How to Work with Excel Report and Interactive Analysis

SAP Business One 9.2 PL04 and Later, version for SAP HANA

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, F2 or ENTER.

Document History

Version	Date	Change
1.0	2016-01-12	First version for the following versions: • SAP Business One 9.1 PL10 and later • SAP Business One 9.2 PL00 and later • SAP Business One analytics 1.2 powered by SAP HANA and later • SAP Business One 9.2 PL00, version for SAP HANA
1.1	2016-01-12	Guide updated for SAP Business One 9.2 PL01, version for SAP HANA. Changes mainly focus on the new feature of report parameters; for more information, see Report Parameters and iaParam Function. Guide version 1.0 still applies to SAP Business One 9.1 PL10 and later; SAP Business One 9.2 PL00 and later; SAP Business One analytics 1.2 powered by SAP HANA and later; and SAP Business One 9.2 PL00, version for SAP HANA.
1.2	2016-02-26	Guide updated for SAP Business One 9.2 PL02, version for SAP HANA. Changes mainly focus on the new feature of looking up data sources in the *Select Data Source* window. For more information, see Selecting the Data Source.
1.3	2016-04-27	Guide updated for SAP Business One 9.2 PL03, version for SAP HANA. Changes mainly focus on the following: • The solution name was changed from Interactive Analysis 2.0 to Excel Report and Interactive Analysis. • Besides the Excel reports, which were previously known as interactive analysis reports, you can now design and manage pivot tables on the *INTERACTIVE ANALYSIS* tab of the Excel report and interactive analysis designer. For more information, see INTERACTIVE ANALYSIS Tab.
1.4	2016-07-29	Guide updated for SAP Business One 9.2 PL04, version for SAP HANA. Changes mainly focus on the new feature of time functions. For more information, see Working with Time Functions.

Contents

1   Introduction

Excel Report and Interactive Analysis is a solution that provides a report designer and predefined reports. In the report designer, you can design and manage Excel reports and pivot tables on the *EXCEL REPORT* and *INTERACTIVE ANALYSIS* tabs, respectively. When you utilize its exclusive functions together with standard Microsoft Excel features, the Excel report and interactive analysis designer enables you to create reports in an intuitive way based on semantic layers. In addition, by leveraging the SAP in-memory computing technology, it provides real-time computing for your reports, giving you instantaneous access to your data.

This guide has been designed using Microsoft Windows 7 and Microsoft Excel 2010, and updated using Microsoft Windows 7 and Microsoft Excel 2013. Screenshots may vary slightly if you are using a different platform or a different version of Microsoft Excel.

This guide assumes you are familiar with Microsoft Excel. If you are not familiar with Excel, refer to the documentation that came with Microsoft Excel for further explanation.

To work with Excel Report and Interactive Analysis, you must meet the following prerequisites.

- You have installed Microsoft Excel 2010 or 2013.
- You have installed the SAP HANA client on your workstation, and ensured that the bit-width of the client matches that of your Excel 2010 or 2013. That is, if Excel 2010 64-bit is installed, then the 64-bit SAP HANA client must be installed. For more information about installing the SAP HANA client, see *SAP HANA Client Installation and Update Guide* at https://help.sap.com/hana_platform.

  To check the bit-width of Excel 2010, go to the *File* ribbon, and select *Help*. The bit-width is indicated on the right-hand side, alongside the product version number. To check the bit-width of Excel 2013, go to the *File* ribbon, select *Account*, and choose *About Excel*. The bit-width is indicated at the top of the window alongside the product version number.

- You have initialized the company database on the SAP HANA database server. For more information, look for *SAP Business One Administrator's Guide, version for SAP HANA* on sappartneredge.com.

For more information about prerequisites and authorizations for various user tasks, see Authorizations for Excel Report and Interactive Analysis.

> ℹ **Note**
>
> If you are working with the *Microsoft Analysis ToolPak* add-in, the report designer cannot work properly. To work smoothly with the report designer, deactivate the analysis add-in.

> ℹ **Note**
>
> For more information about installing Excel Report and Interactive Analysis, its post-requisites, and its troubleshooting, look for *SAP Business One Administrator's Guide, version for SAP HANA* on sappartneredge.com.

2 Authorizations for Excel Report and Interactive Analysis

The following table explains the prerequisites and authorizations required for user tasks in Excel Report and Interactive Analysis.

User Task	User Authorization
Launching and operating in the report designer	- You have one of the following licenses provided by SAP: - Professional User - B1 Starter Pack - Limited CRM User - Limited Financials User - Limited Logistics User - You have full authorizations for the report designer. To set user authorizations for the report designer, from the SAP Business One, version for SAP HANA *Main Menu*, choose *Administration → System Initialization → Authorizations → General Authorizations*. In the *Authorizations* window, select the user for whom you want to set authorizations, and in *Analytics →Excel Report and Interactive Analysis Designer*, select *Full Authorization.*
Viewing a specific Excel report	- You have one of the following licenses provided by SAP: - Professional User - B1 Starter Pack - Limited CRM User - Limited Financials User - Limited Logistics User - You have full authorizations for the report. To set user authorizations for the report, in the *Authorizations* window, select the user for whom you want to set authorizations, and in *Analytics → Excel Reports*, select *Full Authorization* for the report to which you want to set authorizations.
Viewing a specific pivot table	- You have one of the following licenses provided by SAP: - Professional User - B1 Starter Pack - Limited CRM User - Limited Financials User - Limited Logistics User - You have full authorizations for the semantic layer based on which the pivot table is created.

User Task	User Authorization
	To set user authorizations for the semantic layer, in the *Authorizations* window, select the user for whom you want to set authorizations, and in *Analytics → Semantic Layers*, select *Full Authorization* for the semantic layer to which you want to set authorizations.

3 Launching the Excel Report and Interactive Analysis Designer

There are two ways of launching the report designer.

Procedure

You can launch the designer from the SAP Business One, version for SAP HANA client as follows:

1. In the SAP Business One, version for SAP HANA toolbar, choose *Tools →Excel Report and Interactive Analysis Designer*.
2. The designer opens in Microsoft Excel with the current SAP Business One, version for SAP HANA user logged on. Select the *EXCEL REPORT* tab to view the *EXCEL REPORT* ribbon.

You can launch the designer from the Microsoft Windows *Start* menu as follows:

1. In the lower left corner of your screen, choose *Start.* Alternatively, press the Windows logo key on your keyboard.

    The *Start* menu appears.
2. In the search box, enter `SAP Business One Excel Report and Interactive Analysis`, and in the list of results, click *SAP Business One Excel Report and Interactive Analysis*.
3. The designer opens in Microsoft Excel. Select the *EXCEL REPORT* tab to view the *EXCEL REPORT* ribbon.

4 Logging on to a Company

To retrieve data for your report or manage current reports in a specific company database, you need to log on to the company. The logon is different depending on your launch method, as follows:

- If you launched the designer from the SAP Business One, version for SAP HANA client, you are automatically logged on with the company and user in the client.
- If you launched the designer from the Microsoft Windows *Start* menu, choose *Log On* in the *EXCEL REPORT* ribbon, enter relevant information in the *Logon* window, and choose *OK*. For more information about the analytics platform address, look for *SAP Business One Administrator's Guide, version for SAP HANA* on sappartneredge.com.
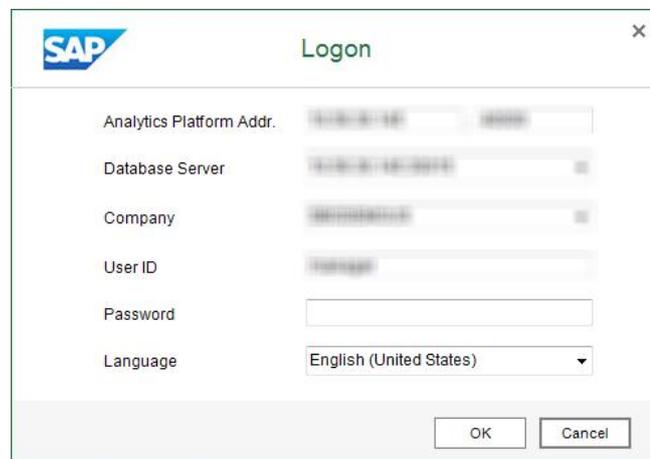
Once you have logged on to a company successfully, all the information, except the password, is saved for your next logon.

The designer automatically logs you off if there is no activity in the designer for 30 minutes.

5 EXCEL REPORT Tab

5.1 Tab Overview

This section introduces different parts of the main window of the EXCEL REPORT tab, and their respective functions.

You can find the screenshot of the main window as follows, with the *Inventory by Item Group per Warehouse* report as an example:
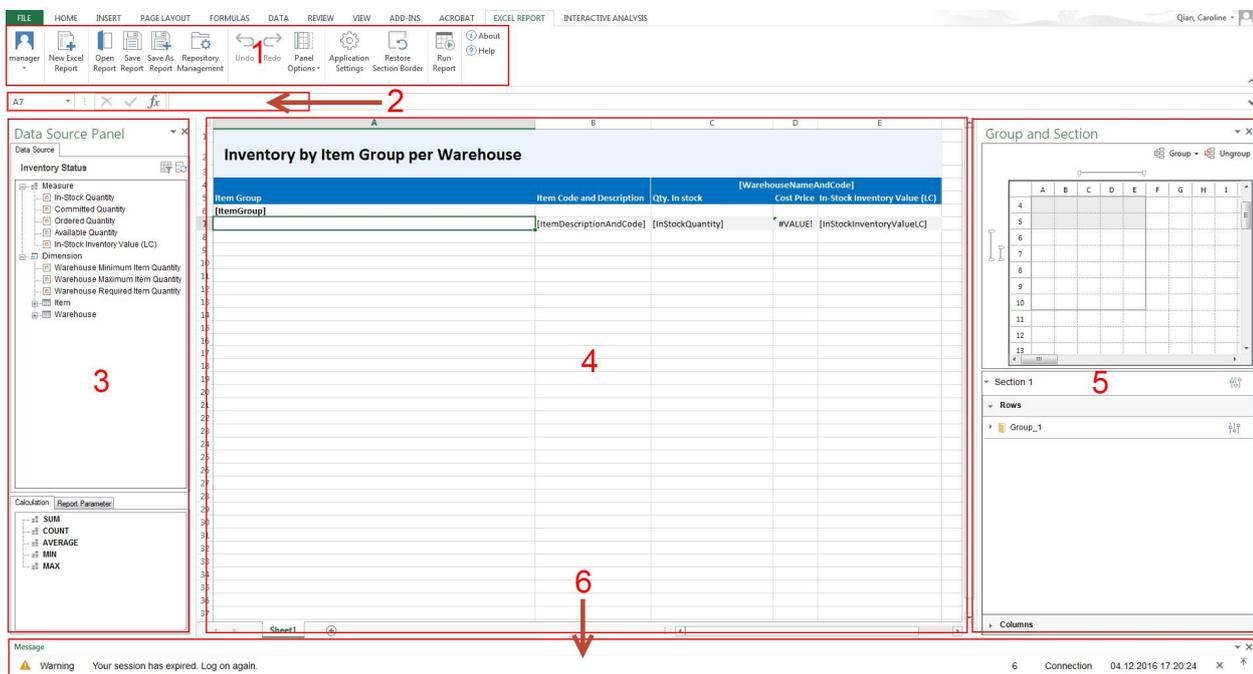


5.1.1 EXCEL REPORT Ribbon

This section is section 1 in the overview screenshot. It contains the following commands:

- *Log On* (*<User ID>*): choose this command to log on to a specific company database. For more information, see Logging on to a Company.
- *New Excel Report*: choose this command to create a new Excel report. For more information, see Creating the Excel Report.
- *Open Report*: choose this command to open an existing report. For more information about predefined reports, see Predefined Excel Reports.
- *Save Report*: choose this command to save changes to the current report.
- *Save As Report*: choose this command to save the report as a new one.

> **1** Note
>
> You cannot make changes to a predefined report, so use this command to save the changes to a new report.

- *Repository Management*: choose this command to open the *Repository Management* window. For more information, see Managing Excel Reports.
- *Undo*: choose this command to undo the most recent operation in the worksheet.
- *Redo*: choose this command to redo the most recent operation that you undid using the *Undo* command.
- *Panel Options*: choose this command to display or hide the data source panel, group and section panel, or message panel.
- *Application Settings*: choose this command to open the *Application Settings* window.
  - *Section Title* tab: select the *Fill Titles Automatically When Adding New Fields* checkbox to enable automatic filling. The checkbox is selected by default.
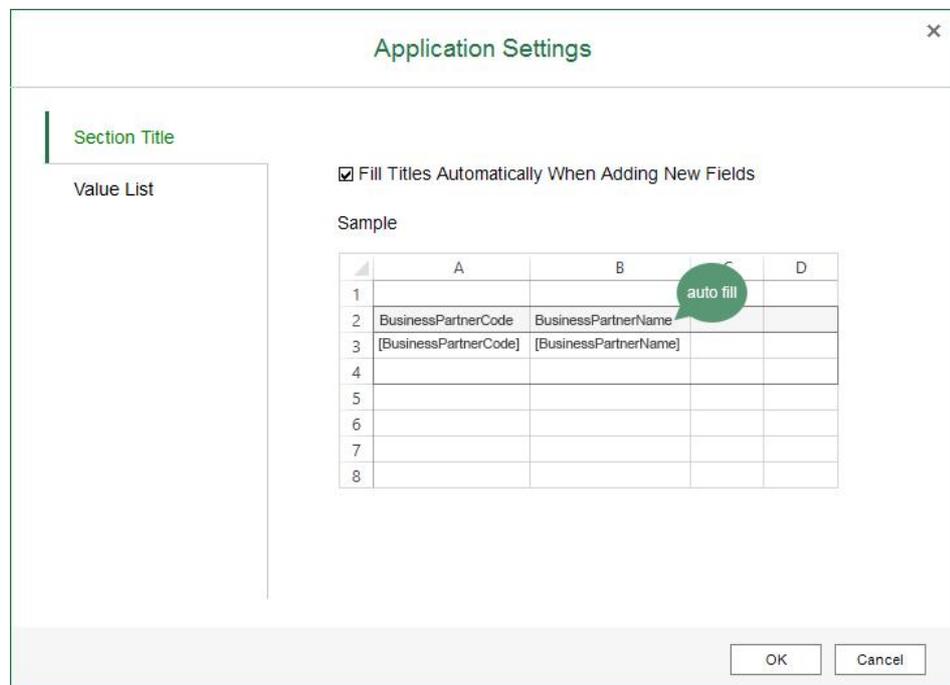
o *Value List* tab: in the *Max. Number of List Values* field, specify the maximum number of values to be displayed in a value list. The default number is *100*. Value lists are used in parameters and filters. For more information, see Working with Parameters and Working with Filters.
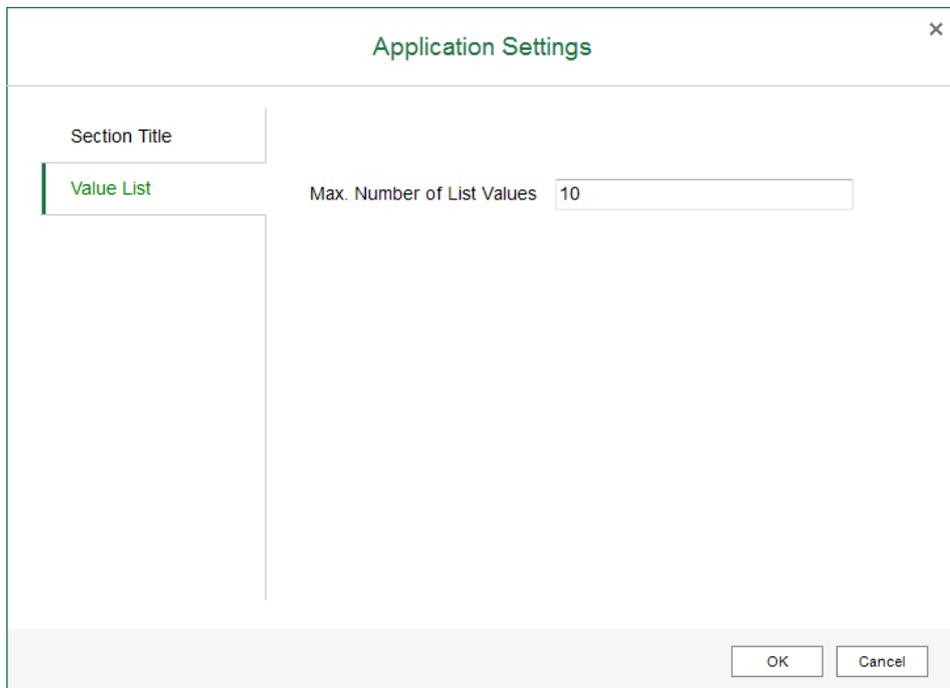
- *Restore Section Border*: choose this button to restore what was the section border when you started your report. As the border can be customized using the regular Microsoft Excel border function, and you may not want the customized border at a certain point, this button lets you restore the original section border.
- *Run Report*: choose this command to view the result of the report that you are designing. Every time you view the report result, Excel Report and Interactive Analysis retrieves data from the database, displaying real-time statistics in the report.
- *About*: choose this command to view the copyrights and version of the report designer.
- *Help*: choose this command to open this guide.

5.1.2 Formula Bar

This section is section 2 in the overview screenshot. It displays the name and content of the cell you select in the worksheet. For more information about the formula bar, see the documentation that came with Microsoft Excel.

5.1.3 Data Source Panel

This section is section 3 in the overview screen shot. It displays the data source that you are currently working with. In this panel, you can change the data source parameter values, change the data source, use the quick

calculation methods, and manage report parameters. For more information, see Working with Parameters, Selecting the Data Source and Working with Calculations.

5.1.4 Worksheet

This section is section 4 in the overview screenshot. For more information about the worksheet, see the documentation that came with Microsoft Excel.

> **i** Note
>
> Only one worksheet is supported.

5.1.5 Group and Section Panel

This section is section 5 in the overview screenshot. It displays the group information, and you can perform group and section related operations in this section. For more information, see Working with Group, Details Group, and Field.

5.1.6 Message Panel

This section is section 6 in the overview screenshot. It displays messages during your operation. Messages are categorized as follows:

- DEBUG
- INFO
- WARN
- ERROR
- FATAL

One log file is generated every time you launch the Excel report and interactive analysis designer, containing the messages you encountered during operation.

To filter a certain message category in the log file, follow the procedure below:

1. In the installation path of SAP Business One, version for SAP HANA, you can find a folder called *SAP Business One Excel Report and Interactive Analysis*. In the folder, open *SAP.InteractiveAnalysis.dll.log4net*.

2. In this file, you can find the attributes of the Excel Report and Interactive Analysis log file, including its type, name, location, and so on.

3. You can find the message category in the *level value* tag. The default category is *ERROR*. To change the category, enter one of the following in the *level value* tag:

   o ALL: to display all categories in the log file
   o DEBUG
   o INFO
   o WARN

- o ERROR
- o FATAL
- o OFF: to display no category in the log file

5.2 Basic Operations

This section provides an introduction to the EXCEL REPORT tab of the report designer as you create Excel report *Inventory by Item Group per Warehouse*. The report shows the in-stock quantity, cost price, and in-stock inventory value of items for each item group in each warehouse.

The report in the worksheet looks like the following:

Inventory by Item Group per Warehouse				
			[WarehouseNameAndCode]	
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]	#VALUE!	[InStockInventoryValueLC]

The report result looks like the following:

| Inventory by Item Group per Warehouse		General Warehouse (01)			West Cost Warehouse (02)			Consignment Warehouse (04)			Bin	
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost P...
Accessories												
	Memory Chip (LM4029MC)	412	37.802379	15574.58	50	50	2500	0	0	0	0	0
Items												
	Blu-Ray Disc 10-Pack (I00001	1087	2.1303772	2315.72	0	0	0	0	0	0	0	0
	Blu-Ray DL Disc 10-Pack (I000	1022	8.4780039	8664.52	0	0	0	0	0	0	0	0
	Computer Monitor 24" HDMI	1065	142.50098	151763.54	50	200	10000	0	0	0	0	0
	Gigabit Network Card (C0000	967	10.168821	9833.25	50	15	750	0	0	0	0	0
	Hard Disk 3TB (C00007)	1060	354.48218	375751.11	50	500	25000	0	0	0	0	0
	J.B. Laptop Batteries X1 serie	1014	61.177702	62034.19	0	0	0	0	0	0	0	0
	J.B. Laptop Batteries X2 serie	984	58.006128	57078.03	0	0	0	0	0	0	0	0
	Keyboard Comfort USB (C000	1058	14.118677	14937.56	50	20	1000	0	0	0	0	0
	KG PC-to-Mac Transfer Kit (I0	1088	31.889458	34695.73	0	0	0	0	0	0	0	0
	KG USB Travel Hub (I00011)	1066	8.4042214	8958.9	0	0	0	0	0	0	0	0
	LeMon 4029 500 sheet paper	772	23.86035	18420.19	0	0	0	0	0	0	0	0
	LeMon 4029 Printer (LM4029	267	193.20951	51586.94	0	0	0	0	0	0	0	0
	LeMon 4029 Printer AC Adap	700	7.2571143	5079.98	0	0	0	0	0	0	0	0
	LeMon 4029 Printer AC Powe	650	3.8355538	2493.11	0	0	0	0	0	0	0	0
	LeMon 4029 Printer Head (LM	782	13.775754	10772.64	0	0	0	0	0	0	0	0
	LeMon 4029 Printer Power S	44	11.677045	513.79	0	0	0	0	0	0	0	0
	LeMon 4029 Printer System E	703	73.558734	51711.79	0	0	0	0	0	0	0	0
	Memory DDR RAM 8GB (C000	1018	30.053517	30594.48	50	40	2000	0	0	0	0	0
	Motherboard BTX (C00001)	1231	290.18771	357221.07	50	400	20000	0	0	0	0	0
	Motherboard MicroATX (C00	1132	214.33222	242624.07	50	300	15000	0	0	0	0	0
	Mouse USB (C00010)	1021	14.118286	14414.77	50	20	1000	0	0	0	0	0
	MRP_BOM (MRP_BOM)	0	0	0	0	0	0	0	0	0	0	0
	MRP_Child1 (MRP_Child1)	0	0	0	0	0	0	0	0	0	0	0
	Child2											

5.2.1 Creating the Excel Report

Use the blank workbook as a starting point for creating the Excel report.

⚠️ **Caution**

For blank workbooks that are NOT opened using one of the two launching methods provided above, you may encounter errors while using Excel Report and Interactive Analysis.

For example, you may encounter errors while using Excel Report and Interactive Analysis if you open a blank workbook from the *New* option on the *File* tab of Microsoft Excel as follows:
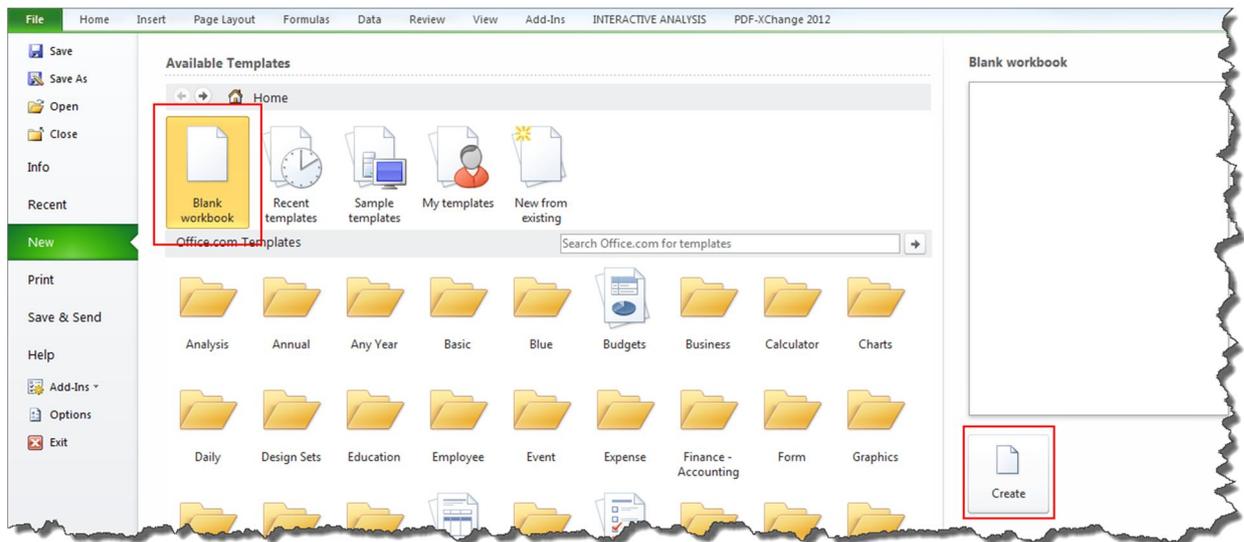

ℹ️ **Note**

The order of the procedures in this section may vary based on the working preference of each person. For example, you may add fields before adding the groups, or add a child group for the *ItemGroup* group instead of adding a parent group for the *ItemDescriptionAndCode* group, as described below.

5.2.1.1 Selecting the Data Source

Procedure

1. In the *EXCEL REPORT* ribbon, choose *New Excel Report*.

   The *Select Data Source* window appears, displaying all the semantic layers in the SAP HANA model package that you have deployed.
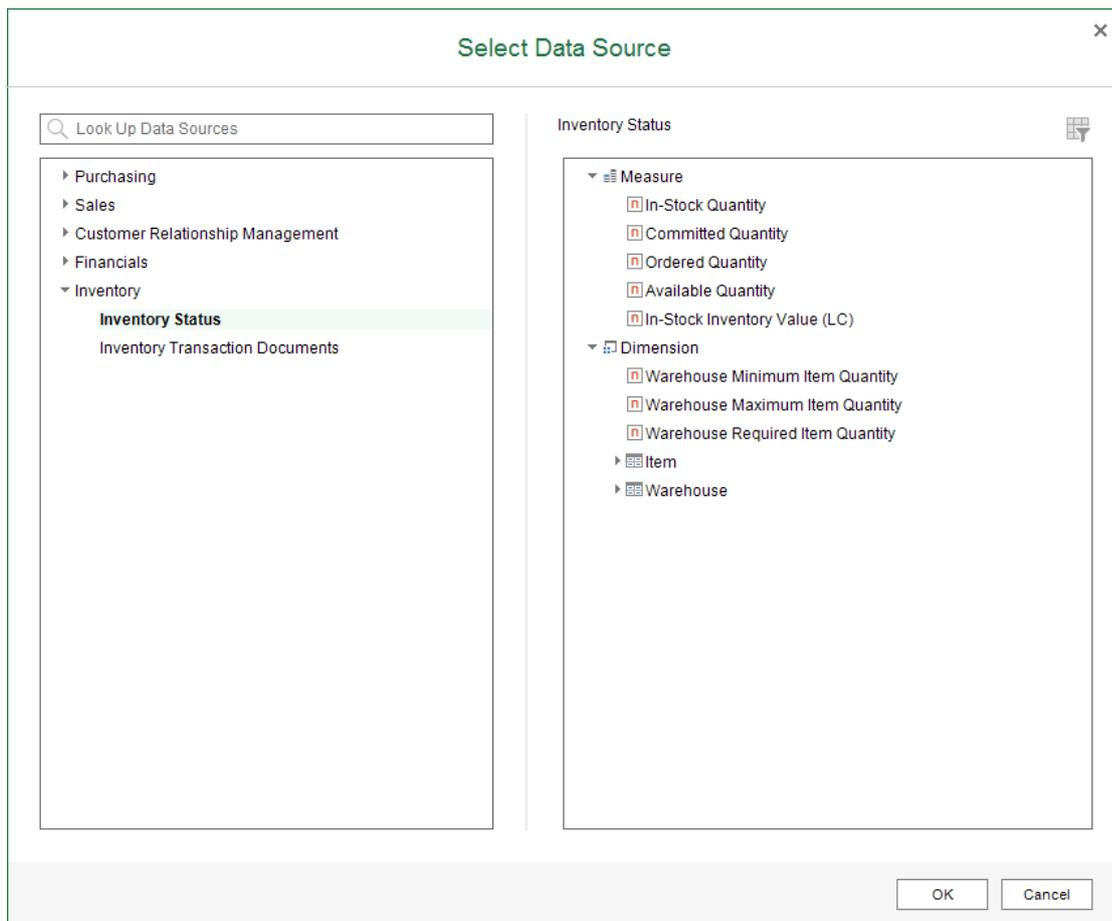
The pre-defined model package was deployed during the database initialization, and for more information about customized SAP HANA model packages, see *Managing SAP HANA Models* in the online help of SAP Business One, version for SAP HANA.

2. In the *Select Data Source* window, select *Inventory Status* under *Inventory*, and choose *OK.* For more information about data sources with parameters, see Working with Parameters.

[Optional] You can use the search bar at the top of the tree list on the left to look for data sources. To search for data sources, enter the semantic layer name, part of the semantic layer name, the name of the dimension or measure, or part of the dimension or measure name, and choose `Enter`. Results that match your search query appear in the tree list, highlighted, and you can choose the data source to see its contents in the table on the right.
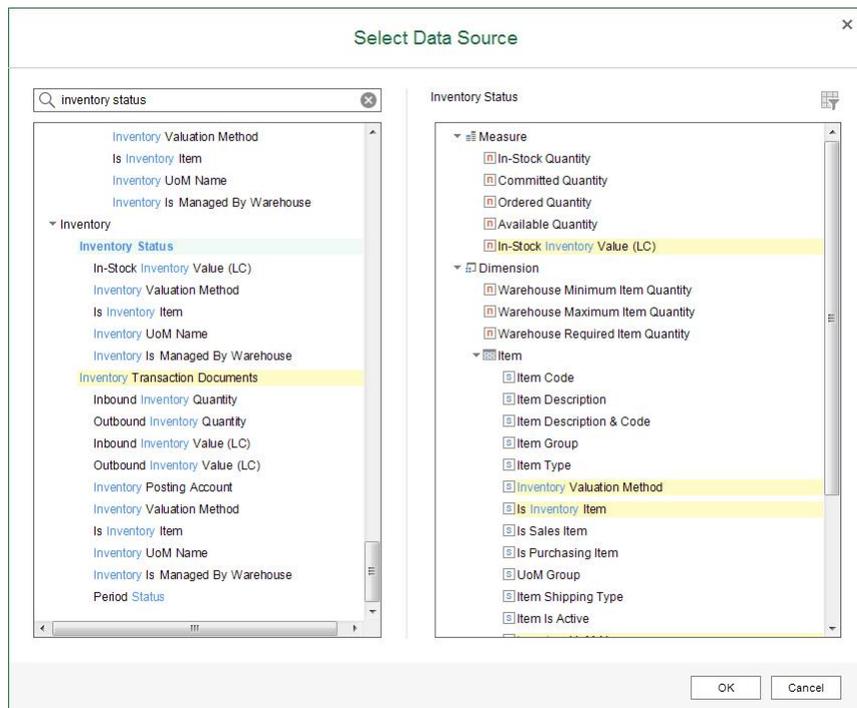
The measures and dimensions appear in the data source panel.

- o Number type is labeled with [n].
- o String type is labeled with [s].
- o Datetime type is labeled with ⏰.
- o Date type is labeled with 📅.

```
─ Measure
    [n] Debit (LC)
    [n] Credit (LC)
    [n] Credit (SC)
    [n] Debit (SC)
    [n] Opening Balance (LC)
    [n] Opening Balance (SC)
    [n] BP Opening Balance (LC)
    [n] BP Opening Balance (SC)
─ Dimension
    [s] Account Code
    [s] Segmentation Account Code
    [s] Account Name
    [s] Business Partner Code
    [n] Business Partner Group Code
    [s] Business Partner Group Name
    [s] Business Partner Name
    [s] Business Partner Type
    [n] Journal Voucher Internal Key
    [n] Journal Transaction Internal Key
    [n] Journal Transaction Line Internal Key
    [s] Document Type Short Name
    ⏰ Posting Date
    ⏰ Due Date
    ⏰ Document Date
    [s] Year
    [s] Quarter
    [s] Month
    [s] Week
    [s] Financial Period Code
    [s] Financial Period Name
    [n] Fiscal Year
    [s] Project Code
    [s] Project Name
    [s] Offset Account Code
    [s] Offset Account Segment Code
    [s] Offset Account Name
    [n] Series
    [n] Series Number
    [n] Base Document Internal Key
    [s] Federal Tax ID
    [s] Distribution Rule Code 1
    [s] Distribution Rule Code 2
    [s] Distribution Rule Code 3
    [s] Distribution Rule Code 4
    [s] Distribution Rule Code 5
    [s] Document Number
    [s] Document Type Code
    [s] Remarks
    📅 From Date
    📅 To Date
```

5.2.1.2 Adding the Item Group

As you need the in-stock inventory information of each item, you will add the item information that is grouped by items to the report. For more information about the field types, see Working with Group, Details Group, and Field.

Procedure

1. Under *Item*, drag *Item Description & Code* to the worksheet. The *New Section* window appears.
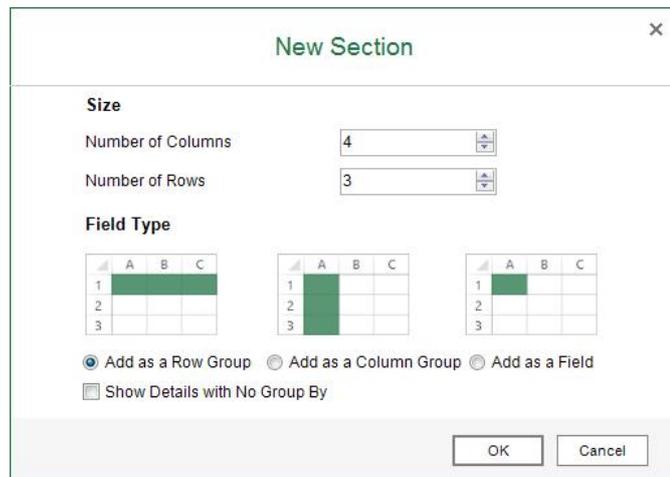
2. In the *New Section* window, define the section size, select the *Add as a Row Group* radio button, and choose *OK*.

Result

- In the worksheet, the title of this column is automatically filled. To disable the automatic filling, choose the *Application Settings* command in the *EXCEL REPORT* ribbon. For more information, see EXCEL REPORT Ribbon.
- In the worksheet, the section looks like the following:

- In the *Group and Section* panel, you can find the position and information of this group as follows:
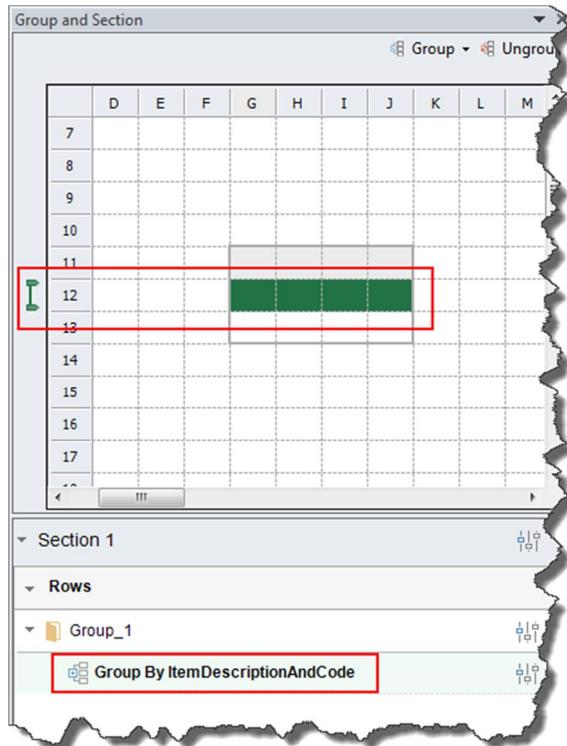
- In the *EXCEL REPORT* ribbon, choose *Run Report*.

  The report result shows all the items in the database.

5.2.1.3   Adding a Parent Group

As you need to group the items by item groups, you will add a parent group to group the items by item groups.

Procedure

1.   Insert a column before the *Item Description & Code* column to reserve a place for the item group column.
The section looks like the following:

	Item Description & Code			
	[ItemDescriptionAndCode]			

2.   Select the *ItemDescriptionAndCode* group using either of the following two methods:
o   In the *Group and Section* panel, select the staple.
o   In the worksheet, select the whole *ItemDescriptionAndCode* group row in the section or select the whole Excel row as follows:

	Item Description & Code			
	[ItemDescriptionAndCode]			

14		Item Description & Code		
15		[ItemDescriptionAndCode]		
16				

In the *Group and Section* panel, the staple is marked in green, indicating that the group has been selected.
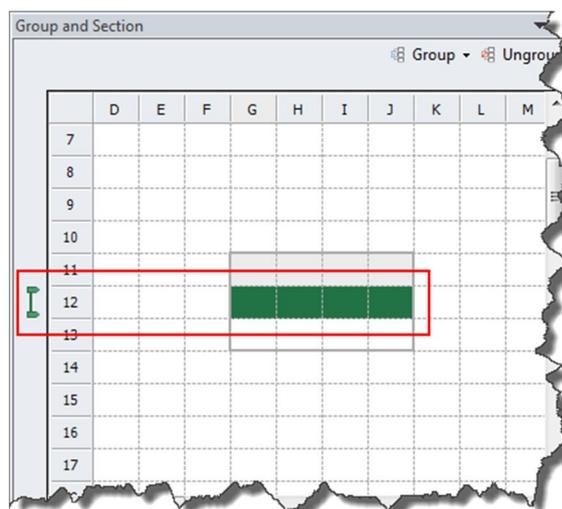
3.   In the *Group and Section* panel, choose *Group → Add Parent Group*.
The *Add Parent Group* window appears.

4. In the *Group By* dropdown list, select *Item Group*, and choose *OK*.
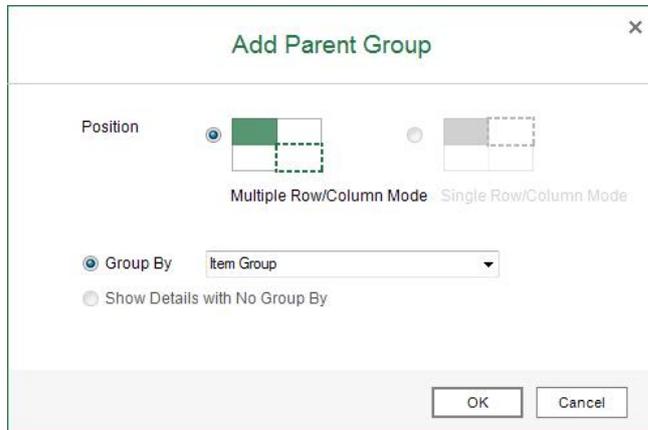
Result

- In the worksheet, the section looks like the following:

Item Group	Item Description & Code			
[ItemGroup]				
	[ItemDescriptionAndCode]			

- In the *Group and Section* panel, you can find the position and information of this parent group as follows:
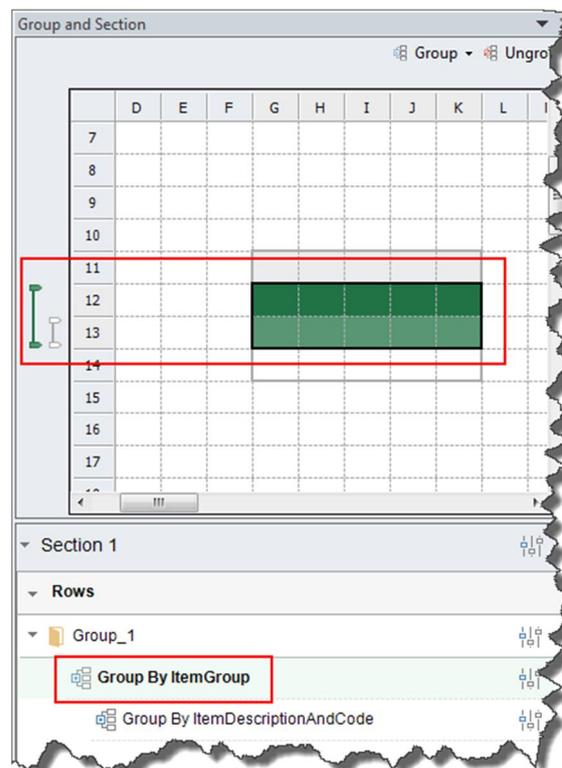
- In the *EXCEL REPORT* ribbon, choose *Run Report*.

  The report result shows all the items grouped by item groups.

Item Group	Item Description & Code		
Accessories			
	Memory Chip (LM4029MC)		
Items			
	Blu-Ray Disc 10-Pack (I00001)		
	Blu-Ray DL Disc 10-Pack (I00002)		
	Computer Monitor 24" HDMI (C00008)		
	Gigabit Network Card (C00006)		
	Hard Disk 3TB (C00007)		
	J.B. Laptop Batteries X1 series (I00005)		
	J.B. Laptop Batteries X2 series (I00006)		
	Keyboard Comfort USB (C00009)		
	KG PC-to-Mac Transfer Kit (I00012)		
	KG USB Travel Hub (I00011)		

5.2.1.4   Adding Fields and Calculated Values

As you need the in-stock inventory quantity, cost price, and in-stock inventory value of each item, you will add the in-stock inventory information as fields to the report. For more information about the field types, see Working with Group, Details Group, and Field.

Procedure

1. Drag measures *In-Stock Quantity* and *In-Stock Inventory Value (LC)* from the data source panel to the worksheet as follows:

Item Group	Item Description & Code	In-Stock Quantity		In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]		[InStockInventoryValueLC]

2. In the column between the *In-Stock Quantity* and *In-Stock Inventory Value (LC)* columns, enter the title for the cost price of each item as follows:

Item Group	Item Description & Code	In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]		[InStockInventoryValueLC]

3. As the cost price is the in-stock inventory value divided by the in-stock quantity, in the cell under *Cost Price*, enter the formula:

    =IF(iaCellRef(<name of the *InStockQuantity* cell>)=0,0,iaCellRef(<name of the *InStockInventoryValueLC* cell>)/iaCellRef(<name of the *InStockQuantity* cell>))

    In the example, the name of the *InStockQuantity* cell is *E7*, and the name of the *InStockInventoryValueLC* cell is *G7*, so you will enter the following:

```
=IF(iaCellRef(E7)=0,0,iaCellRef(G7)/iaCellRef(E7))
```
For more information about the functions, see Working with Functions.

Result

- In the worksheet, the section looks like the following:

Item Group	Item Description & Code	In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]	#VALUE!	[InStockInventoryValueLC]

- When you select the cell under *Cost Price*, the formula bar looks like the following:

F7	▾	⏺	*fx*	=IF(iaCellRef(E7)=0,0,iaCellRef(G7)/iaCellRef(E7))
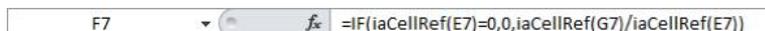
- In the *EXCEL REPORT* ribbon, choose *Run Report*.

  The report result shows the in-stock inventory quantity, cost price, and in-stock inventory value of each item; the items are grouped by item group.

Item Group	Item Description & Code	In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)
Accessories				
	Memory Chip (LM4029MC)	462	39.122468	18074.58
Items				
	Blu-Ray Disc 10-Pack (I00001	1087	2.1303772	2315.72
	Blu-Ray DL Disc 10-Pack (I00C	1022	8.4780039	8664.52
	Computer Monitor 24" HDMI	1115	145.07941	161763.54
	Gigabit Network Card (C0000	1017	10.406342	10583.25
	Hard Disk 3TB (C00007)	1110	361.03704	400751.11
	J.B. Laptop Batteries X1 serie	1014	61.177702	62034.19
	J.B. Laptop Batteries X2 serie	984	58.006128	57078.03
	Keyboard Comfort USB (C00C	1108	14.384079	15937.56
	KG PC-to-Mac Transfer Kit (IC	1088	31.889458	34695.73
	KG USB Travel Hub (I00011)	1066	8.4042214	8958.9
	LeMon 4029 500 sheet paper	772	23.86035	18420.19
	LeMon 4029 Printer (LM4029	267	193.20951	51586.94
	LeMon 4029 Printer AC Adap	700	7.2571143	5079.98
	LeMon 4029 Printer AC Powe	650	3.8355538	2493.11
	LeMon 4029 Printer Head (LN	782	13.775754	10772.64
	LeMon 4029 Printer Power S	44	11.677045	513.79
	LeMon 4029 Printer System E	703	73.558734	51711.79
	Memory DDR RAM 8GB (C00C	1068	30.519176	32594.48
	Motherboard BTX (C00001)	1281	294.4739	377221.07
	Motherboard MicroATX (C00	1182	217.95607	257624.07
	Mouse USB (C00010)	1071	14.392876	15414.77
	MRP_BOM (MRP_BOM)	0	0	0
	MRP_Child1 (MRP_Child1)	0	0	0
	MRP_Child2 (MRP_Child2)	0	0	0
	MRP_Grandchild (MRP_Gran	0	0	0
	MRP_Item (MRP_Item			0

5.2.1.5 Adding the Warehouse Group

As you need the in-stock inventory information of each item in each warehouse, you will add the warehouse information that is grouped by warehouses to the report.

Procedure

1. Insert a row above the first row to reserve a place for the warehouse information.
   The section looks like the following:

Item Group	Item Description & Code	In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]	#VALUE!	[InStockInventoryValueLC]

   The section header in the *Group and Section* panel now contains two rows as follows:
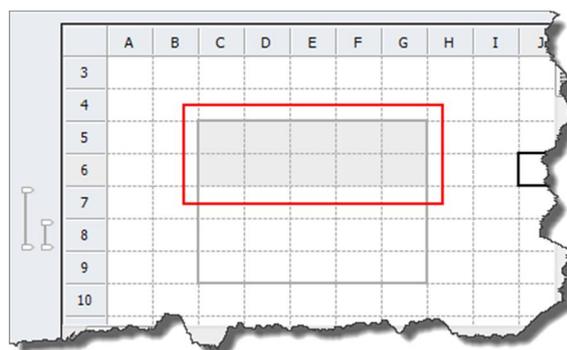
2. Drag *Warehouse Name & Code* to the cell above *In-Stock Quantity* as follows:

Item Group	Item Description & Code	[WarehouseNameAndCode]		
		In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]	#VALUE!	[InStockInventoryValueLC]

A column group is automatically added and is grouped by *WarehouseNameAndCode*. You can find the group information in the *Group and Section* panel.
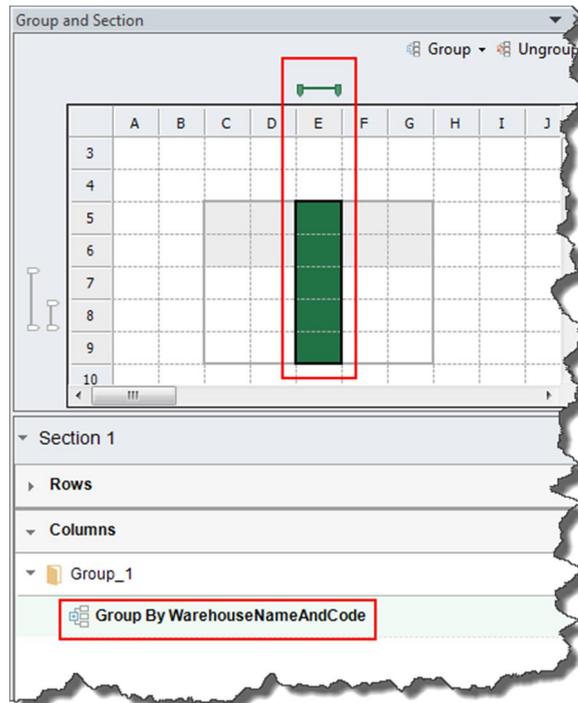
3. As you need all the in-stock inventory information of each item in each warehouse, you will enlarge the *WarehouseNameAndCode* group to cover the three in-stock inventory columns. To do so, in the *Group and Section* panel, enlarge the *WarehouseNameAndCode* group by dragging the staple.
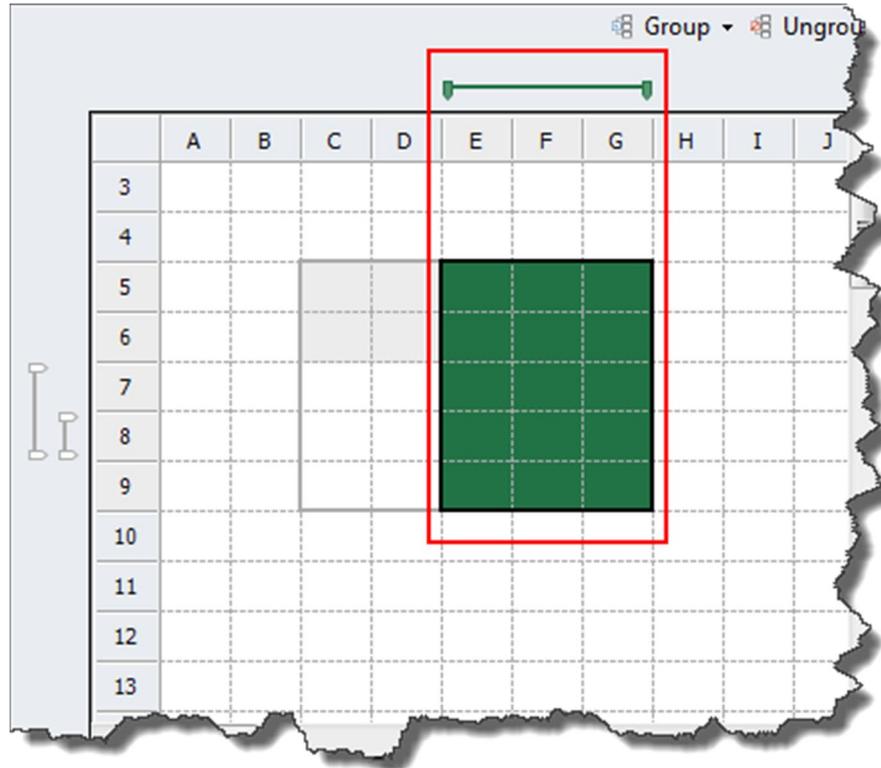
Result

In the *EXCEL REPORT* ribbon, choose *Run Report*.

The report result looks like the following, displaying the in-stock inventory quantity, cost price, and in-stock inventory value of each item in each warehouse.

Item Group	Item Description & Code	General Warehouse (01)			West Cost Warehouse (02)			Consignmentl Warehouse (04)			Bin Warehouse (05)	
		In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)	In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)	In-Stock Quantity	Cost Price	In-Stock Inventory Value (LC)	In-Stock Quantity	Cos
Accessories												
	Memory Chip (LM4029MC)	412	75	15574.58	50	75	2500	0	75	0	0	
Items												
	Blu-Ray Disc 10-Pack (I00001)	1087	75	2315.72	0	75	0	0	75	0	0	
	Blu-Ray DL Disc 10-Pack (I000	1022	75	8664.52	0	75	0	0	75	0	0	
	Computer Monitor 24" HDMI	1065	75	151763.54	50	75	10000	0	75	0	0	
	Gigabit Network Card (C0000	967	75	9833.25	50	75	750	0	75	0	0	
	Hard Disk 3TB (C00007)	1060	75	375751.11	50	75	25000	0	75	0	0	
	J.B. Laptop Batteries X1 serie	1014	75	62034.19	0	75	0	0	75	0	0	
	J.B. Laptop Batteries X2 serie	984	75	57078.03	0	75	0	0	75	0	0	
	Keyboard Comfort USB (C000	1058	75	14937.56	50	75	1000	0	75	0	0	
	KG PC-to-Mac Transfer Kit (I0	1088	75	34695.73	0	75	0	0	75	0	0	
	KG USB Travel Hub (I00011)	1066	75	8958.9	0	75	0	0	75	0	0	
	LeMon 4029 500 sheet paper	772	75	18420.19	0	75	0	0	75	0	0	
	LeMon 4029 Printer (LM4029	267	75	51586.94	0	75	0	0	75	0	0	
	LeMon 4029 Printer AC Adap	700	75	5079.98	0	75	0	0	75	0	0	
	LeMon 4029 Printer AC Powe	650	75	2493.11	0	75	0	0	75	0	0	
	LeMon 4029 Printer Head (LM	782	75	10772.64	0	75	0	0	75	0	0	
	LeMon 4029 Printer Power S	44	75	513.79	0	75	0	0	75	0	0	
	LeMon 4029 Printer System E	703	75	51711.79	0	75	0	0	75	0	0	
	Memory DDR RAM 8GB (C000	1018	75	30594.48	50	75	2000	0	75	0	0	
	Motherboard BTX (C00001)	1231	75	357221.07	50	75	20000	0	75	0	0	
	Motherboard MicroATX (C00	1132	75	242624.07	50	75	15000	0	75	0	0	
	Mouse USB (C00010)	1021	75	14414.77	50	75	1000	0	75	0	0	
	MRP_BOM (MRP_BOM)	0	75	0	0	75	0	0	75	0	0	
	MRP_Child1 (MRP_Child1)	0	75	0	0	75	0	0	75	0	0	
	MRP_Child2 (MRP_Child2)	0	75	0	0	75	0	0	75	0	0	
	MRP_Grandchild (MRP_Gran	0	75	0	0	75	0	0	75	0	0	
	MRP_Item1 (MRP_Item1)	0	75	0	0	75	0	0	75	0	0	

5.2.1.6 Modifying the Layout

To make the report clearer to read, add a title, and make some changes in the report as follows:

Inventory by Item Group per Warehouse				
		[WarehouseNameAndCode]		
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]	#VALUE!	[InStockInventoryValueLC]

5.2.1.6.1 Tips to Center a Value for a Multi-Column Group

> **i** Note
>
> The report designer does not support using the *Merge & Center* or *Merge cells* function to achieve the following result. You can always merge cells using the *Merge & Center* or *Merge cells* function in the report result.

The report result of the current layout looks like the following, displaying the warehouse information to the left of the *WarehouseNameAndCode* group:

		General Warehouse (01)			West Cost Warehouse (02)			Consignmentl Warehouse (04)			Bin Warehouse (05)	
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost P
Accessories												
	Memory Chip (LM4029MC)	412	37.802379	15574.58	50	50	2500	0	0	0	0	0
Items												
	Blu-Ray Disc 10-Pack (I00001)	1087	2.1303772	2315.72	0	0	0	0	0	0	0	0
	Blu-Ray DL Disc 10-Pack (I000	1022	8.4780039	8664.52	0	0	0	0	0	0	0	0
	Computer Monitor 24" HDMI	1065	142.50098	151763.54	50	200	10000	0	0	0	0	0
	Gigabit Network Card (C0000	967	10.168821	9833.25	50	15	750	0	0	0	0	0
	Hard Disk 3TB (C00007)	1060	354.48218	375751.11	50	500	25000	0	0	0	0	0
	J.B. Laptop Batteries X1 serie	1014	61.177702	62034.19	0	0	0	0	0	0	0	0
	J.B. Laptop Batteries X2 serie	984	58.006128	57078.03	0	0	0	0	0	0	0	0
	Keyboard Comfort USB (C000	1058	14.118677	14937.56	50	20	1000	0	0	0	0	0
	KG PC-to-Mac Transfer Kit (I0	1088	31.889458	34695.73	0	0	0	0	0	0	0	0
	KG USB Travel Hub (I00011)	1066	8.4042214	8958.9	0	0	0	0	0	0	0	0
	LeMon 4029 500 sheet paper	772	23.86035	18420.19	0	0	0	0	0	0	0	0
	LeMon 4029 Printer (LM4029	267	193.20951	51586.94	0	0	0	0	0	0	0	0
	LeMon 4029 Printer AC Adap	700	7.2571143	5079.98	0	0	0	0	0	0	0	0
	LeMon 4029 Printer AC Powe	650	3.8355538	2493.11	0	0	0	0	0	0	0	0
	LeMon 4029 Printer Head (LM	782	13.775754	10772.64	0	0	0	0	0	0	0	0
	LeMon 4029 Printer Power S	44	11.677045	513.79	0	0	0	0	0	0	0	0
	LeMon 4029 Printer System E	703	73.558734	51711.79	0	0	0	0	0	0	0	0
	Memory DDR RAM 8GB (C000	1018	30.053517	30594.48	50	40	2000	0	0	0	0	0
	Motherboard BTX (C00001)	1231	290.18771	357221.07	50	400	20000	0	0	0	0	0
	Motherboard MicroATX (C00	1132	214.33222	242624.07	50	300	15000	0	0	0	0	0
	Mouse USB (C00010)	1021	14.118286	14414.77	50	20	1000	0	0	0	0	0
	MRP_BOM (MRP_BOM)	0	0	0	0	0	0	0	0	0	0	0
	MRP_Child1 (MRP_Child1)	0	0	0	0	0	0	0	0	0	0	0
	MRP_Child2 (MRP_Child2)	0	0	0	0	0	0	0	0	0	0	0
	MRP_Grandchild (MRP_Gran	0	0	0	0	0	0	0	0	0	0	0

Procedure

To display the warehouse information in the center of the group, follow the procedure below:

1. In the worksheet, select the three cells in the section header.

2. Right-click the area and choose *Format Cells*.

    The *Format Cells* window appears.

3. On the *Alignment* tab, in the *Text Alignment* section, in the *Horizontal* dropdown list, select *Center Across Selection*, and choose *OK*.
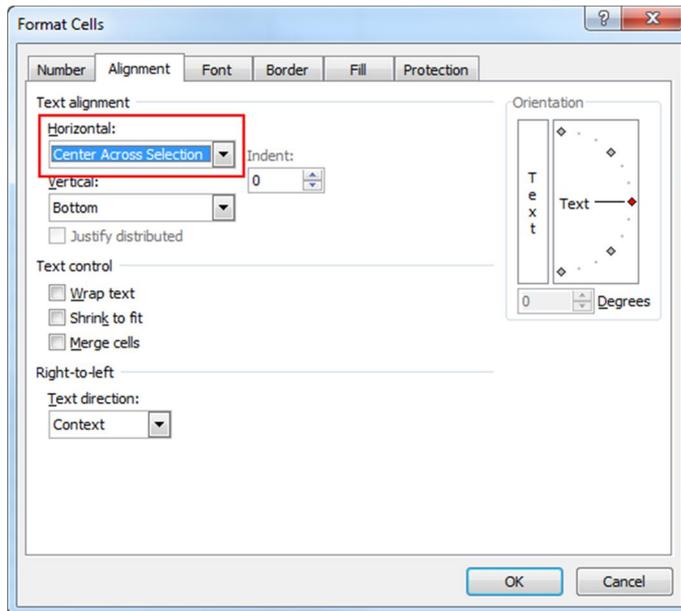
Result

In the *EXCEL REPORT* ribbon, choose *Run Report*.

The report result now looks like the following, displaying the warehouse information in the center of the *WarehouseNameAndCode* group:

		General Warehouse (01)			West Cost Warehouse (02)			Consignmentl Warehouse (04)			Bin
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost P
Accessories											
	Memory Chip (LM4029MC)	412	37.802379	15574.58	50	50	2500	0	0		0	0
Items											
	Blu-Ray Disc 10-Pack (I00001	1087	2.1303772	2315.72	0	0	0	0	0		0	0
	Blu-Ray DL Disc 10-Pack (I000	1022	8.4780039	8664.52	0	0	0	0	0		0	0
	Computer Monitor 24" HDMI	1065	142.50098	151763.54	50	200	10000	0	0		0	0
	Gigabit Network Card (C0000	967	10.168821	9833.25	50	15	750	0	0		0	0
	Hard Disk 3TB (C00007)	1060	354.48218	375751.11	50	500	25000	0	0		0	0
	J.B. Laptop Batteries X1 serie	1014	61.177702	62034.19	0	0	0	0	0		0	0
	J.B. Laptop Batteries X2 serie	984	58.006128	57078.03	0	0	0	0	0		0	0
	Keyboard Comfort USB (C000	1058	14.118677	14937.56	50	20	1000	0	0		0	0
	KG PC-to-Mac Transfer Kit (I0	1088	31.889458	34695.73	0	0	0	0	0		0	0
	KG USB Travel Hub (I00011)	1066	8.4042214	8958.9	0	0	0	0	0		0	0
	LeMon 4029 500 sheet paper	772	23.86035	18420.19	0	0	0	0	0		0	0
	LeMon 4029 Printer (LM4029	267	193.20951	51586.94	0	0	0	0	0		0	0
	LeMon 4029 Printer AC Adap	700	7.2571143	5079.98	0	0	0	0	0		0	0
	LeMon 4029 Printer AC Powe	650	3.8355538	2493.11	0	0	0	0	0		0	0
	LeMon 4029 Printer Head (LM	782	13.775754	10772.64	0	0	0	0	0		0	0
	LeMon 4029 Printer Power S	44	11.677045	513.79	0	0	0	0	0		0	0
	LeMon 4029 Printer System E	703	73.558734	51711.79	0	0	0	0	0		0	0
	Memory DDR RAM 8GB (C000	1018	30.053517	30594.48	50	40	2000	0	0		0	0
	Motherboard BTX (C00001)	1231	290.18771	357221.07	50	400	20000	0	0		0	0
	Motherboard MicroATX (C00	1132	214.33222	242624.07	50	300	15000	0	0		0	0
	Mouse USB (C00010)	1021	14.118286	14414.77	50	20	1000	0	0		0	0
	MRP_BOM (MRP_BOM)	0	0	0	0	0	0	0	0		0	0
	MRP_Child1 (MRP_Child1)	0	0	0	0	0	0	0	0		0	0

Inventory by Item Group per Warehouse

You have now completed the report design.

5.2.2   Saving the Report

To save the report, follow the procedure below.

1.   In the *EXCEL REPORT* ribbon, choose *Save Report*.
2.   In the *Save* window, select the folder to place the report, define a report name, and choose *OK*.

Result

- To open the saved reports, in the *EXCEL REPORT* ribbon, choose *Open Report*. Alternatively, you can open the saved reports under the menu entry of *Excel Report and Interactive Analysis* in the SAP Business One, version for SAP HANA client.

  i Note

  For newly saved reports to appear in the SAP Business One, version for SAP HANA client, you need to log off the client and log on again.

- To manage the saved reports, in the *EXCEL REPORT* ribbon, choose *Repository Management*. For more information, see Managing Excel Reports.

5.2.3   Viewing the Report Result

i Note

You can view the report result at any time during your design process.

Every time you view the report result, Excel Report and Interactive Analysis retrieves data from the database, displaying real-time statistics in the report.

Procedure

To view the report result, you can do either of the following:

- In the *EXCEL REPORT* ribbon of the report designer, choose *Run Report*.

  The report opens in the report designer.

- In the *Main Menu* of the SAP Business One, version for SAP HANA client, choose *Excel Report and Interactive Analysis → <the report you want to view>*.

  The report opens in Microsoft Excel with no *EXCEL REPORT* ribbon.

5.3   Advanced Operations

5.3.1   Working with Parameters

In the report designer, there are two types of parameters: the data source parameter and the report parameter.

A data source parameter is designed in the semantic layer that you can use as a data source, and in order to create a meaningful report, you must define the parameter value when you select the data source. To change the data source parameter value, you need to go to the report designer. While a report parameter is what you create during your report design, you must define the parameter value when you run the report. You can change the report parameter value every time you run the report.

You can link together the two types of parameters. When the two types of parameters are linked, you do not need to go to the report designer every time you want to view the report based on different data source parameter values; instead, you can do so by defining the linked report parameter values when you run the report. The report parameter values will then be transferred to the data source parameter, and your report appears according to the report parameter values you define when you run the report. For more information, see Linking Report Parameters to Data Source Parameters.

5.3.1.1   Data Source Parameters

Certain semantic layers are designed with data source parameters. To create a meaningful report, you must define those parameter values once you have selected such semantic layers.

> i Note
>
> When the data source you are using contains a data source parameter, you cannot use the *Dynamic* input type in your report parameters. For more information, see Report Parameters.

Procedure

You can define or change data source parameter values in the *Select Data Source* window as follows:

1. In the *Select Data Source* window, when you select a semantic layer with parameters, the *Change Parameters* icon becomes available in the upper right corner of the window.
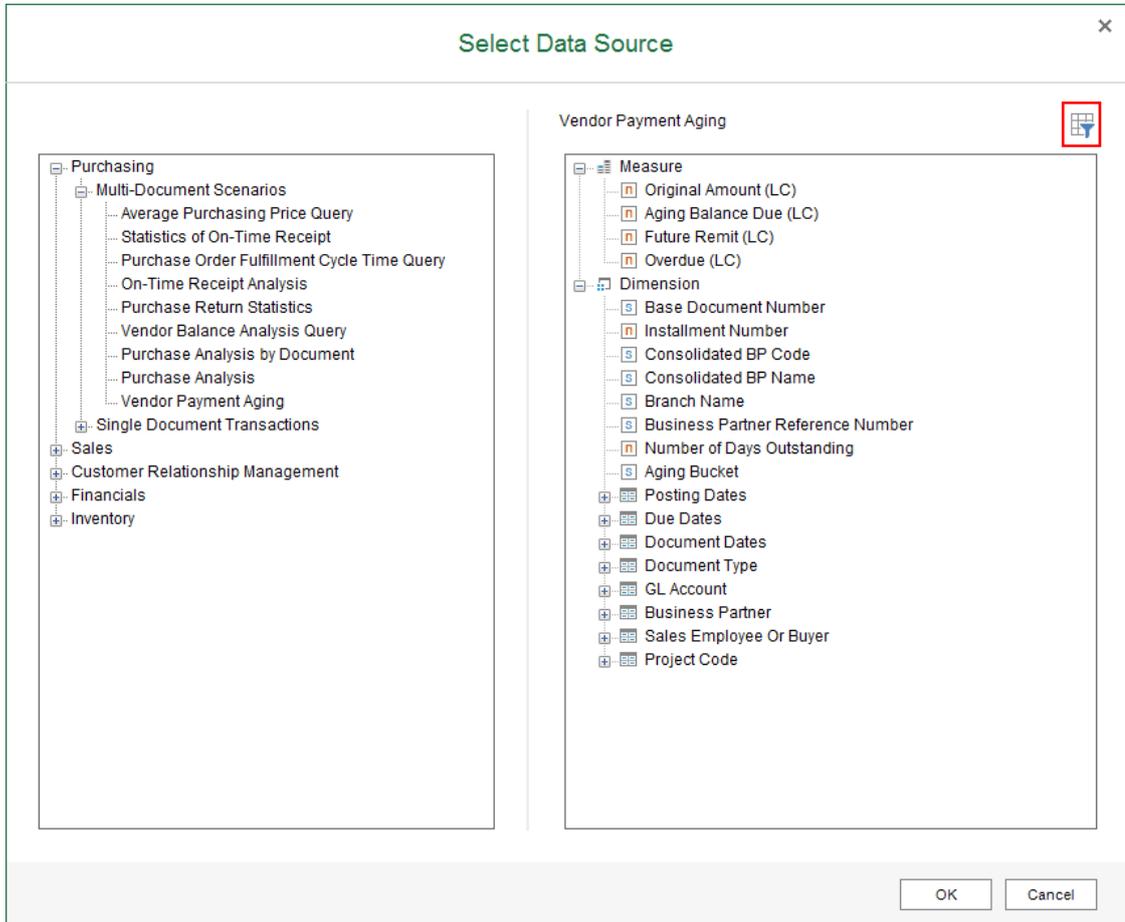
2. To define or change the parameter values, choose (*Change Parameters*).

   The *Enter Parameters* window appears.

   Alternatively, choose *OK* in the *Select Data Source* window. The *Enter Parameters* window also appears.

3. For different kinds of parameters, define their values, and choose *OK*.
    o For a date type parameter, select a date.
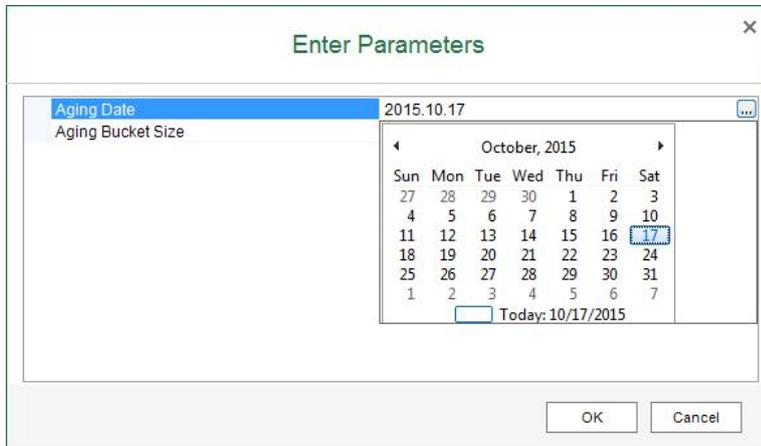
    o For a value type parameter, specify a value.
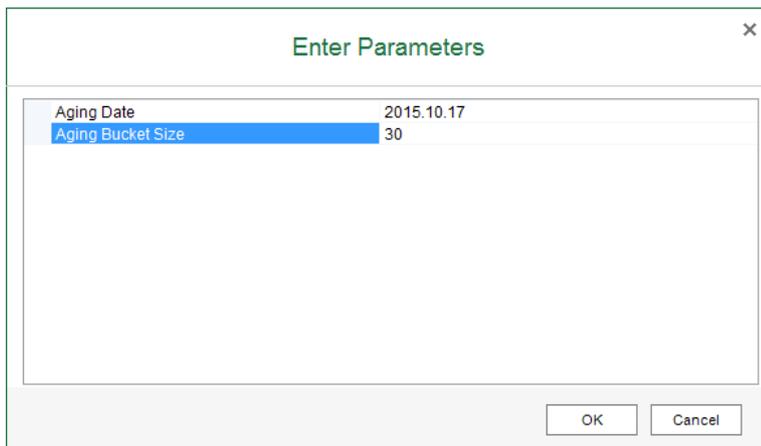
o For a value-list parameter, select a value. The values are retrieved from the database to which you logged on.

i Note

To display more or fewer values in the list, use the *Max. Number of List Values* field on the *Value List* tab of the *Application Settings* window. For more information, see EXCEL REPORT Ribbon.
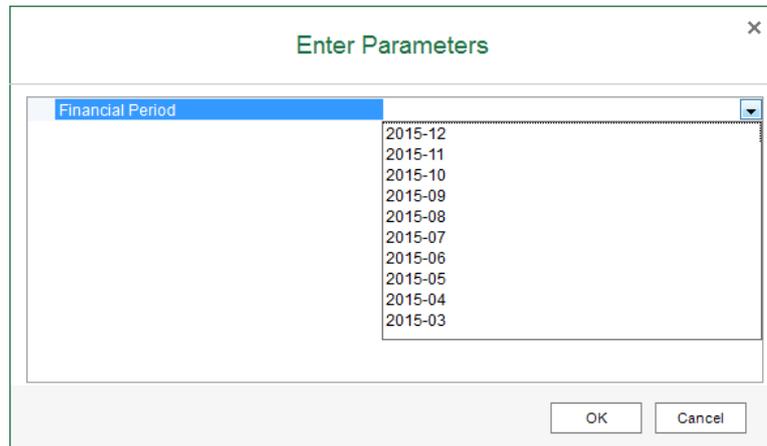
o For a value-selection parameter, select a value. The values are retrieved from the semantic layer.

In the example below, *C* stands for customer, *S* stands for supplier, and *L* stands for leads.
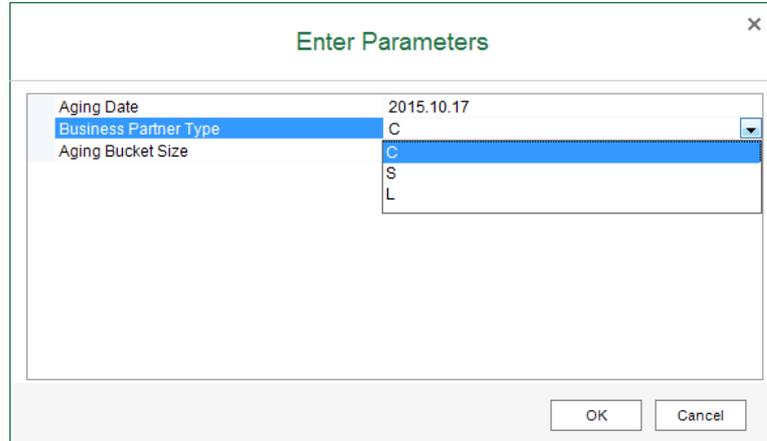
You can change data source parameter values when you are designing a report, as follows:

1. When you are designing a report whose data source has parameters, the *Change Parameters* icon becomes available in the upper right corner of the *Data Source* panel.
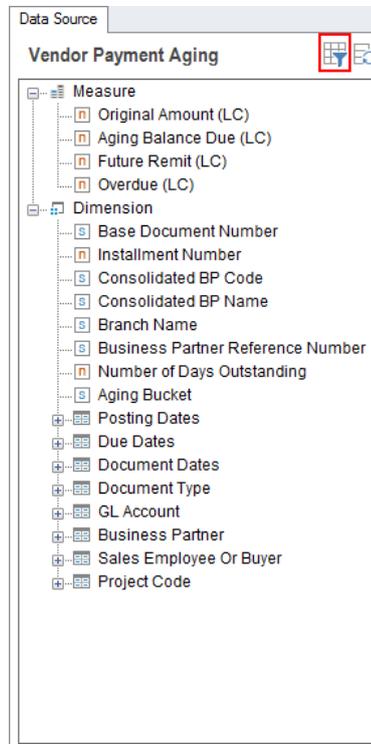
2. To change the parameter values, choose (*Change Parameters*).

   The *Enter Parameters* window appears.

3. For different kinds of parameters, define their values, and choose *OK*.

   For more information about different kinds of parameters, see the procedure above.

5.3.1.2   Report Parameters

While designing your report, you can create report parameters and use those parameters in the section and in the filters, or link them to the data source parameter. Every time you run the report, you must define the report parameter values in the *Input Parameter* window by selecting a value from the value dropdown list or entering a value for the corresponding parameter.

5.3.1.2.1 Creating Report Parameters

Procedure

1. On the *Report Parameter* tab of the data source panel, choose .
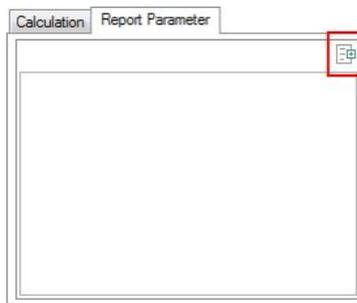
The *Parameter Settings* window appears.
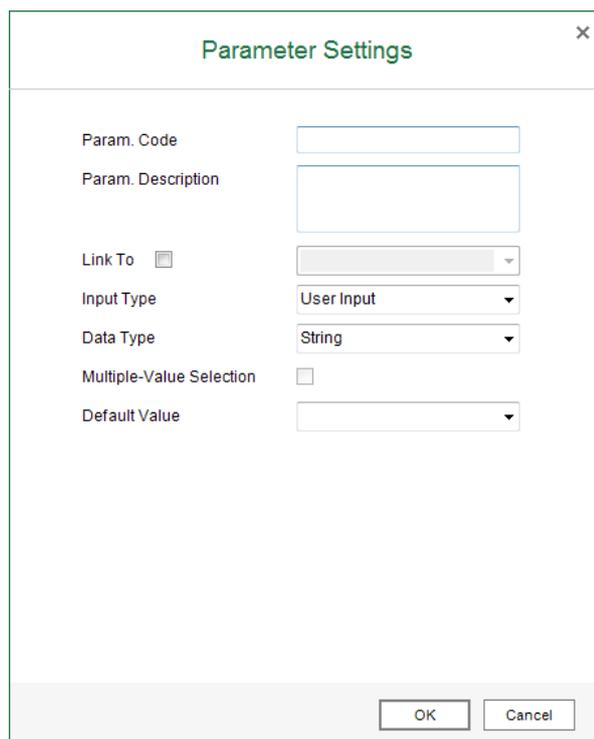
2. Enter the code and description for the parameter. The code will appear as the parameter name in the *Input Parameter* window, and the description will appear as a tooltip when your hover your mouse over the parameter name. You cannot change the code after adding the parameter.

   ### i Note

   You cannot use quotation marks (") or backslashes (\)in your parameter code.

3. [Optional] Select the *Link To* checkbox to link the report parameter to a data source parameter. For more information, see Linking Report Parameters to Data Source Parameters.

> **i** Note
>
> When you link your report parameter to a data source parameter that is a value-list parameter, you can only use the input type *User Input* for the report parameter.

4. Select the input type for the parameter. There are three input types, as follows:

    o   *Dynamic*: The parameter values are retrieved from the data source you defined in the *Data Source* dropdown list. When you select this input type, the measures and dimensions appear in the *Data Source* dropdown list. Select a measure or dimension as the data source for the parameter values.

    > **i** Note
    >
    > When the data source you are using contains a data source parameter, this input type is not available.
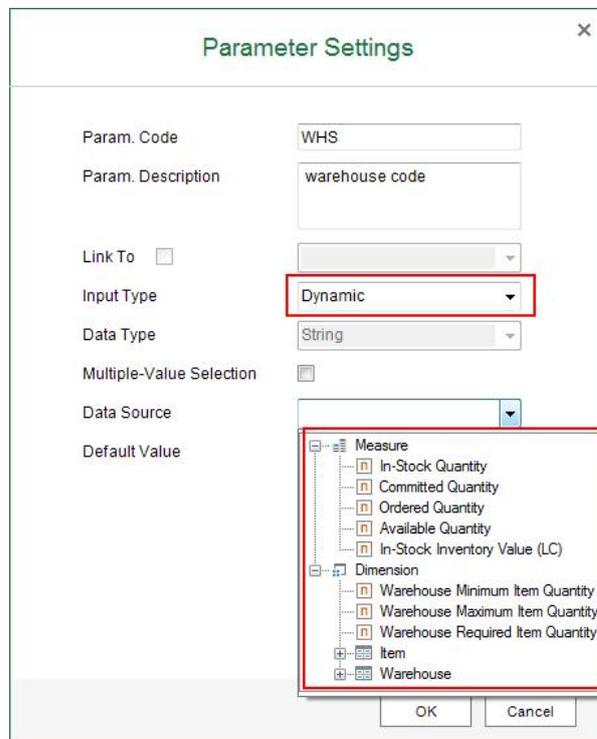
o *Static*: The parameter values are retrieved from the values you defined for this parameter. When you select this input type, you can define the following data types and specific values for the parameter.

- o *String*: The parameter value must be a string.
- o *Boolean*: The parameter value must be *True* or *False*. In the *Value* column, you can select from the two options using the dropdown list.
- o *DATE*: The parameter value must be a date in the format `YYYY.MM.DD` or `YYYY-MM-DD`. In the *Value* column, you can select the date using the date picker.
- o *DateTime*: The parameter value must be a date and time in the format `YYYY.MM.DD HH:MM:SS.FFFFFF` or `YYYY-MM-DD HH:MM:SS.FFFFFF`. In the *Value* column, you can select the date using the date picker. The time is optional. If you do not enter a time, *00:00:00.000000* will be saved in the database.
- o *Double*: The parameter value must be a number with or without a decimal point. This data type is more accurate in calculations compared to the *Integer* data type.
- o *Integer*: The parameter value must be a whole number without a decimal point.

The display values will appear as the options for you to select in the *Default Value* dropdown list or in the *Input Parameter* window, and the values you defined will be transferred from the parameter to the place you use it, the cell in the section, the filter, or the data source parameter.

o *User Input*: The parameter value, the one that will be transferred from the parameter to the place you use it, is what you enter in the *Input Parameter* window. When you select this input type, you must define the data types in the *Data Type* dropdown list. For more information about the data type, see the above input type.

5. [Optional] To enable selecting or entering multiple values in the *Input Parameter* window, select the *Multiple-Value Selection* checkbox.
6. In the *Default Value* field, select or enter a default value, depending on the input type of the parameter. This value appears in the *Input Parameter* window as the default value for the parameter.
   o For the *Dynamic* type, select a value from the measure or dimension.
   o For the *Static* type, select a display value from the ones you defined in the table.
   o For the *User Input* type, enter a value according to the data type of the parameter.
7. To save the parameter, choose *OK*.

5.3.1.2.2   Using Report Parameters

You can use parameters in the section or in the filters. The parameter value you select or enter when you run the report is then transferred to the section as a display value, or to the filter as a filtering value, respectively. Therefore, you do not need to go to the report designer every time you need to change the display value or the filtering value; instead, you can change them every time you run the report.

In the following example, you will create a report to view the in-stock quantities of items in different warehouses using a *Dynamic* report parameter. The parameter value you select when you run the report will be transferred to the section as a display value and to the filter as a filtering value.

Procedure

1. Select *Inventory Status* as your data source, and drag *Item Description & Code* to the worksheet. The *New Section* window appears.

2. In the *New Section* window, define the section size, select the *Add as a Row Group* radio button, and choose *OK*.

   In the *Group and Section* panel, a staple appears to indicate that a group was created.
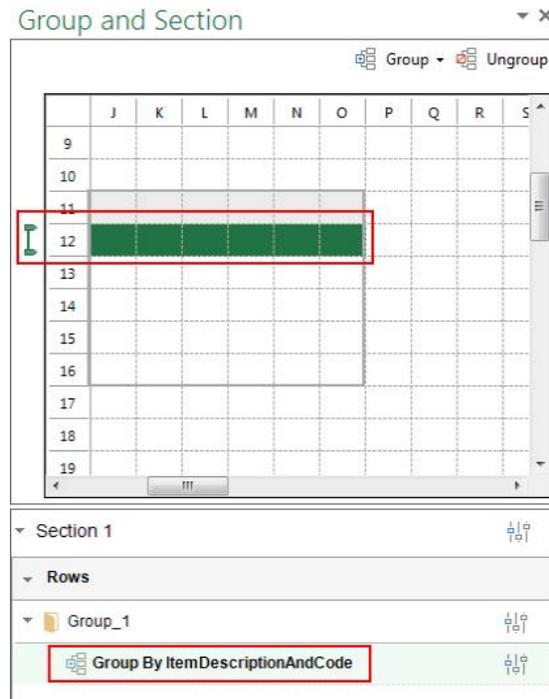
3. Drag *In-Stock Quantity* to the group, as follows:

4. On the *Report Parameter* tab of the data source panel, choose ▣.

5. The *Parameter Settings* window appears. Enter the code **Warehouse** and the description **Select a warehouse**.

6. In the *Input Type* dropdown list select *Dynamic*.

7. In the *Data Source* dropdown list, select *Warehouse Name*.


8. In the *Default Value* dropdown list, select *General Warehouse*.

9. In the *Parameter Settings* window, choose *OK*.

10. In the *Group and Section* panel, choose the *Settings* button next to the section.


The *Settings* window appears.
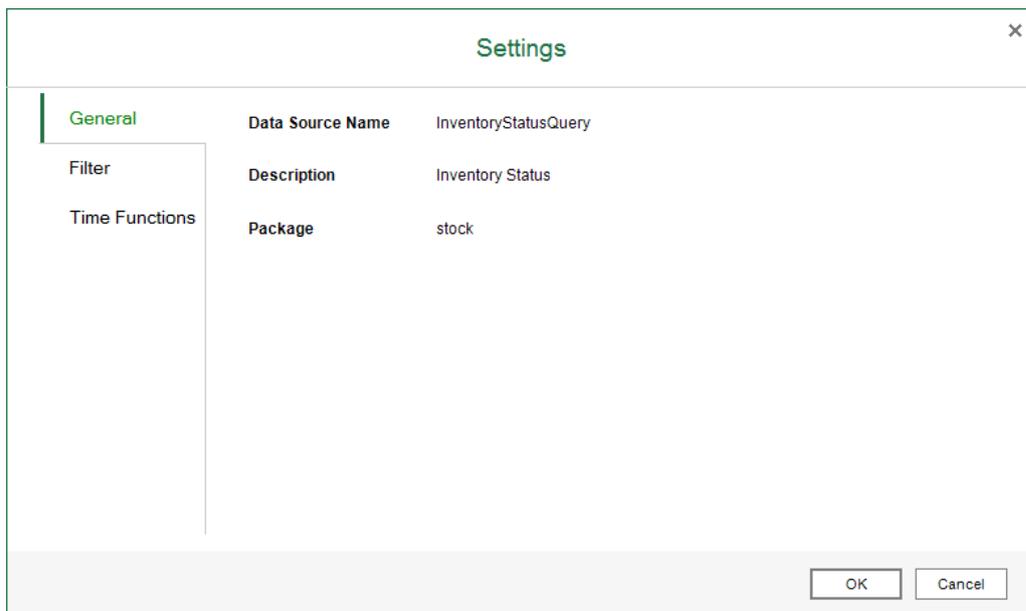
11. On the *Filter* tab, in the *Dimension*, *Attribute*, and *Operator* dropdown lists, select *Warehouse*, *Warehouse Name*, and = respectively.
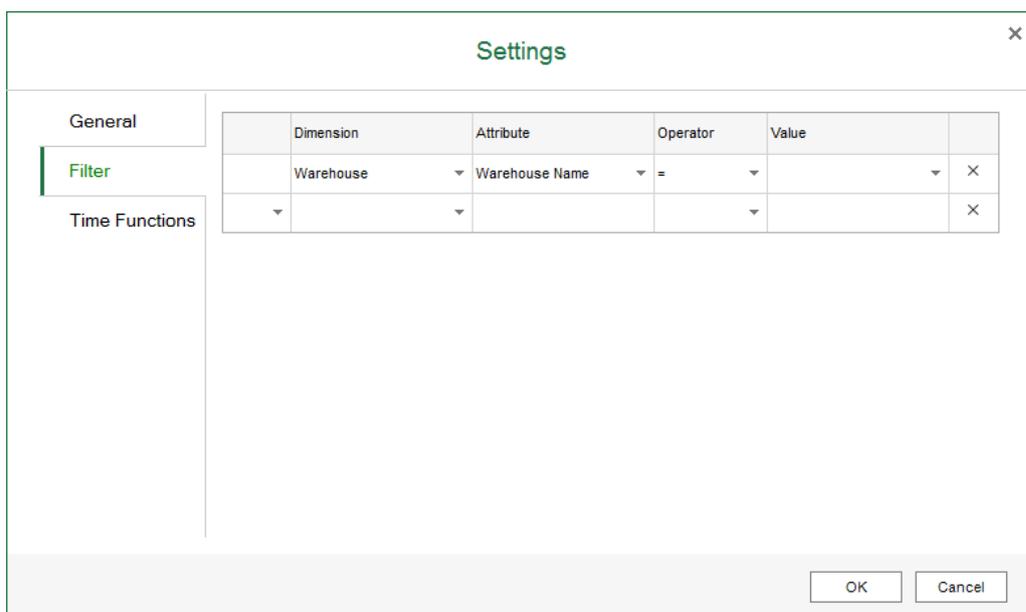
12. In the *Value* column, choose the triangle.

    The *Filter Value* window appears.
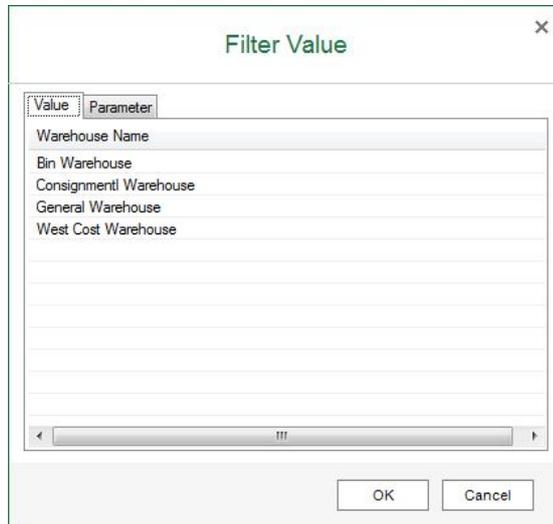
13. On the *Parameter* tab, select the parameter that you have created, and choose *OK*.
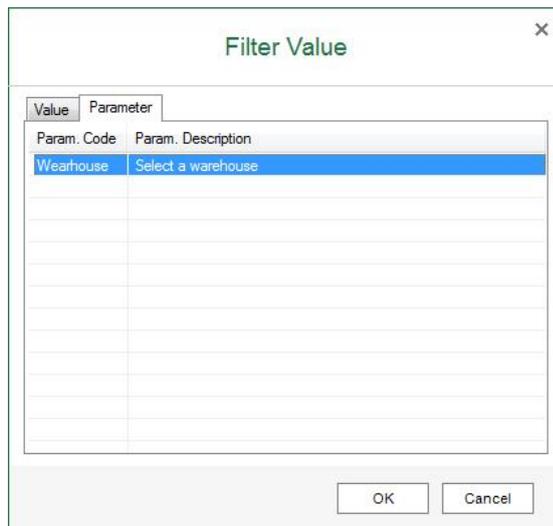
The iaParam function appears in the *Value* column. For more information, see iaParam Function.

Alternatively, you can enter **iaParam("Warehouse")** directly in the *Value* column.
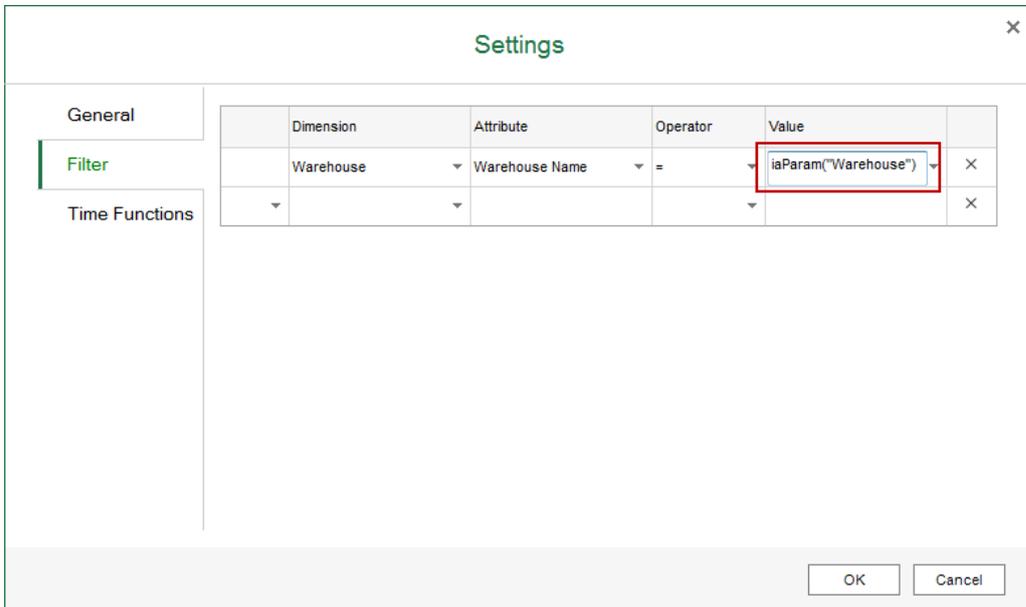
14. In the *Settings* window, choose *OK*.

15. From the *Report Parameter* tab of the data source panel, drag *Warehouse* to the worksheet, and enter *Warehouse* as its title.

Alternatively, you can enter **iaParam("Warehouse")** directly in the relevant cell.

Item Description & Code	In-Stock Quantity	Warehouse
[ItemDescriptionAndCode]	[InStockQuantity]	=iaParam("Wearhouse")

Result

You can view the in-stock quantities of items in different warehouses as follows:

- To view the in-stock quantities of items in the general warehouse, follow the procedure below:

  1. In the *EXCEL REPORT* ribbon, choose *Run Report*. The *Input Parameter* window appears, and the default value for the parameter appears in the dropdown list.

2. In the *Input Parameter* window, choose *OK*. The report result looks like the following:

Item Description & Code	In-Stock Quantity	Warehouse
Tower Case with Power supply (C00004)	1085	General Warehouse
WLAN Card (C00005)	837	General Warehouse
Quadcore CPU 3.4 GHz (C00003)	27	General Warehouse
LeMon 4029 Printer System Board (LM4029SB)	703	General Warehouse
J.B. Officeprint 1420 (A00001)	973	General Warehouse
MRP_Item5 (MRP_Item5)	0	General Warehouse
Memory DDR RAM 8GB (C00011)	1018	General Warehouse
Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	986	General Warehouse
MRP_BOM (MRP_BOM)	0	General Warehouse
LeMon 4029 Printer (LM4029)	267	General Warehouse
MRP_Child1 (MRP_Child1)	0	General Warehouse
J.B. Officeprint 1111 (A00002)	964	General Warehouse
LeMon 4029 Printer AC Adapter (LM4029ACA)	700	General Warehouse
SLR PreciseShot PX1500 (I00009)	972	General Warehouse
PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29	General Warehouse
MRP_Child2 (MRP_Child2)	0	General Warehouse
Tablet PC 64GB Black (Z00001)	0	General Warehouse
LeMon 4029 Printer AC Power Cord (LM4029APCD)	650	General Warehouse
SLR M-CAM 40C (I00010)	1086	General Warehouse
J.B. Officeprint 1186 (A00003)	1090	General Warehouse
MRP_Grandchild (MRP_Grandchild)	0	General Warehouse
LeMon 4029 500 sheet paper drawer (LM4029D)	772	General Warehouse
KG USB Travel Hub (I00011)	1066	General Warehouse
PC - 12x core, 64GB, 5 x 150GB SSD (P10002)	5	General Warehouse
Blu-Ray Disc 10-Pack (I00001)	1087	General Warehouse
MRP_Item1 (MRP_Item1)	0	General Warehouse
Memory Chip (LM4029MC)	412	General Warehouse
KG PC-to-Mac Transfer Kit (I00012)	1088	General Warehouse
Rainbow Color Printer 5.0 (A00004)	1031	General Warehouse

The value you select in the *Input Parameter* window is transferred to the place where you use the report parameter.

- o The report parameter value is transferred to the filter as a filtering value, so only the quantity in the general warehouse is displayed.
- o The report parameter value is transferred to the section as a display value, so *General Warehouse* appears in the *Warehouse* column.

- To view the in-stock quantities of items in the west cost warehouse, follow the procedure below:
  1. In the *EXCEL REPORT* ribbon, choose *Run Report*. The *Input Parameter* window appears, and the default value for the parameter appears in the dropdown list.

2. In the *Input Parameter* window, select *West Cost Warehouse*, and choose *OK*. The report result looks like the following.

Item Description & Code	In-Stock Quantity	Warehouse
Rainbow Printer 9.5 Inkjet Cartridge (I00007)	0	West Cost Warehouse
LeMon 4029 Printer System Board (LM4029SB)	0	West Cost Warehouse
J.B. Officeprint 1420 (A00001)	50	West Cost Warehouse
Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	0	West Cost Warehouse
MRP_Item5 (MRP_Item5)	0	West Cost Warehouse
MRP_BOM (MRP_BOM)	0	West Cost Warehouse
Quadcore CPU 3.4 GHz (C00003)	50	West Cost Warehouse
LeMon 4029 Printer (LM4029)	0	West Cost Warehouse
Memory DDR RAM 8GB (C00011)	50	West Cost Warehouse
MRP_Child1 (MRP_Child1)	0	West Cost Warehouse
J.B. Officeprint 1111 (A00002)	50	West Cost Warehouse
LeMon 4029 Printer AC Adapter (LM4029ACA)	0	West Cost Warehouse
SLR PreciseShot PX1500 (I00009)	0	West Cost Warehouse
PC - 8x core, DDR 32GB, 2TB HDD (P10001)	0	West Cost Warehouse
Tower Case with Power supply (C00004)	50	West Cost Warehouse
MRP_Child2 (MRP_Child2)	0	West Cost Warehouse
LeMon 4029 Printer AC Power Cord (LM4029APCD)	0	West Cost Warehouse
SLR M-CAM 40C (I00010)	0	West Cost Warehouse
Tablet PC 64GB Black (Z00001)	0	West Cost Warehouse
J.B. Officeprint 1186 (A00003)	0	West Cost Warehouse
MRP_Grandchild (MRP_Grandchild)	0	West Cost Warehouse
LeMon 4029 500 sheet paper drawer (LM4029D)	0	West Cost Warehouse
KG USB Travel Hub (I00011)	0	West Cost Warehouse
WLAN Card (C00005)	50	West Cost Warehouse
PC - 12x core, 64GB, 5 x 150GB SSD (P10002)	0	West Cost Warehouse
Blu-Ray Disc 10-Pack (I00001)	0	West Cost Warehouse
MRP_Item1 (MRP_Item1)	0	West Cost Warehouse
Memory Chip (LM4029MC)	50	West Cost Warehouse
KG PC-to-Mac Transfer Kit (I00012)	0	West Cost Warehouse
Rainbow Color Printer 5.0 (A00004)	30	West Cost Warehouse
Tablet PC 64GB White (Z00002)		West Cost Warehouse

The value you select in the *Input Parameter* window is transferred to the place where you use the report parameter.

o The report parameter value is transferred to the filter as a filtering value, so only the quantity in the west cost warehouse is displayed.

o The report parameter value is transferred to the section as a display value, so *West Cost Warehouse* appears in the *Warehouse* column.

5.3.1.2.3 Linking Report Parameters to Data Source Parameters

You can link report parameters to data source parameters. The parameter value you select or enter when you run the report is then transferred to the data source parameter as a data source parameter value. Therefore, you do not need to go to the report designer every time you want to view the report based on different data source parameter values; instead, you can do so by defining the linked report parameter values when you run the report.

In the following example, you will create a report to view the unsettled trade receivable or payable amount based on different aging dates for different business partner types using report parameters that are linked to data

source parameters. The parameter value you select when you run the report will be transferred to the data source parameter as a data source parameter value.

1 Note

When you link your report parameter to a data source parameter that is a value-list parameter, you can only use the input type *User Input* for the report parameter.

Procedure

1. Select *Account Receivable & Payable Analysis* as your data source, and in the *Enter Parameters* window, define your specific data source parameter values or take the default values. You can always define specific report parameter values when you run the report and transfer them to the data source parameters.

2. Drag *Business Partner Name & Code* to the worksheet. The *New Section* window appears.

3. In the *New Section* window, define the section size, select the *Add as a Row Group* radio button, and choose *OK*.

In the *Group and Section* panel, a staple appears to indicate that a group was created.
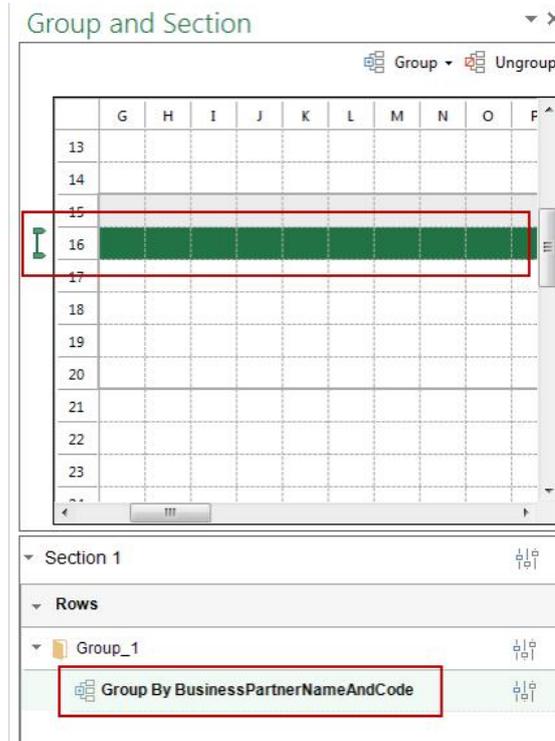
4. Drag *Aging Balance Due (LC)* to the group, as follows:

5. On the *Report Parameter* tab of the data source panel, choose ⊞.

The *Parameter Settings* window appears.

6. Select the *Link To* checkbox, and select the data source parameter *P_AgingDate*.

   The parameter code is filled automatically.

7. In the *Param. Code* field, enter `Aging Date`, in the *Param. Description* field, enter `Define an aging date`, and choose *OK*.

8. On the *Report Parameter* tab of the data source panel, choose ⊞.

    The *Parameter Settings* window appears.

9. Select the *Link To* checkbox, and select the data source parameter *P_BusinessPartnerType.*

    The parameter code is filled automatically.

10. In the *Param. Code* field, enter **Business Partner Type**, and in the *Param. Description* field, enter **Define BP type**.

11. In the value table, define the display values and values according to the values of the data source parameter as follows, and choose *OK*.
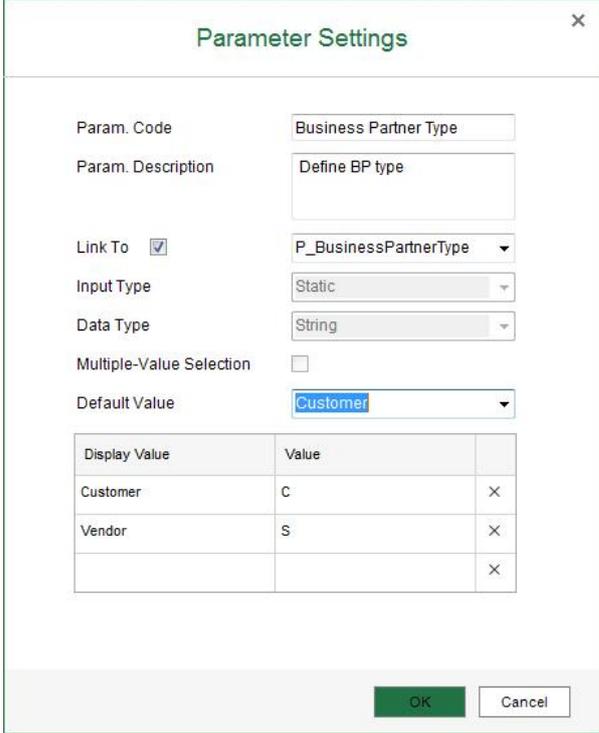
Result

You can view the report for different business partner types, as follows:

*   To view unsettled trade receivable amount for customers, follow the procedure below:

    1. In the *EXCEL REPORT* ribbon, choose *Run Report*. The *Input Parameter* window appears, and the default values for the parameters appear in the dropdown lists.

2. In the *Input Parameter* window, choose *OK.* The report result looks like the following:

Business Partner Name & Code	Aging Balance Due (LC)
ADA Technologies (C50000)	1828.5
Maxi-Teq (C20000)	29446.8
Mashina Corporation (C42000)	16628.76
SG Electronics (C60000)	12502.5
Aquent Systems (C70000)	2082.5
Microchips (C30000)	7415.13
Earthshaker Corporation (C40000)	5790.63

The values you select in the *Input Parameter* window are transferred to the data source parameter *P_BusinessPartnerType* so only customers are displayed.

- To view unsettled trade payable amount for vendors, follow the procedure below:

  1. In the *EXCEL REPORT* ribbon, choose *Run Report*. The *Input Parameter* window appears, and the default values for the parameters appear in the dropdown lists.

2. In the *Input Parameter* window, select *Vendor*, and choose *OK.* The report result looks like the following.

Business Partner Name & Code	Aging Balance Due (LC)
SMD Technologies (V70000)	6300.16
Blockies Corporation (V30000)	9353.35
Anthony Smith (V23000)	11465.84
CTI Computers (V60000)	3620.96
Far East Imports (V1010)	2776.62
Lasercom (V20000)	681.98
Acme Associates (V10000)	37649.35
Lumarx (V50000)	162.38

The values you select in the *Input Parameter* window are transferred to the data source parameter *P_BusinessPartnerType* so only vendors are displayed.

You can view the report for different aging dates, as follows:

- To view unsettled trade receivable amount for customers on the aging date of 2016.01.01, follow the procedure below:

  1. In the *EXCEL REPORT* ribbon, choose *Run Report*. The *Input Parameter* window appears, and the default values for the parameters appear in the dropdown lists.

Input Parameter	✕
Aging Date	2016.1.1 ▾
Business Partn...	Customer ▾
	OK Cancel

  2. In the *Input Parameter* window, select *2016.01.01*, and choose *OK*. The report result looks like the following.

Business Partner Name & Code	Aging Balance Due (LC)
ADA Technologies (C50000)	1828.5
Maxi-Teq (C20000)	29446.8
Mashina Corporation (C42000)	16628.76
SG Electronics (C60000)	12502.5
Aquent Systems (C70000)	2082.5
Microchips (C30000)	7415.13
Earthshaker Corporation (C40000)	5790.63

  The value you select in the *Input Parameter* window is transferred to the data source parameter *P_AgingDate* so the unsettled trade receivable amount for customers on the aging date of 2016.01.01 is displayed.

- To view unsettled trade receivable amount for customers on the aging date of 2012.01.01, follow the procedure below:

  1. In the *EXCEL REPORT* ribbon, choose *Run Report*. The *Input Parameter* window appears, and the default values for the parameters appear in the dropdown lists.

Input Parameter	✕
Aging Date	2012.1.1 ▾
Business Partn...	Customer ▾
	OK Cancel

2. In the *Input Parameter* window, select *2012.01.01*, and choose *OK*. The report result looks like the following:

Business Partner Name & Code	Aging Balance Due (LC)
Maxi-Teq (C20000)	13004.61
Parameter Technology (C23900)	30814.2
Microchips (C30000)	25932.67
Earthshaker Corporation (C40000)	19184.02
Mashina Corporation (C42000)	30199.41
ADA Technologies (C50000)	102197.3
SG Electronics (C60000)	185054.99
Aquent Systems (C70000)	96603.5

The value you select in the *Input Parameter* window is transferred to the data source parameter *P_AgingDate* so the unsettled trade receivable amount for customers on the aging date of 2012.01.01 is displayed.

5.3.1.2.4   Managing Report Parameters

- To edit a report parameter, on the *Report Parameter* tab of the data source panel, select the report parameter, and choose 🖉.
- To delete a report parameter, on the *Report Parameter* tab of the data source panel, select the report parameter, choose 🗑, and confirm the message.

5.3.2   Working with Filters

ⁱ Note

You can filter only by dimensions.

You can set filters on the section or group set level. A group set is a group hierarchy that contains one or more groups that are related to each other.

To see the section or group set information, use the *Settings* button next to them.

Procedure

To set a filter for a section or group set, follow the procedure below:

1. In the *Group and Section* panel, choose the *Settings* button next to the section or group set for which you want to set a filter.

    The *Settings* window appears.
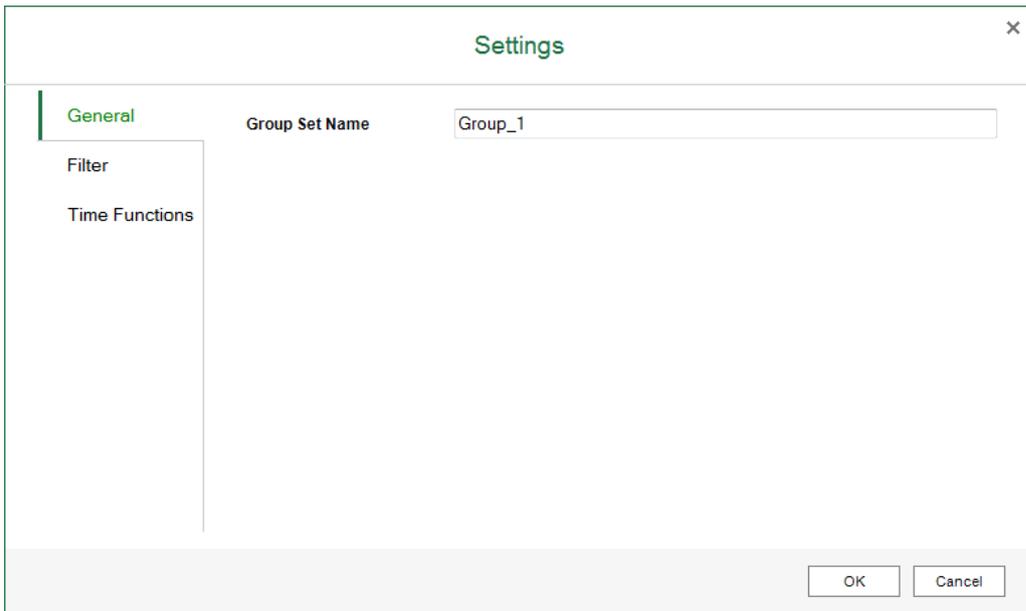
2. On the *General* tab, for a section, you can find the data source information; for a group set, you can define its name.

3. On the *Filter* tab, you can find all the dimensions in this data source, which means that you can filter the data using all the dimension values in the data source. Select a dimension to filter by its values.
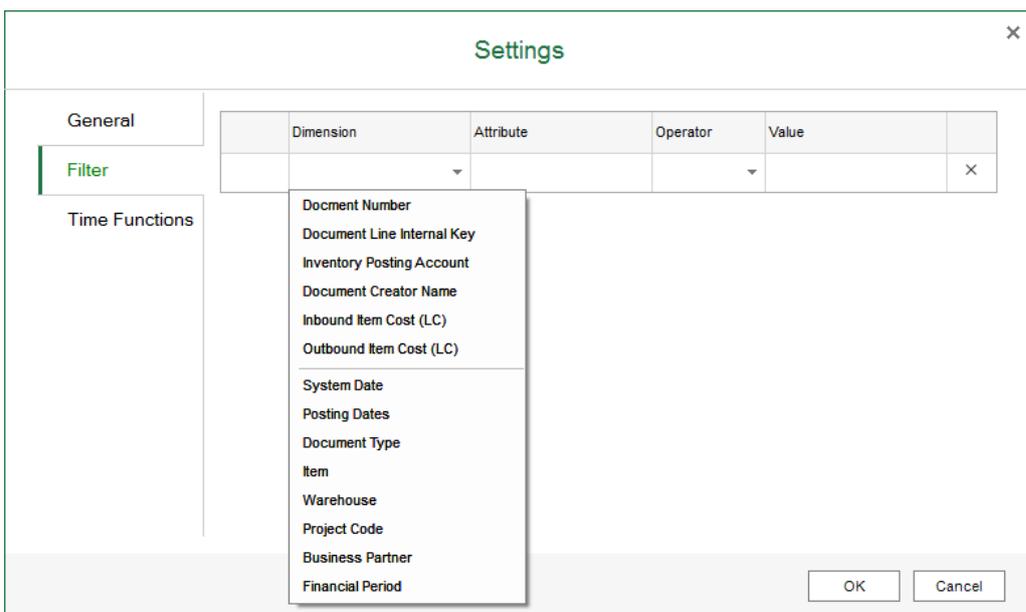
4. In the *Operator* dropdown list, select an operator for the filter. The following operators are available:
   o *=:* the filtered value is equal to the value you select in the *Value* column.
   o *<>*: the filtered values are not equal to the value you select in the *Value* column.
   o *>:* the filtered values are greater than the value you select in the *Value* column.
   o *>=*: the filtered values are greater than or equal to the value you select in the *Value* column.
   o *<:* the filtered values are smaller than the value you select in the *Value* column.
   o *<=*: the filtered values are smaller than or equal to the value you select in the *Value* column.
   o *IN*: the filtered values are equal to one of the values you select in the *Value* column.
5. In the *Value* column, enter or select a value or report parameter, using the date picker (for a date-type dimension), the value list on the *Value* tab of the *Filter Value* window (for all dimensions), or the *Parameter* tab of the *Filter Value* window. For more information about report parameters, see Report Parameters and iaParam Function.
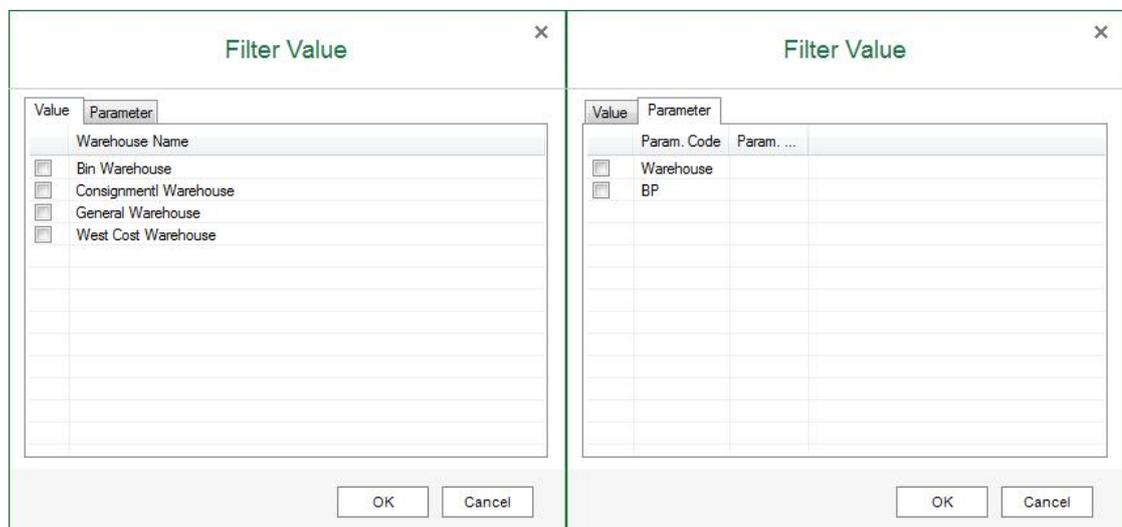
i Note

To display more or fewer values in the value list, use the *Max. Number of List Values* field on the *Value List* tab of the *Application Settings* window. For more information, see EXCEL REPORT Ribbon.

6. If you define more than one line in the filter, define the condition *And* or *Or* to combine the filter lines.

i Note

You cannot use *And* and *Or* in one filter at the same time

7. To save the settings, choose *OK*.

Example

In the report created in Creating the Excel Report, you will filter the item groups to see a specific item group *PC*. To do so, follow the procedure below:

1. In the *Group and Section* panel, choose the *Settings* button next to the group set that contains the *ItemGroup* and *ItemDescriptionAndCode* groups.
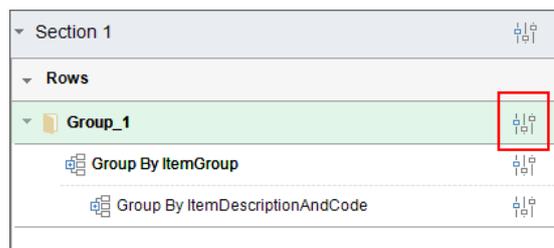
2. On the *Filter* tab of the *Settings* window, select *Item* in the *Dimension* dropdown list, *Item Group* in the *Attribute* dropdown list, *=* in the *Operator* dropdown list, and *PC* in the *Value* column.
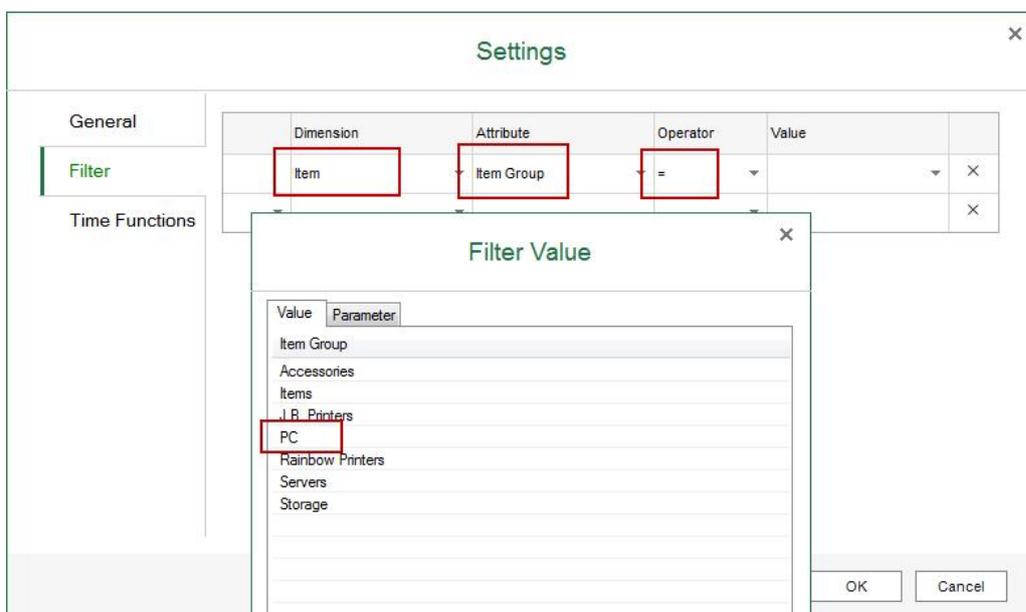
3. In the *Settings* window, choose *OK*.

4. In the *EXCEL REPORT* ribbon, choose *Run Report*.

The report result shows the in-stock information of each item that belongs to the *PC* item group per warehouse.

Inventory by Item Group per Warehouse							
		General Warehouse (01)			West Cost Warehouse (02)		
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In
PC							
	PC - 12x core, 64GB, 5 x 150GB SSD (P10002)	5	1293.75	6468.75	0	0	0
	PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29	1064.0466	30857.35	0	0	0
	PC Set 1 (P10003)	25	1228.3836	30709.59	0	0	0

5.3.3 Working with Group, Details Group, and Field

Excel Report and Interactive Analysis provides the following field types:

- Group: this field type retrieves all the values of a dimension from the database and treats each value as a group. The group must be grouped by a dimension.
- Details group: you can treat this field type as a group, as the operations for this field type are almost the same as those for a group. However, this field type does not treat each value as a group; instead, a details group displays every record of all dimensions in the group. The details group does not have a *Group By* attribute.
- Field: this field type retrieves values depending on the data source.
  - o If the data source is a measure, this field type retrieves the sum of all the values in the database for the corresponding group (if it has a corresponding group).
  - o If the data source is a dimension, this field type retrieves the largest value in the database for the corresponding group (if it has a corresponding group).

5.3.3.1 Group and Details Group

i Note

When you copy a group hierarchy, all the information is copied, including the *Group By* attribute, the calculated value, and so on.

i Note

You can add paralleled groups only on the first level of group hierarchies.

5.3.3.1.1 Adding a Group

When you add a group that is grouped by a dimension, the report result displays all the values of the dimension in the database with the *Group By* attribute, that is, the report treats each value of the dimension as a group.

Adding a Group When You Start

You will create a report that displays the in-stock quantity of each item in the database.

Procedure

To add a group when you start designing a report, follow the procedure below:

1. Select *Inventory Status* as your data source, and drag *Item Description & Code* to the worksheet. The *New Section* window appears.

2. In the *New Section* window, define the section size, select the *Add as a Row Group* radio button, and choose *OK*.

   In the *Group and Section* panel, a staple appears to indicate that a group was created.

3. Drag *In-Stock Quantity* to the group, as follows:

Result

In the *EXCEL REPORT* ribbon, choose *Run Report.*

The report result shows the in-stock quantity of each item. The report treats every item as a group.

Item Description & Code	In-Stock Quantity		
LeMon 4029 Printer System Board (LM4029SB)	703		
Server Point 10000 (S10000)	40		
MRP_Item4 (MRP_Item4)	0		
Rainbow Printer 9.5 Inkjet Cartridge (I00007)	947		
Motherboard MicroATX (C00002)	1182		
J.B. Officeprint 1420 (A00001)	1024		
Mouse USB (C00010)	1071		
MRP_Item5 (MRP_Item5)	0		
Memory DDR RAM 8GB (C00011)	1068		
Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	986		
Quadcore CPU 3.4 GHz (C00003)	1077		
MRP_BOM (MRP_BOM)	0		
LeMon 4029 Printer (LM4029)	267		
MRP_Child1 (MRP_Child1)	0		
J.B. Officeprint 1111 (A00002)	1015		
LeMon 4029 Printer AC Adapter (LM4029ACA)	700		
SLR PreciseShot PX1500 (I00009)	972		
PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29		
Tower Case with Power supply (60000	11		

Adding a Group During Your Design

You will create a report that displays the in-stock quantity of each item per each warehouse in the database.

Procedure

When you are in the middle of designing a report, to add a group by using the *Add New Group* option in the *Group and Section* panel, follow the procedures below:

1. With the *Inventory Status* data source, you have added *In-Stock Quantity* and *Item Description & Code* as two fields in the worksheet.

| Item Description & Code	In-Stock Quantity		
[ItemDescriptionAndCode]	[InStockQuantity]		

2. Select the whole Excel row as follows.

   i Note

   If you want to add a column group, select the whole Excel column.
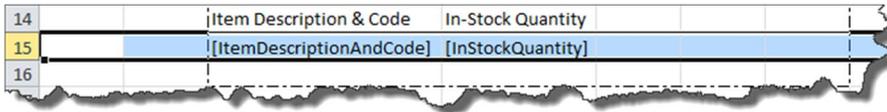
3. In the *Group and Section* panel, choose *Group → Add New Group*.
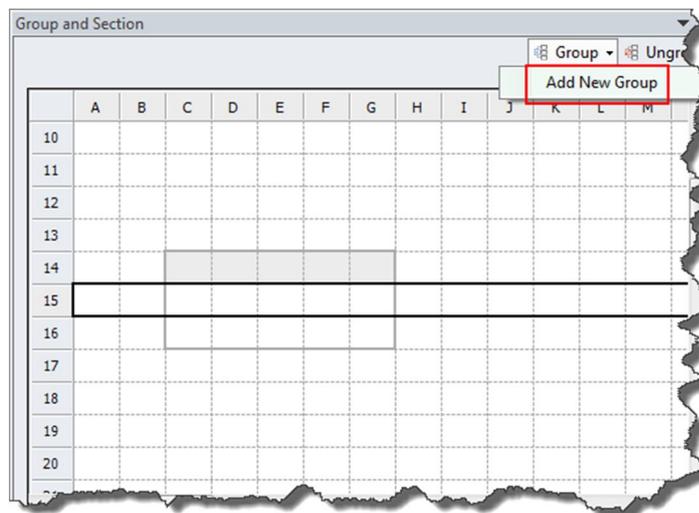
4. In the *Group By* dropdown list of the *Add New Group* window, select *Item Description & Code*, and choose *OK*.
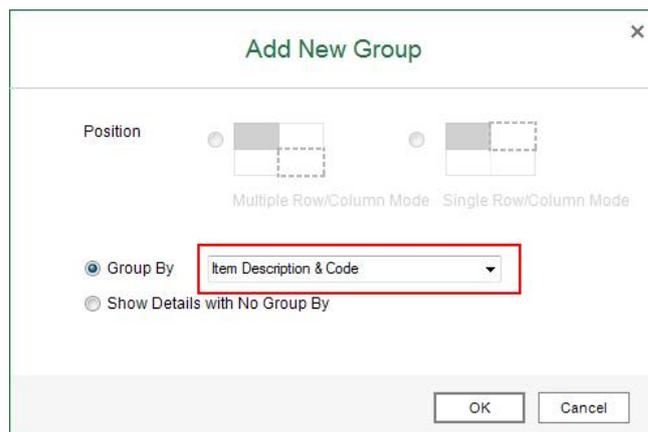
Result

- In the *Group and Section* panel, a staple appears to indicate that a group was created.

- In the *EXCEL REPORT* ribbon, choose *Run Report*.

  The report result shows the in-stock quantity of each item. The report treats every item as a group.

Item Description & Code	In-Stock Quantity		
LeMon 4029 Printer System Board (LM4029SB)	703		
Server Point 10000 (S10000)	40		
MRP_Item4 (MRP_Item4)	0		
Rainbow Printer 9.5 Inkjet Cartridge (I00007)	947		
Motherboard MicroATX (C00002)	1182		
J.B. Officeprint 1420 (A00001)	1024		
Mouse USB (C00010)	1071		
MRP_Item5 (MRP_Item5)	0		
Memory DDR RAM 8GB (C00011)	1068		
Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	986		
Quadcore CPU 3.4 GHz (C00003)	1077		
MRP_BOM (MRP_BOM)	0		
LeMon 4029 Printer (LM4029)	267		
MRP_Child1 (MRP_Child1)	0		
J.B. Officeprint 1111 (A00002)	1015		
LeMon 4029 Printer AC Adapter (LM4029ACA)	700		
SLR PreciseShot PX1500 (I00009)	972		
PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29		
Tower Case with Power supply (60000...	11...		

Procedure

When you are in the middle of designing a report, to add a group by directly dragging a dimension to the section header, follow the procedures below:

1. In the report created in the previous procedure, insert a row in the section header.

2. Drag *Warehouse Name & Code* to the section header as follows:

	[WarehouseNameAndCode]			
Item Description & Code	In-Stock Quantity			
[ItemDescriptionAndCode]	[InStockQuantity]			

A column group is automatically created.
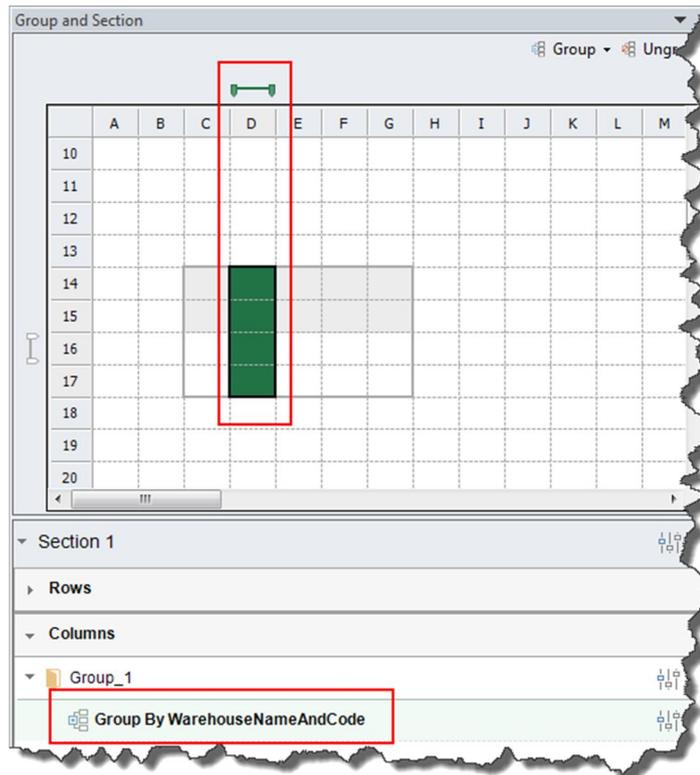
Result

In the *EXCEL REPORT* ribbon, choose *Run Report*.

The report result shows the in-stock quantity of each item per each warehouse.

Item Description & Code	General Warehouse (01) In-Stock Quantity	West Cost Warehouse (02) In-Stock Quantity	Consignmentl Warehouse (04) In-Stock Quantity	Bin Ware In-Stock C
MRP_Item3 (MRP_Item3)	0	0	0	
J.B. Officeprint 1420 (A00001)	974	50	0	
SLR M-CAM 40C (I00010)	1086	0	0	
Computer Monitor 24" HDMI (C00008)	1065	50	0	
LeMon 4029 Printer (LM4029)	267	0	0	
USB Flashdrive 128GB (I00003)	953	0	0	
MRP_Item4 (MRP_Item4)	0	0	0	
LeMon 4029 Printer System Board (LM4(	703	0	0	
Printer Paper A4 White (R00001)	192	0	0	
Motherboard BTX (C00001)	1231	50	0	
J.B. Officeprint 1111 (A00002)	965	50	0	
KG USB Travel Hub (I00011)	1066	0	0	
Keyboard Comfort USB (C00009)	1058	50	0	
LeMon 4029 Printer AC Adapter (LM402!	700	0	0	
MRP_Item5 (MRP_Item5)	0	0	0	
J.B. Officeprint 1186 (A00003)	1091	0	0	
KG PC-to-Mac Transfer Kit (I00012)	1088	0	0	
use USB (C00010)	1021	50	0	

Adding a Parent or Child Group

You will create a report that displays the in-stock quantity of each item, and the items are grouped by item group.

Procedure

To create the report by adding a parent group, follow the procedure below:

1. With the *Inventory Status* data source, you have added a group that is grouped by *Item Description & Code*, and added *In-Stock Quantity* to the group.

Item Description & Code	In-Stock Quantity	
[ItemDescriptionAndCode]	[InStockQuantity]	

2. Insert a column before the *Item Description & Code* column to reserve a place for the item group column.
   The section looks like the following:

	Item Description & Code	In-Stock Quantity		
	[ItemDescriptionAndCode]	[InStockQuantity]		

3. Select the *ItemDescriptionAndCode* group using either of the following two methods:
    o In the *Group and Section* panel, select the staple.
    o In the worksheet, select the whole *ItemDescriptionAndCode* group row in the section or select the whole Excel row as follows:


In the *Group and Section* panel, the staple is marked in green, indicating that the group has been selected.

4. In the *Group and Section* panel, choose *Group → Add Parent Group*.

    The *Add Parent Group* window appears.

5. In the *Group By* dropdown list, select *Item Group*, and choose *OK*.
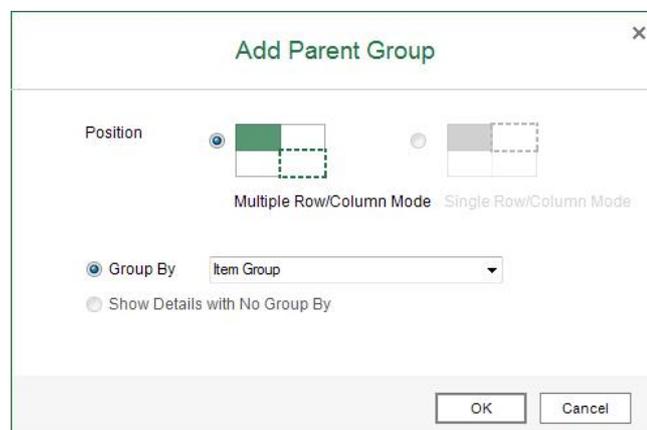
Result

- In the worksheet, the section looks like the following:

Item Group	Item Description & Code	In-Stock Quantity		
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]		

- In the *Group and Section* panel, you can find the position and information of the parent group as follows:
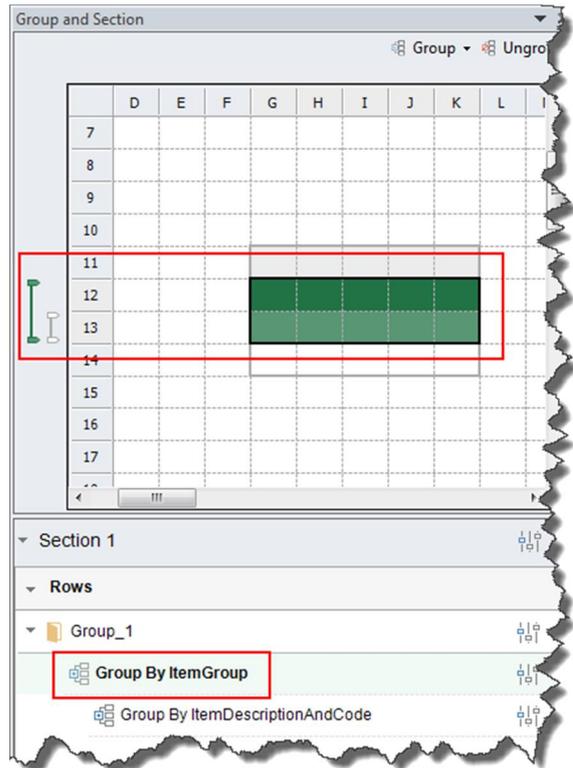
- In the *EXCEL REPORT* ribbon, choose *Run Report*.

   The report result shows the in-stock quantity of each item, and the items are grouped by item group.

Item Group	Item Description & Code	In-Stock Quantity	
Accessories			
	Memory Chip (LM4029MC)	462	
Items			
	Blu-Ray Disc 10-Pack (I00001)	1087	
	Blu-Ray DL Disc 10-Pack (I000	1022	
	Computer Monitor 24" HDMI	1115	
	Gigabit Network Card (C0000	1017	
	Hard Disk 3TB (C00007)	1110	
	J.B. Laptop Batteries X1 serie	1014	
	J.B. Laptop Batteries X2 serie	984	
	Keyboard Comfort USB (C000	1108	
	KG PC-to-Mac Transfer Kit (I0	1088	
	KG USB Travel Hub (I00011)	1066	
	LeMon 4029 500 sheet paper	772	
	LeMon 4029 Printer (LM4029	267	
	LeMon 4029 Printer AC Adap	700	
	LeMon 4029 Printer AC Powe	650	
	LeMon 4029 Printer Head (LM	782	
	LeMon 4029 Printer Power S	44	
	LeMon 4029 Printer System	703	
	Memory DDR RAM 8GB (C000	1068	

Procedure

To create the report by adding a child group, follow the procedure below:

1. With the *Inventory Status* data source, you have added a group that is grouped by *Item Group*.

Item Group			
[ItemGroup]			

2. Select the *ItemGroup* group using either of the two methods provided in the third step of the previous procedure, and in the *Group and Section* panel, choose *Group → Add Child Group*.

   The *Add Child Group* window appears.

3. In the *Position* section, to place the child group in the next row of the parent group, select the *Multiple Row/Column Mode* radio button. You will select this radio button in this procedure. The result looks like the following:

| Item Group	Item Description & Code		
Accessories			
	Memory Chip (LM4029MC)		
Items			
	Blu-Ray Disc 10-Pack (I00001)		
	Blu-Ray DL Disc 10-Pack (I00002)		
	Computer Monitor 24" HDMI (C00008)		
	Gigabit Network Card (C00006)		
	Hard Disk 3TB (C00007)		
	J.B. Laptop Batteries X1 series (I00005)		
	J.B. Laptop Batteries X2 series (I00006)		
	Keyboard Comfort USB (C00009)		
	KG PC-to-Mac Transfer Kit (I00012)		
	KG USB Travel Hub (I00011)		
	LeMon 4029 500 sheet paper drawer (LM4029D)		

In the *Position* section, to place the child group in the same row as the parent group, select the *Single Row/Column Mode* radio button. The result looks like the following:

ℹ **Note**

The *Add Parent Group* option is not available for the first level group. Therefore, for groups in the single row/column mode, you cannot add a parent group to the first level group.

Item Group	Item Description & Code		
Accessories	Memory Chip (LM4029MC)		
Items	Blu-Ray Disc 10-Pack (I00001)		
	Blu-Ray DL Disc 10-Pack (I00002)		
	Computer Monitor 24" HDMI (C00008)		
	Gigabit Network Card (C00006)		
	Hard Disk 3TB (C00007)		
	J.B. Laptop Batteries X1 series (I00005)		
	J.B. Laptop Batteries X2 series (I00006)		
	Keyboard Comfort USB (C00009)		
	KG PC-to-Mac Transfer Kit (I00012)		
	KG USB Travel Hub (I00011)		
	LeMon 4029 500 sheet paper drawer (LM4029D)		
	LeMon 4029 Printer (LM4029)		
	LeMon 4029 Printer AC Adapter (LM4029ACA)		
	LeMon 4029 Printer AC Power Cord (LM4029ARCD)		

4. In the *Group By* dropdown list, select *Item Description & Code*, and choose *OK*.
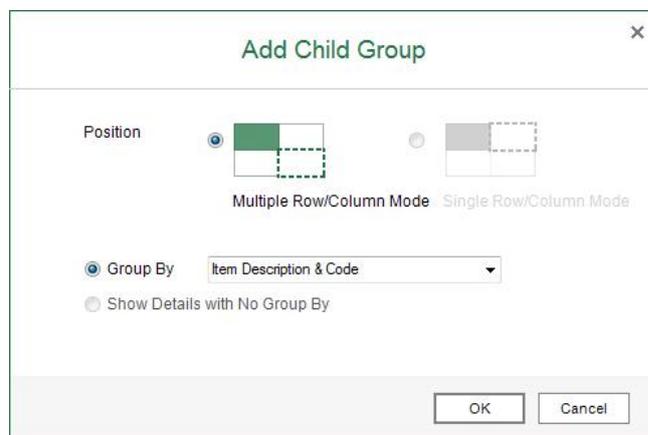
5. Drag *In-Stock Quantity* to the *ItemDescriptionAndCode* group.

Result

The results are the same as the results for the previous procedure.

5.3.3.1.2   Adding a Details Group

When you add a details group, the report result displays all records in the database without the *Group By* attribute, that is, this field does not treat each value as a group; instead, a details group displays every record of all dimensions in the group.

Note

When there is a column group, you cannot add a details group in the row direction; and when there is a row group, you cannot add a details group in the column direction.

Adding a Details Group When You Start

You will create a report that displays the inbound inventory quantity for each item on each posting date.

Procedure

To add a details group when you start designing a report, follow the procedure below:

1. Select *Inventory Transaction Documents* as your data source, and drag *Item Description & Code* to the worksheet. The *New Section* window appears.

2. In the *New Section* window, define the section size, select the *Add as a Row Group* radio button together with the *Show Details with No Group By* checkbox, and choose *OK*.

   In the *Group and Section* panel, a staple with three lines appears to indicate that a details group was created.
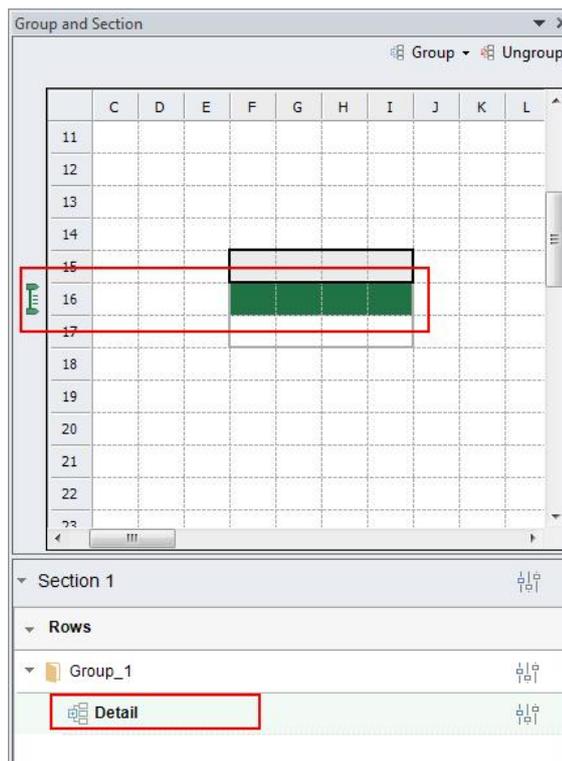
3. Drag *Inbound Inventory Quantity* and *Posting Date* to the details group as follows:

Item Description & Code	Inbound Inventory Quantity	Posting Date
[ItemDescriptionAndCode]	[InboundInventoryQuantity]	[PostingDate]

Result

In the *EXCEL REPORT* ribbon, choose *Run Report*.

The report result shows every record in the group, and the sum of inbound inventory quantity for each record.

Item Description & Code	Inbound Inventory Quantity	Posting Date
J.B. Officeprint 1420 (A00001	40	12-05-2007
J.B. Officeprint 1111 (A00002	40	12-05-2007
J.B. Officeprint 1186 (A00003	40	12-11-2007
Rainbow Color Printer 5.0 (A	40	12-11-2007
Rainbow Color Printer 7.5 (A	40	12-11-2007
Motherboard BTX (C00001)	40	12-11-2007
Motherboard MicroATX (C00	40	12-11-2007
Quadcore CPU 3.4 GHz (C000	40	12-14-2007
Tower Case with Power supp	40	12-14-2007
WLAN Card (C00005)	40	12-14-2007
Gigabit Network Card (C0000	40	12-14-2007
Hard Disk 3TB (C00007)	40	12-14-2007
Computer Monitor 24" HDMI	40	12-24-2007
Keyboard Comfort USB (C000	40	12-24-2007
Mouse USB (C00010)	40	12-24-2007
Memory DDR RAM 8GB (C000	40	12-24-2007
J.B. Laptop Batteries X1 serie	40	01-16-2008
J.B. Laptop Batteries X2 serie	40	01-16-2008
J.B. Officeprint 1420 (A00001	50	01-30-2008
J.B. Officeprint 1111 (A00002	50	01-30-2008
J.B. Officeprint 1186 (A00003	50	01-30-2008
Rainbow Color Printer 5.0 (A	50	02-04-2008
Rainbow Color Printer 7.5 (A	50	02-04-2008
Motherboard BTX (C00001)	50	02-04-2008
Motherboard MicroATX (C00	50	02-04-2008
Quadcore CPU 3.4 GHz (C000	50	02-04-2008
Tower Case with Power supp	50	02-09-2008
WLAN Card (C00005)	40	02-09-2008

Adding a Details Group During Your Design

This procedure is the same as the one for adding a group when you are in the middle of designing a report by using the *Add New Group* option in the *Group and Section* panel, except that you need to select the *Show Details with No Group By* radio button in the *Add New Group* window. For more information, see the first procedure in Adding a Group During Your Design.

i Note

In the *Add New Group* window, when you select the *Show Details with No Group By* radio button, you cannot edit the *Group By* dropdown list, because a details group does not have the *Group By* attribute, and it displays every record of all dimensions in the group.

Adding a Child Details Group

> ℹ **Note**
>
> A details group must be in the lowest level of a group hierarchy, so you cannot add a parent details group.

This procedure is the same as the one for adding a child group, except that you need to select the *Show Details with No Group By* radio button in the *Add Child Group* window. For more information, see the second procedure in Adding a Parent or Child Group.

> ℹ **Note**
>
> In the *Add Child Group* window, when you select the *Show Details with No Group By* radio button, you cannot edit the *Group By* dropdown list, because a details group does not have the *Group By* attribute, and it displays every record of all dimensions in the group.

5.3.3.1.3   Deleting a (Details) Group

> ℹ **Note**
>
> In the *Single Row/Column Mode*, you cannot delete the highest-level group if it has child groups.

To delete a group, in the *Group and Section* panel, select the staple of the group that you want to delete, and choose *Ungroup* as follows:
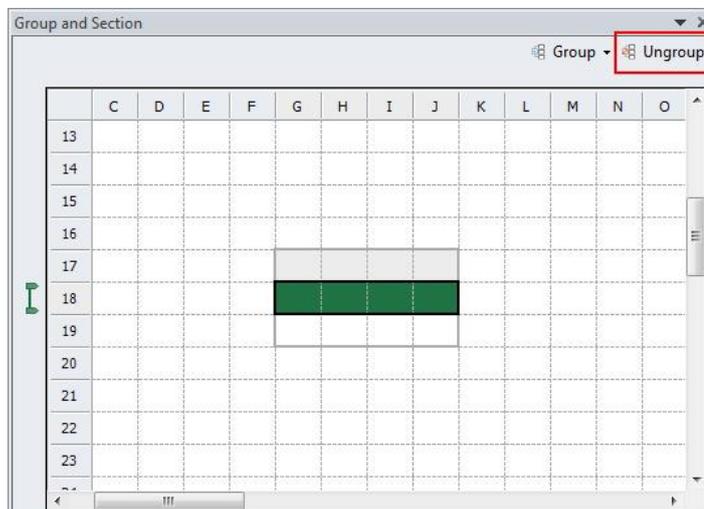
5.3.3.1.4 Modifying and Sorting a (Details) Group

ⓘ Note

Sorting does not support calculated fields, such as `iaGet("Attribute_A")/iaGet("Attribute_B")` or `MIN(iaCellRef(F10))`. Only dimensions and measures, that is, the simple iaGet functions, are supported. For more information about the iaGet function, see iaGet Function.

In the *Settings* window of a group, you can define its name, the *Group By* attribute (this is not available for details groups), and the sorting rules. You can define sorting rules for all the dimensions, measures, and the *Group By* attribute in the group, except those that are also in a group on the other direction.

Example

For example, *Qty. In Stock*, *Cost Price*, and *In-Stock Inventory Value (LC)* are included in two groups: the *WarehouseNameAndCode* group, and the *ItenDescriptionAndCode* group.

Inventory by Item Group per Warehouse				
		[WarehouseNameAndCode]		
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)
[ItemGroup]				
	[ItemDescriptionAndCode]	[InStockQuantity]	#VALUE!	[InStockInventoryValueLC]

When you choose the *Settings* icon of the *ItenDescriptionAndCode* group, in the *Attribute* dropdown list on the *Sorting* tab, only *Item Description & Code* is available.
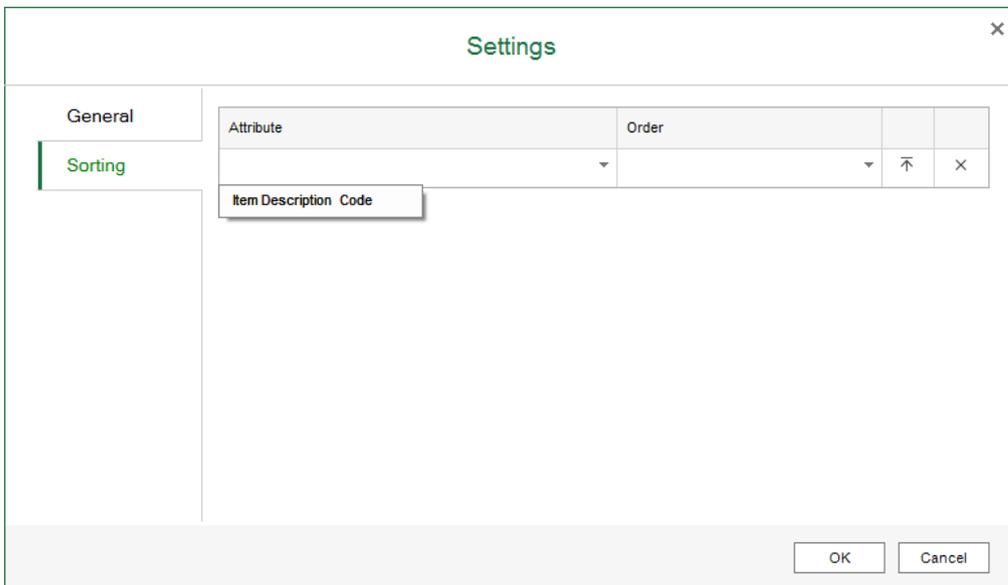
When you ungroup the *WarehouseNameAndCode* group, in the *Attribute* dropdown list on the *Sorting* tab of the *ItenDescriptionAndCode* group, you can see that *Item Description & Code*, *In-Stock Quantity*, and *In-Stock Inventory Value (LC)* are all available. *Cost Price* is not available because it is a calculated field.

To open the *Settings* window of a group, in the *Group and Section* panel, choose the *Settings* icon of the specific group.
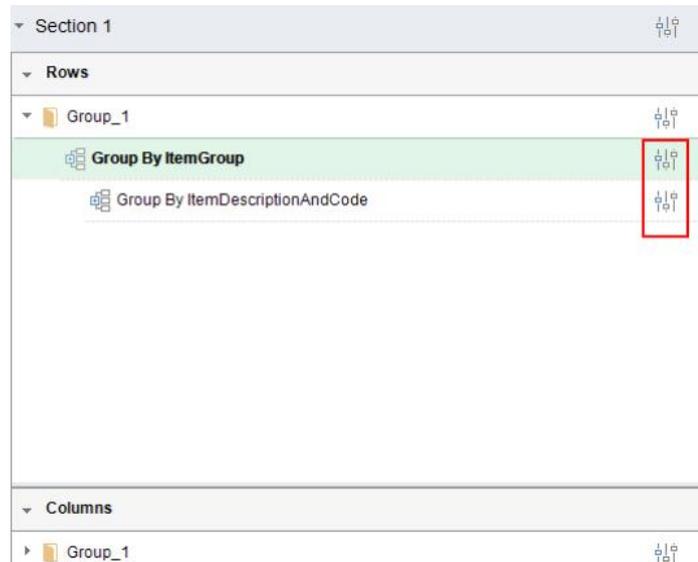

Procedure

You will sort the item group in descending order in the query report *Inventory by Item Group per Warehouse*.

1. In the report created in Creating the Excel Report, in the *Group and Section* panel, choose the *Settings* icon of the *ItemGroup* group.

   The *Settings* window of the *ItemGroup* group appears.
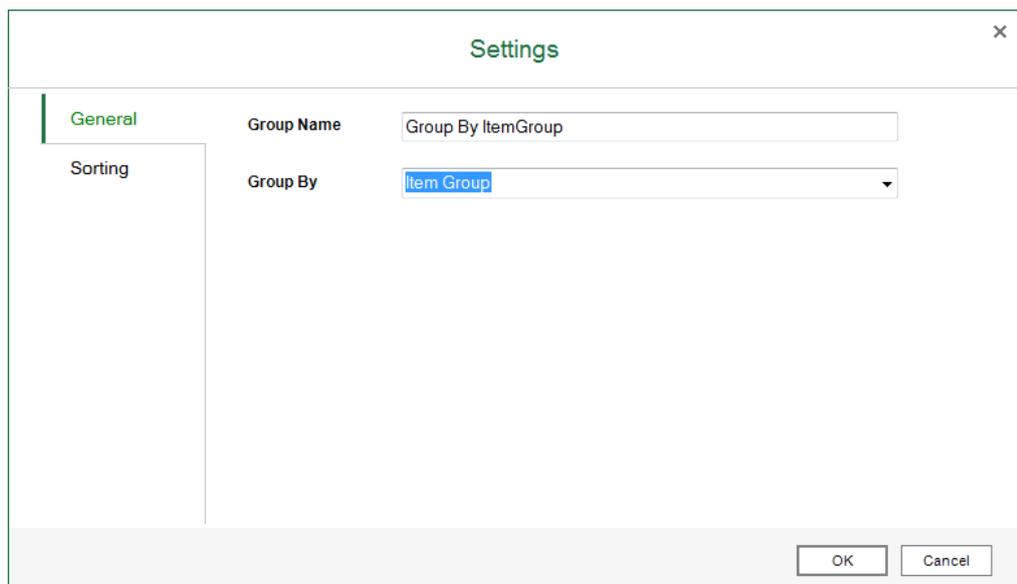
2. On the *Sorting* tab, select *ItemGroup* as the attribute, *Descending* as the order, and choose *OK*.

On this tab, you can also move the sorting rules up and down to define their orders, and delete the sorting rules.
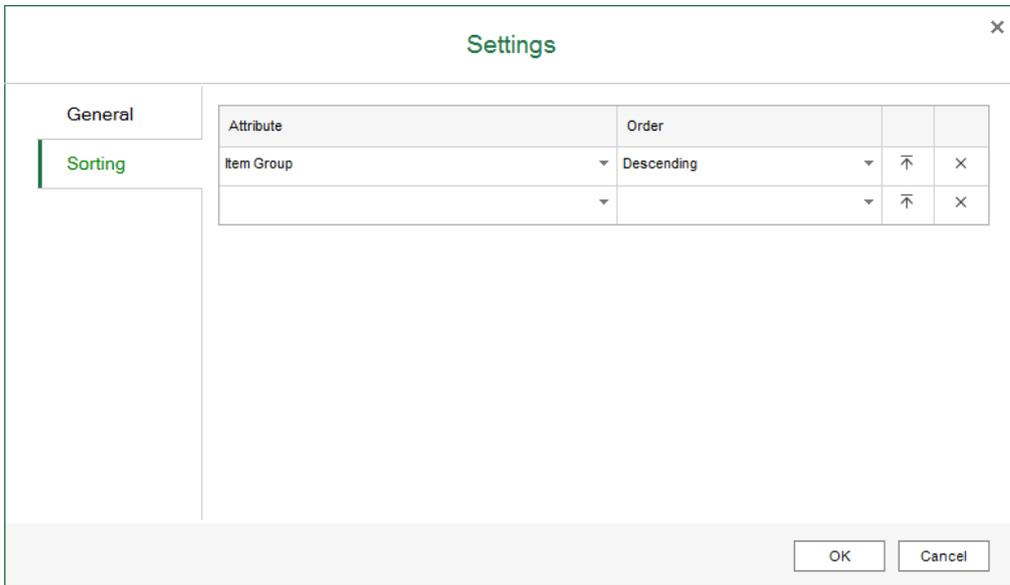
Result

In the *EXCEL REPORT* ribbon, choose *Run Report*.

The report result shows the item groups in descending order.

Inventory by Item Group per Warehouse

Item Group	Item Code and Description	General Warehouse (01)			West Cost Warehouse (02)		
		Qty. In stock	Cost Price	In-Stock Inventory Value (LC)	Qty. In stock	Cost Price	In-Stock Inventory Valu
Storage							
	SDHC 64 GB CLASS 10 (I00013)	0	0	0	0	0	
Servers							
	Server Point 10000 (S10000)	40	1085.8065	43432.26	0	0	
Rainbow Printers							
	Rainbow 1200 Laser Series (A00006)	70	324.79971	22735.98	0	0	
	Rainbow Color Printer 5.0 (A00004)	1031	366.90431	378278.34	30	500	
	Rainbow Color Printer 7.5 (A00005)	1106	282.26824	312188.67	30	400	
PC							
	PC - 12x core, 64GB, 5 x 150GB SSD (P10002)	5	1293.75	6468.75	0	0	
	PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29	1064.0466	30857.35	0	0	
	PC Set 1 (P10003)	25	1228.3836	30709.59	0	0	
J.B. Printers							
	J.B. Officeprint 1111 (A00002)	965	146.68368	141549.75	50	200	
	J.B. Officeprint 1186 (A00003)	1091	220.75989	240849.04	0	0	
	J.B. Officeprint 1420 (A00001)	974	298.82159	291052.23	50	400	
Items							
	Blu-Ray Disc 10-Pack (I00001)	1087	2.1303772	2315.72	0	0	
	Blu-Ray DL Disc 10-Pack (I00002)	1022	8.4780039	8664.52	0	0	
	Computer Monitor 24" HDMI (C00008)	1065	142.50098	151763.54	50	200	
	Gigabit Network Card (C00006)	967	10.168821	9833.25	50	15	
	Hard Disk 3TB (C00007)	1060	354.48218	375751.11	50	500	
	J.B. Laptop Batteries X1 series (I00005)	1014	61.177702	62034.19	0	0	
	J.B. Laptop Batteries X2 series (I00006)	984	58.006128	57078.03	0	0	
	Keyboard Comfort USB (C00009)	1058	14.118677	14937.56	50	20	
	KG PC-to-Mac Transfer Kit (I00012)	1088	31.889458	34695.73	0	0	
	KG USB Travel Hub (I00011)	1066	8.4042214	8958.9	0	0	
	LeMon 4029 500 sheet paper drawer (LM402	772	23.86035	18420.19	0	0	
	LeMon 4029 Printer (LM4029)	267	193.20951	51586.94	0	0	

5.3.3.2 Field

When you add a measure or dimension as a field, the report result displays the following:

- If the data source is a measure, this field type retrieves the sum of all the values in the database for the corresponding group (if it has a corresponding group).
- If the data source is a dimension, this field type retrieves the largest value in the database for the corresponding group (if it has a corresponding group).

5.3.3.2.1 Adding a Field

Procedure

You can use the following procedures to add a measure or dimension as a field.

- To add a measure or dimension as a field by dragging when you start designing a report, follow the procedures below:
  - In the following example, you will add a measure as a field.
    1. Select *Inventory Transaction Documents* as your data source, and drag *Inbound Item Cost (LC)* to the worksheet. The *New Section* window appears.
    2. In the *New Section* window, define the section size, select the *Add as a Field* radio button, and choose *OK*.
    3. In the *EXCEL REPORT* ribbon, choose *Run Report*.

       The report result shows the sum of all the values in the database.

	A	B	C	D
1	Inbound Item Cost (LC)			
2	42746.32			
3				

  - In the following example, you will add a dimension as a field.
    1. Select *Inventory Transaction Documents* as your data source, and drag *Item Description & Code* to the worksheet. The *New Section* window appears.
    2. In the *New Section* window, define the section size, select the *Add as a Field* radio button, and choose *OK*.
    3. In the *EXCEL REPORT* ribbon, choose *Run Report*.

       The report result shows the largest value in the database, which starts with the letter W.

	A	B	C	D
1	Item Description & Code			
2	WLAN Card (C00005)			
3				

- When you are in the middle of designing a report, to add a measure or dimension as a field by dragging, drag the dimension of measure inside the section.
- To add a measure or dimension as a field by entering it in the cell or formula bar, see iaGet Function.

5.3.3.3 Differences Between Group, Details Group, and Field

The following example will explain the differences between the three field types. The section looks like the following:

Item Description & Code	Inbound Inventory Quantity	Posting Date
[ItemDescriptionAndCode]	[InboundInventoryQuantity]	[PostingDate]

- Select *Inventory Transaction Documents* as your data source, add *Item Description & Code* as a row group, and drag *Inbound Inventory Quantity* and *Posting Date* to the worksheet. The report result shows the sum of inbound inventory quantity and the largest value of the posting date of each item. Every item is treated as a group.

Item Description & Code	Inbound Inventory Quantity	Posting Date
J.B. Officeprint 1420 (A00001	1883	08-26-2012
J.B. Officeprint 1111 (A00002	1818	12-08-2012
J.B. Officeprint 1186 (A00003	1963	12-08-2012
Rainbow Color Printer 5.0 (A	1755	12-08-2012
Rainbow Color Printer 7.5 (A	1807	09-21-2012
Motherboard BTX (C00001)	1893	11-09-2012
Motherboard MicroATX (C00	1884	10-18-2012
Quadcore CPU 3.4 GHz (C000	1926	11-12-2012
Tower Case with Power supp	2001	10-28-2012
WLAN Card (C00005)	1895	09-01-2012
Gigabit Network Card (C0000	1898	11-09-2012
Hard Disk 3TB (C00007)	2005	10-18-2012
Computer Monitor 24" HDMI	1992	08-17-2012
Keyboard Comfort USB (C000	2011	10-07-2012
Mouse USB (C00010)	2038	10-21-2012
Memory DDR RAM 8GB (C000	2119	08-22-2012
J.B. Laptop Batteries X1 serie	1253	07-09-2012
J.B. Laptop Batteries X2 serie	1211	08-08-2012
Rainbow Printer 9.5 Inkjet Ca	1218	09-21-2012
Rainbow Nuance Ink 6-Pack	1252	11-09-2012
SLR PreciseShot PX1500 (I000	1268	10-06-2012
Memory Chip M40? MC)	210?	?? 201?

- Select *Inventory Transaction Documents* as your data source, add *Item Description & Code* as a details group, and drag *Inbound Inventory Quantity* and *Posting Date* to the details group. The report result shows every record in the group and the sum of inbound inventory quantity for each record.

Item Description & Code	Inbound Inventory Quantity	Posting Date
J.B. Officeprint 1420 (A00001	40	12-05-2007
J.B. Officeprint 1111 (A00002	40	12-05-2007
J.B. Officeprint 1186 (A00003	40	12-11-2007
Rainbow Color Printer 5.0 (A	40	12-11-2007
Rainbow Color Printer 7.5 (A	40	12-11-2007
Motherboard BTX (C00001)	40	12-11-2007
Motherboard MicroATX (C00	40	12-11-2007
Quadcore CPU 3.4 GHz (C000	40	12-14-2007
Tower Case with Power supp	40	12-14-2007
WLAN Card (C00005)	40	12-14-2007
Gigabit Network Card (C0000	40	12-14-2007
Hard Disk 3TB (C00007)	40	12-14-2007
Computer Monitor 24" HDMI	40	12-24-2007
Keyboard Comfort USB (C000	40	12-24-2007
Mouse USB (C00010)	40	12-24-2007
Memory DDR RAM 8GB (C000	40	12-24-2007
J.B. Laptop Batteries X1 serie	40	01-16-2008
J.B. Laptop Batteries X2 serie	40	01-16-2008
J.B. Officeprint 1420 (A00001	50	01-30-2008
J.B. Officeprint 1111 (A00002	50	01-30-2008
J.B. Officeprint 1186 (A00003	50	01-30-2008
Rainbow Color Printer 5.0 (A	50	02-04-2008
Rainbow Color Printer 7.5 (A	50	02-04-2008
Motherboard BTX (C00001)	50	02-04-2008
Motherboard MicroATX (C00	50	02-04-2008
Quadcore CPU 3.4 GHz (C000	50	02-04-2008
Tower Case with Power supp	50	02-09-2008

- Select *Inventory Transaction Documents* as your data source, add *Item Description & Code* as a field, and drag *Inbound Inventory Quantity* and *Posting Date* to the worksheet. The report result shows the largest value of item, the sum of inbound inventory quantity, and the largest value of posting date.

Item Description & Code	Inbound Inventory Quantity	Posting Date
WLAN Card (C00005)	61223	12-08-2012

5.3.4 Working with Functions

Excel Report and Interactive Analysis provides the following three functions:

- iaGet: Use this function to retrieve values from the data source.
- iaCellRef: Use this function to retrieve values from the cells in the worksheet.
- iaParam: Use this function to retrieve values from the report parameter when you run the report.

To view the formulas in all the cells, in the *Formulas* ribbon, select *Show Formulas*, and the section looks like the following:

Inventory by Item Group per Warehouse				
		=iaGet("WarehouseNameAndCode")		
Item Group	Item Code and Description	Qty. In stock	Cost Price	In-Stock Inventory Value (LC)
=iaGet("ItemGroup")				
	=iaGet("ItemDescriptionAndCode")	=iaGet("InStockQuantity")	=IF(iaCellRef(D7)=0,0,iaCellRef(F7)/iaCellRef(D7))	=iaGet("InStockInventoryValueLC")

5.3.4.1 iaGet Function

The iaGet function retrieves values from the data source.

The retrieved value depends on the data source:

- If the data source is a measure, the iaGet function retrieves the sum of all the values in the database for the corresponding group (if it has a corresponding group).
- If the data source is a dimension, the iaGet function retrieves the largest value in the database for the corresponding group (if it has a corresponding group).

Syntax: iaGet("<name of the dimension or measure>")

For example:

- =iaGet("OrderedQuantity")
- =iaGet("ItemCode")

Argument	Description
<name of the dimension or measure>	The name of the dimension or measure in the data source. To see the name of the dimension or measure, you can use either of the two following methods: • Drag the dimension or measure to the section, and the name appears in both the cell and formula bar. • Look for *How to Work with Semantic Layers in SAP Business One* on sappartneredge.com. In the package, you can find the *Semantic Layer Model Package Reference* guide, in which you can find the corresponding attribute and measure for the UI label you see in the data source panel.

In formulas, the usage of the iaGet function is as follows:

- You can combine the iaGet function for a measure with numbers or other iaGet functions for measures, and the expressions can be "+" (plus sign); "-" (minus sign); "*" (multiply sign); "/" (divide sign).

- You can combine the iaGet function of a dimension with strings or other iaGet functions of dimensions, and the expression can be "+" (plus sign).

Example

In the data source *Inventory Status*, the sum of ordered quantity is 356, and the sum of committed quantity is 810. The largest value of item code is Z00002.

Formula	Description
=iaGet("OrderedQuantity")	Retrieves the sum of ordered quantity. The result is 356.
=iaGet("ItemCode")	Retrieves the largest value of item code. The result is Z00002.
=iaGet("OrderedQuantity")+iaGet ("CommittedQuantity")	Adds the sum of ordered quantity and sum of committed quantity. The following expressions are supported: "+" (plus sign); "-" (minus sign); "*" (multiply sign); "/" (divide sign). The result is 1166.
=iaGet("OrderedQuantity")+100	Add the sum of ordered quantity and 100. The following expressions are supported: "+" (plus sign); "-" (minus sign); "*" (multiply sign); "/" (divide sign). The result is 456.
=iaGet("ItemCode")+"abc"	Combines the largest value of item code and string "abc". The result is Z00002abc.

5.3.4.1.1   Tips to Get the Subtotal Using iaGet

As the iaGet function retrieves the sum of all the values in the database for the corresponding group, you can use it to calculate the subtotal of a group as in the following example.

In the report designer, you want to see the subtotal of in-stock quantity of each item group.

The report result looks like the following, displaying the in-stock quantity for each item, and the items are grouped by item group.

Prerequisite

You have added *Item Description & Code* as a group, *Item Group* as its parent group, and *In-Stock Quantity* as a field, as follows:

Item Group	Item Description & Code	In-Stock Quantity
[ItemGroup]		
	[ItemDescriptionAndCode]	[InStockQuantity]
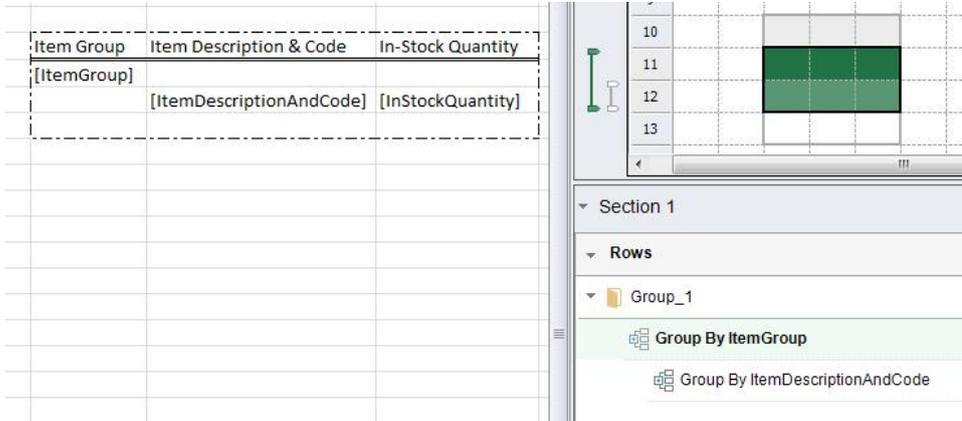
Procedure

To get the subtotal of in-stock quantity for each item group, drag *In-Stock Quantity* to or enter `=iaGet("InStockQuantity")` in the cell above the current *In-Stock Quantity* field as follows.

Item Group	Item Description & Code	In-Stock Quantity
[ItemGroup]		[InStockQuantity]
	[ItemDescriptionAndCode]	[InStockQuantity]

Result

The report result looks like the following, displaying the subtotal of in-stock quantity of each item group.

Item Group	Item Description & Code	In-Stock Quantity
Accessories		462
	Memory Chip (LM4029MC)	462
Items		29228
	Blu-Ray Disc 10-Pack (I00001	1087
	Blu-Ray DL Disc 10-Pack (I000	1022
	Computer Monitor 24" HDMI	1115
	Gigabit Network Card (C0000	1017
	Hard Disk 3TB (C00007)	1110
	J.B. Laptop Batteries X1 serie	1014
	J.B. Laptop Batteries X2 serie	984
	Keyboard Comfort USB (C000	1108
	KG PC-to-Mac Transfer Kit (I(	1088
	KG USB Travel Hub (I00011)	1066
	LeMon 4029 500 sheet paper	772
	LeMon 4029 Printer (LM4029	267
	LeMon 4029 Printer AC Adap	700
	LeMon 402 rinter AC Powe	50

5.3.4.2   iaCellRef Function

The iaCellRef function retrieves values from the cells in the worksheet.

Syntax: iaCellRef("<name of the cell>")

For example:

- =iaCellRef("E7")

- =iaCellRef("G16")

Argument	Description
<name of the cell>	A cell name such asB6.

In formulas, you can combine the iaCellRef function with all the functions in Microsoft Excel.

i   Note

In Excel Report and Interactive Analysis, you cannot use the iaCellRef function in a group to retrieve values from cells that are in its upper-level groups and not in the group itself.

Example

In the report designer, you want to see the sum of in-stock quantity for all items. The name of the *InStockQuantity* cell is *E10*. Add **=SUM(iaCellRef(E10))** to the sum cell as follows:

Item Description & Code	In-Stock Quantity
[ItemDescriptionAndCode]	[InStockQuantity]
sum	=SUM(iaCellRef(E10))

The report result looks like the following:

PC Set 2 (P10004)	12
USB Flashdrive 128GB (I00003)	953
Rainbow 1200 Laser Series (A00006)	70
Printer Paper A4 White (R00001)	192
USB Flashdrive 256GB (I00004)	970
Computer Monitor 24" HDMI (C00008)	1115
Printer Label (B10000)	500
Printer Paper A4 Recycled (R00002)	180
Keyboard Comfort USB (C00009)	1108
J.B. Laptop Batteries X1 series (I00005)	1014
Motherboard BTX (C00001)	1281
J.B. Laptop Batteries X2 series (I00006)	984
sum	35186

5.3.4.2.1   iaCellRef and Cell Reference

The iaCellRef function is somewhat similar to a cell reference in regular Excel operations. They both retrieve values from the cells. However, the regular cell reference function retrieves values from fixed cells, and the iaCellRef function automatically references the expanded cells in the group result, thus retrieving values on a dynamic basis. In general, the iaCellRef function can replace the cell reference function, and works better in

groups. The following example will explain the differences between the iaCellRef function and regular cell references.

In the report designer, you want to see the in-stock quantity, ordered quantity and their difference for each item.

Prerequisite

You have added *Item Description & Code* as a group, and added *In-Stock Quantity* and *Ordered Quantity* as two fields, as follows:

	A	B	C	D
1	Item Description & Code	In-Stock Quantity	Ordered Quantity	In-Stock - Orderded
2	=iaGet("ItemDescriptionAndCode")	=iaGet("InStockQuantity")	=iaGet("OrderedQuantity")	
3				

Procedure

Add a regular cell reference and the iaCellRef function to see the different results as follows.

- In the first scenario, you added a regular cell reference to D2: **=B2-C2.**

	A	B	C	D
1	Item Description & Code	In-Stock Quantity	Ordered Quantity	In-Stock - Orderded
2	=iaGet("ItemDescriptionAndCode")	=iaGet("InStockQuantity")	=iaGet("OrderedQuantity")	=B2-C2
3				

In the report, the *In-Stock - Ordered* column always displays the result of *B2* minus *C2*.

	A	B	C	D	E
1	Item Description & Code	In-Stock Quantity	Ordered Quantity	In-Stock - Orderded	
2	LeMon 4029 Printer System Board (LM4029SB)	703	0	703	
3	Server Point 10000 (S10000)	40	0	703	
4	MRP_Item4 (MRP_Item4)	0	0	703	
5	Rainbow Printer 9.5 Inkjet Cartridge (I00007)	947	2	703	
6	Motherboard MicroATX (C00002)	1182	3	703	
7	J.B. Officeprint 1420 (A00001)	1024	11	703	
8	Mouse USB (C00010)	1071	5	703	
9	MRP_Item5 (MRP_Item5)	0	0	703	
10	Memory DDR RAM 8GB (C00011)	1068	3	703	
11	Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	986	3	703	
12	Quadcore CPU 3.4 GHz (C00003)	1077	8	703	
13	MRP_BOM (MRP_BOM)	0	0	703	
14	LeMon 4029 Printer (LM4029)	267	83	703	
15	MRP_Child1 (MRP_Child1)	0	0	703	
16	J.B. Officeprint 1111 (A00002)	1015	10	703	
17	LeMon 4029 Printer AC Adapter (LM4029ACA)	700	4	703	
18	SLR PreciseShot PX1500 (I00009)	972	13	703	
19	PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29	0	703	
20	Tower ... w ... Power s ... (600004)	1			703

The following screenshot shows the result in a clearer way.

	A	B	C	D
1	Item Description & Code	In-Stock Quantity	Ordered Quantity	In-Stock - Orderded
2	LeMon 4029 Printer System Board (LM4029SB)	703	0	=B2-C2
3	Server Point 10000 (S10000)	40	0	=B2-C2
4	MRP_Item4 (MRP_Item4)	0	0	=B2-C2
5	Rainbow Printer 9.5 Inkjet Cartridge (I00007)	947	2	=B2-C2
6	Motherboard MicroATX (C00002)	1182	3	=B2-C2
7	J.B. Officeprint 1420 (A00001)	1024	11	=B2-C2
8	Mouse USB (C00010)	1071	5	=B2-C2
9	MRP_Item5 (MRP_Item5)	0	0	=B2-C2
10	Memory DDR RAM 8GB (C00011)	1068	3	=B2-C2
11	Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	986	3	=B2-C2
12	Quadcore CPU 3.4 GHz (C00003)	1077	8	=B2-C2
13	MRP_BOM (MRP_BOM)	0	0	=B2-C2
14	LeMon 4029 Printer (LM4029)	267	83	=B2-C2
15	MRP_Child1 (MRP_Child1)	0	0	=B2-C2
16	J.B. Officeprint 1111 (A00002)	1015	10	=B2-C2
17	LeMon 4029 Printer AC Adapter (LM4029ACA)	700	4	=B2-C2
	SLR Pr...t PX1500 (I00009)	972		

- In the second scenario, you added the iaCellRef function to D2:**=iaCellRef(B2)-iaCellRef(C2).**

	A	B	C	D
1	Item Description & Code	In-Stock Quantity	Ordered Quantity	In-Stock - Orderded
2	=iaGet("ItemDescriptionAndCode")	=iaGet("InStockQuantity")	=iaGet("OrderedQuantity")	=iaCellRef(B2)-iaCellRef(C2)
3				

In the report, the *In-Stock - Ordered* column displays the result for each corresponding row.

	A	B	C	D	E
1	Item Description & Code	In-Stock Quantity	Ordered Quantity	In-Stock - Orderded	
2	LeMon 4029 Printer System Board (LM4029SB)	703	0	703	
3	Server Point 10000 (S10000)	40	0	40	
4	MRP_Item4 (MRP_Item4)	0	0	0	
5	Rainbow Printer 9.5 Inkjet Cartridge (I00007)	947	2	945	
6	Motherboard MicroATX (C00002)	1182	3	1179	
7	J.B. Officeprint 1420 (A00001)	1024	11	1013	
8	Mouse USB (C00010)	1071	5	1066	
9	MRP_Item5 (MRP_Item5)	0	0	0	
10	Memory DDR RAM 8GB (C00011)	1068	3	1065	
11	Rainbow Nuance Ink 6-Pack and Photo Paper Kit (I00008)	986	3	983	
12	Quadcore CPU 3.4 GHz (C00003)	1077	8	1069	
13	MRP_BOM (MRP_BOM)	0	0	0	
14	LeMon 4029 Printer (LM4029)	267	83	184	
15	MRP_Child1 (MRP_Child1)	0	0	0	
16	J.B. Officeprint 1111 (A00002)	1015	10	1005	
17	LeMon 4029 Printer AC Adapter (LM4029ACA)	700	4	696	
18	SLR PreciseShot PX1500 (I00009)	972	13	959	
19	PC - 8x core, DDR 32GB, 2TB HDD (P10001)	29	0	29	
	Tower C...th Power supply (C00004)			1127	

The following screenshot shows the result in a clearer way.

5.3.4.3 iaParam Function

The iaParam function retrieves values from the report parameter when you run the report.

Syntax: iaParam("<report parameter code>")

For example:

- =iaParam("Warehouse")
- =iaParam("BP")

Argument	Description
<report parameter code>	The code of a report parameter.

You can use the iaParam function in the section or filters to retrieve values from the report parameter when you run the report, and transfer the values to the section as a display value, or to the filter as a filtering value.

For more information about using the iaParam function, see Using Report Parameters.

i Note

You cannot combine the iaParam function with functions in Microsoft Excel.

5.3.5 Working with Calculations

You can use all the functions in Microsoft Excel together with the iaCellRef function. For more information about the iaCellRef function, see iaCellRef Function. However, to use the various functions in Microsoft Excel together with the iaCellRef function, you need to enter them manually in cells. For quicker utilizations of Microsoft Excel

functions in Excel Report and Interactive Analysis, you can use the following five quick calculation methods in the *Calculation* section:

- *SUM*: adds all of its arguments
- *COUNT*: counts the number of cells that contain numbers, and counts numbers within the list of arguments
- *AVERAGE*: returns the average (arithmetic mean) of the arguments
- *MIN*: returns the smallest number in a set of values
- *MAX*: returns the largest value in a set of values

For more information about the above Microsoft Excel functions, see the documentation that came with Microsoft Excel. One way to find the help is to select the cell that uses the function, and choose f_x in the formula bar. In the *Function Arguments* window, choose the *Help on this function* link.

Procedure

To use the quick calculation methods, follow the procedure below:

1. In the *Calculation* section, drag a function to the cell that you want to display the function results.
   The *Calculation* window appears.
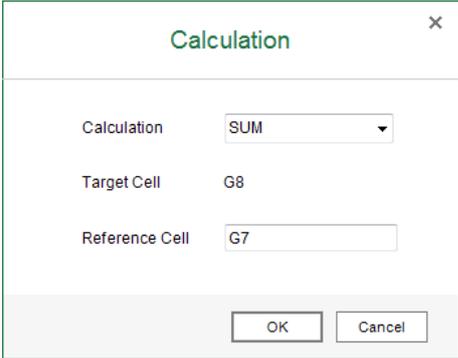
2. In the *Calculation* dropdown list, you can change the functions.

3. In the *Reference Cell* field, enter the name of the cell to which you want to refer, or select a cell in the section, and the name of that cell is automatically entered.
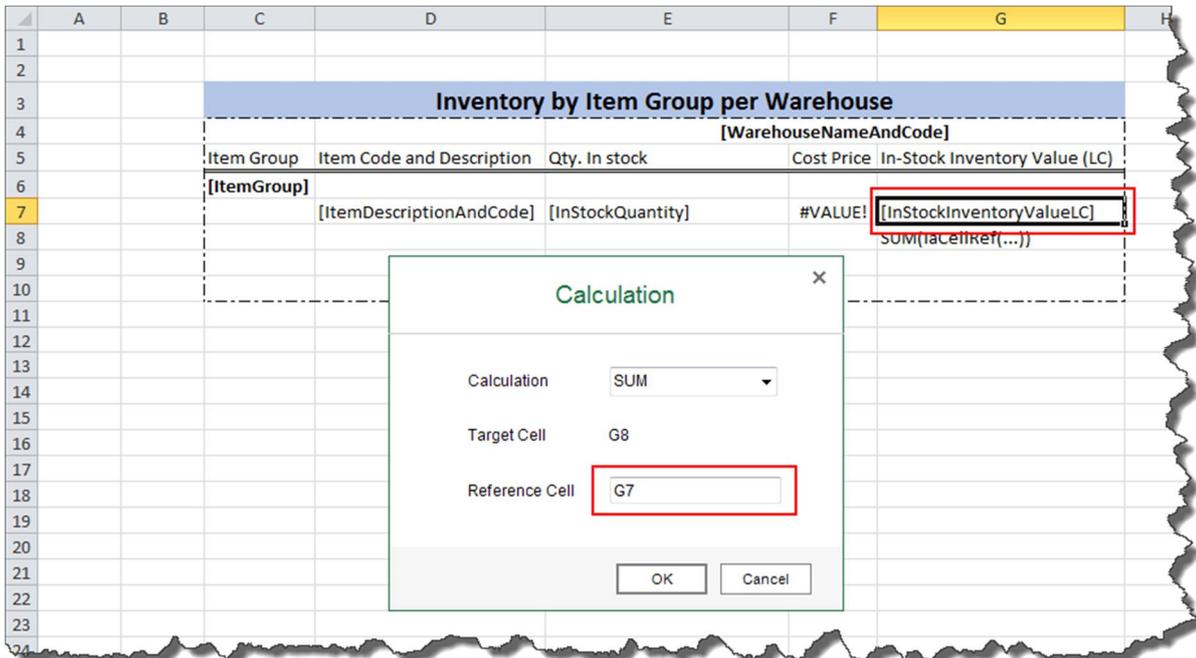
4. To save the calculation, choose *OK*.

The Microsoft Excel function, together with the iaCellRef function, appears in the cell to which you drag the quick calculation method.

5.3.6   Working with Time Functions

This feature enables you to retrieve dates and financial period codes dynamically as a list based on your available statistics in the database, and to filter your data with the dates and financial period codes it retrieves. You can apply the functions via two approaches, either by dragging them to the section, or by setting them up in the *Settings* window of the section or group sets.

For time functions, SAP provides the following two types, date functions and period functions. You can apply them accordingly as follows:

- Apply date functions to dimensions of date and datetime types.

- Apply period functions to the *Financial Period Code* dimension.

5.3.6.1 Date Functions and Period Functions

Date Functions

Name	Description	Parameter	Example
YTD	Retrieves available dates in the current calendar year up to the day you run the report	N/A	Running on July 7, 2016, YTD() returns available dates in 2016 up to July 7, 2016.
QTD	Retrieves available dates in the current calendar quarter up to the day you run the report	N/A	Running on July 7, 2016, QTD() returns available dates in the third quarter of 2016 up to July 7, 2016.
MTD	Retrieves available dates in the current calendar month up to the day you run the report	N/A	Running on July 7, 2016, MTD() returns available dates in July 2016 up to July 7, 2016.
CalendarMonth	Retrieves available dates in the calendar month that covers the given date	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	CalendarMonth(20160707) returns available dates in July 2016. Running on June 7, 2015, CalendarMonth() returns available dates in June 2015.
CalendarQuarter	Retrieves available dates in the calendar quarter that covers the given date	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	CalendarQuarter(20160707) returns available dates in the third quarter of 2016. Running on June 7, 2015, CalendarQuarter() returns available dates in the second quarter of 2015.
CalendarYear	Retrieves available dates in the calendar year that covers the given date	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	CalendarYear(20160707) returns available dates in 2016. Running on June 7, 2015, CalendarYear() returns available dates in 2015.
SameMonthLastYear	Retrieves available dates in the same month as that covering the given date, of the previous year	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	SameMonthLastYear(20160707) returns available dates in July 2015. Running on June 7, 2015, SameMonthLastYear() returns available dates in June 2014.

Name	Description	Parameter	Example
SameQuarterLastYear	Retrieves available dates in the same quarter as that covering the given date, of the previous year	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	SameQuarterLastYear(2016707) returns available dates in the third quarter of 2015. Running on June 7, 2015, SameQuarterLastYear() returns available dates in the second quarter of 2014.
LastNMonths	Retrieves available dates in the N calendar months before that of the given date	• A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report. • The number of previous months. When empty, the default value is 1.	LastNMonths(20160707, 3) returns available dates in April, May, and June 2016. Running on June 7, 2015, LastNMonths() returns available dates in May 2015.
LastNQuarters	Retrieves available dates in the N calendar quarters before that of the given date	• A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report. • The number of previous quarters. When empty, the default value is 1.	LastNQuarters(20160707, 3) returns available dates in the first and second quarters of 2016, and the fourth quarter of 2015. Running on June 7, 2015, LastNQuarters() returns available dates in the first quarter of 2015.
LastNYears	Retrieves available dates in the N calendar years before that of the given date	• A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report. • The number of previous years. When empty, the default value is 1.	LastNYears(20160707, 3) returns available dates in the years of 2013, 2014, and 2015. Running on June 7, 2015, LastNYear() returns available dates in 2014.

Period Functions

| Name	Description	Parameter	Example
YTDPeriodsThisFiscalYear	Retrieves the financial period codes in the current fiscal year up to the day you run the report	N/A	Running on July 7, 2016, YTDPeriodsThisFiscalYear() returns the financial period codes in the fiscal year that covers July 7, 2016 up to July 7, 2016.
FiscalPeriod	Retrieves the code of the financial period that covers the given date	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	FiscalPeriod(20160707) returns the code of the financial period that covers July 7, 2016. Running on June 7 2015, FiscalPeriod() returns the code of the financial period that covers June 7, 2015.
SamePeriodLastFiscalYear	Retrieves the code of the same financial period as that covering the given date, of the previous fiscal year	A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report.	SamePeriodLastFiscalYear(20160707) returns the code of the same financial period as that covering July 7, 2016, of the previous fiscal year. Running on June 7, 2015, SamePeriodLastFiscalYear() returns the code of the same financial period as that covering June 7, 2015, of the previous fiscal year.
LastNPeriods	Retrieves the codes of the N financial periods before that of the given date	• A date in the format of YYYYMMDD. When empty, the default value is the date on which you run the report. • The number of previous financial periods. When empty, the default value is 1.	LastNPeriods (20160707, 3) returns the codes of the three financial periods before that covering July 7, 2016. Running on June 7, 2015, LastNPeriods () returns the code of the financial period before that covering June 7, 2015.
AllPeriodsThisFiscalYear	Retrieves all financial period codes in the fiscal year that covers the day you run the report	N/A	Running on July 7, 2016, AllPeriodsThisFiscalYear() returns all financial period codes in the fiscal year that covers July 7, 2016.

Name	Description	Parameter	Example
AllPeriodsLastFiscalYear	Retrieves all financial period codes in the fiscal year before that covering the day you run the report	N/A	Running on July 7, 2016, AllPeriodsThisFiscalYear() returns all financial period codes in the fiscal year before that covering July 7, 2016.

5.3.6.2 Using Time Functions

This section will provide a general procedure together with two examples of using time functions.

i Note

The *Time Function* tab appears only when one of the following dimensions exists in the data source you selected:

o Dimensions of date type. Date functions appear when this type of dimension exists.

o Dimensions of datetime type. Date functions appear when this type of dimension exists.

o The *Financial Period Code* dimension. Period functions appear when this dimension exists.
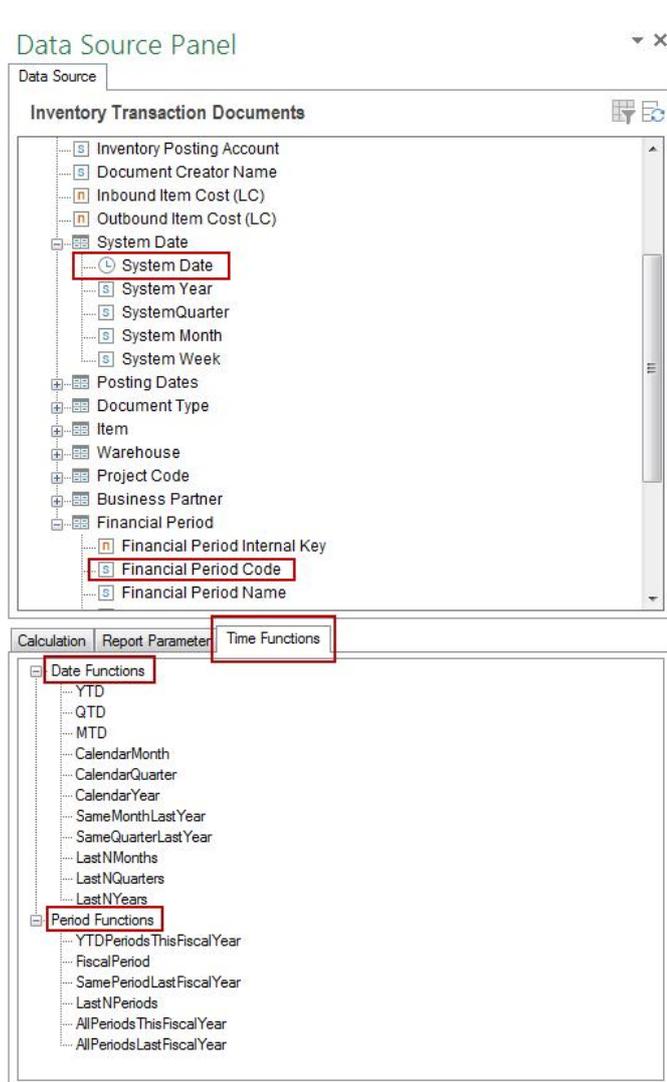
Procedure

To use time functions in a section or group set, follow the procedure below:

1. In the *Group and Section* panel, choose the *Settings* button next to the section or group set in which you want to use time functions.

The *Settings* window appears.
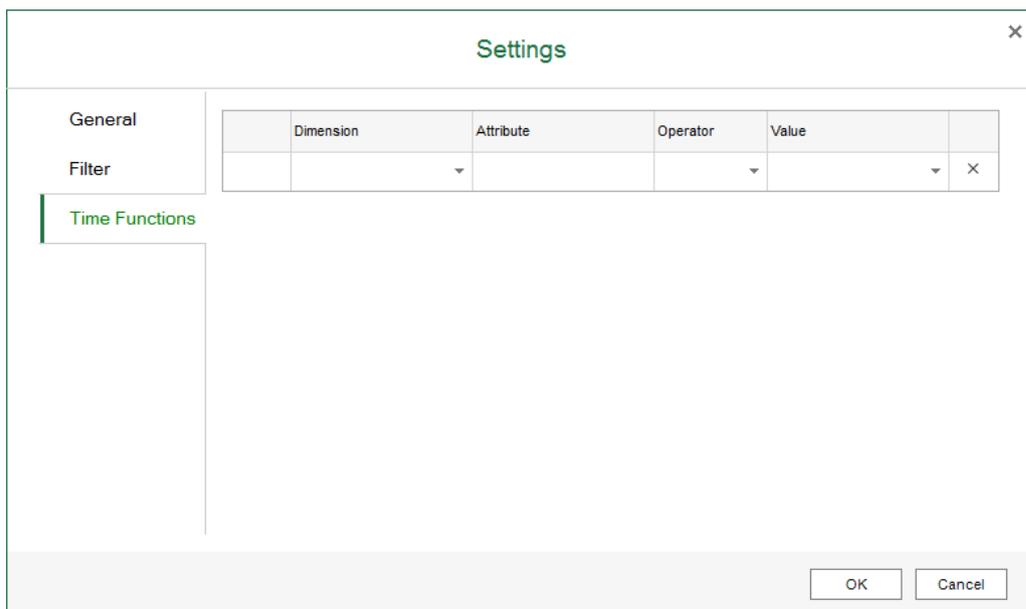
Alternatively, the *Settings* window also appears when you drag a certain time function into the section. Different *Settings* windows appear based on the place of the cell to which you drag the time function:

o   If you drag the time function into the section but not into any group set, the *Settings* window of the section appears.

o   If you drag the time function into a group set, the *Settings* window of the group set appears.

o   If you drag the time function to a cell that belongs to both a row and column group, you can choose to open the *Settings* window of the row group set, the column group set, or the section.
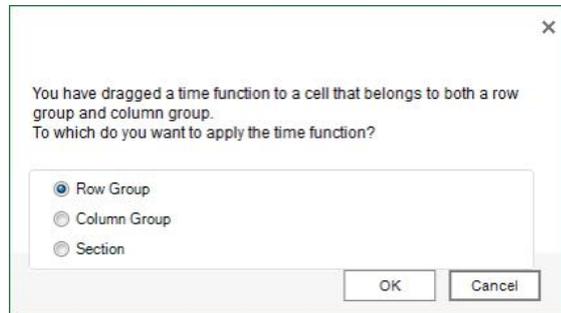
2.   On the *Time Functions* tab, you can find all the available dimensions in the data source, i.e., all dimensions of date and datetime types, and the *Financial Period Code* dimension.

In the *Dimension* and *Attribute* columns, specify the dimension from which you want to retrieve the time-related data.
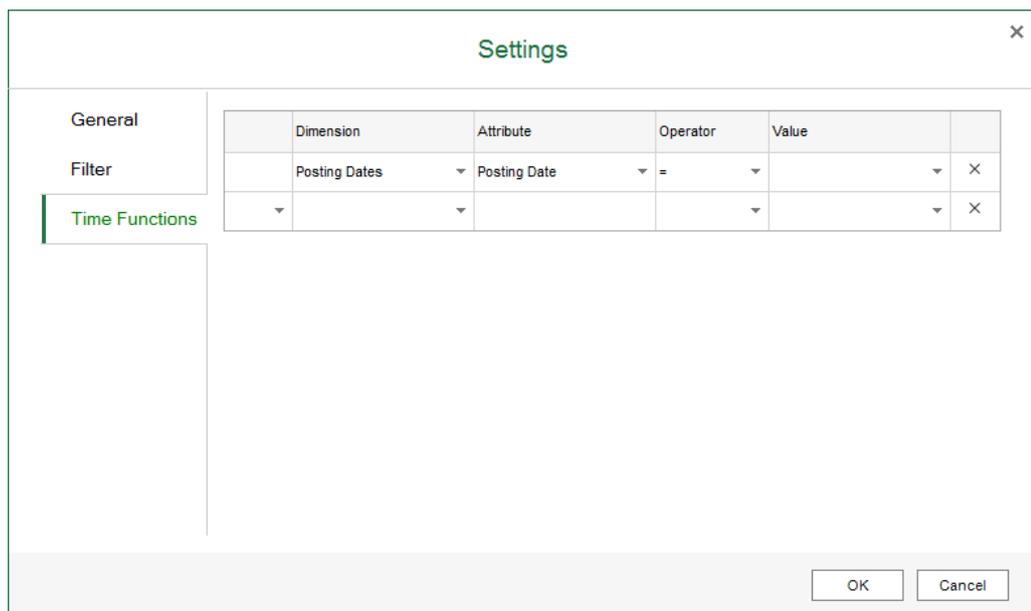
3.   In the *Operator* column, the equal sign (=) is automatically entered.

4. In the *Value* column, enter the time function or choose the triangle next to the field, and select a time function in the *Time Functions* window. Date functions or period functions appear in the window based on the dimension you select in the previous columns. The descriptions of the time function and parameters also appear in the window when you select a specific time function.
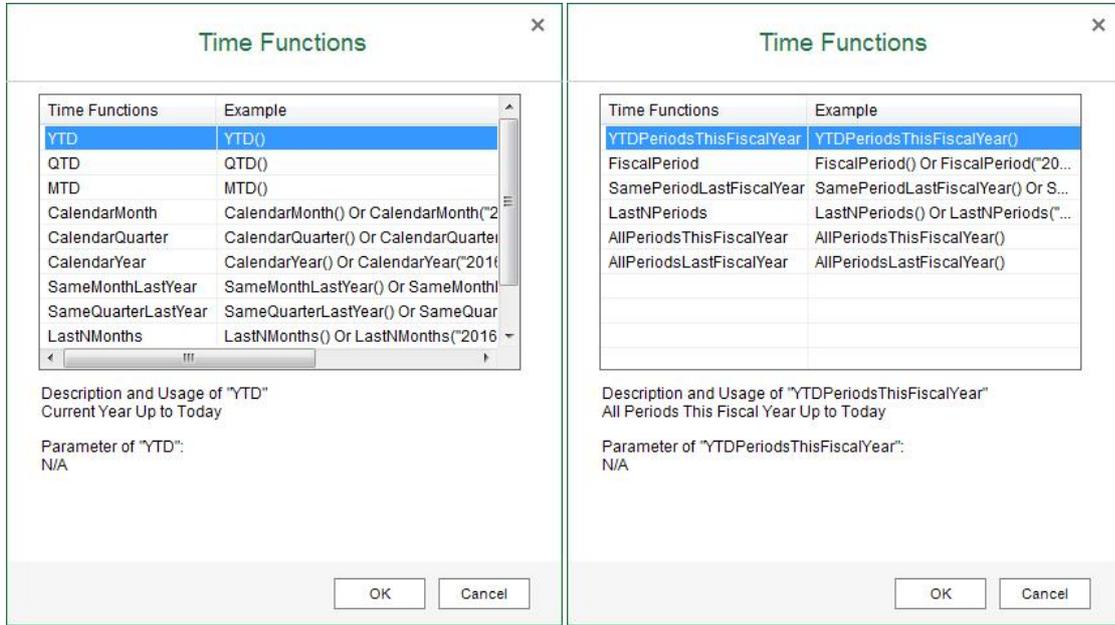
5. In the bracket of the time function, enter the parameter if it has any.
6. If you define more than one function for the section of group set, define the condition *And* or *Or* to combine them.

    ⅈ Note

    You cannot use *And* and *Or* on the same *Time Functions* tab at the same time.

7. To save the settings, choose *OK*.

Example 1

In this example, you will create a report to see the net sales amount for each business partner in specific financial periods. To do so, follow the procedure below:

1. In the *EXCEL REPORT* ribbon, choose *New Excel Report*.

2. In the *Select Data Source* window, select *Sales Analysis by Document*, and choose *OK*.
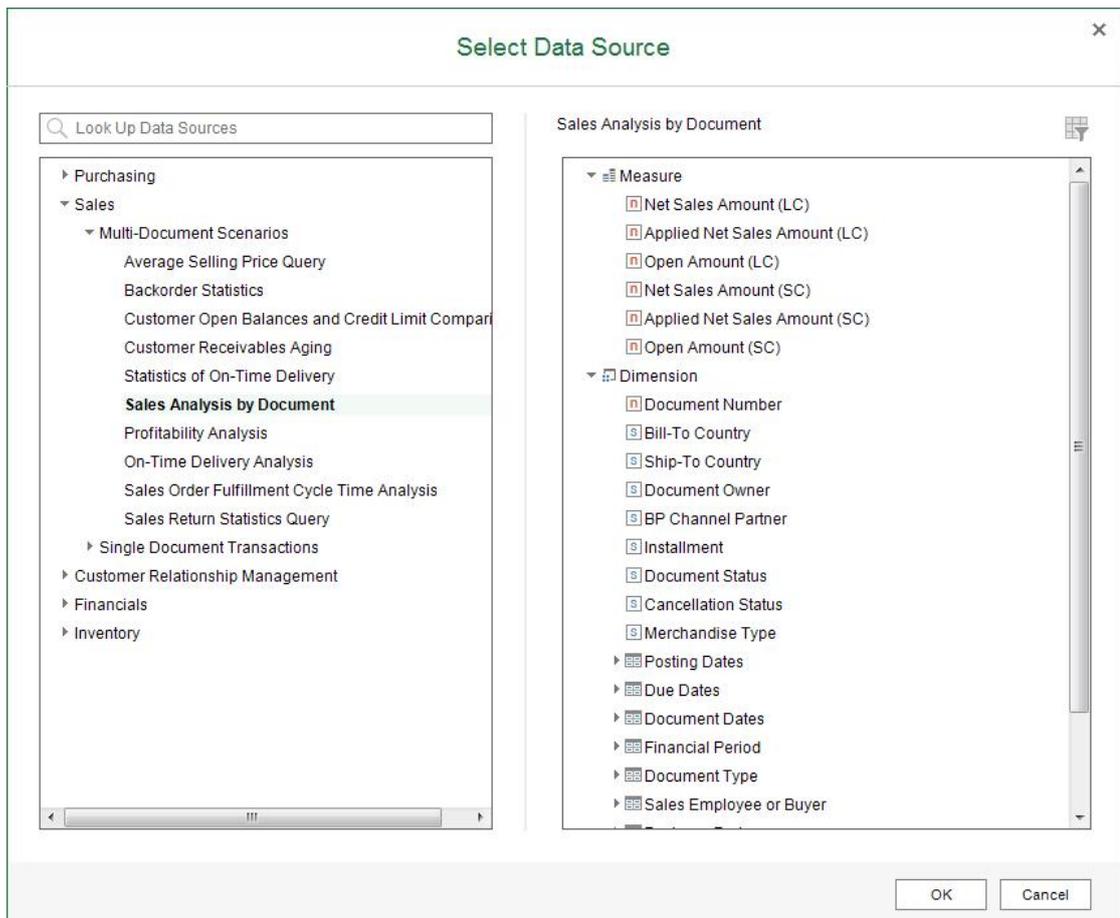
3. In the data source panel, under *Financial Period*, drag *Financial Period Code* to the worksheet.

4. In the *New Section* window, define the section size, select the *Add as a Row Group* radio button, and choose *OK*.

5. Select the *FinancialPeriodCode* group, and in the *Group and Section* panel, choose *Group → Add Child Group*.

6. In the *Add Child Group* window, in the *Group By* dropdown list, select *Business Partner Name & Code*, and choose *OK*.

7. Drag measure *Net Sales Amount (LC)* from the data source panel to the worksheet as follows:

Financial Period Code	Business Partner Name & Code	Net Sales Amount (LC)		
[FinancialPeriodCode]				
	[BusinessPartnerNameAndCode]	[NetSalesAmountLC]		

The report result now shows the net sales amount of each business partner in all financial periods as follows:

Financial Period Code	Business Partner Name & Code	Net Sales Amount (LC)
2006-01		
	Earthshaker Corporation (C40000)	11500
	Mashina Corporation (C42000)	17350
	Maxi-Teq (C20000)	40500
	Microchips (C30000)	8250
	Parameter Technology (C23900)	7050
2006-02		
	Earthshaker Corporation (C40000)	32700
	Mashina Corporation (C42000)	34700
	Maxi-Teq (C20000)	6600
	Microchips (C30000)	8125
	Parameter Technology (C23900)	14100
2006-03		
	ADA Technologies (C50000)	34125
	Aquent Systems (C70000)	35175
	Earthshaker Corporation (C40000)	19400
	Maxi-Teq (C20000)	13200
	Microchips (C30000)	16250
	Parameter Technology (C23900)	29700
	SG Electronics (C60000)	32775
2006-04		
	ADA Technologies (C50000)	88450
	Aquent Systems (C70000)	105560
	Earthshaker Corporation (C40000)	113175
	Mashina Corporation (C42000)	7750
	SG Electronics (C60000)	76755
2006-05		
	ADA Technologies (C50000)	40400
	Aquent Systems (C70000)	70420
	Mashina Corporation (C42000)	3875
	Maxi-Teq (C20000)	24600
	Microchips (C30000)	23200
	Parameter Technology (C23900)	21660
2006-0...		

You will narrow the financial periods down to only the financial period covering 2012.01.01.

8. In the data source panel, on the *Time Functions* tab, under *Period Functions*, drag *FiscalPeriod* to the *FinancialPeriodCode* field.

The *Settings* window appears, with the dimension and time function already entered.
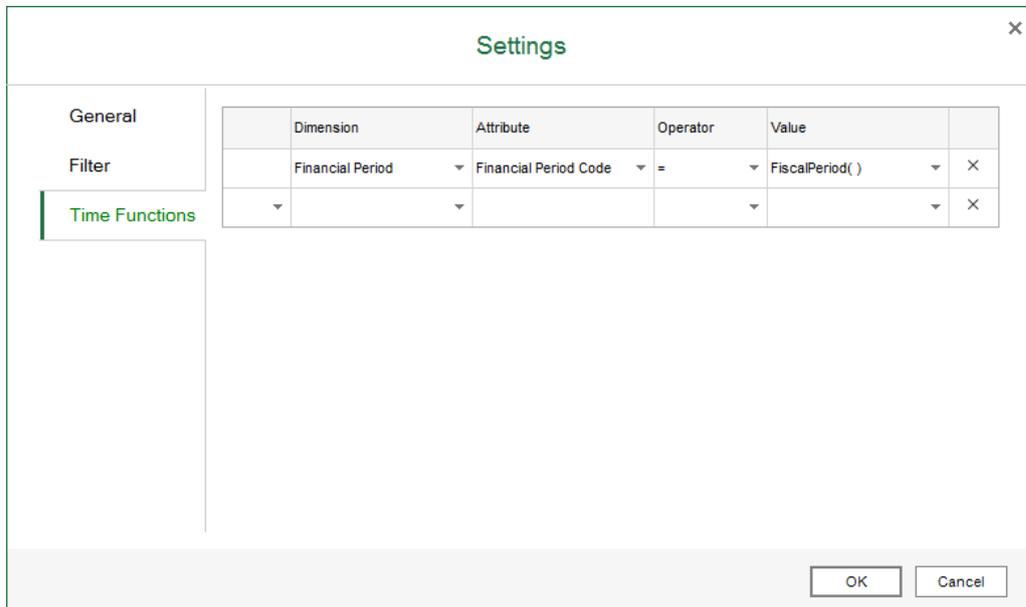
9. In the bracket of the time function, enter **20120101**, and choose *OK*.

The report result now shows the net sales amount of each business partner in the financial period of 2012-01 as follows:

Financial Period Code	Business Partner Name & Code	Net Sales Amount (LC)	
2012-01			
	ADA Technologies (C50000)	1725	
	Aquent Systems (C70000)	3923.5	
	Earthshaker Corporation (C40000)	1000	
	Mashina Corporation (C42000)	450	
	Maxi-Teq (C20000)	11730	
	Microchips (C30000)	9312.5	
	Parameter Technology (C23900)	297	
	SG Electronics (C60000)	441	

Example 2

In this example, for the predefined report *Sales Performance by Customer*, you will add a time function to see the data in the year 2012 specifically.

1. In the *EXCEL REPORT* ribbon, choose *Open Report*.
2. In the *Open Report* window, select *Sales Performance by Customer*, and choose *Open*.
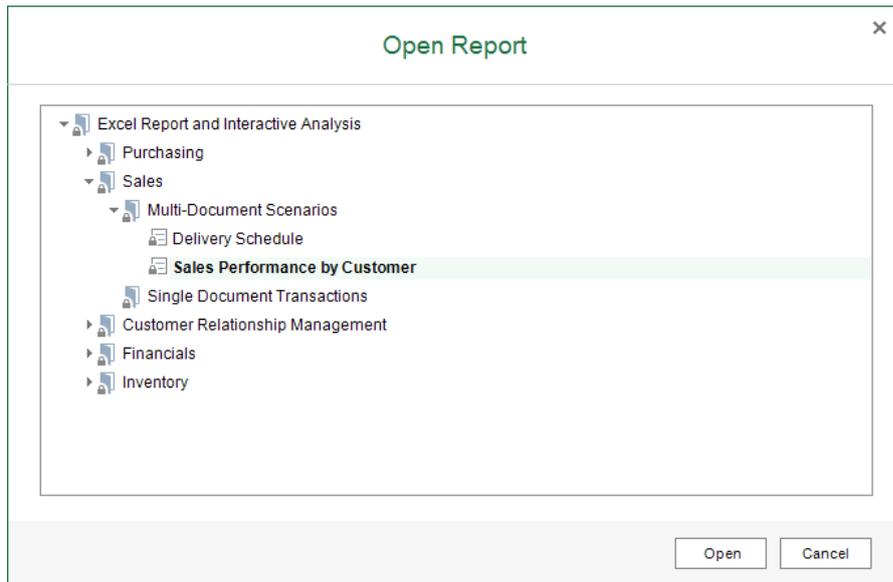
The report result now shows the sales quantity and amount of each item for each customer in all history as follows:

You will narrow the history down to only the year 2012.

3. In the *Group and Section* panel, choose the *Settings* button next to the section or group set.

4. On the *Time Functions* tab of the *Settings* window, select *Posting Dates* in the *Dimension* dropdown list and *Posting Date* in the *Attribute* dropdown list, and in the *Value* column, define *CalendarYear(20120101)*.
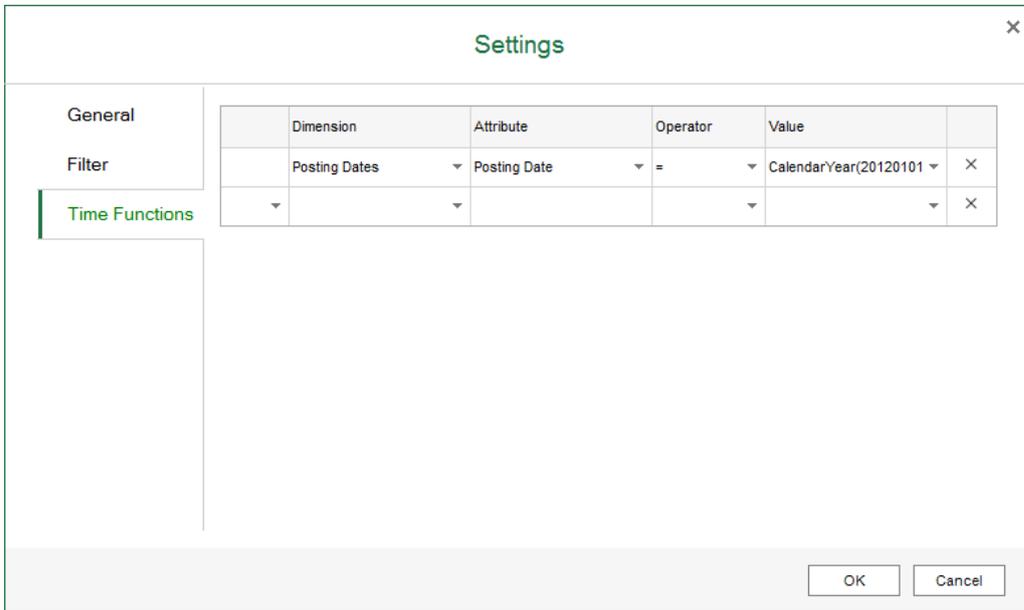
5. In the *Settings* window, choose *OK*.

The report result now shows the sales quantity and amount of each item for each customer in only the year 2012, as follows:

5.3.7   Managing Excel Reports

You can manage the Excel reports in the *Repository Management* window.

To open this window, in the *EXCEL REPORT* ribbon, choose *Repository Management*.

The *Repository Management* window appears, listing the following:

- On the left side of the window, you can find the default Excel Report and Interactive Analysis folder structure, with any new folders that you have created.
- On the right side of the window, you can find the information for the folder or report. A predefined folder or report is tagged *Yes* in the *SAP Predefined* field.
  - o For a predefined folder or report, you cannot change anything.
  - o For a folder or report that is not predefined, you can change the name and description of the folder, or the name of the report. After modification, choose *Update* to save the changes.
- In the bottom of the window, you can use the following two buttons to modify the report structure:
  - o Use the *New Folder* button to add a child folder to the folder that you selected.
  - o Use the *Delete* button to delete reports or empty folders that are not predefined.

5.3.7.1   Predefined Excel Reports

In Excel Report and Interactive Analysis, SAP provides the following predefined Excel reports:

- *Sales Performance by Customer*: displays the sales performance of each customer for each sales employee.
- *Delivery Schedule*: displays the delivery schedule of each item for each business partner from each warehouse.
- *Purchase Analysis Report*: displays the purchasing information of each document for each business partner.
- *Inventory by Item Group per Warehouse*: displays the in-stock inventory quantity, cost price, and in-stock inventory value of items for each item group in each warehouse.
- *Sales Opportunities Report*: displays the information for each sales opportunity.
- *Cost Center - Budget Versus Actual*: compares the budget and actual amounts of each cost center in each dimension.
- *Financial Analysis - Transactions by Project*: displays every transaction for each project.

6 INTERACTIVE ANALYSIS Tab

6.1 Tab Overview

This section introduces different parts of the main window of the *INTERACTIVE ANALYSIS* tab, and their respective functions.

You can find the screenshot of the main window as follows:
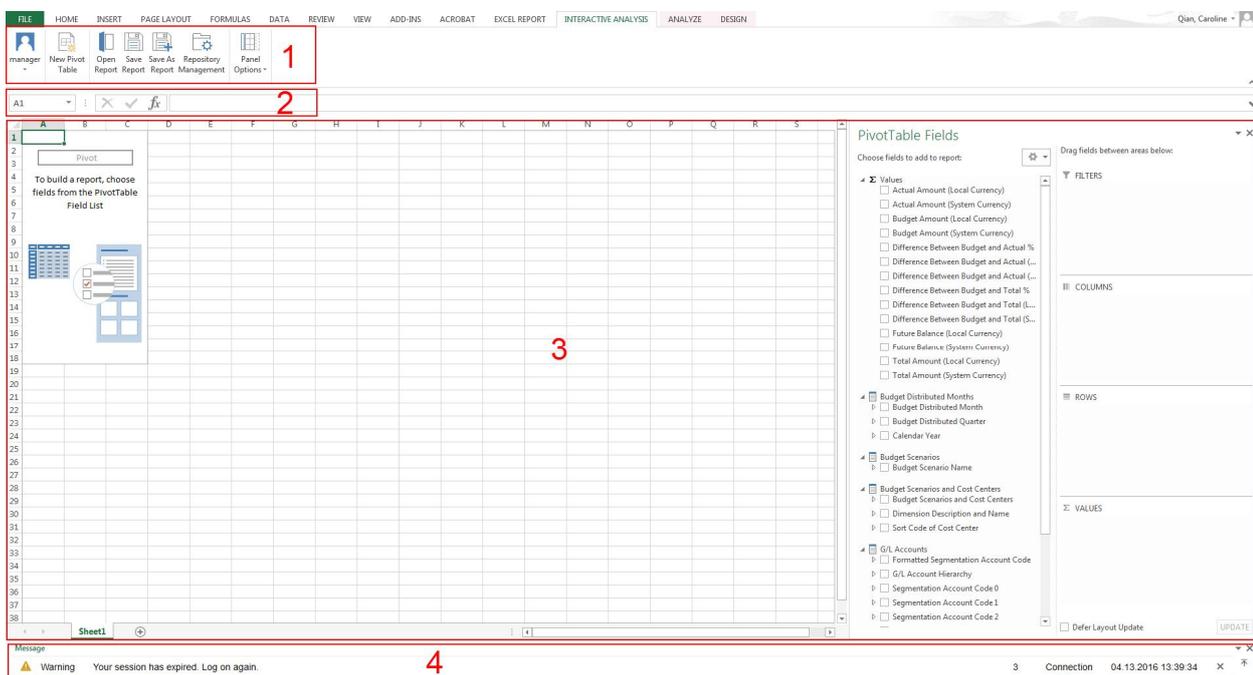
6.1.1 INTERACTIVE ANALYSIS Ribbon

This section is section 1 in the overview screenshot. It contains the following commands:

- *Log On* (*<User ID>*): choose this command to log on to a specific company database. For more information, see Logging on to a Company.
- *New Pivot Table*: choose this command to create a new pivot table. For more information, see Creating the Pivot Table.
- *Open Report*: choose this command to open an existing pivot table.
- *Save Report*: choose this command to save changes to the current pivot table.
- *Save As Report*: choose this command to save the pivot table as a new one.
- *Repository Management*: choose this command to open the *Repository Management* window. For more information, see Managing Pivot Tables.

- *Panel Options*: choose this command to display or hide the message panel.

6.1.2   Formula Bar

This section is section 2 in the overview screenshot. It displays the name and content of the cell you select in the worksheet. For more information about the formula bar, see the documentation that came with Microsoft Excel.

6.1.3   Worksheet

This section is section 3 in the overview screenshot. For more information about the worksheet, see the documentation that came with Microsoft Excel.

> i Note
>
> Only one worksheet is supported.

6.1.4   Message Panel

The behavior is the same as that in the *EXCEL REPORT* ribbon. For more information, see EXCEL REPORT Ribbon.

6.2   Basic Operations

This section provides an introduction to the *INTERACTIVE ANALYSIS* tab of the report designer with the *Sales Analysis by Document* semantic layer as an example. For more information about using the pivot table tools, refer to the documentation that came with Microsoft Excel.

If you encounter problems when creating or opening pivot tables, refer to Troubleshooting.

6.2.1 Creating the Pivot Table

Use the blank workbook as a starting point for creating the pivot table.

⚠️ Caution

For blank workbooks that are NOT opened using one of the two launching methods provided above, you may encounter errors while using Excel Report and Interactive Analysis.

For example, you may encounter errors while using Excel Report and Interactive Analysis if you open a blank workbook from the *New* option on the *File* tab of Microsoft Excel as follows:
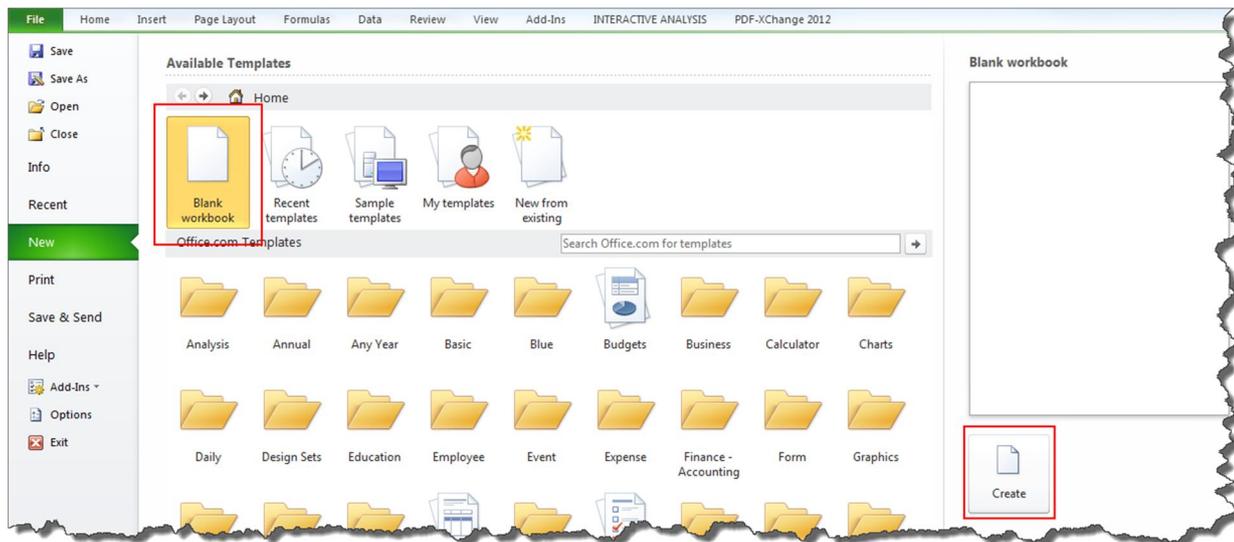
Procedure

1. In the *INTERACTIVE ANALYSIS* ribbon, choose *New Pivot Table*.

   The *Select Data Source* window appears, displaying all the semantic layers in the SAP HANA model package that you have deployed.
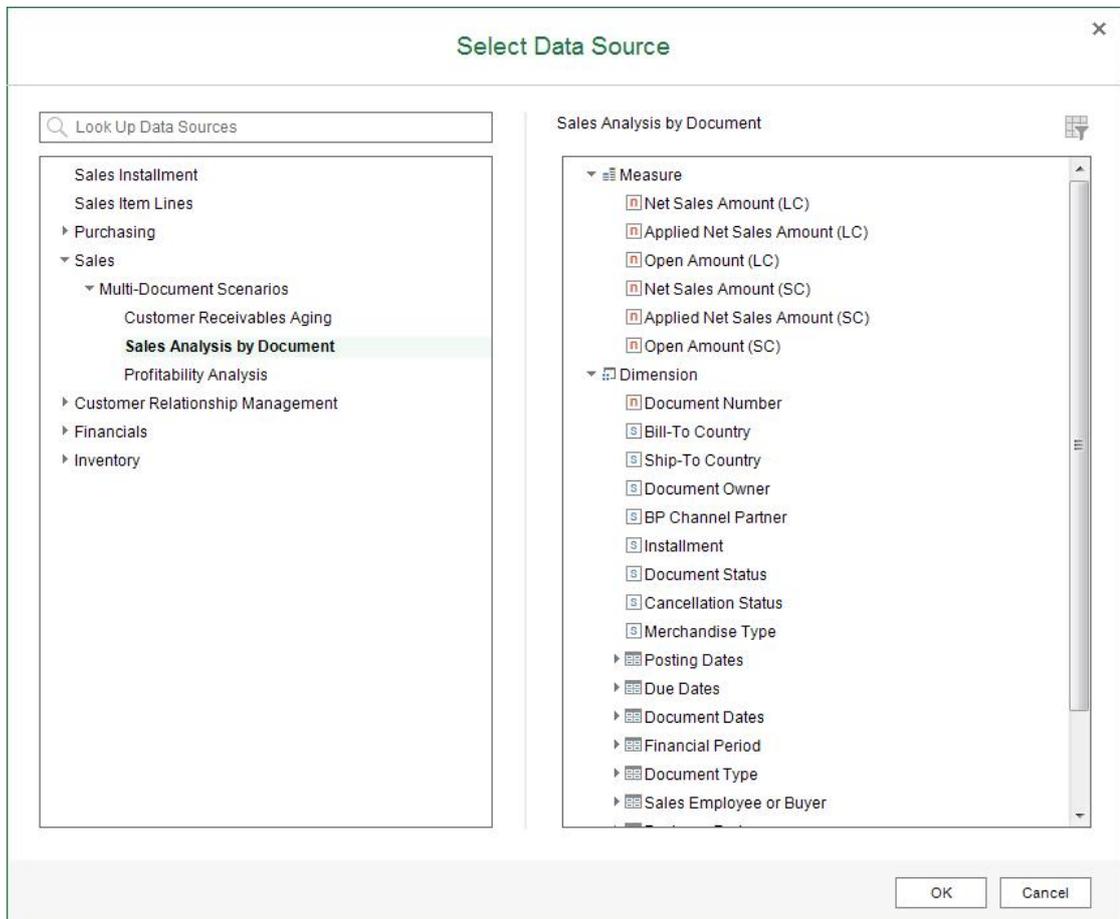

The predefined model package was deployed during the database initialization, and for more information about customized SAP HANA model packages, see *Managing SAP HANA Models* in the online help of SAP Business One, version for SAP HANA.

2. In the *Select Data Source* window, select *Sales Analysis by Document* under *Multi-Document Scenarios* under *Sales*, and choose *OK*.

[Optional] You can use the search bar at the top of the tree list on the left to look for data sources. To search for data sources, enter the semantic layer name, part of the semantic layer name, the name of the dimension or measure, or part of the dimension or measure name, and choose `Enter`. Results that match your search query appear highlighted in the tree list, and you can choose the data source to see its contents in the table on the right.
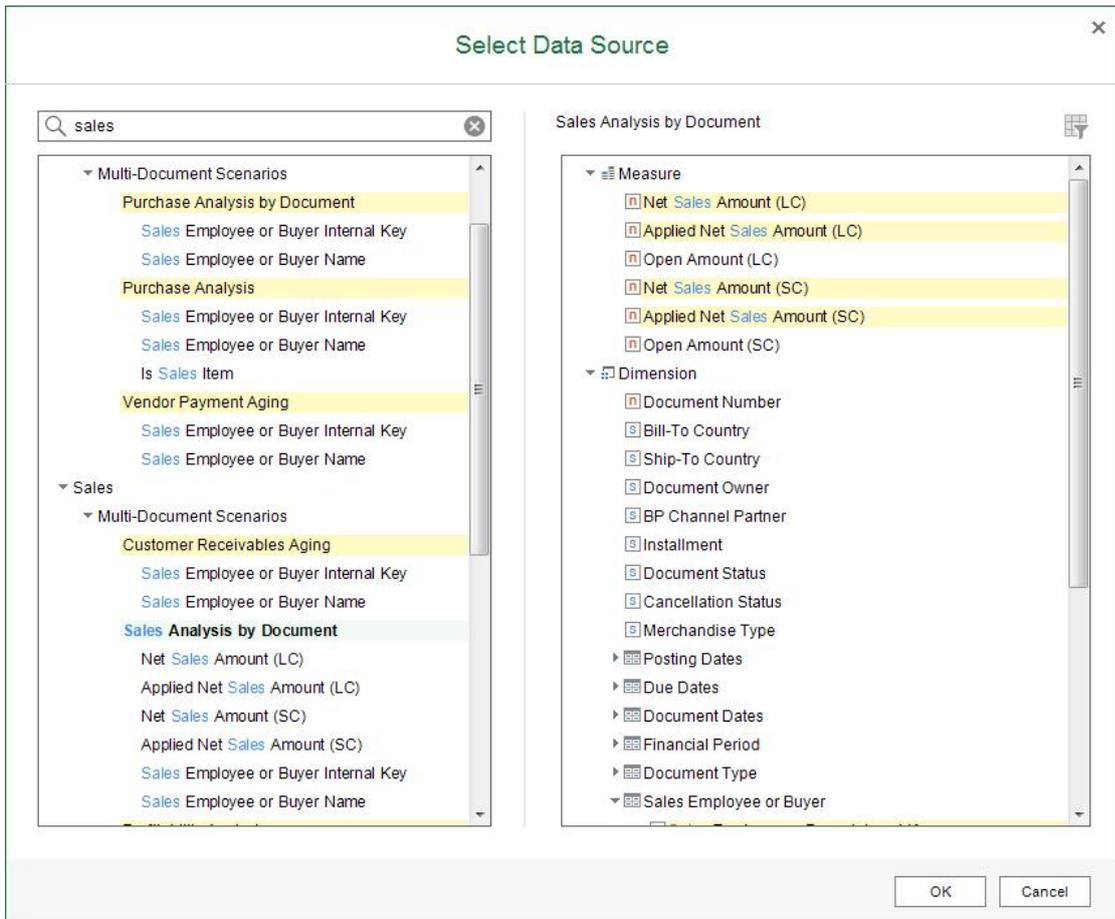
The measures and dimensions of the *Sales Analysis by Document* semantic layer appear in the *PivotTable Fields* section.
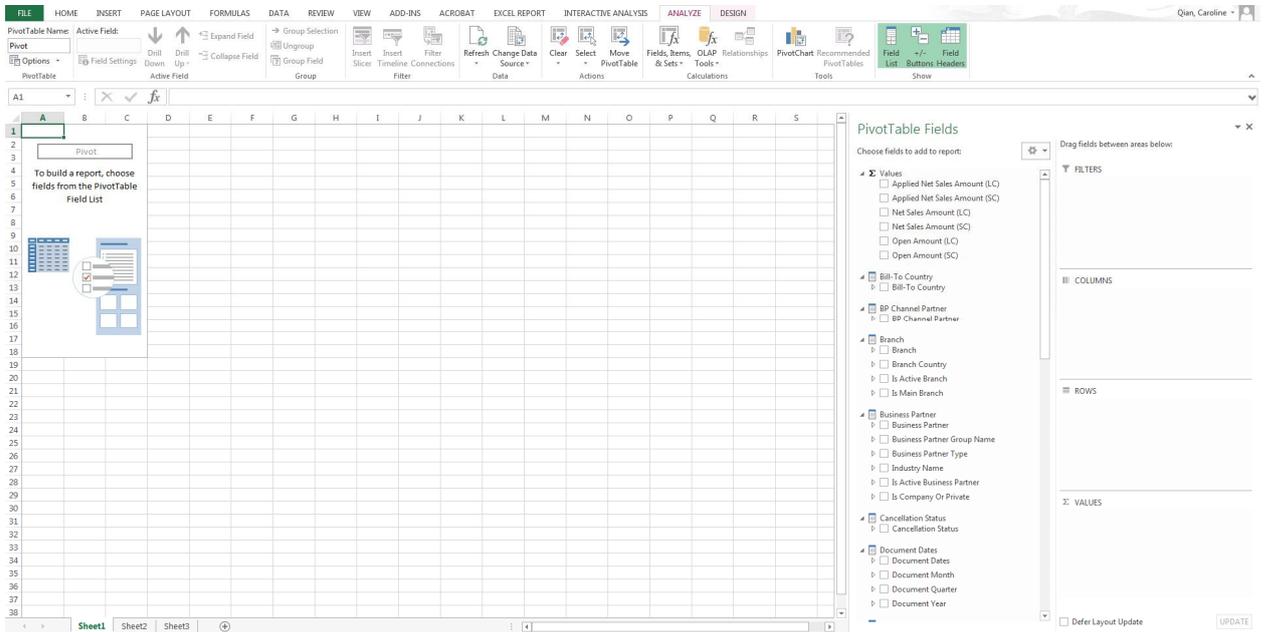

3. In the *PivotTable Fields* section, from the dimensions list, drag *Business Partner* to the *Rows* quadrant.

   The *Business Partner* item appears in the worksheet, and the *Business Partner* checkbox in *PivotTable Fields* is selected.
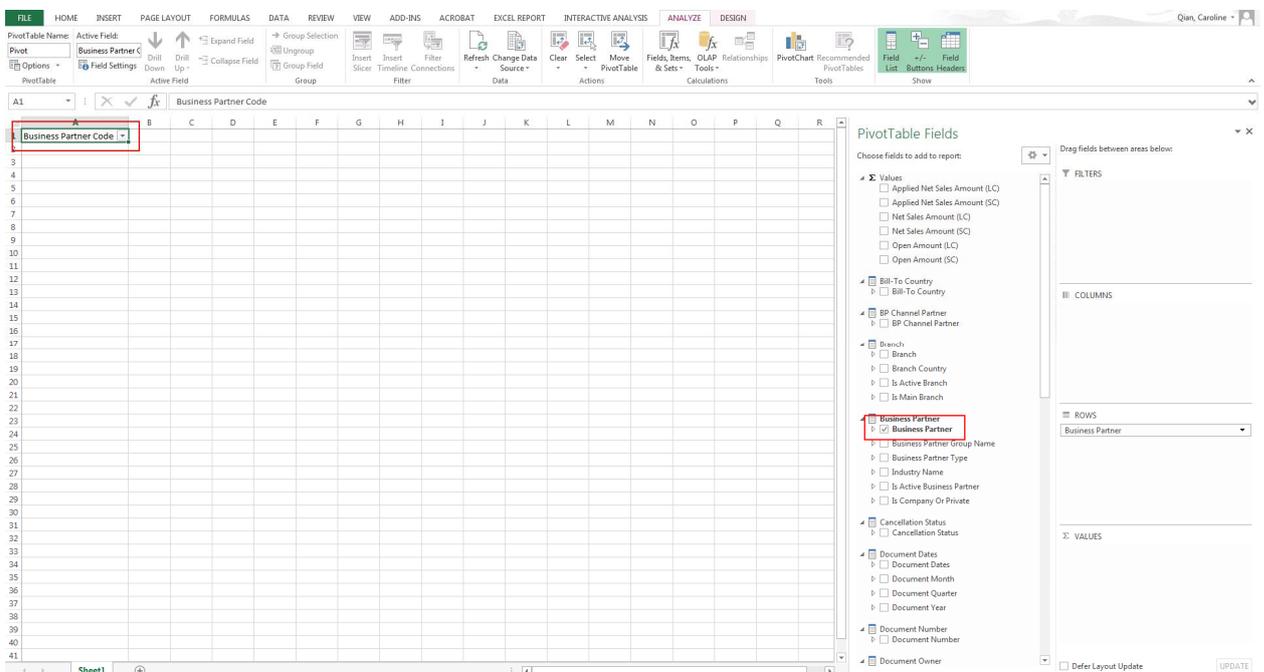
4. Drag *Financial Period* to the *Columns* quadrant.

   Note that you do not see any numerical data for now, because you have not selected any measure item.
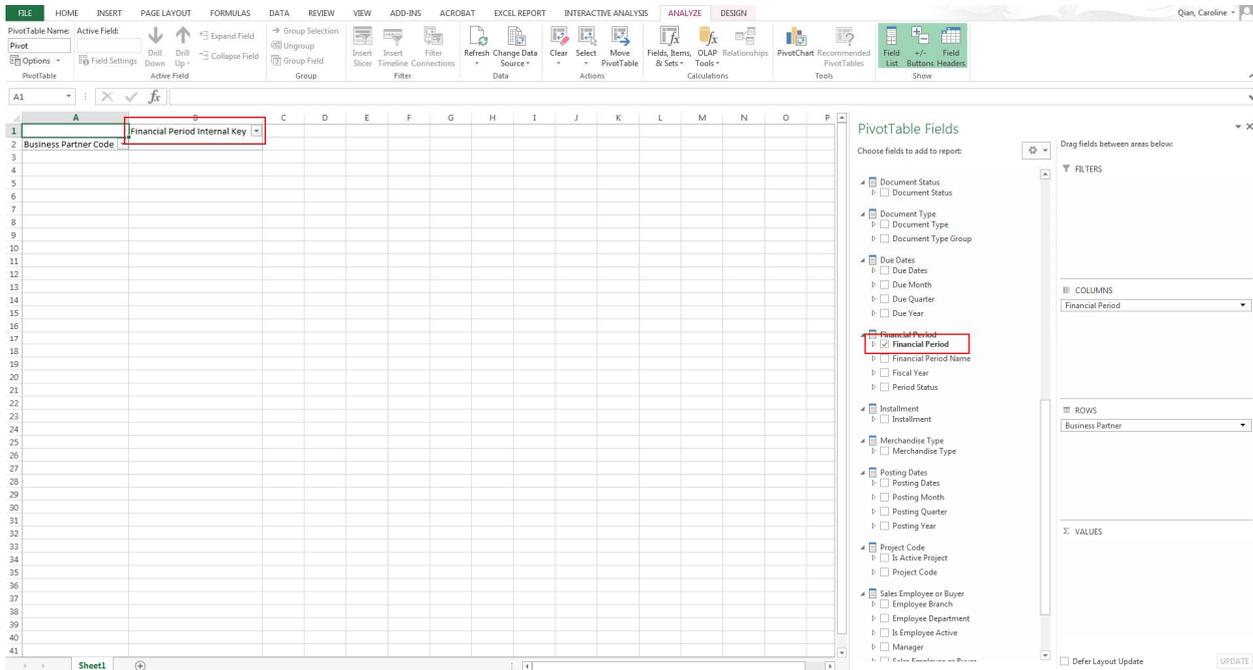
5. Drag *Applied Net Sales Amount (LC)* to the *Values* quadrant.

   Microsoft Excel displays the applied net sales amount (LC) in each field, and also displays the grand totals.
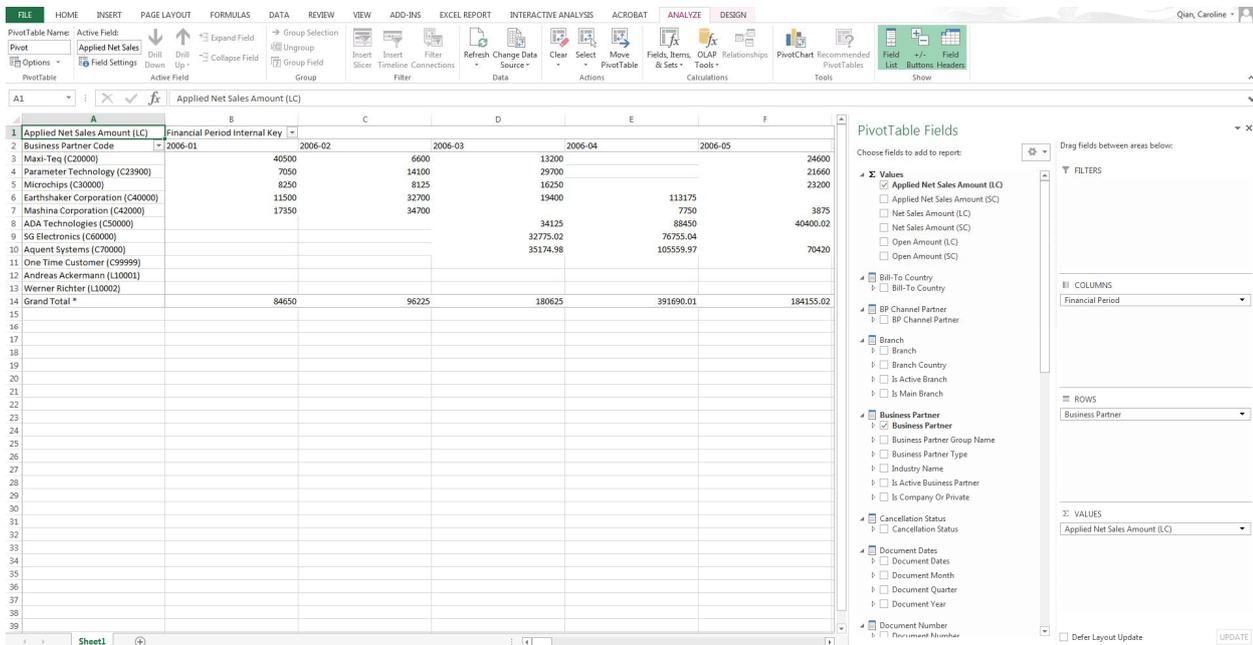
6.2.2　Saving the Pivot Table

To save the pivot table, follow the procedure below.

1. In the *INTERACTIVE ANALYSIS* ribbon, choose *Save Report*.
2. In the *Save* window, select the folder in which to place the pivot table, define a name, and choose *OK*.

Result

All the changes, including the selection of values, dimensions, and filters, are saved. After saving the pivot table, you can perform the following:

- To open the saved pivot tables, in the *INTERACTIVE ANALYSIS* ribbon, choose *Open Report*. Alternatively, you can open the saved pivot tables under the menu entry of *Excel Report and Interactive Analysis* in the SAP Business One, version for SAP HANA client.

  ### ⅰ Note

  For newly saved pivot tables to appear in the SAP Business One, version for SAP HANA client, you need to log off the client and log on again.

  ### ⅰ Note

  When you open a saved pivot table, the data is refreshed automatically.

- To manage the saved reports, in the *INTERACTIVE ANALYSIS* ribbon, choose *Repository Management*. For more information, see Managing Pivot Tables.

6.3　Managing Pivot Tables

You can manage the pivot tables in the *Repository Management* window.

To open this window, in the *INTERACTIVE ANALYSIS* ribbon, choose *Repository Management*.

The *Repository Management* window appears, listing the following:

- On the left side of the window, you can find the default Excel Report and Interactive Analysis folder structure, with any new folders that you have created.
- On the right side of the window, you can find the information for the folder or pivot table. A predefined folder is tagged *Yes* in the *SAP Predefined* field.
  - o For a predefined folder, you cannot change anything.
  - o For a folder that is not predefined or a pivot table, you can change the name and description of the folder, or the name of the pivot table. After modification, choose *Update* to save the changes.
- In the bottom of the window, you can use the following two buttons to modify the report structure:
  - o Use the *New Folder* button to add a child folder to the folder that you selected.
  - o Use the *Delete* button to delete pivot tables or empty folders that are not predefined.

7 Troubleshooting

If Excel Report and Interactive Analysis does not work as expected, you can check the following troubleshooting information to identify your issues and find solutions, before contacting technical support.

Cannot Create or Open Pivot Tables

Problem

On the INTERACTIVE ANALYSIS tab, after you choose the *OK* button in the *Select Data Source* or *Open Report* window, the following window appears, and you cannot continue creating or opening pivot tables.
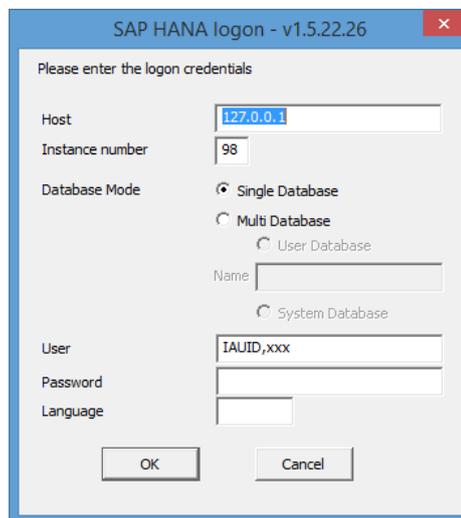
Solution

Restart the SAP Business One Services on Linux:

To restart the server tools, log on to the Linux server as `root` or the `<sid>adm` user (for example, `ndbadm`) and then run the following command:

`/etc/init.d/sapb1servertools restart`

In addition, to stop or start the server tools, run the following commands respectively:

- **`/etc/init.d/sapb1servertools stop`**
- **`/etc/init.d/sapb1servertools start`**

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