

## DB2 UDB for iSeries and MS Excel



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**A**s an IT professional responsible for your company's data, you should be feeling a little concerned. Many of your end-users are consistently taking reports generated by IT and manually entering the numbers into an Excel spreadsheet. This spreadsheet is then used for reporting and decision making within the company. Think of the potential for omissions, errors and transcribing numbers.

For users that want to use Excel to analyze their data there are a lot of very good end-user query tools on the iSeries that will allow the users to run a query against DB2 and return the results in a Excel spreadsheet. A few of the many available solutions include Information Builders' WebFOCUS, SPSS's ShowCase Query and New Generation Software's NGS-IQ.

If, for some reason, your company is not prepared to invest in these tools at this time there is a very cost effective interim measure available to you. If you are licensed to MS Excel then you own the capability to directly query DB2 data on the iSeries from within your spreadsheet.

I have written articles in the past suggesting that you create an "Information Database" for your end-users to access. This could be as simple as a summary table where you have already joined the data for the users and given the columns meaningful names. Always keep in mind that you are the IT professional, not your end-users.

Although nowhere near as complete a solution as the products listed above, MS Excel does have some very good basic capabilities for your users.

With Excel you have two ways to bring DB2 data into your spreadsheet. In both cases you should have previously created an ODBC connection to your iSeries. This would be done using Client Access or iSeries Access.

The first and simplest method with the least functionality is to select Excel's "Import External Data" option and then "Import Data." The first time you do this you will need to select the option to "Connect to a New Data Source." You should then select "ODBC DSN" and point to your iSeries Access ODBC connection. You will be able to choose one table or physical file to view. The entire table will then be downloaded into Excel. This works best when IT has created a table specifically for this purpose. For example, IT might create a table every night that summarizes YTD sales by store. The users can then download this entire table into MS Excel and analyze it to their hearts content without reentering the data and without concern for omissions and transcribing errors.


PRODUCT_KEY	SALES	COGS	MARKETING	PROD
4	18375	6335	2550	Old Fabr
4	18025	6345	2900	Old Fabr
8	17805	5050	1765	Dark Col
8	17755	5000	1715	Dark Col
8	17540	5230	1835	Dark Col
8	17490	5180	1785	Dark Col
1	18895	4570	3840	Kool Col
1	15570	4545	3515	Kool Col

A more powerful method to retrieve data into Excel is using MS Query. This is a tool that is included with MS Office but does need to be specifically installed. If you haven't previously installed MS Query, Excel will be prompt you for the install when it is required. MS Query has a wizard for fairly basic queries. The wizard allows you to join tables automatically if there is a common key, and filter and sort records.

If you want to get a little fancier then you need to use the full MS Query. This gives you additional capabilities including complex joins, the ability to run iSeries

Stored Procedures and creating parameter-driven queries. To create a parameter-driven query, you simply key in your prompt(s) enclosed in square brackets i.e. "[Enter Customer Number]" in place of a value for your filter or selection criteria. The prompt and parameter is then passed to Excel with the query. You can also have your selection criteria use a specific cell as the input parameter value and have the query refreshed every time the user changes that cell.

Within Excel you can manipulate column headings, add in formula's that will expand and shrink with the result set, have the results refreshed at spreadsheet open and/or on timed intervals. A little known trick is to find the program msqry32.exe in your MS Office directories and paste a shortcut to it on your desktop. This will allow you to directly invoke MS Query, if you wish, without going through Excel.

As I stated at the beginning, this is not meant to replace the excellent Query and Reporting Solutions that can also export their results to Excel but it is a quick fix for your users that are constantly reentering data from your reports into their own spreadsheets. Keep in mind the importance of creating new table(s) specifically designed to be easily understood and manipulated by your end-users. 

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