

TechTip: DB2 Web Query and Excel Spreadsheets: Easy as Pie! Part II

Did you know DB2 Web Query has output options to send your reports directly to Excel? Learn about some of the tool's features that will help you easily and quickly build Excel spreadsheets.

Written by Gene Cobb

In part 1 of this series, [TechTip: DB2 Web Query and Excel Spreadsheets: Easy as Pie!, Part I](#), I provided an introduction on the basic DB2 Web Query output options to Excel spreadsheets. In this TechTip, I expand upon those capabilities and show you how to take advantage of Excel's multiple worksheet capability by using the following DB2 Web Query features: table of contents and compound documents.

Table of Contents

In the previous TechTip, we activated features such as Sort Across and Stack Measures to pack quite a bit of information into the spreadsheet. The sample output of that spreadsheet is shown in Figure 1.

	A	B	C	D	E	F	G	H	I
1					Country				
2					Canada	France	Germany	Spain	United States
3	Product Type	Product Category	Product Name						
4	Audio	Amplifiers/PreAmps/Tuners	AM / FM Stereo Tuner	Quantity	339	371	302	218	3,548
5				Returns	31	37	29	20	344
6				Revenue	\$67,461.00	\$73,829.00	\$60,098.00	\$43,382.00	\$706,052.00
7				Cost of Goods Sold	\$33,900.00	\$37,100.00	\$30,200.00	\$21,800.00	\$354,800.00
8				Profit	\$33,561	\$36,729	\$29,898	\$21,582	\$351,252
9	Audio	Amplifiers/PreAmps/Tuners	Modular Components Series Preamp 5.1	Quantity	1,953	904	800	502	11,822
10				Returns	187	89	79	49	1,210
11				Revenue	\$779,247.00	\$360,696.00	\$319,200.00	\$200,298.00	\$4,716,978.00
12				Cost of Goods Sold	\$644,490.00	\$298,320.00	\$264,000.00	\$165,660.00	\$3,901,260.00
13				Profit	\$134,757	\$62,376	\$55,200	\$34,638	\$815,718
14	Audio	Amplifiers/PreAmps/Tuners	PA4000 Stereo & Surround Power Amplifier	Quantity	1,780	528	715	385	11,864
15				Returns	172	52	68	36	1,237
16				Revenue	\$532,220.00	\$157,872.00	\$213,785.00	\$115,115.00	\$3,547,336.00
17				Cost of Goods Sold	\$391,600.00	\$116,160.00	\$157,300.00	\$84,700.00	\$2,610,080.00
18				Profit	\$140,620	\$41,712	\$56,485	\$30,415	\$937,256
19	Audio	Amplifiers/PreAmps/Tuners	Power Amplifier	Quantity	3,220	1,058	1,251	1,159	17,877
20				Returns	315	102	122	110	2,001
21				Revenue	\$801,780.00	\$263,442.00	\$311,499.00	\$288,591.00	\$4,451,373.00
22				Cost of Goods Sold	\$579,600.00	\$190,440.00	\$225,180.00	\$208,620.00	\$3,217,860.00
23				Profit	\$222,180	\$73,002	\$86,319	\$79,971	\$1,233,513
24	Audio	Amplifiers/PreAmps/Tuners	PreAmp/Tuner Two	Quantity	5,763	2,100	3,074	2,836	35,053
25				Returns	561	202	299	276	3,728
26				Revenue	\$2,875,737.00	\$1,047,900.00	\$1,533,926.00	\$1,415,164.00	\$17,491,447.00
27				Cost of Goods Sold	\$1,440,750.00	\$525,000.00	\$768,500.00	\$709,000.00	\$8,763,250.00
28				Profit	\$1,434,987	\$522,900	\$765,426	\$706,164	\$8,728,197
29	Audio	Audio Systems	Home Theater Surround System	Quantity	782	118	200	269	7,524
30				Returns	75	11	20	25	738
31				Revenue	\$781,218.00	\$117,882.00	\$199,800.00	\$268,731.00	\$7,516,476.00
32				Cost of Goods Sold	\$586,500.00	\$88,500.00	\$150,000.00	\$201,750.00	\$5,643,000.00
33				Profit	\$194,718	\$29,382	\$49,800	\$66,981	\$1,873,476
34	Audio	Audio Systems	Home Theater 5.1 System	Quantity	4,879	1,963	2,357	1,513	27,144
35				Returns	471	189	228	148	2,922
36				Revenue	\$9,753,121.00	\$3,924,037.00	\$4,711,643.00	\$3,024,487.00	\$54,260,856.00
37				Cost of Goods Sold	\$6,342,700.00	\$2,551,900.00	\$3,064,100.00	\$1,966,900.00	\$35,287,200.00
38				Profit	\$3,410,421	\$1,372,137	\$1,647,543	\$1,057,587	\$18,973,656

Figure 1: This spreadsheet shows an example of Sort Across and Stack Measures.

While this spreadsheet may meet all of the original report requirements, it's a lengthy report and there simply may be too much information for some users to digest. They might prefer to have the information broken into multiple worksheets—one for each product type. Such a feature is easily activated by turning on the Table of Contents feature under the Format tab.

When Table of Contents is activated, a separate worksheet for each unique value of the report's primary (first) Sort By column is created. Each worksheet contains the data for that particular Sort By column, and its tab is labeled with the appropriate Sort By field value. To activate Table of Contents, click the Format tab in InfoAssist, expand the Navigation group, and select Table of Contents icon. When activated, the icon is illuminated. An example is shown in Figure 2.

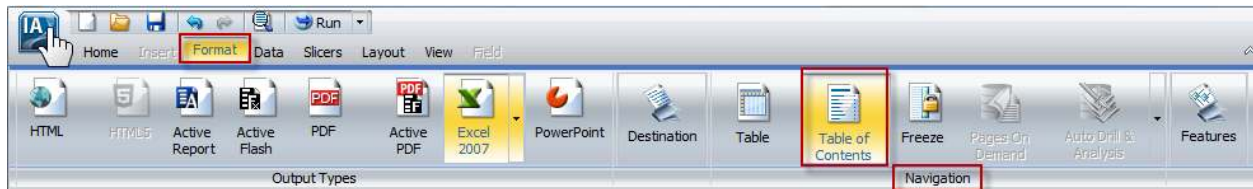


Figure 2 : Find the Table of Contents icon.

An example report is shown in Figure 3.

Product Type	Product Category	Product Name	Quantity	Returns	Revenue	Cost of Goods Sold	Profit
Audio	Amplifiers/PreAmps/Tuners	AM / FM Stereo Tuner	339	371	\$67,461.00	\$33,900.00	\$33,561
Audio	Amplifiers/PreAmps/Tuners	Modular Components Series Preamp 5.1	1,953	904	\$779,247.00	\$391,600.00	\$140,620
Audio	Amplifiers/PreAmps/Tuners	PA4000 Stereo & Surround Power Amplifier	1,780	528	\$532,220.00	\$391,600.00	\$222,180
Audio	Amplifiers/PreAmps/Tuners	Power Amplifier	3,220	1,058	\$801,780.00	\$579,600.00	\$222,180
Audio	Amplifiers/PreAmps/Tuners	PreAmp/Tuner Two	5,763	2,100	\$2,875,737.00	\$1,440,750.00	\$1,435,000.00

Figure 3: Here's an example of the report with Table of Contents.

Notice there are now five separate worksheets, one for each unique Product Type. Simply click on the tab to display the worksheet for that particular product type. This effectively "splits up" the large report into separate smaller reports, but all the data is still together in a single spreadsheet!

Note: Table of Contents exhibits different behavior based on the report's specified output format. For example, if HTML or Active Reports is selected, an interactive dialog window is presented so that end users can select a Sort By field value and immediately "jump" to the first occurrence of that value in the report. This is especially useful for large HTML reports with many rows of data.

Compound Documents

The Table of Contents feature is very useful, but as mentioned, it's splitting up the results of a single report execution into multiple worksheets. What if you actually want to combine the results of different DB2 Web Query reports into one spreadsheet and have the results of each individual report appear in a separate worksheet? Is it possible to do this with DB2 Web Query? The answer is "Absolutely!"

In DB2 Web Query, you can combine multiple reports and/or charts into a single report. The result is referred to as a compound document (sometimes called a compound report), and the report developer can choose from a variety of output formats, such as PDF, HTML, Active Reports, and Excel Spreadsheets. If Excel is chosen, the result of each individual report and chart execution appears on a separate worksheet.

To create a compound document, right-click on the folder in which you wish to place the document and select Document, as shown in Figure 4.

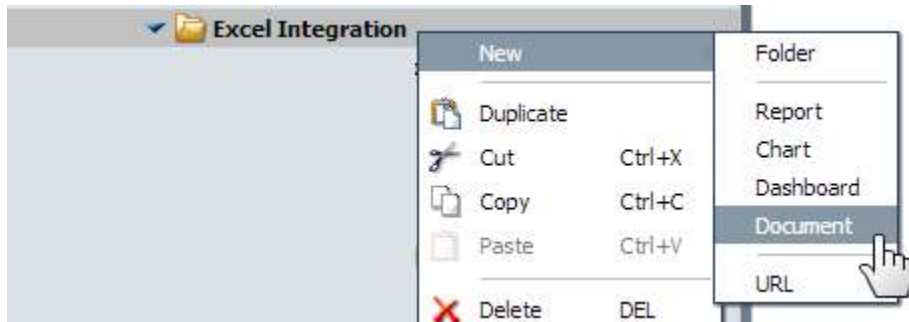


Figure 4: Create a compound document.

InfoAssist is launched and presents a list of data sources (DB2 Web Query synonyms) on which to base the various reports and charts in the compound document. Select the desired synonym from this list.

The default output format for compound documents is PDF. So the first thing we want to do is change it to Excel. From the Home tab, click on the PDF icon and select Excel from the drop-down list, as shown in Figure 5.

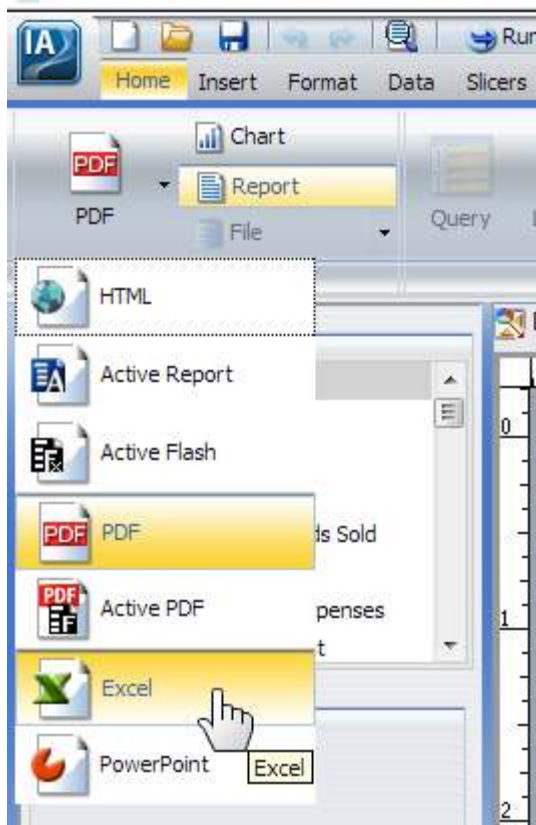


Figure 5: Change the document to Excel output format.

Now you're ready to insert multiple reports and/or charts. To do this, select the Insert tab, as shown in Figure 6.

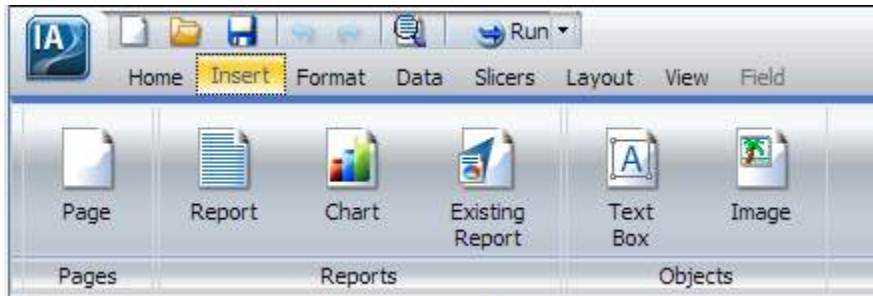


Figure 6: Select the Insert tab.

From this tab, you can create new reports or charts and insert them into the compound document. If you have existing reports or charts that you would like to insert, you can do that as well. In my finished example shown in Figure 7, I have inserted three different reports into my compound document.

IA

HomeInsertFormatDataRun

Detail (Define)

Summary (Compute)

Join

Advanced Filter

Missing Data

Add

Switch

CalculationJoinFilterDisplayData Source

Data

Quantity

Revenue

Cost of Goods Sold

Returns

Warranty Expenses

Shipping Cost

Quantity In Stock

Price

Filter

Query

Document

	0	1	2	3	4	5	6	7																																											
	<table><thead><tr><th>Product Category</th><th>Product Name</th><th>Quantity</th><th>Revenue</th></tr></thead><tbody><tr><td rowspan="4">Amplifiers/PreAmps/Tuners</td><td>AM / FM Stereo Tuner</td><td>13</td><td>\$2,587.00</td></tr><tr><td>PA4000 Stereo & Surround Power Amplifier</td><td>371</td><td>\$110,929.00</td></tr><tr><td>Power Amplifier</td><td>305</td><td>\$75,945.00</td></tr><tr><td>PreAmp/Tuner Two</td><td>336</td><td>\$167,664.00</td></tr><tr><td rowspan="4">Audio Systems</td><td>Home Theater 5.1 System</td><td>187</td><td>\$373,813.00</td></tr><tr><td>Home Theater 7.1 THX System</td><td>537</td><td>\$1,610,463.00</td></tr><tr><td>Micro HiFi Stereo System</td><td>1</td><td>\$399.00</td></tr><tr><td>Micro 5.1 System</td><td>92</td><td>\$45,908.00</td></tr><tr><td>CD Players and Recorders</td><td>CD Changer / CD Player</td><td>53</td><td>\$10,547.00</td></tr></tbody></table>								Product Category	Product Name	Quantity	Revenue	Amplifiers/PreAmps/Tuners	AM / FM Stereo Tuner	13	\$2,587.00	PA4000 Stereo & Surround Power Amplifier	371	\$110,929.00	Power Amplifier	305	\$75,945.00	PreAmp/Tuner Two	336	\$167,664.00	Audio Systems	Home Theater 5.1 System	187	\$373,813.00	Home Theater 7.1 THX System	537	\$1,610,463.00	Micro HiFi Stereo System	1	\$399.00	Micro 5.1 System	92	\$45,908.00	CD Players and Recorders	CD Changer / CD Player	53	\$10,547.00									
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Figure 7: There are three reports in this example compound document.

Now when you save and run this report, Excel is launched and the compound document is presented in the spreadsheet. Notice in Figure 8, Figure 9, and Figure 10 that each individual report appears in a separate worksheet.

	A	B	C	D	E	F
1	Product Category	Product Name	Quantity	Revenue		
2	Amplifiers/PreAmps/Tuners	AM / FM Stereo Tuner	4,778	\$950,822.00		
3		Modular Components Series Preamp 5.1	15,981	\$6,376,419.00		
4		PA4000 Stereo & Surround Power Amplifier	15,272	\$4,566,328.00		
5		Power Amplifier	24,565	\$6,116,685.00		
6		PreAmp/Tuner Two	48,826	\$24,364,174.00		
7	Audio Systems	Home Theater Surround System	8,893	\$8,884,107.00		
8		Home Theater 5.1 System	37,856	\$75,674,144.00		
9		Home Theater 7.1 THX System	8,103	\$24,300,897.00		
10		Micro HiFi Stereo System	20,663	\$8,244,537.00		
11		Micro 5.1 System	10,505	\$5,241,995.00		
12	CD Players and Recorders	CD Changer / CD Player	23,563	\$4,689,037.00		
13		CD Recorder with 50GB Hard Disc Drive	7,245	\$5,788,755.00		
14		Digital CD Turntable	42,442	\$29,666,958.00		
15		Multichannel Super Audio CD Player	4,782	\$9,559,218.00		
16		400 Disc Super Audio CD Changer	4,609	\$4,143,491.00		
17	Digital Cameras	EasyShot Digital Camera	101,588	\$23,263,652.00		
18		EasyShot Digital Camera 6.1 Megapixel	131,937	\$90,904,593.00		
19		EasyShot Digital Camera 8 Megapixel	42,952	\$38,613,848.00		
20		EasyShot Ultra Zoom Digital Camera	61,003	\$18,849,927.00		
21		EasyShot Wide Zoom Digital Camera	46,363	\$12,471,647.00		
22	Digital8 Camcorders	Digital8 Easycam Camcorder 14x Power Zoom	15,560	\$3,563,240.00		
23		Digital8 Easycam Camcorder 16x Power Zoom	8,236	\$1,968,404.00		
<div><div><div></div><div></div></div><div>Product Revenue Report</div><div>Store Days to Ship Report</div><div>Plant Returns Percentage Report</div></div>						

Figure 8: This example compound document shows worksheet 1.

	A	B	C	D	E	F	G	H
1	Store Name	Order Date	Actual Ship Date	DaysToShip				
2	ABC Electronics	2012/01/16	2012/02/01	16				
3			2012/02/03	18				
4			2012/03/10	54				
5			2012/03/12	56				
6			2012/03/16	60				
7		2012/02/13	2012/03/10	26				
8			2012/03/19	35				
9			2012/03/21	37				
10			2012/03/23	39				
11				39				
12			2012/03/24	40				
13			2012/03/26	42				
14			2012/04/02	49				
15			2012/04/05	52				
16			2012/04/07	54				
17			2012/04/14	61				
18			2012/05/28	105				
19		2012/02/14	2012/03/21	36				
20			2012/03/22	37				
21				37				
22			2012/03/25	40				
23			2012/03/28	43				
24			2012/03/31	46				
25								
<div> Product Revenue Report Store Days to Ship Report Plant Returns Percentage Report </div>								

Figure 9: This example compound document shows worksheet 2.

	A	B	C	D	E	F	G	H
1	Plant Country	Plant Region	Plant State	Plant Name	Quantity	Returns	ReturnsPercentage	
2	United States	New England	Massachusetts	Boston	1,275,843	123,134	9.65%	
3		Pacific	California	Los Angeles	165,755	28,521	17.21%	
4			Washington	Seattle	97,242	9,390	9.66%	
5		South Atlantic	Florida	Orlando	213,405	20,445	9.58%	
6		West North Central	Missouri	Saint Louis	333,143	31,765	9.53%	
7		West South Central	Texas	Dallas	201,193	19,383	9.63%	
8								
9								
<div> Product Revenue Report Store Days to Ship Report Plant Returns Percentage Report </div>								

Figure 10: This example compound document shows worksheet 3.

Summary

By utilizing Excel's ability to have multiple worksheets in a single spreadsheet, you can split up and logically segment the results of a single report execution or you can combine multiple DB2 Web Query reports into one spreadsheet. Bringing these two technologies together means you can deliver the kinds of reports your users want and let them "take it from there."

In my next article in this series, I will introduce you to two additional Excel output options: Excel Formula and Excel Pivot. These formats have unique characteristics that you may find quite useful when trying to satisfy the reporting requirements of your end users!