix Request

In PA, for the sql-based analysis, collection overview -> CPU consumed rankings, the drill downs were showing duplicate menu options.

---> C00711 - Job Watcher;Pex Analyzer - Bug Fix Request

JW FTP Transfer function was failing if an IP address was used instead of the remote system name. This was due to a bug in the client side when issuing the command to FTPJWCOL.

---> C00710 - General - Enhancement

You can now drill down from the Synchronized table under the graph, just like you were drilling down from the bars in the graph with a couple of exceptions:

- 1) You can't select the desired wait bucket to drill down by default from the table.
- 2) If you are working with rows in the table that aren't in the graph (because the number of rows currently shown in the table is greater than the number of bars currently shown in the graph) then the drill downs won't be available.

---> C00710 - General - Usability

Changed how selection and "quick view" works in graphs to be consistent with how they work in a table.

A DOUBLE-CLICK ON A BAR IN A GRAPH WILL NOW OPEN THE QUICK VIEW WINDOW INSTEAD OF A SINGLE CLICK! (ahem in case you weren't listening)

Essentially, a single click will select a bar (without needing to hold down ctrl/shift) You still need to hold down shift to make a range selection however (just like a table).

I did this to help avoid the annoyance of opening the quick view window when not desired.

---> C00710 - General - Usability

The preference for new users on the Miscellaneous tab "Maximize reports opened into Data Viewers" is now on/checked by default.

---> C00710 - General - Usability

Updated the minimum level of client access needed on the PC in order to run iDoctor to V5R3 or higher.

---> C00710 - Job Watcher;Pex Analyzer - Enhancement

Add support to run PEX Analyzer monitors at V5R4. New commands STRPAMON, RSTPAMON, etc have been added to the QIDRWCH library and the GUI now provides the option to start a PEX monitor at V5R4. The latest server builds are required.

---> C00710 - General - Bug Fix Request

Duplicate as table menu option not working from the Synchronized table view.

---> C00710 - General - Bug Fix Request

The selected row of the synchronized table was not always matching up with the graph.

---> C00708 - General - Bug Fix Request

When using the report generator function modified the implementation that creates the report directory so that any error messages and the GetLastError rc from Windows will now be shown to the user.

---> C00707 - Installation - Enhancement

Updated the Install program on the FTP parameters page to include a checkbox that lets the user choose to perform or skip the ftp connection check (to QTEMP library).

---> C00707 - Pex Analyzer - Enhancement

Added the job name and changed the sort order of the IFS analysis report in PEX Analyzer to job and then time since collection started..

---> C00707 - General - Usability

When deleting a monitor the GUI attempts to delete the job scheduled entries associated with the monitor if any exist. If none have ever been created an SQL error would be shown about a file not existing. Removed this message.

---> C00705 - Pex Analyzer - Bug Fix Request

Added fixes for the PEX Analyzer SQL-based IFS analysis.

---> C00705 - Installation - Bug Fix Request

Fixed a bug in the installer when it tries to test the ftp connection. On a failure the FTP error message and rc were not being displayed in the message box.

---> C00704 - General - Bug Fix Request

Fix a bug in the table and graph views where if you change an SQL statement and you have a syntax error, you would no longer be able to run queries from that view.

---> C00704 - General - Usability

Improved performance in the JW interval detail property pages. Information on these pages is retrieved much faster now when changing the current interval especially when working on a slower internet connection.

---> C00704 - General - Usability

Improved performance in the parsing of SQL statements by reducing the number of CHKOBJS that occur. Also cached these checks when performing drill downs so they are not made again.

---> C00704 - General - Usability

Improved performance in several places in the GUI that are used to build a list of items (definitions, monitors, etc).

---> C00703 - General - Usability

SQL tables and SQL aliases are no longer shown in the member selection window. Also overrides are no longer made against SQL tables (unnecessarily).

---> C00703 - General - Enhancement

The graph compare function is now available in all components except for the old style ("flattened") graphs in PEX Analyzer. Previously this was only available in JW, CSI and DW.

---> C00702 - General - Enhancement

When working with the bottom graph of a comparison graph view, you can now change the time interval size (when applicable) and the Change SQL Parameters window is also available.

---> C00702 - General - Enhancement

The libraries folder in the component views, now contains the library filter (within the folder name) if one is set.

---> C00702 - Collection Services;Job Watcher - Enhancement

Added a preference on the Miscellaneous tab that lets you indicate how many characters should make up the generic job names on the generic job grouping graphs in CSI and JW. The possible values are 2 - 9 with a default value of 6 (the previous default).

---> C00702 - General - Bug Fix Request

The Edit -> Preferences menu when asked from the tree side of a component view didn't work.

---> C00702 - General - Enhancement

The SQL log now contains the QZDA job number and (PC time) timestamp.
Also removed a blank line between the statement and the line indicating how long it took to run.
Access this feature from the View -> SQL Message Log menu within the Data Viewer.

---> C00702 - General - Enhancement

Added an SQL tab to the Preferences interface that contains the following options:

Log messages to log file (default is now OFF)

Maximum data viewer connections (Number of QZDASOINIT jobs to utilize in the data viewer)

---> C00702 - General - Enhancement

Added a Confirm page to Preferences where all the confirmation options from the Miscellaneous preferences tab will now be located.

---> C00702 - General - Enhancement

Made a change in the iDoctor database code, so it will no longer remove overrides in situations where none need to be removed.

---> C00702 - General - Usability

Updated the error message given when an access code was generated for the wrong OS VRM (the server code and OS VRM match but the access code doesn't)

The old message was

Access code is invalid (OS release mismatch?)

the new message is

Access code is invalid. It appears to apply to a different OS VRM. Contact support at idoctor@us.ibm.com.

---> C00702 - General - Usability

Updated the error message given when a user upgrades their system but forgets to upgrade the iDoctor server code.

The old message was

Access code is invalid (OS release mismatch?)

the new message is

Access code is invalid. A previous release of the iDoctor server code is installed and must be updated. Visit our website to install the correct version of the server code for this system. http://www-912.ibm.com/i_dir/idoctor.nsf

---> C00702 - General - Usability

In the component views, refreshing a large list of items (like a list of active jobs), should look cleaner now.

---> C00702 - General - Usability

Add a history for the library filter dialog so that it remembers the last generic names entered and displays them in the drop down list. Also added a remove button to clear the selected entry from the list.

---> C00700 - Job Watcher;Pex Analyzer - Enhancement

Updated the Job Watcher monitors support for V5R4 to provide the capability to automatically run PEX stats flat collections for the top CPU QZDASOINIT jobs.

Added a new JW definition Q5MINQZDAS. Use the Reload IBM-supplied definitions option from the Monitors window (basic options- actions button) to make this definition available.

When definition Q5MINQZDAS is used, the monitor will first collect all QZDASOINIT jobs for 5 minutes at 5 second intervals.

Every 5 minutes from then on the monitor will look for the top cpu burning QZDASOINIT jobs and start a PEX stats flat collection against them (up to 5 max)

The PEX stats collections are named the same as the monitor + 01-99. After 99 PEX collections it will wrap. You will end up with many more PEX collections than JW collections.

There is also a new JW command in QIDRWCH library called RUNPXSTATS that you can manually run if desired against a JW collection to collect PEX Stats flat for the top N CPU burning jobs in the collection over the last 5 minutes (the collection wouldn't necessarily need to be a monitor or even QZDASOINIT jobs).

---> C00698 - General - Enhancement

The threads within a job within the Active jobs folder now provides a drill down into the current call stack for the selected thread.

You can configure the fields shown for the call stack using the select fields... menu found when right-clicking the thread ID from the tree side.

---> C00698 - General - Enhancement

Most iDoctor components now contain an "Active Jobs" folder which provides WRKACTJOB like functionality from the iDoctor client.

You can also sort by a statistic and refresh to keep tabs on the top CPU burners, etc.

There is also a filter option to filter the list by name, user, number, current user or minimum CPU %.

Use the Select fields... menu option when right-clicking the folder to rearrange fields or add additional fields (from the Open list of Jobs API)

Expanding a job shows the threads and the thread statistics available for each.

You can start Job Watcher or PEX Analyzer collections or add jw /pex definitions using the selected jobs within the Active jobs folder. You can also end the selected jobs or view job logs.

---> C00698 - General - Bug Fix Request

When selecting a folder in the tree side of component views, the status bar was not identifying the description of the selected folder as it should (like when selecting items in the list view).

---> C00698 - General - Enhancement

From the new ASPs and Disk Units folders you can now select one or more ASPs or disk units, and right click to create either a PEX filter or Disk Watcher definition from the desired selections.

---> C00698 - General - Enhancement

Most iDoctor components now contain two new folders showing the ASPs and Disk Units configured on the current system.

The ASPs folder allows drill down to view the Disk Units within an ASP.

The Disk Units folder provides WRKDSKSTS type of statistics with updates provided with each refresh.

(also includes total I/O, total sizes). Use the right-click menu option Reset Statistics on the Disk Units folder to restart the collection of disk statistics.

Use the Select fields... menu option when right-clicking the folder to rearrange fields or add additional fields (from the Open list of ASPs API)

The status bar of the Main window shows the times for first disk statistics snapshot, and the last one.

---> C00698 - General - Bug Fix Request

Fixed a bug in several components, the timestamps in the alternate view graph descriptions for thread rankings charts would sometimes not be shown in the correct format or at all.

---> C00698 - General - Enhancement

When creating a CSV file with iDoctor, the default setting is now to include the field headings as a header row. You can modify this on the File tab of Preferences.

---> C00697 - Pex Analyzer - Enhancement

Added several additional enhancements to the PEX save/restore analysis at V5R4/V6R1. You can now drill down from any of the table views, into SR event details for the desired thread. Added a SR thread rankings folder as another possible starting point.

---> C00696 - Pex Analyzer - Enhancement

Added an SQL-based Taskswitch analysis to PEX Analyzer (V5R4/V6R1). The files available so far are very low level and not "done" yet. (taskswitch object index file).

---> C00696 - General - Bug Fix Request

The Edit -> Open in New Data Viewer option not working right when data viewer 1 is open.

---> C00694 - Pex Analyzer - Enhancement

Updated several reports in the PEX Analyzer save/restore analysis, and added support for the analysis at V5R4.

---> C00693 - Pex Analyzer - Enhancement

For PA V5R4+, for the TPROF report drill down "Call stack hits for procedure 'XYZ'" added call level 0 (basically the procedure you clicked on when doing the drill down) to the call stacks shown.

Also added these fields:

Procedure code start address

Procedure offset (instruction address - procedure code start address)

Module timestamp

This report is also now available from the Classic TPROF analyses at V5R4 and higher.

C00692 - Pex Analyzer - Enhancement

For PA V5R4+, added a save/restore event analysis the parses out the data in the QAYPEMIUSR file into several reports. This is a work in progress and all the reports are not yet complete.

---> C00692 - General - Bug Fix Request

Fixed a possible crash when opening reports in the Data Viewer, and then trying to close the Data Viewer as they open.

Jan 22, 2009 – C00691

PEX-Analyzer changes

---> C00691 - Pex Analyzer - Enhancement

In PA 610, changed the SQL-based PDIO analysis graph titles to indicate which ASP number the graphs are over (by default ASP 1 is used). Use the Change SQL parameters menu on the graph to change it after the graph is loaded.

---> C00691 - Pex Analyzer - Bug Fix Request

In PEX Analyzer, when working with the Classic Analyses that contain an IBM-supplied queries folder, added a check to ensure that if the required file for the query isn't available (typically SMTRMOD), then the reports in that folder won't be shown.

---> C00691 - Pex Analyzer - Bug Fix Request

In PA 530, removed the drill down Call stack hits for procedure XYZ from the SQL-based TPROF reports since the SQL didn't work (too complex for that release).

---> C00691 - Pex Analyzer - General

In PA 530, removed the SQL-based analysis Collection overview which showed reports over the QAYPETASKI file since some of the reports didn't work right (missing fields at that release).

---> C00690 - Pex Analyzer - Enhancement

In the PEX Analyzer stats hier report, added a drill down that shows you the call flows for the selected record's REFID.

---> C00688 - Pex Analyzer - Bug Fix Request

When creating a stats flat classic analysis, and subsetting by job, the GUI was showing that each job/thread was filtered for ALL threads when in fact it wasn't.

---> C00686 - Pex Analyzer - Usability

In PEX Analyzer, for the SQL-based Collection overview reports over the QAYPETASKI file: made a change so that the I/O reports shown no longer have different colors to distinguish between jobs in the collection and not in the collection.

Also it was determined that I/O values in QAYPETASKI are not deltas for the life of the PEX collection but are rather cumulative totals for each job since it started. Therefore these reports will only show jobs/tasks that were started after the PEX collection begins collecting data.

---> C00686 - Job Watcher;Pex Analyzer - Enhancement

In JW V6R1, added the capability to create PEX monitors for systems that are licensed to both Job Watcher and PEX Analyzer.

On the server side there are a new set of commands now for PEX monitors in library QIDRWCH.

---> C00686 - Collection Services;Pex Analyzer - Enhancement

In PEX and CSI added a Wait Buckets tab to collection properties that shows the wait buckets/enum mapping at V5R3 and higher

---> C00684 - Pex Analyzer - Enhancement

For V6R1 PA, when creating a collection, added a new problem type called QSTATSOPEN which collects DB opens into stats counter #1. It is ran concurrently with a filter called QSTATSOPEN to ensure that only the user application program opens are counted.

This allows the user to quickly determine which pgm/procedures caused the most opens by looking at inline counter 01.

The QSTATSOPEN problem type is really a PEX definition that gets created using ADDPEXDFN by the GUI under the covers before STRPACOL is executed. QSTATSOPEN is not an actual problem type on STRPACOL.

---> C00680 - Pex Analyzer - Enhancement

Rewrote the Netsize analysis (SQL-based) for V6R1 PEX Analyzer;. Added several new graphs with drill downs.

---> C00680 - Pex Analyzer - Bug Fix Request

Fixed in a bug in PA 540, 610, in the MI user event analyses where the program returned could be a LIC program when the program should have been returning the first non-Q MI program. Updated PEX Analyzer server builds are required for this fix.

---> C00679 - Pex Analyzer - Enhancement

In PEX Analyzer, migrated the MI user event analyses (opens/closes, Idios, etc) back to V5R4. Latest server builds are required.

---> C00679 - Pex Analyzer - Enhancement

Changed the SQL-based analyses user program resolution program so that instead of showing "UNKNOWN" when no Q named program was found in the call stack, the current level program name will be shown regardless of the name.

Although the program name is not a 'user' program, it may be better than showing 'UNKNOWN' as far as users are concerned.

---> C00679 - Pex Analyzer - Bug Fix Request

In PA, some of the new SQL-based analyses were sorting their reports by QTITSP which has been changed to the more granular QTITIMN.

---> C00679 - Pex Analyzer - Enhancement

In PA (V5R3 and higher), in the Start Collection Wizard when using one of the iDoctor problem types, the default event format value for PMCO and Taskswitch is now format 2 (previously format 1).

---> C00679 - Pex Analyzer - Enhancement

In V5R4/V6R1 PA, the STRPACOL command (and the Start Collection Wizard) will now include format 2 events by default for all the MI user events problem types (*DB_OPEN, *DB_LDIO, etc).

Also if collecting storage events (at V6R1 only) using the *NET_OBJSIZE problem type (events *CRTSEG, *DLTSEG, *EXDSEG, *TRUNCSEG) format 2 events will be collected.

Not collecting with Format 2 will now require creating your own PEX definition.

---> C00679 - Pex Analyzer - Bug Fix Request

In PEX Analyzer, on the definition tab for a collection, the format type was not correct if the event type was not one of the base events and the event type was > 1.

---> C00678 - Pex Analyzer - General

For V5R3 and V5R4 PA, removed several SQL-based analyses, except for TPROF and (FMT2) call stacks, events, and the collection overview.

In the future enhancements to the SQL-based analyses will be done in V6R1 and higher only.

---> C00678 - Pex Analyzer - Bug Fix Request

For V5R3 and higher PA, the call stacks analysis is now only available if FMT2 events were collected.

---> C00678 - Pex Analyzer - Enhancement

For V6R1 PA, added an SQL-based IFS analysis.

It's equivalent to the classic version except it will also provide user pgm names for either MI entry/exit or FMT 2 call stacks depending on what's available.

---> C00677 - Pex Analyzer - Enhancement

I've updated PDIO at V6R1, so it contains a large set of graphs with rankings graph drill downs. I haven't done the last drill down set (selected object over time). I think I'll wait until these get looked at by the users.

The graphs include metrics on total I/Os, avg I/O sizes, max I/O sizes, avg I/O times, max I/O times, and categorized I/O counts and times for each event type.

You can also just go into the raw detail file if desired.

---> C00677 - Pex Analyzer - Enhancement

Updated the PDIO analysis at V6R1 to provide program information if MI entry/exit events are collected.

These program names can also be determined (with a little less accuracy) if SAR events along with Page fault starts are included.

---> C00676 - Pex Analyzer - Bug Fix Request

The PEX Analyzer V6R1 SQL-based PDIO analysis should work now even if you don't collect SAR and Page fault start events.

---> C00675 - Pex Analyzer - Enhancement

At V6R1 PA, created a database opens analysis similar to the database LDIO analysis.

If DBOPEN FMT2 events are collected, then statistics about the user program associated with the DB open events and 16 level call stacks will be available in the analysis.

---> C00675 - Pex Analyzer - Enhancement

At V6R1 PA, created a data queue activity analysis similar to the data area activity analysis.

If Data queue FMT2 events are collected, then statistics about the user program associated with the data queue events and 16 level call stacks will be available in the analysis.

---> C00675 - Pex Analyzer - Enhancement

At V6R1, updated the LDIO report, "Job, file, application program LDIO event details" to include the QRECN field. This allows for Format 2 call stacks to be displayed when double clicking a record for any specific LDIO event.

---> C00675 - Pex Analyzer - Enhancement

At V6R1, updated the MI user event analyses (LDIO, data area, etc) so that user program resolution will occur if format 2 events were collected. This allows for MI entry/exit events to be excluded.

---> C00675 - Pex Analyzer - Enhancement

At V6R1, updated the data area analysis so that it would produce the same set of additional fields in the primary file (user program, etc) as the LDIO analysis. If data area FMT2 events are collected, then statistics about the user program associated with the data area events and 16 level call stacks will be available in the analysis.

---> C00675 - Job Watcher;Pex Analyzer - Bug Fix Request

Fixed a crash with the transfer collection function, if it was used from the tree side instead of the list side of the component view.

---> C00674 - Pex Analyzer - Enhancement

In PA, SQL-based analyses can now be submitted from the SQL-Based Analyses folder's popup menu.

---> C00674 - Pex Analyzer - Enhancement

In PA, classic analyses can now be submitted from the Classic Analysis folder's popup menu.

---> C00674 - Pex Analyzer - Enhancement

For V6R1 PA, created a stored procedure that checks for the existence of the analysis output files to speed up display of the collection popup menu.

---> C00674 - Pex Analyzer - Enhancement

For V6R1 PA, SQL-based analyses (that are created through the SQL-based analysis) menu can now be deleted.

---> C00674 - Pex Analyzer - Enhancement

For V6R1 PA, added the call stacks, heap storage and events analyses to the list of available SQL-based analyses. Previously these were performed under the summarize option which is no longer available in PEX Analyzer. Also removed the Summarize menu option and the Summarize column when displaying the list of collections in a library.

---> C00674 - Pex Analyzer - Enhancement

For V6R1 PA, updated the "SQL-based analysis" menu under a collection so that it now contains a list of all available SQL based analyses. The menu also contains an option called Analyze Collection which provides a list of available analyses that can be ran using the default parameters.

If you wish to specify parameters other than defaults, on the analysis types that provide them (TPROF, PDIO currently), use the individual Run <analysis> submenu instead.

---> C00674 - Pex Analyzer - Enhancement

The graph compare function is now available in PEX Analyzer.

---> C00674 - Pex Analyzer - Enhancement

For V6R1 PA, added a new SQL-based analysis called CPU Profile by Job which is available if PMCO events have been collected. It shows estimated CPU consumption during the collection overtime and CPU thread rankings for the desired time periods.

---> C00674 - Pex Analyzer - Enhancement

Added additional reports in the LDIO analysis at V6R1 that show the Job, program, file and relative record numbers. It is accessible either from the first folder under the analysis or using the Raw data drill down from

one of the drill down reports. Using it from the later place will use the same context as the current graph (job, file, program, time period).

---> C00673 - Pex Analyzer - Bug Fix Request

Changed how SQL-based analyses are created in the GUI so that the user interaction/flow is more similar to the one for the Classic Analyses. A new menu "SQL-based Analyses" is available on the collection popup menu. This contains submenus for each SQL-based analyses that is available based on the events in the collection. Once an analysis has been ran a folder representing the analysis and all of it's reports should then be available under the collection or in the collection's popup menu.

---> C00673 - Pex Analyzer - Bug Fix Request

Corrected a bug in the Add PEX definition wizard where specifying program events in the definition for V5R4 and higher wouldn't work because an incorrect command string was being generated.

---> C00672 - Pex Analyzer - Enhancement

In the TPROF SQL-based analysis, reports that show the STRADR (instruction address) field allow a drill down that displays all call stack hits with the most frequent stacks listed first.

---> C00671 - Pex Analyzer - Enhancement

Added an LDIO SQL- based analysis to PEX Analyzer under the menu Database I/O analysis. Some reports similar to what is provided to the classic analysis are available.

---> C00669 - Pex Analyzer - Enhancement

Added a Data Area analysis menu found when right-clicking the collection in PEX Analyzer (if data area events have been collected) which provides an SQL based report similar to the SMTRDTAA file.

General iDoctor GUI changes

---> C00685 - Installation - Enhancement

Added the capability to remove all iDoctor objects/libraries from the desired system by right-clicking the system name from the connections view and choosing "Uninstall iDoctor".

This option can also be used by executing the following commands manually from the green screen:

```
CRTDUPOBJ OBJ(QIDRUNINST) FROMLIB(QIDRGUI) OBJTYPE(*PGM) TOLIB(QTEMP)
CALL PGM(QTEMP/QIDRUNINST)
```

Because this was implemented as a CL program in library QIDRGUI, the latest server builds are required in order for the uninstall option to work.

---> C00691 - General - General

Due to their size, I moved the tip of the day videos out of the normal builds and moved them to a separate download on the main downloads page on the website.

---> C00690 - General - Bug Fix Request

Fixed an error on Vista where at startup there would be registry errors shown due to being unable to write certain keys.

---> C00689 - General - Enhancement

Moving the mouse over a field in the legend will now show additional information about that field in the status bar of the Data Viewer including the field short name and the SQL expression (if applicable/available) from the SQL statement for the field.

---> C00689 - General - Usability

Modified scrolling in the graph legend, so it doesn't scroll such huge amounts per click anymore.

---> C00689 - General - Bug Fix Request

In Graph definition properties for the Y1 and Y2 axis pages. removing the axis description and then clicking on the list would read the description

---> C00689 - General - Usability

Made a change to the graph legend for the primary Y axis fields. Any fields (besides the 1st one) that are all 0 in the graph data, are no longer shown in the list of primary Y axis fields for easier readability of the available data. These fields are basically hidden, even though they still exist in the Primary Y axis fields and if you change the query or scroll (if non zero data is encountered) they will become visible again in that section of the legend.

Primary Y axis fields that are all zeros are now listed in the Available fields section but are greyed out. Trying to add them to the primary Y axis will do nothing because it's already part of the Primary Y axis internally.

If there is interest I could add a preference to have this part of the legend work either the old way or the new way. Let me know if you are interested.

---> C00689 - General - Bug Fix Request

Writing an SQL query in the SQL editor against an SQL alias should work properly now. Previously the GUI would prompt you for a member and fail.

---> C00687 - General - Enhancement

Added a new preference on the Misc tab called "Confirm system name when opening new SQL editor", that determines whether or not the list of available systems are shown when opening a brand new SQL editor.

---> C00684 - General - Bug Fix Request

Fixed a problem for users on Citrix servers when the iDoctor GUI tries to determine if it has been installed correctly and fails. The registry settings that identify the client installation were incorrectly placed in HKEY_CURRENT_USER instead of HKEY_CLASSES_ROOT

---> C00683 - General - Bug Fix Request

The right-click option to open a graph or table into a new data viewer, wasn't working when the preference "always open a report into an existing data viewer" was checked.

---> C00683 - General - Bug Fix Request

Fixed a problem with the creation of user defined queries and graphs over the SQL table summary files. They would not be usable on any collection other than the current one.

---> C00682 - General - Usability

When changing the time interval size in a graph, the graph will now be repositioned to the 1st bar or start of the graph. Previously the position was the same bar # as before, which didn't match where you were in the graph.

---> C00682 - General - Enhancement

The Windows menu on the Main Window, now contains the list of open Data Viewers, which allows you to open any of them from that menu.

---> C00681 - Installation - Bug Fix Request

Fixed a problem in the installer, where the abort install option wouldn't cancel the install right away.

Also made a change so that the error from windows is shown in a popup when unable to create the setup log file.

---> C00679 - General - Bug Fix Request

Fixed a bug where the Filter libraries menu on the Libraries folder didn't work if used from the list side instead of tree side of a component view.

---> C00678 - General - Bug Fix Request

The SQL editor doesn't seem to get refreshed with the correct sql statement after the query definition interface is used from a table view.

---> C00674 - General - Bug Fix Request

Library descriptions were not being displayed if the user, scrolled the list of libraries using the mouse wheel instead of the scrollbar.

---> C00669 - General - Bug Fix Request

Fixed a possible long delay /client freeze when doing a flyover when the data in the flyover contained a large amount of text. It will now be truncated to a more reasonable size.

---> C00667 - General - Enhancement

Added a new component tentatively called the Plan Cache Analyzer.

It offers the ability to run a collection containing plan cache and SQL query data from the system based on several options from the QQQOOOCACH API.

On the server side a new library QPLANCACHE will be restored when installing the server portion of iDoctor. This library contains a command STRPCCOL that is used to start a collection.

On the client side, a wizard is available to start the collection and if the analyze option is taken a set of graphs ranking the plan cache statistics is available.

---> C00667 - Installation - Bug Fix Request

The MS Visual Studio redistributable should install silently now.

Sep 17, 2008 – C00664

PEX-Analyzer changes

---> C00662 - Pex Analyzer - Bug Fix Request

In PA V6R1, collections created on systems at V6R1M1 were not usable by the GUI.

General iDoctor GUI changes

---> C00664 - General - Bug Fix Request

Fixed a crash that would occur if the user tried to rerun an SQL statement using the Execute menu from the SQL editor while the query was still running.

---> C00663 - General - Bug Fix Request

Fixed some problems with the alternate views functions from rankings graphs.

1. Duplicates entries would sometimes show up in the list.
2. The wait bucket description listed wouldn't change as it should based on the last bucket selected.
3. The current time range selection could sometimes be lost when choosing an alternate view graph.

---> C00662 - General - Enhancement

For all graphs in all components, added a function available by right-clicking on the graph that let's you change any parameters defined in the SQL statement such as the taskcount, asp number or time range. This is available under the "Change SQL Parameters" menu.

---> C00662 - General - Bug Fix Request

When looking at a vertical bar graph that has a secondary axis consisting of only a single bar, the 2nd axis was not visible. With this build, a point is drawn in the middle of the single bar at the height appropriate for the axis.

August 22, 2008 – C00659

PEX-Analyzer changes

---> C00657 - Pex Analyzer - Bug Fix Request

Fixed problems with job/task selection in the PEX Analyzer analysis wizard. This was causing some reports like stats hier to show no data.

---> C00656 - Pex Analyzer - Enhancement

Added the Generate Reports function to PEX Analyzer. It works against all of the SQL based summary reports.

---> C00656 - Pex Analyzer - Bug Fix Request

When summarizing a PEX collection that has call stack format 2 events, made a change to the stored procedure QIDRPACSTK that runs against the call stacks, so that it no longer returns an error when performing the insert, for event types where no data is found.

---> C00656 - Pex Analyzer - Bug Fix Request

Made a change to the STRPACOL command at 530 and higher, so that the library name the collection is to be created in is saved onto the PEX session's userspace description. This was needed in order for PEX Analyzer's Active collections view, to work appropriately with STRPACOL initiated collections.

Previously trying to end collections created using the GUI, from the active collections view, could cause problems. The ENDPEX command should not be used to end collections started with STRPACOL. ENDPACOL command should be used instead.

---> C00654 - Pex Analyzer - Bug Fix Request

Fixed a new bug where the Generate reports option for the SQL-based TPROF in PEX Analyzer wouldn't run.

---> C00654 - Pex Analyzer - Usability

Fix a usability issue in PEX Analyzer where the Call stack tab could be shown, even though no call stacks were collected.

---> C00654 - Pex Analyzer - Enhancement

Expanding a PEX collection will now display a folder called "SQL-based Analyses" which contains the SQL-based reports that were previously only accessible from the collection popup menu.

Also renamed the Analyses folder under a collection to Classic Analyses.

Also the popup menu option for a Collection, Analyze Data, has been renamed to Classic Analyses to coincide with folder it relates to.

---> C00653 - Pex Analyzer - Enhancement

Added the PEX Speed Team's PDIO SQL based analysis to the iDoctor client under the PDIO analysis menu for a collection. Just the starting point tables are provided currently.

Note: This analysis only works currently at V6R1.

---> C00649 - Pex Analyzer - Usability

In PA 530+, in the events analysis reports added checking to ensure that event category menu options are only shown if the collection contains them.

---> C00648 - Pex Analyzer - Enhancement

The event analysis graph, taskswitch events for thread XYZ now contains the raw cpu used for the thread as the Y2.

The other graphs of this type include the field in the SQL statement (and legend) but does not show it, because depending on the events collected it will give an incomplete picture of CPU consumption.

---> C00648 - Pex Analyzer - Enhancement

In PA 530+, changed the code that retrieves a PEX 16 level call stack to be SQL based, replacing the use of an RPG program.

Also from the new SQL based TPROF reports, made a fix so that the call stacks are accessible for reports that show the (starting) instruction address.

From the old tprof analysis, on the tprof graph, fixed a bug where the correct stack for the program name clicked on was not being shown.

---> C00647 - Pex Analyzer - Enhancement

In PA 530+, added a menu called "TPROF analysis" for trace collections that contain PMCO events that allows the user to build or view the SQL based TPROF reports that were created by the PEX speed team.

---> C00646 - Pex Analyzer - Enhancement

In PA 530+, in the events analysis reports, added drill down reports to show the raw pex data records based on the current context. (selected time range, job/thread and/or events).

---> C00646 - Pex Analyzer - Enhancement

In PA 530+, in the events analysis reports, added event rankings drill down graphs that show the individual events occurring for any of the event types.

---> C00646 - Pex Analyzer - Enhancement

In PA 530+, for the new SQL based reporting options, added checking to only show the menus that apply to the current PEX collection. (example: only show taskswitch menu if collection contains taskswitch events).

---> C00646 - Pex Analyzer - Bug Fix Request

In PA 530/540, the report Collection overview -> Collection thread summary is working now.

---> C00645 - Pex Analyzer - Enhancement

For V5R3+ PA, added a set of reports/graphs under the Heap Analysis menu for a collection which can be used if the collection contains heap events.

Let me know if you want changes.

---> C00645 - Pex Analyzer - Enhancement

In PA 530 or higher, added a step to the summary program that will produce data for heap events equivalent to that provided by the HEAPTOOL/RTVHEAPSTK command.

The 3 files generated may be viewed using the collection menu: Collection files -> Summary -> QAIDRPA_HSTACKS, QAIDRPA_HSTACKS2, and QAIDRPA_HSTACKS3,

The 16 level fmt 2 call stacks are also produced by the summary step and can also be viewed under the same menu.

---> C00644 - Pex Analyzer - Enhancement

In several places in the new PEX Analyzer reports, when an OBJVALUE field is available (either a taskcount, job name, generic job name, etc). The following drill down reports are available.

All events for <<OBJTYPE>> <<OBJDESC>>

Taskswitch events for <<OBJTYPE>> <<OBJDESC>>

PMCO events for <<OBJTYPE>> <<OBJDESC>>

Let me know if other similar graphs for different sets of events are desired.

---> C00644 - Pex Analyzer - Enhancement

In PA 530+, under the collection events analysis folder, the high level reports available now includes:

Collection events summary

Collection events detail by thread

By time interval

Collection events overview

Etc

Event totals

Event totals by <<OBJTYPE>>

---> C00644 - Pex Analyzer - Enhancement

In PA 530+, added additional fields from file QAYPETASKI to the Collection thread summary report.

Task Database CPU

Storage pages allocated

Storage pages deallocated

Database and non-db page faults

Times added to collection

Java Thread Name

Home node

Affinity level

Affinity identifier

Preferred affinity resource identifier

Scaled running (CPU) microseconds at last start

Scaled running (CPU) microseconds at last stop

Scaled running (CPU) time
Subsystem name

---> C00643 - Pex Analyzer - Enhancement

In PA 530 and higher, when summarizing a collection, any Format 2 events that provide 16 level call stacks will be summarized in a new file QAIDRPA_STACK_<<COLNAME>>.

This indicates the number of call stacks that occurred for each type of call stack.

To view the PEX summary files, use the Collection menu -> PEX collection files -> summary.

To view only call stacks for a certain event type, set the EVTTYPE and EVTSUBTYPE fields in the call stack summary file. (example evttype = 3 and evtsubtype = 8 for PMCO call stacks).

---> C00643 - Pex Analyzer - Enhancement

In PA 530 and higher, updated the pex collection property pages that collection jobs and tasks so that the data is correctly sorted by CPU time descending.

Also removed the % fields as the new taski graphs can be used instead to see this type of information.

---> C00643 - Pex Analyzer - Enhancement

In PA 530 and higher, added additional drill down options from the event analysis queries to show the events by job grouping for a specific event type. These reports are still a work in progress.

---> C00642 - Pex Analyzer - Enhancement

In PA 530 and higher, added a new set of reports/graphs over the QAYPETASKI file data. This is accessible from the Collection overview menu. The graphs available show CPU, PDIO, Reads and writes, disk page allocated and page faults for the collection by either thread, job, job user, generic job, subsystem or pool.

---> C00642 - Pex Analyzer - Enhancement

I had to modify the PEX Analyzer events summary file in order to better handle timestamp selection drill downs. The PA summary step must be redone in order for some of the PA Events Analysis queries to work like the events overview graphs.

---> C00642 - Pex Analyzer - Enhancement

Variable width bar mode is working now for the PEX events analysis graphs.

Also added drill downs into event by thread graphs for the selected time range from these graphs.

---> C00641 - Pex Analyzer - Bug Fix Request

Sorting a query that contains a tab before the "order by" instead of space, would cause a syntax error.

---> C00641 - Pex Analyzer - Bug Fix Request

In PA 530/540, the events analysis drill downs weren't working right.

Also fixed SQL error with the events analysis by time interval graphs at those releases.

---> C00640 - Pex Analyzer - Enhancement

In PA V5R3 and higher, added additional reporting options under the Events analysis folder which replaces the existing events analysis and also includes a report showing the events property page into the Data Viewer. This is called the Collection events summary report.

This report offers two additional drill downs for the selected event type showing either the event counts over time, or the event counts by job/thread.

---> C00640 - Pex Analyzer - Enhancement

In PA V5R3 and higher, renamed the collection menu PEX events summary to Events analysis. Also added a menu Taskswitch analysis that contains the Collection Summary report built using SQL against the raw PEX files.

---> C00640 - Pex Analyzer - Bug Fix Request

In PA, the copy collection function didn't work at release V6R1.

---> C00639 - Pex Analyzer - Enhancement

Added a summary function to PEX Analyzer for V5R3 and higher trace collections. This function currently only produces an event interval summary file containing a record per second of the collection, with event counts that occurred for each event category and every event type. The file generated is QAIDRPAINTI_<Collection name>

Use the Summarize menu for a collection to access this feature.

When displaying collections in a library, added a Summarized field to indicate if the summary has been ran not or yet. You may need to use the Select fields... menu in order to add this field to the list of fields shown, if you have changed the fields shown in PEX Analyzer within a library to something other than the shipped default field list.

Once summarized a collection will have a new menu PEX event summaries containing a Collection events overview graph showing the event counts by category over time as well as alternate view graphs that break down each individual event within category over time. These graphs support changing the time interval size and will be used for some future drill downs into the PEX trace events using time range selection

---> C00634 - Pex Analyzer - Enhancement

When right-clicking a PEX collection added a set of menu options that will allow you to quickly open one of the PEX database files.

The menu options are

PEX core files - for the most commonly used files

PEX definition files - files that store some of the values from the PEX definition

PEX advanced files - the rest of the files

PEX summary files - displays files created by the summarize option

---> C00634 - Pex Analyzer - Enhancement

In Pex Analyzer, changed the contents of a PEX collection so it now contains 4 folders

Analyses - the analyses within the collection

Server-side output files - the pex collection and SMTR* files

User-defined queries

User-defined graphs.

This allows you to access the PEX files without generating one of the analyses.

---> C00633 - Pex Analyzer - Enhancement

The folders available under PEX Analyzer has significantly changed. Instead of showing libraries containing PEX data, the following folders are available:

Libraries - Libraries containing PEX collections (filterable)

Active collections - Work with the active PEX sessions on the current system. This is like an ENDPEX equivalent view. Since super collections use STRPEX/ENDPEX it was necessary to have this view to monitor the status of the PEX portion of a super collection.

PEX objects - A list of all PEX management collection objects on the system

Super collections - Work with the super collections on the current system

Definitions - Available definitions found on the current system

Filters - Available filters found on the current system

Scheduled jobs - iDoctor jobs scheduled to run

General iDoctor GUI changes

---> C00658 - General - Enhancement

Added a preference to the misc tab, called "Confirm when stopping the Report Generator function". When checked Closing the Data Viewer or Component View performing the report generator function will show a confirmation prompt before the report generator is stopped.

---> C00658 - General - Bug Fix Request

Fixed a bug in the report generator. If a user started the report generator, and while it's running closed down either the Data Viewer or the component view it was started from, the iDoctor client would crash.

---> C00658 - General - Bug Fix Request

Fix an issue with the transfer library function where it would not prevent a user from trying to transfer their library to the current system.

---> C00658 - General - Usability

When a graph is running or returns no data, the graph area will contain the graph title as well as the status of the graph. Made this change, so it would be captured and available for users of the Generate Reports function.

---> C00658 - General - Usability

If the Preference on the Misc tab - Maximize reports opened into Data Viewers is checked, then all views including property sheets (call stacks) and job logs, opened in the Data Viewer will also be maximized. Made this change because otherwise when opening a call stack or record quick view, all graphs would no longer be maximized.

---> C00658 - General - Enhancement

The iDoctor Update History window, now offers buttons to find the next or previous occurrence of the desired search string.

---> C00656 - General - Bug Fix Request

Scrolling through a table or graph should be slightly faster now. 2 fetches were being done per page instead of just 1.

---> C00652 - General - Bug Fix Request

Made a change to the ODBC driver/connection properties so that extended dynamic package support is no longer being used.

I did this because of the somewhat random SQL0440 errors on some stored procedures called by iDoctor because of a possible bug with SQL packages at V6R1.

---> C00652 - General - Usability

If the required server code isn't found, updated the message so it's phrased as a recommendation to install the latest server builds rather than a requirement and lists the functions changed/added by the recommended server code.

---> C00649 - General - Bug Fix Request

When saving user-defined queries/graphs that utilize summary files (which contain SQL long tables that contain the collection name as part of the name) they will be usable against other collections in other libraries or the same library .

The collection name will be resolved when the query is opened. Previously these queries would only be usable if accessed against the same collection.

---> C00648 - General - Enhancement

On the report generator window, added options to save or load the current list of reports to generate based on a user-defined name.

Also added a button to toggle the graphs available from checked/unchecked.

---> C00646 - General - Bug Fix Request

Fixed a possible crash that could occur when opening a graph if the code that displays the graph flyover is invoked before the thread that retrieves the data completes.

---> C00645 - General - Bug Fix Request

When scrolling through large tables, sometimes data would incorrectly appear out of sequence because the fetched buffer from ODBC could get into a state where it would contain the wrong data every other fetch. The solution of reissuing the same fetch again to get the correct data works, but does cause extra network delay. Need to investigate if the actual cause is iDoctor code, ODBC driver or system DB PTF level.

---> C00640 - General - Enhancement

Added a preference to the Misc tab called "Maximize reports opened into Data Viewers" which will auto maximize all reports opened into Data Viewers. The default is off/unchecked.

---> C00640 - General - Enhancement

Moved the preference "Always open a new report into an existing Data Viewer" from the Job Watcher tab to the miscellaneous tab. It also should be working properly from collection right-click context menus for all components.

---> C00640 - General - Enhancement

Removed the disable caching preferences on the PEX Analyzer and Job Watcher preferences tabs and created a single preference on the miscellaneous tab to replace it that applies to all components.

---> C00639 - General - Enhancement

On the main window, the clock icon to set the preferred time range interval size is now settable from any component. Made this change since now PEX Analyzer will also have time range graphs.

---> C00637 - General - Usability

Since a lot of new users are familiar with the common practice of left clicking a column twice to sort in descending sequence, this will now work in iDoctor. Previously left clicking would always sort ascending.

Note: You can right-click the column to sort descending, instead of left clicking twice.

---> C00637 - General - Bug Fix Request

When viewing a spool file (job log) from the server in the GUI, corrected some formatting problems.

---> C00636 - General - Usability

Made a change to the scheduling window so that the checkbox at the top is checked by default the 1st time the window is shown in order to show the calendar and time fields.

---> C00636 - General - Usability

Made a change to the scheduling window so that the checkbox at the top is checked by default the 1st time the window is shown in order to show the calendar and time fields.

---> C00635 - General - Enhancement

If the graph legend is not currently shown (via toolbar button) or set to 0 width in preferences, expanding the graph or data viewer should not display the legend.

---> C00634 - General - General

Moved all iDoctor stored procedures into library QIDRGUI instead of library QUSRSYS.

---> C00633 - General - Bug Fix Request

The schronized table view wasn't scrolling down correctly, it would snap back up after scrolling down. Scrolling via the graph scroll bar would scroll the table correctly though.

Apr 30, 2008 – C00618

PEX-Analyzer changes

At V5R3 and higher PEX Analyzer, in the Start Collection Wizard, add support to specify a maximum data to collect value of 250,000,000 KB.

If the user specifies over 4 GB, they are given a warning message and the output format will be set to "management collection object" instead of "PEX database files".

This required changes to the STRPACOL Command which must be reinstalled on the server in library QIDRPA in order for this to work.

Also at V6R1, changed the PEX Definition Wizard to support the max data to collect value of 250,000,000 found on the ADDPEXDFN command at that release.

A side-effect of specifying greater than 4000000 KB, is that the creation settings page of collection properties will list the max size as 4000000 KB even though it is truly larger (because the field the max data is stored in is not large enough). The definition page will not show the correct size either at V5R3 and V5R4 since this is controlled through an environment variable and cannot be set within the definition.

General iDoctor GUI changes

Fixed a bug where it was possible to get graph tooltips to show up through the main window or other application windows.

Synchronized table disappears when SQL Editor is opened/closed

When opening or resizing a graph view while the synchronized table view is minimized, the status bar would incorrectly display a negative number when showing the number of bars/records visible of the total.

Updated the iDoctor Components window so when it is resized larger, the list of components resizes bigger and also the window cannot be resized smaller than its initial size.

Made a bug fix to query parsing where the libraries weren't being filled in from a user-defined query. The parsing failed because there was a new line and not a space before the GROUP BY.

In graph views, only show flyovers if the graph has the current focus. In other words if a graph is behind another window, don't show flyovers for the graph.

We are making this change to help alleviate problems we sometimes have with flyovers showing up when we don't want them to.

Automatically add single quotes for string fields entered into the Record Selection page of the Query definition interface.

When resizing graph views that have a synchronized table at the bottom, need to make sure the synchronized table doesn't become visible when resizing the graph larger unless the button on the toolbar has been pressed to show the table. It tended to appear at undesirable times.

Can't get graph or table tooltips to show up if the Data Viewer is moved to the 2nd monitor in a multi-display environment.

Fixed a crash when using the Query definitions Manage interface, changing the local database, and then using the Manage definitions interface again.

Changed the component menu User-defined reports -> Query(graph) definitions -> Manage... to Manage/Export... to make it more obvious this is where the export function resides.

In the remote SQL Statement Status View, using the display job log option would often not work, returning the error, The job number for the ODBC job could not be retrieved.

Add the Default time range interval size setting to Preferences on the Display tab.

This preference can also be set using the clock icon on the Main Window's toolbar. Also when working with graphs and using the time range interval size button, added a menu at the top "Set current as default" that will make the current setting the default for future graphs opened.

Apr 21, 2008 – C00612

PEX-Analyzer changes

In PA, if a collection's VRM cannot be determined removed an error message that would be show when trying to call the QvrmCOLLC1 program. These unusable collections will also no longer be visible in the GUI.

For PEX Analyzer V6R1, removed several old programs from library QIDRPA because they are no longer used, and were causing a problem on the restore of the library at install time. On a customer V6R1 system this was causing PEX Analyzer to fail to be installed.

The programs removed were:

\$RUNTIME, RUNTIME, \$SETIP, \$SMNITS5, \$SMTRBAS, \$SMTRCPU, GSIZE450R1, Q450ANLQC1, Q450ANLQR1, Q450COLLC1, Q450COLLR1, QYPENTH

These programs were not causing restore problems but removed anyway since they aren't needed:

GSIZE450C1, GSIZE510C1, GSIZE520C1, GSIZE510R1, GSIZE520R1.

These programs were recompiled: TS01R

By removing QYPENTH a slight change was made in the GUI, requiring that at V6R1, the latest PEX server builds be used with client 611 or higher. This also fixes at V6R1 the inability to select by job/task using the PEX Analysis Wizard because QYPENTH could not be converted even though it was restored.

General iDoctor GUI changes

Opening a server-side output file that had key fields which happened to be SQL reserved words would cause an SQL error.

Fixed some crashing problems that would occur if the connection to the server is lost when either shutting down the client or when attempting to reconnect. As long as the user/password entered previously is still valid, there should be no noticeable effect when automatically reconnecting besides a slight delay.

When performing collection or monitor scheduling on a daily or weekly basis, it appears that subsequent calls after the 1st would fail because the command to be executed was removed from the control file that keeps track of the commands to execute. In order to correct this, I've changed the command attached to the scheduled job so it now contains the actual SMBJOB command to execute rather than a call to program QIDRSTRSCD. Program QIDRSTRSCD is only used now if the command string scheduled exceeds the job scheduler limit of 512 bytes. In addition command strings are only added to file QGPL/QAIDRJBSCD if they exceed 512 bytes and are not removed by calling program QIDRSTRSCD.

Canceling a long running query and then attempting to run another query from the same connection would give the error "Prepared statement S0 in use".

The query parsing is a bit smarter now when looking for table names inside a select statement. Changes made to eliminate redundancy.

When launching a component and building the list of libraries, made a change so that the library descriptions are not retrieved until you need to see them. This means that I don't retrieve the library descriptions (for libraries not visible) until you try to scroll down. This offers a big startup performance improvement on some systems.

When closing a Data Viewer that contains actively running queries or graphs, it should no longer take two tries. Previously the 1st click on the X would close the views within the Data Viewer and the 2nd would close the Data Viewer itself.

Mar 27, 2008 – C00609

General iDoctor GUI changes

On the iDoctor components window, if the expiration is set to 12/31/39 (effectively *NOEXP when generated the code) it will be shown as "Never" instead now.

On some PCs, users would get the message when starting iDoctor, "the application configuration is incorrect". This was due to iDoctor not being able to find all required DLLs. They have been moved to a different location and this problem should no longer occur.

I'm enabling the query definition interface again, even if the statement contains comments or new line characters which can tend to break the SQL parsing which tells the interface how the query is structured. Several of the queries I tried worked fine though using the interface to change a query will mean any comments in the SQL editor will be lost (not permanently if saved, just for the current view). PLEASE NOTE: On many of the rankings charts the job name field you need to filter on is now called OBJNAME as part of the query rewrite for CSI and JW. If in doubt, double-click the X axis field in the legend to see the field name you need to perform your record selection on.

Mar 21, 2008 – C00606

PEX-Analyzer V6R1 released!