

## Using Excel's Web Query Functionality with OpenInsight

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As seen during the recent Revelation Roadshows, Excel can run a query across the web and request data from OpenInsight through the OICGI. This White Paper will cover the creation and use of these Web Queries.

Since Office 97, Excel has had the capability of requesting data via an HTTP request over the Web. Although Excel has its own tools for creating a Web Query, it is probably easier for OI developers to create the Web Query Files from scratch.

Web Query files are really just text files that end with an IQY extension. They are normally stored in the C:\Program Files\Microsoft Office\Office\Queries subdirectory. They can be created using the text editor of your choice.

IQY files typically have 4 lines, separated by carriage returns. They are:

Line 1 is the type of query (WEB)

Line 2 is the version of Query (1)

Line 3 is the location of the Web document (an INET Procedure)

Line 4 contains the POST parameters being passed to the Web document

This typical Web Query file, called CANNED.IQY, will contain 4 lines, and look like this:

**WEB**

**1**

**http://localhost/cgi-bin/oicgi.exe/inet\_weblist**

**cmd='list purchase\_orders po\_date po\_desc po\_line stk\_no qty unit\_cost id-supp'**

Line 1 is always the word WEB, in capital letters.

Line 2 is the number 1, the version of Web Query supported by Microsoft

Line 3 is the web address and INET procedure you will call, e.g. INET\_WEBLIST

Line 4 is the specific parameters and values to be passed to the INET procedure

In those cases where you want to prompt your users to enter information, the file will look like this example, named ADHOC.IQY:

**WEB**

**1**

**http://127.0.0.1/cgi-bin/oicgi.exe/inet\_weblist**

**cmd=["CMD","Enter Any Rlist Statement"]**

Line 1 is always the word WEB, in capital letters.

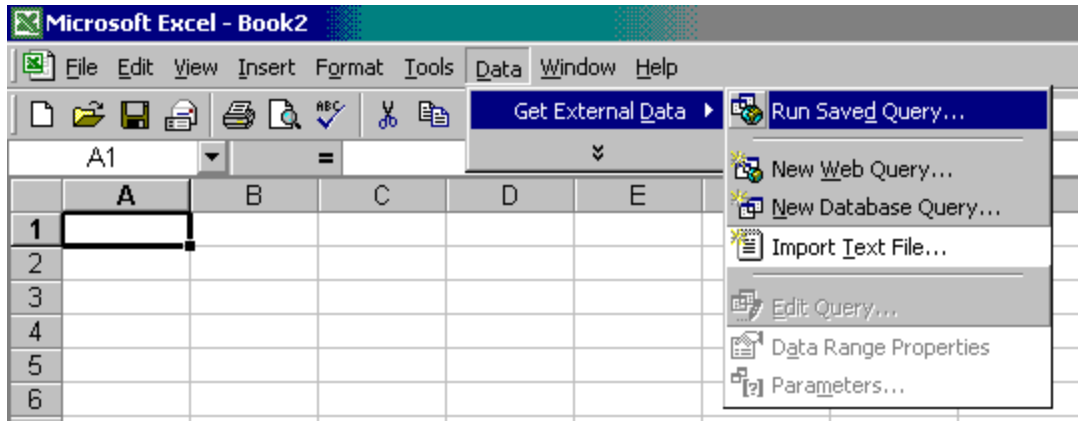
Line 2 is the number 1, the version of Web Query supported by Microsoft

Line 3 is the web address and INET procedure you will call, e.g. INET\_WEBLIST

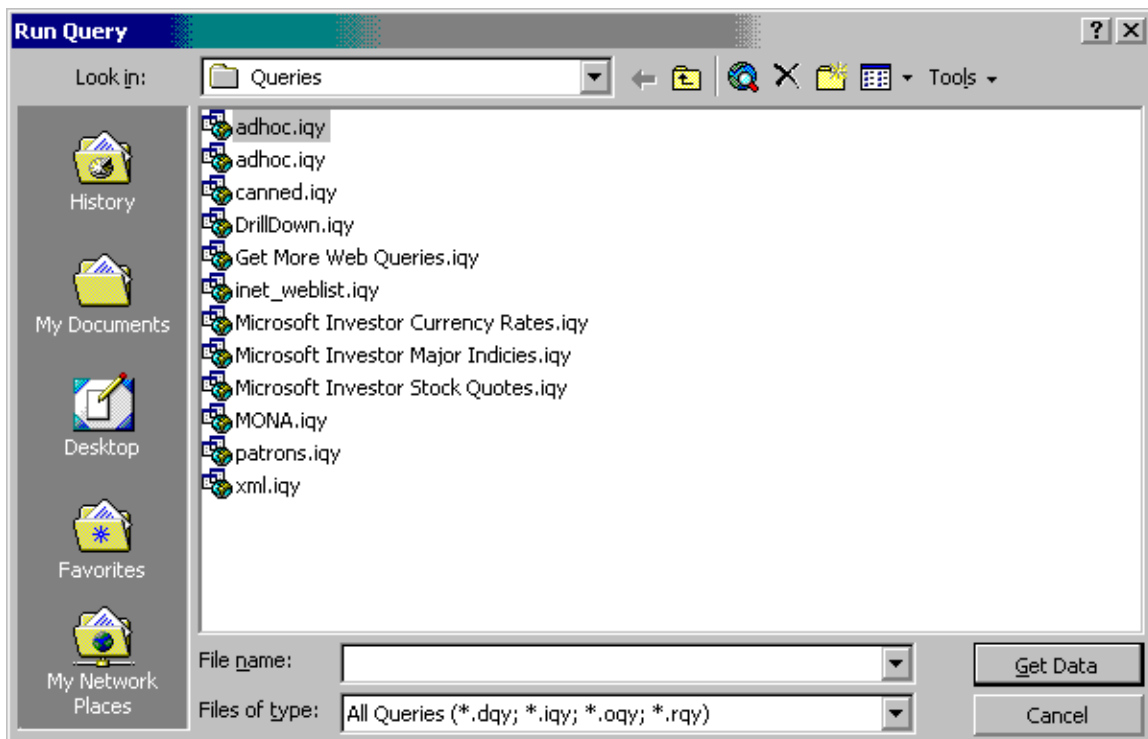
Line 4 contains the parameters to be passed to the INET procedure, and then within square brackets, the parameter, and then text you want the user to see.

## Running a Web Query

From within Excel (Excel 97 or better), choose Data-Get External Data-Run Saved Query, as seen here:

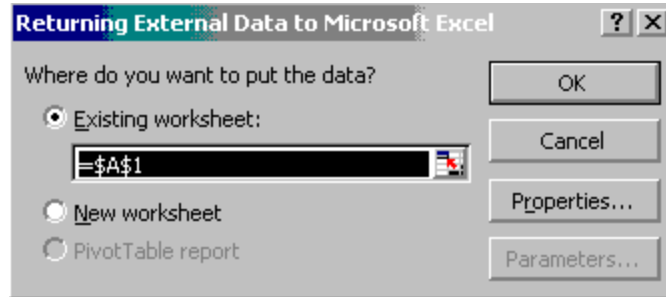


The Following window should appear:

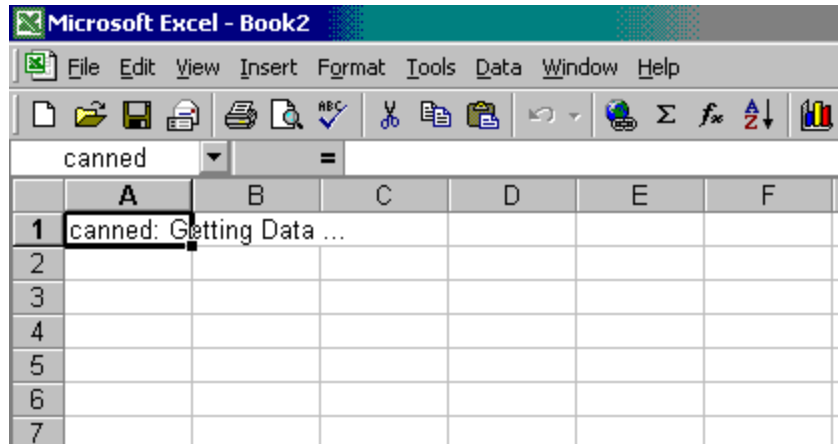


If you created your Web Query file with an IQY extension, and it is in the Queries subdirectory, it should appear in the list of queries.

Clicking on one of the queries will produce the following dialog box, asking where the data from the query should be put:



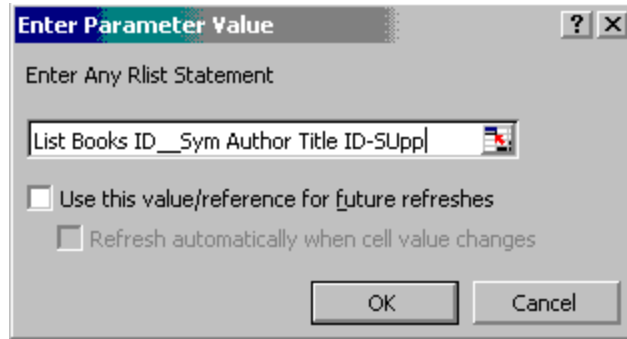
While the Query is running, the user will see (briefly) the following screen where Excel indicates that it is getting the data from the CANNED query:



Finally, the data will appear, looking like this:

Entry Date	Purchase Order Description	PO Line	Stock Number	Quantity Ordered	Unit Cost
3-Jun-97	Office supplies necessary for the fifth floor.	1	11	80	\$2.00
		2	12	4	\$60.00
		3	9	1	\$59.95
		4	3	1	\$20.00
		5	7	1	\$320.00
		6	5	2	\$12.00
		7	13	2	\$82.50
3-Jun-97	Request for office supplies for the drafting department.	1	4	5	\$45.00
		2	1	12	\$1.25
3-Jun-97	Drafting supplies for the Arpeggio project.	1	14	12	\$4.00
		2	6	60	\$8.37

When Running the ADHOC.IQY, the user sees this extra dialog box:



After the list statement has been entered, and the user clicks on the OK button, the following output will appear:

	A	B	C
1	Query exceeds allowed size. Response truncated ...		
2	Query exceeds allowed size. Response truncated ...		
3	The Listing you Requested		
4	<b>ID_SYM</b>	<b>AUTHOR</b>	<b>Title</b>
5	<a href="#">583</a>	Oliver Wendell Holmes	A Mortal Antipathy
6	<a href="#">1315</a>	Richard Harding Davis	The Frame Up
7	<a href="#">2237</a>	Jonathan Swift	Battle of the Books et al
8	<a href="#">2435</a>	Emile Gaboriau	The Count's Millions
9	<a href="#">105</a>	Eugene Sue	The Wandering Jew, Vol. 6789
10	<a href="#">204</a>	Mark Twain	Rambling Idle Excursion and back
11	<a href="#">194</a>	Mark Twain	Curious Republic of Gondourisms
12	<a href="#">246</a>	Charles Dudley Warner	Entire Warner Bros
13	<a href="#">231</a>	H. Rider Haggard	The Virgin of the Suncoast
14	<a href="#">288</a>	H. Rider Haggard	Red Evening
15	<a href="#">392</a>	John Galsworthy	Four Short Plays and a TD
16	<a href="#">402</a>	John Galsworthy	Dream a Little Dream of me
17	<a href="#">428</a>	Carolyn Wells	The Gold Bag of silver
18	<a href="#">95</a>	Chesterfield	Letters to His Daughter 1755
19	<a href="#">527</a>	Alexander Dumas, Pere	Ali Pacha and the 40 thieves
20	<a href="#">1357</a>	Plato	Laws and orders
21	<a href="#">570</a>	Bret Harte	A Drift from Deadwood Camp
22	<a href="#">569</a>	H. Rider Haggard 11	The War of the Big Foot AND HEAD
23	<a href="#">1086</a>	Stanley Weyman	The House of the Wolf
24	<a href="#">1123</a>	Paul Hentzner	Travels in England

In this second example, we listed a field named ID\_SYM. This field is a symbolic that uses common HTML tags and existing INET functions that are delivered with OpenInsight.

The formula for ID\_SYM is as follows:

```
@ANS = '<A HREF = "http://127.0.0.1/cgi-bin/oicgi.exe/INET_FORMREAD?FORM_ID=BOOKS_HTM&BOOK_ID=':@ID:'">:@ID:'</A>'
```

(The above should all be on one line- it's wrapping in this document.)

You can see it is a symbolic because it evaluates into the variable @ANS.

The pieces are as follows:

<A HREF =	The Start of an HTML Anchor Tag
http://127.0.0.1/cgi-bin/oicgi.exe/	The Address where the OICGI.EXE file resides
/INET_FORMREAD	An INET function supplied with OI, that needs 2 parameters
FORM_ID=BOOKS_HTM	The first of the two parameters required. A FORM_ID, and its value
&BOOK_ID=':@ID:'	The second of the two parameters: the name and value of the key field for the form named in FORM_ID
">:@ID:'</A>'	The end of the anchor tag, the key to the record, and the close of the anchor tag. This will cause the value of @id to appear as a link in a browser.

Here's another example showing a symbolic with a report statement embedded in it:

```
@ANS = '<A HREF = "HTTP://127.0.0.1/cgi-bin/oicgi.exe/INET_weblist?cmd=LIST BOOKS ID_SYM TITLE AUTHOR WITH AUTHOR = ':CHAR(39): {AUTHOR}: CHAR(39) : ' ID-SUPP">' :{AUTHOR}:'</A>'
```

(The above should all be on one line- it's wrapping in this document.)

For other help, from within Excel, search on "Retrieving data from a Web Page", as well as Microsoft Knowledgebase article Q157482.

That's all there is to it! Have Fun!