

IBM Navigator for i: Open for business

Overview of the new IBM Navigator for i interface

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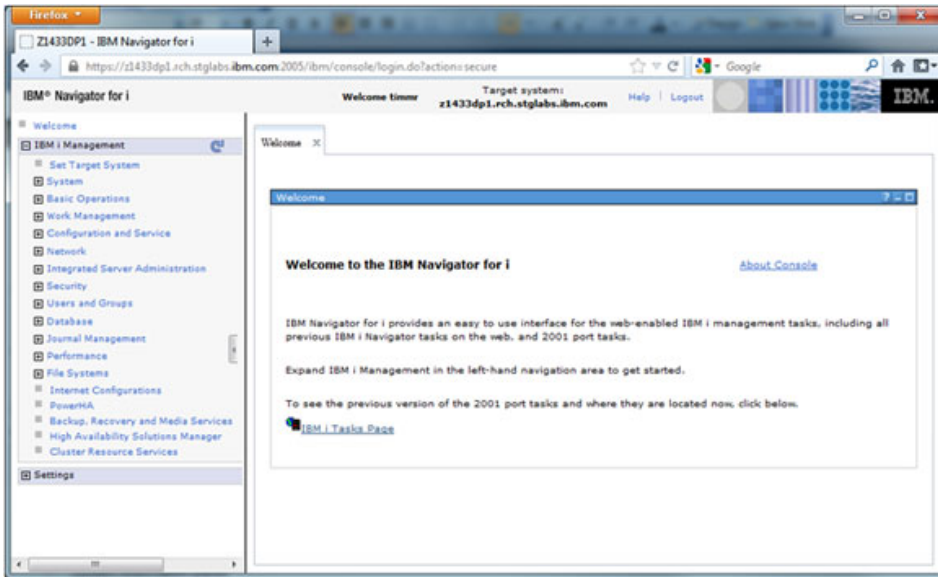
IBM Navigator for i is a newly designed web based interface for managing your IBM i systems. Significant improvements have been made too many aspects of the navigator interface focusing on improved usability, performance and simplicity.

IBM® Navigator for i is the latest addition to the family of system management tooling for the IBM i operating system. This interface comes from a long line of graphical user interface (GUI) based system management tools and the Navigator family has been around for many years. This support has continued to evolve over time. We started with a Microsoft® Windows® installed client solution and now with this latest release of Navigator, we have a rich, usable web-based solution.

This Navigator web-based solution has been previously known as IBM Systems Director Navigator for i. The name of this product, its usability and performance all left something to be desired. With Navigator for i, all three of these aspects of IBM's web-based navigation product have taken a sizeable leap forward.

As part of this new update, IBM has changed the name to better reflect the purpose of this interface. With IBM Navigator for i, the product has a name that clearly matches its intended use as part of the Navigator family and contains no dependencies upon Systems Director. Figure 1 contains a view of this new interface.

Figure 1. IBM Navigator for i

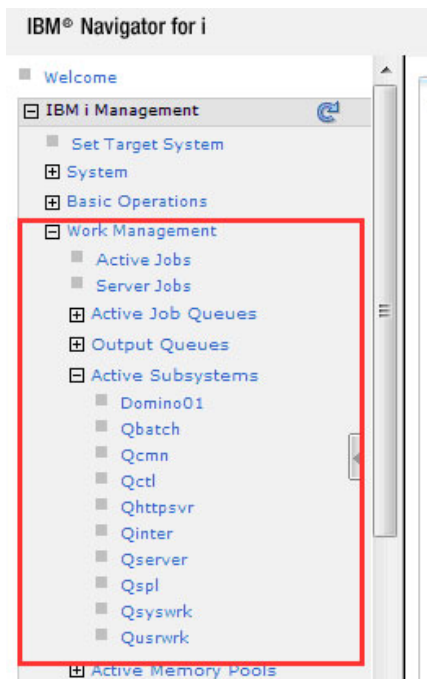


This latest delivery contains a very impressive list of updates, changes and enhancements to help meet the IBM objectives and help IBM customers be successful. IBM has been hearing for many years that the client interface worked much better than the previous web solution. With that in mind, IBM reinvented portions of the web interface to resemble the form and function that its users requested. The rest of this article provides a quick tour of some of the most important IBM i Navigator usability features and capabilities.

Dynamic left navigation

This was one of the more important updates to the interface. In the past, the left navigation area was a static list of entries. With this new update, the left navigation area (as shown in Figure 2) is now a dynamic element. You can click entries to expand and open any element that is a "container." So for example, a subsystem is a container that holds jobs, Integrated File System (IFS) directories, additional directories, files and so on.

Figure 2. Dynamic navigation area



The dynamic navigation provides quick and easy access to the content that you need. When using the navigation area, if you use the plus and minus icons, the corresponding containers open or close. For the cases where you are opening a dynamically populated container, the server is contacted at that time (only when you click the container) and the dynamic content is retrieved. The dynamic loading image (Figure 3) is displayed while the content is gathered from the host.

Figure 3. Left navigation loading image



When you click the actual text name for that container, it opens up that container content in the right work area in addition to opening or closing the left navigation area. If you don't want that container opened, then only click the open and close icons.

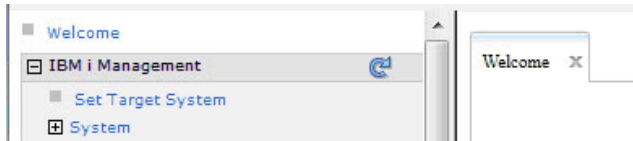
As soon as you have the dynamic content listed in the left navigation area, you might want to refresh the data. Just opening and closing the open and close icons does not refresh that content. If you do need to actually retrieve new content, you can refresh either the entire list or just a specific container that you want. When you hover over a specific container, a refresh icon appears (Figure 4).

Figure 4. Left navigation specific container refresh



Click the refresh icon next to the container name and only that open container is refreshed. If you click the refresh icon at the top of the list (Figure 5), the entire list is reset to its initial state. All the cache entries are cleared and as you open containers, the dynamic data from the server is requested, giving you a fresh view of the data.

Figure 5. Left navigation whole list refresh



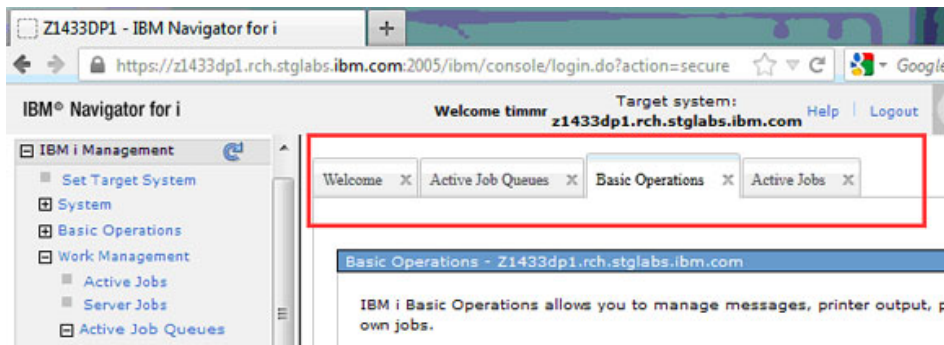
The dynamic left navigation is one of the key changes to the new Navigator interface and changes how you go about doing your work. In the past, within the web interface, you needed to actually open many containers to find the content that you needed. Today, the content is easily navigated to through this dynamic navigation area. In addition, only the necessary content from the server is actually returned.

Independent tabs

In the previous web interface, the tabs across the work area were not independent from the rest of the interface. Instead, they were more of a placeholder to the content on the system. Further, when you clicked one tab, the data needed to be retrieved from the server, which resulted in a slow-performing web solution.

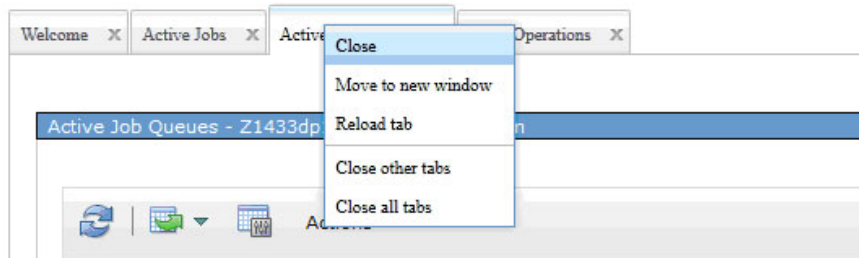
Navigator for i significantly improves the user experience when clicking between tabs (Figure 6).

Figure 6. IBM Navigator independent tabs



When clicking a tab in the new interface, the content is retrieved from the browser cache. This means that you can click back and forth between tabs quickly without having to wait for an unnecessary server refresh. If you do need to refresh the content of a tab, you have a couple of options, but they are under your control.

Figure 7. Tab options



You can close and reopen the tab or you can use the refresh support that is part of the actual content of that page, or click (see Figure 7) the **Reload tab** option for that tab. In addition to improving the navigation between the tabs, these new tabs can also be launched into a separate browser window.

The ability to move a page to a new browser page gives you significantly more real estate. This can mean an increased viewing space for the content currently in the work area. The new page does not contain the navigation area, but only the actual important content of the right work area.

Modern tables

The existing table widget within the majority of the Navigator interface has been replaced with a new Dojo-based table widget. This new table provides a significant improvement to the user experience within Navigator. The previous table widget showed your data in a basic table. This table support was not "web friendly" as it required long-running interactions with the server. When navigating within a table, you were not able to do so in a quick and easy manner. The new table widget solves these issues while adding some very powerful new features.

Figure 8. Navigator modern table support

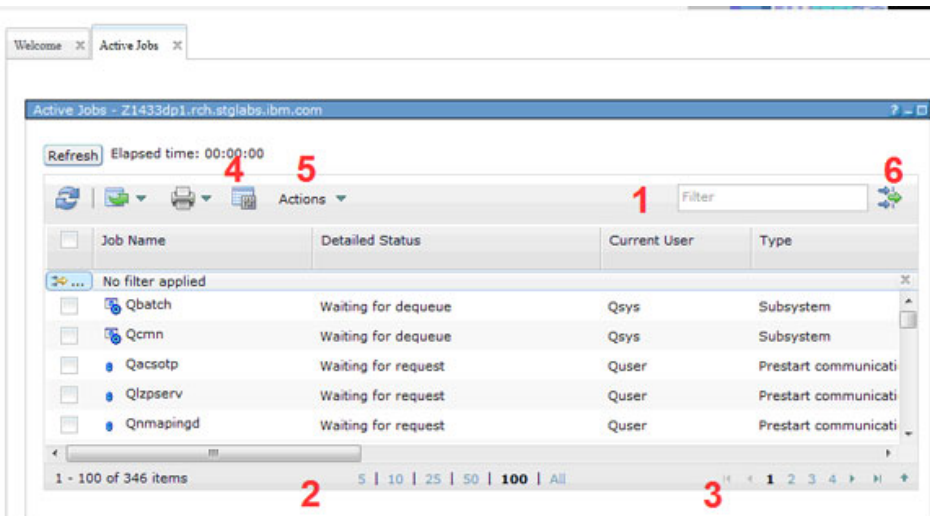
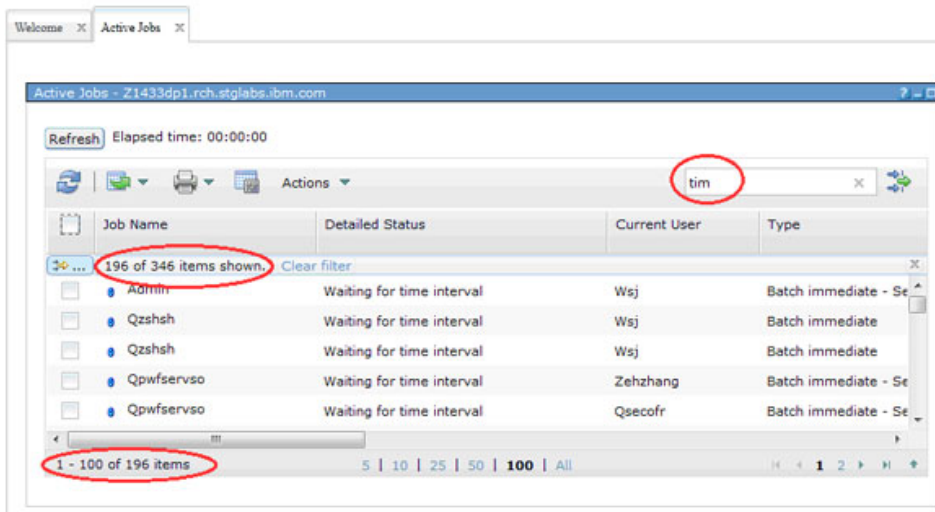


Figure 8 shows a view of the latest table support. There are a number of important attributes that I want to point out to help you understand some of the features and enhancements that have been built into this new table element. Some of these can change how you go about finding content within a table and even how you work in this interface.

1. **Quick filter:** The quick filter support is one of the most radical enhancements that IBM added to the navigator support. This support gives you a very fast full-text search capability. This search capability is so fast, it really can change how you look for information within a table. Just enter the characters you want and then simply stop typing; the interface determines that you have stopped typing and displays only the table rows with in the data set that contain a match for the text you entered. Avoid pressing Enter as the search might not work as you would expect. This searches all rows and all columns. So sometime you may actually get more data than you want. But because this capability is so fast, you can often do many searches, refining your search text and it is still faster!

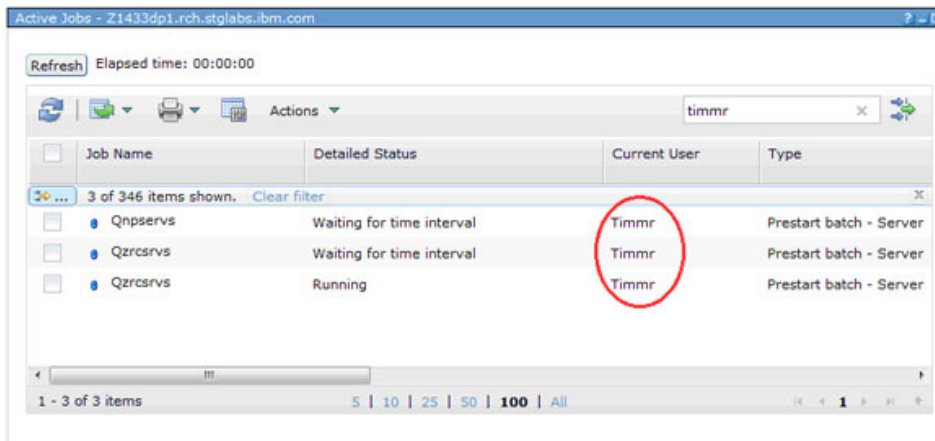
Let's look at an example. I am going to use the Work with Active Jobs interface to show how this support works. I want to find "my" jobs that are running on this system. To determine this in the past you might have scrolled through the entries manually or used the specific filter support to search on the current user field. Although this might have worked fine (actually still works fine today), it requires a number of clicks and keyboard interactions before you can see the data that you are after. Using the quick filter, I am going to enter just a part of my user name. I click the filter box and enter "tim" (see Figure 9).

Figure 9. Quick filter for 'tim'



Within a few seconds, the table is refreshed with only the entries that contain the character string "tim." As you can see, we have gone from displaying 346 entries to 196. But that is hardly the exact list that I am really after. There are a large number of jobs that are in "Waiting for time interval" status. All those are displayed as they contain the characters "tim." Now we can try a better search value. Let's enter my exact user name. I re-click on the filter box and enter 'timmr' (see Figure 10). Again within a couple of seconds the table data is refreshed and only my jobs are displayed.

Figure 10. Quick filter for "timmr"



Turns out there are three jobs on this system for me. This entire process only took a few seconds to accomplish both of these searches. The speed of the quick filter is dependent on the size of the dataset displayed in the table. There are going to be certain situations where you do need to use the specific table filter support. You will have to experiment within your environment to see what works best for you. The quick filter support is sure to be an important improvement.

- 2. Number of entries to view:** The new table support allows you the ability to control how many entries per page you want to have displayed. This is a control that can help with the responsiveness of your table. The more entries returned initially the slower the response. Whereas five entries might be too few, 25 might be a good number. I normally set mine to 100 and although my table does not respond with a sub-second response, I do get a very quick response (see Figure 11).

Figure 11. Number of rows per table page



Click the number of entries that make the most sense for your environment. The number entries per page have a direct effect on the number of pages for this table. In addition the numbers to the left tell you what row numbers are currently displayed along with the entire number of entries for the table.

- 3. Quick table page controls:** The quick page controls allows you to quickly navigate to the pages within this table (see Figure 12).

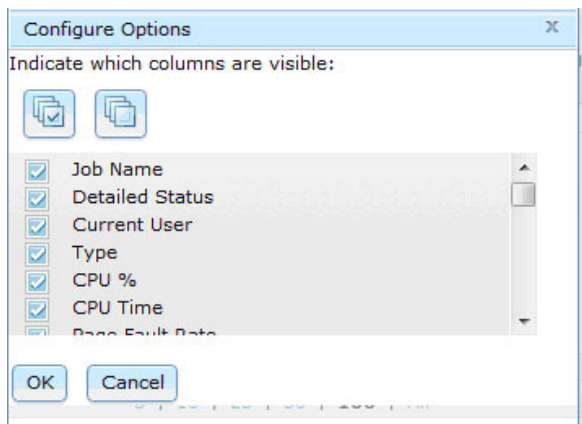
Figure 12. Number of pages per table



Click a number to go to that specific page. Click the arrow to display the next page. Click the arrow with the vertical bar to go immediately to the end or beginning page.

- 4. Configuration options:** The configuration options control allow you to determine what columns you want displayed as part of this table (see Figure 13).

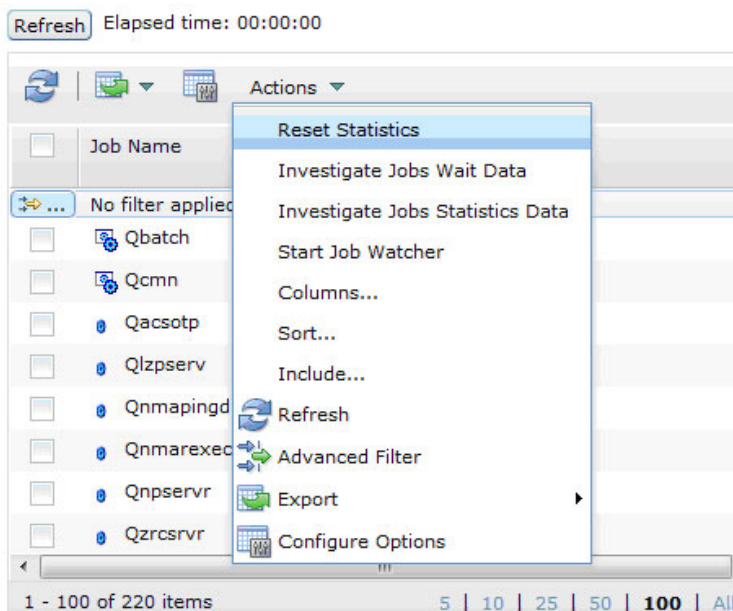
Figure 13. Table configuration options



For example the work with active jobs interface has a large number of columns that can be displayed. By default, we only show a very small subset of the entire list of options. The configuration options give you the ability to select only the options that meet your specific business needs.

- 5. Actions:** The table actions drop-down list includes all the common table actions such as refresh, print, export, configuration options and the advanced filter actions (see Figure 14).

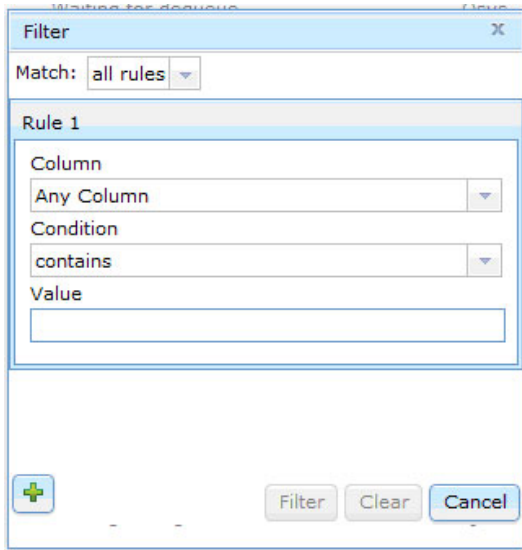
Figure 14. Actions list



This list of actions is common across all tables with in the Navigator interface. In addition there is the action entries that are specific to the content of the table being displayed. For example when showing the Work with Active Jobs table you would find actions to manage a specific job or options that apply to the entire list of jobs (Reset Statistics for this example).

- 6. **Advanced filter:** The advanced filter support is the filter support you were accustomed to in the old interface. Using the advanced filter options you can search on a specific text string for a specific column. In addition there is the ability to specify some logic where you can have an exact match, or entries that do not contain the specified text string (see Figure 15).

Figure 15. Advanced filter



In addition to the features that have been noted so far there are a couple of other key features that need to be pointed out.

- **Detailed hover text:** One of the limitations in the past is that the descriptive information for a table row was only found in the first column. As you scroll to the right, the context for that row is lost and you have to try and remember what row you were actually looking at (see Figure 16).

Figure 16. Table detailed hover text example

	Current User	Type	CPU %	Run Priority	Thread Count
No filter applied					
ue	Qsys	Subsystem	0	0	2
ue	Qsys	Subsystem	0	0	2
st	Quser		0	20	1
st	Quser		0	20	1
st	Quser		0	25	1
st	Quser		0	25	1

Job Name: **Qcmn**

Asynchronous Disk I/O Rate:

Average Response Time:

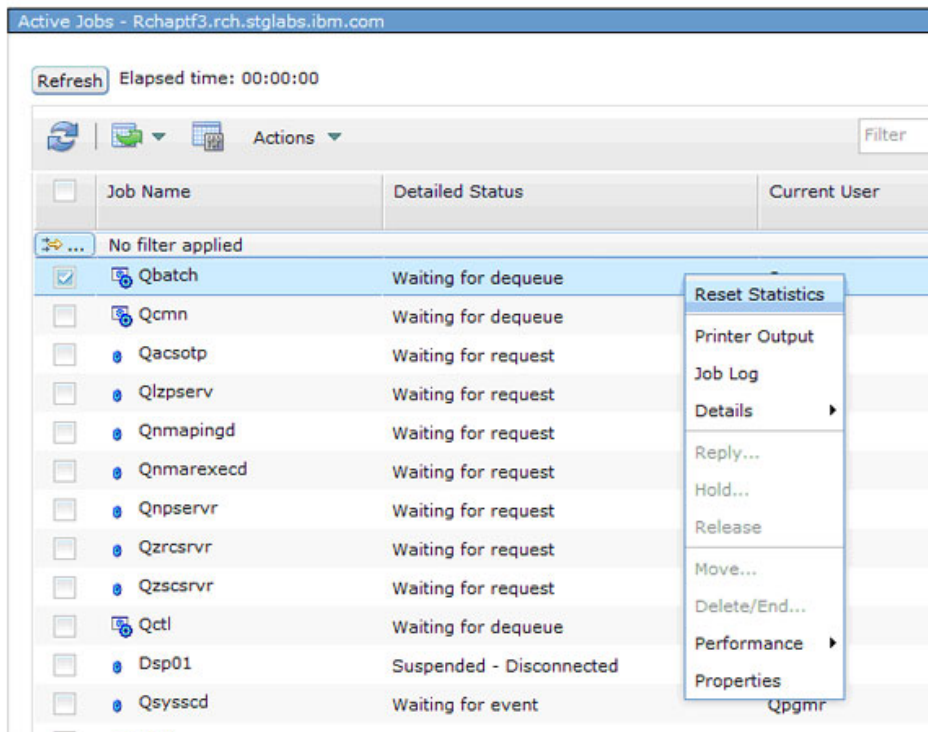
CPU %:

With the new interface, if you hover your mouse over a row in the table, a pop-up window appears that contains the descriptive information about that row. This allows you to scroll in any direction within the table and still have a clear understanding of the entry that you are working with.

- **Context-aware action list:** In the old interface, when you wanted to work with a specific entry for a table you had to find the drop-down icon for that row (typically located in the first column). The new table control gives you the ability to access the action list from anywhere in

the table. From any row in the table (scroll in any direction), right-click to dynamically generate a list. The interface is aware of the context and displays the actions based on the actual object status.

Figure 17. Context-aware action list



As you can see there has been a significant improvement to the IBM Navigator for i interface. I am sure you will find this web-based interface easy to use and even easier to maintain (because there is no client install!). In addition to these general user interface enhancements that were added to the new IBM Navigator for i, there were many additional enhancements delivered under the different web content areas.

Resources

See the new developerWorks wiki for Navigator for details on these new enhancements - [IBM Navigator for i](#). I am sure you will find the new Navigator a significant improvement over the previous versions.

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