

## iSeries Navigator Database Tasks



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I visited a progressive System i company recently and was surprised at their limited use of iSeries Navigator for interacting with DB2 for i5/OS. That visit prompted this column. I don't have anywhere near enough space to give iSeries Navigator the coverage it deserves. What I will try to do is highlight for you some of the capabilities and where you can go to get more information.

To start with, you need to realize that if you are reading this column chances are extremely high that you already own iSeries Navigator including the full database functionality. iSeries Navigator is IBM's GUI interface to DB2 for i5/OS and is an integral component of the operating system. The first trick is to make sure that you actually install the software that you are licensed to use. By default, when you install iSeries Navigator on your workstation the database functionality will not be installed. You need to do a custom install to activate most of the features discussed in this column.

iSeries Navigator uses an explorer-like interface. This allows you to expand and drill down to the many different capabilities found within the tool.

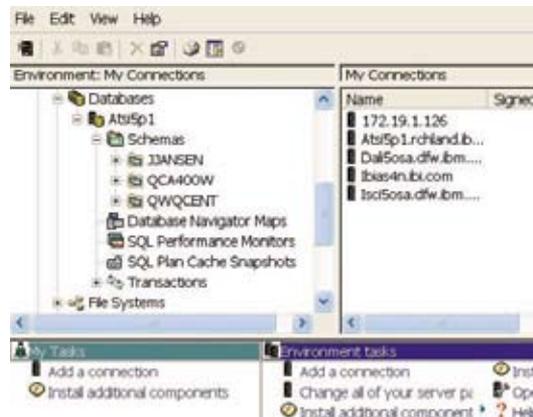
### Administration and Creation

From iSeries Navigator you can create all your various database objects such as libraries or schemas, physical files or tables, indexes, views, triggers and stored procedures. One interesting feature is the capability to reverse-engineer a library or schema. You can point iSeries Navigator to your library and ask it to generate the SQL that will allow you to recreate the library, complete with tables, indexes, triggers and more.

Another tool (discussed in previous columns) is our parallel database loader. If you want to import or export data to and from flat files such as CSV files or ASCII

extracts from other databases you will probably use the CPYFRMIMPF (copy from import file) or CPYTOIMPF (copy to import file) commands. These commands can be accessed from either a green screen or iSeries Navigator.

iSeries Navigator will also show you locked records. It will help with repairing database constraints. With iSeries Navigator you will have quick access to the rows in error. It will also allow you to reorganize tables and monitor the percent complete.



### Performance Monitoring and Tuning

This is really the heart of the database enhancements to iSeries Navigator. iSeries Navigator is great for seeing the currently executing SQL for a given job or even finding SQL statements that have finished executing. When an end-user calls up and says "My query ran too long" you no longer have to ask them to rerun the problem query so that you can start to diagnose what happened. With iSeries Navigator you can view the SQL Plan Cache which will show you all the recently executed queries. It then goes one step further and asks if you would like to see the query execution depicted visually. This is called Visual Explain. To continue to make life easier for you, you can then have the "expensive" areas of the query highlighted so that you know where to direct your attention.

The index advisor has been greatly enhanced in V5R4. If your queries are using the SQL query engine (SQE) you will not only get more complete advice on what index you should create but you can see this advice consolidated for you across the system. Instead of looking at which index you would create to help improve the performance of a single query, the system will now take into consideration the recommendations from all the queries that you have run.

Additional functionality includes an easy interface to the QAQQINI table. This table is an absolute boon to helping you control query performance on your system. iSeries Navigator can help you evaluate when indexes were last used, not only to execute the query but also for statistical purposes. Last but not least, you have the capability to run the database monitor before and after major changes to your system and compare your results. No more hearing "I think my performance is worse now" from your users without being able to confirm or deny this statement.

The two web sites that contain additional information including labs that you can download, videos, presentations and much more detailed articles are: <http://ibm.com/systems/i/db2> and <http://ibm.com/servers/eserver/iseries/navigator>. 

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