

## Data Mining

There are many ways to get information from the Sage 100 system:

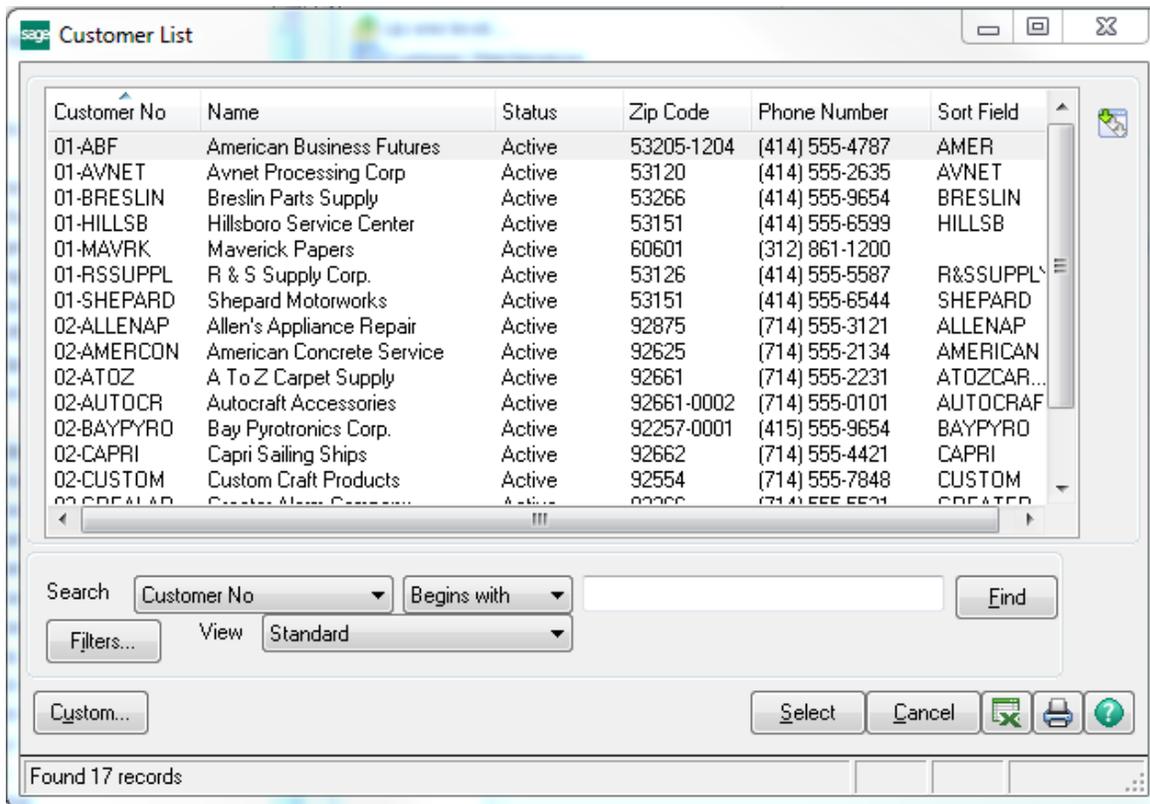
- Lookups
- Standard Reports
- Customizing Standard Reports
- Business Insights Reporter
- Custom Lookups
- Microsoft Query
- Custom Crystal Reports

### CUSTOM LOOKUPS

Use the Lookup Customization Wizard to create up to 99 unique Lookups for a Company Code and User Code

To Create a Custom Lookup from the Customer List: Accounts Receivable -> Main -> Customer Maintenance -> Click the Magnifying Glass  to open the Customer List Lookup

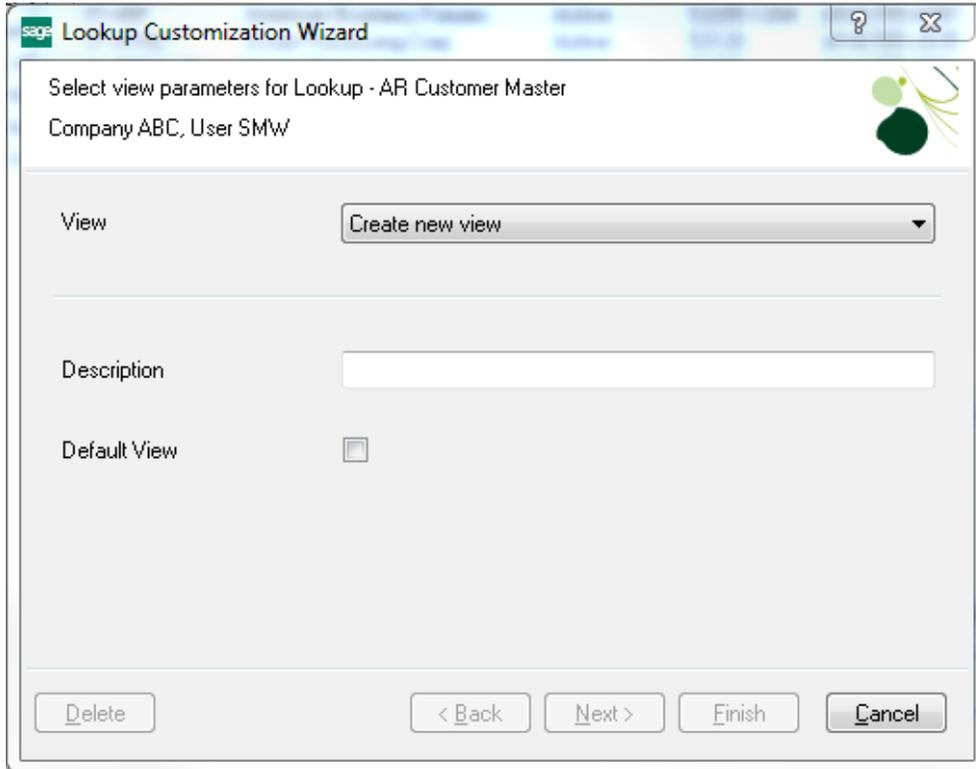
The Standard View for the Customer List includes the Customer No, Name, Status, Zip Code, Phone Number and Sort Field



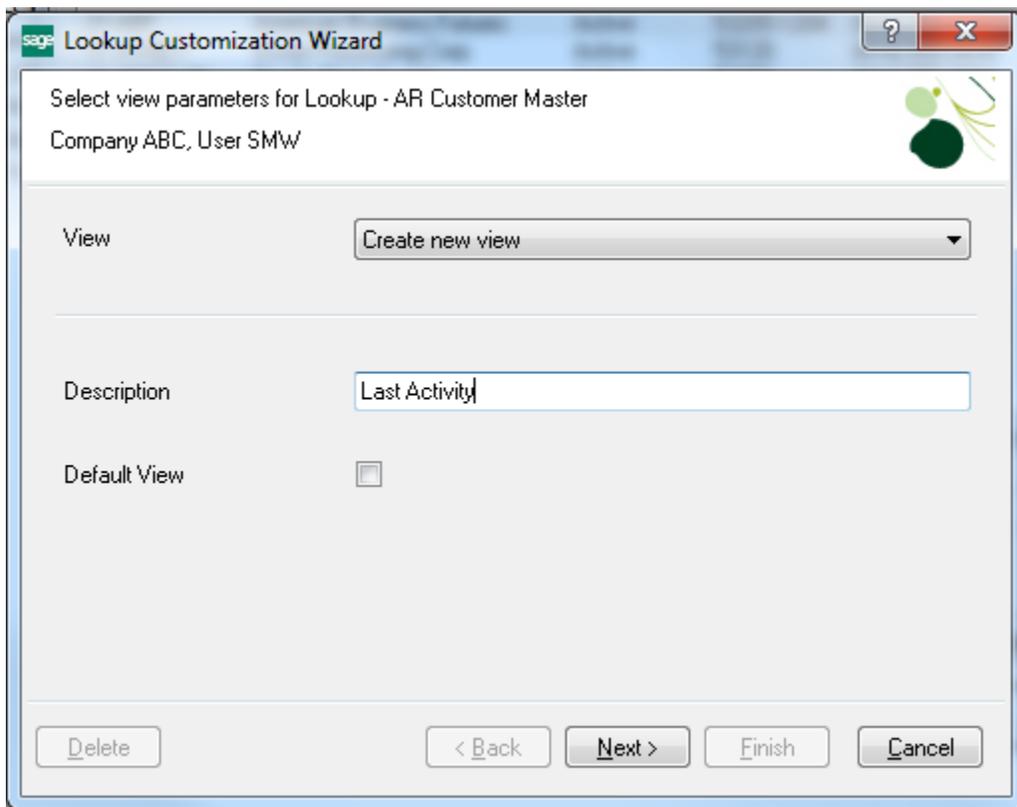
A Custom Lookup can be created to add and/or remove data from the Lookup. The Custom Lookup can be saved and the results set can be viewed, printed or exported to Excel.

**Create a Custom Lookup:**

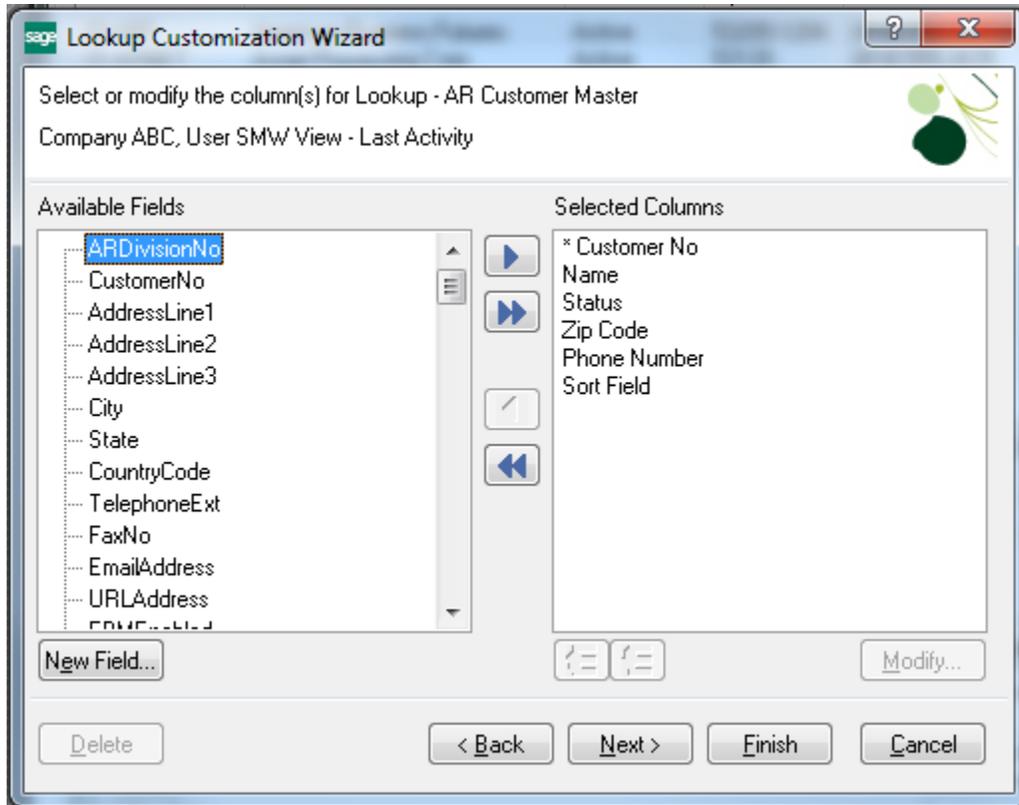
- Click the Custom  button to open the Lookup Customization Wizard



- Enter a Description for the new View; Click the 'Default View' checkbox if this View will be the default when the Magnifying Glass is clicked; Click the Tab key to activate the Next>  button

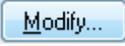


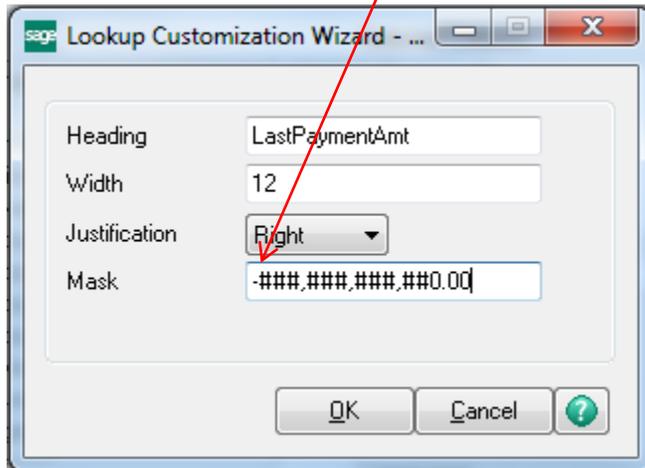
- Click the Next  button to display the Available Fields and Selected Columns dialog
  - Available Fields includes the fields in the main table (AR Customer Master in the example) and several related tables and the fields in the table
  - Selected Columns includes the fields currently in the Lookup



- Add Additional Fields:
  - Click the Add  button to add the ARDivisionNo
  - Use the Available Fields Scroll Bar to locate 'DateLastActivity' and Click the Add  button
  - Scroll and locate 'LastPaymentAmt' and Click the Add  button
  - Scroll and locate 'CurrentBalance' and Click the Add  button

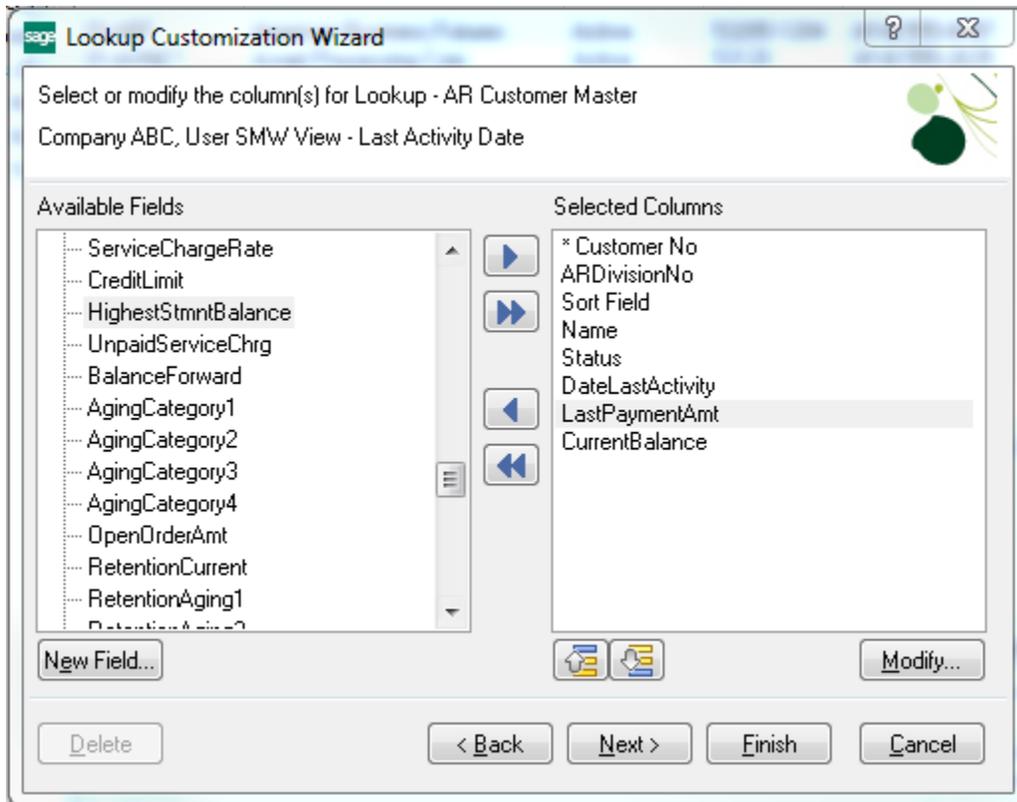
- Make changes to the Selected Columns:

- In the Selected Columns window, Select the 'ZipCode' column and Click the Remove  button; repeat the process for the 'PhoneNumber' column
- Select the 'LastPaymentAmt' column and Click the Modify  button
- In the 'Mask', move the minus sign to the beginning of the field; this changes the field from a Text to a Number when exported to Excel



- Repeat this change for the 'CurrentBalance' column
- Change the column order:
    - Use the Move Up  and Move Down  buttons to change the order of the columns
    - The column with the '\*' will always be the first column
    - For example, select the ARDivisionNo column and Click the Move Up button until it follows the Customer No column; select the SortField column and Click the Move Up button until it follows the ARDivisionNo column

- The completed dialog will look like this:

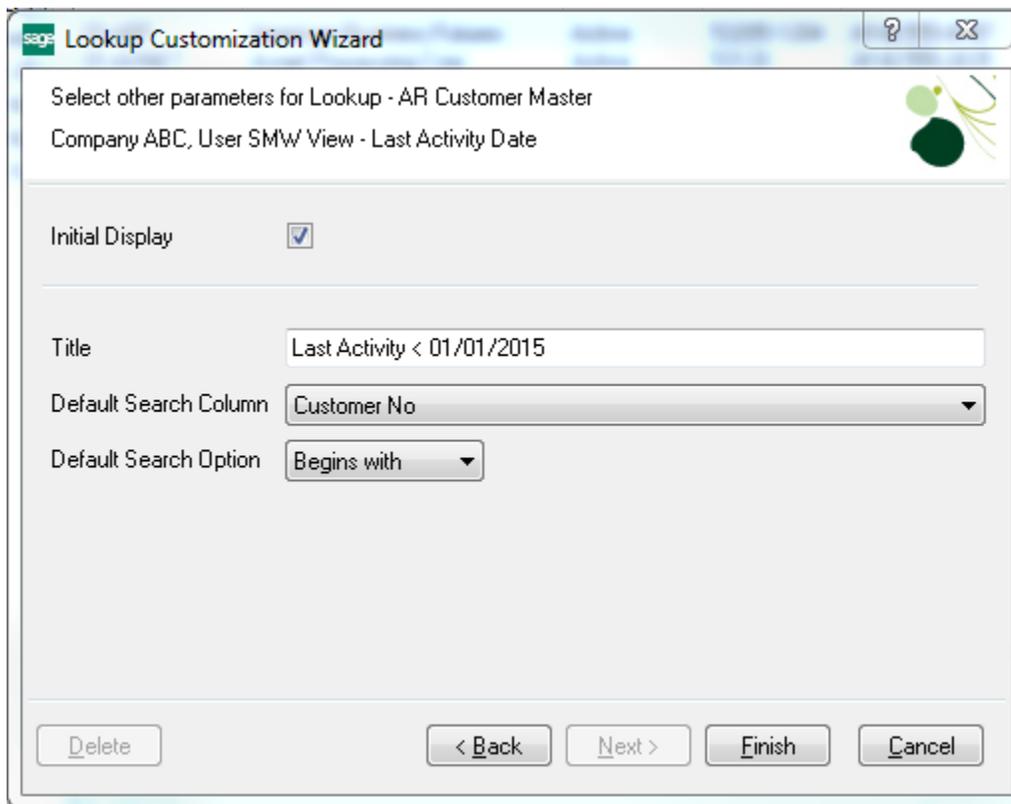


- The next dialog is for entering or modifying filters for the Lookup; for example, if you only want Customers where the 'DateLastActivity' was before 01/01/2015, enter the following filter:

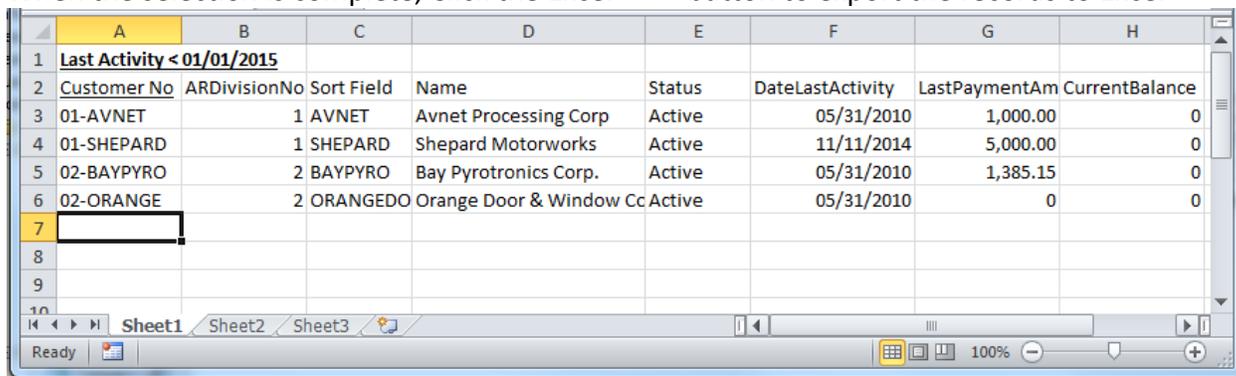
Enter or modify the filter(s) for Lookup - AR Customer Master  
Company ABC, User SMW View - Last Activity Date

	Column	Operand	Value
1	DateLastActivity	Less than	01/01/2015
2			

- Click the Next  button to move to the final dialog
  - Enter a Title for the Custom Lookup – limited to 30 characters
  - Select the Default Search Column and Default Search Option
  - Click the Finish  button
  - The final dialog will look like:



- Click the drop-down arrow for the 'View' and select your Custom View
  - Add any Search criteria needed
  - When the selection is complete, Click the Excel  button to export the records to Excel



Customer No	ARDivisionNo	Sort Field	Name	Status	DateLastActivity	LastPaymentAm	CurrentBalance
01-AVNET	1	AVNET	Avnet Processing Corp	Active	05/31/2010	1,000.00	0
01-SHEPARD	1	SHEPARD	Shepard Motorworks	Active	11/11/2014	5,000.00	0
02-BAYPYRO	2	BAYPYRO	Bay Pyrotronics Corp.	Active	05/31/2010	1,385.15	0
02-ORANGE	2	ORANGEDO	Orange Door & Window Cc	Active	05/31/2010	0	0

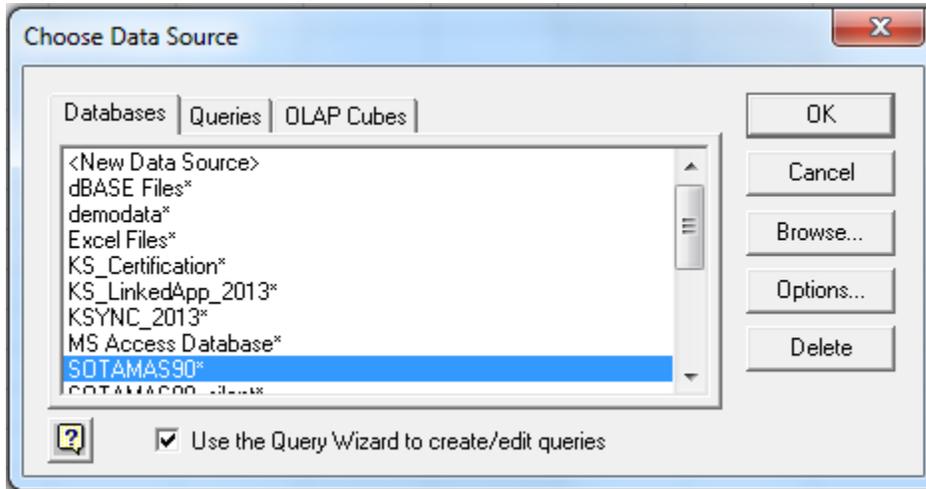
- Format the spreadsheet as needed in Excel

## MICROSOFT QUERY

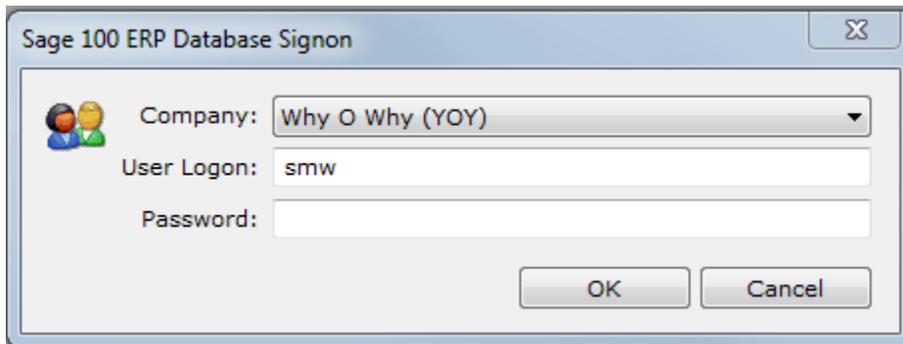
Create a Microsoft Query to import data from one or more Sage 100 tables to Excel

To import Sales Order data to Excel: Open Excel -> Data Tab -> Get External Data -> From Other Sources -> From Microsoft Query

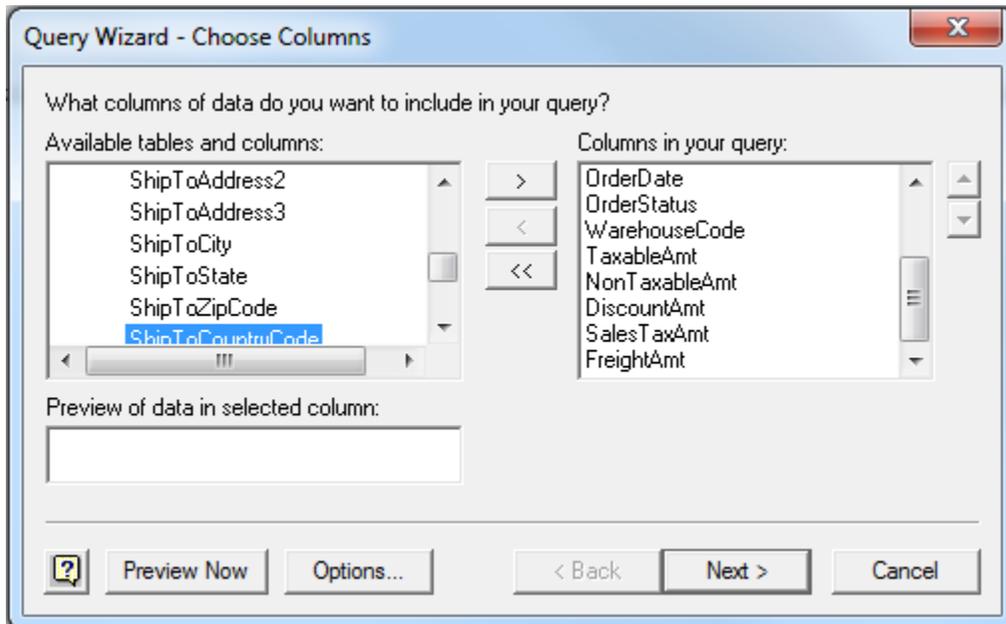
- On the 'Choose Data Source' dialog, select 'SOTAMAS90\*' database and Click the OK button

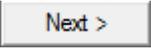


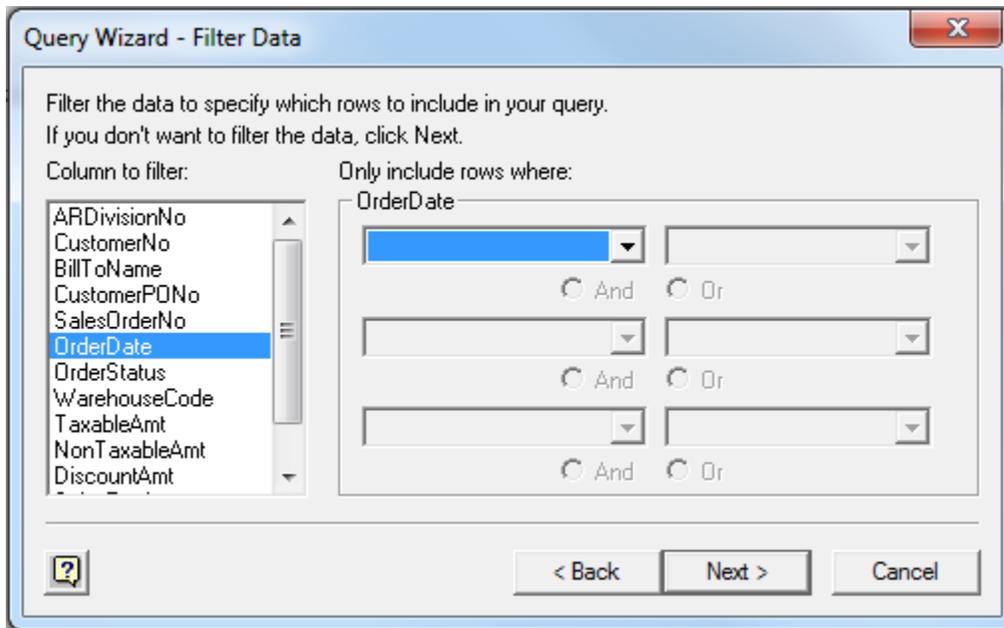
- Select the Sage 100 Database and enter your User Logon and Password; Click the OK button



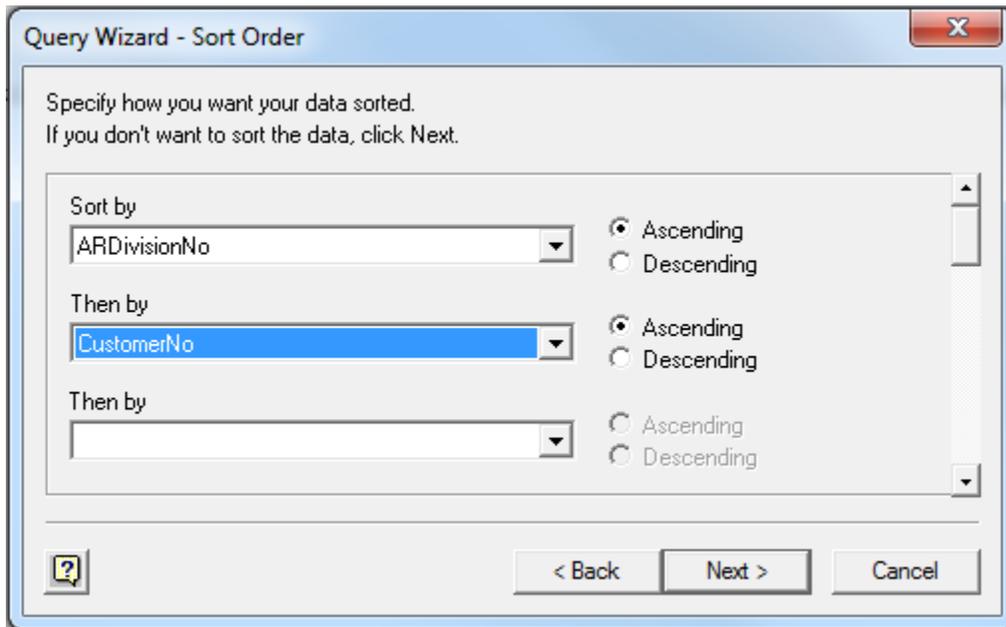
- Select the columns to include in the query; scroll to locate the SO\_SalesOrderHistoryHeader table and Click the '+' sign to list the columns
- Select the SalesOrderNo column and Click the Add  button to include the column in the query
- Locate the OrderDate, OrderStatus, ARDivisionNo, CustomerNo, BillToName, CustomerNo, WarehouseCode, DiscountAmt, TaxableAmt, NonTaxableAmt, SalesTaxAmt and FreightAmt
- Use the Up  and Down  arrows to change the order of the columns



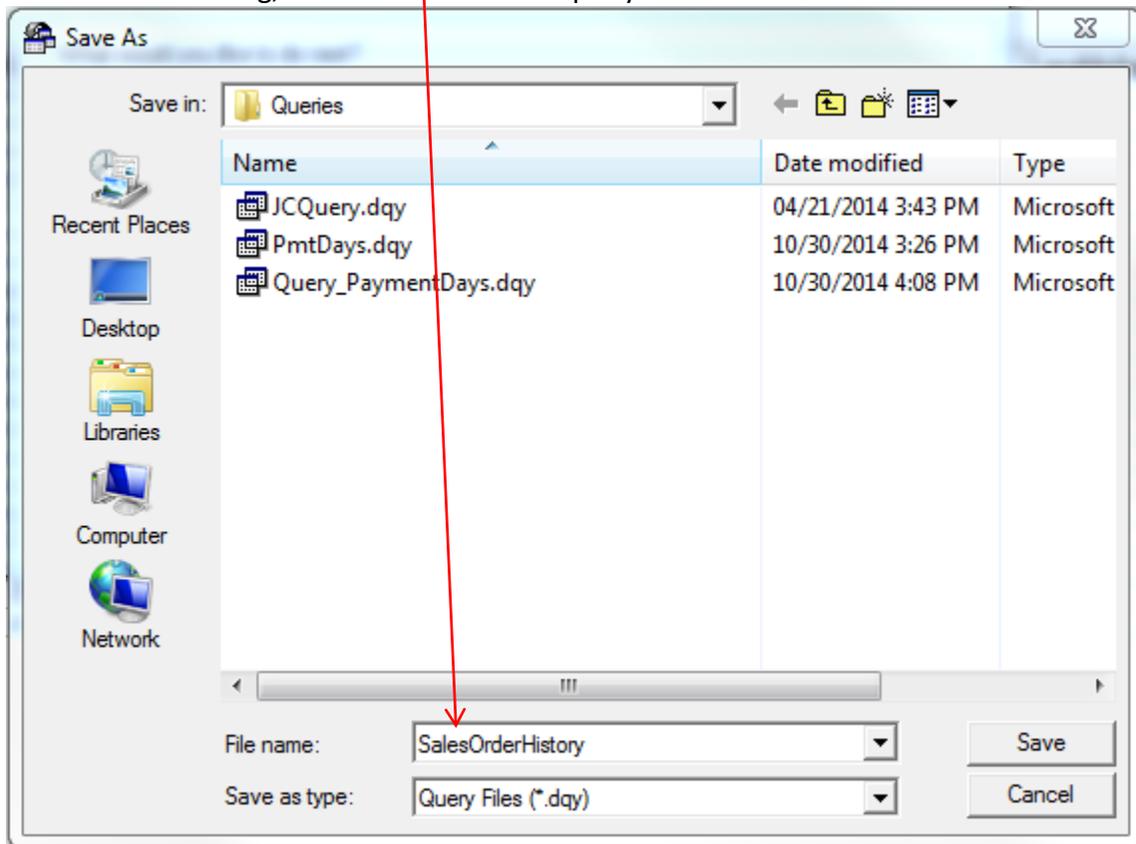
- Click the Next  button
- Add up to three filters to specify the data to include in the query; if there are no filters OR when finished, Click the Next  button

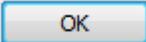


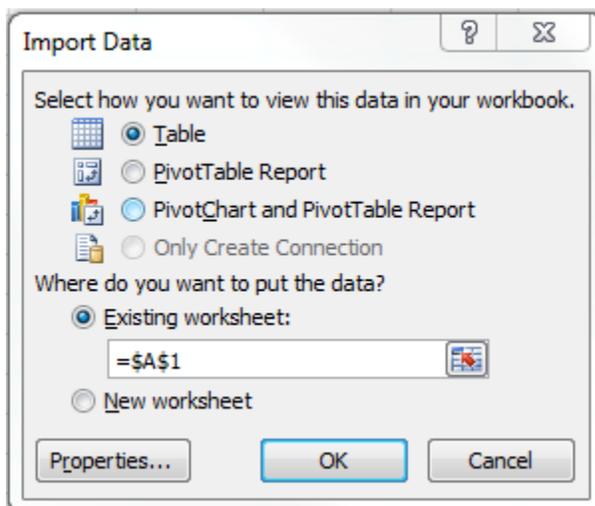
- Add up to three Sort Columns; if there are no Sort Columns OR when finished, Click the Next  button



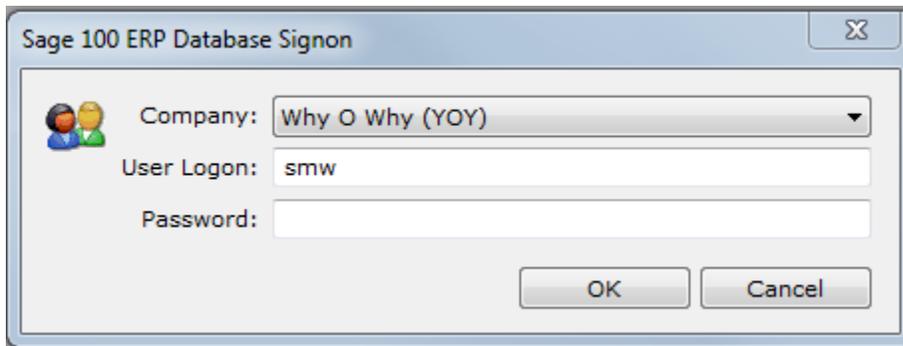
- On the final dialog, select to 'Return Data to Microsoft Excel' OR 'View data or edit query in Microsoft Query'
- Click the Save Query...  button to run the query in the future
- In the Save As dialog, enter a name for the query and Click the Save  button



- On the Import Data dialog, the Table radio button should be selected and Existing worksheet for location; Click the OK  button\



- Select the Sage 100 Database and enter your User Logon and Password; Click the OK button

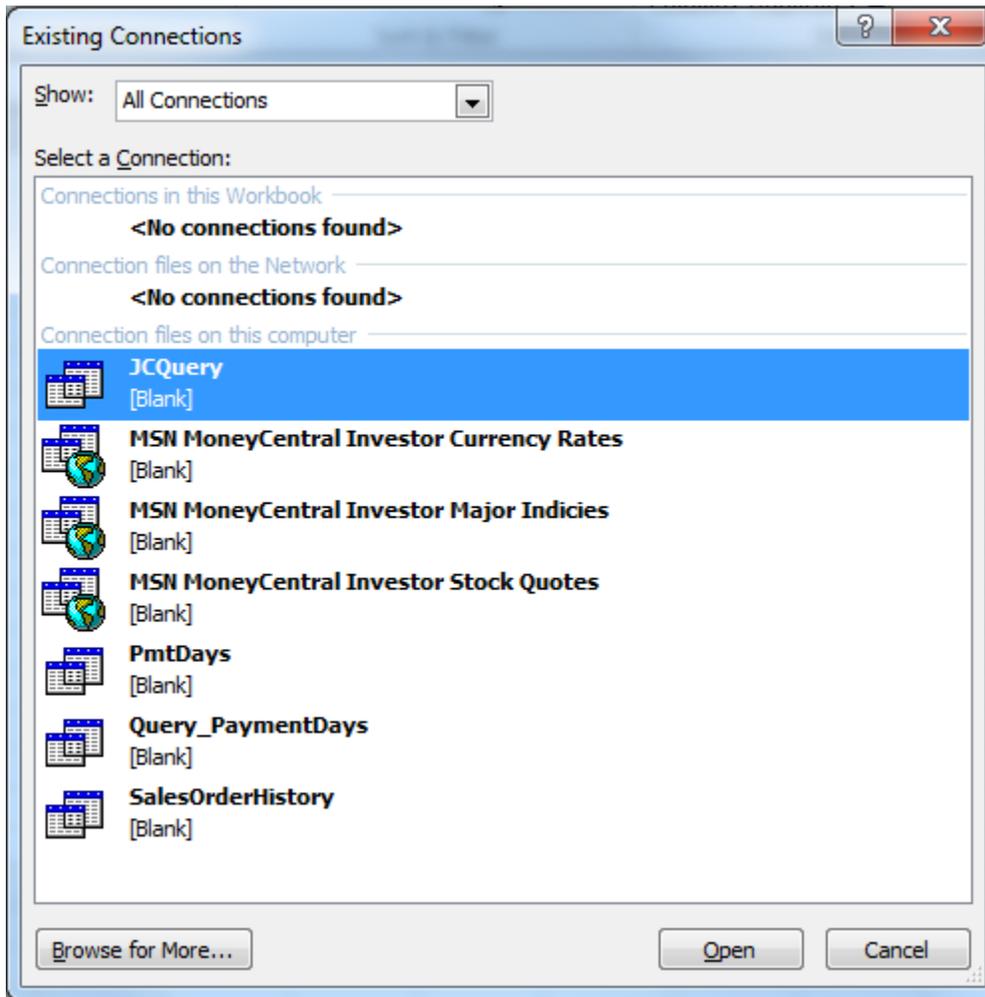


- The amount of data in your tables will determine how fast the query runs; importing data from multiple tables also impact the speed
- The data opens using the Table format; this allows for filtering the columns
- Cells can be formatted based upon the information in the column; for example, format number cells to two decimal places
- Add columns Table; for example, insert a column following NonTaxableAmt to sum the Taxable and NonTaxable amounts; insert a column at the end to sum the total amount for the Sales Order

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	ARDivisio	Custom	BillToName	CustomerP	SalesOrde	OrderD	OrderSt	WarehouseC	Taxable	NonTaxable	Total S	Discount	SalesTax	Freight	Total Amt
1	01	ABF	American Business Futures	0000171	05/01/2010	A	001		81.48	0.00	81.48	0.00	4.07	0.00	85.55
3	01	ABF	American Business Futur 3456	0000170	04/01/2010	C	001		0.00	407.40	407.40	0.00	0.00	0.00	407.40
4	01	ABF	American Business Futur 789	0000169	05/30/2010	C	001		0.00	130.00	130.00	0.00	0.00	0.00	130.00
5	01	ABF	American Business Futur VERBAL	0000115	05/18/2010	A	001		8,600.00	0.00	8,600.00	860.00	503.10	0.00	9,963.10
6	01	BRESLIN	Breslin Parts Supply	0000162	05/11/2010	A	001		422.80	0.00	422.80	0.00	21.14	10.00	453.94
7	01	HILLSB	Hillsboro Service Center	0000161	05/14/2010	A	001		80.25	0.00	80.25	12.04	3.41	0.00	95.70
8	01	HILLSB	Hillsboro Service Center	0000160	04/02/2010	C	001		897.75	0.00	897.75	134.66	39.15	0.00	1,071.56
9	01	MAVRK	Maverick Papers	0000176	05/15/2010	C	001		781.20	0.00	781.20	0.00	50.78	10.00	841.98
10	01	MAVRK	Maverick Papers 65432	0000181	04/24/2010	C	001		153.90	0.00	153.90	0.00	10.01	10.00	173.91
11	01	SHEPARD	Shepard Motorworks	0000165	05/31/2010	Z	001		0.00	858.00	858.00	0.00	0.00	0.00	858.00
12	01	SHEPARD	Shepard Motorworks	0000175	10/31/2014	C	001		0.00	47.90	47.90	0.00	0.00	0.00	47.90
13	01	SHEPARD	Shepard Motorworks 2233	0000166	05/30/2010	C	001		0.00	283,500.00	283,500.00	0.00	0.00	0.00	283,500.00
14	02	AMERCON	American Concrete Service	0000162	05/22/2010	A	001		621.00	0.00	621.00	62.10	33.53	0.00	716.63
15	02	AUTOOCR	Autocraft Accessories	0000158	05/15/2010	A	001		1,800.00	0.00	1,800.00	0.00	108.00	0.00	1,908.00
16	02	AUTOOCR	Autocraft Accessories	0000177	05/30/2010	Q	001		635.35	0.00	635.35	0.00	46.06	0.00	681.41
17	02	BAYPYRO	Bay Pyrotechnics Corp.	0000163	05/29/2010	X	001		635.35	0.00	635.35	95.30	35.10	0.00	765.75
18	02	CAPRI	Capri Sailing Ships	0000179	05/16/2010	C	002		278.31	0.00	278.31	41.75	17.15	0.00	337.21
19	02	GREALAR	Greater Alarm Company	0000167	05/31/2010	C	001		916.20	0.00	916.20	137.43	46.73	0.00	1,100.36
20	02	ORANGE	Orange Door & Window C 55555	0000164	05/31/2010	A	001		0.00	259.00	259.00	38.85	0.00	0.00	297.85
21	02	ORANGE	Orange Door & Window C 9832	0000168	05/31/2010	C	001		0.00	309.85	309.85	46.48	0.00	0.00	356.33

- Save the file to preserve the additional columns; once re-opened, it can be refreshed to include changes to the data

- To run the query again, go to the Data Tab -> Get External Data -> Existing Connections; select the Query from the list



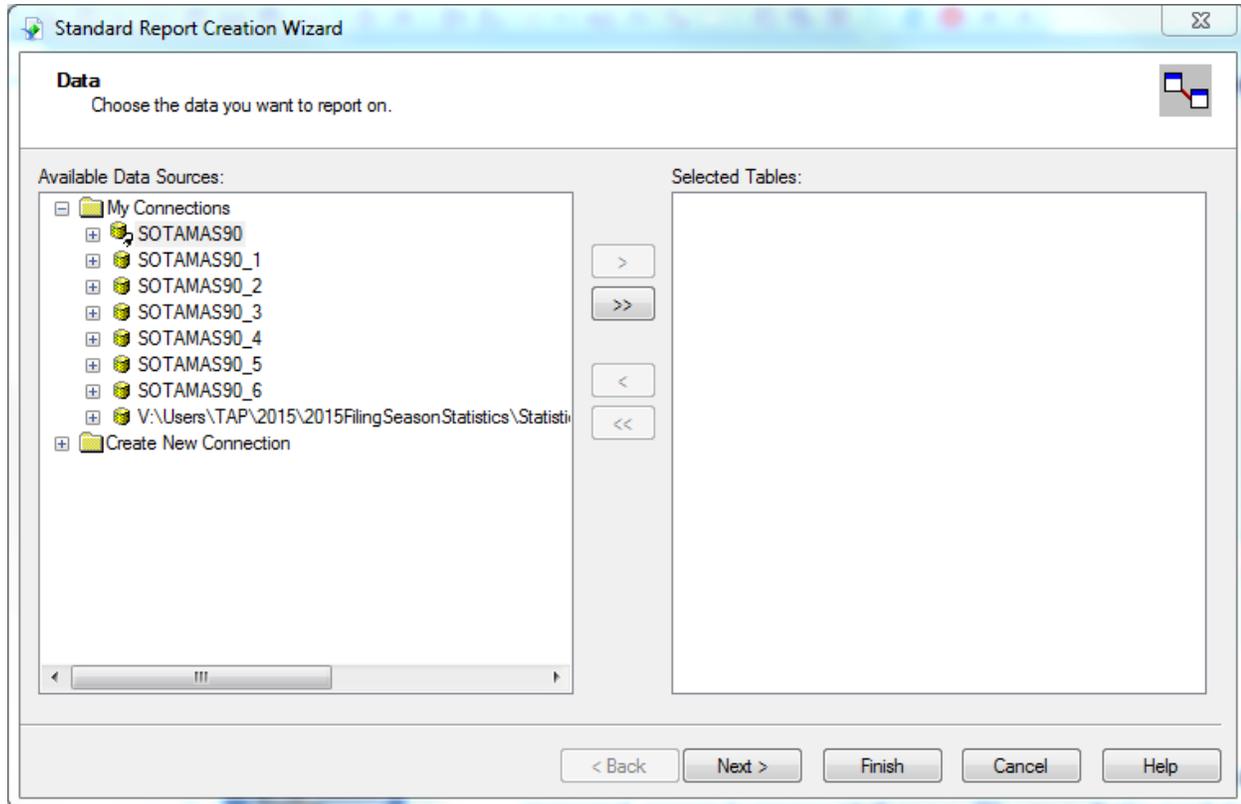
- Click the Open Open button to logon and open in Excel; the query will not include any columns that were added or cell formatting

## CRYSTAL REPORT

Create a Crystal Report to print data or export data to Excel from your Sage 100 Database

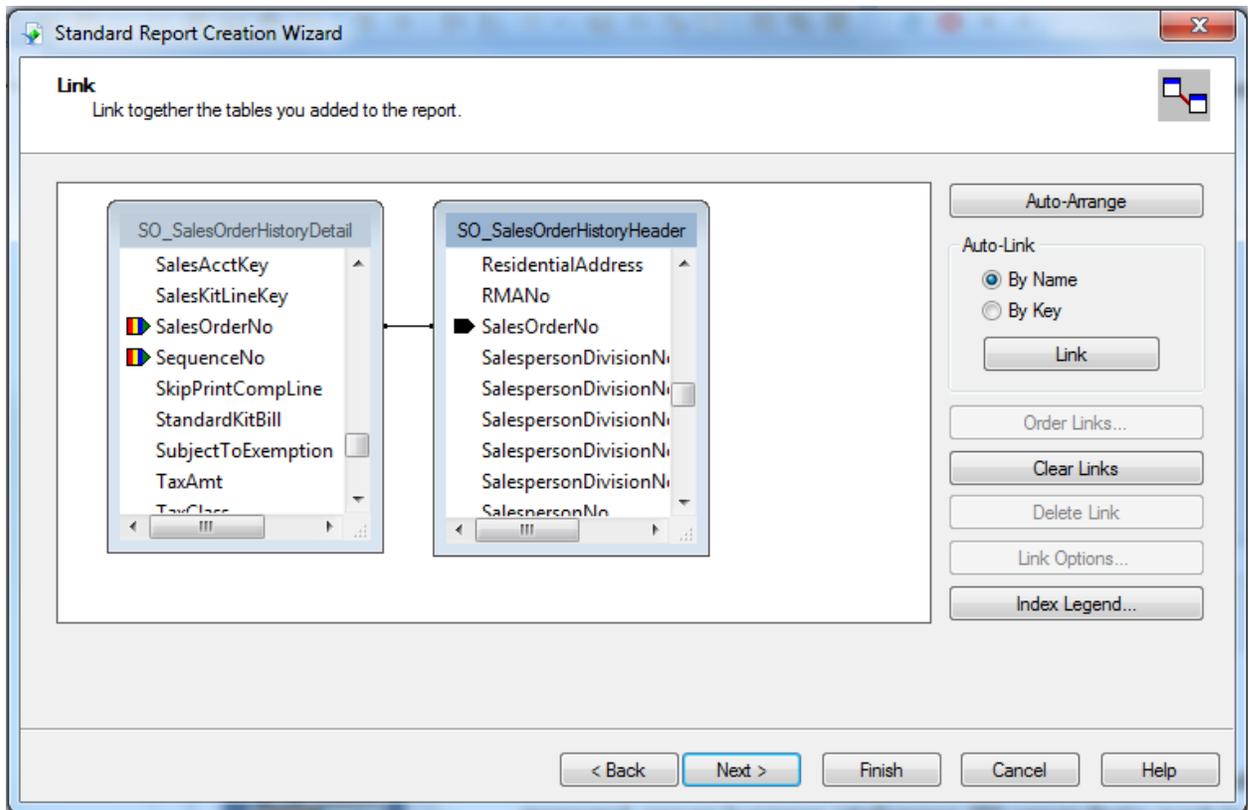
**IMPORTANT NOTE:** Crystal Reports must be installed on the workstation where the report will be designed.

To create a new Crystal Report: Open Crystal Report and select File -> New -> Standard Report to launch the Standard Report Creation Wizard Data Window:



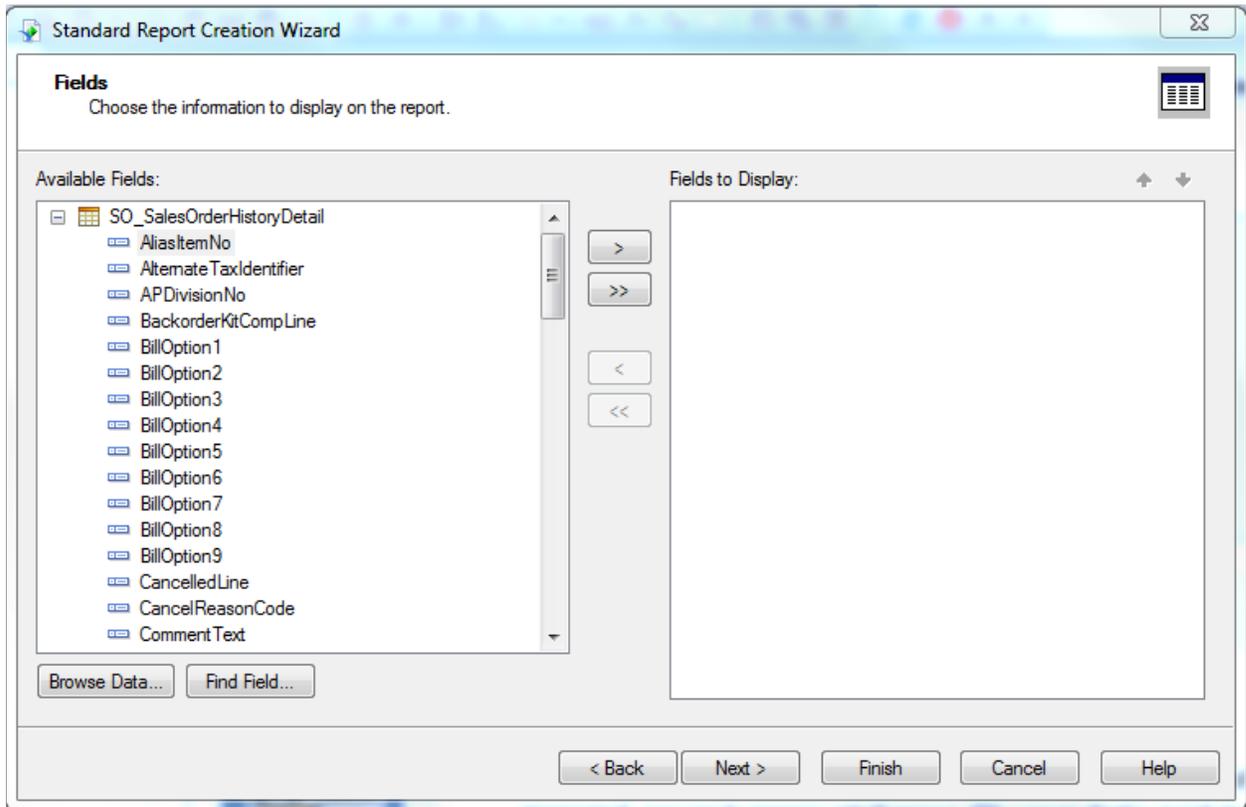
- Select an Available Data Source OR Create New Connection
- To use an Available Data Source, expand the '+' sign preceding the Connection Name to display the tables
- Scroll to locate the SO\_SalesOrderHistoryDetail table and Click the Add  button to move the table to the 'Selected Tables:' pane
- Repeat this for the SO\_SalesOrderHistoryHeader table

- Click the Next button to open the Link Window:



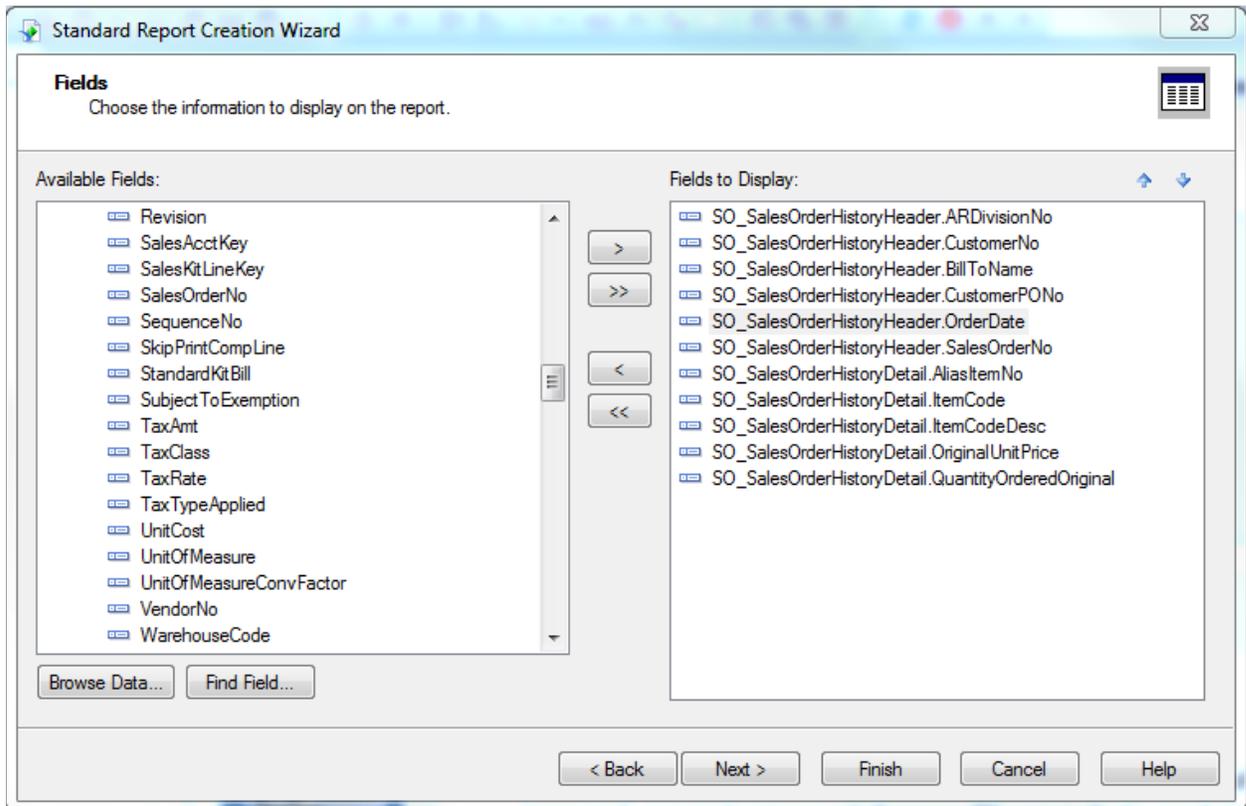
- Links can be removed and modified, if needed; usually the defaults are correct

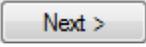
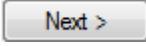
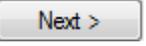
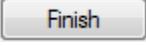
- Click the Next  button to open the Fields Window; this lists the fields in each of the selected tables:



- Scroll down and Click the '+' sign preceding the SO\_SalesOrderHistoryHeader table
- Locate the ARDivisionNo and Click the Add  button to move the field to the 'Fields to Display:' pane; repeat this for the BillToName, CustomerNo, CustomerPONo, OrderDate and SalesOrderNo
- Scroll back up to the SO\_SalesOrderHistoryDetail table
- Locate the AliasItemNo and Click the Add  button to move the field to the 'Fields to Display:' pane; repeat this for ItemCode, ItemCodeDesc, OriginalUnitPrice and QuantityOrderedOriginal

- Use the Up and Down arrows to re-arrange the order of the Fields; the completed window will look like:



- Click the Next  button to move to the Grouping window; if needed, select a Report Field or a field in one of the tables as a grouping
- Click the Next  button to move to the Record Selection window; if needed, select a field to filter the data
- Click the Next  button to pick from a list of available Templates
- Click the Finish  button to open the report in the Preview Tab

07/13/2015

ARDivis	CustomerNo	BillToName	CustomerPO	Order#	SalesOn	AliasItemNo	ItemCode	ItemCodeDesc	OriginalUn	QuantityOrdere
02	JELCCO	Jelloo Paeking	VERBAL	05/01/	0000111		GB-EL04MS-25	RJ-11 4 WIRE M	4.61	15.00
02	JELCCO	Jelloo Paeking	VERBAL	05/01/	0000111		GB-EQ380-10-M	CENTRONICS C	33.47	5.00
02	JELCCO	Jelloo Paeking	VERBAL	05/01/	0000111		GB-EQ380-10-M	CENTRONICS C	32.09	10.00
02	JELCCO	Jelloo Paeking	VERBAL	05/01/	0000111		GB-EQ380-5-MF	CENTRONICS C	28.13	10.00
02	JELCCO	Jelloo Paeking	VERBAL	05/01/	0000111		GB-EQ380-5-MN	CENTRONICS C	28.13	10.00
02	JELCCO	Jelloo Paeking	VERBAL	05/01/	0000111		GB-MD791	MODEM 9600 F	1,895.25	5.00
02	CUSTOM	Custom Craft Prc	VERBAL	05/03/	0000112		GLOB-V-3060-2	GLOBE FOLDIN	89.60	2.00

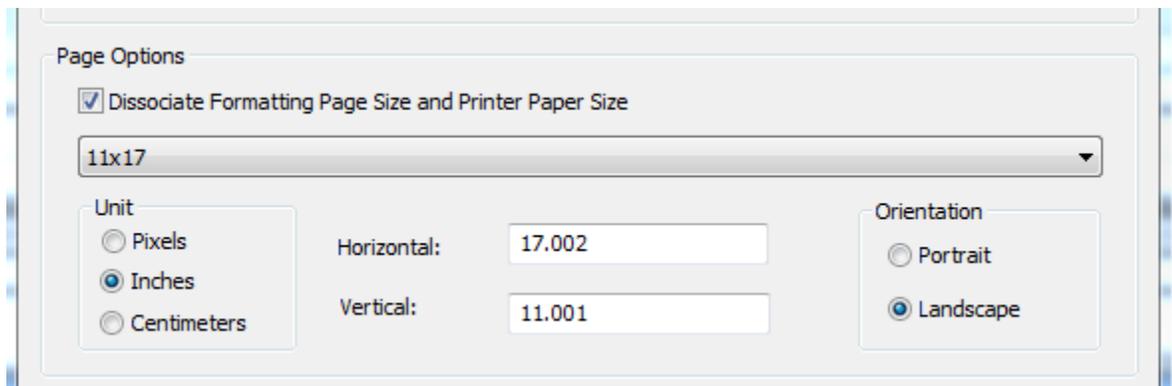
- Click the Design Tab to manipulate the information
  - Remove the Tab stops by selecting each one and moving it off the design surface
  - Select File -> Page Setup to change from the default page size to a Landscape Orientation
  - Select the 'Formula Fields' in the Field Explorer and Click the New  button to add a formula
  - Enter a 'Formula Name'; in this example, we will calculate the ExtensionAmt for each item

- Click the OK button to open the Formula Workshop
  - Click the '+' sign preceding the Report Fields and locate the 'OriginalUnitPrice'
  - Drag it to the formula pane
  - Enter a space, the times symbol (\*) and another space
  - Locate the QuantityOrderedOriginal and drag it to the formula pane
  - Click the Save and close  Save and close button
- Drag the ExtensionAmt field onto the Design canvas



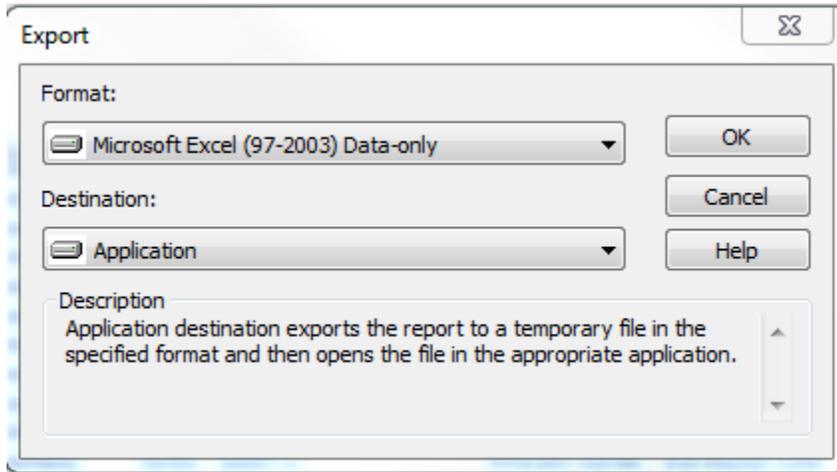
Print Date	AR Divs	Customer No	Bill To Name	Customer PO	Order	Sales O	Alias Item No	Item Code	Item Code Desc	Original U	Quantity Order	Extension Amt

- Move and resize the fields to accommodate the data in the field
- The default page size is 8 ½ X 11, Portrait Orientation
  - Select File -> Page Setup to change the Orientation to Landscape
  - If the report will be exported to Excel, you will not lose information contained in the field; it is truncated in the Preview only
  - If the report will be exported to Excel, you can Click the down-arrow to change the Page Options to 11 X 17 make it easier to create your report

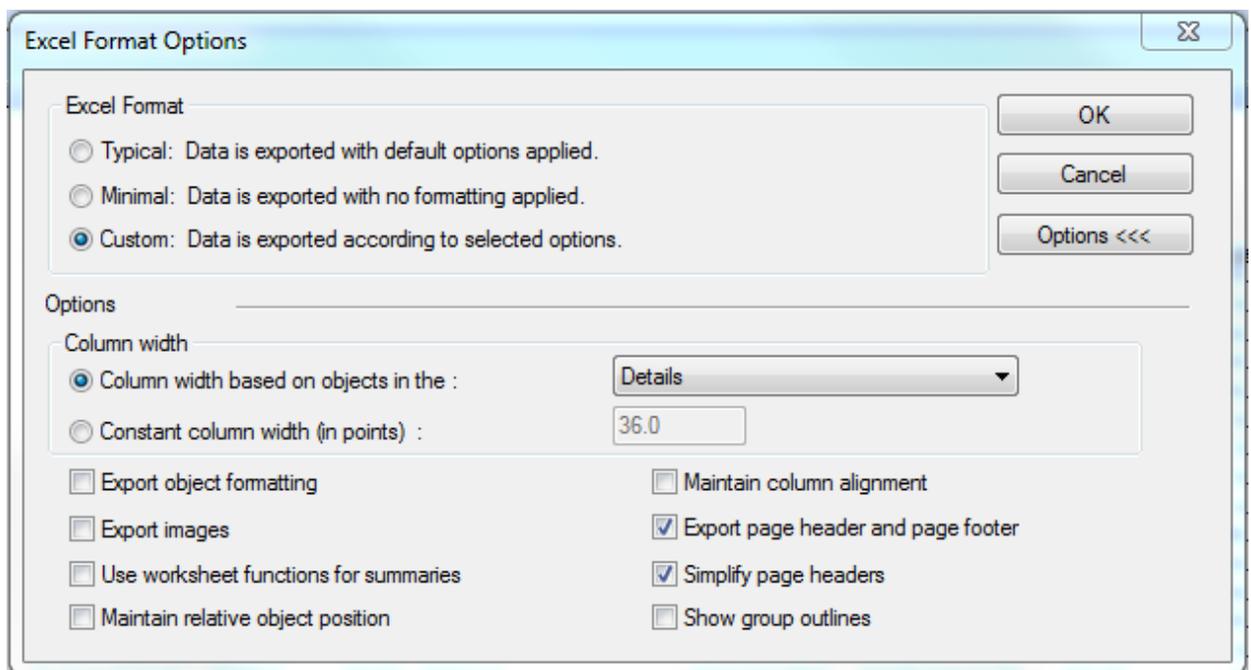


- Click the Preview  button to Preview the report
  - Select the Company and Signon using your Sage 100 credentials
  - Preview is important to make sure that the report runs without errors, contains the information you were expecting, contains the correct fields, columns widths are correct if you are not exporting to Excel
  - The data can be exported to Excel from the Preview Tab
  - Click the Export  button

- On the Export dialog, change the 'Format:' to Microsoft Excel (97-2003) Data-only and the 'Destination:' to Application; Click the OK button



- On the Excel Format Options dialog, the 'Excel Format' should be Custom: and the Options should include 'Column width based on objects in the: Details'; you can elect to include or exclude the page header and footer and simply page headers; Click the OK button



- The report will open in Excel where you can further customize it to meet your needs; it is important to remember that any customization in Excel will have to be re-created each time you export the report

	ARDivis	Custom BillToName	Custom OrderDescription	SalesOrder	AliasSite	ItemCode	ItemCode	Original	Quantity	ExtensionAmt
2	02	JELLCC	Jellco P	VERBA #####	0000111	GB-EL0	RJ-11 4	4.61	15.00	69.15
3	02	JELLCC	Jellco P	VERBA #####	0000111	GB-EQ:	CENTRI	33.47	5.00	167.35
4	02	JELLCC	Jellco P	VERBA #####	0000111	GB-EQ:	CENTRI	32.09	10.00	320.90
5	02	JELLCC	Jellco P	VERBA #####	0000111	GB-EQ:	CENTRI	28.13	10.00	281.30
6	02	JELLCC	Jellco P	VERBA #####	0000111	GB-EQ:	CENTRI	28.13	10.00	281.30
7	02	JELLCC	Jellco P	VERBA #####	0000111	GB-MD:	MODEM	#####	5.00	#####
8	02	CUSTO	Custom	VERBA #####	0000112	GLOB-\	GLOBE	89.60	2.00	179.20
9	02	CUSTO	Custom	VERBA #####	0000112	GLOB-\	GLOBE	110.73	5.00	553.65
10	02	CUSTO	Custom	VERBA #####	0000112	GLOB-\	GLOBE	131.00	4.00	524.00
11	02	CUSTO	Custom	VERBA #####	0000112	PFS-00	EIA RS:	0.18	#####	180.00

- Click File; if Save Data with Report is preceded by a checkmark, Click the option to remove the checkmark; Click File -> Save As and navigate to a location to Save the Report Template so that you can run it again; if you will be adding the report to a Custom Report menu, save the report to the \MAS90\Reports folder