



# IBM DB2 WEB QUERY for i INFOASSIST TUTORIALS

The screenshot displays the IBM DB2 Web Query for i interface. The top menu includes Home, Insert, Format, Data, Layout, View, and Field. The main workspace shows a report titled 'JJDOC3[0]' with a 'COUNTRY' filter set to 'Canada'. Two data visualization charts are present: a pie chart for 'Revenue' and a 3D bar chart for 'Returns'. The bar chart shows data for Audio Camcorders, Cameras, Office, and Video. Below the charts is a table titled 'Gross Profit by Product Category' with 15 records. The table columns are Product Type, Product Category, Revenue, Cost of Goods Sold, and Gross\_Profit.

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tune	5.056.445,00	3.090.340,00	1966105
	Audio Systems	15.132.844,00	10.101.310,00	5031534
	CD Players and Recorders	5.600.154,00	3.969.480,00	1630674
	MP3	4.781.888,00	2.822.410,00	1959478
	Receivers	3.861.925,00	2.480.650,00	1381275
	Speakers	9.464.073,00	2.780.600,00	6683473
Camcorders	Digital Camcorders	1.455.289,00	687.610,00	767679
	DVD Camcorders	45.097.266,00	35.584.650,00	9512616

February 2011

V3.1

Information  
Builders

Written by:

Jackie Jansen

Information Builders

[jackie\\_jansen@ibi.com](mailto:jackie_jansen@ibi.com)

## Table of Contents

<b>InfoAssist Tutorials .....</b>	<b>1</b>
<b>1 Database Installation and Setup .....</b>	<b>1</b>
<b>1.1 Database Install.....</b>	<b>1</b>
1.1.1 QWQCENT Database Download .....	1
<b>Developer Workbench.....</b>	<b>2</b>
1.1.2 How to Create a Synonym in Developer Workbench .....	2
1.1.3 How to Edit a Synonym.....	4
1.1.4 How to Create Dimensions .....	6
<b>2 Creating Reports.....</b>	<b>9</b>
<b>2.1 InfoAssist Environment.....</b>	<b>9</b>
2.1.1 How to Create the Tutorial Folder .....	9
2.1.2 How to Start InfoAssist .....	10
<b>2.2 Creating a Summary Report (IA1_Revenue).....</b>	<b>11</b>
2.2.1 How to Create an Initial Report .....	12
2.2.2 How to Format a Column.....	13
2.2.3 How to Create a Detail Listing .....	15
2.2.4 How to Use Aggregation Functions .....	16
2.2.5 How to Use Auto Drill & Analysis.....	18
<b>2.3 Creating a Cross-Tab Report (IA2_XTab) .....</b>	<b>20</b>
2.3.1 How to Filter a Report .....	20
2.3.2 How to Create a Cross-Tab Report .....	21
<b>2.4 Creating a More Complex Report (IA3_GrossPft) .....</b>	<b>22</b>
2.4.1 How to Create a Report with a Compute field .....	22
2.4.2 Using Traffic Lighting (Conditional Styling) .....	26
2.4.3 Using Variables in Report Headings and Footings .....	27
<b>2.5 InfoMini .....</b>	<b>29</b>
2.5.1 How to create an InfoMini Report.....	29
<b>2.6 Additional InfoAssist Features.....</b>	<b>33</b>
2.6.1 How to Insert a Line Break.....	33
2.6.2 How to Sort a Sum Field .....	34
2.6.3 How to Add Ranking Columns .....	34
2.6.4 How to Generate Subtotals .....	35
2.6.5 How to Generate Pages on Demand .....	36
2.6.6 How to Stack Measures .....	37
2.6.7 How to Output Reports in PDF .....	38
2.6.8 How to Output Reports in Microsoft Excel .....	38
2.6.9 How to Create a Table of Contents.....	40
<b>2.7 Creating a Parameterized Report (IA4_Detail_w_Parm) .....</b>	<b>42</b>
2.7.1 How to Work with Data Visualization Bars .....	44
2.7.2 How to Parameterize Reports .....	45
<b>2.8 Creating a Drill-Down Report (IA5_Parent_Summary).....</b>	<b>49</b>
2.8.1 How to Link Reports .....	49
<b>2.9 Converting a Report to a Graph.....</b>	<b>51</b>
2.9.1 How to Convert a Report to a Chart.....	51
<b>3 Creating Graphs.....</b>	<b>54</b>
<b>3.1 Creating a Line Graph with Input Parameters (IA_Line_Graph).....</b>	<b>54</b>

3.1.1	How to Create a New Graph.....	54
3.1.2	How to Extract Date Components .....	55
3.1.3	How to Build a Line Chart .....	56
3.1.4	How to Build Dynamic Date Ranges .....	58
<b>4</b>	<b><i>Working with Compound Documents</i>.....</b>	<b>62</b>
<b>4.1</b>	<b>Creating a Compound Document (IA_DOCUMENT) .....</b>	<b>62</b>
4.1.1	How to Create a Compound Document .....	62
4.1.2	How to Insert a Bar Chart into a Compound Document.....	65
4.1.3	How to Select an Output Format.....	67
4.1.4	How to Add a Coordinated Field to Your Report.....	68
4.1.5	How to Output to a Separate Window .....	70
<b>4.2</b>	<b>Active Technologies .....</b>	<b>72</b>
4.2.1	Working with Active Flash .....	72
4.2.2	Working with Active Reports in an Active Flash Document .....	75
4.2.3	Working with Active PDF .....	77
	<b><i>Appendix A: InfoAssist Views</i> .....</b>	<b>79</b>

# InfoAssist Tutorials

With InfoAssist, you can quickly and easily:

- Generate highly complex reports, charts, and documents from any enterprise information source without IT interaction.
- Complete tasks, such as building a report, with minimal clicks.
- Convert reports to charts, or charts to reports, in a single click.
- Output report data in a variety of formats, including HTML, Active Reports, active Flash, PDF, active PDF, Excel, and PowerPoint.

These lab exercises utilize metadata modifications made with Developer Workbench software. Although the labs can be completed without Developer Workbench, some of the screens will look different and you won't be able to use the Auto Drill option.

For those of you that have gone through the redbook tutorials you may have completed the initial steps. In the first part of this exercise, you are going to configure Developer Workbench and create a synonym and add dimensions for the Orders table that is found in the QWQCENT library.

**Note:** Many of the images in this document were taken on a European system. As per European standards you may notice that commas and decimals are reversed from North American standards.

Some additional features such as InfoMini became available via a PTF in February 2011. Some of the screen shots were taken prior to February and may not look identical to your system.

## 1 Database Installation and Setup

### 1.1 Database Install

#### 1.1.1 QWQCENT Database Download

1. If you haven't already downloaded the Century database (QWQCENT) you can download this database from the Additional Materials tab on the Redbook URL:

<http://publib-b.boulder.ibm.com/abstracts/sg247214.html?Open>.

2. The examples in these tutorials use a modified Order table where the ORDERDATE field had two years added to the date. If your tables cover 2006 and 2007 you have two options. You can simply replace instructions for 2008 and 2009 with 2006 and 2007. If you want your data to match the instructions and screen images in these exercises then you can run the SQL statement below. This can be run from Run SQL Scripts in iSeries Navigator or from the green screen STRSQL command if you have that capability.

**UPDATE QWQCENT.ORDERS SET ORDERDATE = ORDERDATE + 2 YEARS**

**Note:** These tutorials utilize the optional features Active Reports, OLAP and Developer Workbench. The first time Web Query is started a 70-day trial for OLAP and Active Reports will begin unless license keys have been ordered and added for them. A 70-day trial version of Developer Workbench can be downloaded at:

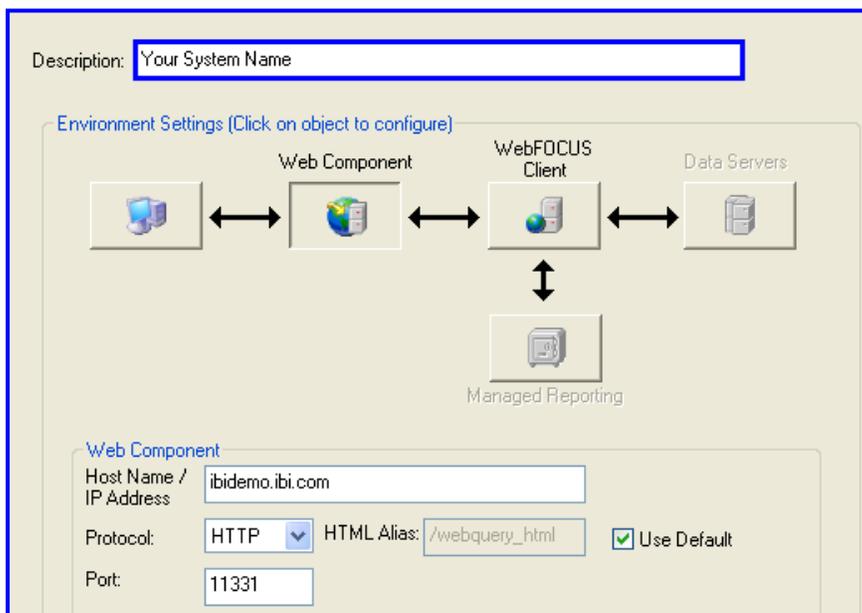
<https://www.ibm.com/services/forms/preLogin.do?source=swg-idwq>.

# Developer Workbench

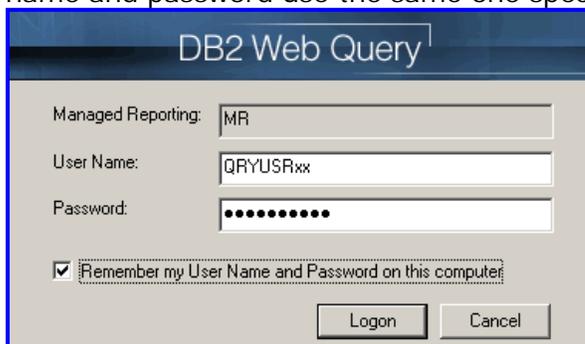
The initial steps of this tutorial take you through setting up Developer Workbench. You can find these instructions in much more detail in the full set of tutorials in the *Getting Started with DB2 Web Query* redbook. If you have previously created synonyms for CEN\_Orders then go to How to Edit a Synonym on page 4.

## 1.1.2 How to Create a Synonym in Developer Workbench

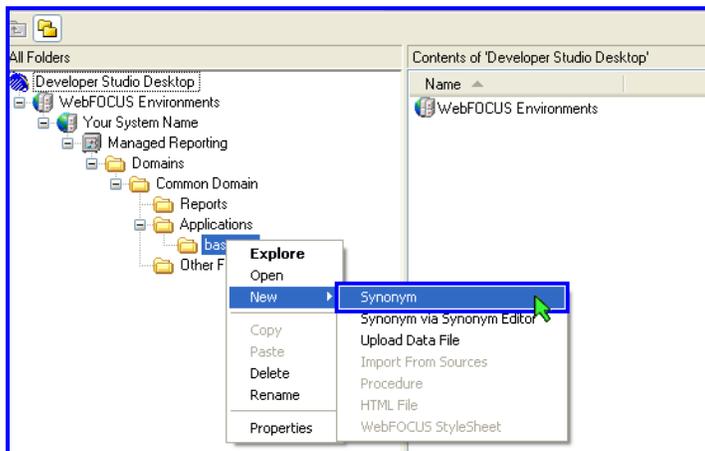
1. Right-click on **WebFOCUS Environments** and select **Add**. The WebFOCUS Environment Properties window opens as shown in the image below.
2. Enter a descriptive name for your IBM i.
3. Enter your system IP address or name under Host Name/IP Address.
4. Click **OK**.



5. Expand **WebFOCUS Environments** and expand your system name. You will be prompted to log in.
6. Enter a user id and password with developer (MDUNTITLED) or MRADMIN as a group profile. The images in these exercises are taken from a developer's signon. You may see some differences if you are signed on with MRADMIN authority.
7. If you are working on your own computer you can ask the system remember your user name and simplify future signons. Any time that you are asked for your user name and password use the same one specified here.



8. The first thing you need to do is to create the definition of your table for Web Query to use. This is similar to what you see when you do a DSPFFD (Display File Field description) on the IBM i. This definition is called a Synonym and is stored in a Master file (.MAS) in the Integrated File System (IFS).
  9. Expand **Managed Reporting** from the Developer Workbench tree view.
  10. Expand **Domains** and expand the **Common Domain**.
  11. Expand **Applications** and right-click **baseapp**. This is where you will store your Master File Description. You may be asked for your userid when you expand **Applications**.
- Note:** If you cannot expand Applications then right click on **Common Domain**, select **Properties** and check **Application Path**. Repeat step 11.
12. On the submenu, click **New** or press the N key.
  13. Then click **Synonym** or press the S key.

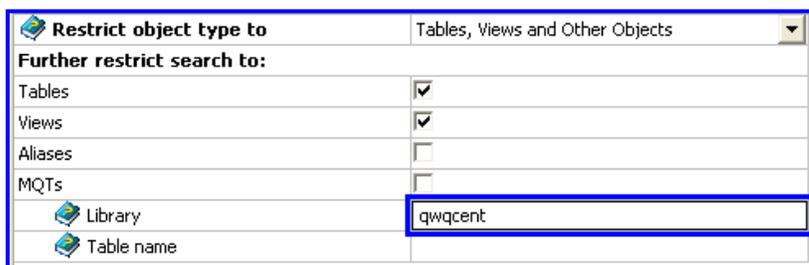


14. Select **\*LOCAL** from the tree view. This tells Web Query that the table you want to describe is stored in your local DB2 database.
15. Click **OK**.



16. Type a library name of **qwqcent** and click **Next**.

**Tip:** Be careful in this window. If you click Next without entering a library name, DB2 Web Query looks for every table on your entire IBM i.



You can individually select the tables that you want to create a synonym for or you can click the check box to the left of **Default synonym name**. This selects all the tables. In this tutorial, you only need the ORDERS table, as it is automatically joined to the required master files. You may want to select all the files so that you have access to them for testing and so that you can follow the tutorials in the complete redbook.

You do not need a synonym for a source physical file. If it is checked clear the check box next to QRPGLSRC to remove it from the list.

17. Check the box **With foreign keys**.

It is important to select **With foreign keys**. This uses the foreign keys defined in DB2 to automatically link ORDERS to the appropriate masters. For example, if PRODUCTNBR is defined as a key to the PRODUCT master file then this master file will automatically be joined to the ORDERS table. Joining the various tables can be done manually and the manual steps are explained in detail in the redbook.

18. In the Prefix field, type **Cen\_**.

19. Click the **Create Synonym** button.

The screenshot shows the 'Create Synonym' dialog box. The 'Selected Parameters' section includes the following options:

- Cardinality:
- With foreign keys:
- Dynamic columns:
- One-part name:
- Select application: baseapp
- Prefix: Cen\_
- Suffix:
- Customize data type mappings:
- Overwrite existing synonyms:

The table below lists the synonym candidates:

Default synonym name	Library/Schema	Table name	Type
<input checked="" type="checkbox"/>	QWQCEN	CURRRATE	TABLE
<input checked="" type="checkbox"/>	QWQCEN	DATE_CONV	TABLE
<input checked="" type="checkbox"/>	QWQCEN	HR	TABLE
<input checked="" type="checkbox"/>	QWQCEN	INVENTORY	TABLE
<input checked="" type="checkbox"/>	QWQCEN	LEGACY_ORDER_HEADER	TABLE
<input checked="" type="checkbox"/>	QWQCEN	ORDER_HEADER_VIEW	VIEW
<input checked="" type="checkbox"/>	QWQCEN	ORDERS	TABLE
<input checked="" type="checkbox"/>	QWQCEN	PLANT	TABLE
<input type="checkbox"/>	QWQCEN	QRPGLSRC	TABLE
<input checked="" type="checkbox"/>	QWQCEN	STORES	TABLE

At the bottom, there are buttons for '<< Back', 'Create synonym', and 'Cancel'. The 'Create synonym' button is highlighted with a mouse cursor.

The Create Synonym for DB2 Status screen displays. You should see successful completion messages. If you receive a message that says that the synonyms already exist, you may want to go back one step and select the check box next to **Overwrite existing synonyms**.

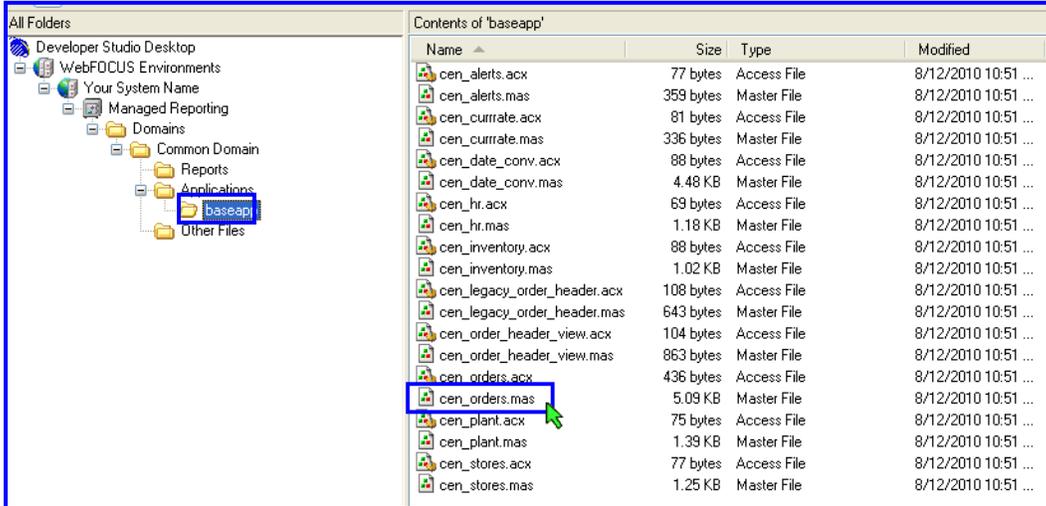
20. Close the status screen.

### 1.1.3 How to Edit a Synonym

1. Select **baseapp** from the Developer Workbench tree view.

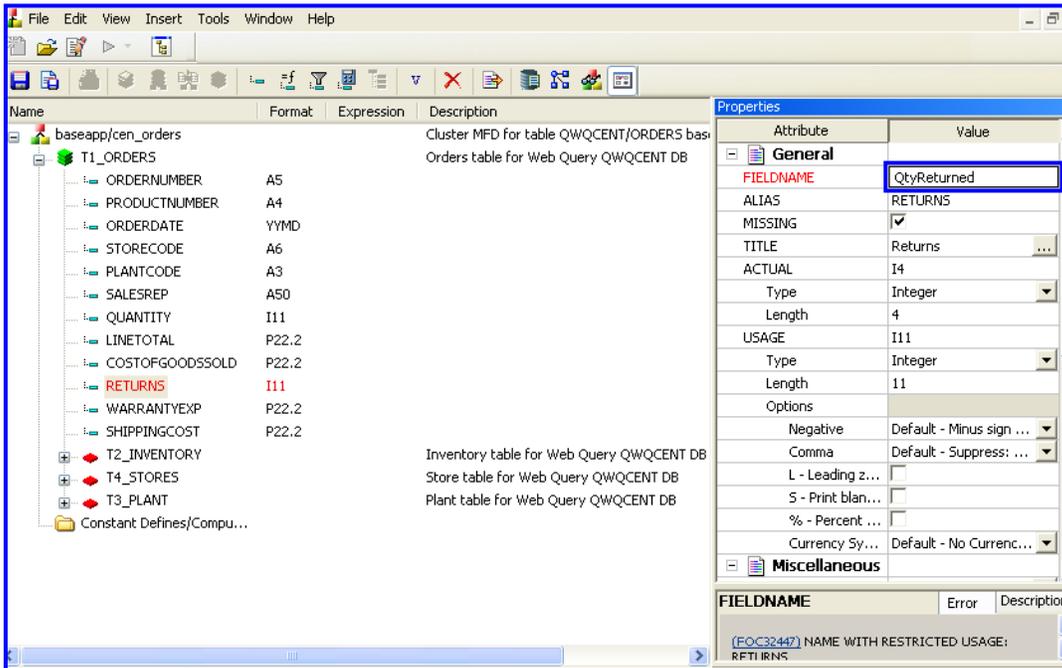
In the right pane, you see all your metadata or your Master (.mas) and Access (.acx) files. The Master file contains the field names and formats for your table. The Access file contains information about the actual name and location of the physical table in DB2. Normally you will only edit the master file.

2. In the list, double-click **cen\_orders.mas** to select that synonym.



Notice that RETURNS is highlighted in red. This is a warning that the name can be considered a reserved word. You can proceed but it is good to pay attention to the warning and eliminate the red from your description.

3. Click on **RETURNS** in the tree view.
4. In the Properties panel on the right under FIELDNAME, rename the field to **QtyReturned**. The ALIAS is the column name in the DB2 table and should not be changed.

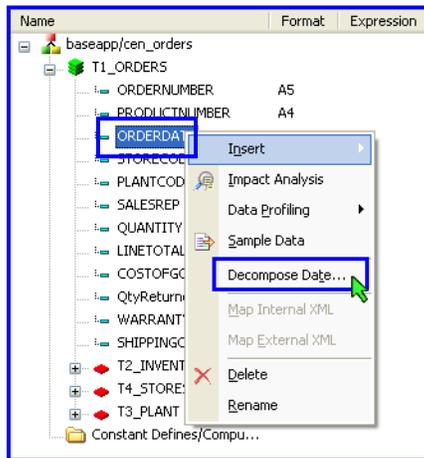


Reports often require the components of a date field such as month or year. One

feature in DB2 Web Query is the capability to decompose your date down to it's components.

5. Right-click **ORDERDATE** in the tree view.
6. Select Decompose Date.
7. Accept the definition of the underlying components.

Since ORDERDATE is an SQL date field, Web Query uses the new DPART function to extract the components. Always use this function with SQL dates, since it passes all of the work of the extraction, query aggregation and grouping to DB2 on the IBM i.

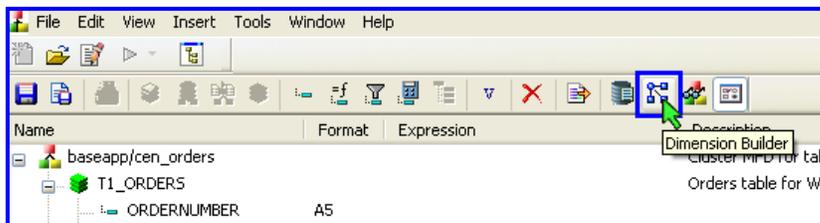


**Tip:** When converting a legacy date field to a smart date field you should ensure that your date is in one of the nine formats that are optimized by DB2 with the DATECVT function. See the help text for the DATECVT function for more details.

### 1.1.4 How to Create Dimensions

Prior to InfoAssist, dimensions were used only by the OLAP feature. With InfoAssist, dimensions are a way to logically group your fields in your field list and create slicer groups in INFOMINI. They also define what happens when you select Auto drill-down (OLAP feature required) in a report.

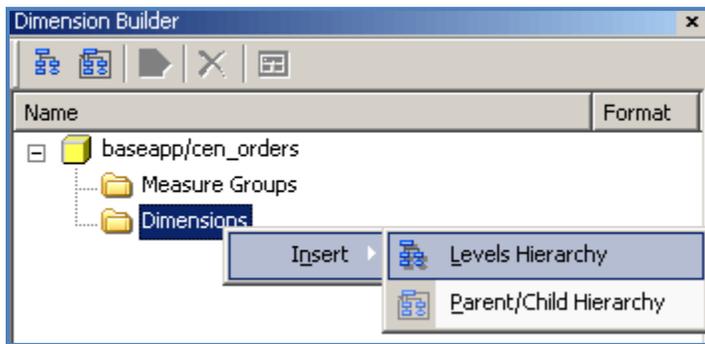
1. Click the **Dimension Builder** button .



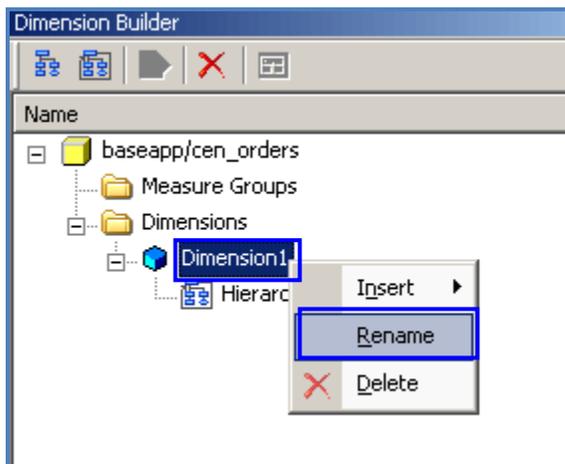
The next steps describe how to create the first dimension. These steps will be the same for all the dimensions.

2. Close the **Properties** panel if it is still open.
3. Right-click **Dimensions**.

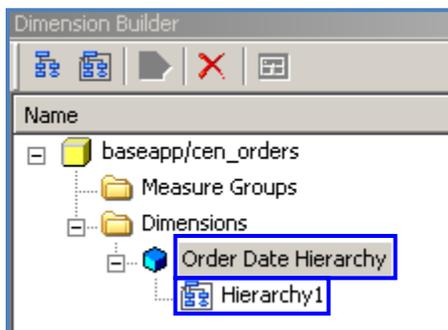
- Click **Insert**, then select **Levels Hierarchy**.



- Right-click **Dimension1** and select **Rename**.



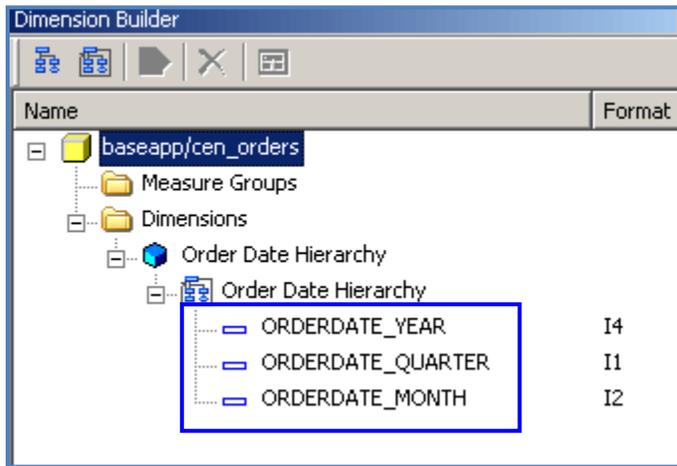
- Type **Order Date Hierarchy**.



- Right-click **Hierarchy1** and select **Rename** and enter **Order Date Hierarchy**.

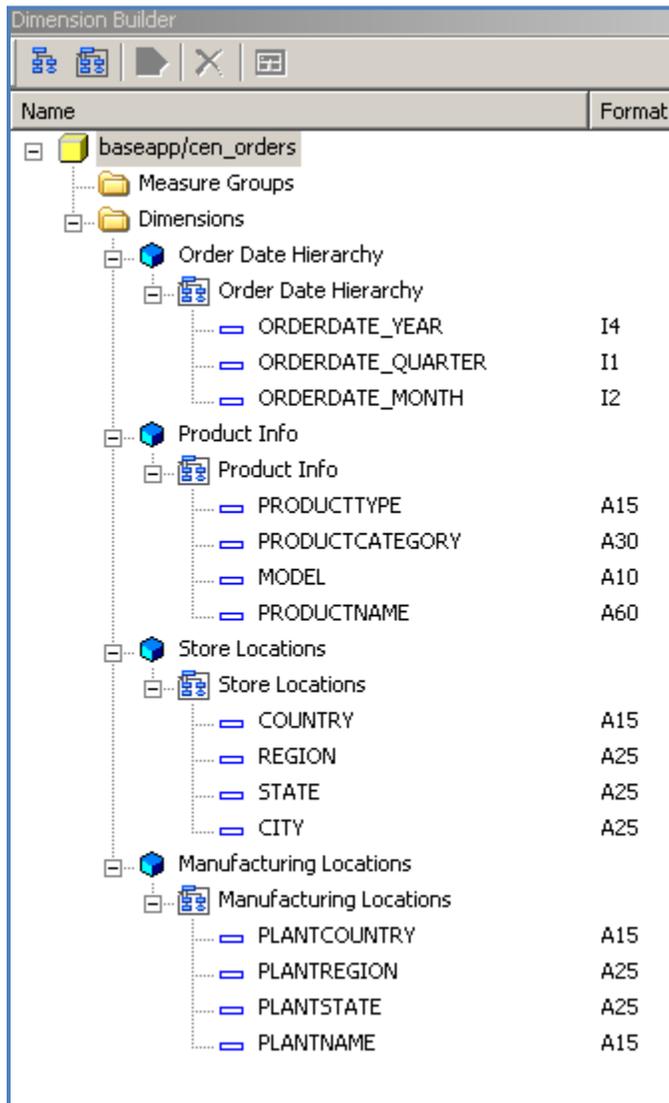
The only thing left to do is drag the fields in the sequence that you want to see them in the hierarchy.

- Drag ORDERDATE\_YEAR from the tree view onto the lower Order Date Hierarchy.
- Drag **ORDERDATE\_QUARTER** onto **ORDERDATE\_YEAR**.
- Drag **ORDERDATE\_MONTH** onto **ORDERDATE\_QUARTER**.



Your date dimension is complete.

- Follow the same steps, starting with step 3, to add the following dimensions as shown: Product Info, Store Locations, and Manufacturing Locations.



- When you are finished, save and close your Master File.

## 2 Creating Reports

In our first tutorial, you will create two reports, both based on product type.

The first report is a simple summary that shows revenue by product type. The second report is a more detailed report that calculates gross profit for each product category within a specific user-requested product type. Finally, you will enable a user who is viewing the initial summary report to click the product type and automatically drill down to see the more detailed gross profit report.

Product Type	Count	Revenue
Audio	12846	\$382.683.321,00
Camcorders	5139	\$444.531.041,00
Cameras	5307	\$184.103.667,00
Office	2958	\$30.245.685,00
Video	6033	\$520.360.205,00
<b>TOTAL</b>	<b>32283</b>	<b>\$1.561.923.919,00</b>

Product Type	Product Category	Revenue	Gross_Profit
Audio	Speakers	84.717.053,00	\$60.036.063
Audio	Audio Systems	122.345.680,00	\$40.062.860
Audio	MP3	43.491.588,00	\$17.052.928
Audio	Amplifiers/PreAmps/Tuners	42.374.428,00	\$16.634.858
Audio	CD Players and Recorders	53.847.459,00	\$16.008.999
Audio	Receivers	35.907.113,00	\$12.909.113
<b>TOTAL</b>		<b>382.683.321,00</b>	<b>\$162.704.821</b>

Prepared on September 3, 2010 at 16.09.41

### 2.1 InfoAssist Environment

#### 2.1.1 How to Create the Tutorial Folder

You can create InfoAssist reports from both Developer Workbench and a browser. The following screens and instructions depict starting from a browser window. You can create the folder and start InfoAssist from within Developer Workbench if you have Developer Workbench available to you.

1. Open your browser. Your URL will be:

<http://yoursystemname:11331/webquery>

2. You will require an IBM i user ID and password. The user ID must be registered with DB2 Web Query must be a developer in the Common Domain or an administrator.

DB2 Web Query for System i

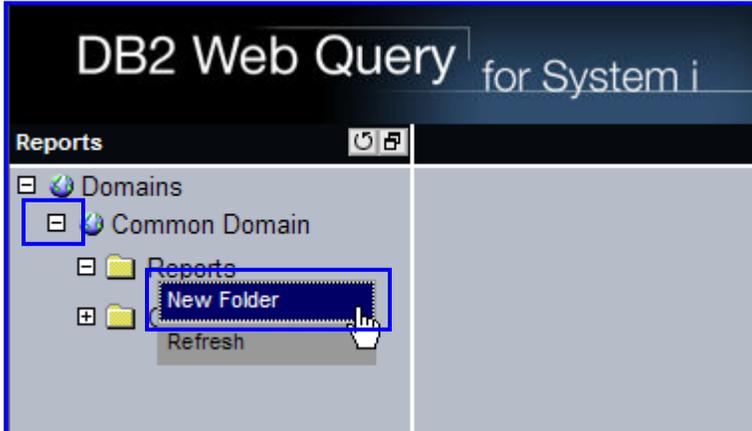
DB2 Web Query sign on:

User ID:

Password:  [Change Password](#)

POWERED BY  
Information Builders

3. Expand **Common Domain**.
4. Right-click **Reports** and select **New Group**.



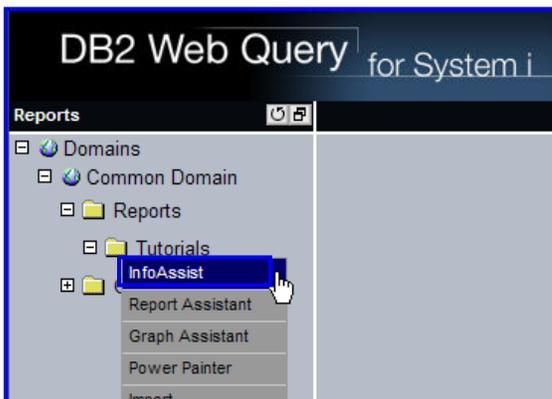
5. Name the new folder **Tutorials**. This is where you will store your work.



6. Click **Save**.

## 2.1.2 How to Start InfoAssist

1. Right-click the **Tutorials** folder you created in the previous procedure. This is where you will store your reports.
2. Select **InfoAssist**.

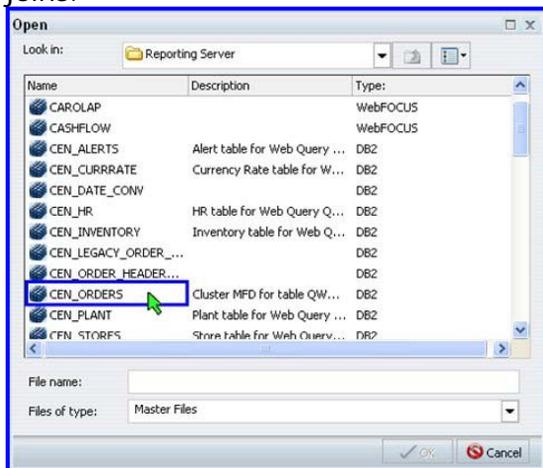


3. Select **Build a Report**.



In the next window, you will see a list of tables available to reports being created in Common Domain.

4. Select the **CEN\_ORDERS** table. You can tell from the word *Cluster* in the description that this single definition encompasses multiple tables without requiring external joins.



5. Click **OK**.

**Note:** If you don't see the word *Cluster* next to your table, you probably created your synonym without checking the *With foreign keys* box. If this is the case, you must go back and recreate the synonym and add the dimensions to your CEN\_ORDERS Master File.

## 2.2 Creating a Summary Report (IA1\_Revenue)

The InfoAssist user interface is modeled after Office 2007. The tab-based *ribbon* style toolbar logically groups all functions and makes it easy to find the option you need.

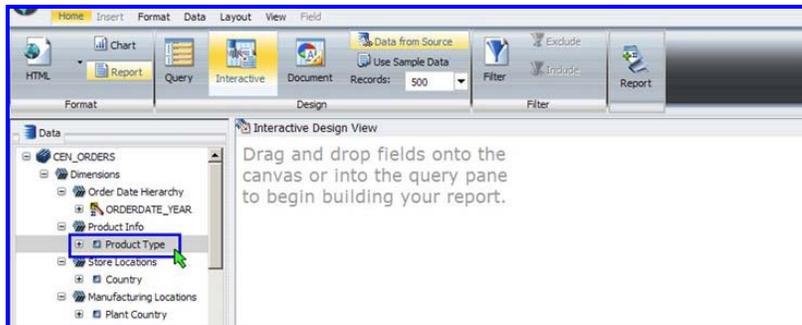
InfoAssist has built-in intelligence throughout its interface. Toolbars collapse and expand to fit the screen. The ribbon updates as you click in different areas of a report. Data fields are logically categorized as dimensions and measures. You will see much of this throughout the tutorials.

You can tailor your InfoAssist layout in many ways. See Appendix A: InfoAssist Views to change your layout.

## 2.2.1 How to Create an Initial Report

1. Double-click the **Product Type** box.

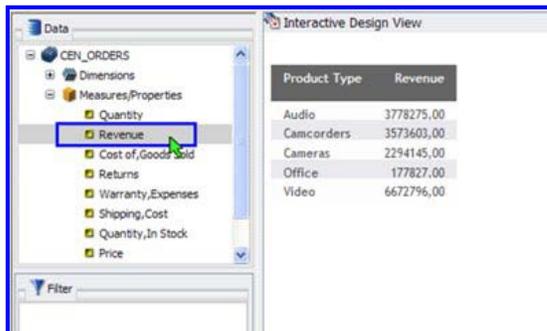
Note that you can double click the field, drag and drop it on to your Interactive Design View panel, or drag and drop it on to the Query panel below. All three methods will place Product Type as the primary By field in a new report.



2. Compress Dimensions or scroll down in the Data panel on the left until you see the **Measures** heading at the bottom of the list.

In the default view, all numeric fields are grouped together under Measures for simplicity.

3. Double-click **Revenue**.



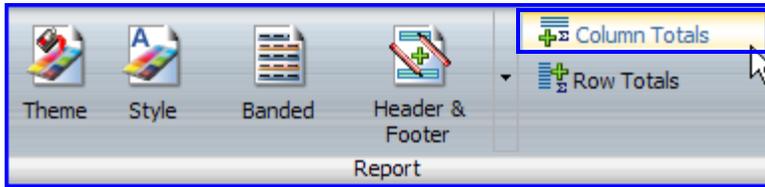
Next, we want to add grand totals to our report.

4. Select the **Home** ribbon.
5. If the Report group is not already expanded, click the **Report** icon on the ribbon to open it.



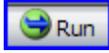
This is an example where the toolbar will collapse or expand based on the width of the screen. After you have opened some of the tabs, such as Report, if you then narrow the width of your screen the system will automatically shrink some of the tabs on the ribbon to fit.

6. Click **Column Totals** in the expanded Report ribbon.

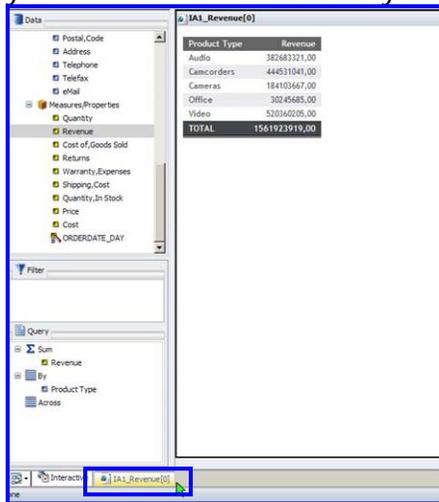


Selecting Column Totals adds a grand total row to the bottom of the report to sum the numeric data in each column.

Selecting Row Totals would add a grand total column to the right side of the report to sum the numeric data in each row.

7. Save your report. Click the **Save**  button at the top of the window, and call the report **IA1\_Revenue**.
8. Click the **Run**  button.

Notice the new tab at the bottom of your screen labeled IA1\_Revenue(0). This tab displays your report output results. Your output report looks the same as your Interactive Design View except that the numbers are larger. You are now processing your full table instead of only reading the first 500 records.

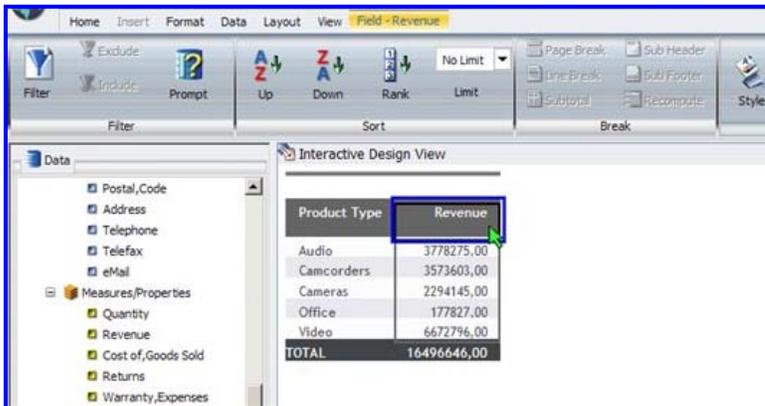


You can switch between the Design View and the Results View by selecting the appropriate tab. Instead of having two tabs open close the results panel. This will leave only the Interactive Design View open.

9. Click the **Close**  button on IA1\_Revenue(0).

## 2.2.2 How to Format a Column

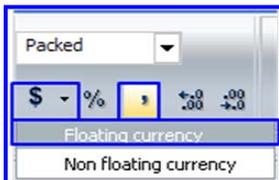
1. Back on the Interactive Design View panel, click the **Revenue** field. You are going to format this field with commas and dollar signs.



- When you select the Revenue field, the ribbon becomes field-specific. Some of the groupings may already be expanded depending on the width of your screen. In this case, you may need to expand the Format group.



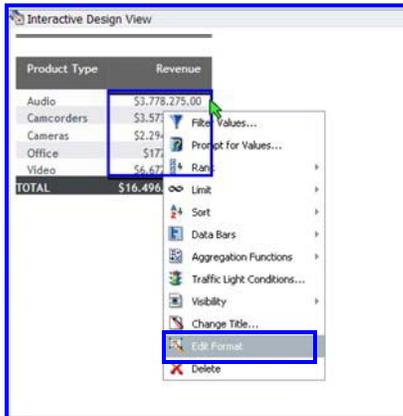
- Select the **comma** .
- As previously mentioned the images in this document are from a European system. As per European standards commas and decimals are reversed from North American standards.
- Select the **currency symbol**  down arrow and then choose **Floating currency**.



There are many ways to do the same thing in InfoAssist. This means that wherever you are, you are likely to have quick access to the functionality you need.

- Right-click the **Revenue** field (either on the Interactive Design View as shown in the following image or in the Query panel) and a submenu displays.

Notice that there is an **Edit Format** option.

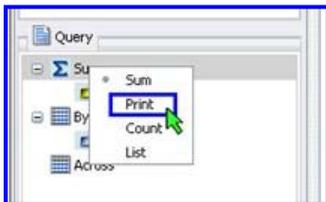


7. Click the whitespace outside the report to exit this submenu without executing any instructions.

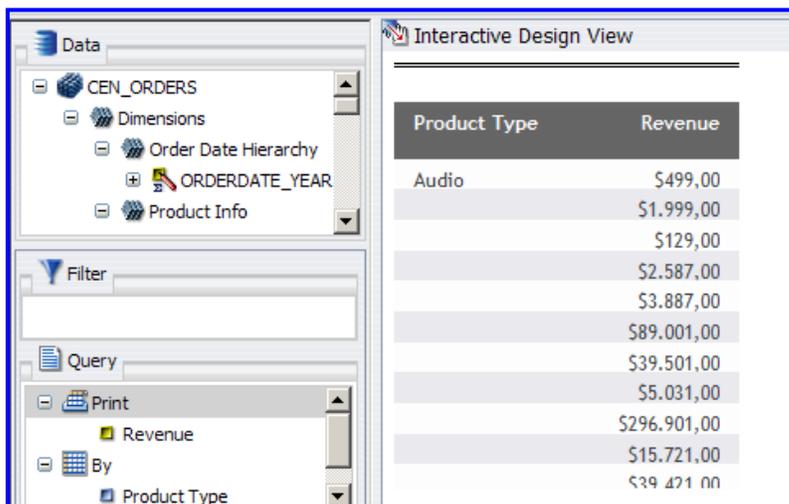
### 2.2.3 How to Create a Detail Listing

In this procedure, you are going to look at the difference between the Sum and Print options in the Query panel. The Sum option is the default and was used to produce the initial summary report. This report was aggregated or summed on the PRODUCTTYPE field. The Print option turns off the aggregation and produces a detail listing.

1. Right-click **Sum**.
2. Select **Print**.



The Print option creates a detailed report that includes one row for each selected record. The Sum option consolidates your records, summing or aggregating numeric fields by your sort column(s).

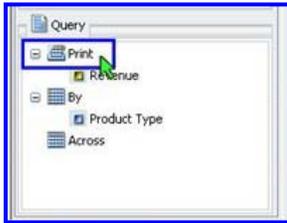


Notice that instead of one total record for Audio products, the Print option displays

one line for every individual record in the Order Detail file.

For these tutorials, you are creating summary reports.

3. Return to the summary report by right-clicking **Print** and selecting **Sum**.

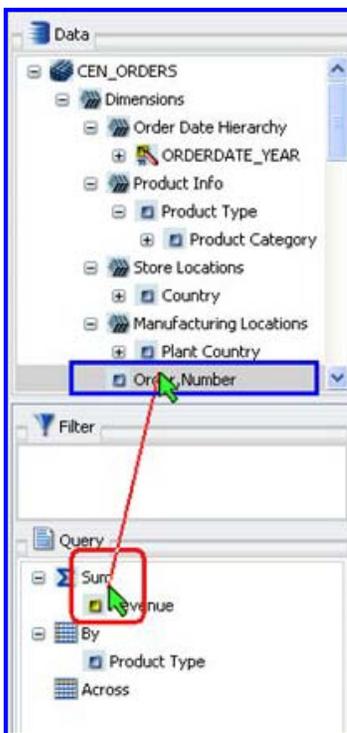


## 2.2.4 How to Use Aggregation Functions

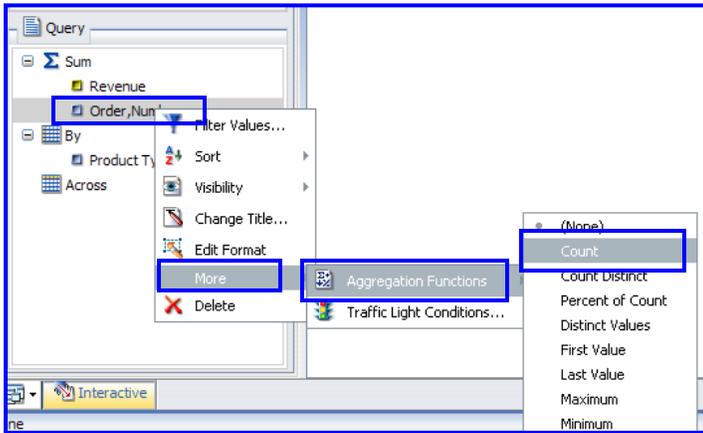
You are going to add a count of the number of orders for each product type to the report.

1. If compressed, expand **Dimensions** in the Data panel.
2. Drag **Order Number** just below Revenue on the Query panel.

Remember that you can also drag it directly onto the report or double-click it to insert it on the report.



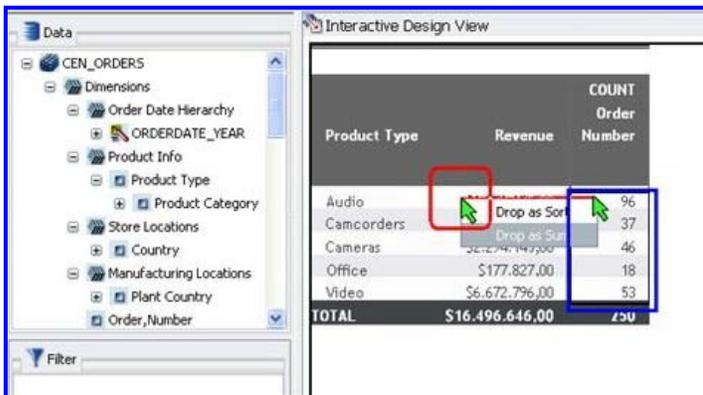
3. Right-click **Order Number**, in the Query panel, to open the field-specific submenu.
4. Select **More**, then **Aggregation Functions** and then select **Count**.



You want to move the Order Number field before the Revenue field. This example will show you how to reorder your fields if they aren't in the sequence you want.

5. Select the **Order Number** field in the Interactive Design View panel.

Notice that an outline is drawn around the field and its values.



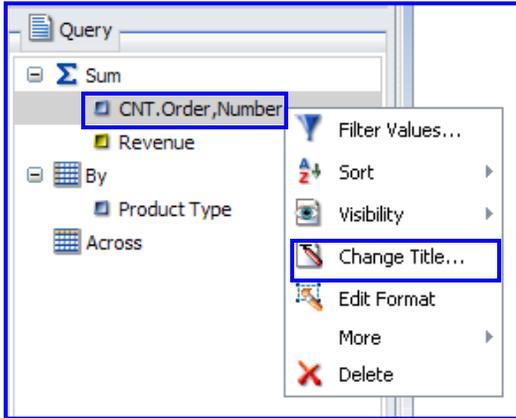
6. Drag the field to the left of the Revenue column.

You will see a red bar indicating where the field will be positioned when you release the mouse button.

7. Because you positioned the Order Number column beside the sort field (Product Type), an additional menu appears. The options are Drop as Sort and Drop as Sum. Drop as Sort makes the selected field a sort field. For this tutorial, select **Drop as Sum**.

You can also move the Order Number column by dragging Order Number above Revenue in the Query panel.

8. To create a new heading in the Query panel, right-click **Cnt.OrderNumber** to see the field specific submenu.
9. Select **Change Title** and type the new title **Count**.



10. Click **Save**.
11. Run the report.

You have completed your initial summary report. You will return to this report later.

12. **Close** the report **IA1\_Revenue(0)** to return to the Interactive Design View.
13. **Save** your report.

Product Type	Count	Revenue
Audio	12846	\$382.683.321,00
Camcorders	5139	\$444.531.041,00
Cameras	5307	\$184.103.667,00
Office	2958	\$30.245.685,00
Video	6033	\$520.360.205,00
<b>TOTAL</b>	<b>32283</b>	<b>\$1.561.923.919,00</b>

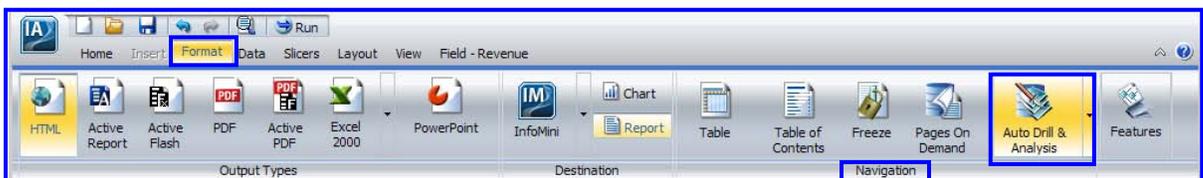
We will continue to use this report as the basis for our next report.

### 2.2.5 How to Use Auto Drill & Analysis

1. Select the **Format** ribbon and expand the **Navigation** group if it is compressed.

If you have purchased and enabled OLAP, then you should see a button in the Navigation group entitled **Auto Drill & Analysis**. If you don't have the OLAP feature, this button is unavailable. You can install a 70 day trial version of OLAP. Without OLAP simply read through this single procedure. Although OLAP is required for **Auto Drill & Analysis** there is much more to OLAP than is discussed here. See the redbook for a complete OLAP tutorial.

2. Click **Auto Drill & Analysis**.



3. **Run** your report. Do not save this version

Product Type	Count	Revenue
<u>Audio</u>	12846	\$382.683.321,00
<u>Camcorders</u>	5139	\$444.531.041,00
<u>Cameras</u>	5307	\$184.103.667,00
<u>Office</u>	2958	\$30.245.685,00
<u>Video</u>	6033	\$520.360.205,00
<b>TOTAL</b>	<b>32283</b>	<b>\$1.561.923.919,00</b>

4. The Product Type is automatically highlighted and underlined; this indicates that you can drill down on this column.
5. Click **Audio**.

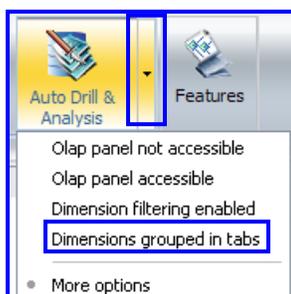
In the master file you previously told Web Query that Product Category was below Product Type in the Product dimension. You are now drilling down to the Product Categories within Audio.

Product Category	Count	Revenue
<u>Amplifiers/PreAmps/Tuners</u>	1552	\$42.374.428,00
<u>Audio Systems</u>	1384	\$122.345.680,00
<u>CD Players and Recorders</u>	1306	\$53.847.459,00
<u>MP3</u>	3320	\$43.491.588,00
<u>Receivers</u>	1337	\$35.907.113,00
<u>Speakers</u>	3947	\$84.717.053,00
<b>TOTAL</b>	<b>12846</b>	<b>\$382.683.321,00</b>

Auto Drill & Analysis is a feature that you can turn on with any report if you have the OLAP feature enabled on your system.

6. Close the results display.

Auto Drill & Analysis has much more power than the simple example you just executed. Look at the drop down options on the Auto Drill button. **“Dimensions grouped in tabs”**, for example, can turn a small report into a powerful analytical tool. There is a much more detailed OLAP tutorial in the DB2 Web Query for i redbook.



7. Under Navigation select **Table** instead of Auto Drill & Analysis. This returns your report to the way it was.

IA1\_Revenue is the basis for the following Cross-Tab report.

## 2.3 Creating a Cross-Tab Report (IA2\_XTab)

In this tutorial, you modify the initial report and select only the records for 2009 and display the results in columns under each quarter.

### 2.3.1 How to Filter a Report

1. If you closed InfoAssist or DB2 Web Query, log back on and locate the report you just created under the Tutorials folder in the Common Domain. Right-click the report, **IA1\_Revenue** and select **Open**.
2. From the available Data panel, drag **ORDERDATE\_YEAR** to the Filter panel.

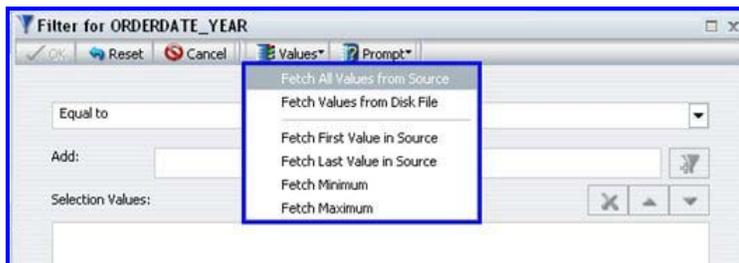
Notice the icon to the left of ORDERDATE\_YEAR. It shows a pencil and paper indicating that this field is a calculated field and was not in the original database. Remember that we created ORDERDATE\_YEAR from the field ORDERDATE.



The filter window will open automatically.

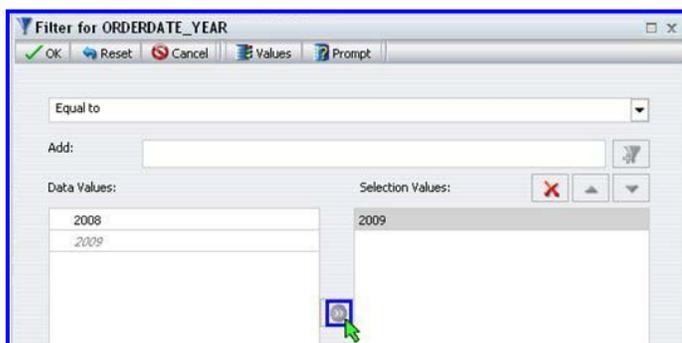
3. Click the down arrow on the Values button.
4. Select **Fetch All Values from Source**.

You see all the unique values for ORDERDATE\_YEAR in your table.



You need to move 2009 (2007) from the Data Values panel to the Selection Values panel.

5. Select **2009** and click the double right arrow button .



6. Click **OK**.

### 2.3.2 How to Create a Cross-Tab Report

Next you are going to break down annual sales by quarter. You will display the quarters across the top of the report. Remember that you broke Order Date down into its components in the metadata (Master File/synonym) so that the fields (year/quarter/month/day) are always available and you do not need to create them in every report.

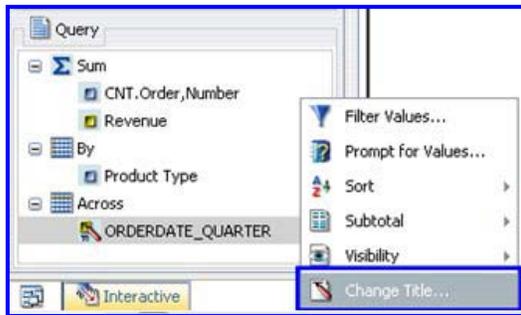
1. Expand **ORDERDATE\_YEAR** in the Order Date hierarchy.
2. Drag **ORDERDATE\_QUARTER** to the Across section of the Query panel.

Product Type	ORDERDATE_QUARTER			
	Count	Revenue	Count	Revenue
Audio	7	\$584,558,00	89	\$3,193,717,00
Camcorders	2	\$211,369,00	35	\$3,362,234,00
Cameras	5	\$601,400,00	41	\$1,692,745,00
Office	1	\$27,132,00	17	\$150,695,00
Video	7	\$2,043,349,00	46	\$4,629,447,00
<b>TOTAL</b>	<b>22</b>	<b>\$3,467,808,00</b>	<b>228</b>	<b>\$13,028,838,00</b>

In the Interactive Design View, you see the quarters that are in the first 500 records. In this example, sales in the first 500 records all occurred between January to March and October to December.

3. To change the heading right-click **ORDERDATE\_QUARTER**.

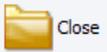
4. Select **Change Title**.



5. Type **Quarter** as the new column heading.
6. Click **OK**.
7. Click the  main menu in the upper left corner and then select **Save As**.
8. Enter the report name **IA2\_XTab**.
9. Click **Run**.

 A screenshot of the IA2\_XTab[0] report results panel. The report is a pivot table titled 'ORDERDATE\_QUARTER'. The columns are grouped by quarter (1, 2, 3, 4). Each quarter group contains 'Count' and 'Revenue' columns. The rows are grouped by 'Product Type' (Audio, Camcorders, Cameras, Office, Video) and a 'TOTAL' row.
 

Product Type	1		2		3		4	
	Count	Revenue	Count	Revenue	Count	Revenue	Count	Revenue
Audio	1782	66,724,721.00	2156	55,653,365.00	1381	41,313,395.00	1029	28,071,156.00
Camcorders	629	68,403,036.00	868	66,522,260.00	584	51,665,406.00	492	41,423,333.00
Cameras	669	28,003,505.00	880	28,006,440.00	594	21,686,530.00	450	15,645,779.00
Office	416	5,635,513.00	483	4,550,333.00	347	3,644,735.00	221	1,756,216.00
Video	784	85,195,987.00	1043	75,051,436.00	663	62,214,814.00	527	44,453,251.00
<b>TOTAL</b>	<b>4280</b>	<b>253,962,762.00</b>	<b>5430</b>	<b>229,783,834.00</b>	<b>3569</b>	<b>180,524,880.00</b>	<b>2719</b>	<b>131,349,735.00</b>

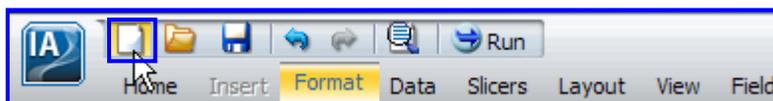
10. Close the report IA2-XTab(0) results panel.
11. From the  main menu  close IA2\_XTab completely.

## 2.4 Creating a More Complex Report (IA3\_GrossPft)

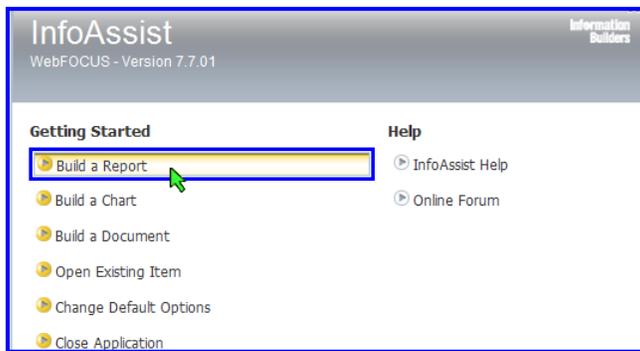
In this tutorial, you create a report that will be the basis for the remaining procedures.

### 2.4.1 How to Create a Report with a Compute field

1. Click the New Report  button.



2. Click **Build a Report**.



3. Select the **CEN\_ORDERS** table and click **OK**.

Initially this report has four fields: Product Type, Product Category, Revenue and Cost of Goods Sold. You will also calculate a Gross Profit field.

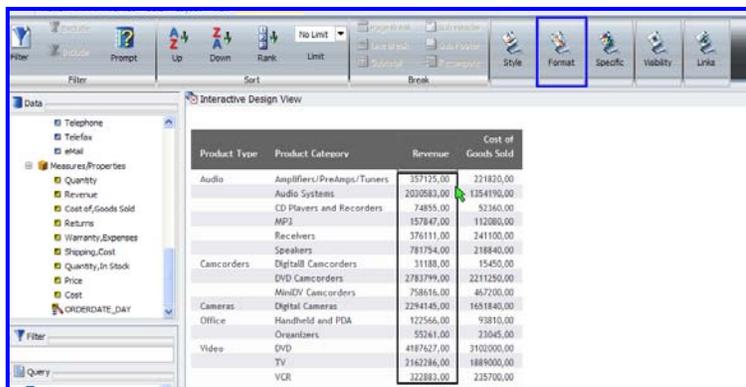
4. Expand the **Product** hierarchy.

You can double click each field required individually or you can select all the fields at once in the desired sequence and drag and drop them on your canvas. Note that the sequence you select the fields is the sequence they will appear in your report.

5. Click **Product Type**. Holding down the control key click **Product Category**, and then click **Revenue** and then **Cost of Goods Sold**.
6. Drag these fields onto the design view canvas.

Next you want to format the numeric fields. If you had done this in the Master File, you wouldn't need to do it in every report.

7. Click the **Revenue** field. The Field specific ribbon automatically opens.
8. Click **Format** to expand the group if necessary. Based on the width of your screen, the Format group may already be expanded.



9. Click the **comma**  to insert commas into the Revenue field.



10. Next click **Cost of, Goods Sold** in the Interactive Design View panel. Notice that on the control toolbar at the far right Field-Revenue indication has automatically changed to *Field-CostofGoodsSold*. This confirms which field you are working with.

11. Again, click the **comma**  button.

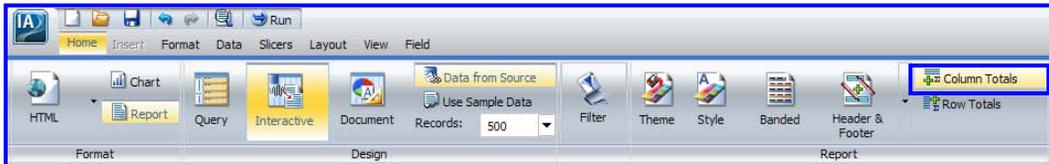
Next you can add grand totals to the report.

12. Click **Home** on the toolbar to open the Home ribbon.

13. Expand the **Report** group if required.



14. Click **Column Totals**.



Now you can add a new calculated field called Gross\_Profit.

15. Click **Data** on the toolbar to open the Data ribbon.



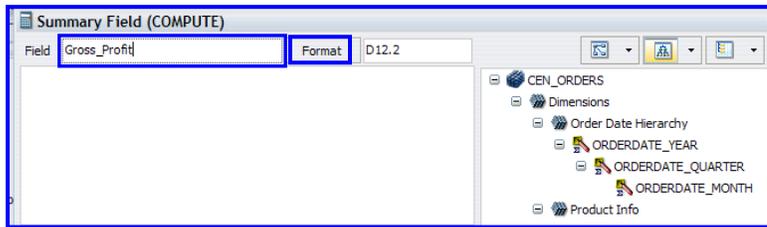
16. Click **Summary (Compute)**.



There are two types of calculated fields in DB2 Web Query. When you create a Define field, you add the definition of the field to the list of fields within the table. This field is calculated every time a record is read and selected. Your other option is to create a Compute field. In this case, the field is not calculated until after the data is sorted and all aggregation is complete. Compute fields are typically required for percentages and variances.

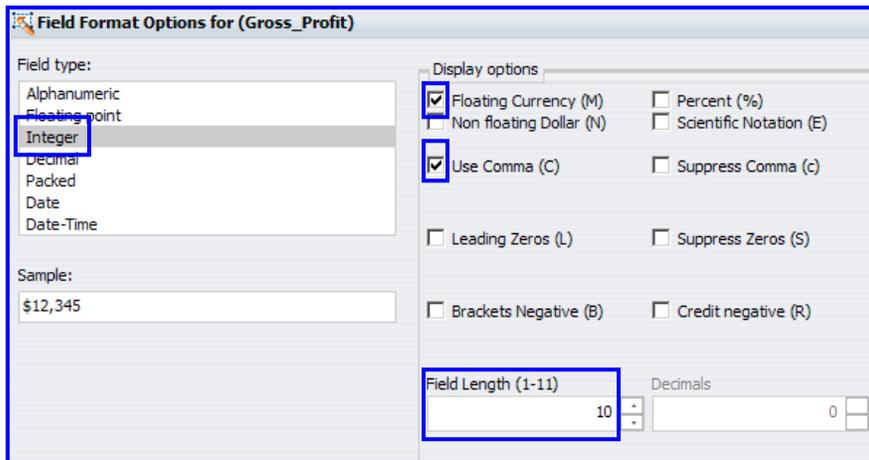
If you want to sort or filter based on a calculated field, then you must create a Define field. In most other cases you can create a Compute field, which should perform better, as you are calculating it based on the number of output records. A Define field is calculated once for every input record.

17. Type the field name **Gross\_Profit**.



18. Click the **Format** button.

19. Create a field that is an Integer, field length 10 with commas and a floating currency symbol. Advanced users can bypass this screen and directly enter **I10MC** in the Format input box.



20. Click **OK**.

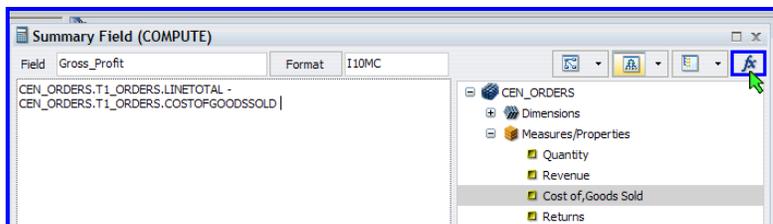
By default the field list shows you the field's title and not the actual field name. The equations require the fieldname. Revenue is the title for the field LINETOTAL.  $Gross\_Profit = LINETOTAL - COSTOFGOODSSOLD$ . Field names are case-sensitive.

21. In the field list on the right, double-click **Revenue**.

22. Next to Revenue in the formula area, enter "- ". (Note that the space after the subtract symbol is important.)

23. Double-click **Cost of Goods Sold**.

While you are in this wizard, you can click on the function icon  in the upper right corner to see the functions that are available to your calculation. You can use IF/THEN/ELSE logic as well as manipulate your dates, numbers or character strings. Selecting a function will prompt you for the required parameters.



Do not include any functions.

24. Click **OK** to complete the formula.

Notice that InfoAssist automatically removes the underscore to create a column heading for a field. Gross\_Profit has a column heading of Gross Profit. If you want a different column heading, you could right-click on the field and select **Change Title**.

25. Click the **Save** button and name the report **IA3\_GrossPft**.

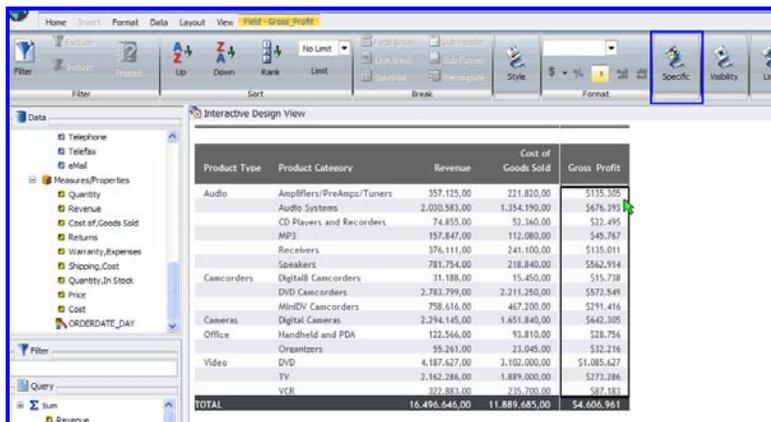
## 2.4.2 Using Traffic Lighting (Conditional Styling)

Next you want to highlight Gross Profit to indicate products that generate high or low profits for the company.

1. Click **Gross Profit** in the layout panel.

This will update the ribbon toolbar to be specific to activities for the field Gross Profit. Traffic Lighting or Conditional Styling is located in the Specific group.

2. Click on **Specific** to expand the tab if necessary.



Product Type	Product Category	Revenue	Cost of Goods Sold	Gross Profit
Audio	Amplifiers/PreAmps/Tuners	357,125.00	221,820.00	\$135,305
Audio	Audio Systems	2,000,983.00	1,354,190.00	\$646,793
	CD Players and Recorders	74,855.00	52,360.00	\$22,495
	MP3	157,847.00	112,080.00	\$45,767
	Receivers	376,111.00	241,100.00	\$135,011
	Speakers	781,754.00	218,840.00	\$562,914
Camcorders	Digital Camcorders	11,188.00	15,450.00	\$15,738
	DVD Camcorders	2,783,799.00	2,211,250.00	\$572,549
	MiniDV Camcorders	758,416.00	467,200.00	\$291,416
Cameras	Digital Cameras	2,294,145.00	1,651,840.00	\$642,305
Office	Handheld and PDA	122,566.00	93,810.00	\$28,756
	Organizers	95,267.00	23,045.00	\$72,216
Video	DVD	4,187,627.00	3,102,000.00	\$1,085,627
	TV	2,162,286.00	1,889,000.00	\$273,286
	VCR	322,883.00	235,700.00	\$87,183
	<b>TOTAL</b>	<b>16,496,646.00</b>	<b>11,889,685.00</b>	<b>\$4,606,961</b>

3. Click **Traffic Lights**.

**Note:** InfoAssist will automatically generate the skeleton for a positive or good condition for Gross Profit. For example it will insert an initial condition "Greater than" and it will display the results as Green. If you add a second condition, it will default to a negative or poor condition. The criteria will show as "Less than" and the field will display as Red.

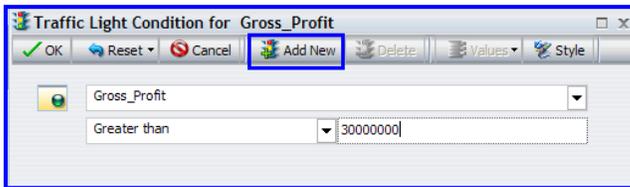


Your field should display in green if the Gross Profit for that product category is more than 30 million. If the Gross Profit is less than 15 million the field should be displayed in red.

4. Leave the initial condition as "Greater than" and enter **3000000** (30 million).

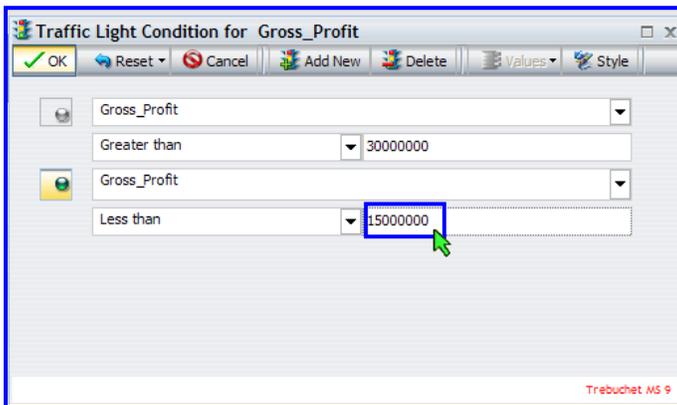
In the bottom right of the screen you see the sample output font. In this case, the system defaults to a green font. If you want to change the font, or its background, you would select the Style button.

- To add a second condition for the field Gross Profit, click the **Add New** button.



- Leave the condition of "Less than" and enter a value of **15000000** (15 million).

Notice in the bottom right corner of the window that if Gross Profit is less than 15 million it displays in red.



- Click **OK**.

Remember that when you see the report in the Design View, you are only looking at the first 500 records. This is why nearly all the Gross Profits are below 15 million and shown in red in this view.

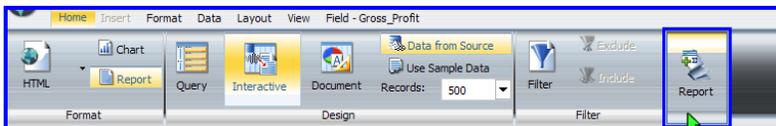
**Note:** If you wish to highlight Gross Profit when it is over/under a percentage of Revenue you will need to create a work field containing the percentage value. You can then highlight Gross Profit based on the values in the work field.

- Save** your report.

### 2.4.3 Using Variables in Report Headings and Footings

In this section you will enhance the report by adding a header and footer and including date and time system variables.

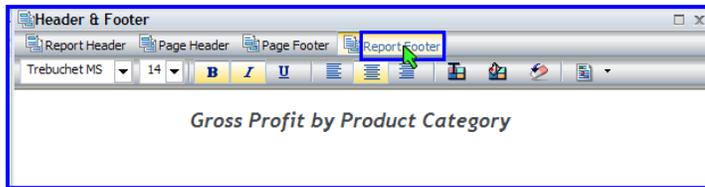
- Select the **Home** ribbon.
- Expand **Report** if it is not already expanded.



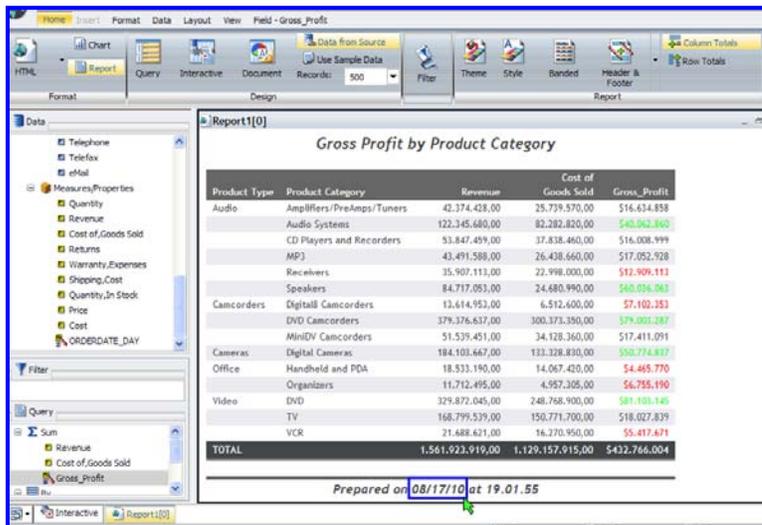
- On the Report ribbon, select **Header & Footer**.



- In the first group, Report Header, type **Gross Profit by Product Category**.



- Click **Report Footer** and type **Prepared on &DATE at &TOD**. This will print the date and time of day that the report was produced at the end of the report.
- Click **OK** and run the report.



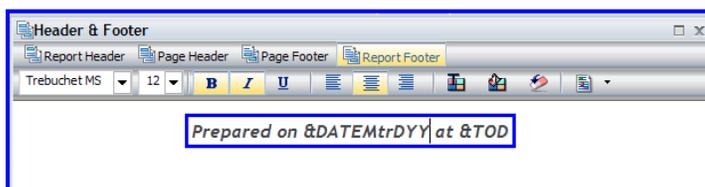
Notice the default format for the date mm/dd/yy. Next you will make this more readable.

- Close the report results window and return to the Interactive Design View.
- To modify the footer, click **Header & Footer**.
- Select **Report Footer**.

When formatting a date with Web Query, M stands for the two digit month, D for the two digit day, and Y for the two digit year or YY for the four digit year.

You can use system variables to format the date differently. To add the three character name to the day or month, add the letter t after the M or D. For example, Mt would print as Aug or Dec. Adding an r after the t displays the long form of the name. These rules are explained in the Web Query manual and in the Redbook.

- Change **&DATE** to **&DATEMtrDYY**.



- Click **OK**.
- Save** your report. The name of the report is still IA3\_GrossPft.

13. Click **Run**.

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	42,374,428.00	25,739,570.00	\$16,634,858
	Audio Systems	122,345,680.00	82,282,820.00	\$40,062,860
	CD Players and Recorders	53,847,459.00	37,838,460.00	\$16,008,999
	MP3	43,491,588.00	26,438,660.00	\$17,052,928
	Receivers	35,907,113.00	22,998,000.00	\$12,909,113
	Speakers	84,717,053.00	24,680,990.00	\$60,036,063
Camcorders	Digital8 Camcorders	13,614,953.00	6,512,600.00	\$7,102,353
	DVD Camcorders	379,376,637.00	300,373,350.00	\$79,003,287
	MiniDV Camcorders	51,539,451.00	34,128,360.00	\$17,411,091
Cameras	Digital Cameras	184,103,667.00	133,328,830.00	\$50,774,837
Office	Handheld and PDA	18,533,190.00	14,067,420.00	\$4,465,770
	Organizers	11,712,495.00	4,957,305.00	\$6,755,190
Video	DVD	329,872,045.00	248,768,900.00	\$81,103,145
	TV	168,799,539.00	150,771,700.00	\$18,027,839
	VCR	21,688,621.00	16,270,950.00	\$5,417,671
<b>TOTAL</b>		<b>1,561,923,919.00</b>	<b>1,129,157,915.00</b>	<b>\$432,766,004</b>

Prepared on August 17, 2010 at 19.02.45

Note the new date format.

14. Close your results screen by clicking the **Close**  button.

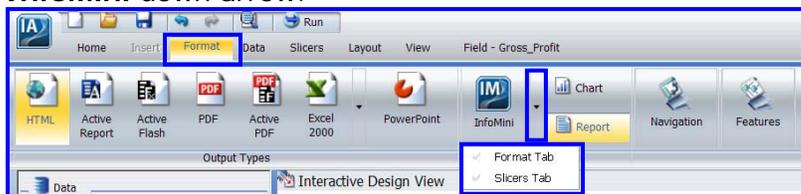
## 2.5 InfoMini

InfoMini continues the trend of providing the users with alternatives to a static report. With InfoMini the end user can customize or filter the report extracting only the “slices” of data that they particularly want to see. They can then output this data to a variety of output formats.

### 2.5.1 How to create an InfoMini Report

IA3\_GrossPft should still be open. It will be used as the basis for your InfoMini report.

1. Under the Format ribbon. Make sure that output types are expanded and click the **InfoMini** down arrow.



By default the two InfoMini options, the Format and the Slicers tabs are both selected. You could choose to deselect one of them if you wished. We will leave both selected for this exercise.

2. Click on the **InfoMini** button to select and highlight it.

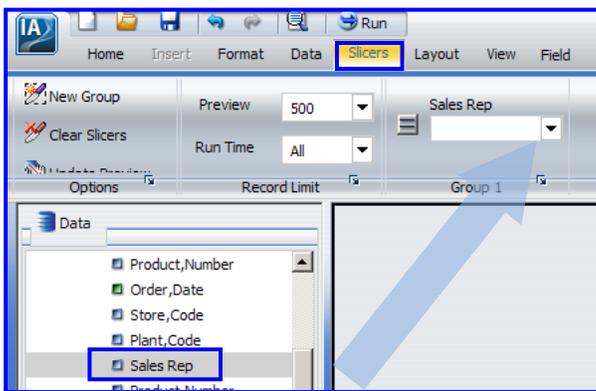


3. Open the **Slicers** ribbon.



Using the Slicers ribbon you can specify what slices or filters the user can impose on the data when they run the report. These slices will be setup in groups. Filtering on one field in a group also filters the allowable values in the remaining fields in that group.

4. Drag **Sales Rep** to Group 1. Right clicking on Sales Rep would also have allowed you to enable the field as a slicer.



You can drag fields individually or you can drag an entire hierarchy at once.

5. Select New Group and drag **Product Info** to Group 2.



Notice that all elements of the Product hierarchy were moved at once. You could have moved each field individually into the same group. InfoAssist has renamed Group 2 to your hierarchy name of "Product Info". You could have added more filters to Group 1 if desired and you can also rename your Groups.

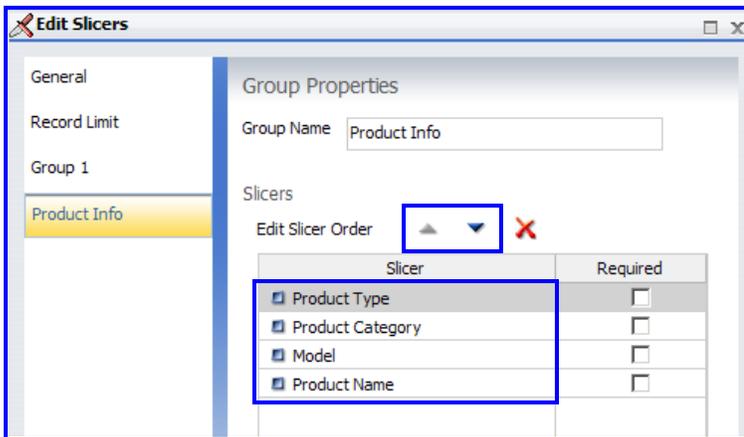
When these tutorials were written there was a problem with the sequence of the hierarch fields in the Group. Although they show correctly when you first drop them they are actually reversed internally.

- To see if this is occurring on your release level click the down area in the bottom right corner of the group Product Info.



- Product Type** should be the top Slicer. If it is at the bottom then highlight each field individually and use the up and down arrows to rearrange the sequence and press **OK**. You should see:

Product Type  
 Product Category  
 Model  
 Product Name



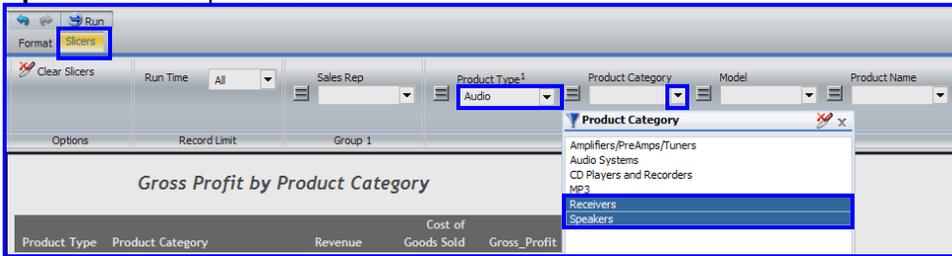
- Run** your report.

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	42,374,428.00	25,739,570.00	\$16,634,858
	Audio Systems	122,345,680.00	82,282,820.00	\$40,062,860
	CD Players and Recorders	53,847,459.00	37,838,460.00	\$16,008,999
	MP3	43,491,588.00	26,438,660.00	\$17,052,928
	Receivers	35,907,113.00	22,998,000.00	\$12,909,113

Above the report the user now has additional options.

- Select **Slicers**.  
The user can fill in some, none or all of the slicing criteria.
- In the **Product Type** drop down select **Audio** and **OK**.

- In the **Product Category** drop down, using the control key, select **Receivers** and **Speakers** and press **OK**.



- Select the **Format** button.



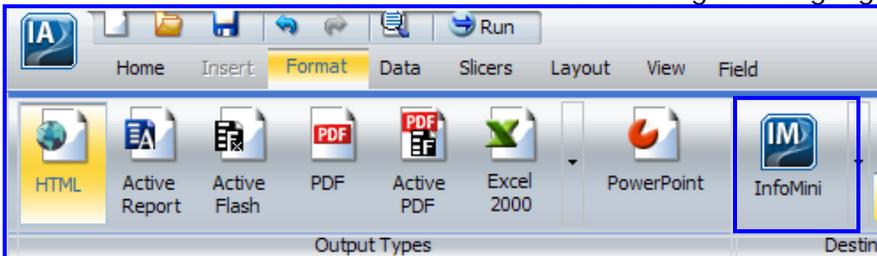
At this point the user can choose where they would like to send their “new” report. We will leave it defaulting to HTML.

- Click **Run**.



- Close** your output report. Back in InfoAssist, if your Interactive Design View is blank click on the **Interactive** tab at the bottom of the screen.

- Click **InfoMini** once to deselect it. It should no longer be highlighted.



## 2.6 Additional InfoAssist Features

This section investigates different options available with DB2 Web Query and InfoAssist. You will continue working with IA3\_GrossPft as the starting point. Do not save the report changes in this section as you will need IA3\_GrossPft later. If you wish to take a break while you are testing the additional functionality, save your work under a new name and come back later and open your saved version.

### 2.6.1 How to Insert a Line Break

Insert a line break whenever the Product type changes.

1. Select **Product Type**.

The screenshot shows the DB2 Web Query interface. The ribbon is set to 'Field - Product Type'. The report 'Gross Profit by Product Category' is displayed in Interactive Design View. The report table has columns: Product Type, Product Category, Revenue, Cost of Goods Sold, and Gross\_Profit. The data is grouped by Product Type, with a line break inserted between each group. The Product Type groups are Audio, Camcorders, Cameras, Office, and Video. The Audio group includes Amplifiers/PreAmps/Tuners, Audio Systems, CD Players and Recorders, MP3, Receivers, and Speakers. The Camcorders group includes Digital Camcorders, DVD Camcorders, and MiniDV Camcorders. The Cameras group includes Digital Cameras. The Office group includes Handheld and PDA and Organizers. The Video group includes DVD and TV. A TOTAL row is at the bottom.

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	357,125.00	221,820.00	\$135,305
	Audio Systems	2,030,583.00	1,354,190.00	\$676,393
	CD Players and Recorders	74,855.00	52,360.00	\$22,495
	MP3	157,847.00	112,080.00	\$45,767
	Receivers	376,111.00	241,100.00	\$135,011
	Speakers	781,754.00	218,840.00	\$562,914
Camcorders	Digital Camcorders	31,188.00	15,450.00	\$15,738
	DVD Camcorders	2,783,799.00	2,211,250.00	\$572,549
	MiniDV Camcorders	758,616.00	467,200.00	\$291,416
Cameras	Digital Cameras	2,294,145.00	1,651,840.00	\$642,305
Office	Handheld and PDA	122,566.00	93,810.00	\$28,756
	Organizers	55,261.00	23,045.00	\$32,216
Video	DVD	4,187,627.00	3,102,000.00	\$1,085,627
	TV	2,162,286.00	1,889,000.00	\$273,286
	VCR	322,883.00	235,700.00	\$87,183
TOTAL		16,496,646.00	11,889,685.00	\$4,606,961

2. Expand the **Break** group in the field specific ribbon if it is compressed.
3. Select **Line Break**.
4. Note that the report is easier to read.

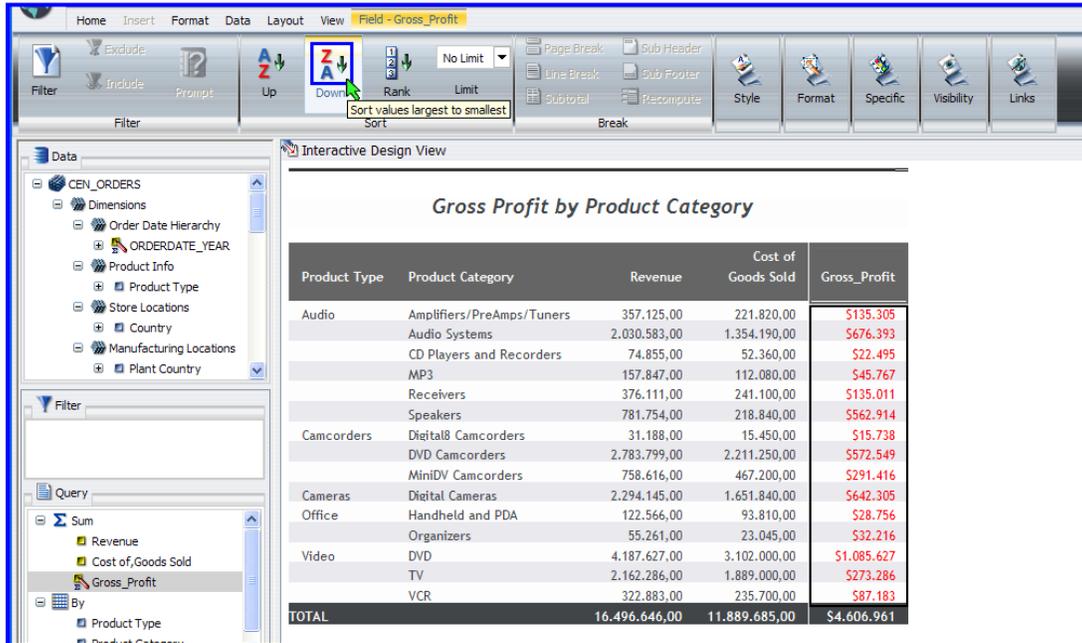
The screenshot shows the DB2 Web Query interface with the 'Line Break' option selected in the 'Break' group of the ribbon. The report 'Gross Profit by Product Category' is displayed in Interactive Design View. The report table is the same as in the previous screenshot, but the line breaks are now visible between the product type groups.

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	357,125.00	221,820.00	\$135,305
	Audio Systems	2,030,583.00	1,354,190.00	\$676,393
	CD Players and Recorders	74,855.00	52,360.00	\$22,495
	MP3	157,847.00	112,080.00	\$45,767
	Receivers	376,111.00	241,100.00	\$135,011
	Speakers	781,754.00	218,840.00	\$562,914
Camcorders	Digital Camcorders	31,188.00	15,450.00	\$15,738
	DVD Camcorders	2,783,799.00	2,211,250.00	\$572,549
	MiniDV Camcorders	758,616.00	467,200.00	\$291,416
Cameras	Digital Cameras	2,294,145.00	1,651,840.00	\$642,305
Office	Handheld and PDA	122,566.00	93,810.00	\$28,756
	Organizers	55,261.00	23,045.00	\$32,216
Video	DVD	4,187,627.00	3,102,000.00	\$1,085,627
	TV	2,162,286.00	1,889,000.00	\$273,286
	VCR	322,883.00	235,700.00	\$87,183
TOTAL		16,496,646.00	11,889,685.00	\$4,606,961

5. Click **Line Break** again to turn it off.

## 2.6.2 How to Sort a Sum Field

1. Assume that you would like this report sorted by Gross Profit within Product Type. You can do this in a variety of different ways. Here is one method.
2. Click the **Gross Profit** column. This opens up the Field specific ribbon. Typically the Sort group is open, if not then expand it.
3. Expand the Sort group if necessary on the field specific ribbon. Click on the **Down** button. This sorts the entire report by Gross Profit.



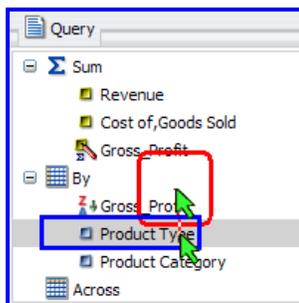
Interactive Design View

*Gross Profit by Product Category*

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	357,125.00	221,820.00	\$135,305
	Audio Systems	2,030,583.00	1,354,190.00	\$676,393
	CD Players and Recorders	74,855.00	52,360.00	\$22,495
	MP3	157,847.00	112,080.00	\$45,767
	Receivers	376,111.00	241,100.00	\$135,011
	Speakers	781,754.00	218,840.00	\$562,914
Camcorders	Digital Camcorders	31,188.00	15,450.00	\$15,738
	DVD Camcorders	2,783,799.00	2,211,250.00	\$572,549
	MiniDV Camcorders	758,616.00	467,200.00	\$291,416
Cameras	Digital Cameras	2,294,145.00	1,651,840.00	\$642,305
Office	Handheld and PDA	122,566.00	93,810.00	\$28,756
	Organizers	55,261.00	23,045.00	\$32,216
Video	DVD	4,187,627.00	3,102,000.00	\$1,085,627
	TV	2,162,286.00	1,889,000.00	\$273,286
	VCR	322,883.00	235,700.00	\$87,183
<b>TOTAL</b>		<b>16,496,646.00</b>	<b>11,889,685.00</b>	<b>\$4,606,961</b>

4. Look at the Query panel.  
Note that when you made Gross Profit a sort column, InfoAssist automatically inserted Gross Profit as the first By column and made it non-visible. Now you want to make Product Type the primary sort column and then Gross Profit within Product Type.
5. In the Query Panel, select **Product Type** and drag it on to Gross Profit. Product Type should now appear in front of Gross Profit.

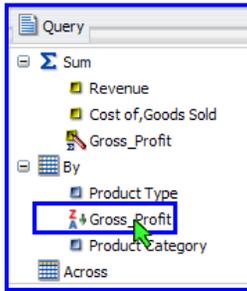
Do not drag it up to the actual By heading. When you do this, InfoAssist adds it to the end of all the By fields.



## 2.6.3 How to Add Ranking Columns

In addition to sorting by Gross Profit you can rank by Gross Profit.

1. In the Query panel, click **Gross\_Profit** in the **By** area. This sets the Field ribbon above to refer to the Gross\_Profit field.



2. Click the **Rank** button in the Sort group.

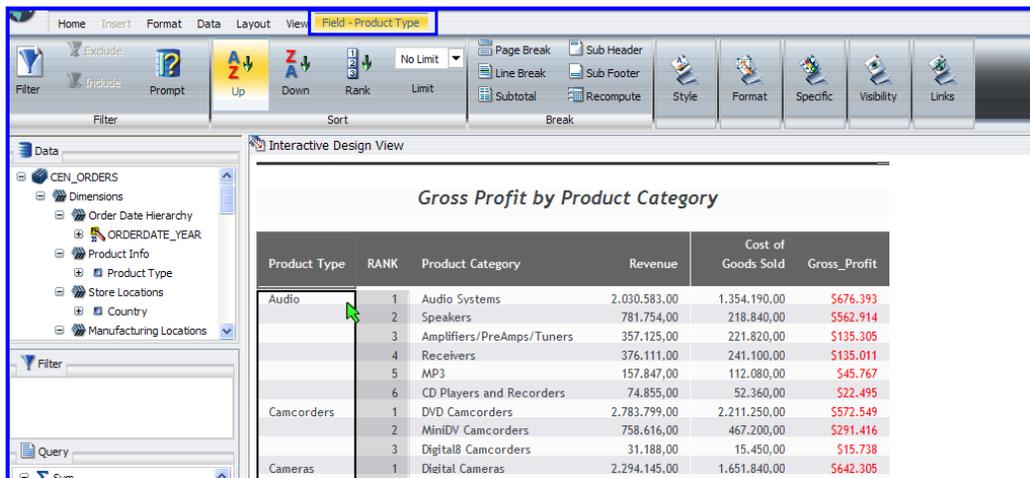


If you wanted a Top 10 report, you would change the Limit field next to the Ranking to 10.

## 2.6.4 How to Generate Subtotals

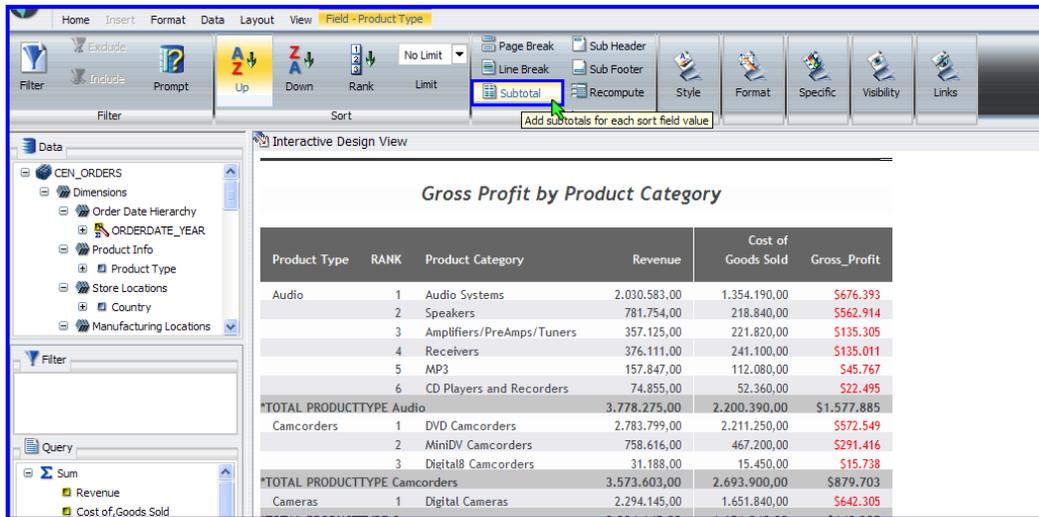
Next add subtotals to the report.

1. Select **Product Type** in the Design or Layout view. This action opens the Field specific ribbon referring to Product Type.



2. If required, expand the **Break** group.

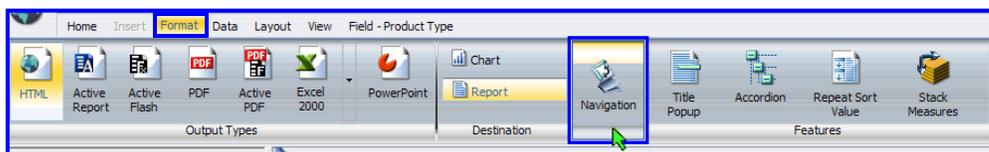
3. Click **Subtotal**.



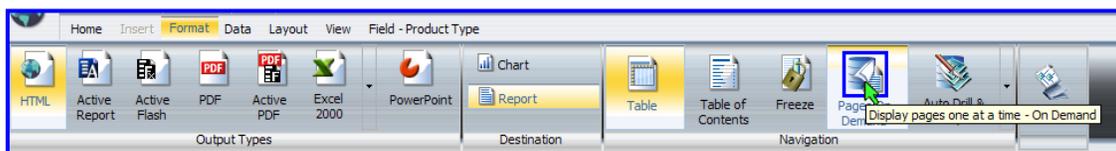
### 2.6.5 How to Generate Pages on Demand

Our sample report is not the best to demonstrate the Pages on Demand feature, but you will see the options that are available. Assume that your report is 201 pages long instead of one page long. When Pages on Demand is enabled, DB2 Web Query saves your report on the IBM i and delivers one page of report output at a time to your browser. This not only decreases the amount of time that you wait for your report to be transmitted but it greatly reduces the browser memory requirements. The bulk of your report remains on the IBM i until you request a page or until you close the report. Pages on Demand allows you to jump directly to a specific page or to have the IBM i search for a string of information in the report and return only the page with the first occurrence of the sort string.

1. Open the Format ribbon and expand **Navigation** if required.



2. Click the **Pages on Demand** button in the Navigation group.
3. **Run**  your report.



Note that you can directly enter a page number that you want to jump to or you can enter a sort string to find.

4. Enter **MiniDV** in the search panel and click the **Find** button .

The page containing the first occurrence in the report of MiniDV is displayed and that occurrence is underlined.

**Gross Profit by Product Category**

Product Type	RANK	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	1	Speakers	84.717.053,00	24.680.990,00	\$60.036.063
	2	Audio Systems	122.345.680,00	82.282.820,00	\$40.062.860
	3	MP3	43.491.588,00	26.438.660,00	\$17.052.928
	4	Amplifiers/PreAmps/Tuners	42.374.428,00	25.739.570,00	\$16.634.858
	5	CD Players and Recorders	53.847.459,00	37.838.460,00	\$16.008.999
	6	Receivers	35.907.113,00	22.998.000,00	\$12.909.113
*TOTAL PRODUCTTYPE Audio			382.683.321,00	219.978.500,00	\$162.704.821
Camcorders	1	DVD Camcorders	379.376.637,00	300.373.350,00	\$79.003.287
	2	MiniDV Camcorders	51.539.451,00	34.128.360,00	\$17.411.091
	3	Digital Camcorders	13.614.953,00	6.512.600,00	\$7.102.353
*TOTAL PRODUCTTYPE Camcorders			444.531.041,00	341.014.310,00	\$103.516.731
Cameras	1	Digital Cameras	184.103.667,00	133.328.830,00	\$50.774.837
*TOTAL PRODUCTTYPE Cameras			184.103.667,00	133.328.830,00	\$50.774.837
Office	1	Organizers	11.712.495,00	4.957.305,00	\$6.755.190
	2	Handheld and PDA	18.533.190,00	14.067.420,00	\$4.465.770
*TOTAL PRODUCTTYPE Office			30.245.685,00	19.024.725,00	\$11.220.960
Video	1	DVD	329.872.045,00	248.768.900,00	\$81.103.145
	2	TV	168.799.539,00	150.771.700,00	\$18.027.839
	3	VCR	21.688.621,00	16.270.950,00	\$5.417.671
*TOTAL PRODUCTTYPE Video			520.360.205,00	415.811.550,00	\$104.548.655
<b>TOTAL</b>			<b>1.561.923.919,00</b>	<b>1.129.157.915,00</b>	<b>\$432.766.004</b>

Prepared on August 19, 2010 at 15.22.36

Page 1 of 1

- Close the results window.
- Click on the Interactive tab at the bottom left to see your Design view again.

You need to remove the Pages on Demand feature before continuing.

- If the Navigation group isn't still expanded, expand it now.
  - Click the **Table** button.
- This returns your report to the default table output.



- At this point you may need to click on the Interactive tab at the bottom of the screen to refresh that panel.

## 2.6.6 How to Stack Measures

A nice addition to DB2 Web Query with InfoAssist is the capability, when designing a report, to request that your numeric fields are stacked instead of laid out side by side.

- Expand **Features** on the Format ribbon.
- Click **Stack Measures**.

Note: At the time of writing the tutorial Stack Measures are only visible when you run your report and may cause a blank design screen until you remove the option.



3. **Run** your report.

Product Type	RANK	Product Category		
Audio	1	Speakers	Revenue	84,717,053.00
			Cost of Goods Sold	24,680,990.00
			Gross_Profit	\$60,036,063
	2	Audio Systems	Revenue	122,345,680.00
			Cost of Goods Sold	82,282,820.00
			Gross_Profit	\$40,062,860
	3	MP3	Revenue	43,491,588.00
			Cost of Goods Sold	26,438,660.00
			Gross_Profit	\$17,052,928

**Note:** In these tutorials all output is done using the default theme or template. There are many other “themes” for you to choose from. These can be found under the Home ribbon, in the Report Group under Theme. From the Theme window select Template and you will see all the templates or themes shipped with InfoAssist. A nice one is ENocean\_theme.sty if you want to try one.

4. Close your Results window.
5. Remove Stack Measures by clicking **Stack Measures** again.

## 2.6.7 How to Output Reports in PDF

1. To change your report to PDF, select the **Format** ribbon.
2. Open the **Output Types** group.
3. Select **PDF** and then run your report.

Product Type	RANK	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	1	Speakers	84,717,053.00	24,680,990.00	\$60,036,063
			122,345,680.00	82,282,820.00	\$40,062,860
			43,491,588.00	26,438,660.00	\$17,052,928
	2	Audio Systems	42,374,428.00	25,739,570.00	\$16,634,858
			53,847,459.00	37,838,460.00	\$16,008,999
			35,907,113.00	22,998,000.00	\$12,909,113
<b>TOTAL PRODUCTTYPE Audio</b>			382,683,321.00	219,978,500.00	\$162,704,821
Camcorders	1	DVD Camcorders	379,376,637.00	300,373,350.00	\$79,003,287
			51,539,451.00	34,128,360.00	\$17,411,091
			13,614,953.00	6,512,600.00	\$7,102,353
<b>TOTAL PRODUCTTYPE Camcorders</b>			444,531,041.00	341,014,310.00	\$103,516,731
Cameras	1	Digital Cameras	184,103,667.00	133,328,830.00	\$50,774,837
			184,103,667.00	133,328,830.00	\$50,774,837
			11,712,495.00	4,957,305.00	\$6,755,190
<b>TOTAL PRODUCTTYPE Cameras</b>			184,103,667.00	133,328,830.00	\$50,774,837
Office	1	Organizers	11,712,495.00	4,957,305.00	\$6,755,190
			18,533,190.00	14,067,420.00	\$4,465,770
			30,245,685.00	19,024,725.00	\$11,220,960
<b>TOTAL PRODUCTTYPE Office</b>			30,245,685.00	19,024,725.00	\$11,220,960
Video	1	DVD	329,872,045.00	248,768,900.00	\$81,103,145
			168,799,539.00	150,771,700.00	\$18,027,839
			21,688,621.00	16,270,950.00	\$5,417,671
<b>TOTAL PRODUCTTYPE Video</b>			520,360,205.00	415,811,550.00	\$104,548,655
<b>TOTAL</b>			1,561,923,919.00	1,129,157,915.00	\$432,766,004

Prepared on September 3, 2010 at 12:07:58

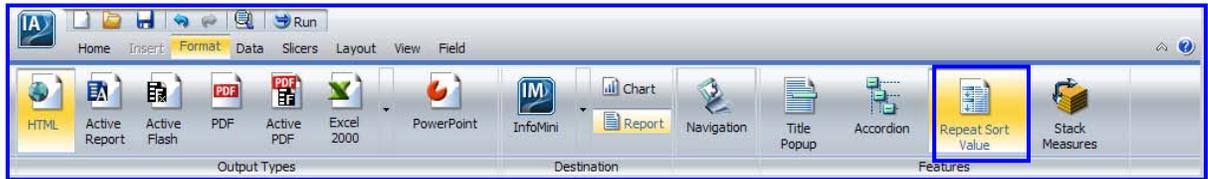
4. Close your results window.

## 2.6.8 How to Output Reports in Microsoft Excel

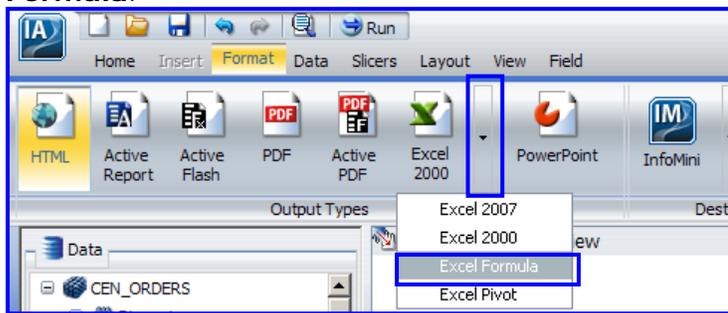
There are multiple choices for outputting reports to Excel. An excellent option is to download a report to Excel, complete with formulas. With this choice, the totals and subtotals, as well as many of the compute fields, are represented as Excel formulas instead of static values. This allows these columns to reflect accurate results even after the user modifies the worksheet.

Before selecting Excel as the output format, it is best to ensure that the Product Type values are repeated on every line. By default, InfoAssist does not repeat identical *sort by* values for aesthetic reasons. When you send the data to a spreadsheet, you want to fill in every row completely.

1. You should still be on the Format ribbon, if not select **Format** to open the ribbon, and then expand **Features**.
2. Select **Repeat Sort Value**.



3. In the Output Types group click the drop-down arrow next to **Excel** and select **Excel Formula**.



4. **Run**  your report.

You may need to answer various browser prompts before you actually see your spreadsheet. These prompts can be eliminated based on your browser configuration options.

Notice the total for Audio in cell D10. If you look at the Excel input line, you see that this is represented as a formula as opposed to an actual value of \$382,683,321.00. This is a helpful feature for users who want to download reports and then analyze the data and possibly modify some values. Having formulas instead of actual numbers in your report allows field values to be recomputed automatically. If you want to see the constant values downloaded, then choose Excel 2007 or Excel 2000 for your output.

Product Type	RANK	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	1	Speakers	84,717,053.00	24,680,990.00	\$60,036,063
Audio	2	Audio Systems	122,345,680.00	82,282,820.00	\$40,062,860
Audio	3	MP3	43,491,588.00	26,438,660.00	\$17,052,928
Audio	4	Amplifiers/PreAmps/Tuners	42,374,428.00	25,739,570.00	\$16,634,858
Audio	5	CD Players and Recorders	53,847,459.00	37,838,460.00	\$16,008,999
Audio	6	Receivers	35,907,113.00	22,998,000.00	\$12,909,113
<b>*TOTAL PRODUCTTYPE Audio</b>	<b>21</b>		<b>382,683,321.00</b>	<b>219,978,500.00</b>	<b>\$162,704,821</b>
Camcorders	1	DVD Camcorders	379,376,637.00	300,373,350.00	\$79,003,287
Camcorders	2	MiniDV Camcorders	51,539,451.00	34,128,360.00	\$17,411,091
Camcorders	3	Digital Camcorders	13,614,953.00	6,512,600.00	\$7,102,353

The following image is an example of InfoAssist changing a calculated field into an Excel formula. Remember that you created Gross\_Profit by specifying LINETOTAL - COSTOFGOODSSOLD. Since you chose to do this as a Summary/Compute calculation, Web Query can convert it to an Excel formula. If you had created Gross\_Profit as a

Detail/Define calculation, it would appear as part of the input record and we would not see the calculation here.

Product Type	RANK	Product Category	Revenue	Cost of Goods Sold	Gross Profit
Audio	1	Speakers	84,717,053.00	24,680,990.00	\$60,036,063
Audio	2	Audio Systems	122,345,680.00	82,282,820.00	\$40,062,860
Audio	3	MP3	43,491,588.00	26,438,660.00	\$17,052,928
Audio	4	Amplifiers/PreAmps/Tuners	42,374,428.00	25,739,570.00	\$16,634,858
Audio	5	CD Players and Recorders	53,847,459.00	37,838,460.00	\$16,008,999
Audio	6	Receivers	35,907,113.00	22,998,000.00	\$12,909,113
TOTAL PRODUCTTYPE Audio	21		382,683,321.00	219,978,500.00	\$162,704,821
Camcorders	1	DVD Camcorders	379,376,637.00	300,373,350.00	\$79,003,287

5. Close the spreadsheet.

Notice that InfoAssist creates a blank results window even though the results are displayed directly in Excel.

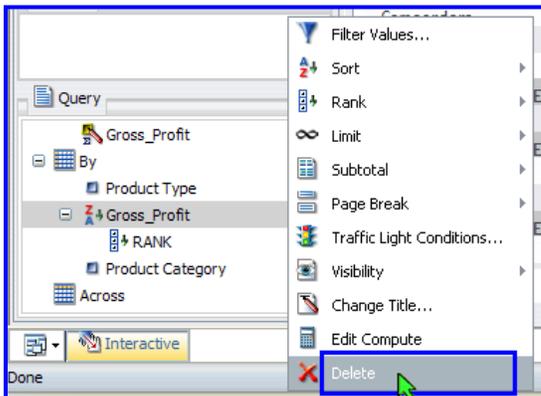
6. Close this window.
7. Change your output format from Excel back to HTML.

## 2.6.9 How to Create a Table of Contents

The Table of Contents option is activated only when HTML, Active Report, Excel, or PowerPoint output format is selected.

First you are going to remove the Gross Profit sort and ranking column from this version of the report.

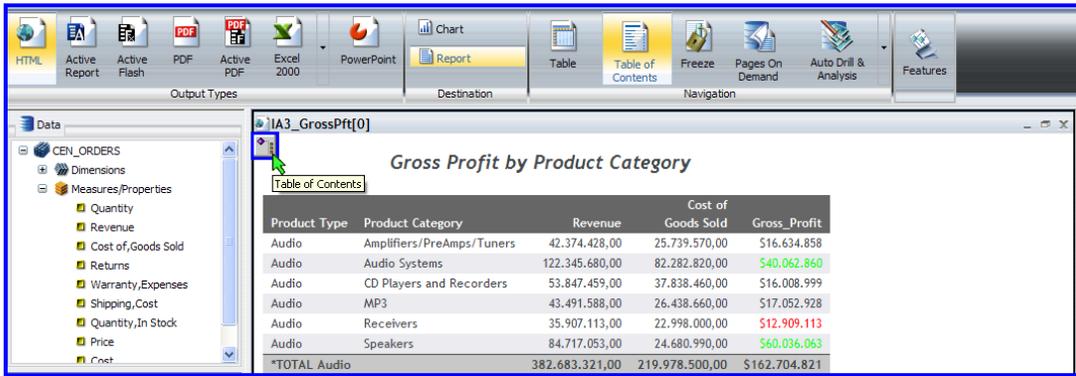
1. Right-click **Gross\_Profit** under By in the Query Panel and select **Delete**.



2. Open the **Format** ribbon, expand the **Navigation** group and select **Table of Contents**.



3. **Run** your report.
4. The small icon  in the top left of your report indicates that a Table of Contents is available. Double-click this icon.

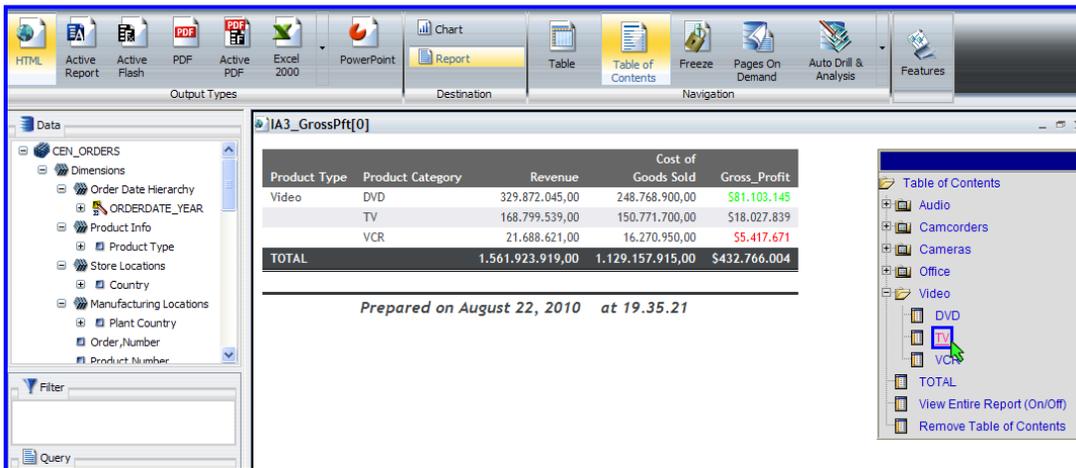


The Table of Contents opens in a separate window.

Selecting the table of contents icon opens a menu that enables you to select and display individual values of the sort fields. You can also select options to view the entire report or to remove the table of contents.

5. Drag your table of contents to an area of the screen that doesn't interfere with your report.
6. Expand **Video** in the table of contents.
7. Click the **TV** icon.

Note that the TV row flashes for a few seconds to draw your attention to it.

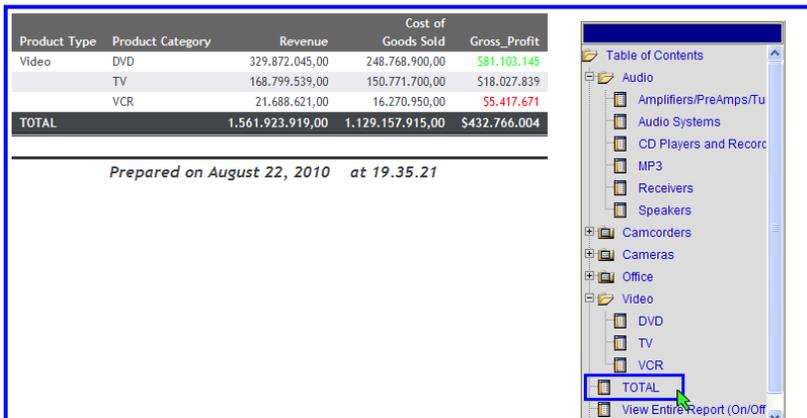


8. Expand **Audio** and click **CD Players and Recorders**.

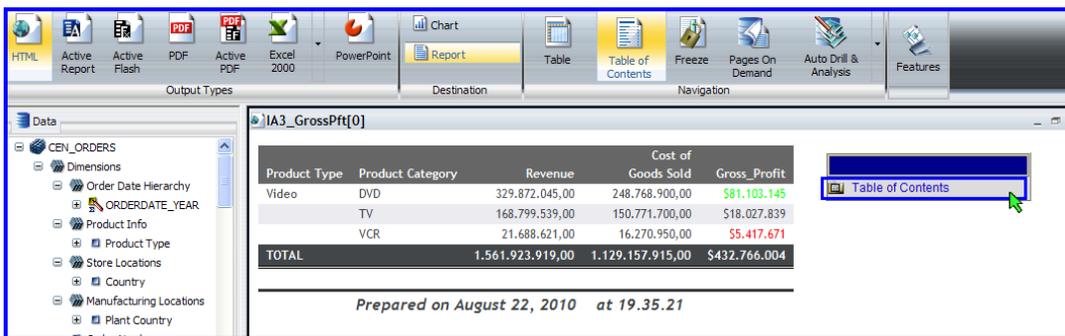
Again notice that the CD Players and Recorders row flashes for a few seconds to get your attention.



9. Select **TOTAL** to go to the Grand Totals at the end of your report.



10. Select the **Table of Contents** heading. This will minimize the Table of Contents. You can click and expand it when you need it.



11. Close all your open reports. Several reports may exist. Do not save any of them. You can use the  main menu to  close your reports. InfoAssist should still be open.

## 2.7 Creating a Parameterized Report (IA4\_Detail\_w\_Parm)

1. Open **IA3\_GrossPft** in InfoAssist.
2. Run your report.

Your report should look like the image below. If you have overwritten this version, you can quickly create a new report, add four fields: Product Type, Product Category, Revenue and a computed field called Gross\_Profit (LINETOTAL - COSTOFGOODSSOLD). Do not worry about COSTOFGOODSSOLD or your headings and footings. Grand totals are possible, but not mandatory.

If your report still looks like the image here, you have followed the tutorial perfectly!

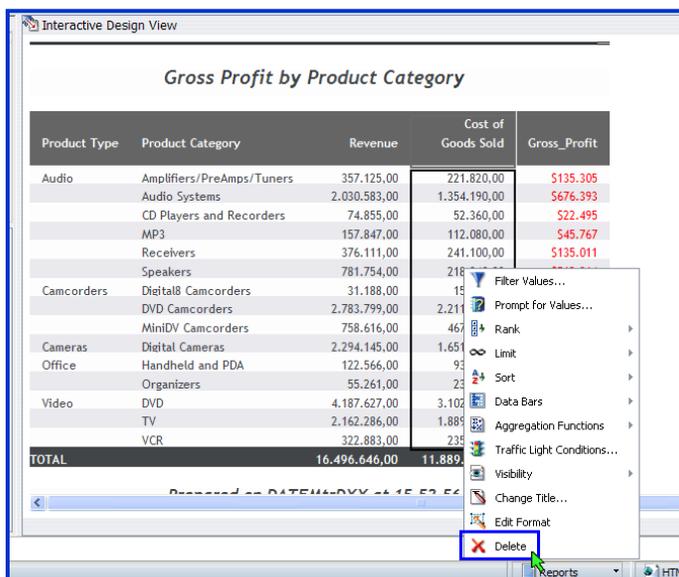
Product Type	Product Category	Revenue	Cost of Goods Sold	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	42,374,428.00	25,739,570.00	\$16,634,858
	Audio Systems	122,345,680.00	82,282,820.00	\$40,062,860
	CD Players and Recorders	53,847,459.00	37,838,460.00	\$16,008,999
	MP3	43,491,588.00	26,438,660.00	\$17,052,928
	Receivers	35,907,113.00	22,998,000.00	\$12,909,113
	Speakers	84,717,053.00	24,680,990.00	\$60,036,063
Camcorders	Digital8 Camcorders	13,614,953.00	6,512,600.00	\$7,102,353
	DVD Camcorders	379,376,637.00	300,373,350.00	\$79,003,287
	MiniDV Camcorders	51,539,451.00	34,128,360.00	\$17,411,091
Cameras	Digital Cameras	184,103,667.00	133,328,830.00	\$50,774,837
	Office	Handheld and PDA	18,533,190.00	14,067,420.00
Video	Organizers	11,712,495.00	4,957,305.00	\$6,755,190
	DVD	329,872,045.00	248,768,900.00	\$81,103,145
	TV	168,799,539.00	150,771,700.00	\$18,027,839
	VCR	21,688,621.00	16,270,950.00	\$5,417,671
<b>TOTAL</b>		<b>1,561,923,919.00</b>	<b>1,129,157,915.00</b>	<b>\$432,766,004</b>

Prepared on December 10, 2010 at 15.19.10

3. Close your results window.

To simplify and narrow your report, remove the Cost of Goods Sold column.

4. Select the **Cost of Goods Sold** column right-click and select **Delete**.



## 2.7.1 How to Work with Data Visualization Bars

In this next section we want to add data bars to both the Revenue and the Gross Profit columns. These bars allow you to quickly scan and visually compare values within a column or between columns.

1. Select **Revenue**.
2. Expand the **Specific** group on the Field ribbon.
3. Select **Data Bars**.

The screenshot shows the Microsoft Access interface. The ribbon is set to 'Field - Revenue'. The 'Data Bars' button is highlighted in the 'Specific' group. The main window displays a report titled 'Gross Profit by Product Category' with the following data:

Product Type	Product Category	Revenue	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	357,125.00	\$135,305
	Audio Systems	2,030,583.00	\$676,393
	CD Players and Recorders	74,855.00	\$22,495
	MP3	157,847.00	\$45,767
	Receivers	376,111.00	\$135,011
	Speakers	781,754.00	\$562,914
Camcorders	Digital Camcorders	31,188.00	\$15,738
	DVD Camcorders	2,783,799.00	\$572,549
	MiniDV Camcorders	758,616.00	\$291,416
Cameras	Digital Cameras	2,294,145.00	\$642,305
Office	Handheld and PDA	122,566.00	\$28,756
	Organizers	55,261.00	\$32,216
Video	DVD	4,187,627.00	\$1,085,627
	TV	2,162,286.00	\$273,286
	VCR	322,883.00	\$87,183
<b>TOTAL</b>		<b>16,496,646.00</b>	<b>\$4,606,961</b>

Prepared on DATEMtrDYY at 15.54.34

Repeat the process for the Gross Profit field. Remember that by selecting or clicking Gross Profit, the Field ribbon will apply to that specific field. This is indicated on the toolbar just above the ribbon.

4. Select **Data Bars** for Gross Profit.

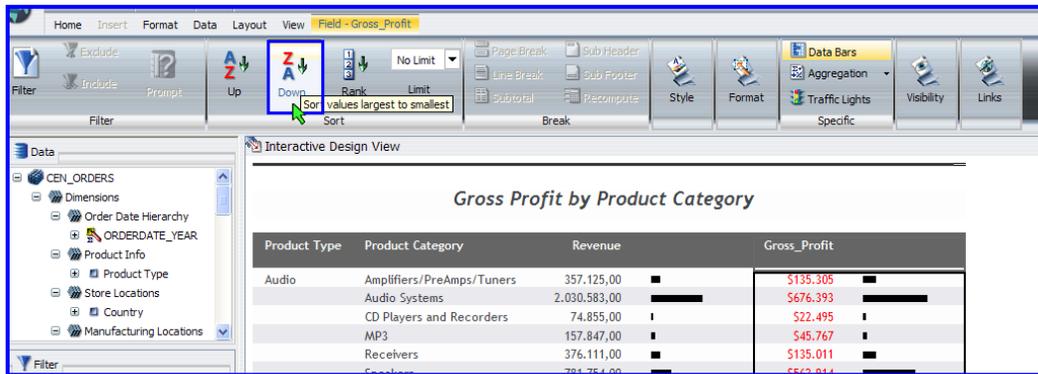
The screenshot shows the Microsoft Access interface. The ribbon is set to 'Field - Gross\_Profit'. The 'Data Bars' button is highlighted in the 'Specific' group. The main window displays the same report as the previous screenshot, but with data visualization bars added to the Gross Profit column. The bars are black and their length corresponds to the Gross Profit value for each product category.

Product Type	Product Category	Revenue	Gross_Profit
Audio	Amplifiers/PreAmps/Tuners	357,125.00	\$135,305
	Audio Systems	2,030,583.00	\$676,393
	CD Players and Recorders	74,855.00	\$22,495
	MP3	157,847.00	\$45,767
	Receivers	376,111.00	\$135,011
	Speakers	781,754.00	\$562,914

If you sort your report by Gross Profit in descending sequence, the data visualization bars help to see which products generate a high amount of profit even if they are not top revenue generators.

5. Select **Gross Profit**.

- Click the **Down** from the Sort group.



As we saw previously, this adds Gross Profit as a non-visible field at the beginning of the report where it is the primary sort sequence.

- Run your report.

Product Type	Product Category	Revenue	Gross_Profit
Video	DVD	329.872.045,00	\$81.103.145
Camcorders	DVD Camcorders	379.376.637,00	\$79.003.287
Audio	Speakers	84.717.053,00	\$60.036.063
Cameras	Digital Cameras	184.103.667,00	\$50.774.837
Audio	Audio Systems	122.345.680,00	\$40.062.860
Video	TV	168.799.539,00	\$18.027.839
Camcorders	MiniDV Camcorders	51.539.451,00	\$17.411.091
Audio	MP3	43.491.588,00	\$17.052.928
Audio	Amplifiers/PreAmps/Tuners	42.374.428,00	\$16.634.858
Audio	CD Players and Recorders	53.847.459,00	\$16.008.999
Audio	Receivers	35.907.113,00	\$12.909.113
Camcorders	Digital8 Camcorders	13.614.953,00	\$7.102.353
Office	Organizers	11.712.495,00	\$6.755.190
Video	VCR	21.688.621,00	\$5.417.671

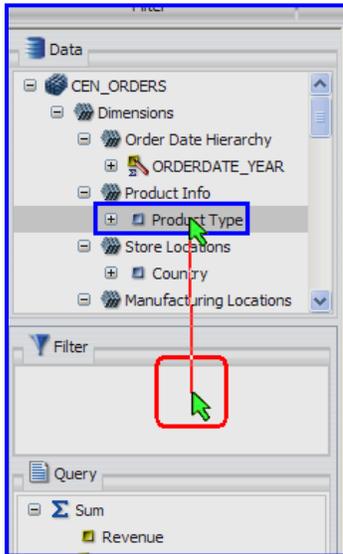
Data visualization bars make it easy to see relationships between fields and where relationships don't hold. It is much easier with data bars to identify that Audio Speakers are an important profit generator even if they don't show up extremely high on the Revenue list in the previous report.

- Close your results window.

## 2.7.2 How to Parameterize Reports

Instead of running our Gross Profit report for all our various product categories, you can run it for a single product type that is requested at run time. To do this, you need to add Product Type as an input parameter.

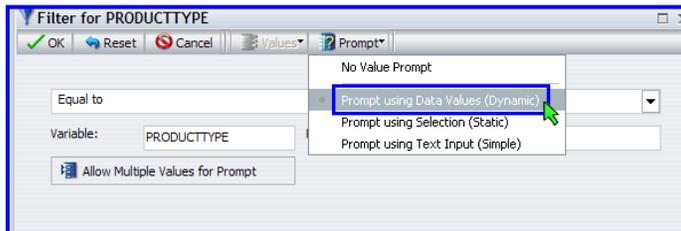
- Drag **Product Type** to the Filter panel.



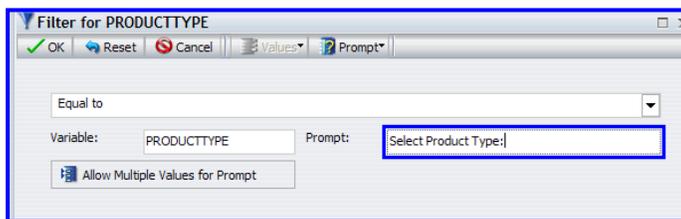
As noted previously this will automatically open the Filter window.

2. Click the **Prompt** drop-down and select **Prompt using Data Values (Dynamic)**.

This checks your data for all unique values of Product Type at run time and prompts with those values. If the prompt values never change, for example, if you were prompting for Month, you could use static values and save some run time.



3. Type the prompt: **Select Product Type.**



4. Click **OK**.

**Tip:** Now that you have seen what happens under the covers you can be introduced to the simpler method of prompting. When you highlight a field, you will see a “Prompt” icon on the left side of the field ribbon. This will perform most of the above steps for you automatically and is often all you need. If you want you can still add in your prompt text and select multiple values but if these features aren’t needed then the “Prompt” button does it all.



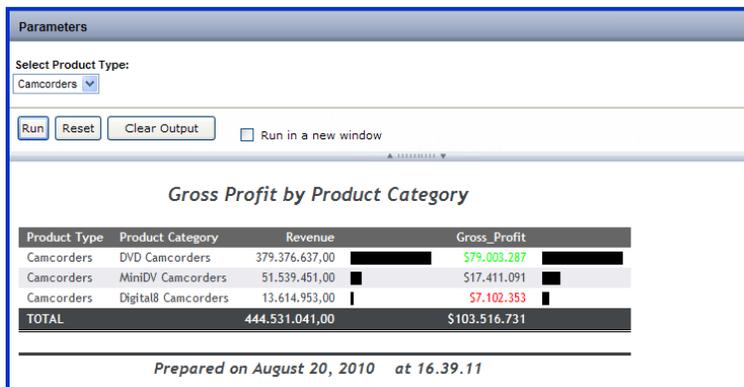
Save your report under a new name.

5. Click the  main menu.
6. Choose **Save As**.
7. Name your new report **IA4\_Detail\_w\_Parm.**
8. **Run** the report.



An AutoPrompt screen is automatically generated when you have an input parameter in your report.

9. In the drop-down list, select **Camcorders**.
10. Click **Run**.



**Gross Profit by Product Category**

Product Type	Product Category	Revenue	Gross_Profit
Camcorders	DVD Camcorders	379.376.637,00	\$79.003.287
Camcorders	MiniDV Camcorders	51.539.451,00	\$17.411.091
Camcorders	Digital8 Camcorders	13.614.953,00	\$7.102.353
<b>TOTAL</b>		<b>444.531.041,00</b>	<b>\$103.516.731</b>

*Prepared on August 20, 2010 at 16.39.11*

The only parts of the report you now see are the Product Categories within Camcorders.

11. Close your results window.

To make the drill-down report more understandable, you will place the product type in the report heading.

12. Right-click the heading and select **Edit**.

**Note:** You could also have double-clicked the heading or chosen the Heading & Footers button from the ribbon.

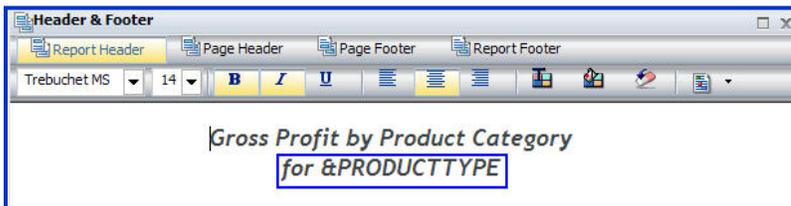
Interactive Design View

**Gross Profit by Product Category**

Product Type	Product Category	Revenue	Gross_Profit
Video	DVD	4.187.627,00	\$1.085.627
Audio	Audio Systems	2.030.583,00	\$676.393
Cameras	Digital Cameras	2.294.145,00	\$642.305
Camcorders	DVD Camcorders	2.783.799,00	\$572.549
Audio	Speakers	781.754,00	\$562.914
Camcorders	MiniDV Camcorders	758.616,00	\$291.416
Video	TV	2.162.286,00	\$273.286
Audio	Amplifiers/PreAmps/Tuners	357.125,00	\$135.305
Audio	Receivers	376.111,00	\$135.011
Video	VCR	322.883,00	\$87.183
Audio	MP3	157.847,00	\$45.767
Office	Organizers	55.261,00	\$32.216
Office	Handheld and PDA	122.566,00	\$28.756
Audio	CD Players and Recorders	74.855,00	\$22.495
Camcorders	Digital8 Camcorders	31.188,00	\$15.738
<b>TOTAL</b>		<b>16.496.646,00</b>	<b>\$4.606.961</b>

*Prepared on DATEMtrDY at 15:58.13*

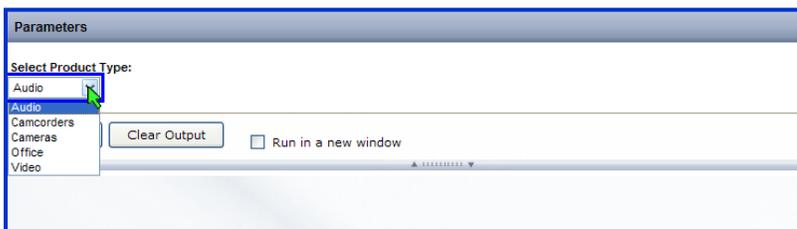
13. Add a second line to your heading for **&PRODUCTTYPE**.



&PRODUCTTYPE is the input variable for the Product Type the user selected.

14. Click **OK**.

15. **Save** your report and click **Run**.



16. Choose **Audio** and then click **Run**.

We now have a report heading that includes our Product Type selection of Audio.



17. Close your results window.

18. Close down all open reports but leave InfoAssist open. You can do this by clicking the



main menu and selecting **Close**.

## 2.8 Creating a Drill-Down Report (IA5\_Parent\_Summary)

### 2.8.1 How to Link Reports

IA1\_Revenue will be modified to invoke IA4\_Drill\_w\_Parm.

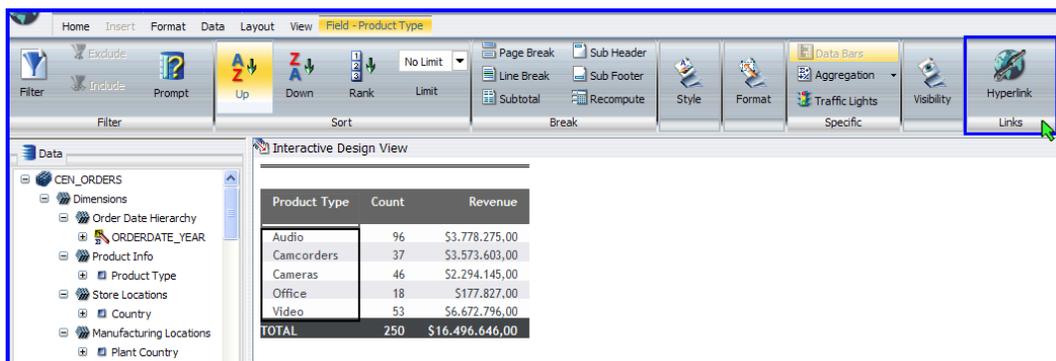
1. From the InfoAssist Open your initial report **IA1\_Revenue**.

You are going to modify this report such that when the user clicks on the Product Type field, that value is passed to your Gross Profit report, which will then run.

2. Select **Product Type**.

3. Expand **Links** on the field specific ribbon if necessary.

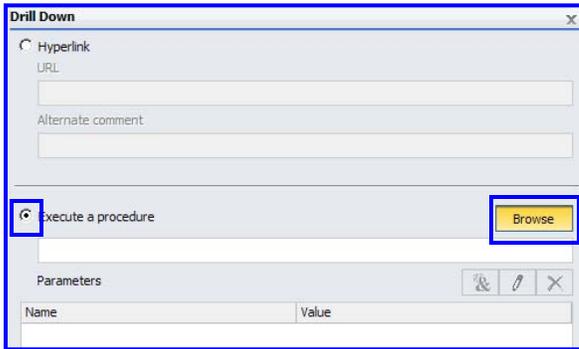
4. Select **Hyperlink**.



Web Query needs to know what report (procedure) to link to when the user clicks on the Product Type field.

5. Select the **Execute a procedure** radio button.

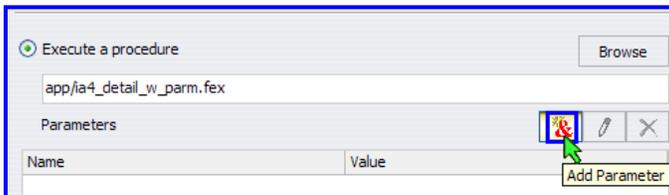
6. Click the **Browse** button.



7. Select your **IA4\_Detail\_w\_Parm** report.

Remember that the IA4\_Detail\_w\_Parm report is expecting an input parameter called PRODUCTTYPE.

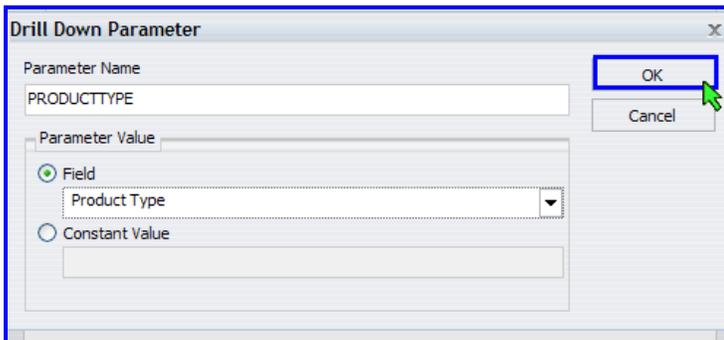
8. Click the **Add Parameter**  icon.



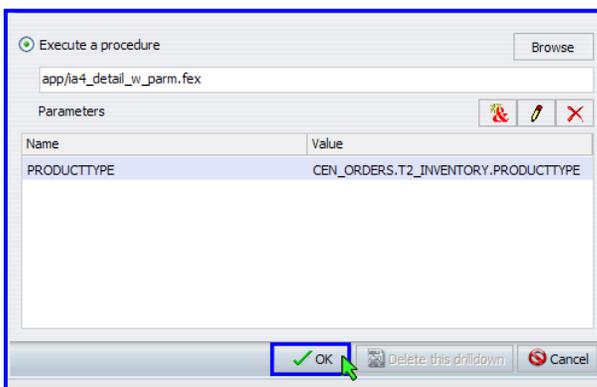
9. Enter **PRODUCTTYPE** for the parameter name. This name must match the parameter name in the linked report.

10. For Parameter Value select the **Field** radio button and choose **Product Type** from the drop-down list of available fields.

11. Click **OK** on the Drill Down Parameter window.



12. Click **OK** on the Drill Down window.



- Save your new report under a new name. Remember that Save As is located under the  main menu.
- Call the report **IA5\_Parent\_Summary**.
- Click the **Run**  icon to run the report.

The Product Type is now underlined. This is a visual indication that you can drill down on this field. You will also see that the cursor will change to a hand when it is over a field that can be drilled down on.

- Drill down on **Audio**.

Product Type	Count	Revenue
<u>Audio</u>	12846	\$382.683.321,00
<u>Camcorders</u>	5139	\$444.531.041,00
<u>Cameras</u>	5307	\$184.103.667,00
<u>Office</u>	2958	\$30.245.685,00
<u>Video</u>	6033	\$520.360.205,00
<b>TOTAL</b>	<b>32283</b>	<b>\$1.561.923.919,00</b>

IA4\_Detail\_w\_Parm requires the parameter PRODUCTTYPE to be passed to it. A parameter can be passed via an autoprompt when the query is called directly. It can be passed when one report links or drills down to another. It can also be passed from an HTML page. The latter is covered in detail in the redbook.

Product Type	Product Category	Revenue	Gross_Profit
Audio	Speakers	84.717.053,00	\$60.036.063
Audio	Audio Systems	122.345.680,00	\$40.062.860
Audio	MP3	43.491.588,00	\$17.052.928
Audio	Amplifiers/PreAmps/Tuners	42.374.428,00	\$16.634.858
Audio	CD Players and Recorders	53.847.459,00	\$16.008.999
Audio	Receivers	35.907.113,00	\$12.909.113
<b>TOTAL</b>		<b>382.683.321,00</b>	<b>\$162.704.821</b>

*Prepared on September 3, 2010 at 16.09.41*

- Close your results window.

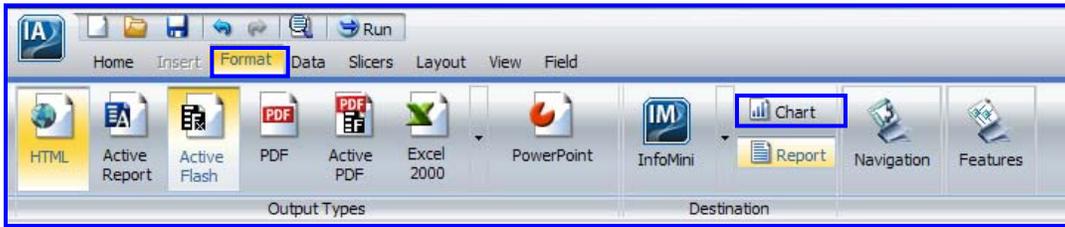
You have now finished the longest and most detailed set of exercises here. Before you take a break, try one last thing. Your report should still be open.

## 2.9 Converting a Report to a Graph

### 2.9.1 How to Convert a Report to a Chart

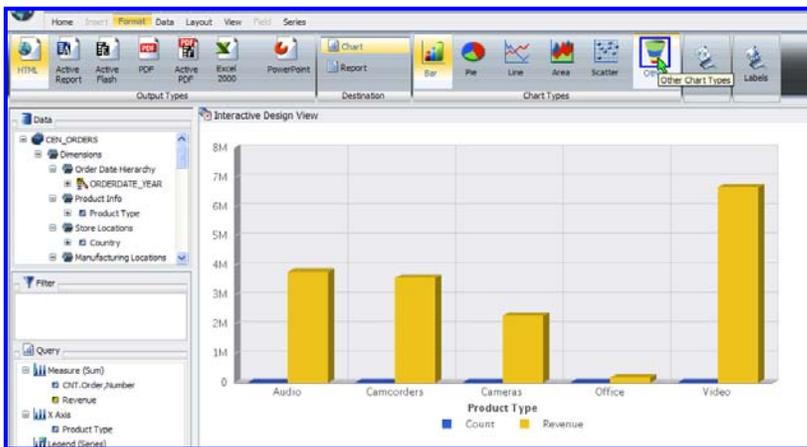
Select the **Format** ribbon and expand the **Destination** group if necessary.

- Select **Chart**.



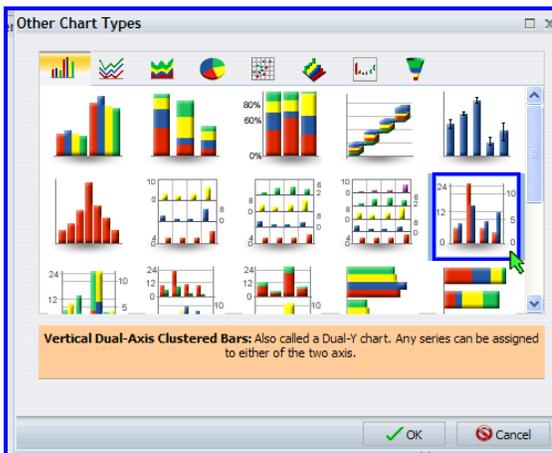
You have just converted your report to a graph, which you could save if you wished. For these exercises it is unnecessary. You will see the default bar chart. If that is not exactly what you want, expand the Chart Types group. You can select a basic bar, pie, line, area, or scatter chart with one click. If you want a little more control over which graph layout you want, then you need to select the Other icon.

2. Select the **Other**  icon.



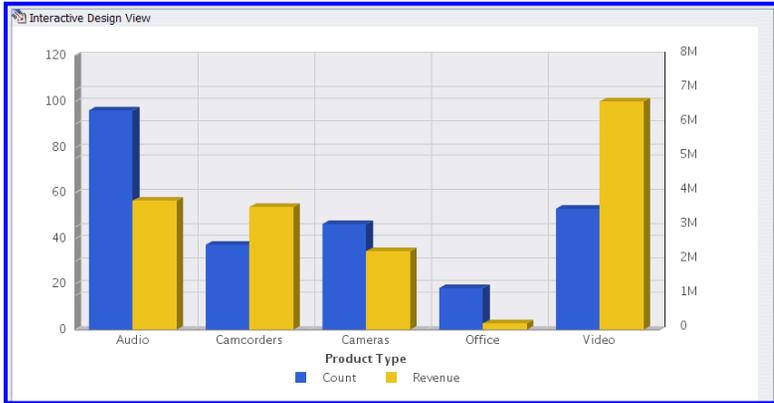
Since the count and revenue numbers are very different ranges, it makes sense to have a separate y-axis for each series.

3. Select **Vertical Dual-Axis** graph as shown in the image below. When hovering over the graph the tool tip reads "Bar Clustered Dual Axis".



4. Click **OK**.

This graph is now more readable.

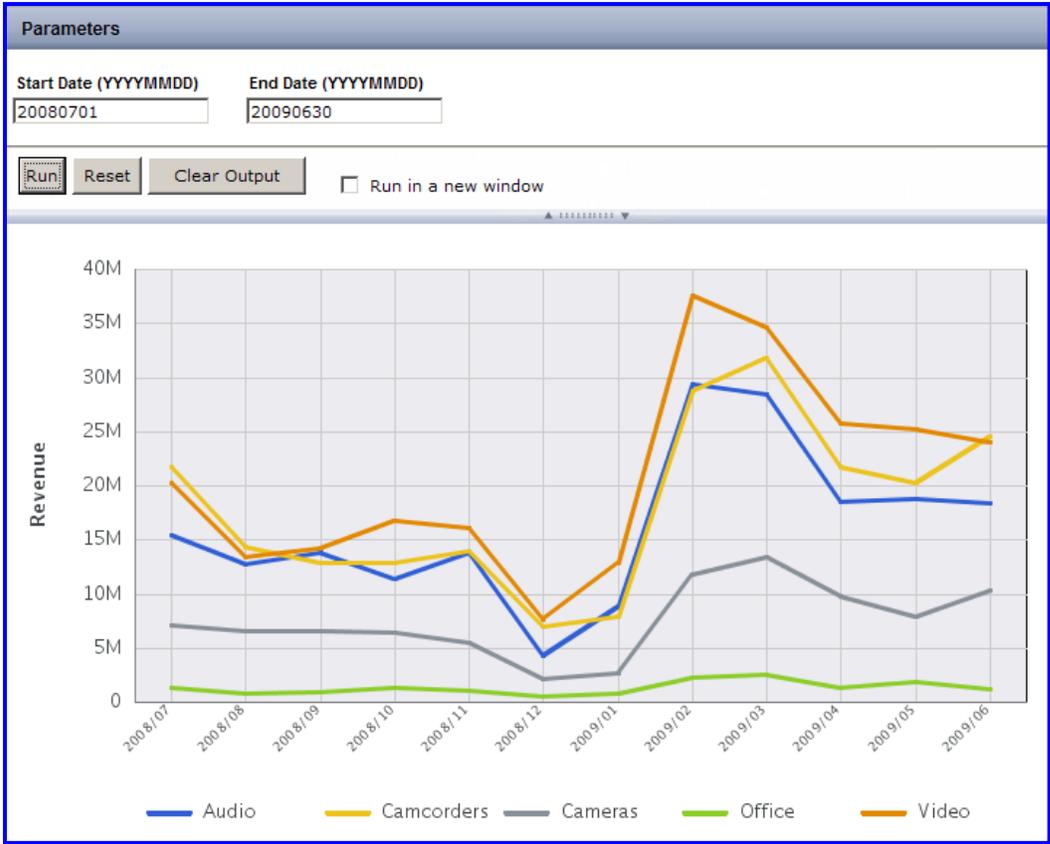


5. **Close** your graph and any other reports you may have open in InfoAssist.

You don't need to save the graph. You will create additional graphs in the following exercises. For now, take a break, have a coffee and relax for a few minutes. You have just completed your initial introduction to DB2 Web Query InfoAssist.

# 3 Creating Graphs

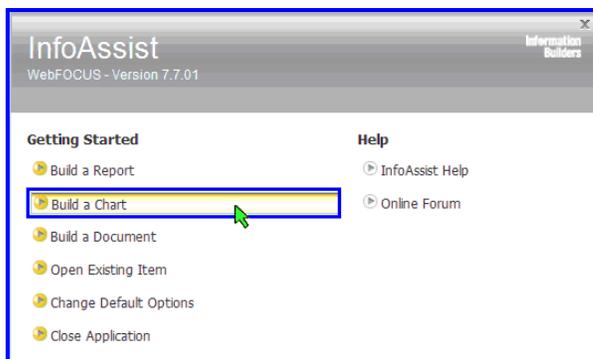
In this tutorial, first you create a simple line chart that includes all the data (two years). Next you will modify this chart to allow the user to specify the time range which they are interested in seeing.



## 3.1 Creating a Line Graph with Input Parameters (IA\_Line\_Graph)

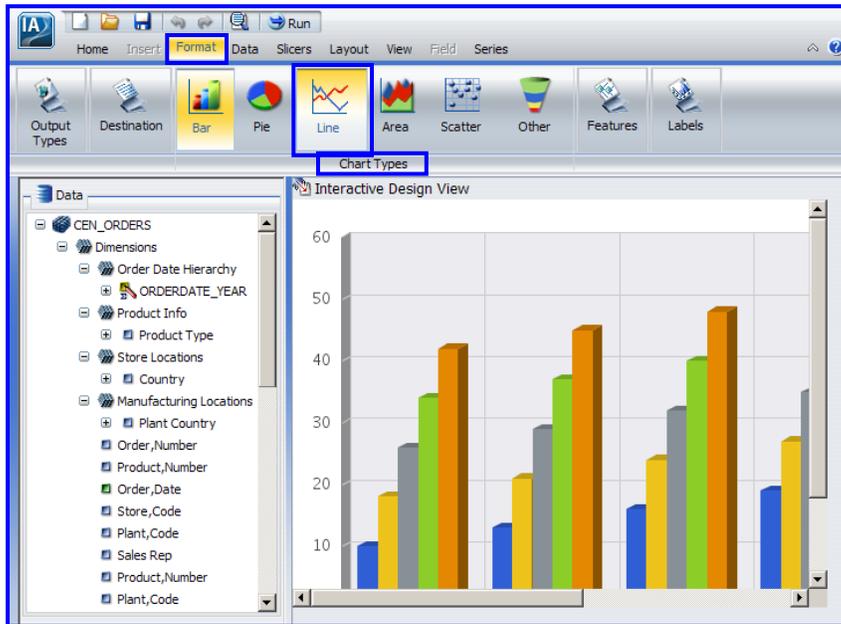
### 3.1.1 How to Create a New Graph

1. If InfoAssist is closed open it and select **New Report**. If InfoAssist is still open select **New** from the Main Menu or select the **New Report** icon next to the main menu.
2. Choose **Build a Chart** and select the **CEN\_ORDERS** table.



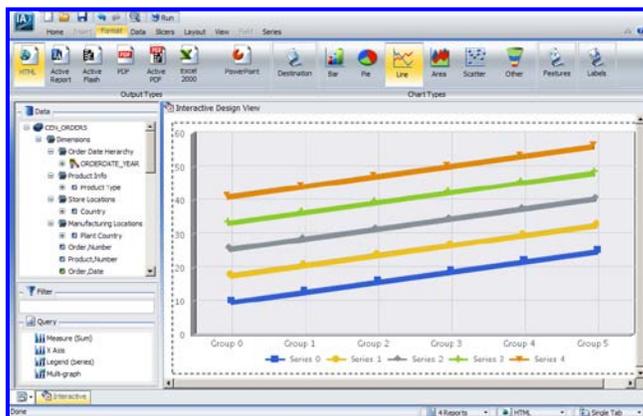
The default graph is a bar chart. You will be creating a line graph.

3. Open the **Format** ribbon and expand the **Chart Types** group if required.



4. Select the **Line** button.

**Note:** For variations on the standard line chart you would have selected **Other** under Chart Types.



### 3.1.2 How to Extract Date Components

To show product revenue trending by month over multiple years, you must plot one point for every *month*, *year* value for each product. To do this, you must extract the month and year from the SQL date field ORDERDATE.

1. Select the **Data** ribbon.

2. Click **Detail (Define)** to create a new field.



Additional information on new detail compared to summary fields and date formatting can be found in the "Getting Started with DB2 Web Query" redbook.

3. Enter a field name of **MthYr** with a format of **MtYY**.

**Note:** There are many ways to format the date January 2001. Two of the possible choices for this graph are:

MtYY      Jan, 2001

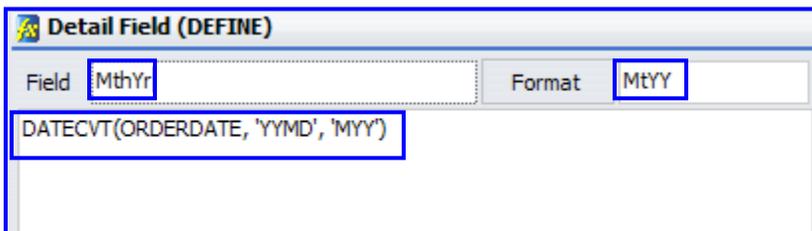
YYM        2001/01

4. In the expression area of the new field definition (see image below) enter:

**DATECVT(ORDERDATE, 'YYMD', 'MY')**

DATECVT (Date Convert) takes an input date in either smart or legacy format and converts it to a specified format.

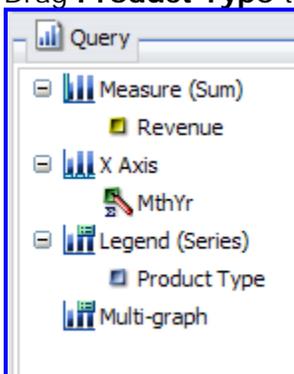
5. Click **OK**.



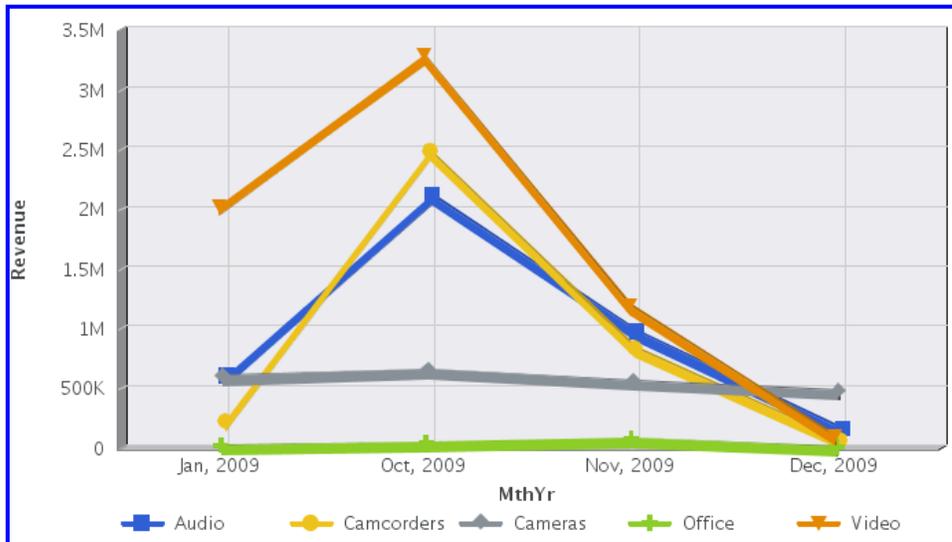
### 3.1.3 How to Build a Line Chart

Creating a chart is as simple as creating a report. You can double-click or drag and drop your required fields. In this example we will build the graph in the Query panel instead of in the Interactive Design View.

1. Drag **Revenue** to Measure (Sum) in the Query Panel.
2. Drag **MthYr** to the X Axis.
3. Drag **Product Type** to Legend (Series).

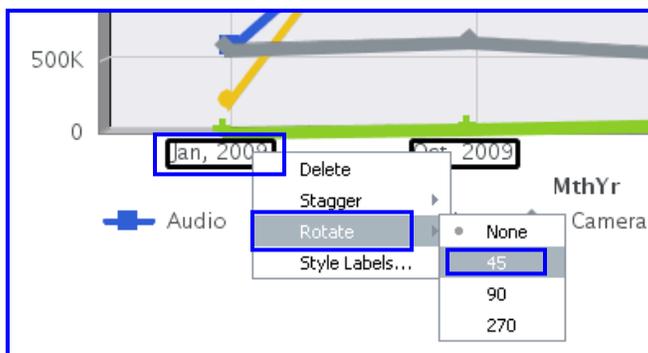


4. You should now have a line graph based on the first 500 records in your database that looks like the following image.



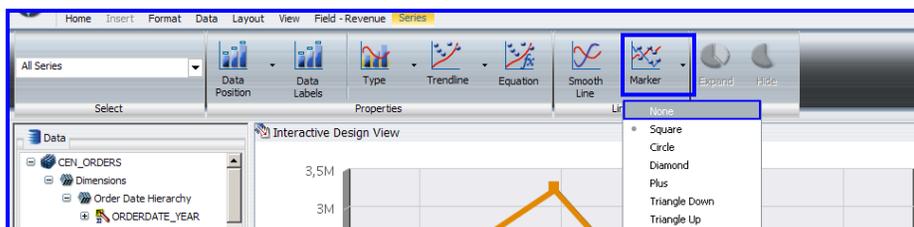
The date will be too wide horizontally for the X-Axis legend when more data is selected.

5. Right-click on **Jan, 2009**, select **Rotate** and then select **45** degrees.



Formatting pie charts and bar charts with 3D can look good but it is not as effective on Line charts. Next you will remove the 3D perspective and the markers on each line for simplicity.

6. Open the **Series** ribbon.
7. Ensure that you are working with All Series (top left) as opposed to one specific series.
8. Expand the **Line** group if required.
9. Under **Marker**, select **None**.



10. Open the **Format** ribbon and expand **Features** if required.

Note that the 3D button is highlighted.

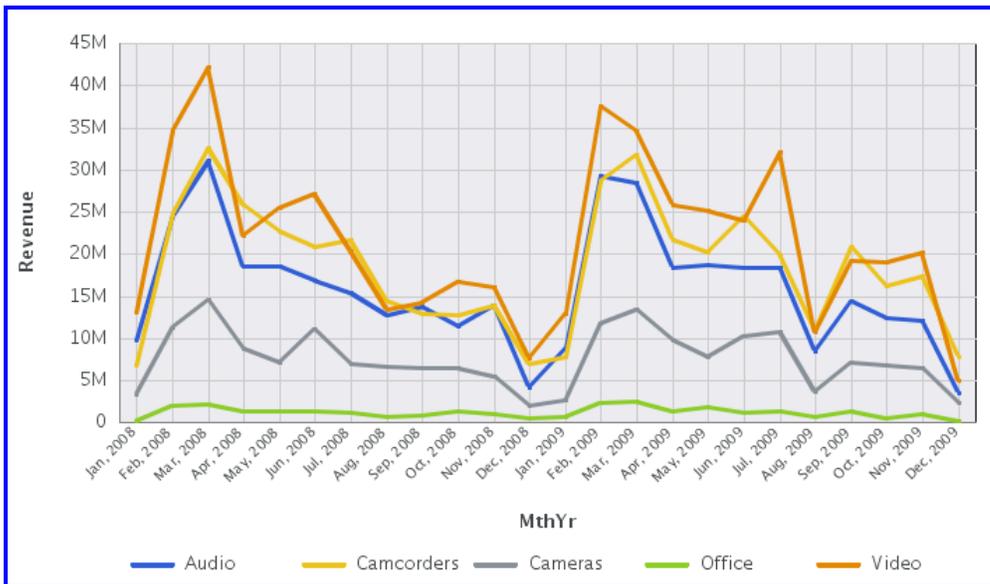
11. Click **3d Effect** to deselect 3D for your graph.



Your basic graph is complete.

12. Save the graph under the name **IA\_Line\_Graph**.

13. **Run** the report.



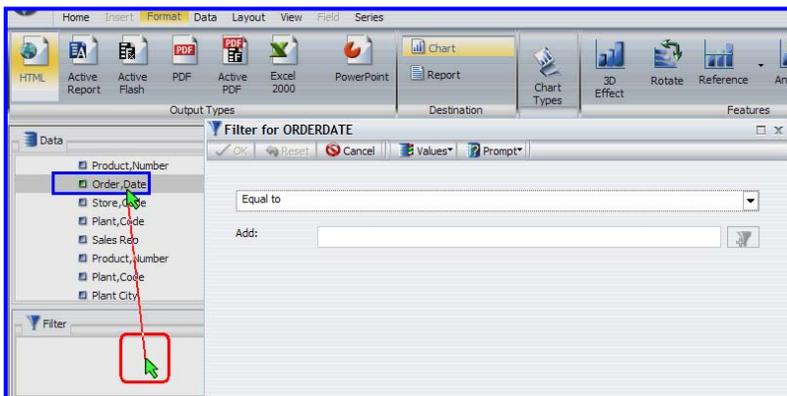
Note that your report includes 24 months which is all of the data in Cen\_Orders.

14. Close your results window.

### 3.1.4 How to Build Dynamic Date Ranges

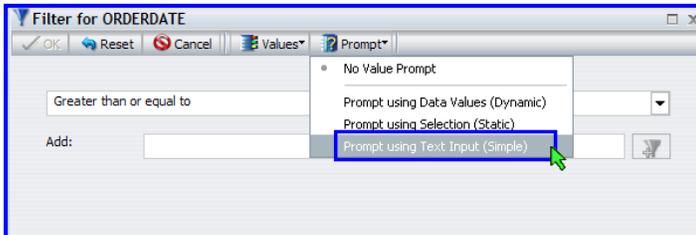
Instead of showing all the data in a file, allow the user to choose a data range for the report.

1. Drag **Order, Date** into the Filter panel. A filter control window opens.

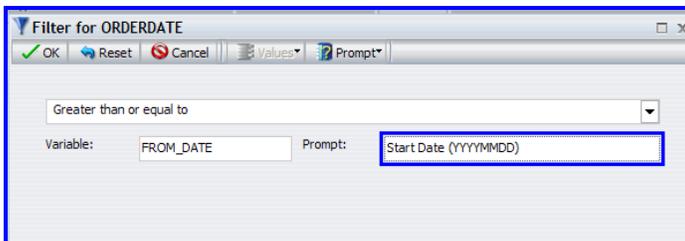


2. Click the **Prompt** button down arrow and select **Prompt using Text Input (Simple)**.

With this option the user is not given a list of dates to choose from, but rather is given a text input field to key the date into.



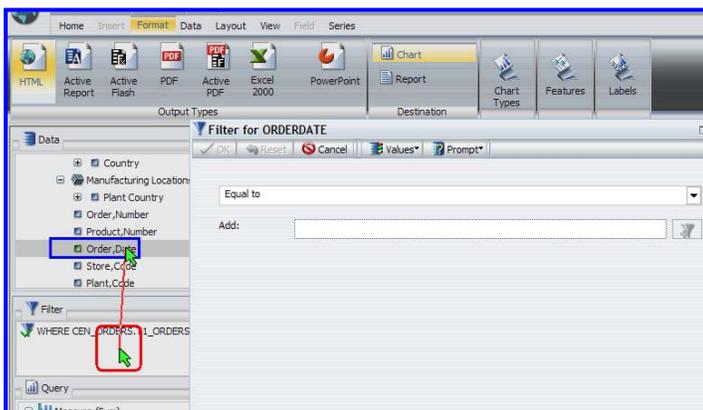
3. In a data range we want to select records where the Order Date is greater than or equal to the start date a user enters. The default variable or parameter name is the same as the database field name. In this case, since we are going to have two variables or parameters based on ORDERDATE, we need to give each one a unique name.
4. Select Greater than or equal to.
5. Name this variable **FROM\_DATE**.
6. Enter **Start Date (YYYYMMDD)** as the prompt the user will see. It is always good practice, when working with dates, to specify the format the user needs to use to enter the date. (YYYY/MM/DD would also work with a Web Query Smart Date component. You can choose the format most familiar to your end users.)
7. Click **OK**.



Now you need to repeat the process to define the end date.

8. Again, drag **Order, Date** to the filter panel.

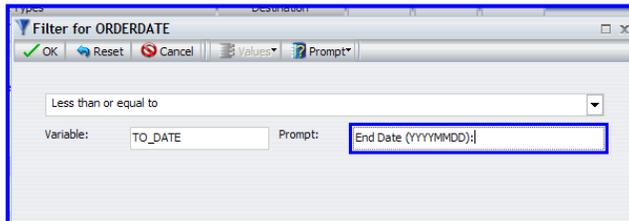
You will see two filters in the panel.



- Click the **Prompt** down arrow and select **Prompt using Text Input (Simple)**.

This time you want ORDERDATE to be *less than or equal to* the end date the user enters.

- Select Less than or equal to.
- Name this variable **TO\_DATE**.
- Enter a prompt of **End Date (YYYYMMDD)** and click **OK**.



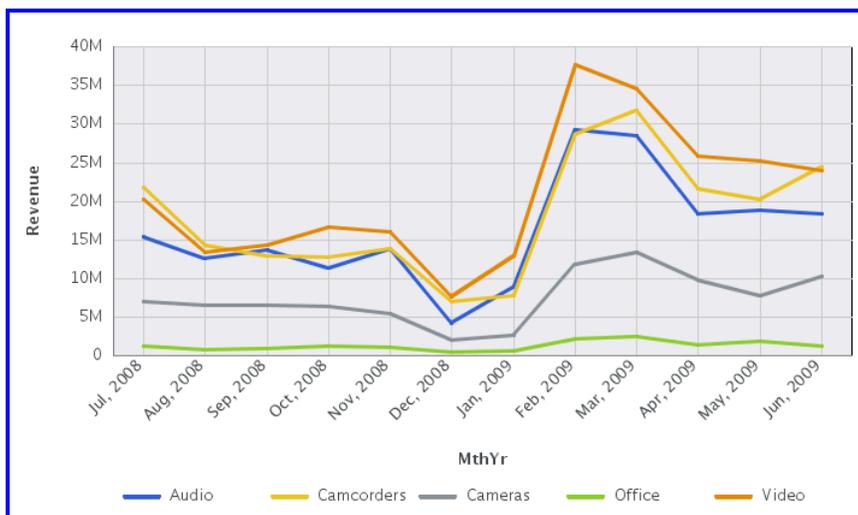
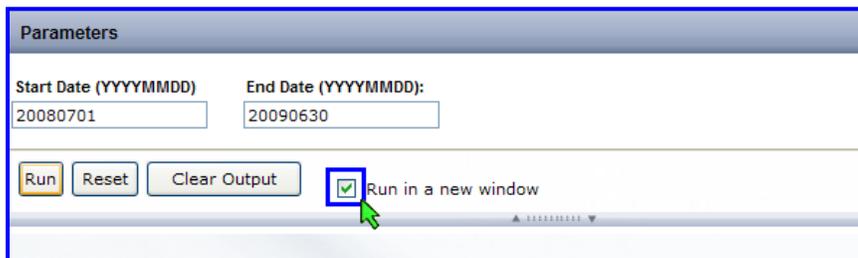
- Save** and **run** your report.

Select a full-year range starting with July 1 in 2008 (2006) and end with June 30 in 2009 (2007).

- Enter a start date of **20080701** and an end date of **20090630**.
- Check the **Run in a new window** box.

This gives you more room to display the graph.

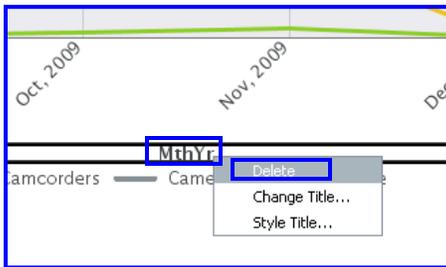
- Click the **Run** button.



**MthYr** as a heading appears to be redundant. Next you will remove it.

- Close your parameters and results windows.

18. Right-click the **MthYr** in the chart label and select **Delete**.

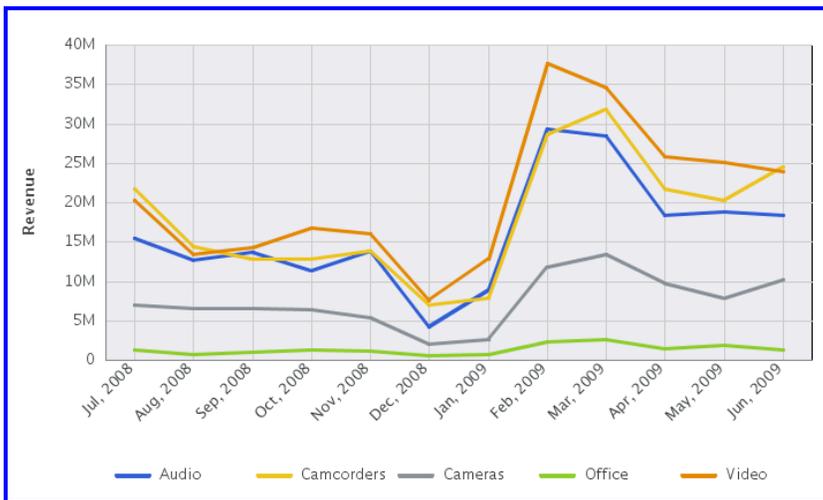


19. **Save** the report.

20. **Run** your report again.

21. Enter the same dates, July 1 to June 30, and select **Run in a new window**.

22. Click the **Run** button.



As a developer you now have the option to embed this report in an HTML page using HTML Composer. This will allow the user to select the dates from calendar icons instead of manually keying them. This procedure is outlined in the redbook.

23. Close your parameters and results windows.

# 4 Working with Compound Documents

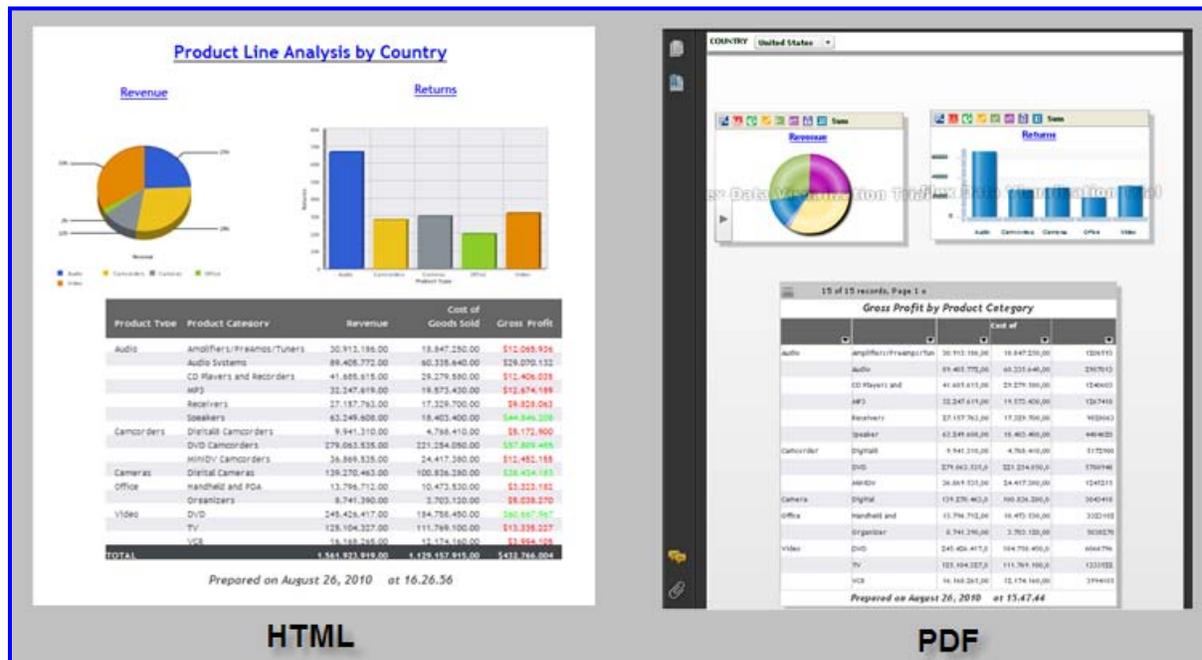
## 4.1 Creating a Compound Document (IA\_DOCUMENT)

Designing documents in Document view allows you to add text, images, reports, and charts to create compound documents. Document view combines the features of report building with the ability to style and present customized documents.

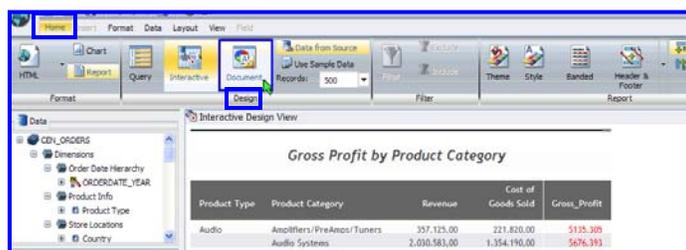
In this exercise you will first create a compound HTML document and turn it into a coordinated document. Finally you will work with some software still in development and create an active Flash and an active PDF document with InfoAssist.

### 4.1.1 How to Create a Compound Document

Any report or chart created in Interactive Design View can be turned into a document. Alternatively, you can start with an initial blank document and insert new or existing reports. In this instance you will take IA3\_GrossPft, created earlier, and use it as the basis for your compound document.



1. Open **IA3\_GrossPft**.
2. Ensure that the **Home** ribbon is open and that the **Design** group is expanded.
3. Click the **Document** button to convert IA3\_GrossPft from a standard report to a document.



When you convert a single report into a compound document, the original report is preserved and remains open as a second report in InfoAssist.

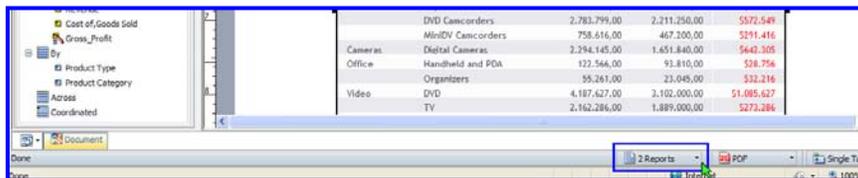
**Tip:** Assume that you want to convert an existing report into a document. If you want to work with the report while in the document or coordinate the report with added reports and graphs, you need to convert the report by opening it first and then changing it to a document. If you insert an existing report into a document you cannot edit or modify the inserted report.

4. Drag your report to the bottom half of the screen to make room for the charts to be inserted above it.
5. Center the report across the page and place the top of the report at approximately the 4" mark (see image below).



6. Save your in-process report and call it **IA\_DOCUMENT**.

Note at the bottom of your screen that you have two reports open concurrently. They are your current document and your initial IA3\_GrossPft report. You can close the original Gross Profit report if you want, you will not need it again.

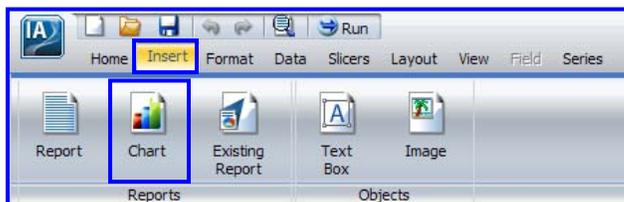


You can insert a new chart into your document in a variety of ways. The first method we will use is to use the Insert new chart icon.

7. Scroll the layout view so that you can see the top of your document.

When you insert a chart, report, text or image they will always be initially positioned in the top left hand corner of the document.

8. Open the **Insert** ribbon.
9. Expand the **Reports** group if required and click **Chart**.



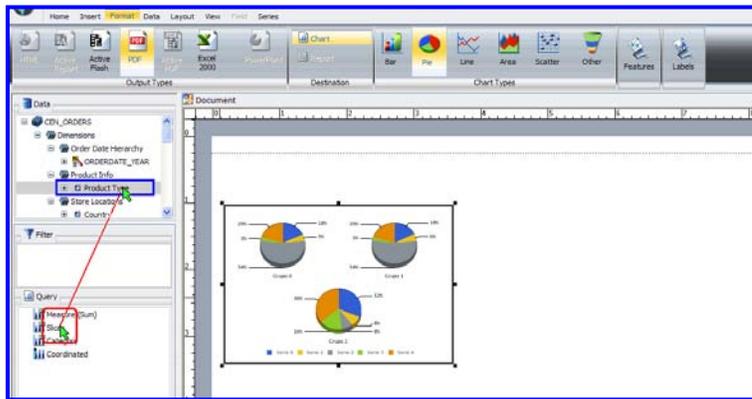
10. Drag the chart box down so that the top of it is at 1" on the ruler. This will leave room for a heading.

11. Open the **Format** ribbon.
12. Expand **Chart Types** if required.
13. Select **Pie**.

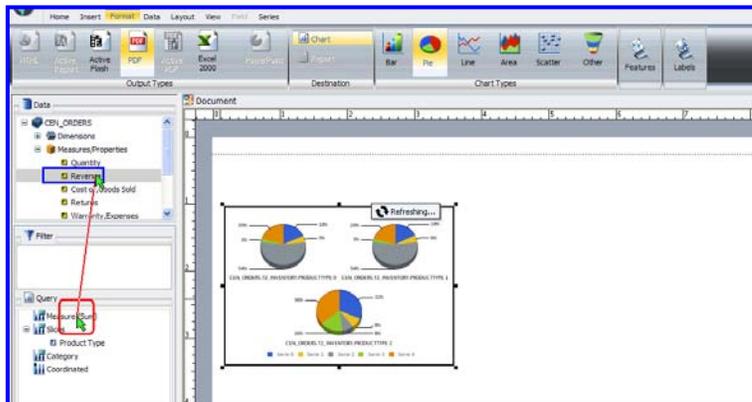


Again you can drag and drop or double-click your fields to insert them in your chart.

14. Drag **Product Type** to **Slices** in the Query Panel.

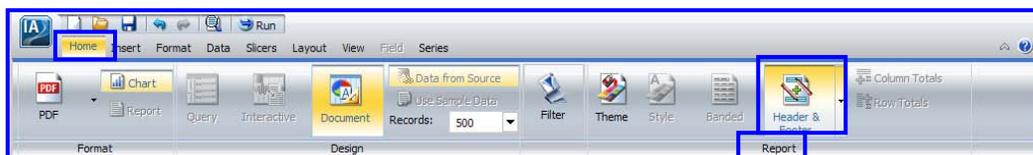


15. Drag **Revenue** to **Measures** in the Query Panel.



Next, the chart needs a heading.

16. Select the **Home** ribbon.
17. Expand the **Report** group if required.
18. Click **Header & Footer**.

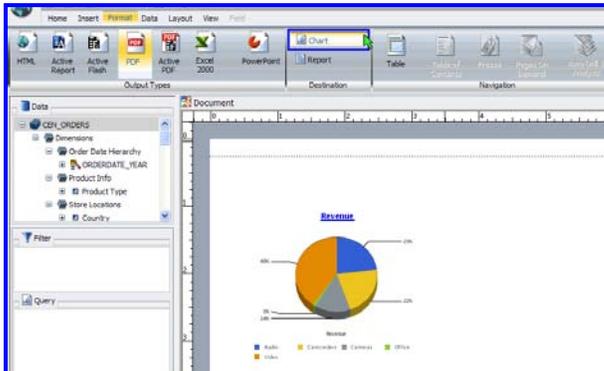


19. Type a heading of **Revenue**.

20. Leave the heading bold and centered, but make the text blue and underline it.



21. Click **OK**.



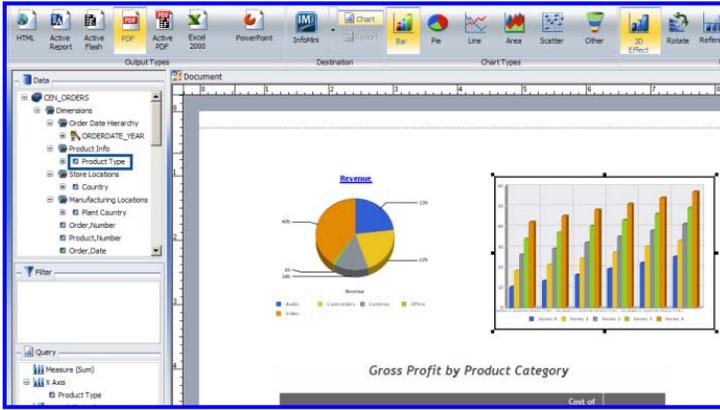
#### 4.1.2 How to Insert a Bar Chart into a Compound Document

You are going to insert a bar chart into your compound document. This time you will double-click field names instead of dragging and dropping them into the query panel.

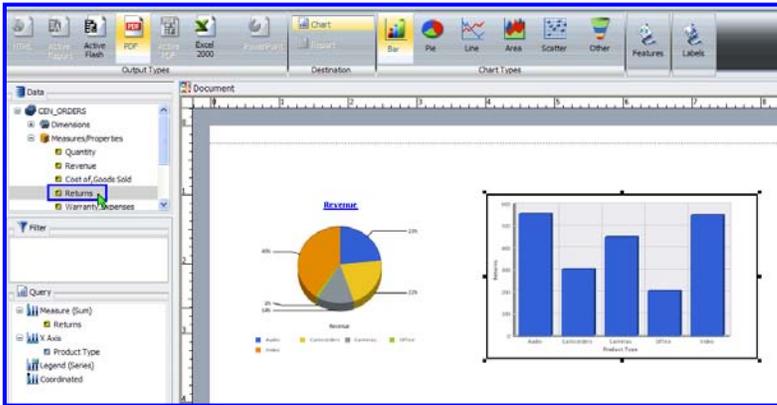
1. Open the **Format** ribbon.
2. Expand the **Destination** group and verify that **Chart** is currently selected.



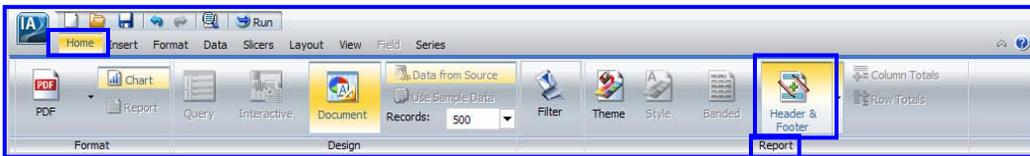
3. Click on the whitespace in the document.  
The document itself needs to be selected and not the pie chart or the gross profit report. The Query panel should be blank.
4. Drag and drop the **Product Type** field name onto the white space.



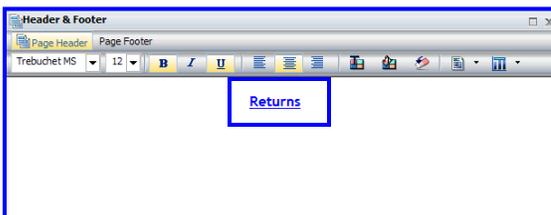
5. Move this inserted graph beside the pie chart and stretch it so that it fills the space over to about 8" on the ruler.
6. Double-click **Returns**.



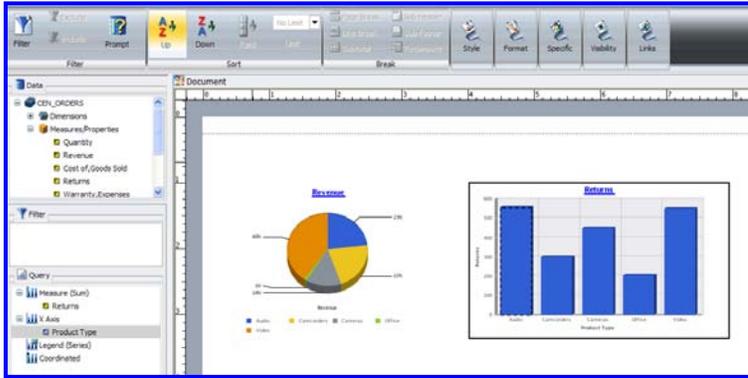
7. Open the **Home** ribbon. Make sure that the Report group is expanded.
8. Click the **Header & Footer** button.



9. Enter the heading **Returns**.
10. Use the same styling that you used for the Revenue pie chart. Make the field blue and underline it. Leave the font, size, and centering options as they were before.



11. Click the **OK** button.



It is noticeable in the preview that the bar chart, all in one color, isn't as interesting to the eye as the multi colored pie chart. You will change that next.

12. Double-click the bar chart or right-click and select **edit chart**. You need charts and reports to be in edit mode to be able to interact with them when working in a document.

It is easy to tell when a report is selected for edit. In addition to the solid black box around the object, the Query Panel is filled in with all the pertinent details.

13. Double-click on a bar to select **Returns** and then right-click on the Returns bar to see the field specific menu.
14. Select **Color Mode**.
15. Change the choice from By Series to **By Group**.

This will give every Product Type bar its own color.



### 4.1.3 How to Select an Output Format

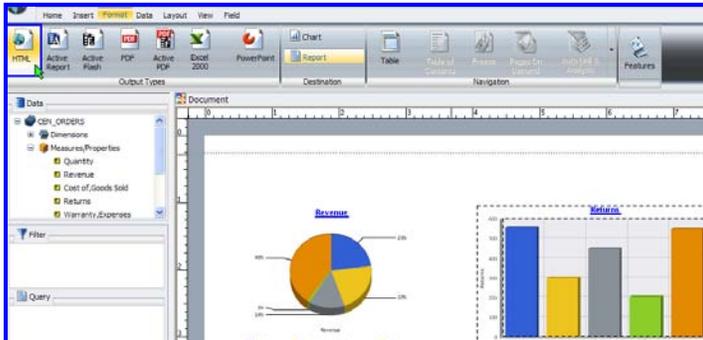
Like any report or graph, a document can be output in different formats. To begin you will output a document in HTML. The default output for documents is PDF. In a future release you will be able to design a report where the end user can choose, at run time, what output format they would like to see.

1. Open the **Format** ribbon.
2. Click in the white space outside the three objects on the page.

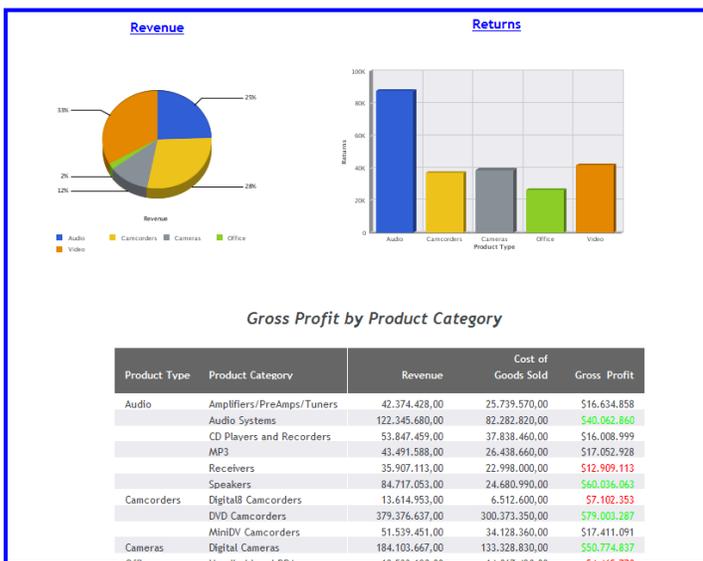
You are ensuring that the document itself is selected and not an individual component. The Query panel should be empty. You need to always be aware of

whether the instructions you are giving to InfoAssist are for the entire document or simply for one report within the document.

- Once you have selected the document (blank Query panel) then, from the Output Types group, select **HTML**.
- Save** your document.



- Run** your report.



Note that all the properties of the original Gross Profit report such as traffic lighting are still there. Shortly you will see how to run your report in a separate browser window so that you can see the entire results screen.

- Close your InfoAssist results panel.

#### 4.1.4 How to Add a Coordinated Field to Your Report

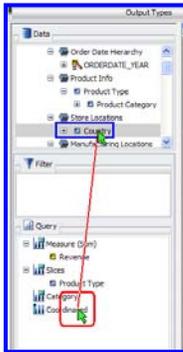
You are going to add a Coordinated field to your report. This will produce a separate page for every value in the Coordinated field.

- Select the pie chart.

Selecting any of the reports would do. Adding a coordinated field to one report automatically adds it to all of them.

- Drag **Country** to Coordinated in the Query Panel.

There are sales for five countries in the database so you will have five pages of output, one for each country.



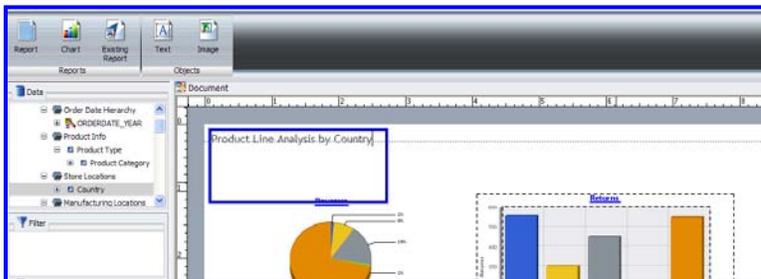
Next add a heading to the report.

3. Click on the whitespace and open the **Insert** ribbon.
4. Expand Objects if required and click the insert **Text Box** button.

Note that the Insert ribbon gives you a third way to insert a new report into your compound document.



5. Enter the heading **Product Line Analysis by Country**.



6. Drag, drop, center and size the text box above the two charts.

Note: If you lose the handles on an object in the document, click outside the object and then select it again.

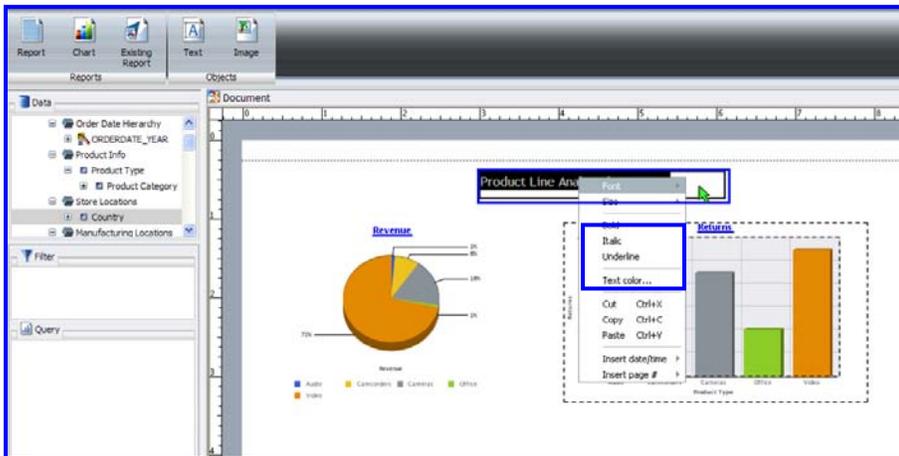
7. Double-click inside the text box and highlight all of **Product Line Analysis by Country**.

The styling changes applied in a text box only apply to the specific text that is highlighted.

8. Right-click and set the font size to 18.

You will need to right-click before each styling change.

- Set the heading to bold, underline it and make it blue.



- Save your report.

#### 4.1.5 How to Output to a Separate Window

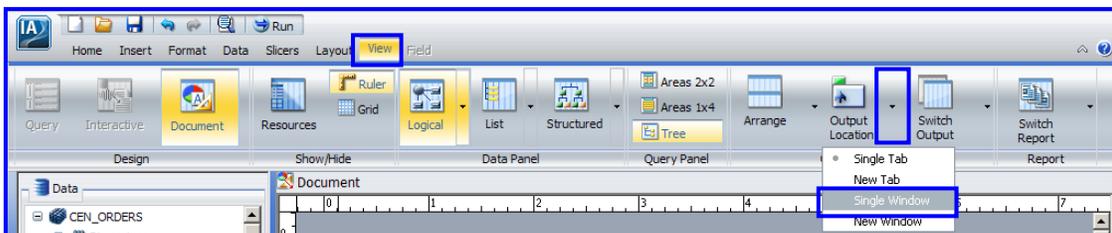
In the View ribbon you have the option to Show/Hide the resources. This will minimize the left panel and expand the width of the results panel. If this does not allow you to see enough of your results report then you have another choice. You can specify that you would like your output to go, not to your results panel, but directly to a separate browser window.

In the View ribbon in the Output Window group is the Output Location button. The drop-down list gives you multiple choices of how you would like to see your output displayed. Until now we have been using the **Single Tab** default. The two of most interest to us at the moment are the **Single Window** and the **New Window**.

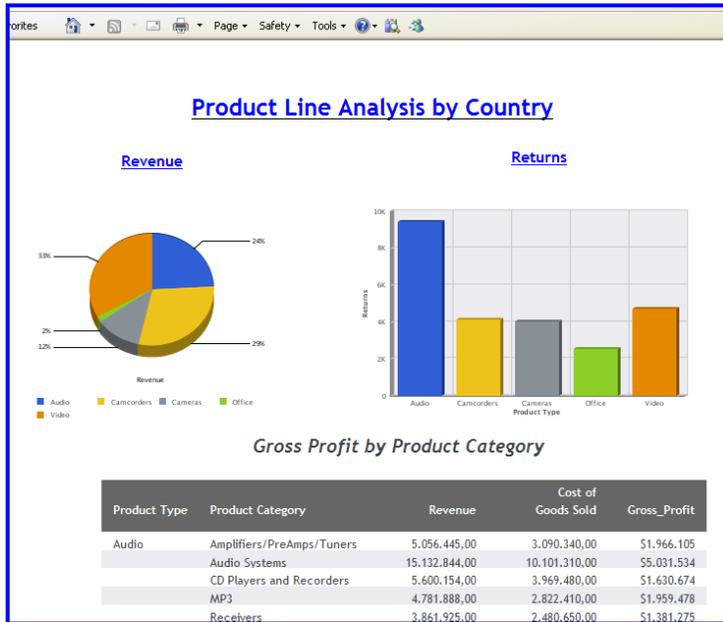
When you select **Single Window** and run a report, a new browser window is opened and populated with the report output. As you modify the report, the same browser window is refreshed each time the report is run. If the browser window is closed and the report is run, a new browser window is opened again and is refreshed for each subsequent run. The output is not displayed in the Results Panel, and an output tab is not added to the Navigation Taskbar.

When you select **New Window**, each time you run a report, a new browser window is opened and populated with the report output.

- Open the **View** ribbon.
- Expand the **Output Window** group if required.
- Select the drop down arrow for **Output Location** and choose **Single Window**. This option is also available on the bottom right corner of your InfoAssist window.



- Save and Run your report.



Scroll down through your report. You should see five independent sections. The first page shows the results for Canada. The last page shows the results for the United States. If you were leaving your report in HTML you would include <COUNTRY in the headings of the document, report, or graph. <fieldname represents the current value of that field.

5. **Close** the browser window.

## 4.2 Active Technologies

Now to introduce some exciting new technologies under development. The Active Flash and Active PDF support combined with Compound documents give you some really nice options and results.



Note that the Active Reports license enables all the Active technologies. You must have Active Reports installed and licensed or be on the 70 day trial to complete the remainder of the exercises.

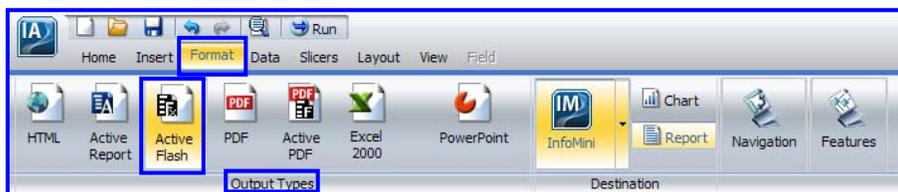
Graphs created with Active technologies require a site license from Adobe. Without this extra license you will see the “Data Visualization Trial” message.

You can output your document to HTML, PDF or Excel. PDF will give you one page for each country. Excel will give you one worksheet for each chart or report. The first worksheet will have the Gross Profit report on it five times, once for each country. The second worksheet will have five pie charts and so on. You cannot output Excel formulas from a document.

**Tip:** Active Reports use ActiveX® controls. Based on your browser security settings, you might see warning messages, and you might be asked if you want to allow blocked content.

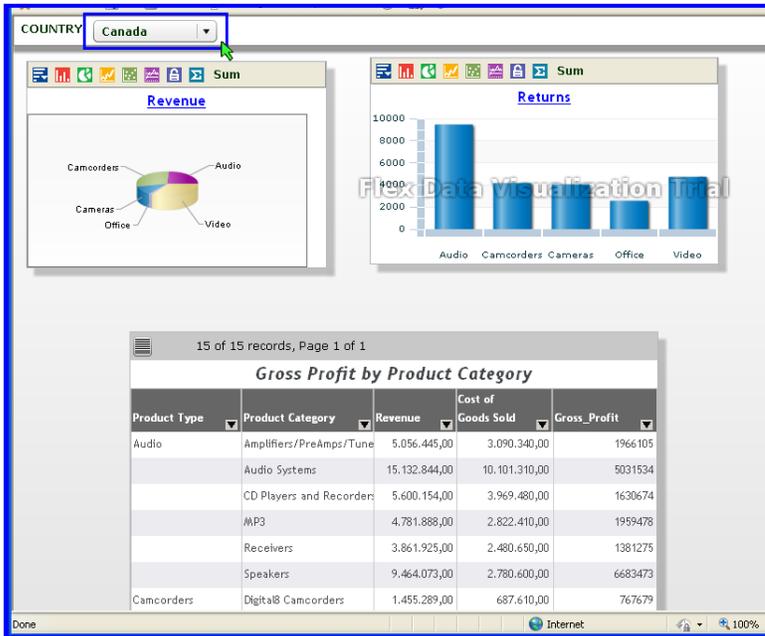
### 4.2.1 Working with Active Flash

1. Click in whitespace on the document to select the entire document. No black selection lines should be around any object.
2. Open the **Format** ribbon.
3. Expand **Output Types** if required.
4. Select **Active Flash**.



5. **Save** and **Run** your report. Active technology documents will take longer to initially load than standard html documents.

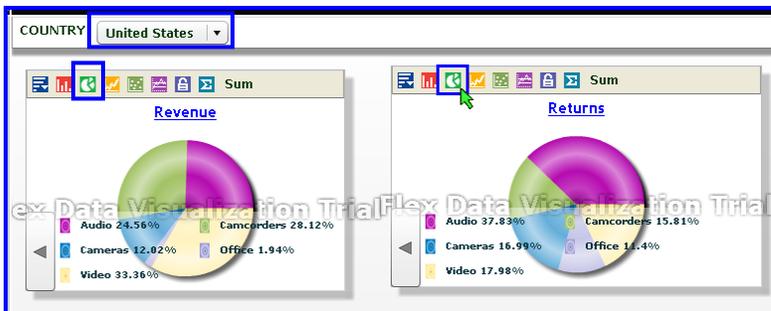
Note that your compound field has been automatically turned into a drop-down list and that your report is now one page in length.



The data in the Active Flash report is not static for all countries. Below are steps that a user can take to work with the document.

6. Change the **country** from Canada to the United States.
7. In the **Revenue** pie chart click the **pie chart icon** on the menu bar. This will change the type of pie that you are seeing.
8. In the **Report** bar chart click the **pie chart icon** on the menu bar.

Leaving the transparent legend expanded allows you to see relationships both numerically and pictorially. Notice that Audio's percent of Returns is almost 50% higher than their percent of Revenue. Look at Office. While it accounts for less than 2% of the Revenue, office products account for more than 10% of the Returns.



Clicking the arrow on the left of the legend hides the legend and lets you fully see the pie chart.

9. Hide the **Revenue** legend.

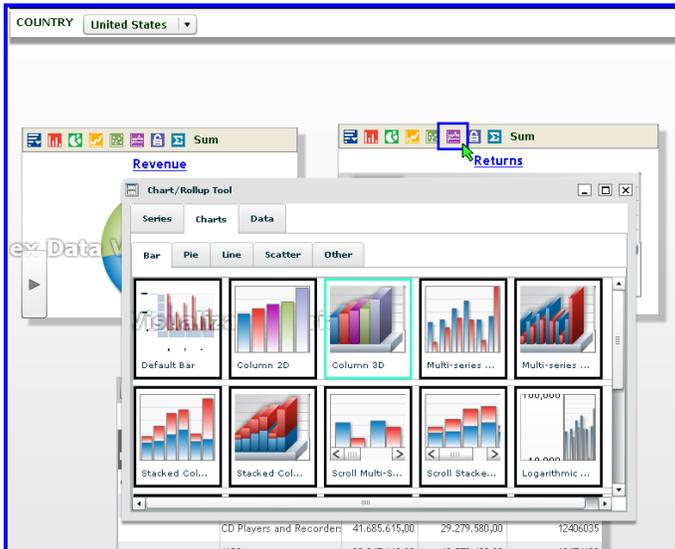
10. Hide the **Returns** legend.

Next you are going to restore your Returns to a bar chart, but a nicer one aesthetically than the default chart you originally used.

11. Click on the 6th icon from the left  (between the scatter diagram and the lock).

This opens a tool that lets you work with your data in various forms.

12. Select **Charts** and then select **Bar**.



13. Choose the third bar chart option, **Column 3D** and close the selection window.



There is a lot more that you can do with Active charts. Continue to investigate the various options on your own.

Leave your results window open. Next you will be working with the Active Reports section of the document.

## 4.2.2 Working with Active Reports in an Active Flash Document

In this exercise you are going to work with the Gross Profit report embedded in the compound document. Anyone who has used Web Query's Active Report feature should be familiar with the next few steps.

Scroll your document so that you can see the entire Gross Profit Report on one screen. You are looking at an Active Report integrated into a compound document. With Active Reports, you can create a variety of simple or advanced charts (pie, line, bar, or scatter), roll-up analysis, or pivot reports.

You will touch on some of the available functionality in Active Reports in the next few steps. More details and exercises can be found in the Redbook.

If you are familiar with Active Reports in HTML you will see a few differences to Active Reports stored in an Active Flash document. In an Active Flash environment you do not have access to individual cells. You must access all options from the menu. This means that features such as comments or notes attached to one cell are not available. When creating an Active Report from InfoAssist, you do not currently have all the styling options available that you do from Report Assistant.

1. Click the down arrow to the right of the Revenue heading.
2. Select **Sort Descending**.

Product Type	Product Category	Revenue	Cost of Goods Sold	Gross Profit
Audio	Amplifiers/PreAmps/Tune	12065936		
	Audio Systems	29070132		
	CD Players and Recorders	12406035		
	MP3	12674189		
	Receivers	9828063		
	Speakers	44846208		
Camcorders	Digital Camcorders	5172900		
	DVD Camcorders	57809485		
	MiniDV Camcorders	12452155		
Cameras	Digital Cameras	38434183		
Office	Handheld and PDA	3323182		
	Organizers	5038270		
Video	DVD	60667967		
	TV	13335227		
	VCR	3994105		
		16,168,265,00	12,174,160,00	

Prepared on August 27, 2010 at 17:52:24

Your report is now sorted in Revenue sequence instead of in Product Type sequence.

To make more room on the page you should temporarily hide the Cost of Goods Sold column.

3. Click on the down arrow for the Cost of Goods Sold column and select **Hide Column**.

Product Type	Product Category	Revenue	Gross Profit
Camcorders	DVD Camcorders	279,063,535,000	187,945
Video	DVD	245,426,417,000	64,796,7
Cameras	Digital Cameras	139,270,463,000	43,418,3
Video	TV	125,104,327,000	33,527,7
Audio	Audio Systems	89,405,772,000	5,713,3
	Speakers	63,249,608,000	9,462,08
	CD Players and Recorders	41,665,615,000	4,060,25
Camcorders	MiniDV Camcorders	36,869,535,000	15,215,5
Audio	MP3	32,247,619,000	17,419,9
	Amplifiers/Preamps/Tune	30,913,166,000	26,593,6
	Receivers	27,157,763,000	62,863,3
Video	VCR	16,568,265,000	994,105
Office	Handheld and PDA	13,396,712,000	323,182
Camcorders	Digital Camcorders	9,941,310,000	172,900
Office	Organizers	8,741,390,000	3,703,120,00

Next you are going to add the data visualization bars which you saw earlier to both the Gross Profit and the Revenue columns.

4. Choose Visualize from the field menu for both columns.

Next you are going to add a column beside the Revenue field that will indicate the percent contribution of that line item to the total revenue.

5. Click the down arrow for Revenue and select **Calculate**.
6. Choose **% of Total** from the Calculate submenu.

Product Type	Product Category	Revenue	Gross_Profit
Camcorders	DVD Camcorders	279,063,535,000	57809,485
Video	DVD	245,426,417,000	60667,967
Cameras	Digital Cameras	139,270,463,000	38,434,183
Video	TV	125,104,327,000	5,227
Audio	Audio Systems	89,405,772,000	0,132
	Speakers	63,249,608,000	4,208
	CD Players and Recorders	41,665,615,000	6,035
Camcorders	MiniDV Camcorders	36,869,535,000	2,155
Audio	MP3	32,247,619,000	4,189
	Amplifiers/Preamps/Tune	30,913,166,000	5,936
	Receivers	27,157,763,000	80,63
Video	VCR	16,568,265,000	3,994,105
Office	Handheld and PDA	13,396,712,000	3,323,182
Camcorders	Digital Camcorders	9,941,310,000	5,172,900
Office	Organizers	8,741,390,000	50,382,70

Finally have a look on your own at some of the other options available under the menu. A user can create their own charts, pivot tables, filter records and more. Active Reports are fully detailed in the DB2 Web Query Redbook. Not all functions are fully implemented at this stage.

**Note:** If a graph doesn't currently display in a chart in Active mode then click on the chart type icon desired (bar chart, pie chart, and line chart) and the graph should appear.

15 of 15 records, Page 1 of 1

**Gross Profit by Product Category**

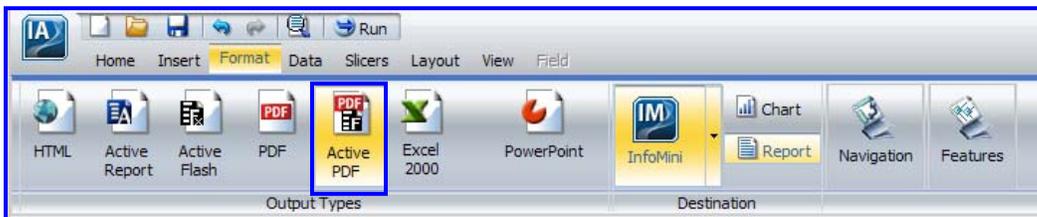
Product Type	Product Category	Revenue			Gross_Profit
Camcorders	DVD Camcorders	279.063.535,00		24.08%	57809485
Video	DVD	245.426.417,00		21.17%	60667967
Cameras	Digital Cameras	139.270.463,00		12.02%	38434183
Video	TV	125.104.327,00		10.79%	13335227
Audio	Audio Systems	89.405.772,00		7.71%	29070132
	Speakers	63.249.608,00		5.46%	44846208
	CD Players and Recorders	41.685.615,00		3.6%	12406035
Camcorders	MiniDV Camcorders	36.869.535,00		3.18%	12452155
Audio	MP3	32.247.619,00		2.78%	12674189
	Amplifiers/PreAmps/Tune	30.913.186,00		2.67%	12065936
	Receivers	27.157.763,00		2.34%	9828063
Video	VCR	16.168.265,00		1.39%	3994105
Office	Handheld and PDA	13.796.712,00		1.19%	3323182
Camcorders	Digital Camcorders	9.941.310,00		0.86%	5172900
Office	Organizers	8.741.390,00		0.75%	5038270

7. Close your results window and return to the Interactive Design View.

### 4.2.3 Working with Active PDF

This is the last exercise and uses more features of the new Active technology.

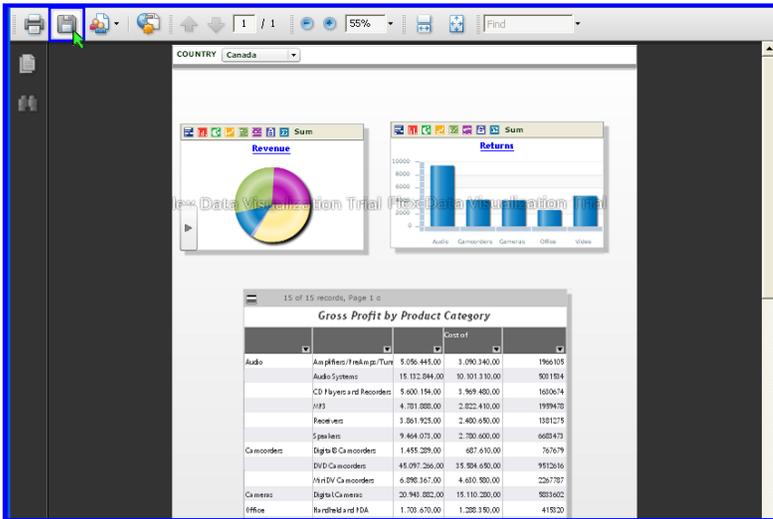
1. Open the **Format** ribbon and expand **Output Types** if required.
2. Select **Active PDF**.
3. Save your report.



4. Run your report.

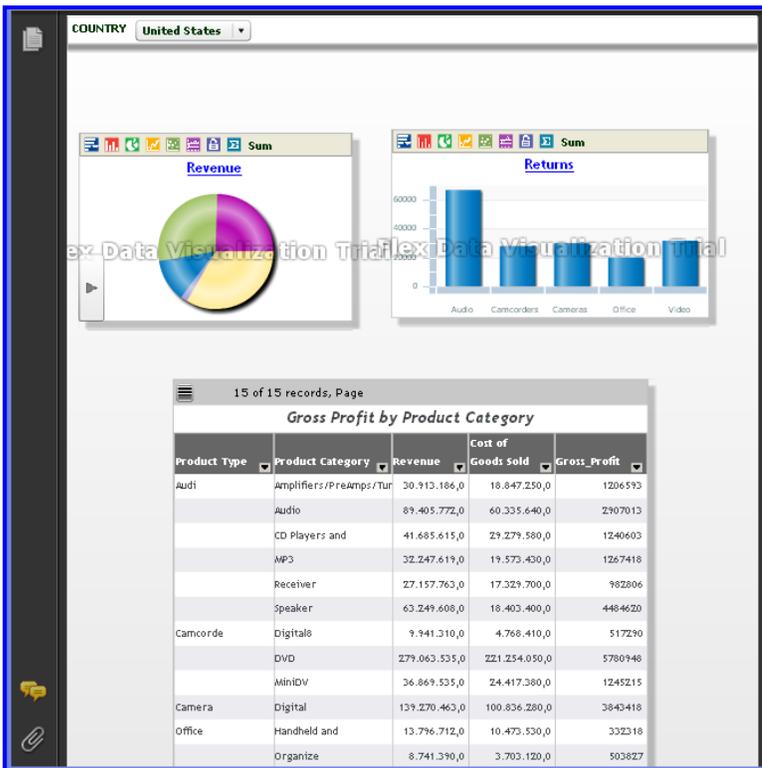
Depending on your Windows options the PDF document may display in a browser window.

5. Save the document as a PDF file named **Active\_PDF.pdf**, close the window and then, from Windows, open **Active\_PDF.pdf**.



Think of what you are looking at right now. You have a PDF file that can be read on nearly any system. You can email these files to other recipients. From this one page you can look at data for any of the five different countries. You can work with each graph and report separately. Graphs and reports can be modified to present the data in a totally different way if desired by the end user.

- Change the drop down to **United States**. Notice that you are still on page 1 in a one page report.



That's it. You have now completed the entire set of InfoAssist tutorials. Now it is time to utilize this technology on your own data to fulfill your end user requirements.

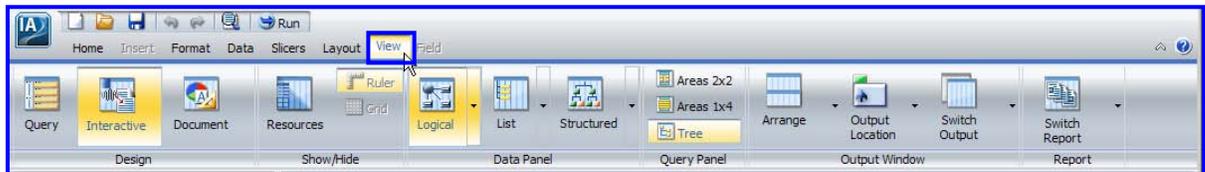
# Appendix A: InfoAssist Views

The InfoAssist user interface is modeled after Office 2007. The tab-based *ribbon* style toolbar logically groups all functions and makes it easy to find the option you need.

InfoAssist has built-in intelligence throughout its interface. Toolbars collapse and expand to fit the screen. The ribbon updates as you click in different areas of a report. Data fields are logically categorized as dimensions and measures. You will see much of this throughout the tutorials.

By default, you see the Data Panel on the left and below it the Filter and Query Design Panels. On the right is the Interactive Design View or your layout canvas. When you run a report, your results display in a new tab that overlays your Interactive Design View panel. The panels are sizable.

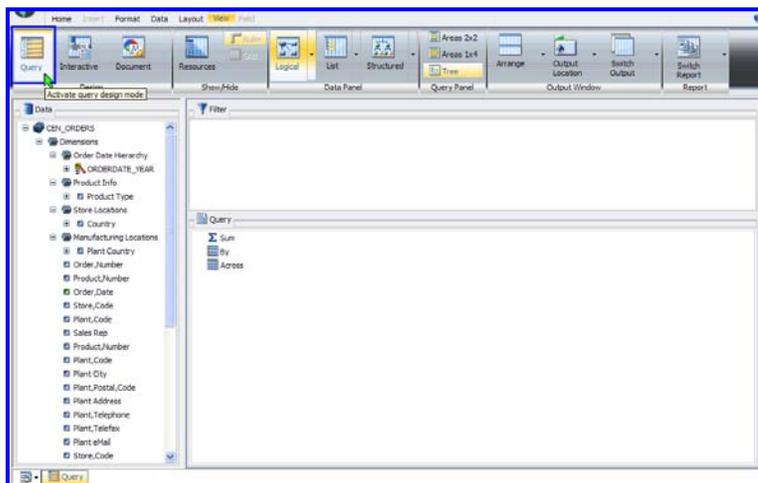
1. Click **View** to open the View ribbon. The View ribbon provides options for the layout of your screen.



2. Under the View ribbon the first group is the Design group. It is probably expanded, but if it isn't, click on it.

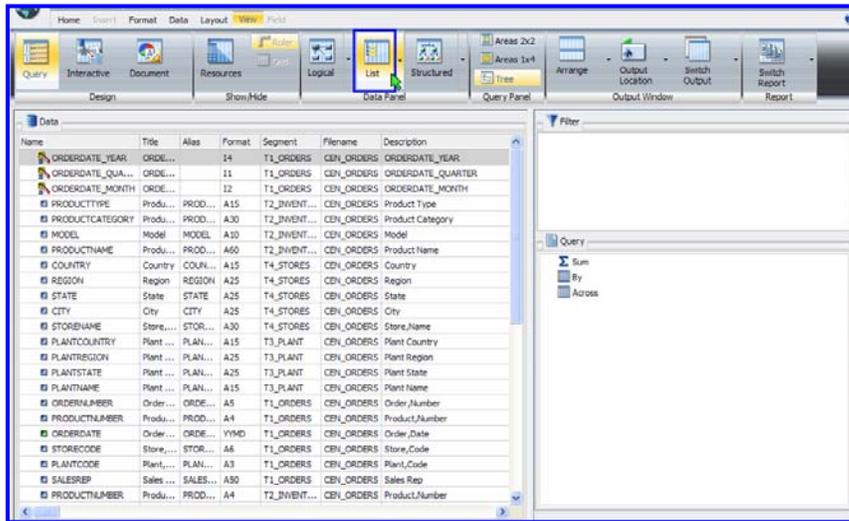
By default, InfoAssist is running in *Interactive* mode. This means that you see what your query looks like as you are defining it. In Interactive Design mode, the default is to use the first 500 records from your database to populate your preview. You can choose to use sample data instead of your actual data during design mode if you prefer.

3. In the Design group, select the **Query** button. This button takes you out of Interactive Design mode or what was essentially a WYSIWYG preview mode. The Query interface is useful when you are designing a report with multiple filters or numerous fields.



The Data Panel group enables you to display data source fields using different views, Logical (the default), List, and Structured. All three views provide options for displaying each data source field by its title, description, or using the actual field name.

4. Ensure that the Data Panel group is expanded and click **List**.
5. Resize the Data window so that you can see the entire table. The drop-down arrow on the List button allows you to control the columns that appear in the field table.



6. Click the **Structured** button. You see all the fields in sequence in the appropriate table or segment.
7. Now click the **Logical** button. **Logical** is the InfoAssist default. Your fields are sorted such that all your numeric fields are grouped under a heading called Measures and all the character fields are grouped under Dimensions. All your character fields are shown under Dimensions. Based on the hierarchies or relationships that you defined in the previous section, you see different groupings under Dimensions. Notice that you have a group of fields that you previously specified below Product Info. You will find all the groupings that you defined first in the sequence, followed by individual character or date fields that are not in any specific grouping. Lastly you will see your numeric fields or measures grouped together.
8. Click the drop-down arrow on the Logical button and select **Field**.

Displaying field names is often the most familiar choice for programmers whereas end users may prefer **Title** or **Description**. **Title** is the InfoAssist default and is what we will be using for these tutorials.

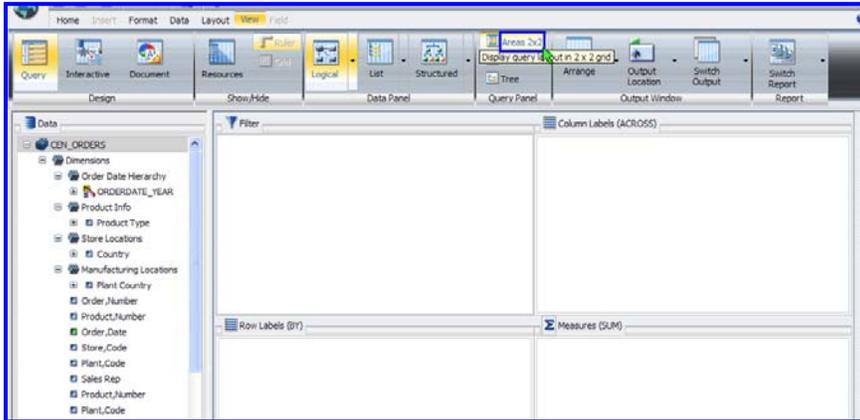
9. Click the drop-down arrow on the Logical button and select **Title**.



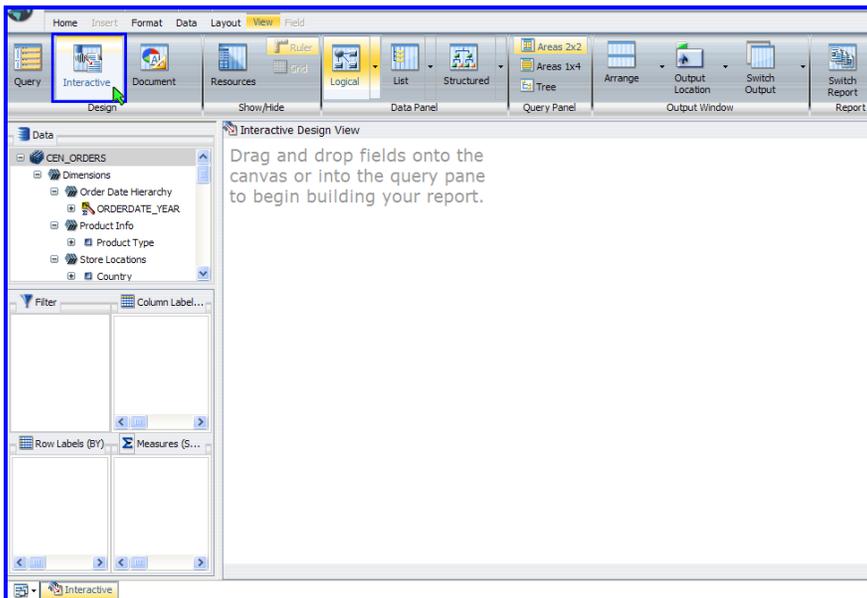
The Query Panel provides three different ways of displaying the four query components: Filter, Sum, By and Across.

10. In the Query Panel group, select the **Areas 2x2** button.

This, combined with the List option, gives you a similar query design screen to Report Assistant.



11. Click **Interactive** in the Design group on the View ribbon. Notice that your Query Panel selection is still Areas 2x2. Try the other Query Panel options and then click **Tree** in the Query Panel group.



Show/Hide and Output Window groups were covered earlier in the tutorial.