Exsion Reporting Dynamics 365 Business Central

Exsion Reporting BC Manual

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Contents

Introduction - Exsion Reporting for Business Central Online

Exsion Reporting BC is an Excel add-in, especially developed to quickly and easily present figures from Dynamics BC administrations (in real time). By combining Excel functionality and presentation power with a real-time connection to reliable figures from your administration, you can retrieve concise reports with respect to various companies and/or time periods.

With Exsion Reporting BC, you are no longer dependent on the static reporting formats of Dynamics BC. You can decide yourself how reports are structured, in a presentation format that you define. The use of colours and diagrams significantly increases the presentation value

Overviews in a specific format, that have already been created in Excel, in which data must be entered or copied into for each given period, can easily be converted to Exsion Reporting BC overviews.

In short: Exsion Reporting BC offers time savings, information and ease of use without additional processes, from a variety of accounts and even different databases.

Note: This manual uses the Cronus demonstration database, but you can execute commands on your own database.

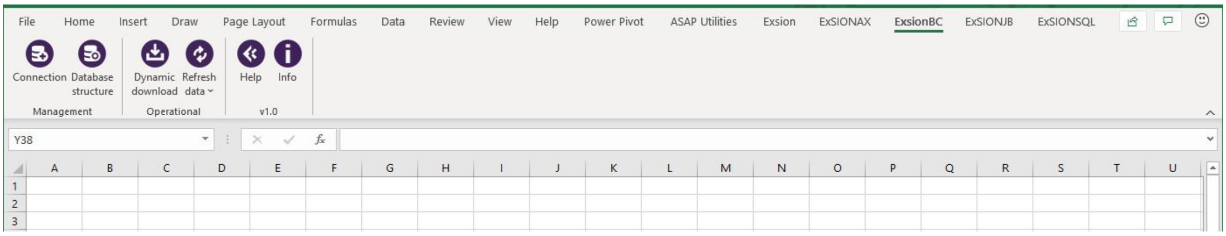
This manual is structured as follows:

Chapter 2 provides a clear overview of the Exsion Reporting BC menu;
Chapter 3 deals with downloads;
Chapter 4 provides an overview of the use of pivot tables.

Chapter 2 - Exsion Reporting BC Menu

When Exsion Reporting BC is installed, your Excel menu ribbon will be extended with the Exsion Reporting BC menu.

The extended menu is activated by a single click on the Exsion Reporting BC-menu, which will result in the menu listed below:

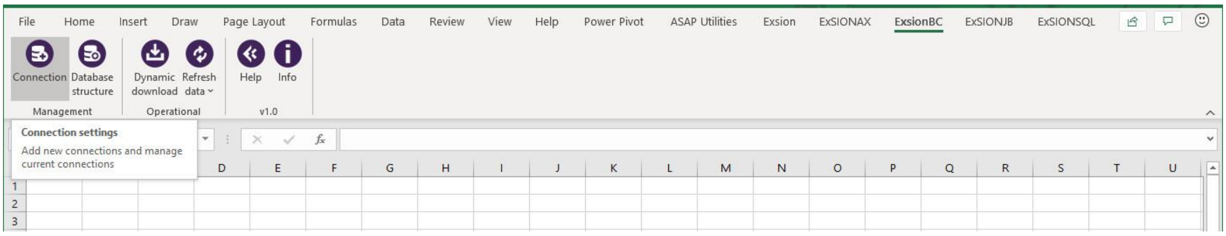


This chapter does not deal with Downloads, these will be treated in the next chapter.

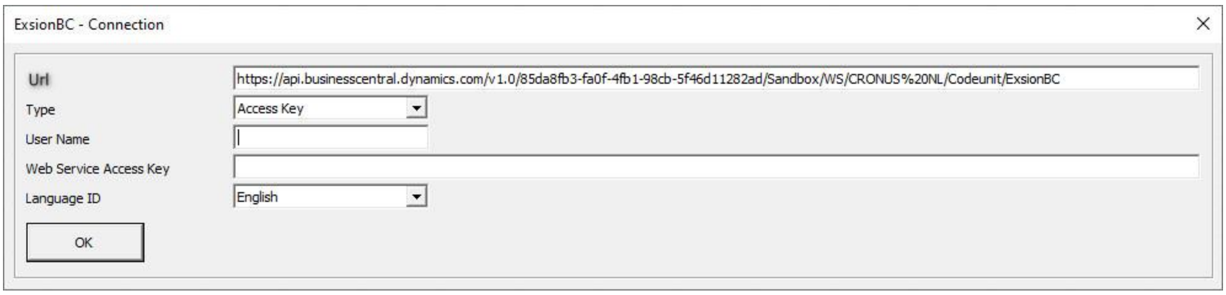
Connection

The use of Exsion Reporting BC requires (a) defined connection(s). A connection is a link to a company (or administration) within a database. You have to define a connection for each company.
Exsion Reporting BC will store defined connections.

Click Connection in the Exsion Reporting BC menu.



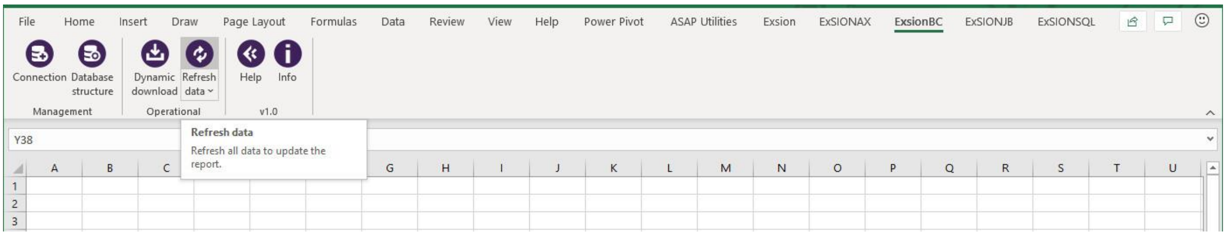
You will be taken to the following screen:



In this screen, you will enter the URL and select the type: Access key or Windows. The access key type will allow you to login with your username and the webservice access key code.

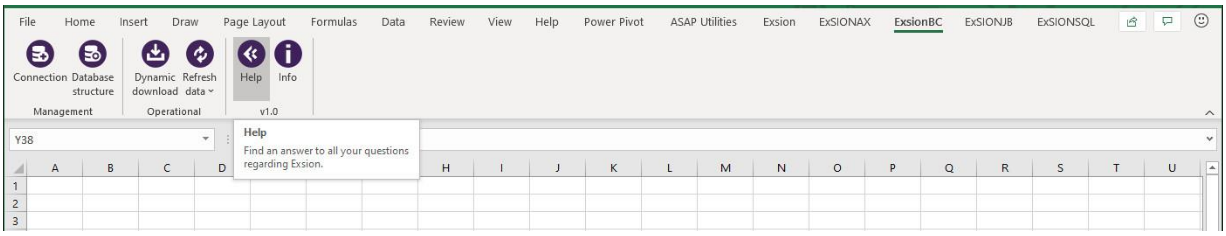
When you have entered them correctly, you can proceed the final step, selecting the language code.

Refreshing Data



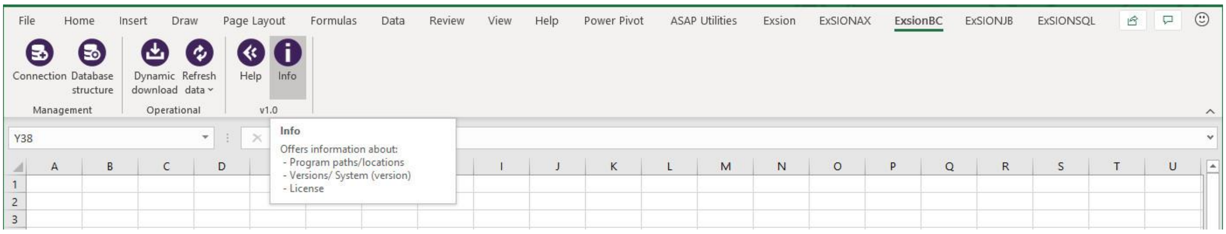
The Refresh data command allows you update data within a report. Let's assume, that you have developed a report that shows actual stock levels. If one of your colleagues were to make stock changes, you will no longer have an overview of the current state of affairs. If you click **<Refresh data>**, actual data will be retrieved and placed in the worksheet.

Help



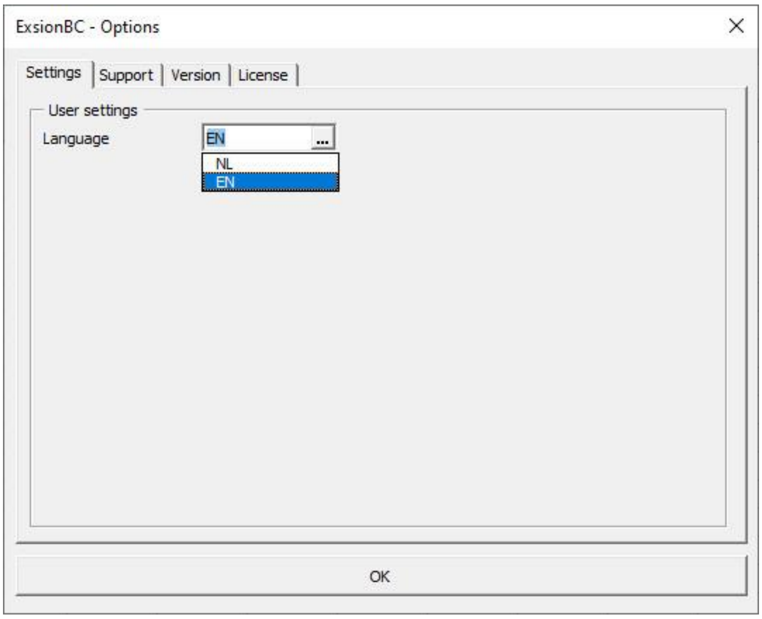
The Help tool provides a description of the complete functionality of Exsion Reporting BC, and therefore also functions as the manual. You can print it by clicking **<Print>** in the Help window.

Info



The Options window provides information about:

- Settings: See the explanation below
- Support: The possibility to start a TeamViewer session for helpdesk support
- Version: Exsion Reporting BC version (current installed version)
- Licence: Licences in use



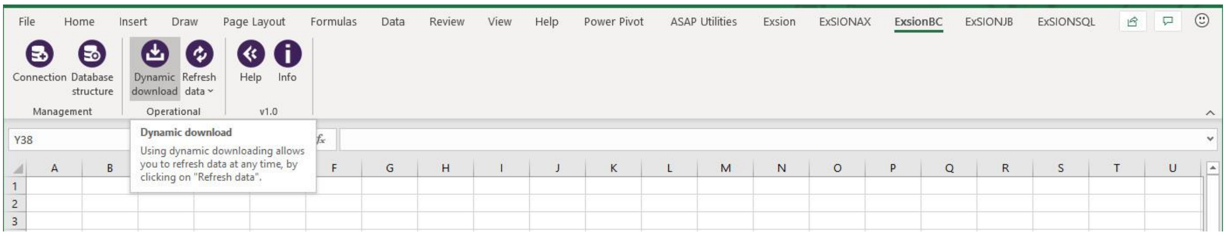
Here you can select the interface language of Exsion Reporting BC.

Chapter 3 - Downloads

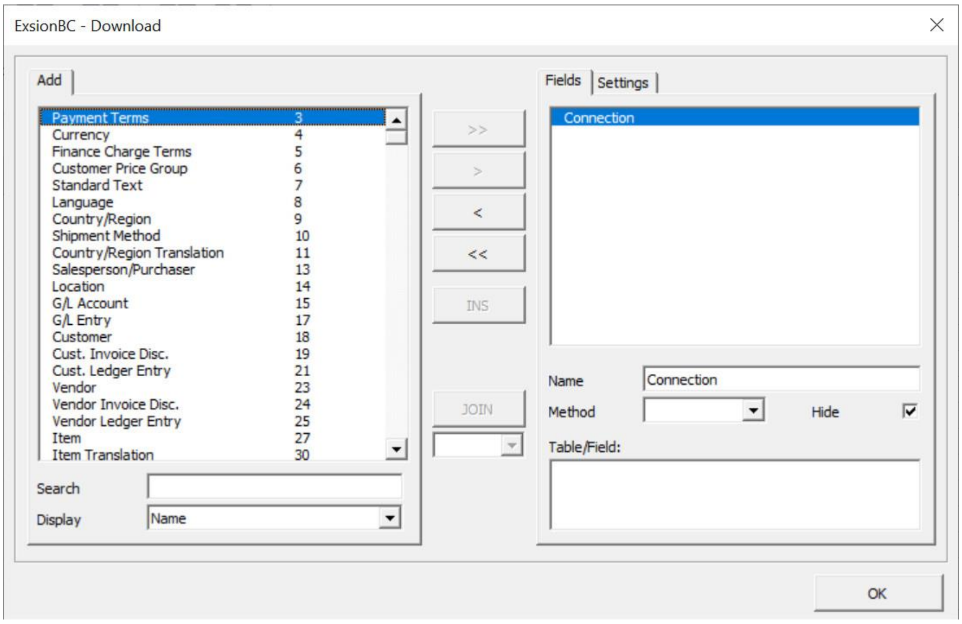
In the previous chapter, customer numbers and general ledger account numbers were entered manually each time. However, when reports increase in size, manual data entry is no longer efficient. This process can be replaced by a data download. A download always consists of a download definition and the output (i.e. the result). Any changes affecting the output should therefore always be stated in the definition.

Dynamic Download Wizard

Click the **<Dynamic download>** button to create a new download.



You will be taken to the screen below:



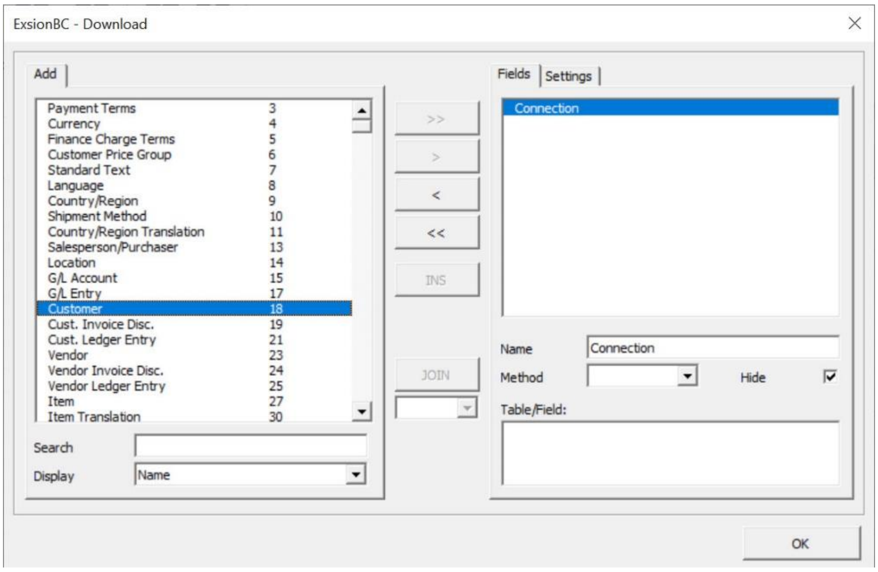
1	Add	Lists the tables you can choose from (dependent on the selected connection).
2	Search	Type the table name (or a part thereof) or the table number to perform a fast search.
3	Selection buttons	Use the **>>** button to select all fields. Clicking the **>** button will select a single field. Use the **<** and **<<** buttons to deselect a single field or all fields, respectively.
4	Fields	The Fields tab will list all fields selected for the download.
5	Method	Use this pull-down menu for, for example, an aggregate presentation of download output, or to retrieve the first or last value from a table.

Tip: Storing download definitions
When you have created a download definition, you can store it by clicking the **<Save>** button. The definition will be stored in an **.edd** file, which can be imported easily.

Defining Downloads

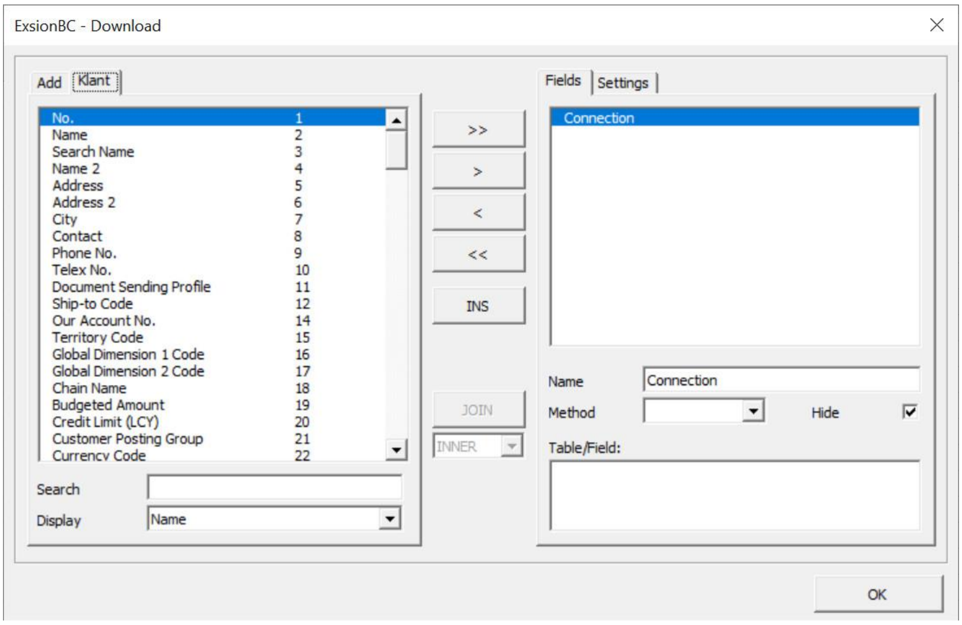
As stated previously in this chapter, a download consists of two parts. Prior to retrieving data from the system (which also applies to **Extensions**), you first have to specify which data you want to retrieve (i.e. creating the download definition).

Open the download wizard by clicking the **<Dynamic download>** button. You will be taken to the screen below:



Double-click on the Customer table (no. 18). An additional tab with the name of the selected table will be added at the left at the top in the Download Wizard.

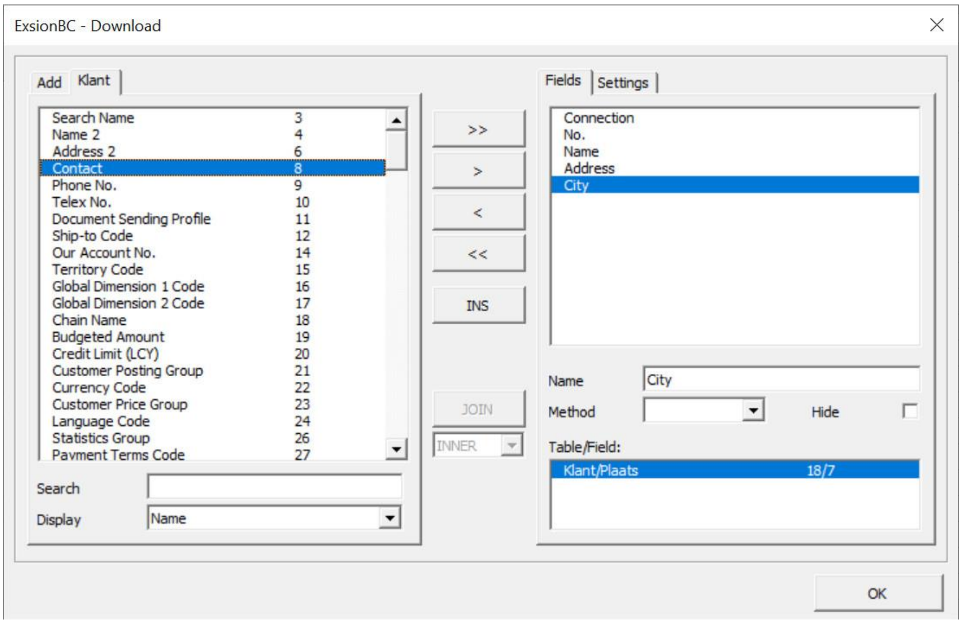
Open the Customer tab by clicking it. Instead of a list of tables (Add tab), you will now see a list with fields from the Customer table.



You can add fields to the download definition by selecting a field at the left and clicking the > button.

Tip: Double-click
Double-clicking on desired fields will transfer them to the right side of the screen (and thus add them to the download definition).

After adding the No., Name, Address and City fields, the screen will look as follows:



Now click **<OK>**, which will create the download definition below (but not execute it yet!).

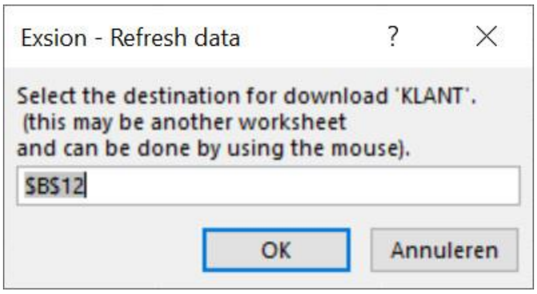
	A	B	C	D	E	F	G	H
1								
2		CUSTOMER					1.0	
3		Connection *					TABLE	
4		Table	18	FILTER	HIDE	SORT	METHOD	
5		Connection	-2		TRUE			
6		No.	1					
7		Name	2					
8		Address	5					
9		City	7					
10								

Cell B2 will display the download definition name.
Cell C3 will display the administration (connection) from which data are retrieved.
Below, cell C4 will display the table number, and cells C6 to C9 the field numbers.

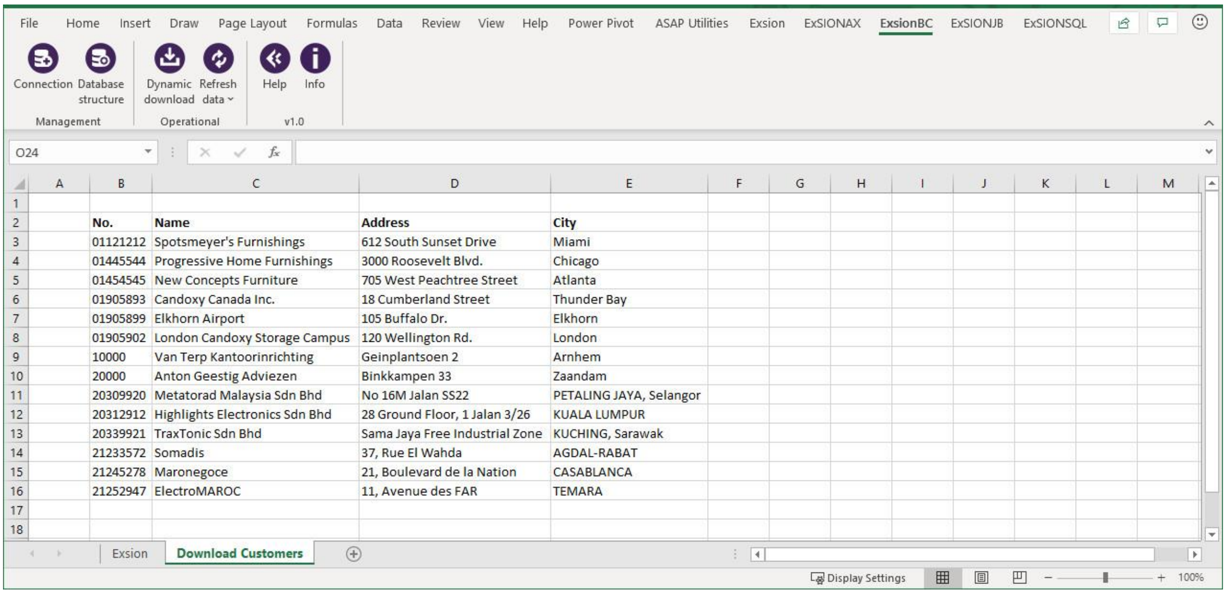
Note: Table and field numbers
Table and field numbers may not be deleted, as they constitute the basis of operation of Exsion Reporting BC. Deleting these numbers will negatively affect the download, or may even cause it to malfunction.

After creating the download definition, it must also be executed. This can be done by clicking the **<Refresh data>** button in the menu bar.

You will first see a screen in which you must specify where to execute the download.



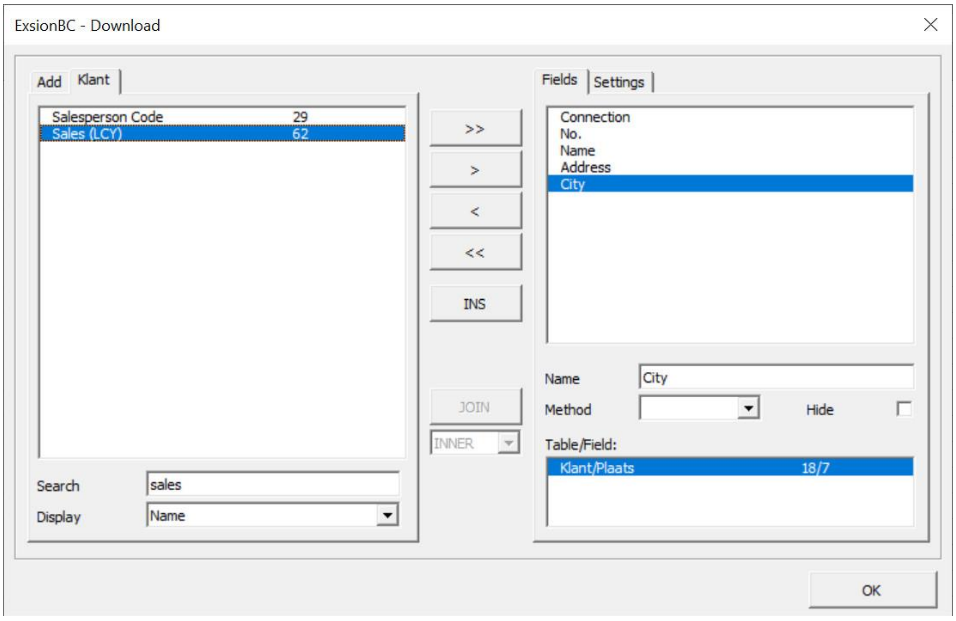
Specify the field in which you want to start the output and click **<OK>**.
The result in this example is as follows:



Filtering Download Output

In paragraph 3.2 you created a download that generated a complete customer list. In this paragraph, the download is expanded with a column in which the Sales (LV) field is retrieved. Subsequently, you will add a filter, to ensure that only clients with a balance higher than € 0.00 are listed.

Open the Exsion Reporting BC tab, with the download definition you made in paragraph 3.2. Select a cell in the download definition and click the **<Dynamic Download>** button. You will then be taken to the Download Wizard again.
Search the Sales (LV) field (use the Search field, see also paragraph 3.2).



Double-click the Sales (LV) field to add it to the download definition and click **<OK>.**
The download definition will then look as follows:

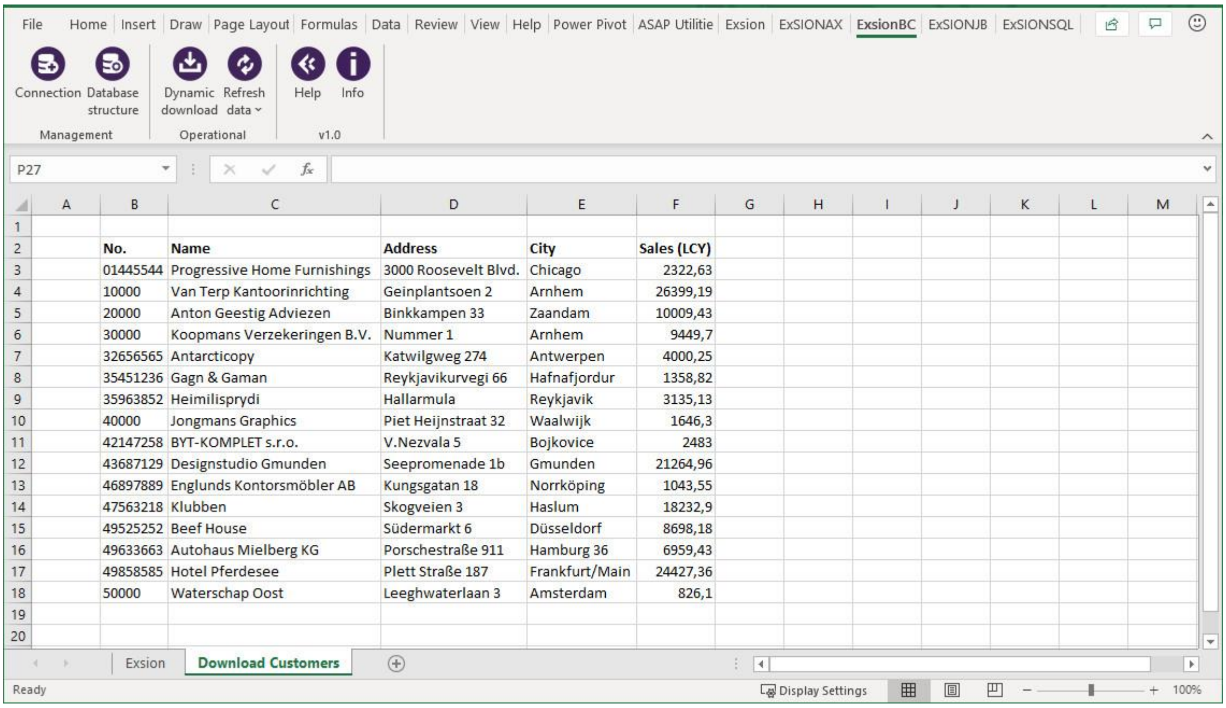
	A	B	C	D	E	F	G	H
1								
2		CUSTOMER					1.0	
3		Connection *					TABLE	
4		Table	18	FILTER	HIDE	SORT	METHOD	
5		Connection	-2		TRUE			
6		No.	1					
7		Name	2					
8		Address	5					
9		City	7					
10		Sales (LCY)	62		TRUE			
11								

In column E, the row value for Sales (LV) is: **TRUE**. If a download is expanded, the HIDE option is automatically enabled, as there may be instances in which column data are listed to the right of the download output.

You will now modify the download definition, to ensure visibility of the Sales (LV) column and filtering on the value of Sales (LV) being higher than € 0.00. You do not have to open the Download Wizard again, you can directly change this in the worksheet.

	A	B	C	D	E	F	G	H
1								
2		CUSTOMER					1.0	
3		Connection *					TABLE	
4		Table	18	FILTER	HIDE	SORT	METHOD	
5		Connection	-2		TRUE			
6		No.	1					
7		Name	2					
8		Address	5					
9		City	7					
10		Sales (LCY)	62	<>0				
11								

Subsequently, click the **<Refresh data>** button, which will yield the following result:



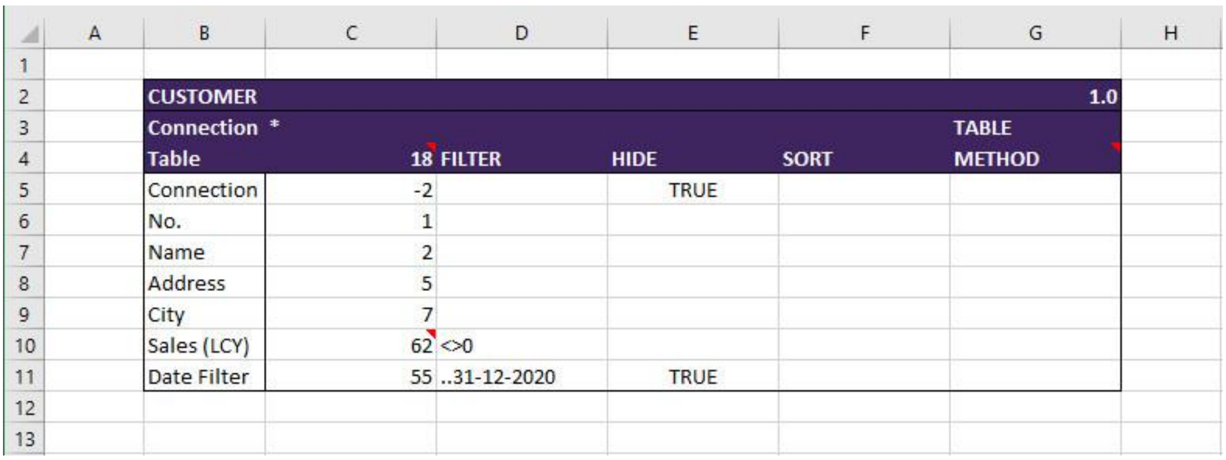
No.	Name	Address	City	Sales (LCY)
01445544	Progressive Home Furnishings	3000 Roosevelt Blvd.	Chicago	2322,63
10000	Van Terp Kantoorinrichting	Geinplantsoen 2	Arnhem	26399,19
20000	Anton Geestig Adviezen	Binkkampen 33	Zaandam	10009,43
30000	Koopmans Verzekeringen B.V.	Nummer 1	Arnhem	9449,7
32656565	Antarcticopy	Katwilgweg 274	Antwerpen	4000,25
35451236	Gagn & Gaman	Reykjavikurvegi 66	Hafnafjordur	1358,82
35963852	Heimilisprydi	Hallarmula	Reykjavik	3135,13
40000	Jongmans Graphics	Piet Heijnstraat 32	Waalwijk	1646,3
42147258	BYT-KOMPLET s.r.o.	V.Nezvala 5	Bojkovice	2483
43687129	Designstudio Gmunden	Seepromenade 1b	Gmunden	21264,96
46897889	Englunds Kontorsmöbler AB	Kungsgatan 18	Norrköping	1043,55
47563218	Klubben	Skogveien 3	Haslum	18232,9
49525252	Beef House	Südermarkt 6	Düsseldorf	8698,18
49633663	Autohaus Mielberg KG	Porschestraße 911	Hamburg 36	6959,43
49858585	Hotel Pferdesee	Plett Straße 187	Frankfurt/Main	24427,36
50000	Waterschap Oost	Leeghwaterlaan 3	Amsterdam	826,1

Flow Filter on Download

Paragraph 3.3 described how to apply a filter on a download. Dynamics BC also has flow filters that can be applied to flow fields.

The Customer table contains one flow filter, i.e. Date filter. The Sales (LV) field is a so-called flow field (i.e. a calculated field), to which a flow filter can be applied. A flow filter allows you to influence flow field calculation. The calculation is thus performed in Dynamics BC.

You can apply the 'Date filter' flow filter to the Sales (LV) field. To do so, you have to reopen the Download Wizard. Now locate the Date filter field (at the left of the wizard, in the Customer tab) and add it to the download definition. Click **<OK>** and the next download definition will be shown.



CUSTOMER					1.0
Connection *					TABLE
Table	18	FILTER	HIDE	SORT	METHOD
Connection	-2		TRUE		
No.	1				
Name	2				
Address	5				
City	7				
Sales (LCY)	62	<>0			
Date Filter	55	..31-12-2020	TRUE		

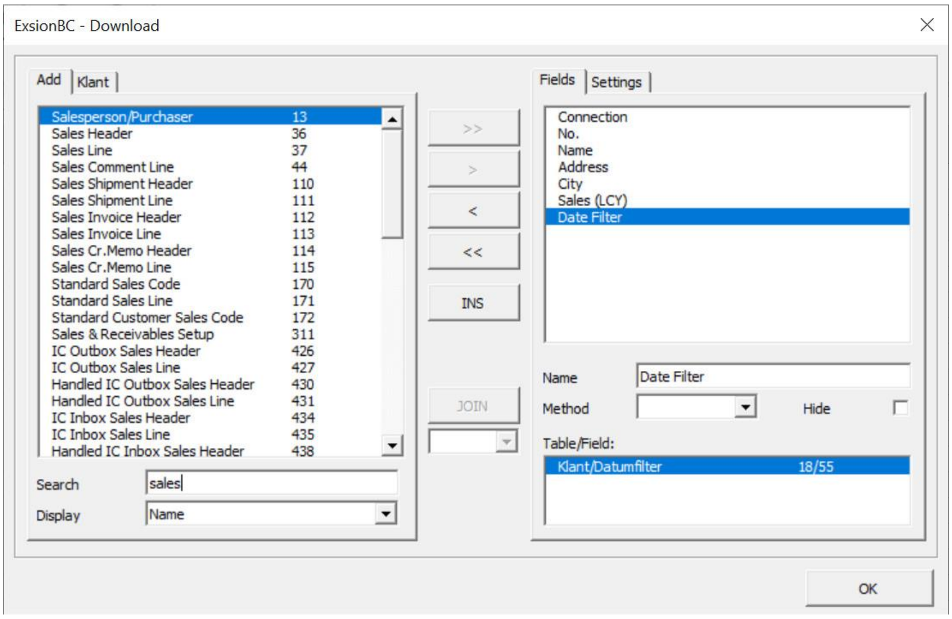
Because the Date filter field is a flow filter, it is not necessary to set the HIDE property to **FALSE**, as this field does not contain data. You can now insert a date filter to the filter (refer to appendix 1 for filter options). This date filter will affect the Sales (LV) flow field.

Joining Tables

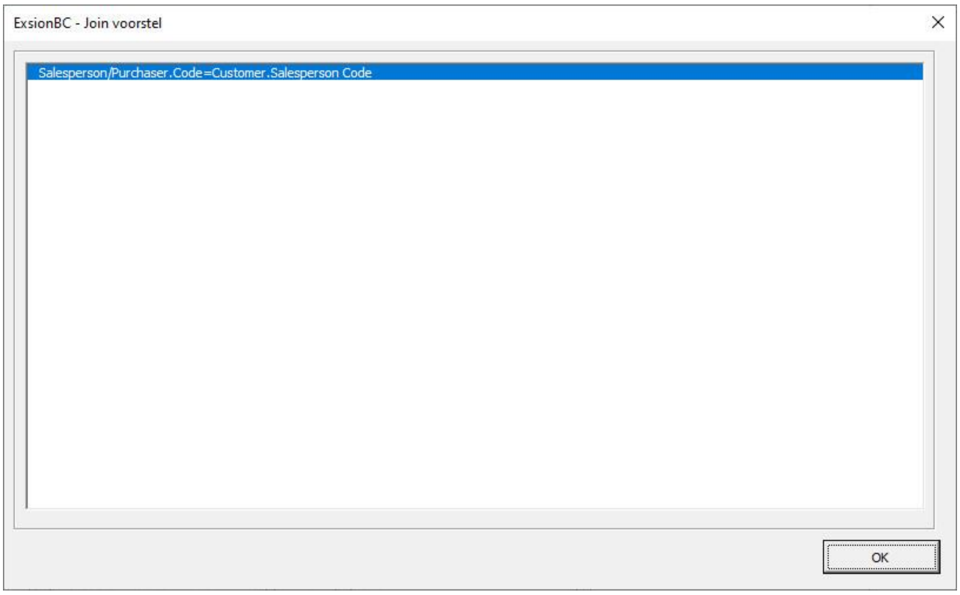
It can happen, that data of which you want to create a report are stored in several tables. Exsion Reporting BC allows you to connect tables to each other (**joining**). However, this is only possible if a unique key exists that links the tables in question (for example, the customer number in the Customer and Accounts Receivable tables).

This paragraph explains the principle of joining by means of the Customer and Vendor/Purchaser tables. The Client table contains the vendor/purchaser code, but not the complete description, which is listed in the Vendor/Purchaser table.

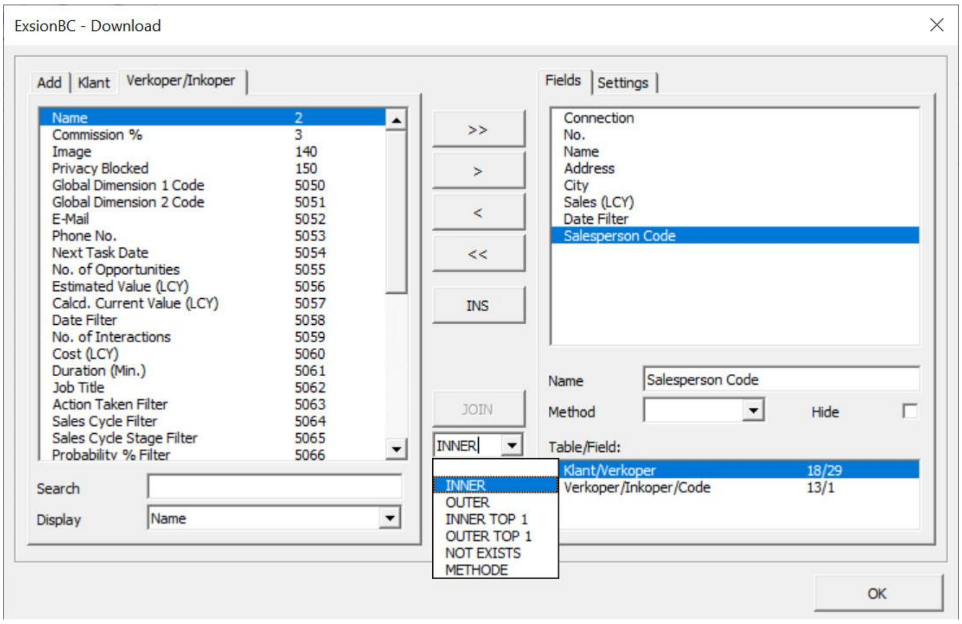
Open the Download Wizard by selecting a cell in the download definition (which we have modified in paragraph 3.3) and clicking the **<Dynamics Download>** button. Now open the Add tab and locate the Vendor/Purchaser table.



Double-click the Vendor/Purchase table to add it to the download definition. Prior to adding the table, a connection and suggestion screen will appear.



In this case, there is only one option, i.e. a connection between the Vendor field from the Customer table and the Code field from the Vendor/Purchaser table. Click **<OK>** to choose a join type in the Download Wizard. Once you have selected a type, the join is completed.



Note: Join types provides information about, for example:

Inner Join:
Only lists results that allow for creating a link between both tables. If no Vendor data is entered in the Customer table, the Customer in question will not be included in the output, because it is not possible to establish a link with the Vendor/Purchaser table.

Left Outer Join:
Lists all customers, even if no Vendor data is entered.

Inner Top 1:
See explanation of **Inner Join**
Only lists the first row of the Vendor table.

Outer Top 1:
See explanation of **Left Outer Join**
Only lists the first row of the Vendor table.

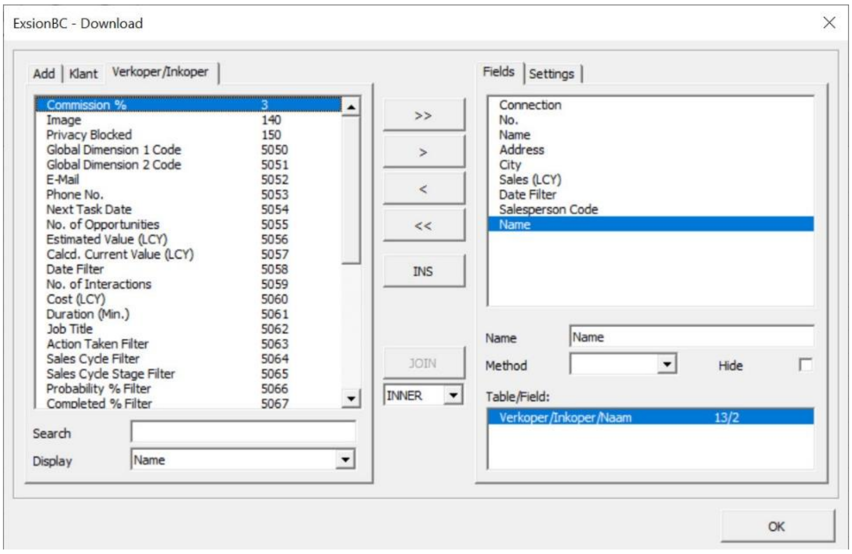
Method:
States a specific calculation method, to replace functions of the **on-premise** version of Exsion Reporting BC.

The method can be used across several linked tables.

The download definition will then look as follows:

	A	B	C	D	E	F	G	H	I	J
1										
2		CUSTOMER							1.0	
3		Connection	*						Table	
4		Table	18	21	113					
5		Join type		6	6	Filter	Hide	Sort	METHOD	
6		Connection	-2				TRUE			
7		No.	1	3	68					
8		Name	2							
9		Sales (LCY)		18					SUM	
10		Invoice Line Amount			103				SUM	
11										
12										

Now you can add the Name field from the Vendor/Purchaser table to the download definition.

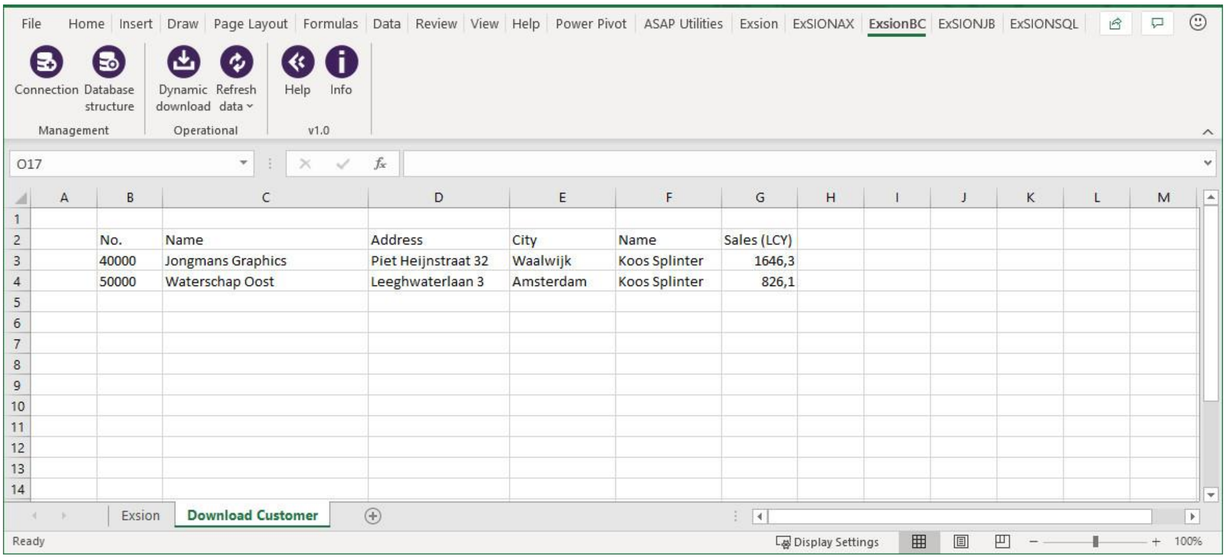


The Hide option checkboxes of the fields that now have been added to the download will automatically be ticked. You can easily change the order of fields by dragging them up or down. Change the field order as you desire and make all fields visible, except the Vendor field..

If you click **<OK>**, you will see the download definition below:

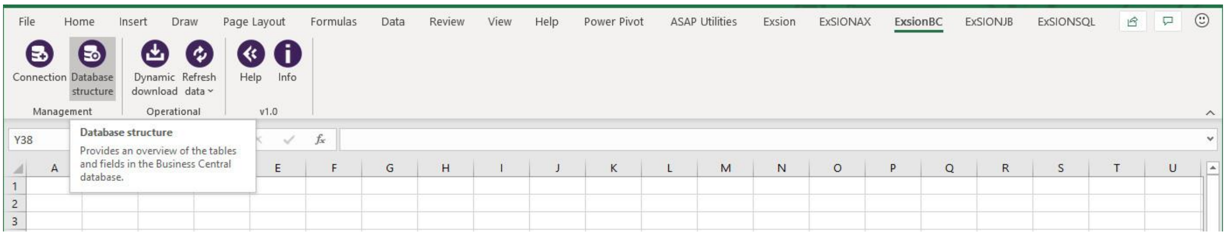
	A	B	C	D	E	F	G	H	I
1									
2		CUSTOMER						1.0	
3		Connection	*					TABLE	
4		Table	18	13					
5		JOIN TYPE		2	FILTER	HIDE	SORT	METHOD	
6		Connection	-2			TRUE			
7		No.	1						
8		Name	2						
9		Address	5						
10		City	7						
11		Name		2					
12		Date Filter	55		..31-12-2020	TRUE			
13		Salesperson Code	29	1		TRUE			
14		Sales (LCY)	62		<>0				
15									
16									

Click **<Refresh data>** to align the output with this download definition. Below, you can see a part of the output.



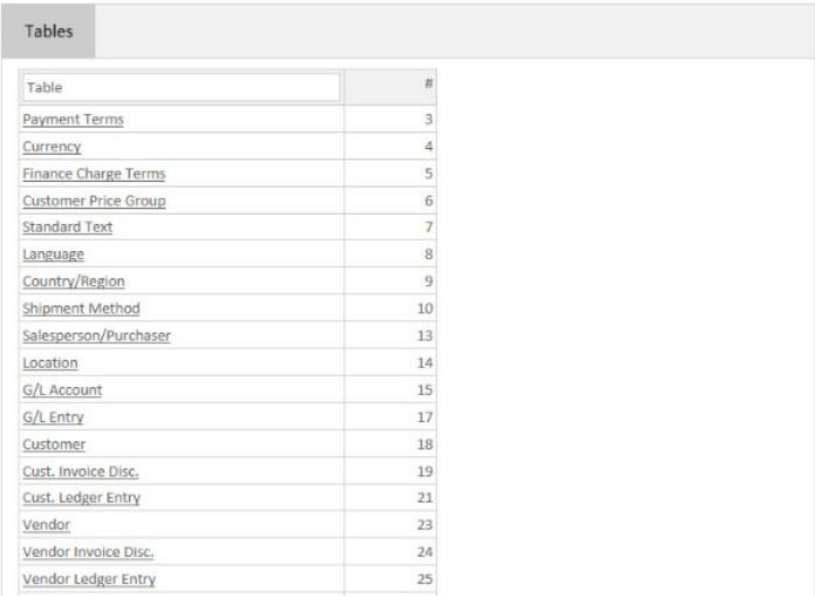
Microsoft Dynamics 365 Business Central database

Database Structure



The standard version of Dynamics BC contains over 700 tables. If you want to create high-quality and fast reports, some working knowledge of the structure of your own Dynamics BC database is essential. The Exsion Reporting BC function helps you to find your way in the database.

When you click the **Database structure** button in the Exsion Reporting BC tab, you will be taken to the screen below:



Tables

Table	#
Payment Terms	3
Currency	4
Finance Charge Terms	5
Customer Price Group	6
Standard Text	7
Language	8
Country/Region	9
Shipment Method	10
Salesperson/Purchaser	13
Location	14
G/L Account	15
G/L Entry	17
Customer	18
Cust. Invoice Disc.	19
Cust. Ledger Entry	21
Vendor	23
Vendor Invoice Disc.	24
Vendor Ledger Entry	25

When you click **<OK>**, Exsion Reporting BC will analyse your database and retrieve its structure.

You now have a database map, listing all tables, fields, indexes and relationships between tables.

All tables are so-called hyperlinks. When you click on a table name, you will immediately be taken to its corresponding worksheets. For example, click the Customer table. You will then see the following worksheet:

In the Customer table tab you will see the name, number, type, length and class of all fields. Some fields are incorporated as hyperlinks. In that case, a relationship exists between the field in question and another table in Dynamics BC. In the Customer table, a relationship exists between the Country field and the Country/Region table. When you click on Land, you will immediately be taken to the Country/Region tab.

Tables | Customer

Fin. Charge Terms Code	28	Code	10	Normal
Salesperson Code	29	Code	10	Normal
Shipment Method Code	30	Code	10	Normal
Shipping Agent Code	31	Code	10	Normal
Place of Export	32	Code	20	Normal
Invoice Disc. Code	33	Code	20	Normal
Customer Disc. Group	34	Code	20	Normal
Country/Region Code	35	Code	10	Normal
Collection Method	36	Code	20	Normal
Amount	37	Decimal		Normal
Comment	38	Boolean		FlowField*
Blocked	39	Option*		Normal
Invoice Copies	40	Integer		Normal
Last Statement No.	41	Integer		Normal
Print Statements	42	Boolean		Normal
Bill-to Customer No.	45	Code	20	Normal
Priority	46	Integer		Normal
Payment Method Code	47	Code	10	Normal
Last Date Modified	54	Date		Normal
Date Filter	55	Date		FlowFilter

0=
1=Ship
2=Invoice
3=All

When your table contains an option field, you can have it displayed by hovering your mouse above the field in question.

Commonly-Used Tables for Developing Reports

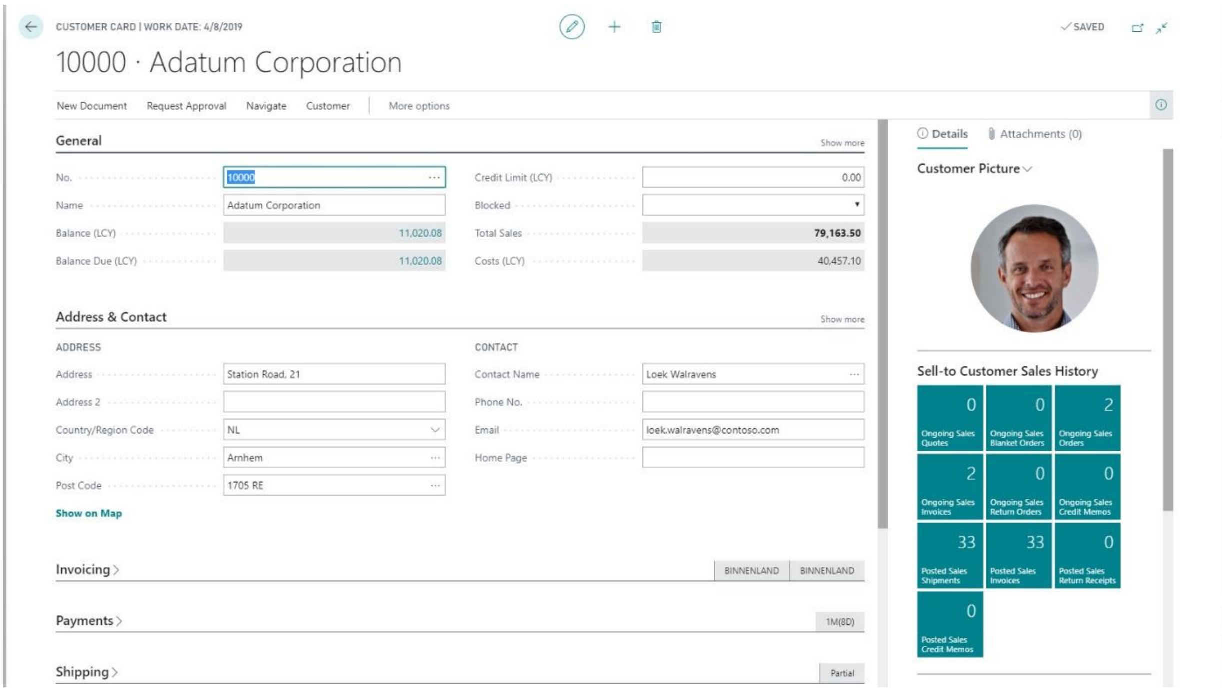
A significant part of the functionality in Dynamics BC is built around a small number of tables. They are included in the overview below. Most reports are based on one or more of these tables.

Table 15 – General Ledger Account
Contains information about general ledger account entries.
Table 17 – General Ledger Entry
Contains information about all financial transactions in the database.
Table 18 – Customer
Contains customer information
Table 21 – Customer Entry
Contains information about customer-related transactions, such as invoices and payments.
Table 379 – Detailed Customer Entry
Contains detailed information about customer-related transactions, such as invoices and payments.
Table 23 – Vendor
Contains vendor information.
Table 25 – Vendor Entry
Contains information about vendor-related transactions, such as invoices and payments.
Table 380 – Detailed Vendor Entry
Contains detailed information about vendor-related transactions, such as invoices and payments.
Table 27 – Article
Contains article information.
Table 32 – Article Entry
Contains information about all article-related transactions (sales/purchase etc.) in the database. This table does not contain any information about values.
Table 5802 – Value Entry
Contains information about all value-related transactions in the database.
All operational data, such as sales orders, purchase orders and production orders are stored within a 'header/rule' relationship. A sales order consists of a sales header table that contains general order information. The sales header table is related to one or more sales rules (in the Sales Rules table), that contain information about articles, quantities, prices etc.

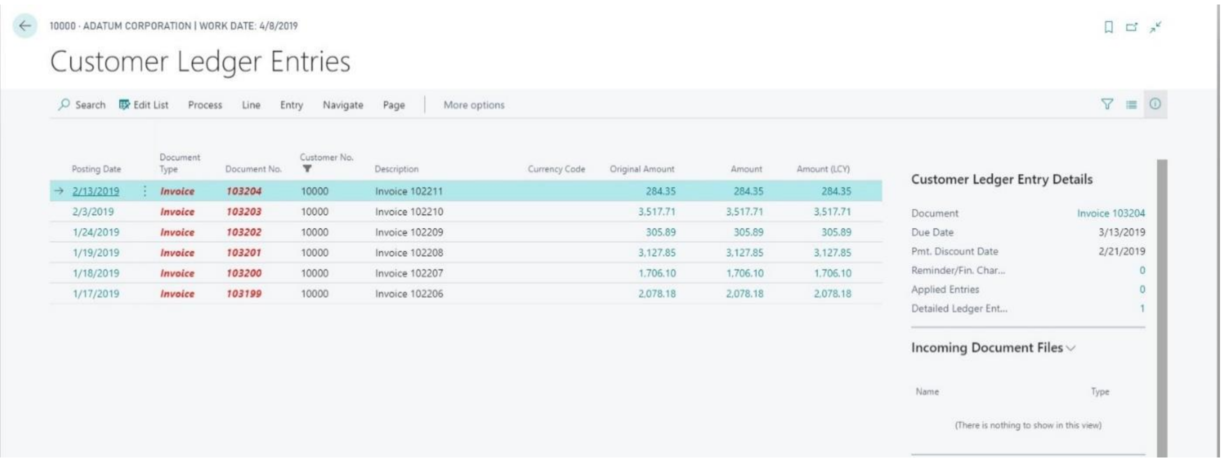
Checking Flow Fields in Dynamics Business Central

There are two ways to figure out how a flow field is calculated. The first method is starting Dynamics BC. Then go to a card that includes the flow field in question.

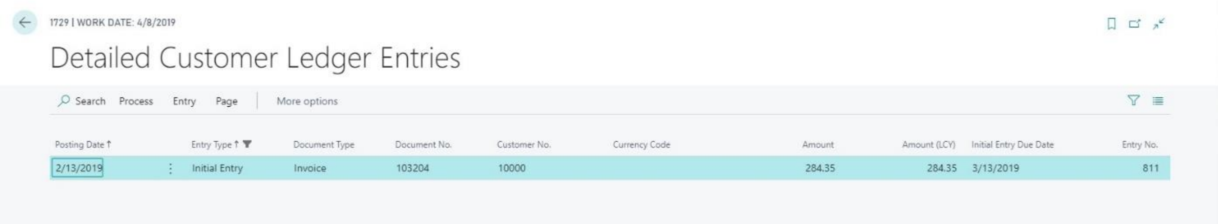
For example, open a customer card:



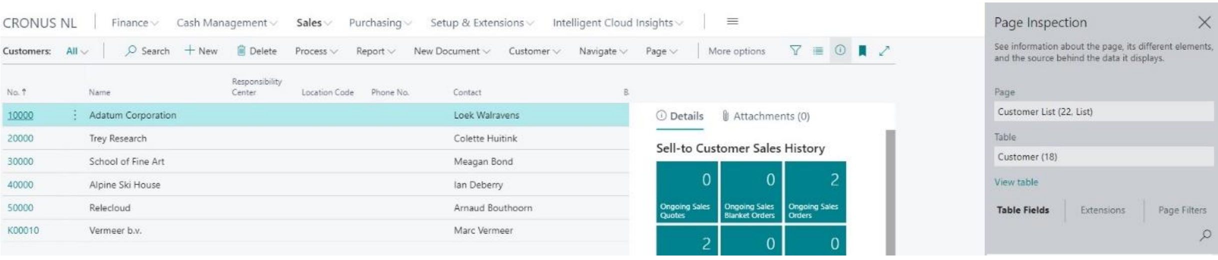
You will see that the Balance (LCY) field is a green hyperlink. When you click it, Dynamics BC will open an overview of Customer entries.



Clicking an amount will take you to **<Detailed customer entries>** where additional information is displayed.



Note: Underlying table data:
Click the customer list (keyboard shortcut: **CTRL** + **ALT** + **F1**), if you want to know the name of the underlying table.



Chapter 3 – Pivot Tables

If pivot tables are used, it is possible to automatically update them by clicking the **<Refresh data>** button.

Note: To automatically update a pivot table, its name is essential.

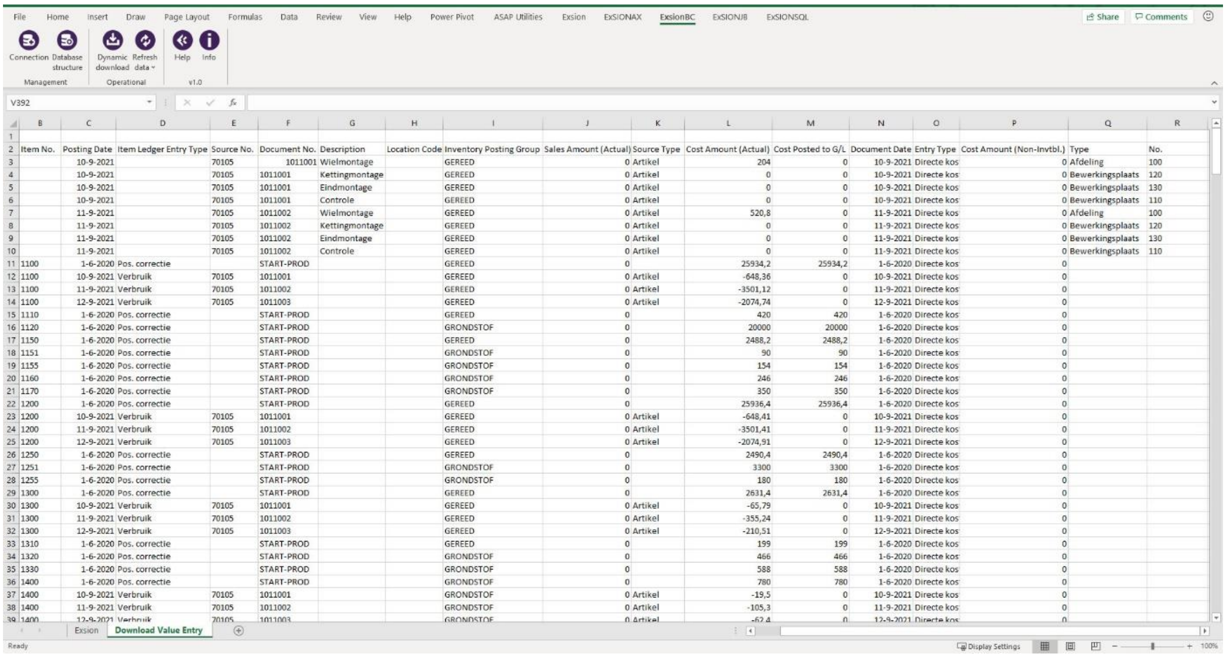
Its name always starts with: EXSION_.

Example

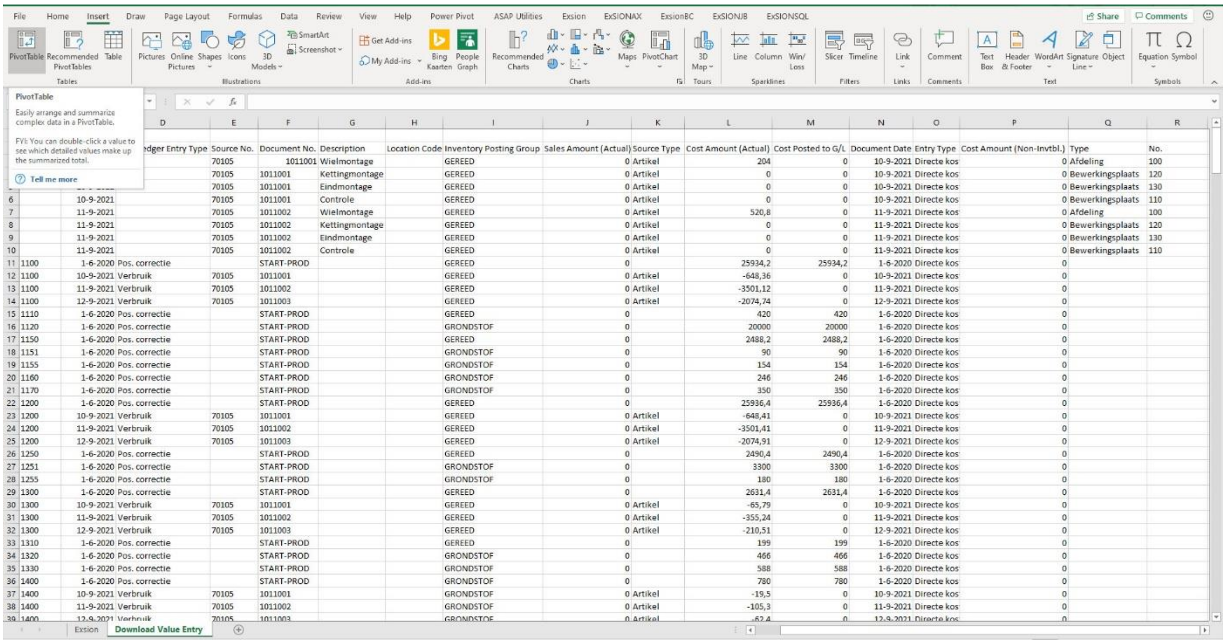
Create a dynamic download for the **VALUE ENTRY** table.

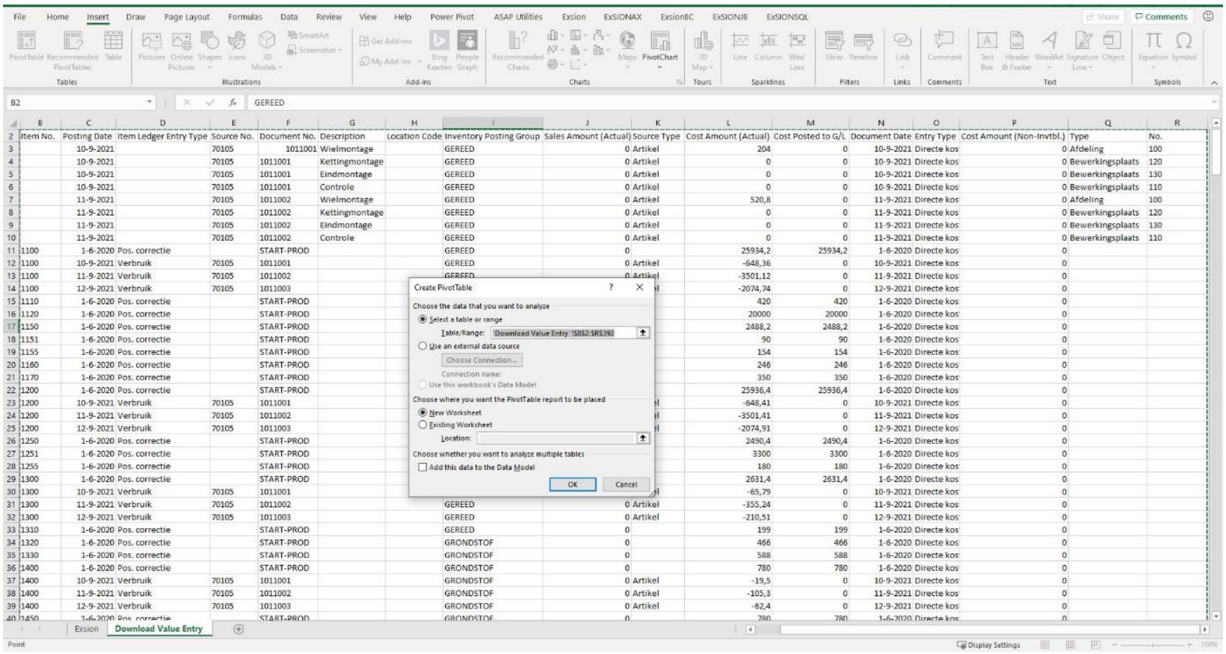
	A	B	C	D	E	F	G	H
1								
2		VALUE ENTRY					1.0	
3		Connection	*				TABLE	
4		Table	5802	FILTER	HIDE	SORT	METHOD	
5		Connection	-2		TRUE			
6		Item No.	2					
7		Posting Date	3					
8		Item Ledger Entry Type	4					
9		Source No.	5					
10		Document No.	6					
11		Description	7					
12		Location Code	8					
13		Inventory Posting Group	9					
14		Sales Amount (Actual)	17					
15		Source Type	41					
16		Cost Amount (Actual)	43					
17		Cost Posted to G/L	45					
18		Document Date	60					
19		Entry Type	105					
20		Cost Amount (Non-Invtbl.)	152					
21		Type	5832					
22		No.	5834					
23								

Click **<Refresh data>** and place the download on a new tab.



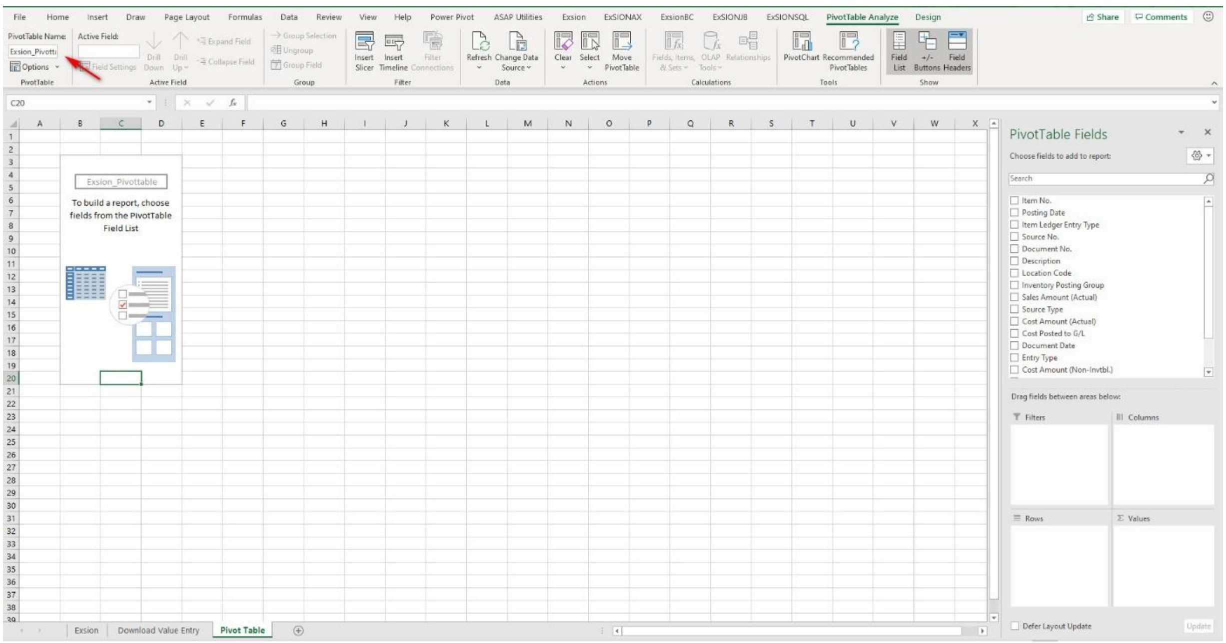
Open the **Insert** tab, click the **<Pivot table>** button and create a pivot table.



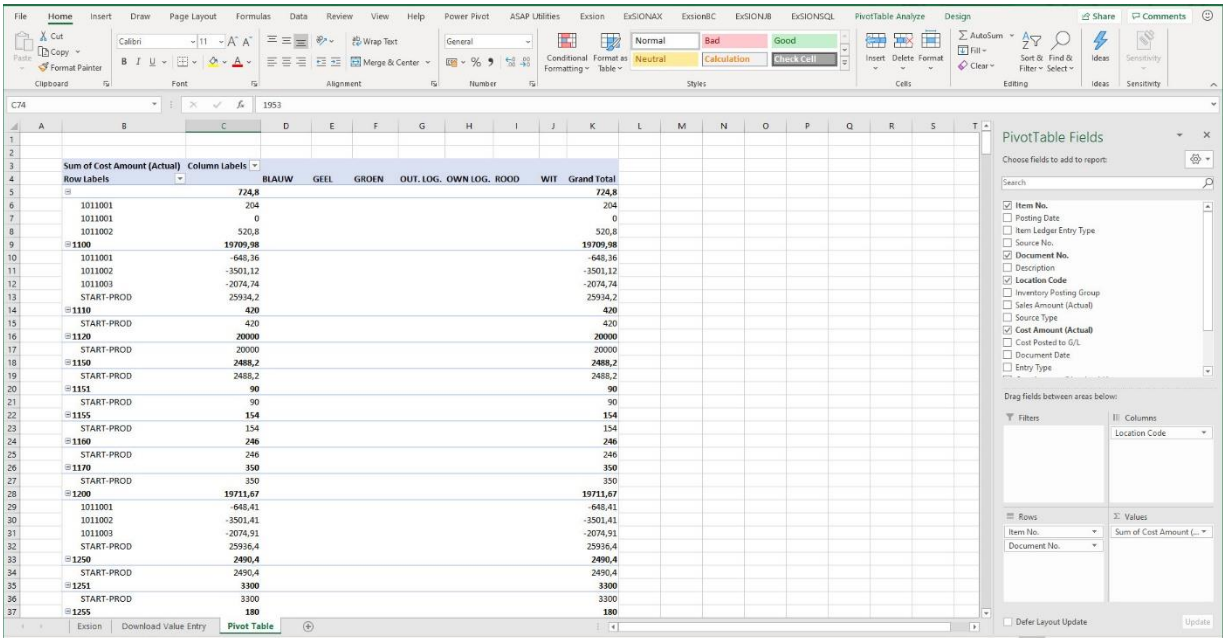


Click **<OK>**.

Open the **Options** tab that is part of the Pivot table tools, click the **<Pivot table>** button and assign a name to the pivot table that starts with EXSION_.



Drag the fields to their proper location:



Finish the pivot table and further define the worksheet layout. Now modify the filters in the Exsion Reporting BC download and click **<Refresh data>**. Exsion Reporting BC will download new data and automatically update the pivot table.