

IS11: How to use Excel Pivot tables, and access DB2 tables from Excel

March, 2004

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Take Note!

Before using this report be sure to read the general information under "Notices".

First Edition, March 2004

This edition name applies to Version 1.0 of the *document IS11: How to use Excel Pivot tables, and access DB2 tables from Excel* and to all subsequent versions and modifications until otherwise indicated.

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Notices

This document shows how you can use the facilities available with an Excel spread sheet to display DB2 in pivot tables. This technique is useful for displaying WBIMB statistics and accounting.

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Introduction

There are many ways to display data from DB2 tables. For example issuing commands from a DB2 command interface and using products like QMF. Spread sheets can also be used to access data, and this document describes how you can use an Excel spreadsheet to extract data from DB2 tables, and displays it in a table. Other spreadsheets usually have similar facilities.

The layout of the main part of this document is as follows. Each page has

- a before screen print of the spread sheet
- instructions on what to do
- an after screen print of the spread sheet
- comments on the change

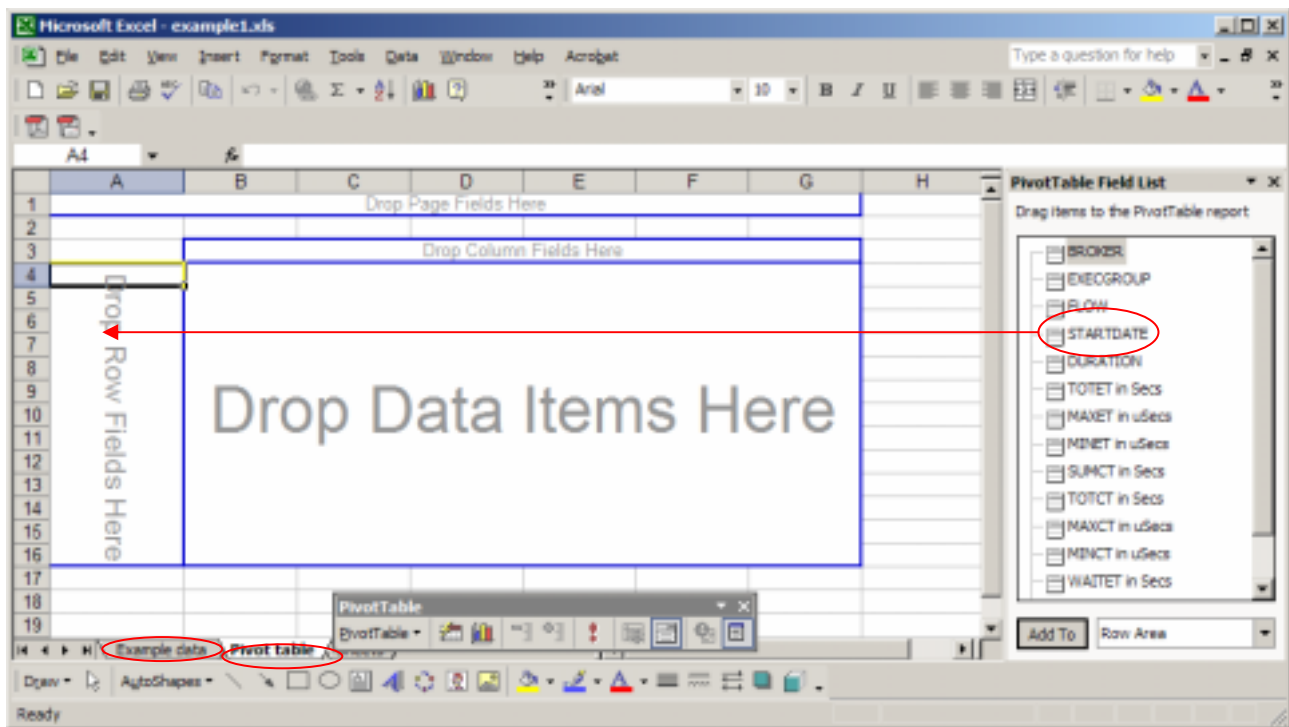
The first part of this document uses spread sheets with data in them. The last section shows how to get data from DB2 tables. This is because accessing DB2 data requires a one time setup and possible installation of additional software into Excel

Three spread sheets are used

1. Example1.xls shows basic usage of an existing PivotTable
2. Examplea.xls shows how to create a PivotTable
3. Aw_flowstats.xls shows how to use DB2 table to display data in the PivotTable.

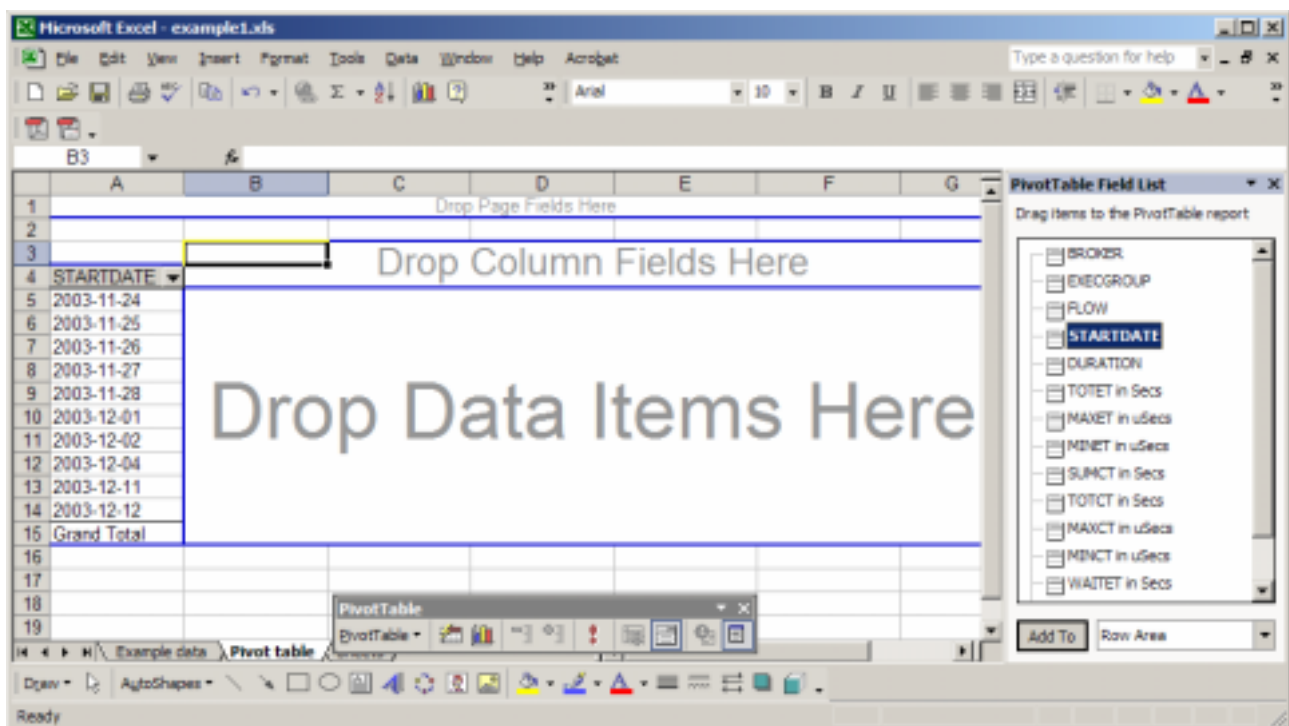
Using a pivot table

Open spreadsheet Example1.xls

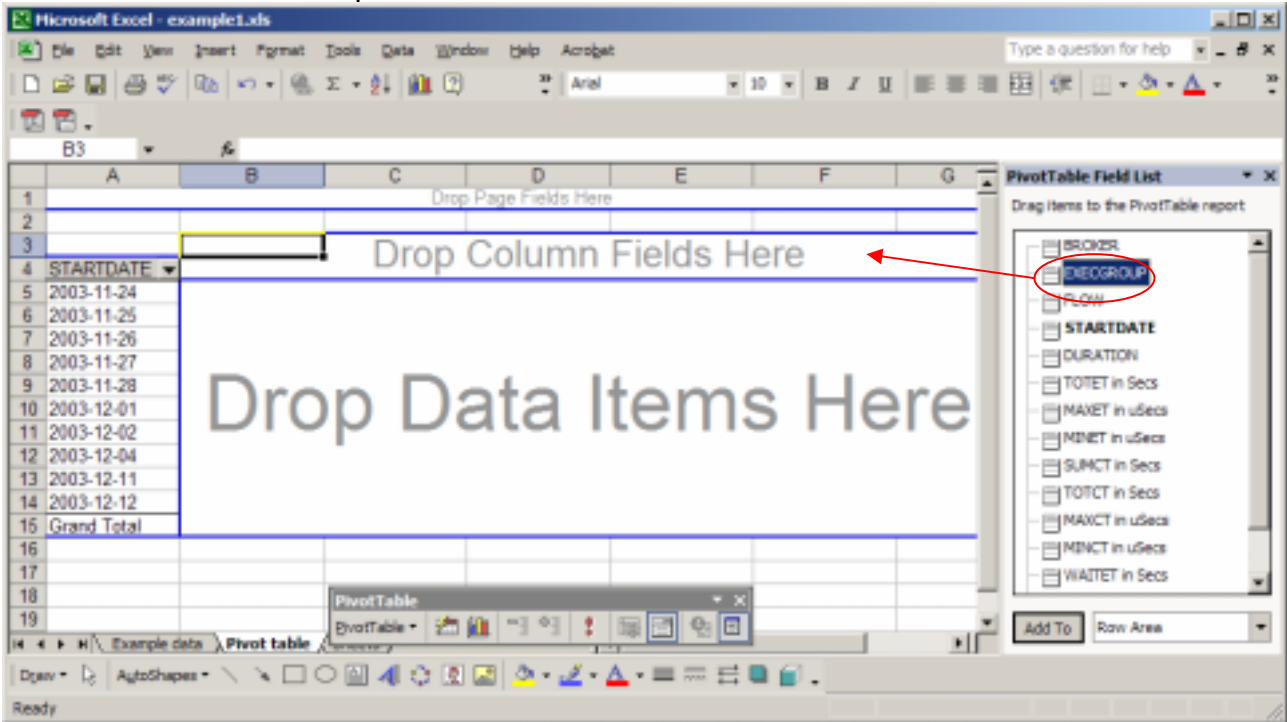


This is the initial view when you open the spread sheet.
Click on the Example data tab to show the data being used.
Click on the PivotTable tab to return to the above view.

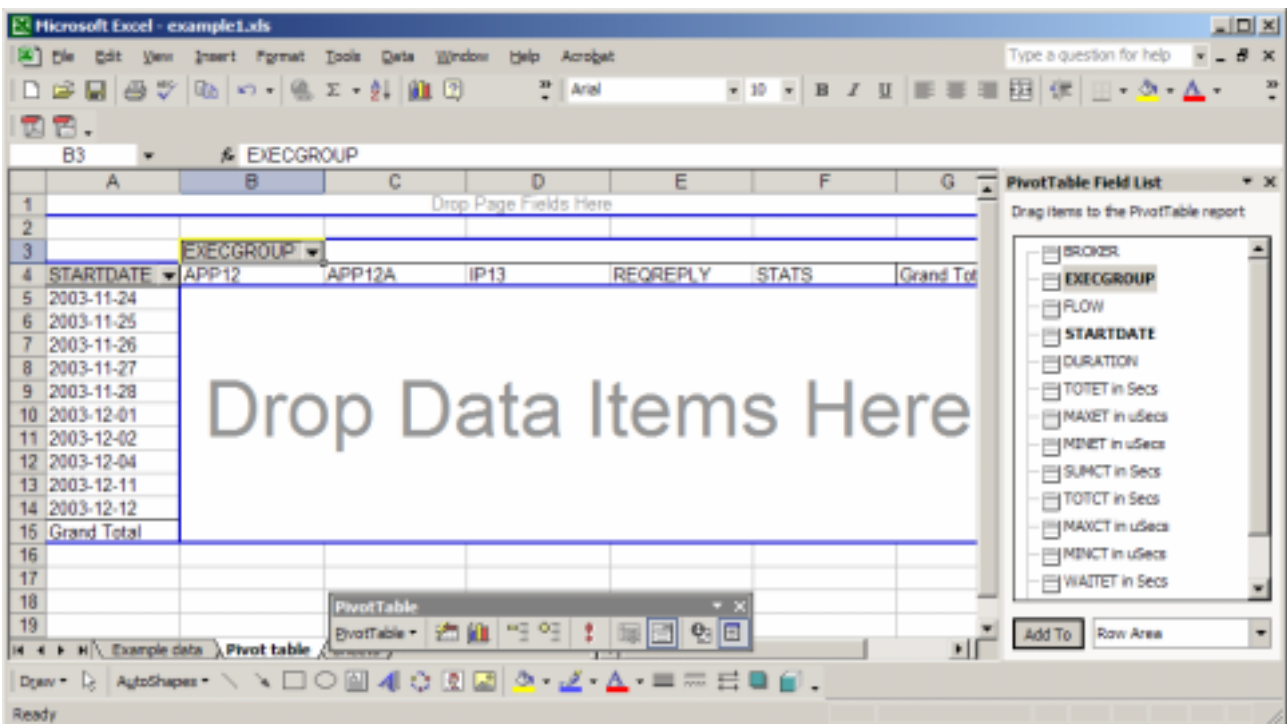
Select *STARTDATE* and drag it into the *Drop Row Fields Here* in column A.



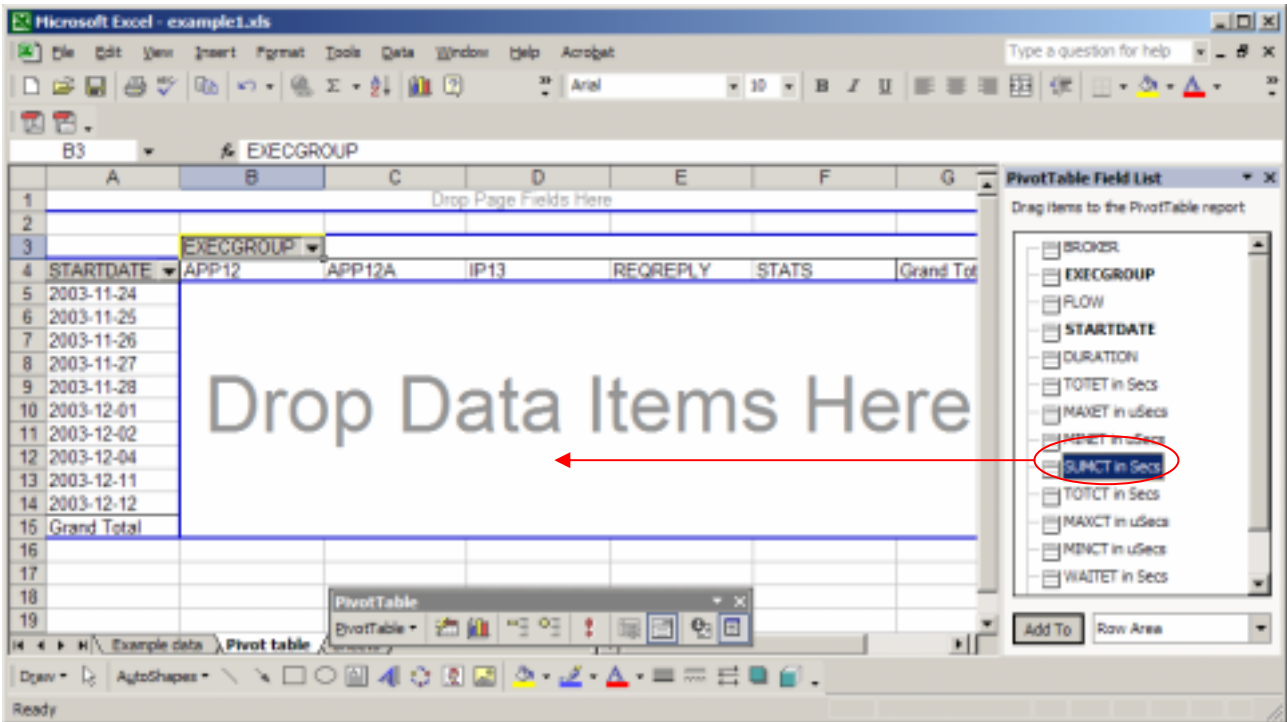
This shows all of the unique values for STARTDATE.



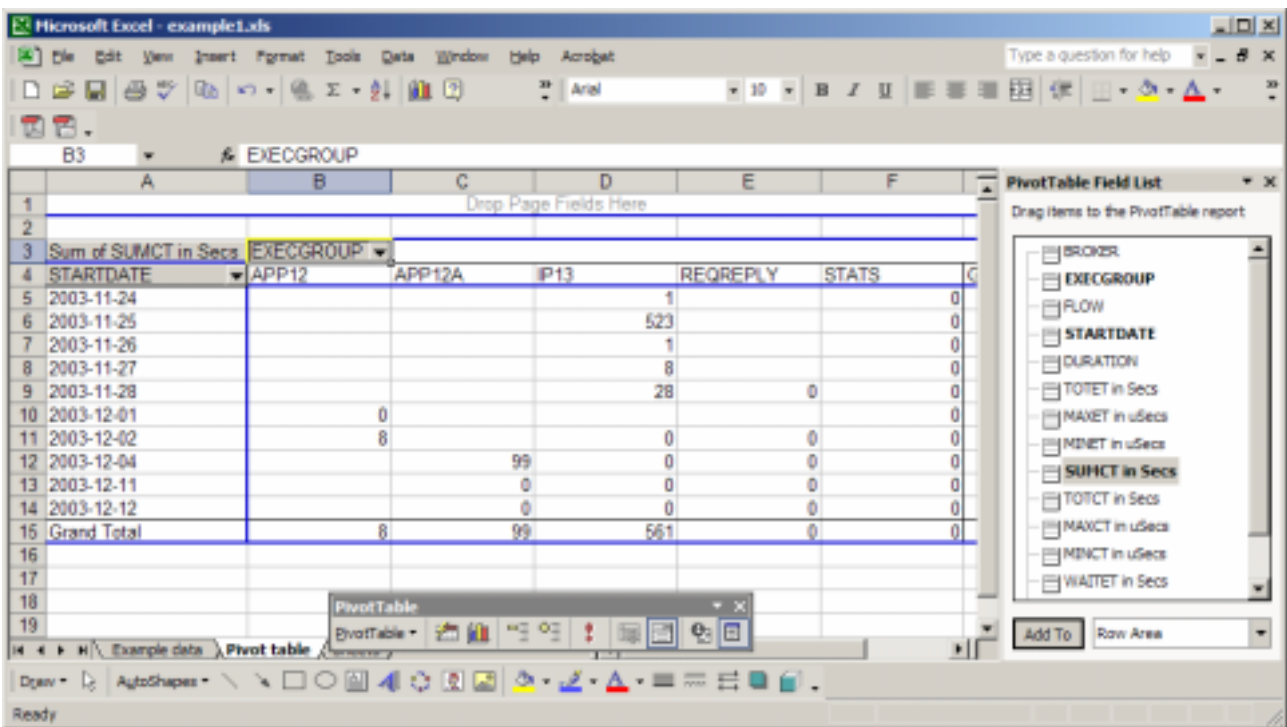
Select EXECGROUP from the PivotTable FieldList and drag it to the Drop Column Fields Here in cells B3-G4.



This displays the unique values of the execution group in row 4.



Drag *SUMCT in Secs* to the *Drop Data Items Here* in cells B5-G15.



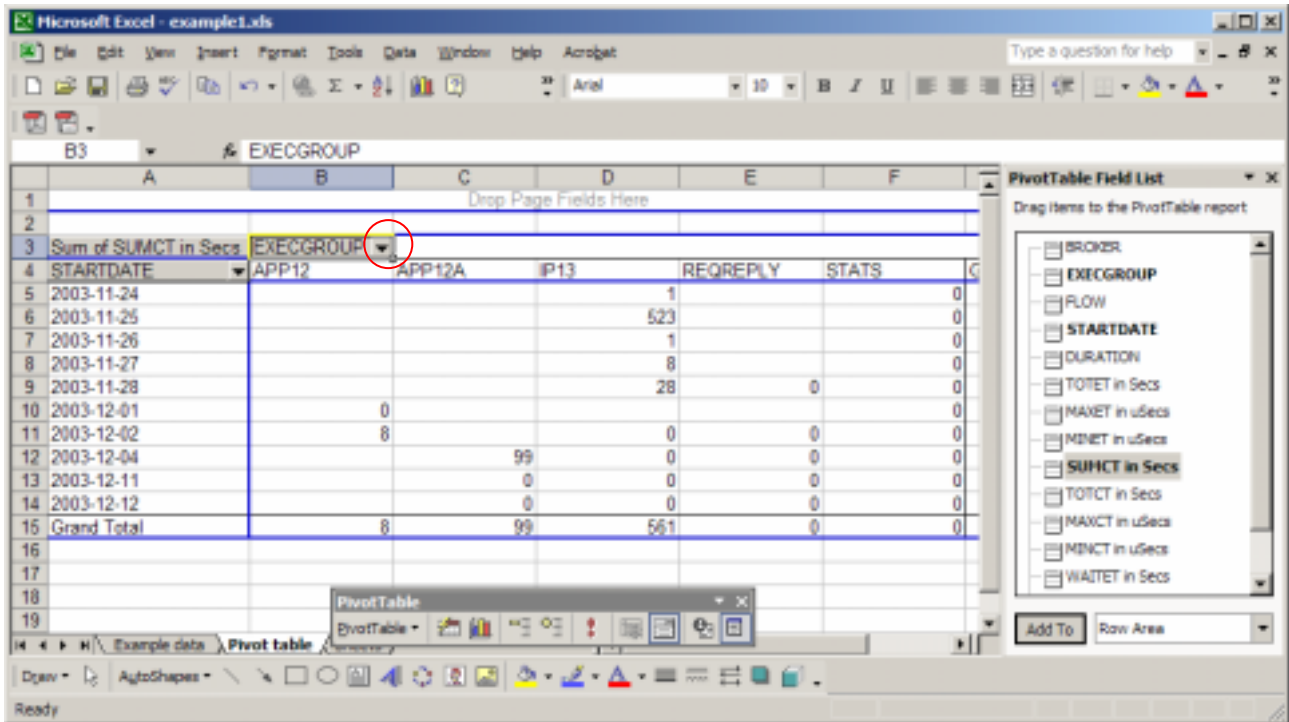
Cell A3 shows that this is the sum of the values in the main part of the table. Other options include maximum, minimum and count.

In cell D6, the value 523 is the sum of the CPU time for Execution group IP13 on 2003-11-25.

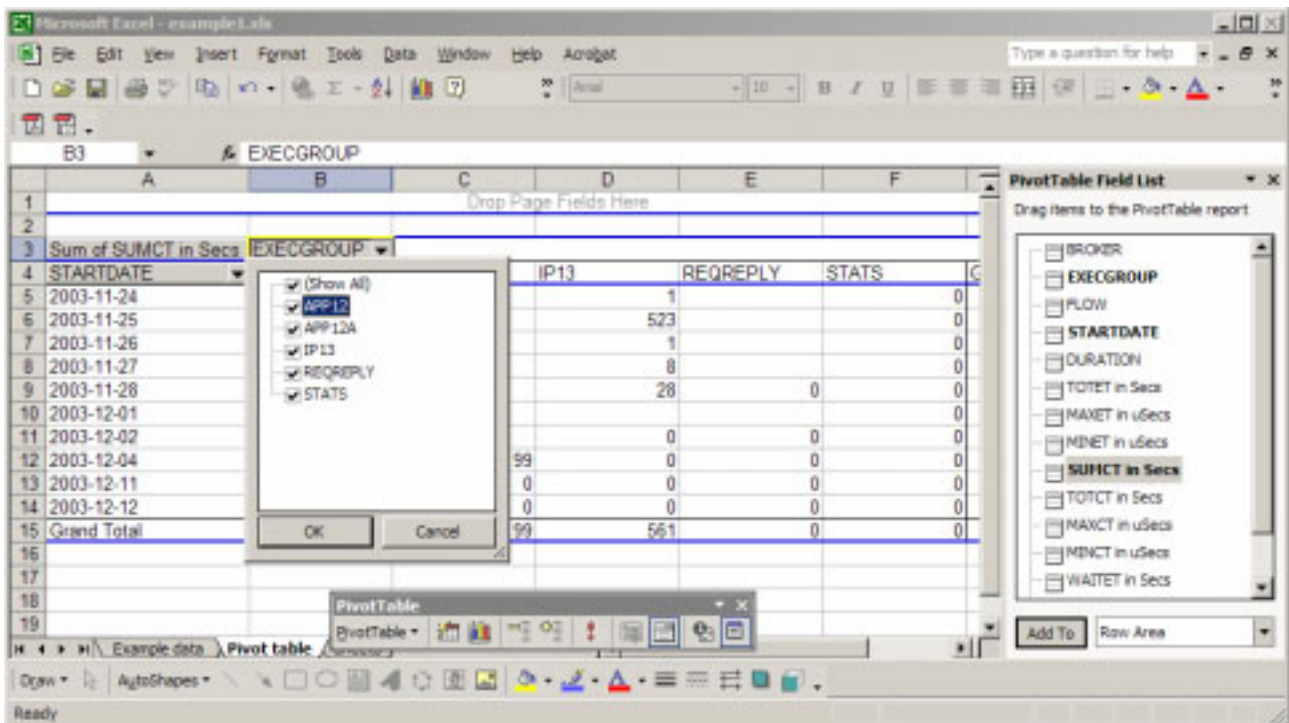
In cell D15 is the total CPU used by flow IP14 for all days.

In cell G12 is the total CPU used on 2003-12-04

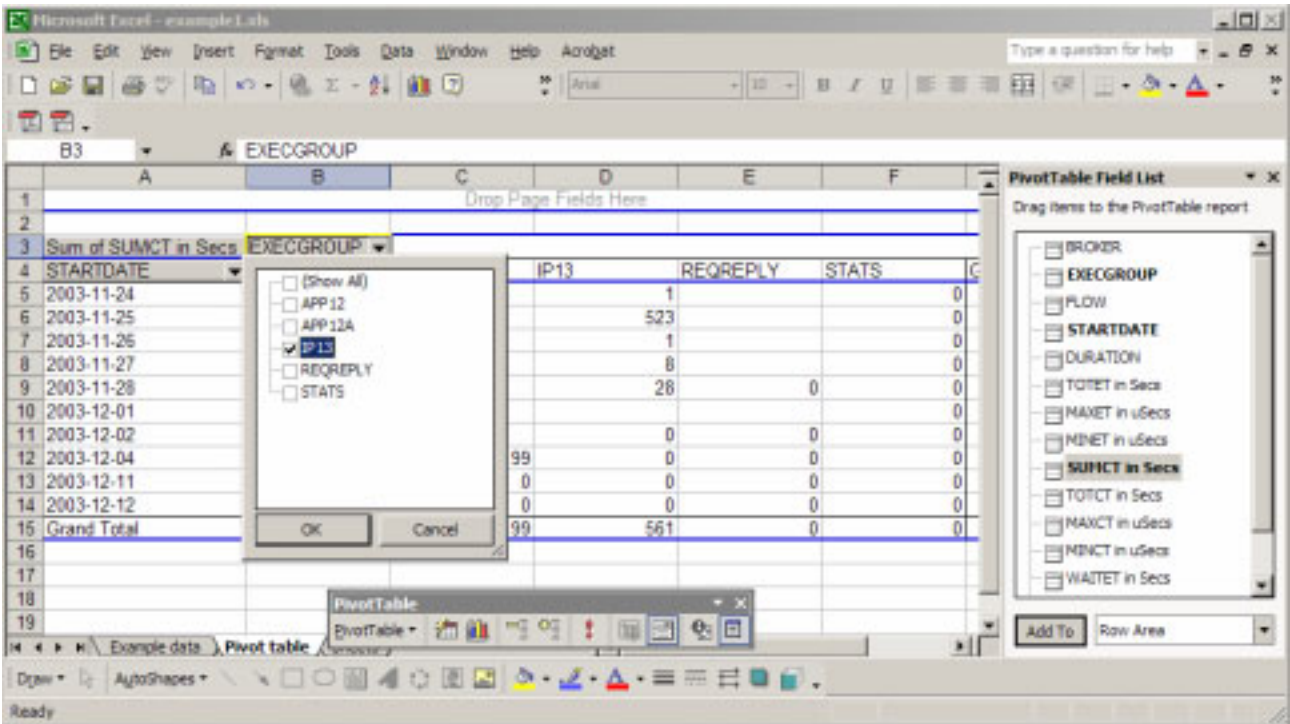
The total CPU used for all flows for all days is 668 seconds of CPU, in cell G15.



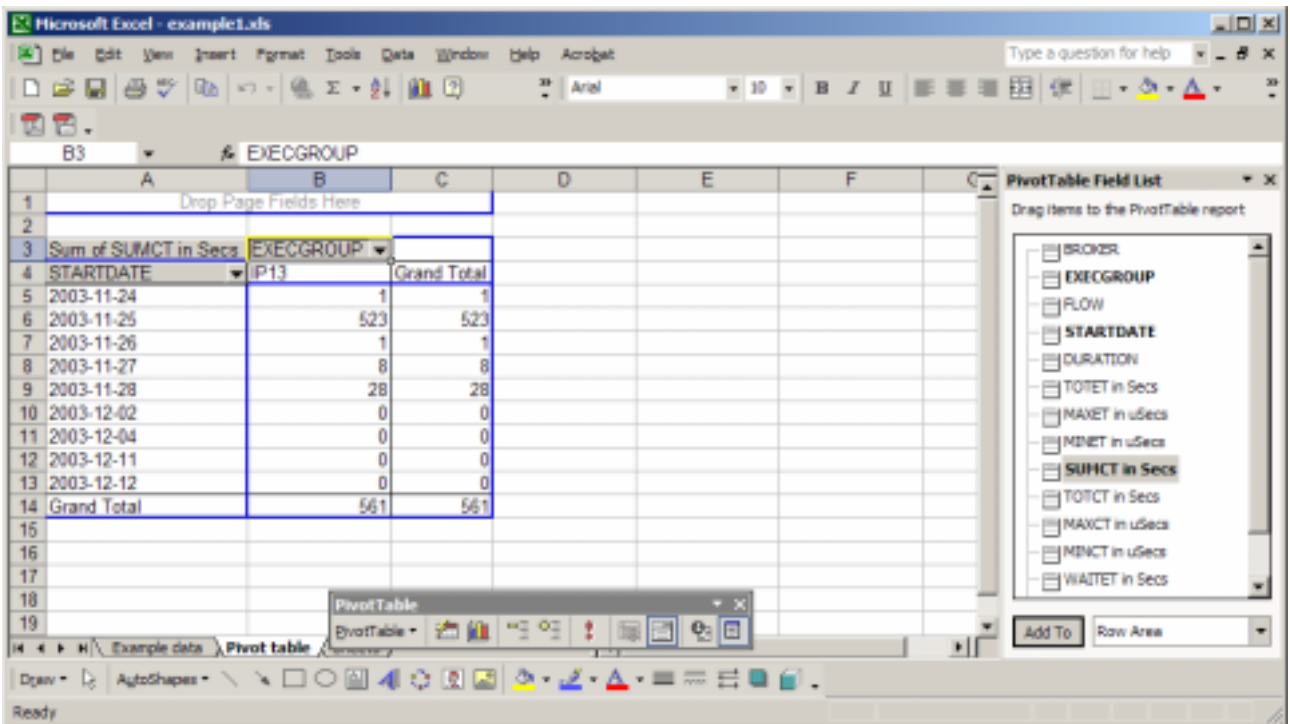
Select the pull down in cell B3.



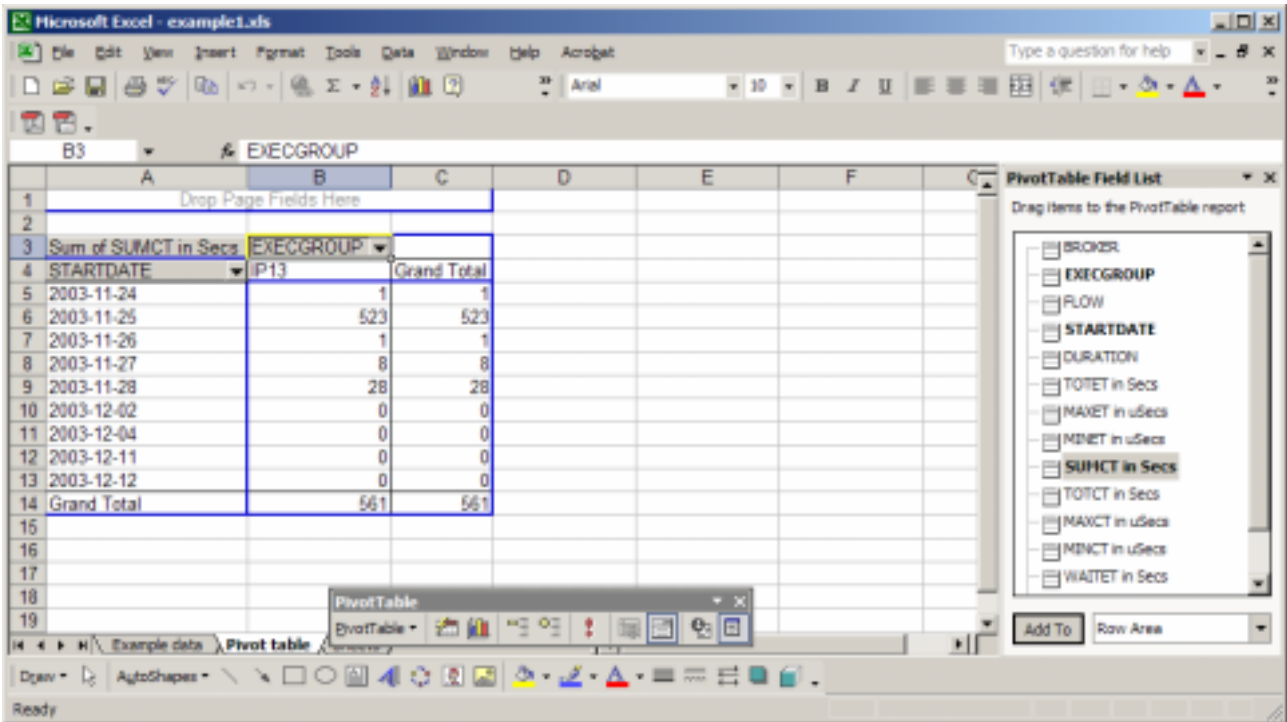
Deselect (Show all), select IP13.



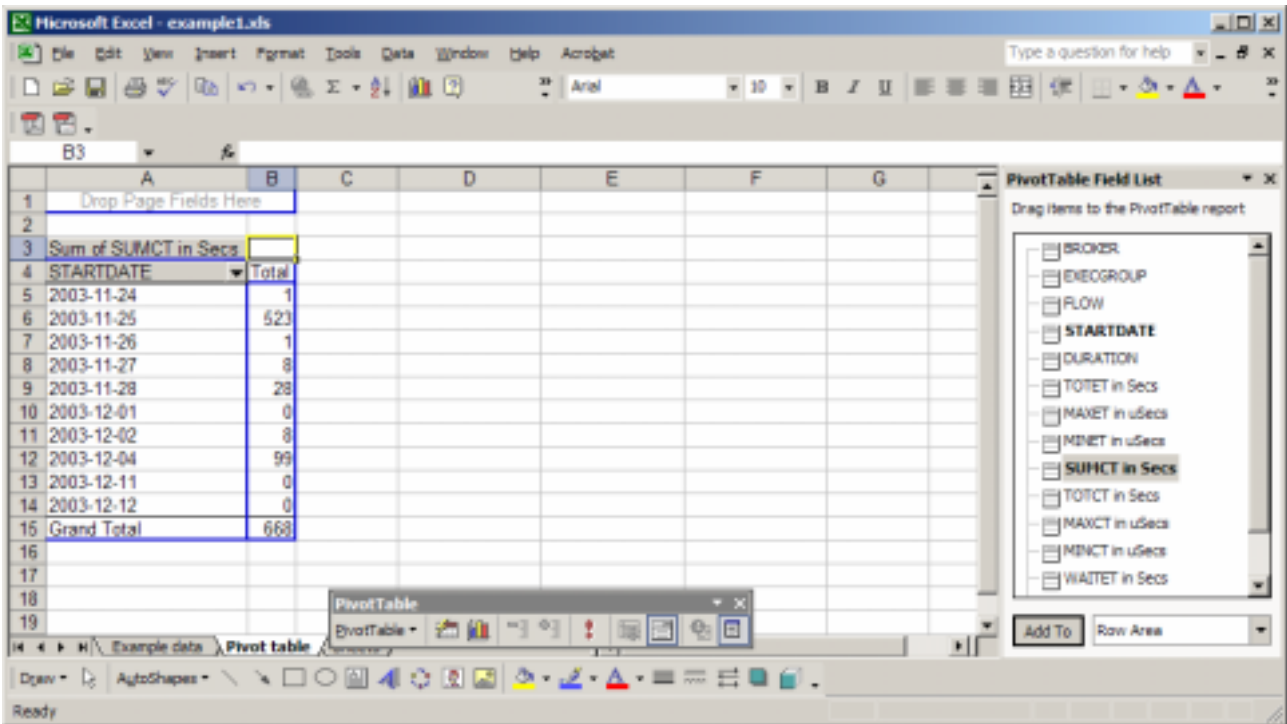
This allows you to select items from the list.
Click OK.



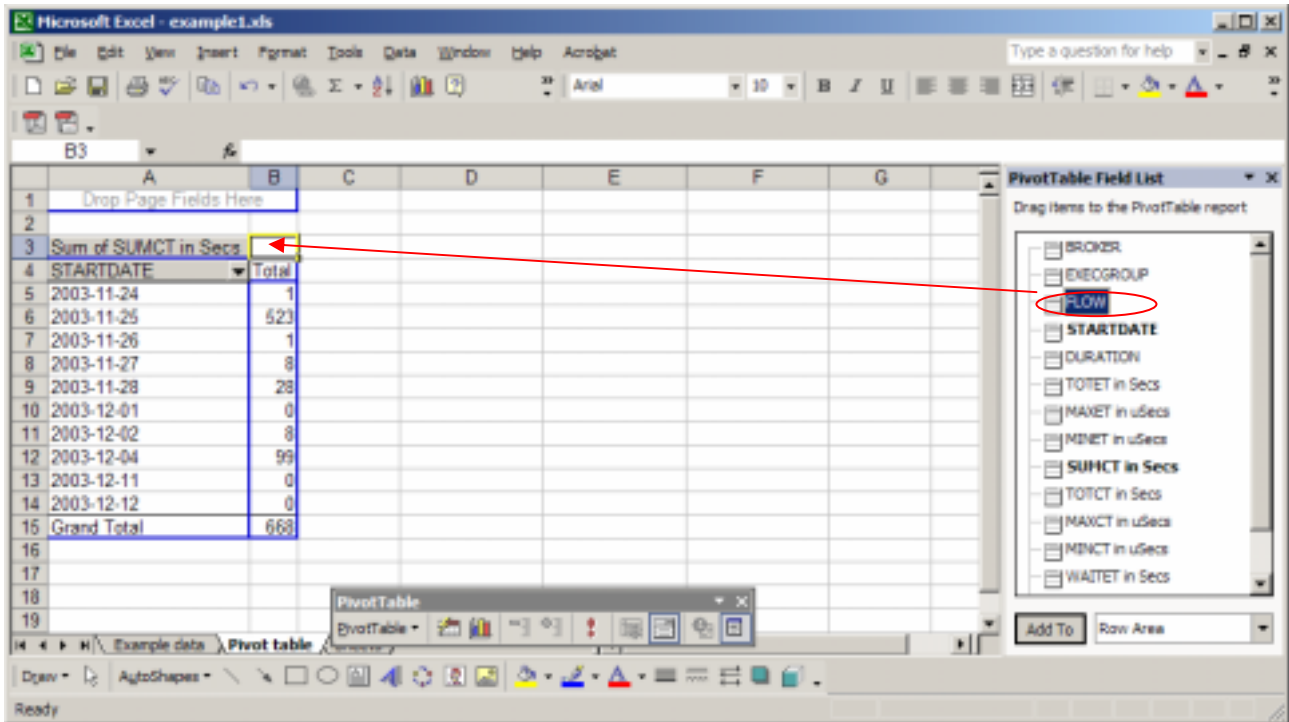
This now shows the data for only EXECGROUP IP13.



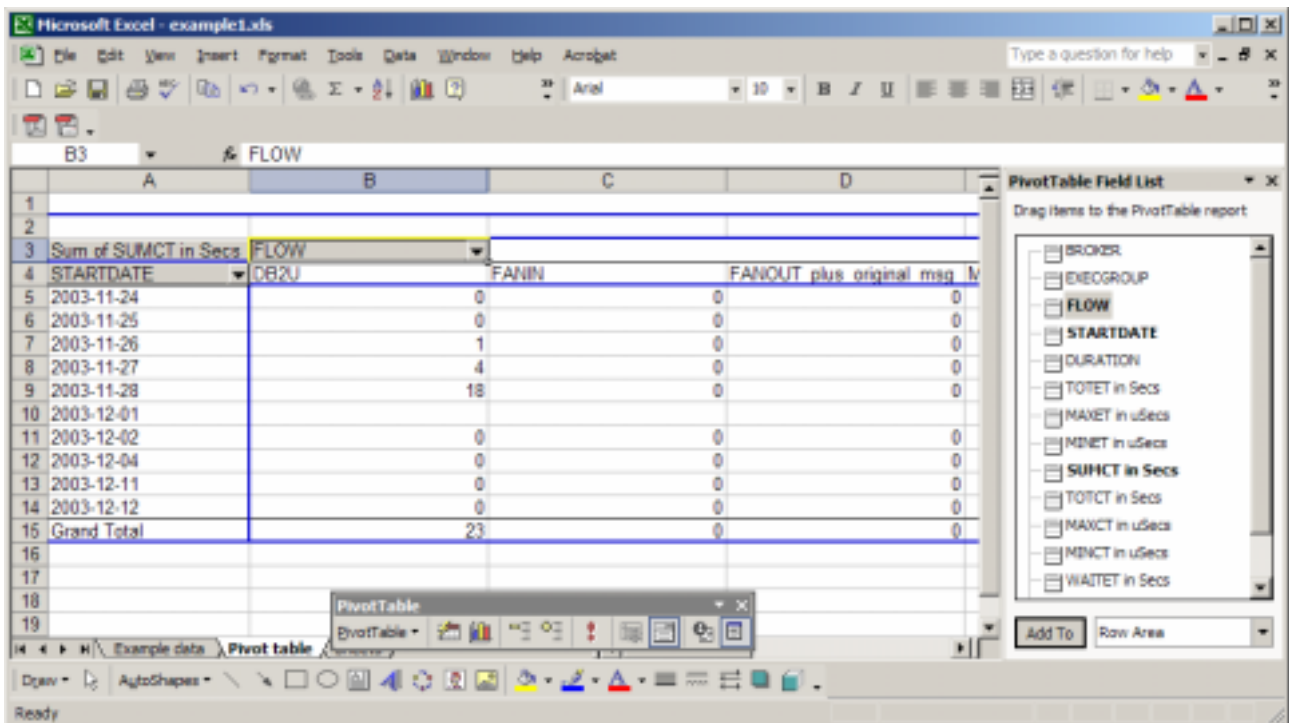
To remove EXECGROUP from the table, select and drag cell B3 to outside of the blue pivot table area.



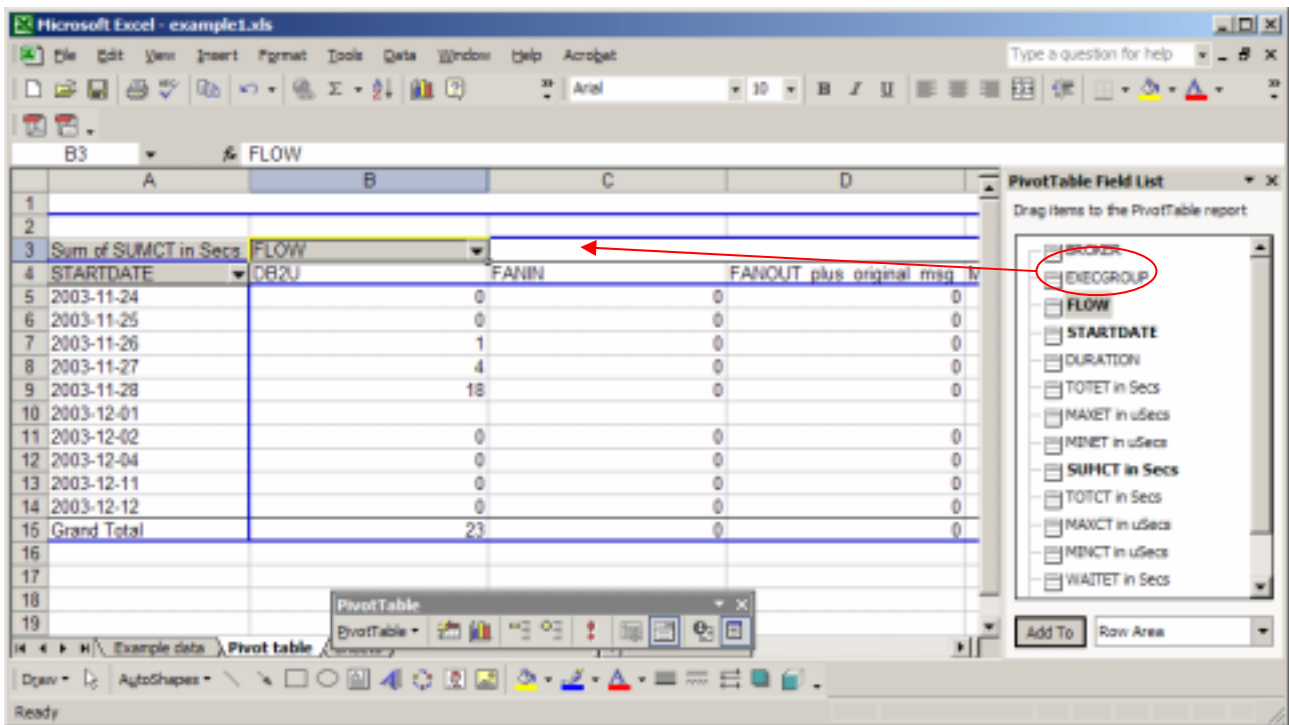
This now shows the total CPU per day.



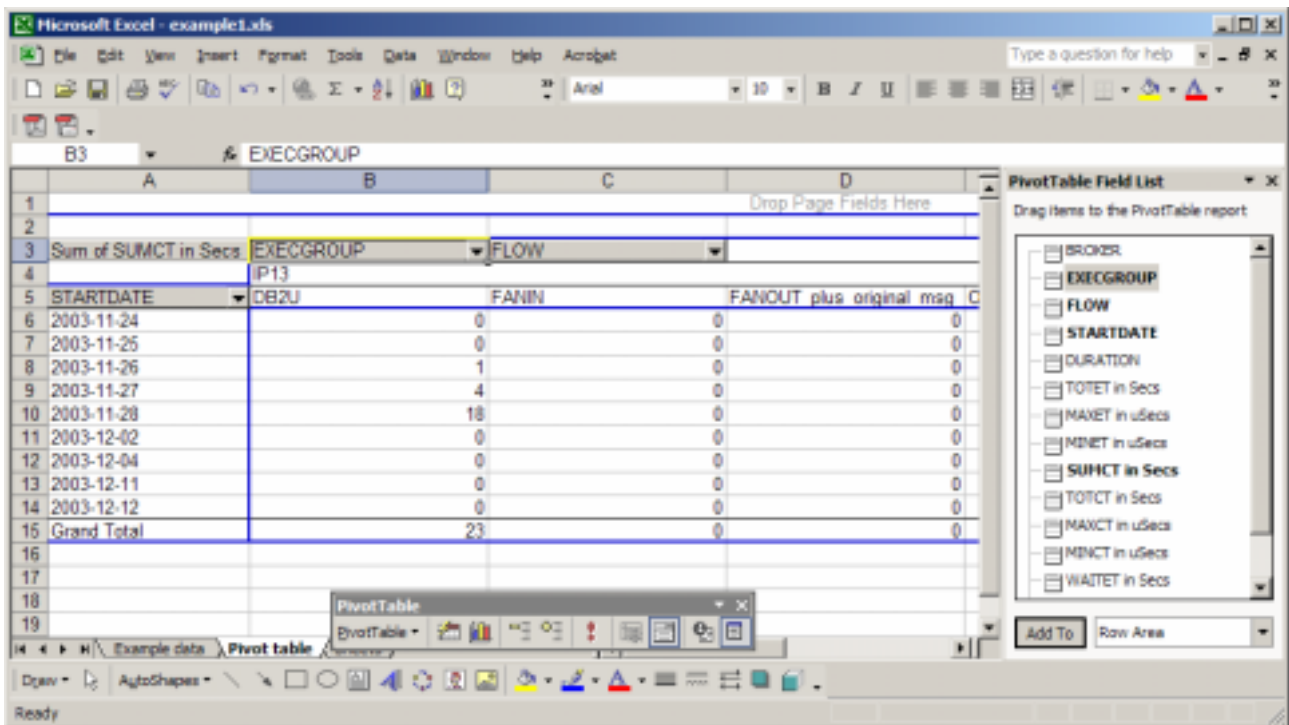
Select and drag *FLOW* from the *Pivot table Field List* to the yellow cell B3.



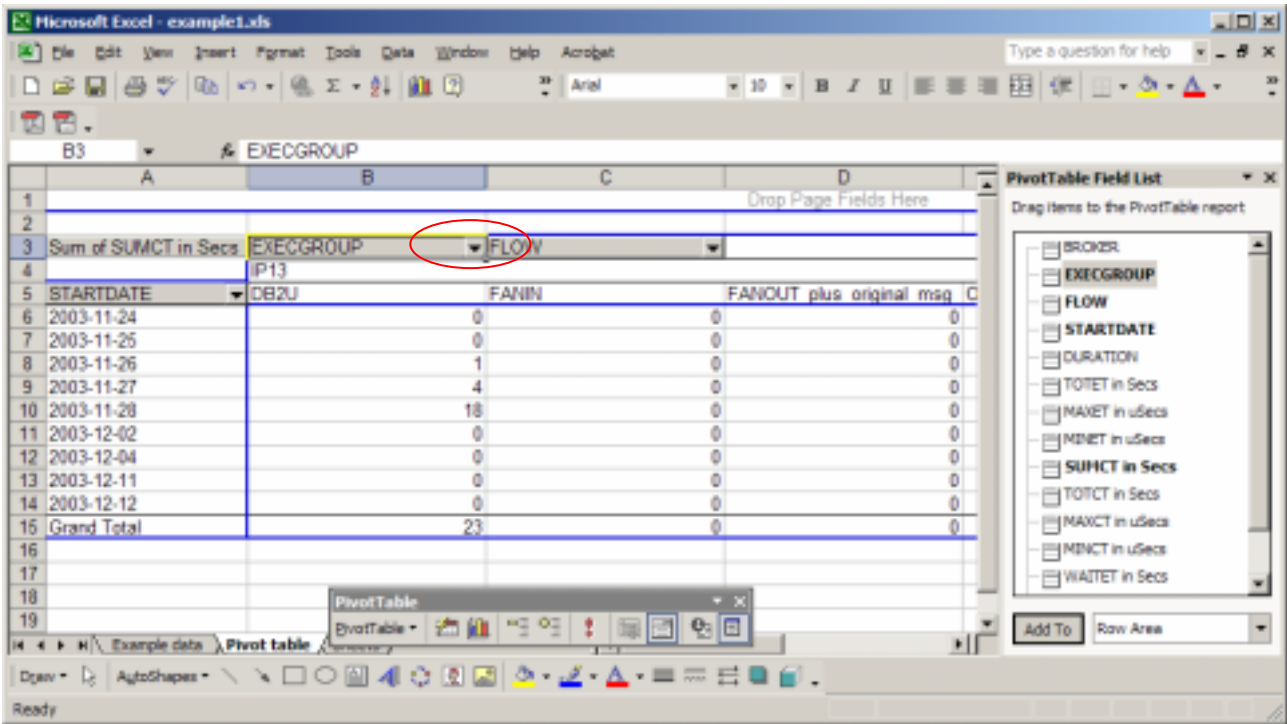
Row 4 shows the different flows in the data. You can scroll sideways to show more data.



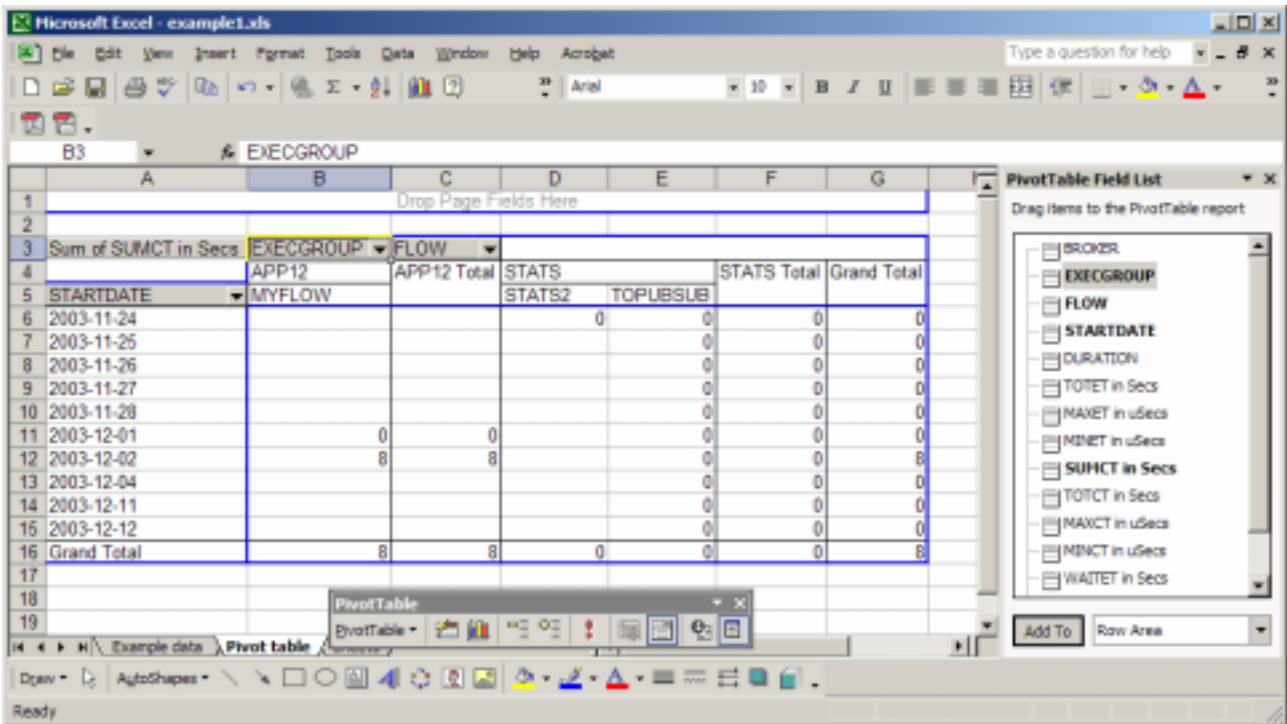
Select *EXECROUP* from the *Pivot Table Field List* and drag to cell C3.



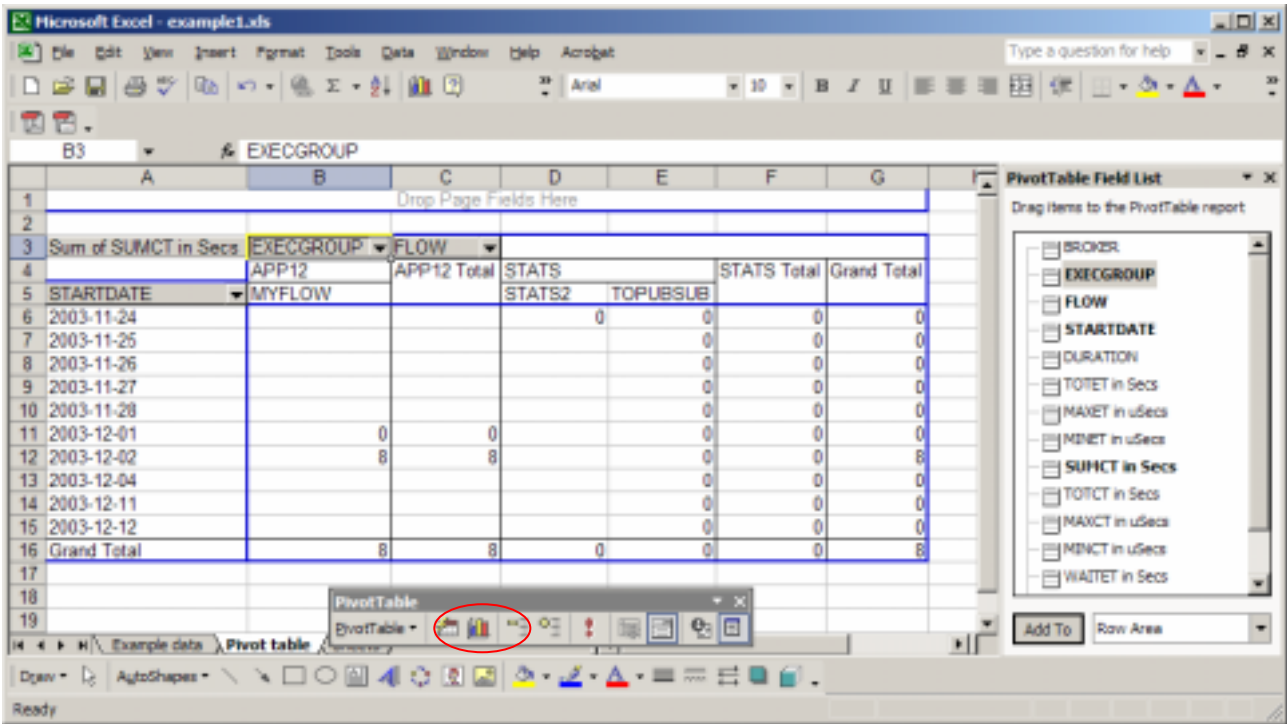
This shows that within execution group IP13 (in cell B4) there are the flows in cells B5, C5, D5 etc..



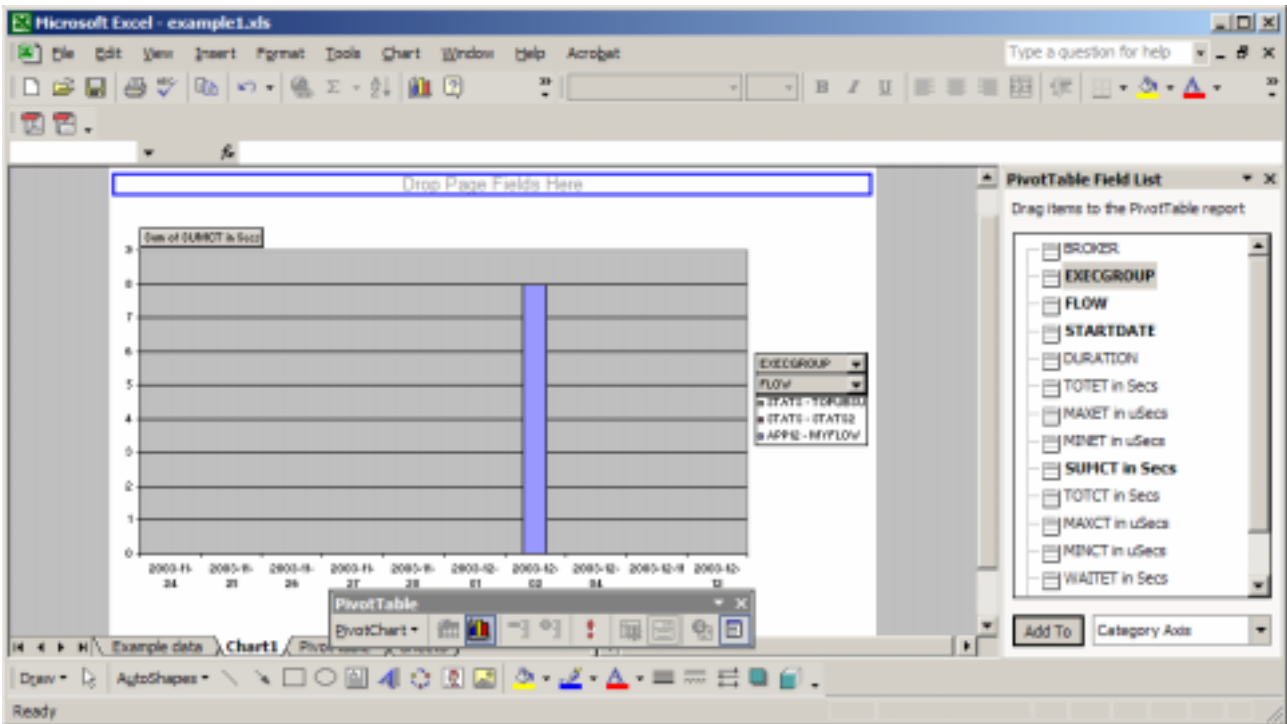
Select the pull down for EXECGROUP in cell B3. Deselect IP13, select AP12 and STATS, press OK.



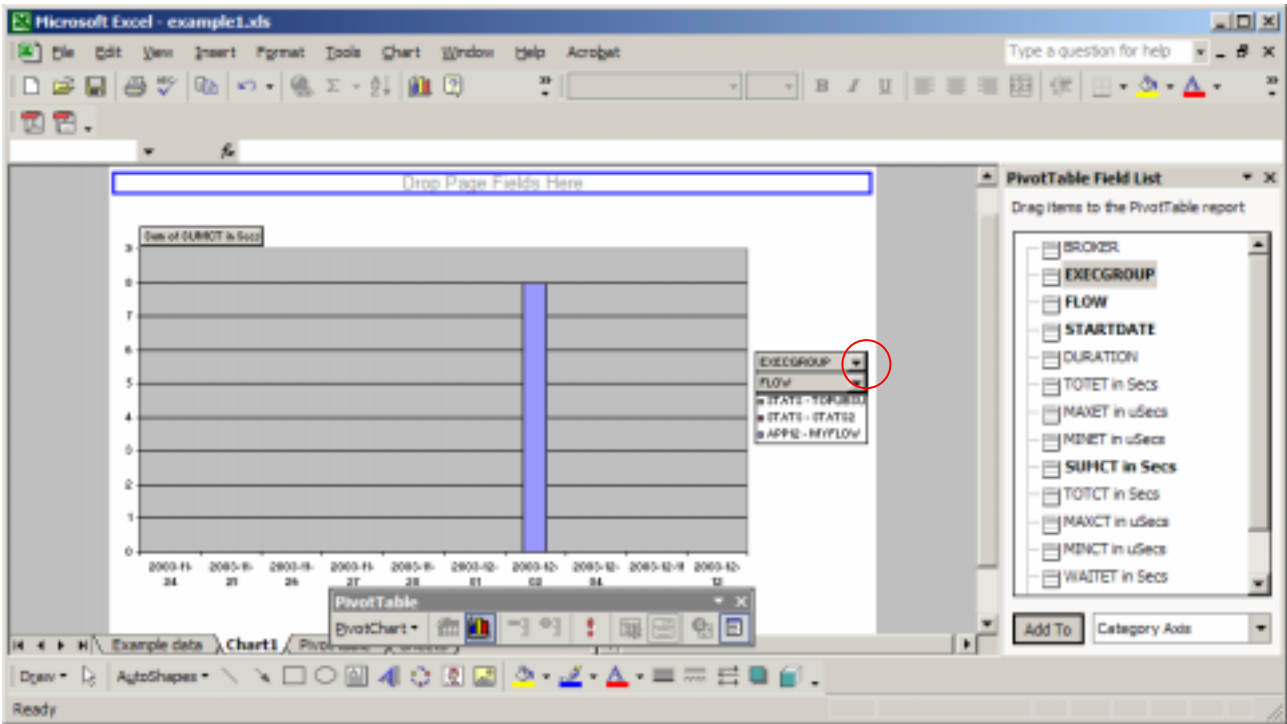
This has selected only the execution groups APP12 and STATS.
 APP12 has only one flow called MYFLOW
 STATS has two flows, STATS2 and TOPUBSUB.



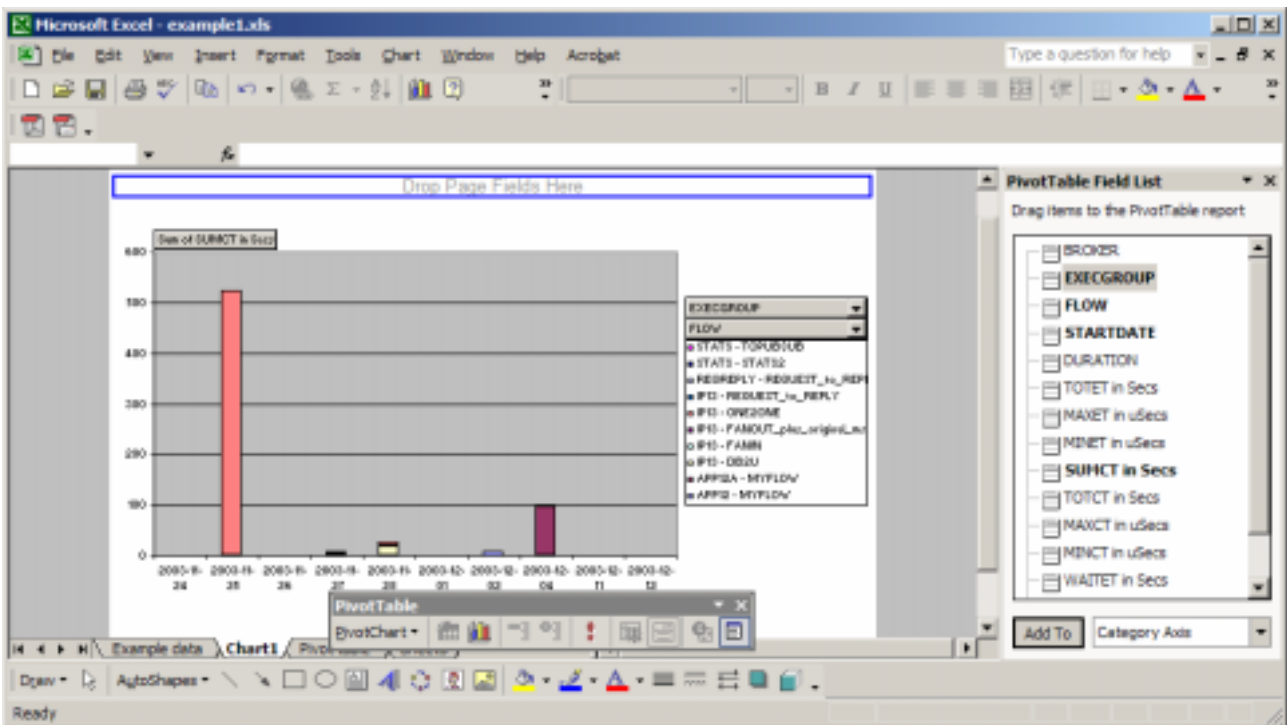
Select the chart button on the PivotTable toolbar. This will create a new worksheet called *chart 1*.



This shows the data graphically.



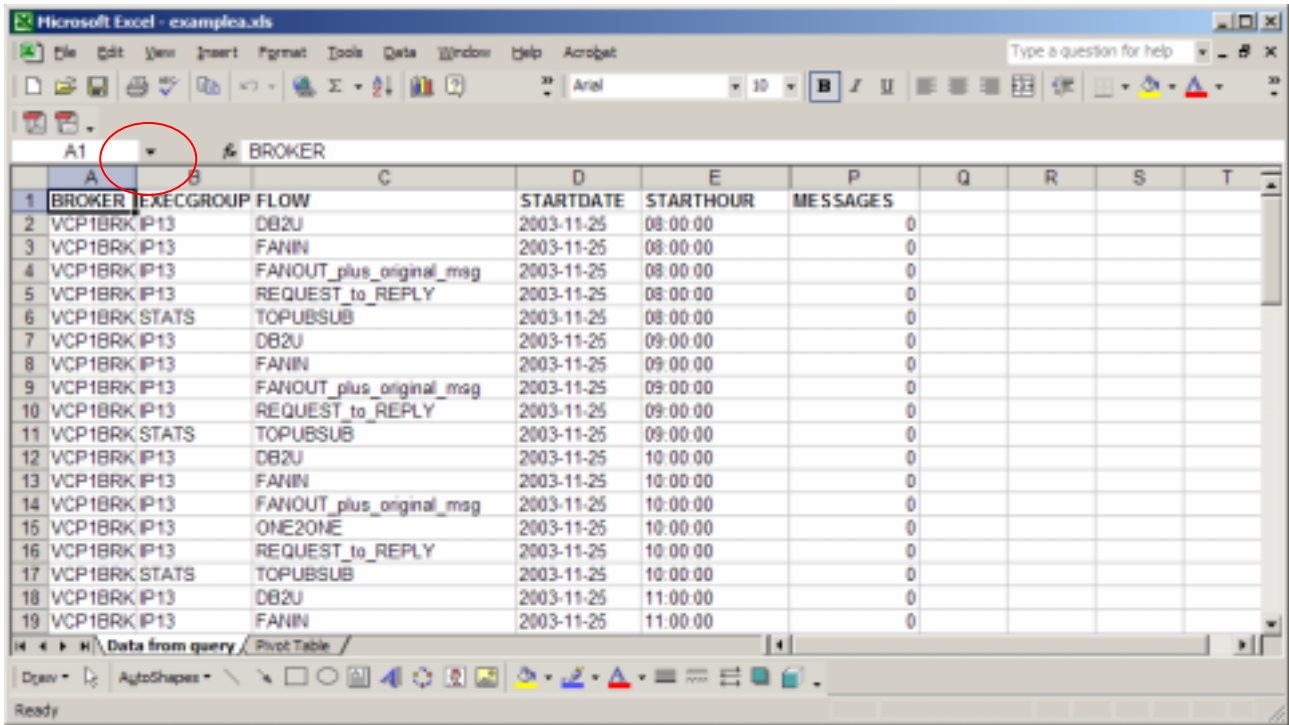
From the *EXECGROUP* pull down click *Show all* and press OK.



This shows the data for all flows. You can use Excel options to change the patterns and colours of the bars to make them easier to see. Exit the spreadsheet (without saving).

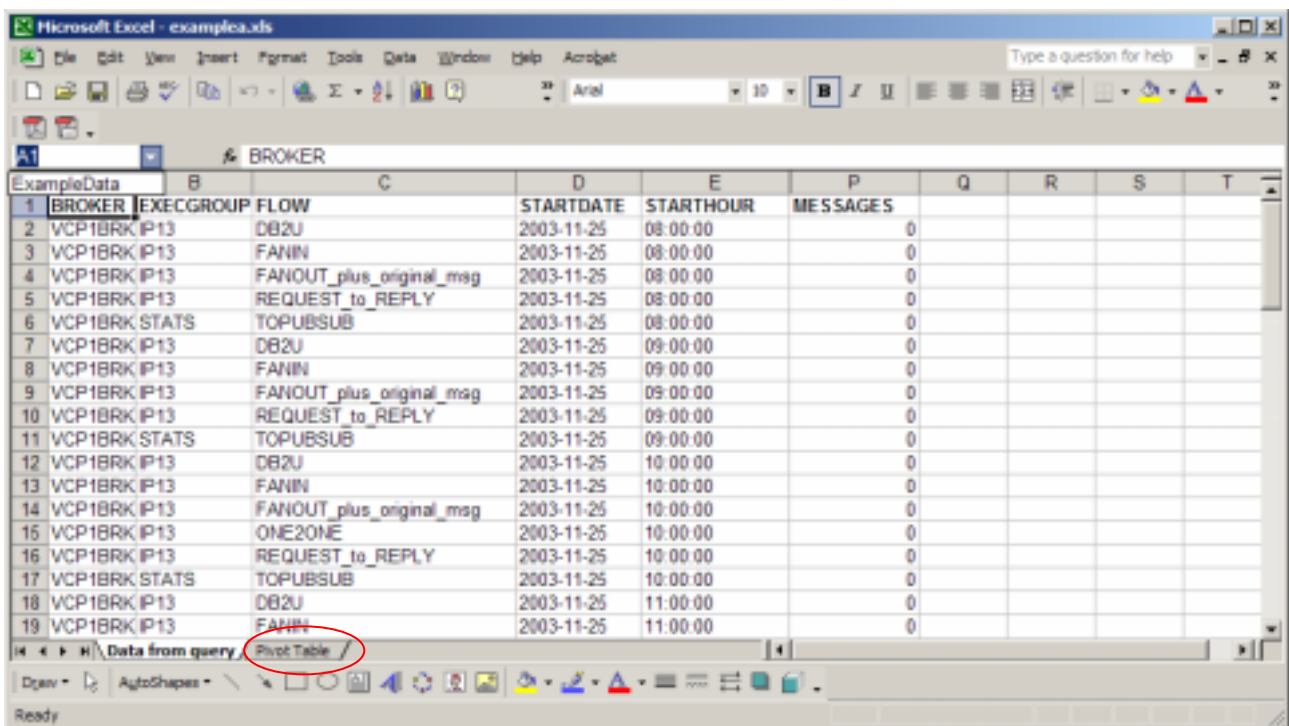
How to create a pivot table and change how it looks

Open the spread sheet examplea.xls.

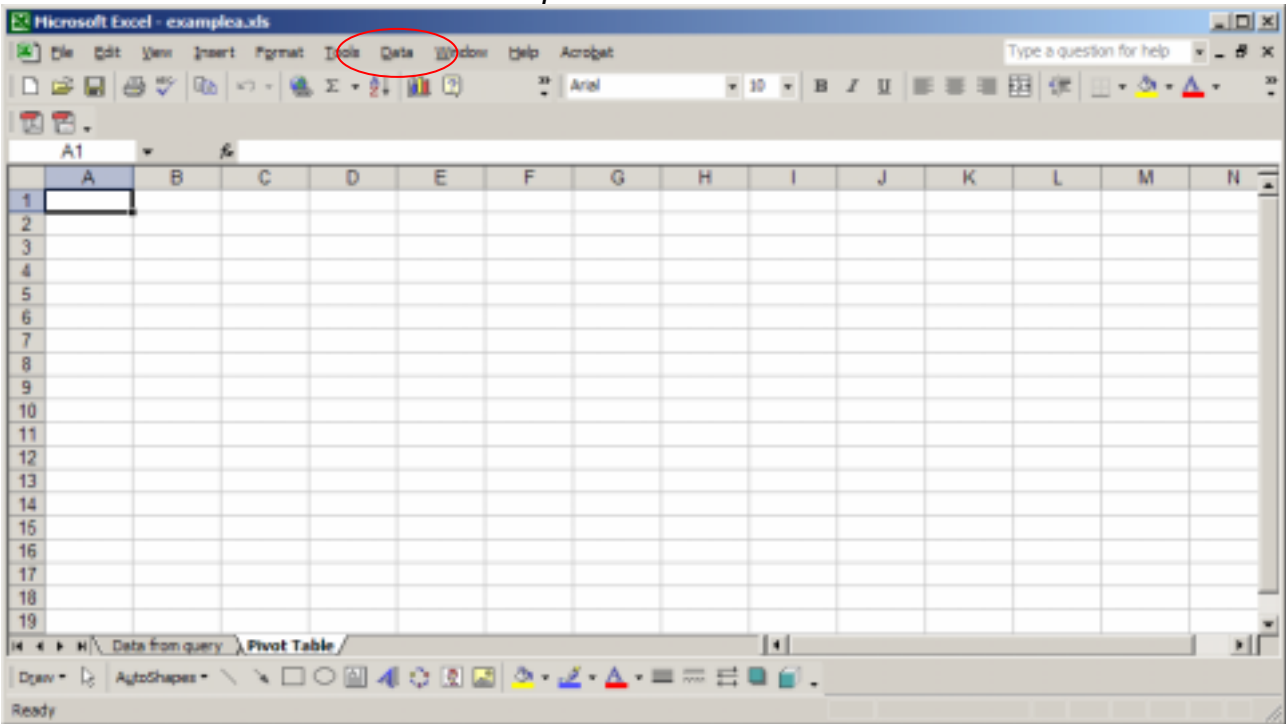


This shows some data from a query.

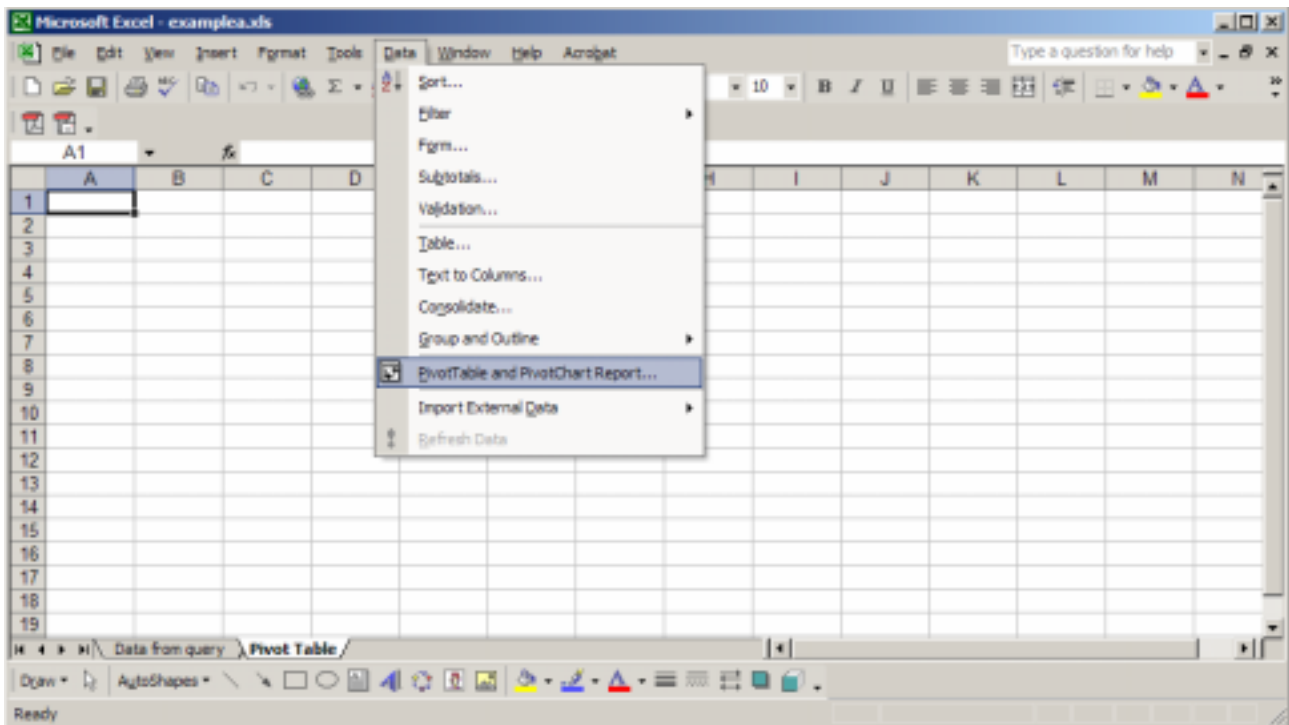
Select the pull down above column B to display the list of named areas.



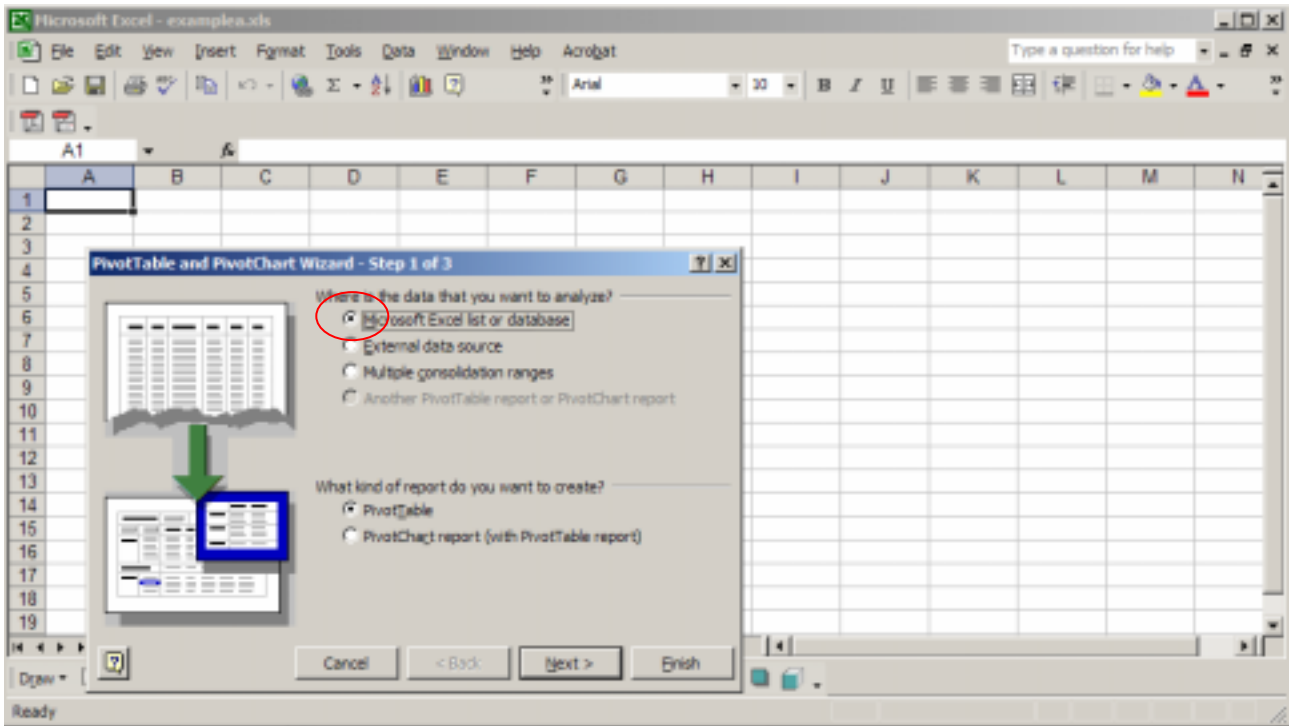
There is one named area called *ExampleData*. Select the Pivot Table sheet.



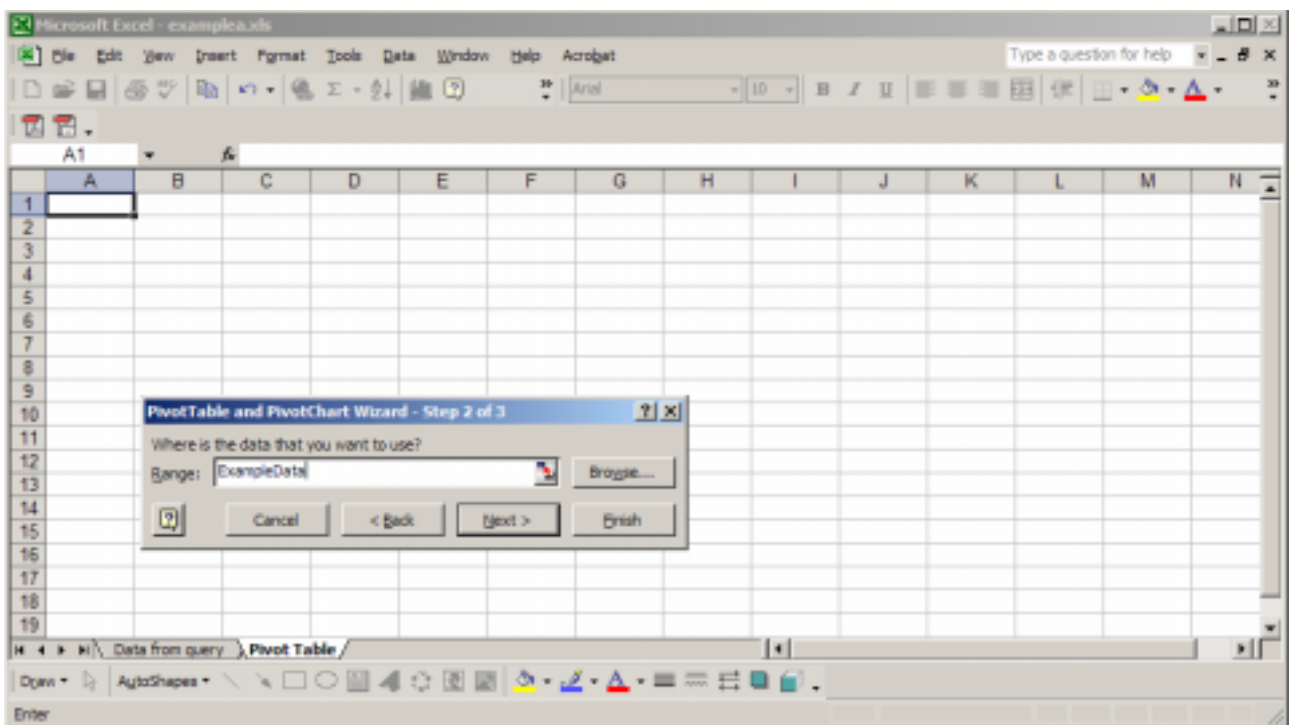
Select the Data pull down.



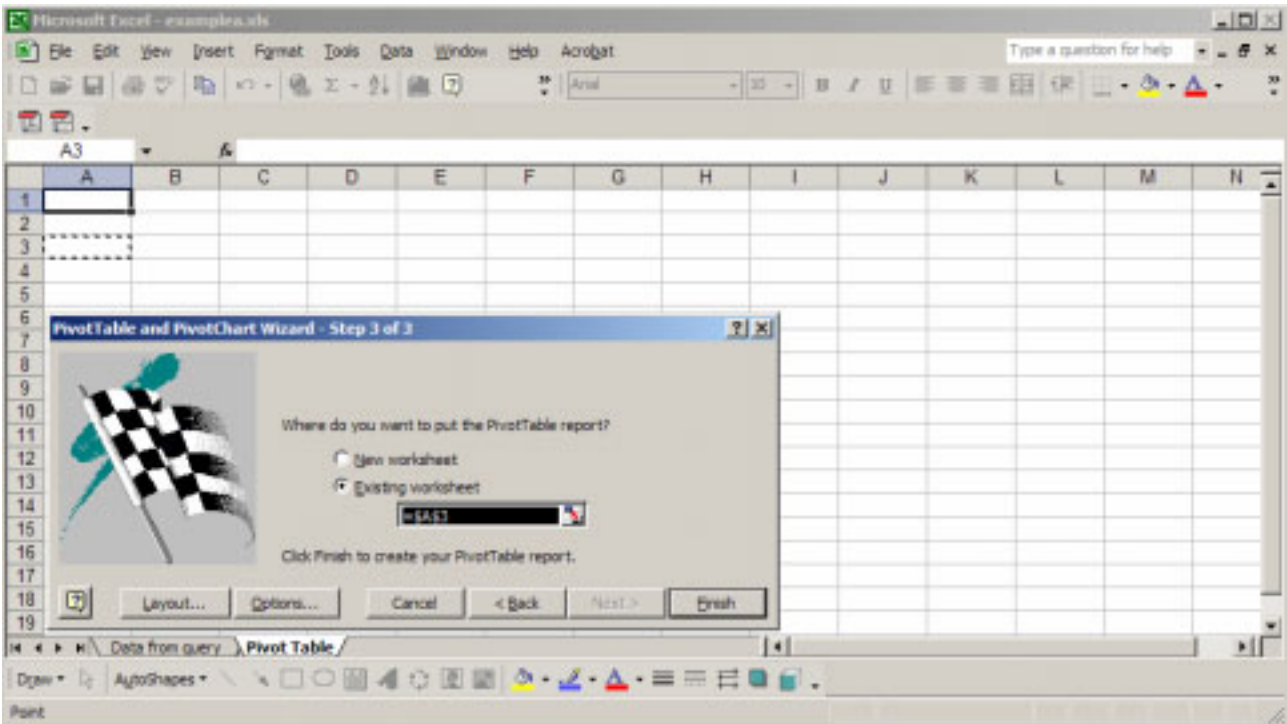
Select *PivotTable and PivotChart Report*.



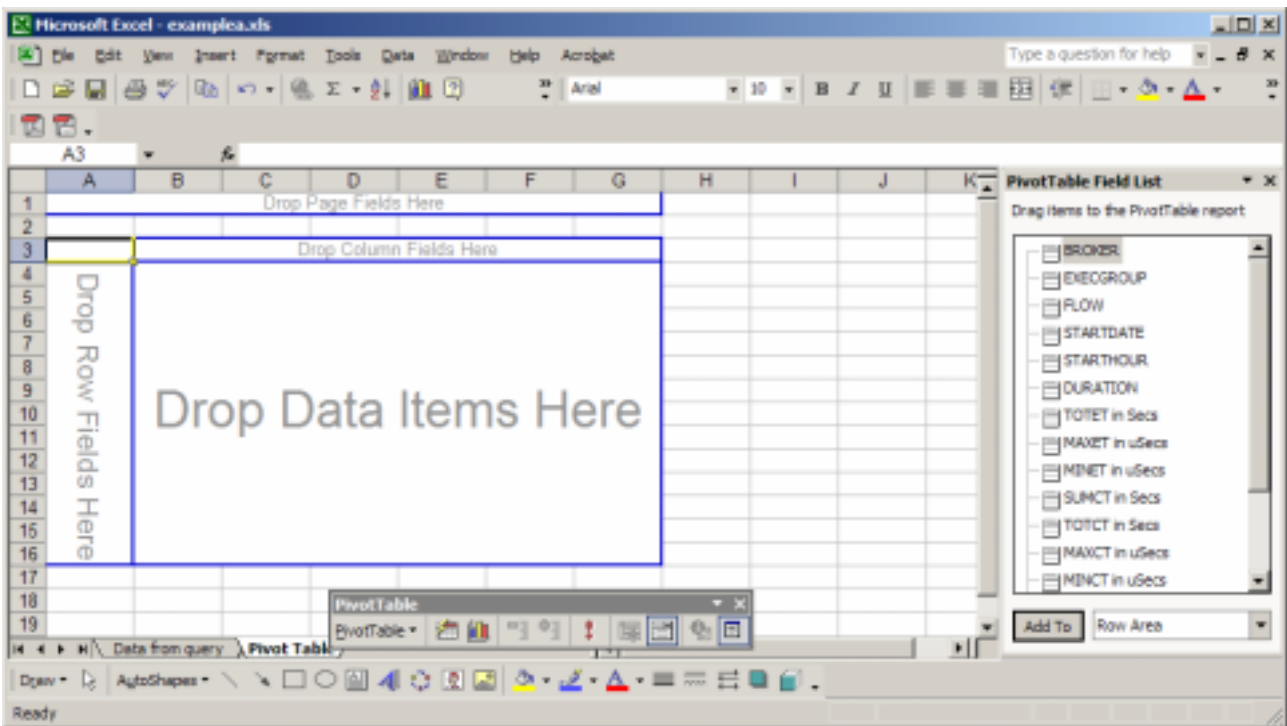
In this example the data is already in the spreadsheet in worksheet *Data from Query* so the *Microsoft Excel list or database* is used (and is the default). Press Next.



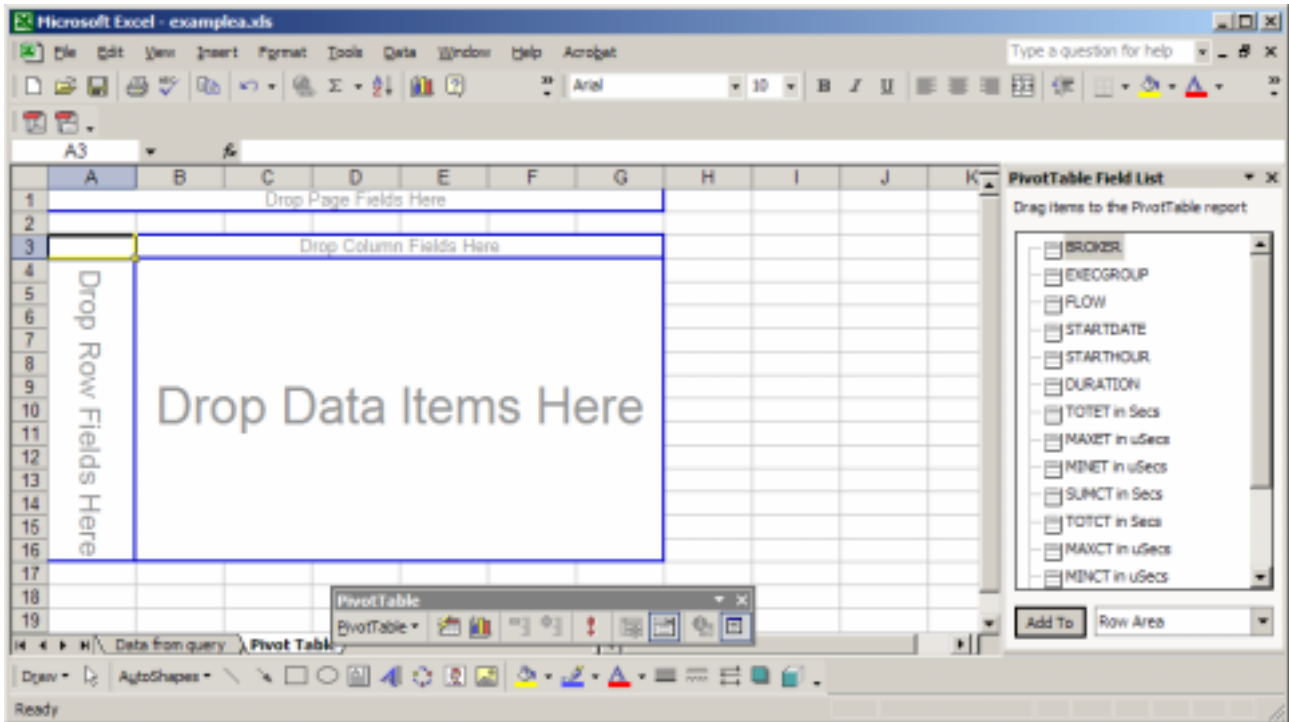
Enter the range of cells with the data, in our case type *ExampleData* identified above. Press Next.



Check the value where the report is to be created (\$A\$3 in this case). Press Finish.



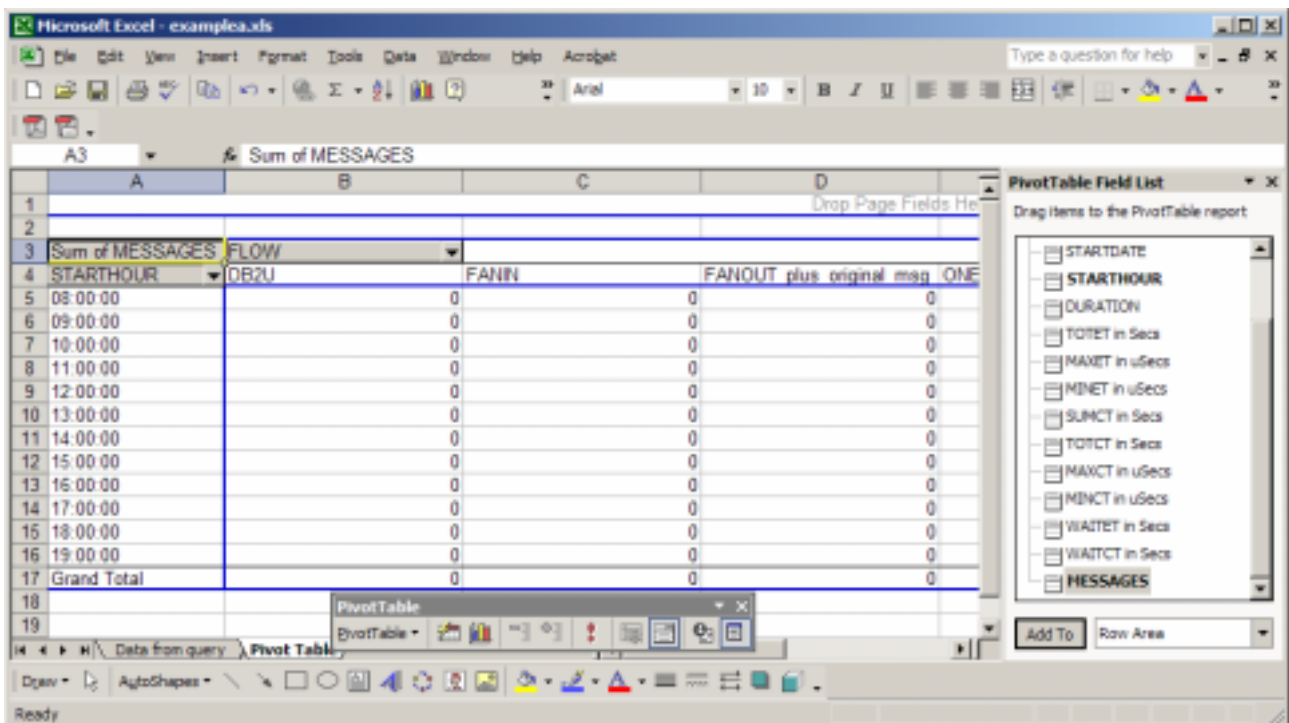
This is similar to the layout you saw at the beginning of this document.

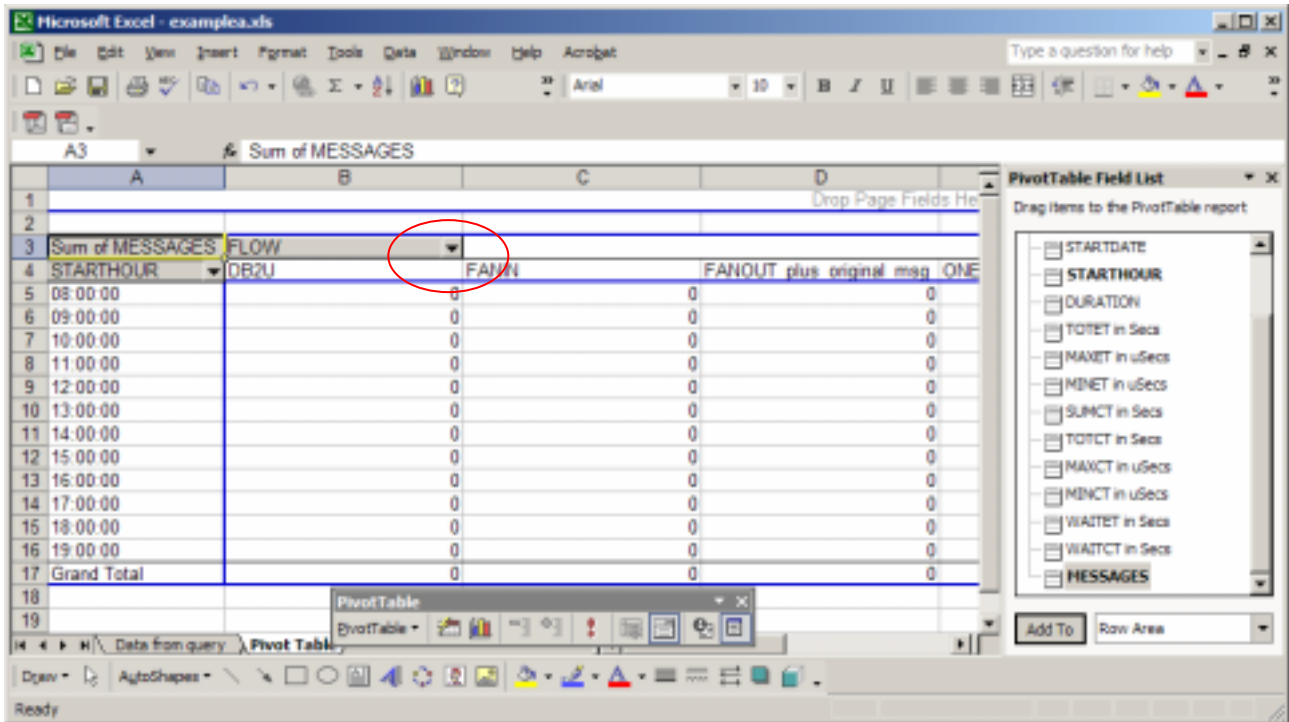


Drag STARTHOUR to *Drop Row Fields Here*.

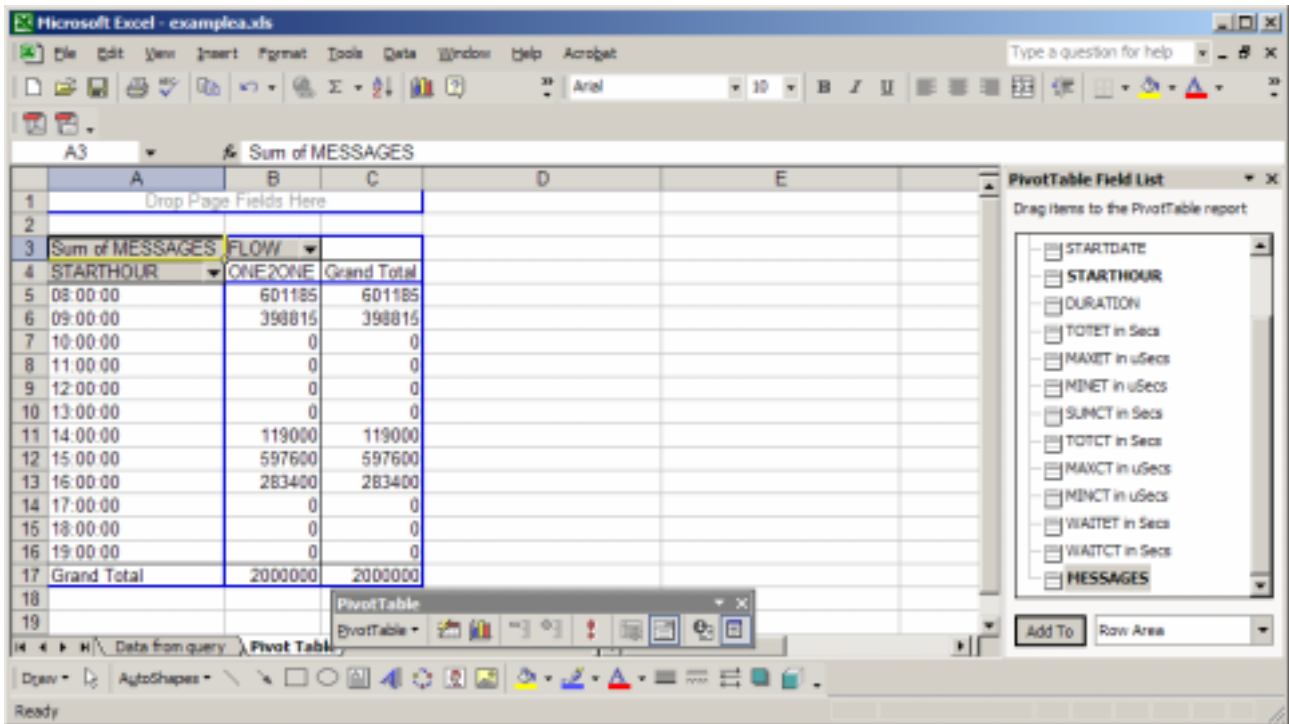
Drag FLOW to *Drop Column Fields Here*.

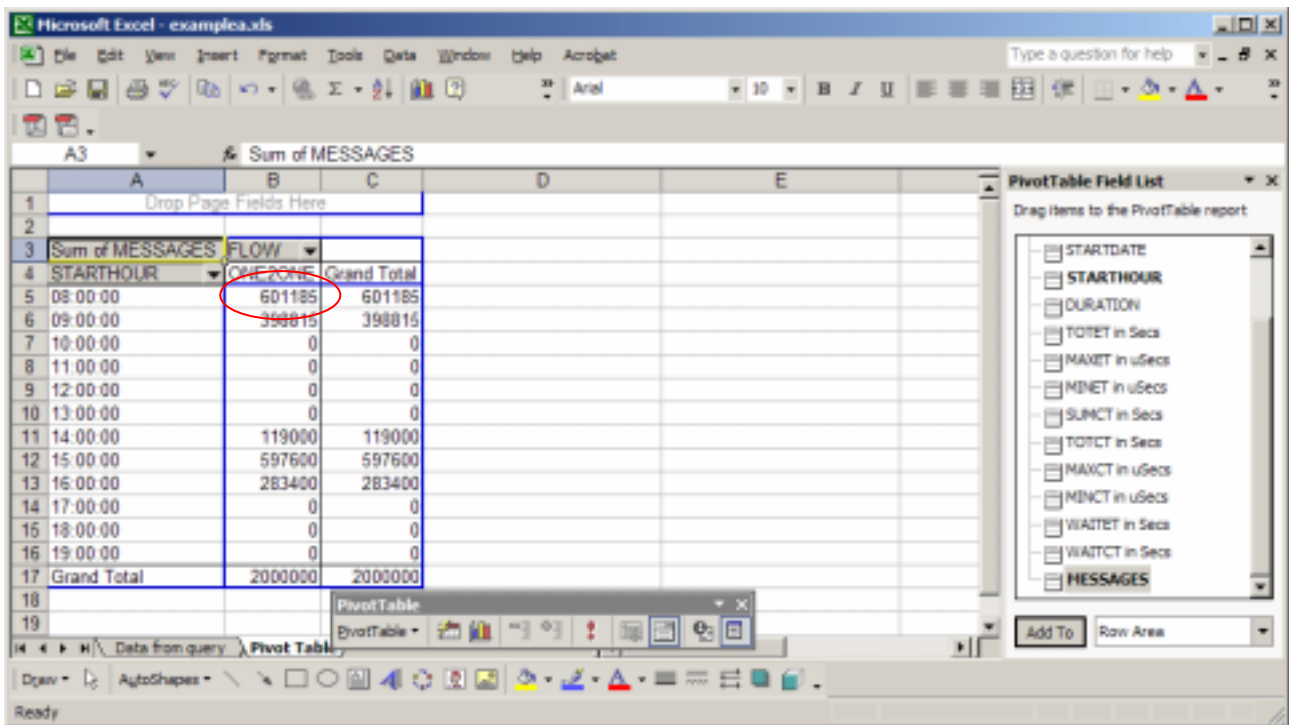
Drag MESSAGES to *Drop Data Items Here*. You may have to scroll the PivotTable Field List to locate MESSAGES.



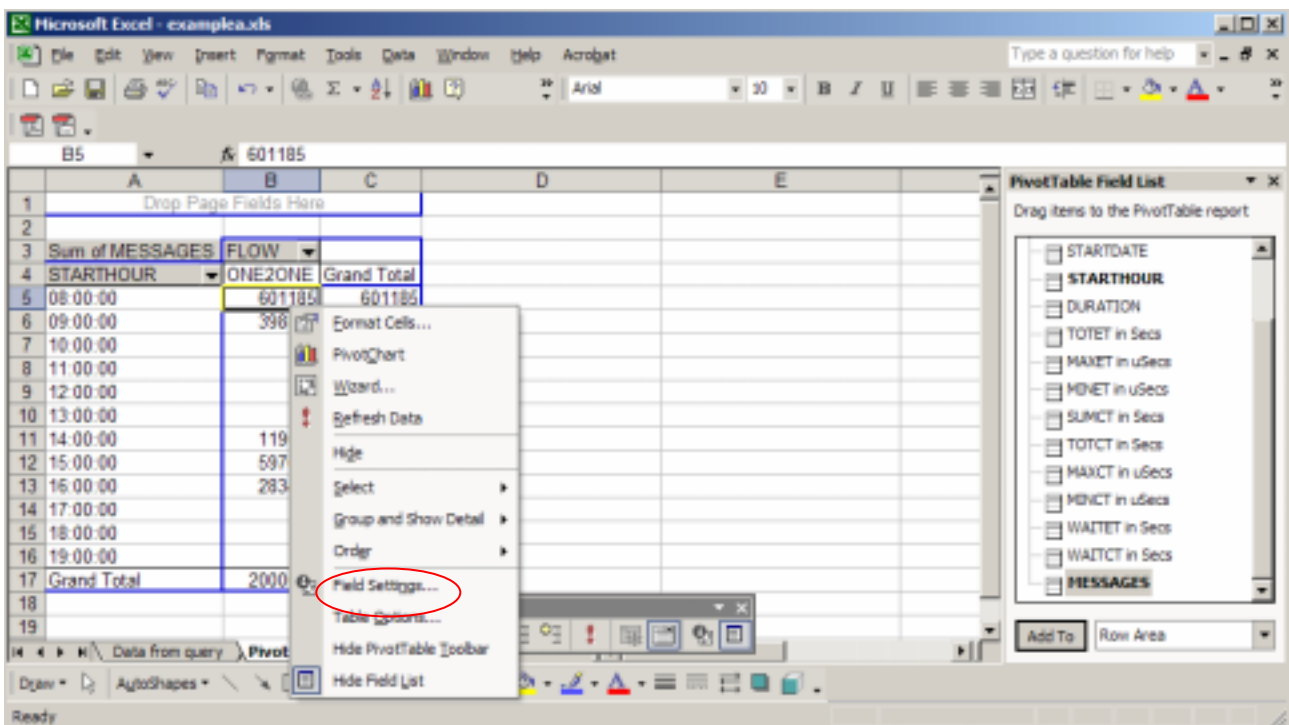


Use the FLOW pull down in cell B3, deselect (*Show all*) and select ONE2ONE. Press OK.

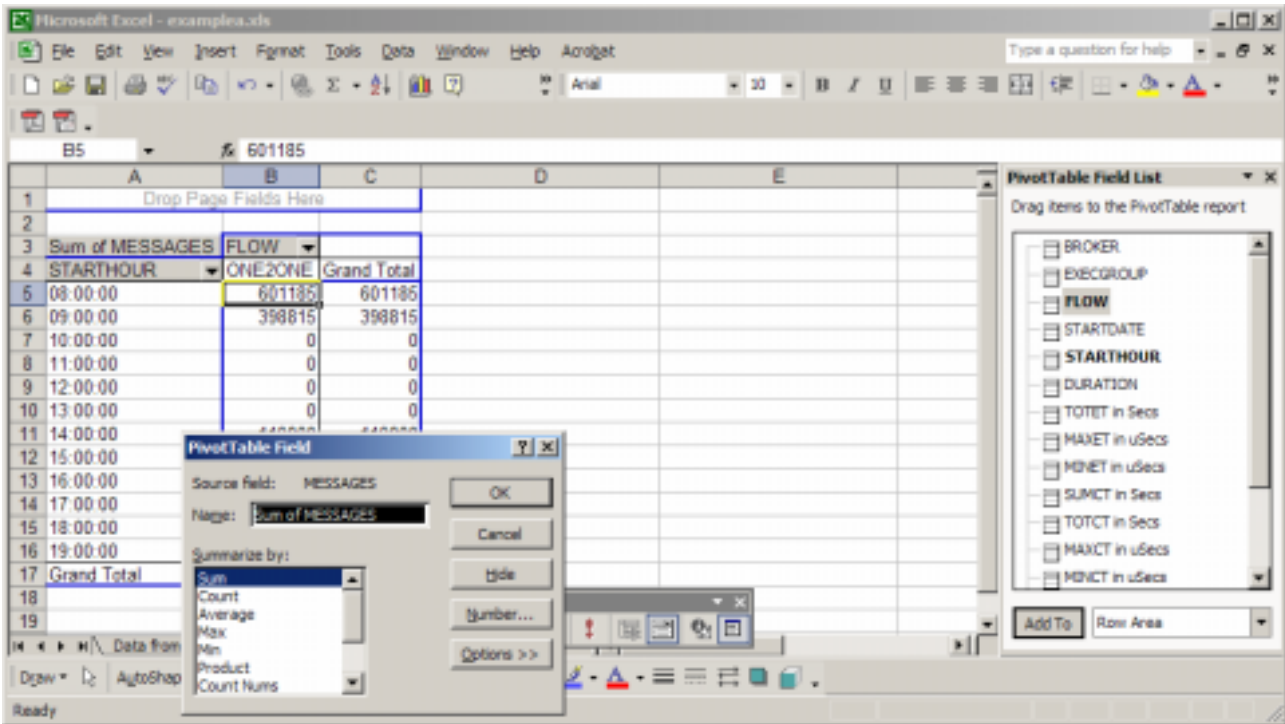




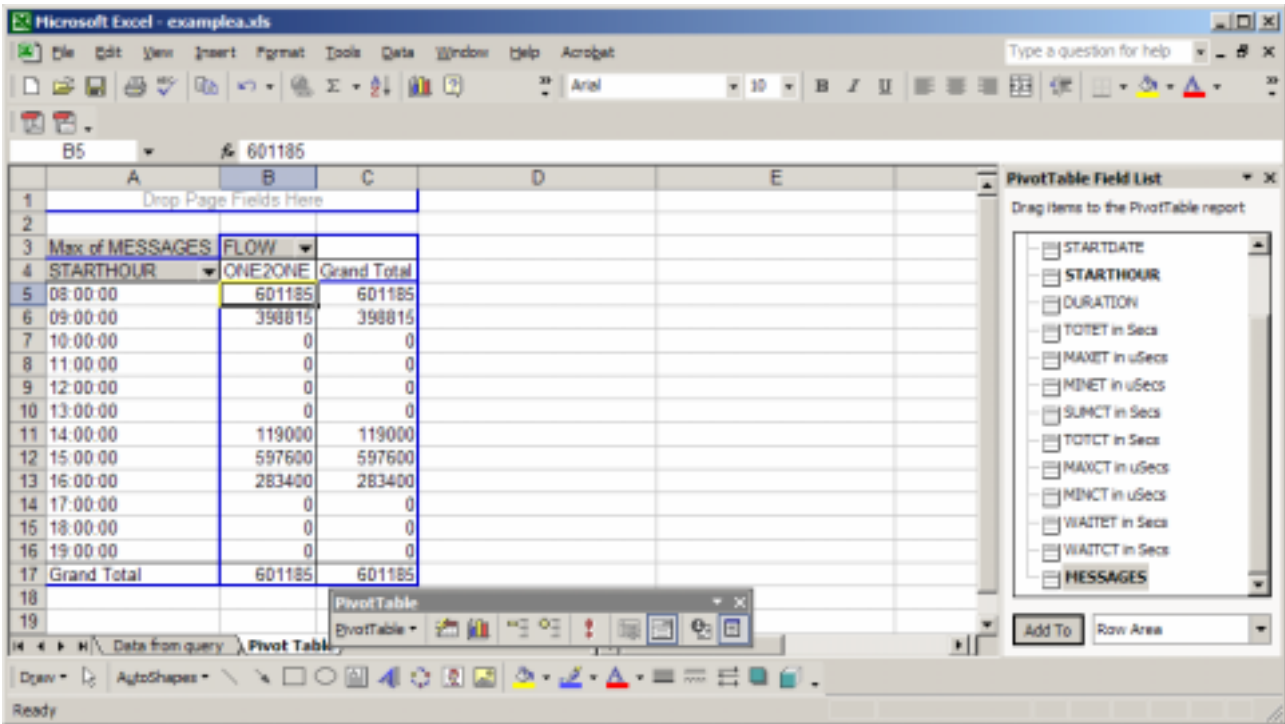
Put the cursor in the ONE2ONE column, for example cell B5, and right mouse click.



Select *Field Settings*....

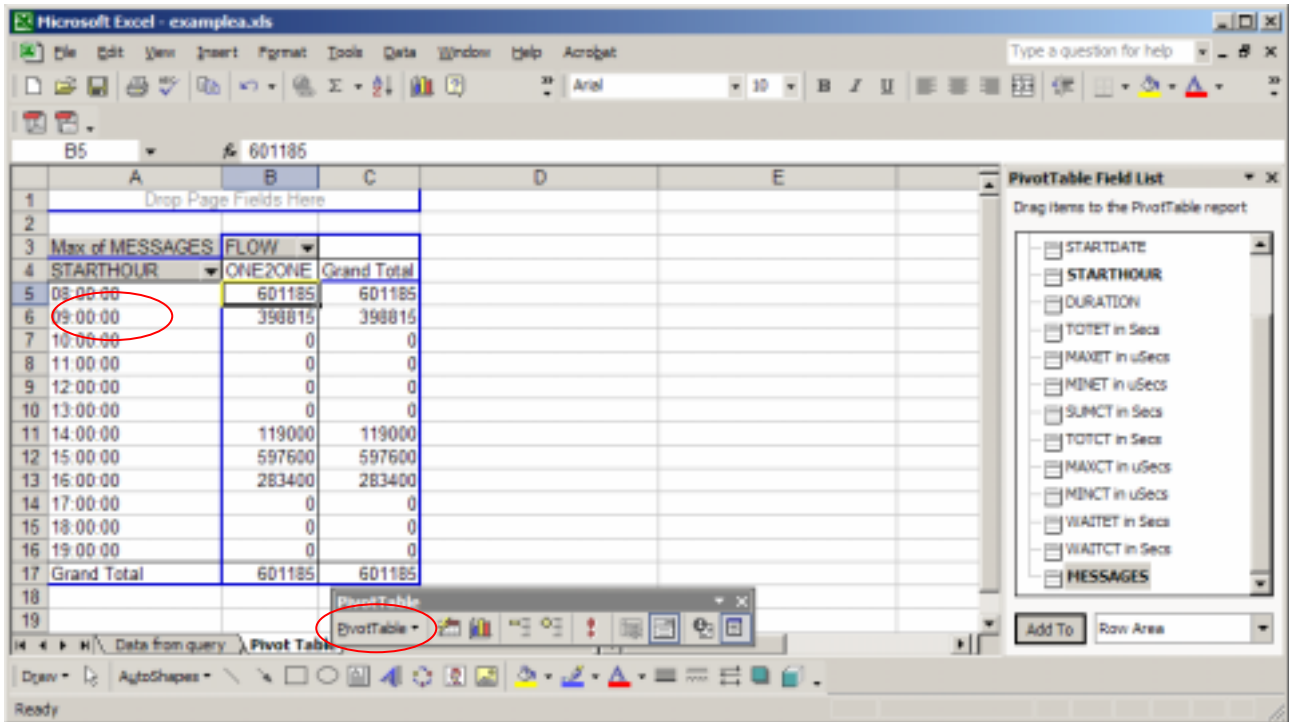


Note that the Name: is *Sum of Messages*, which is the name in cell A3. Select Max and press OK

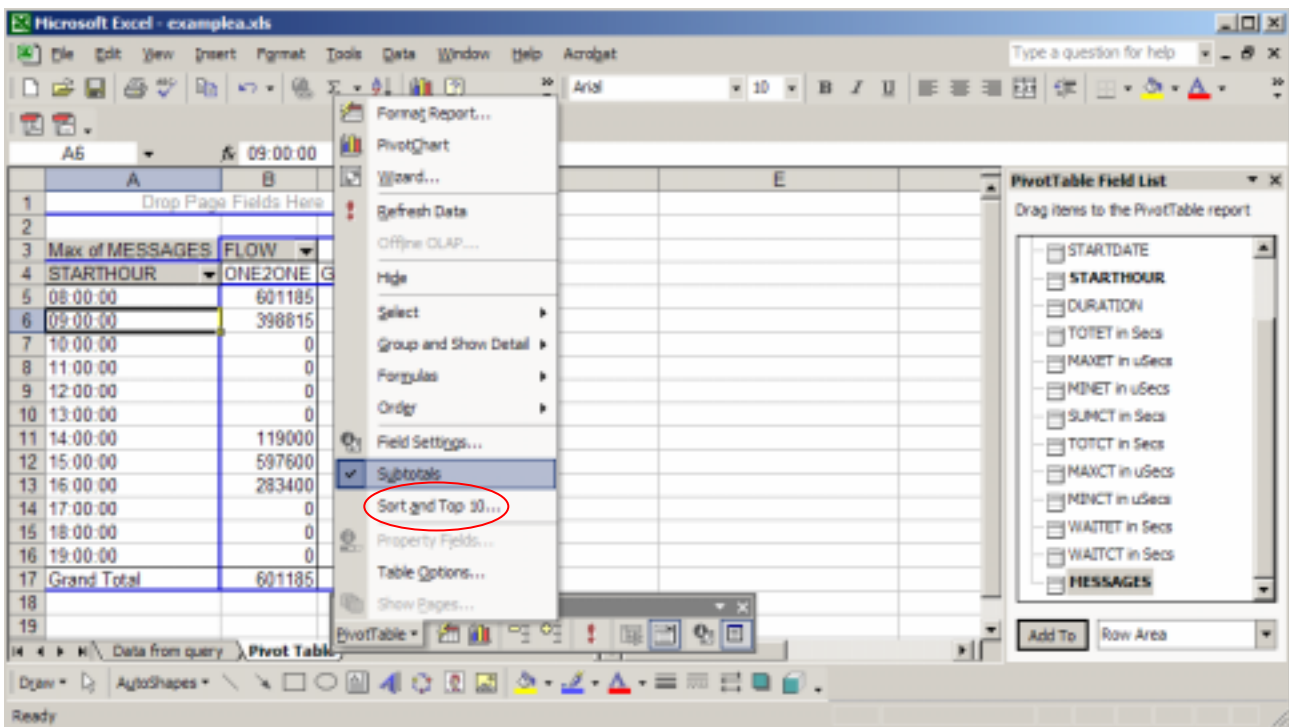


Notice that cell A3 now has the value *Max of MESSAGES*. The values in the Grand total row (row 17) are the maximums from the columns above.

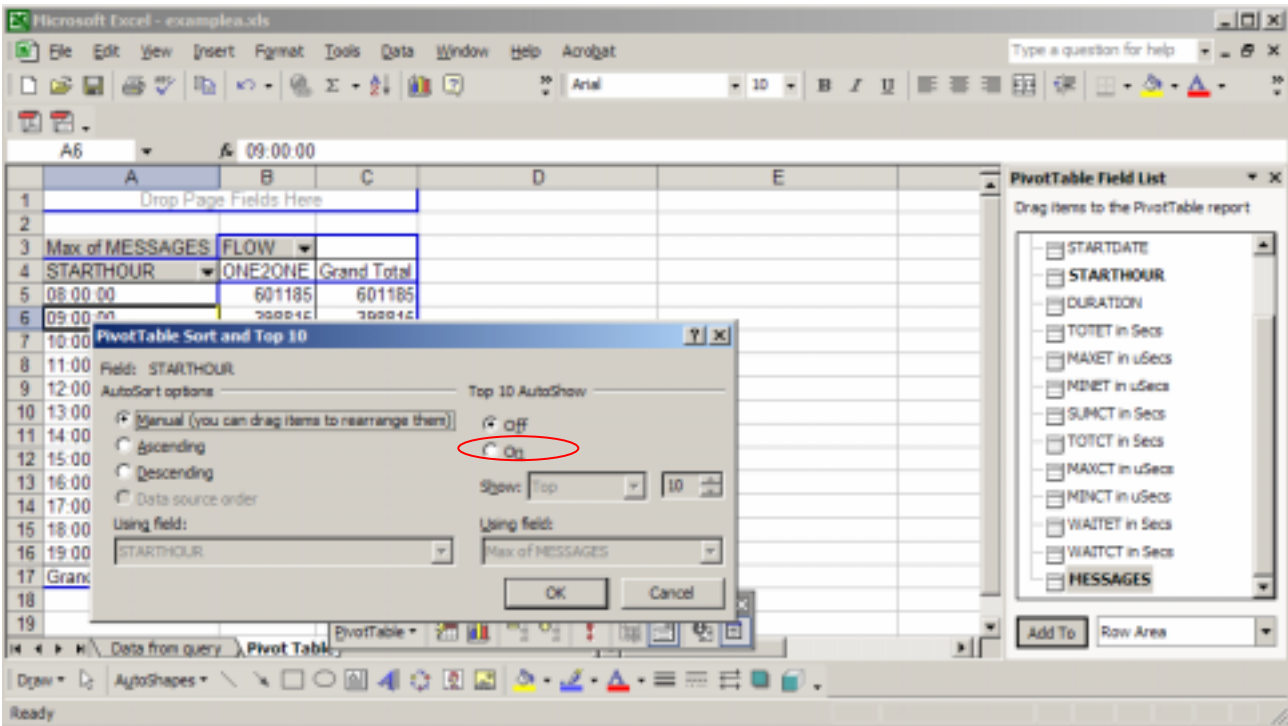
If you select the flow pull down, select (Show all) you can experiment with different ways of displaying the data.



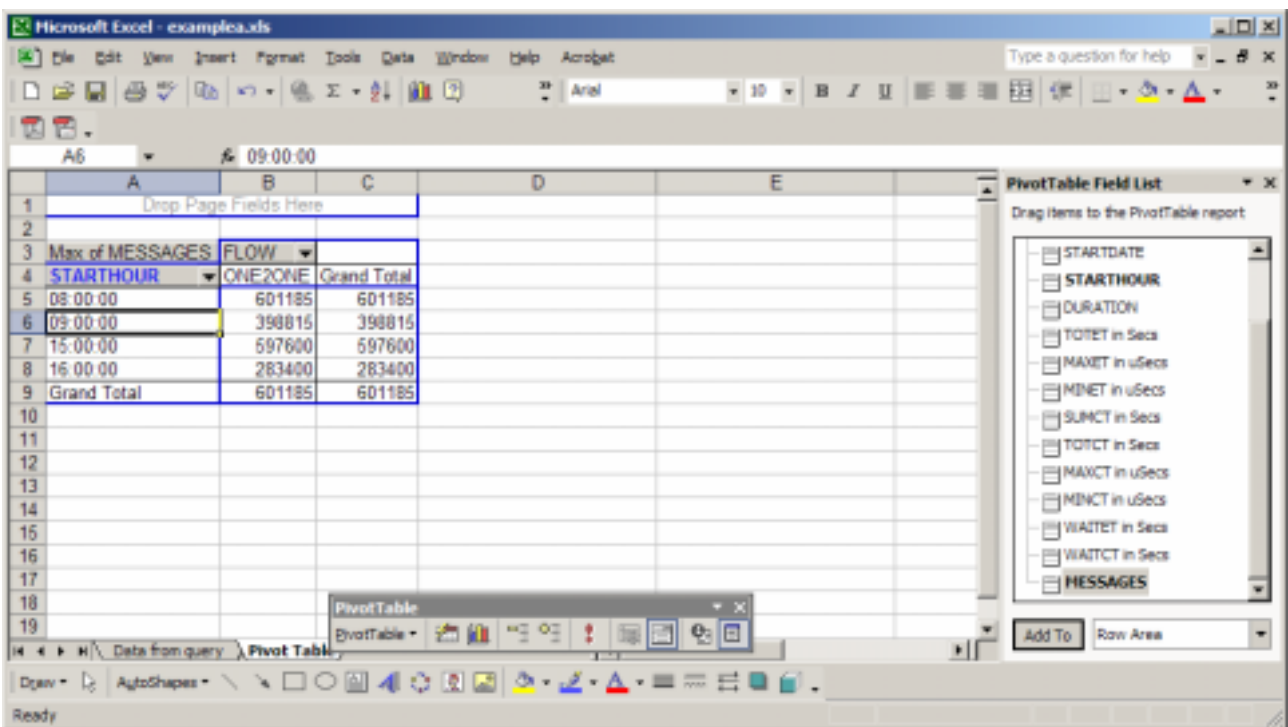
Put the cursor in the STARTHOUR data column, for example cell A6.
 From the PivotTable toolbar select the PivotTable pull down.



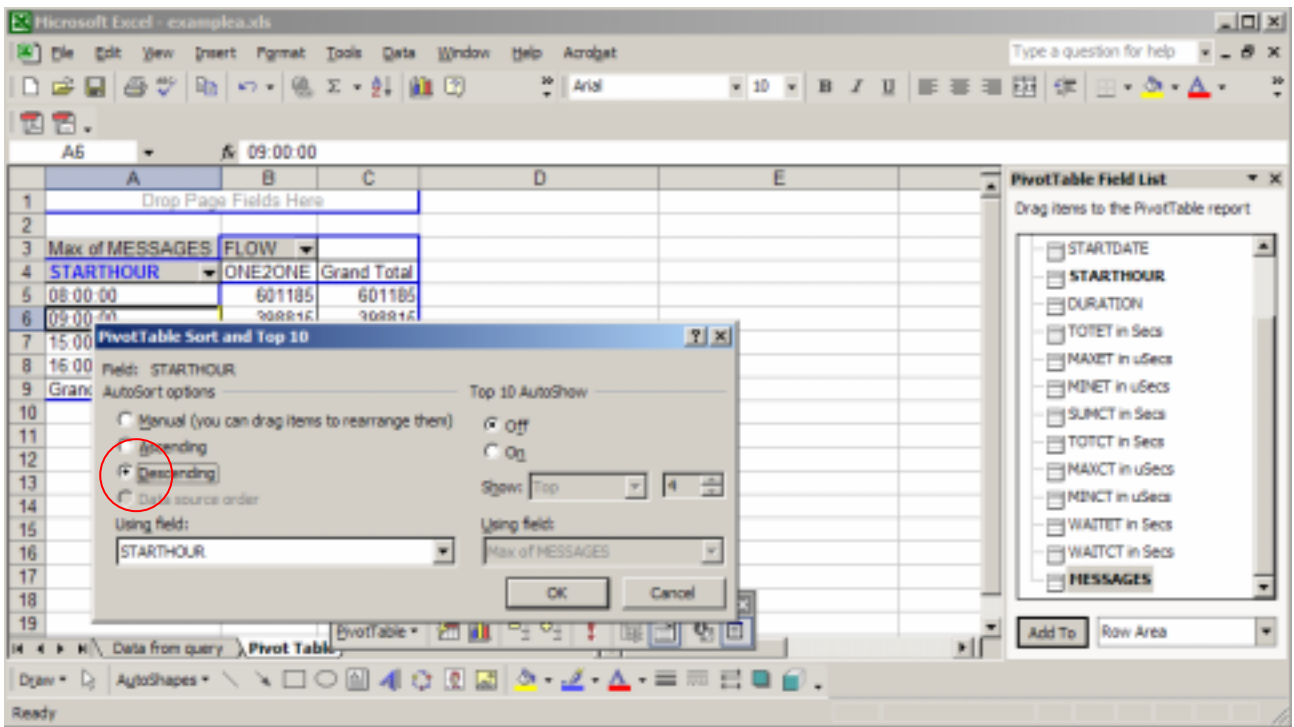
Select *Sort and Top 10...*



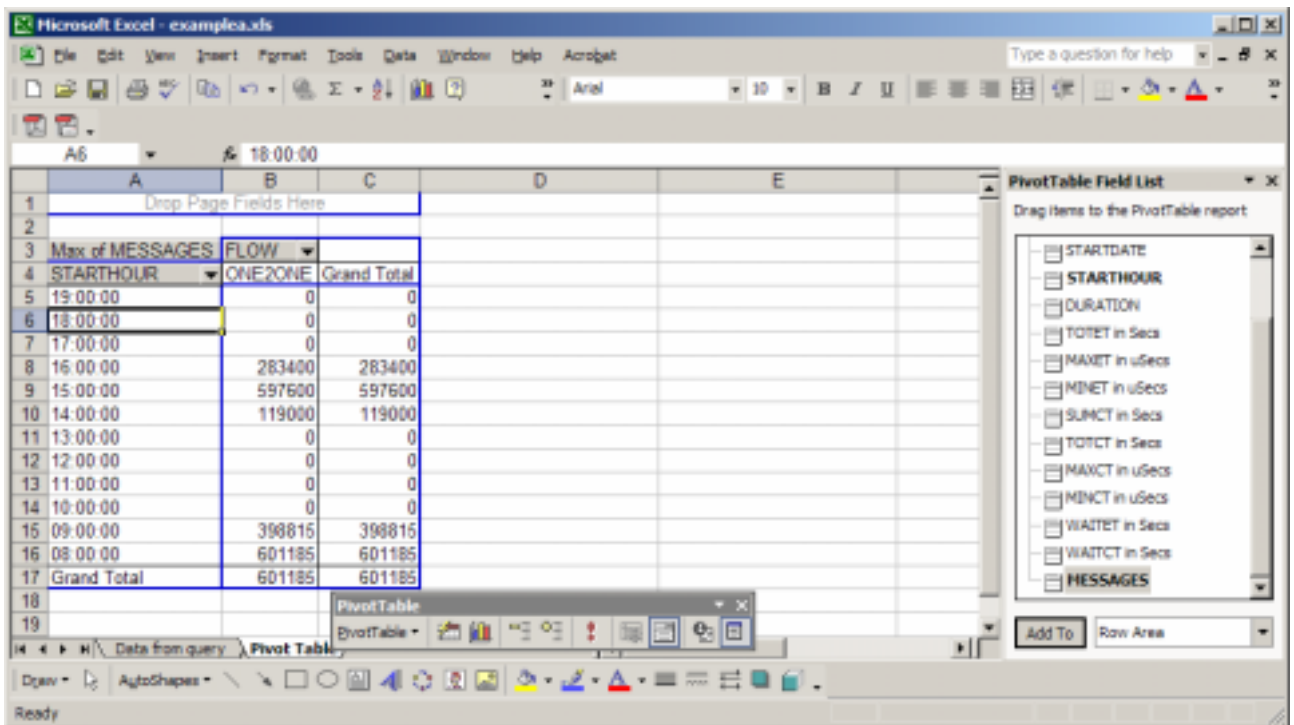
Select *Top 10 Autoshow on*.
 Change the 10 down to 4.
 Press OK.



This now shows the top 4 values.
 Select the PivotTable pull down on the PivotTable toolbar. Select *Sort and top 10...* select the *Top 10 autoshow off*.



Select the Descending radio button and press OK.



The Select top 4 has been reset.

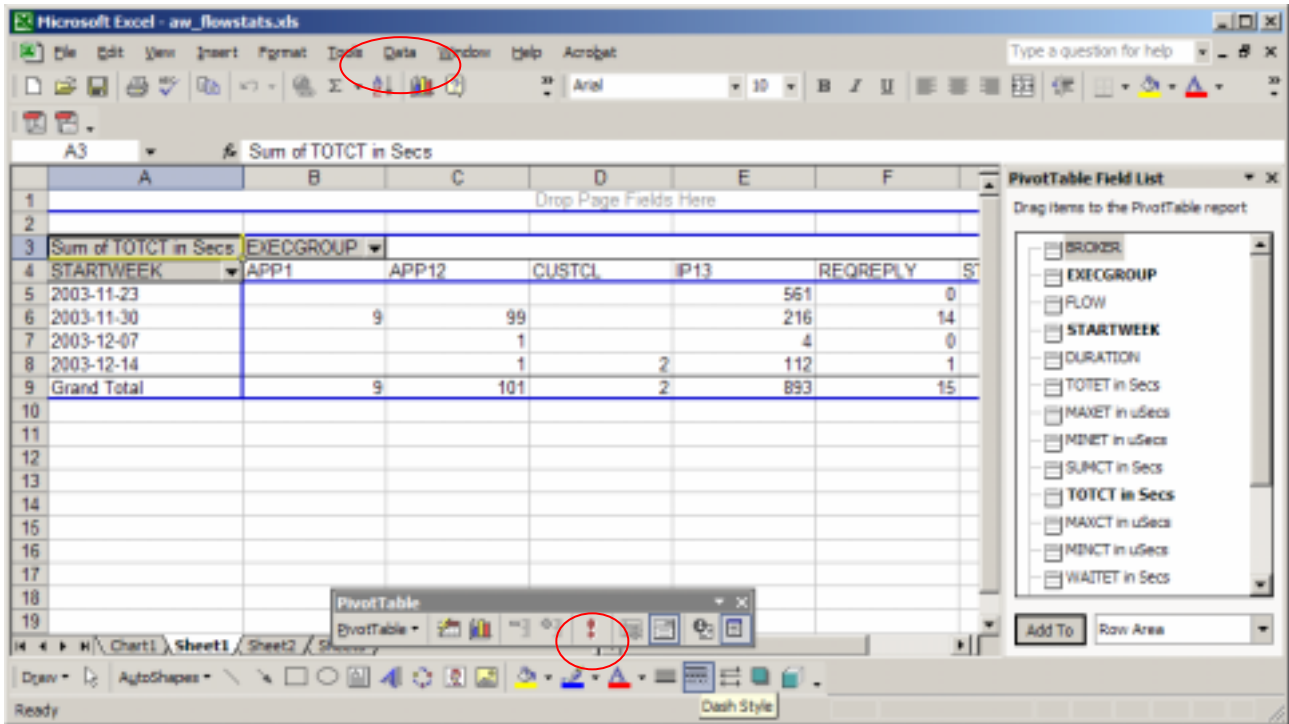
The data in column A has now been sorted in descending order.

Exit the spread sheet without saving the data.

Reading data from a DB2 table into a pivot table

Open aw_flowstats.xls.

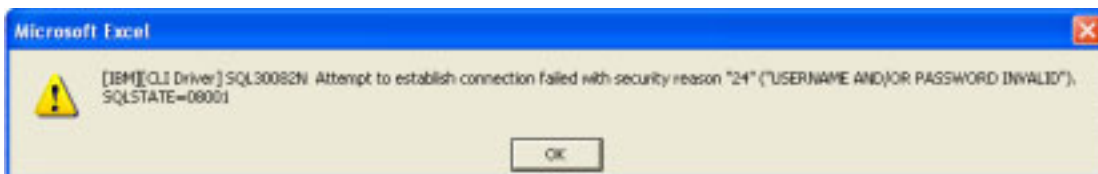
This spreadsheet has a DB2 query to select data from a DB2 table. The remainder of the example uses the example data loaded into the database. If you have not created the DB2 tables and loaded them with the sample data, you should do so now.



Select the *refresh data* icon (!) from the data pull down or the toolbar.

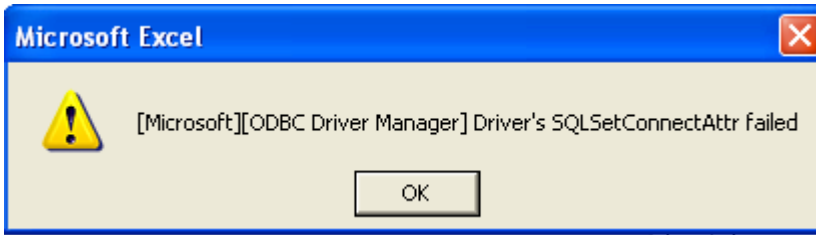
The first time you do this it will try to connect to the database used by the author. Once you have connected to the database and saved the spreadsheet it will remember the connection to your database.

You will get the following windows.

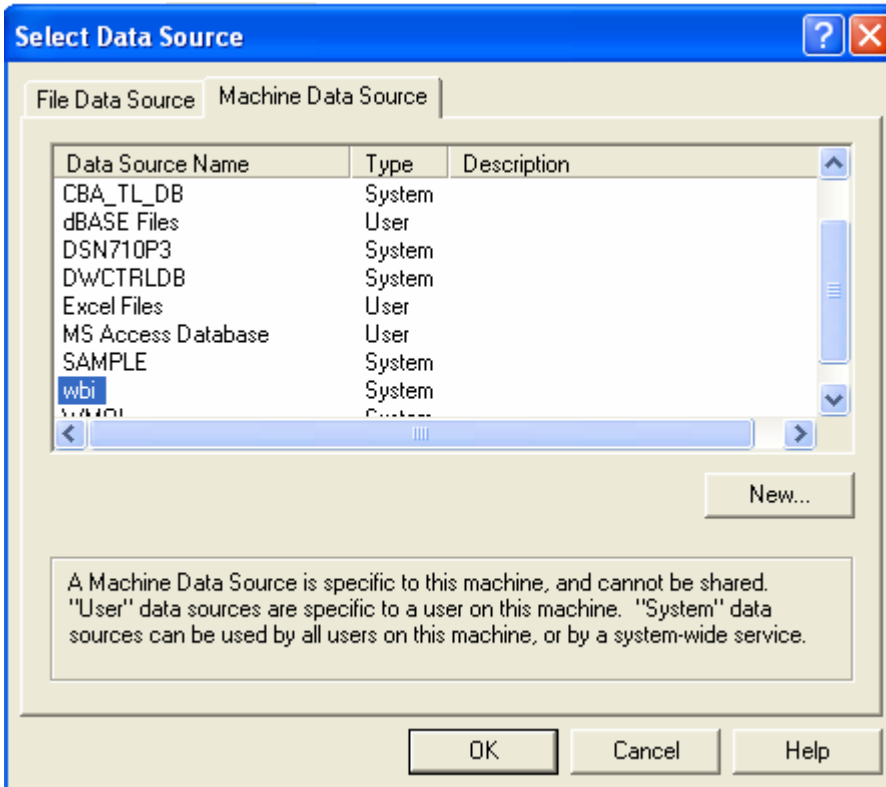


This is the error message on a Windows XP operating system, It will be different on other releases of Windows.

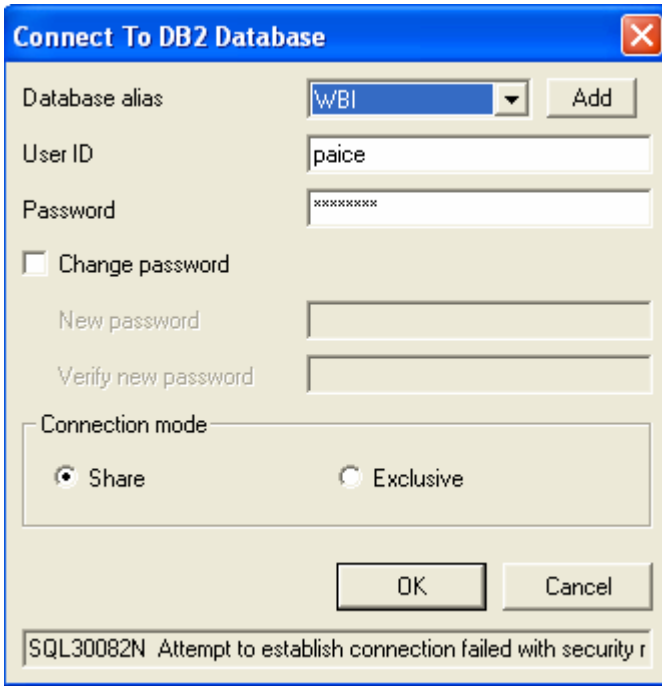
Click OK.



Click OK



Select the data source where the DB2 tables were loaded.
Click OK.

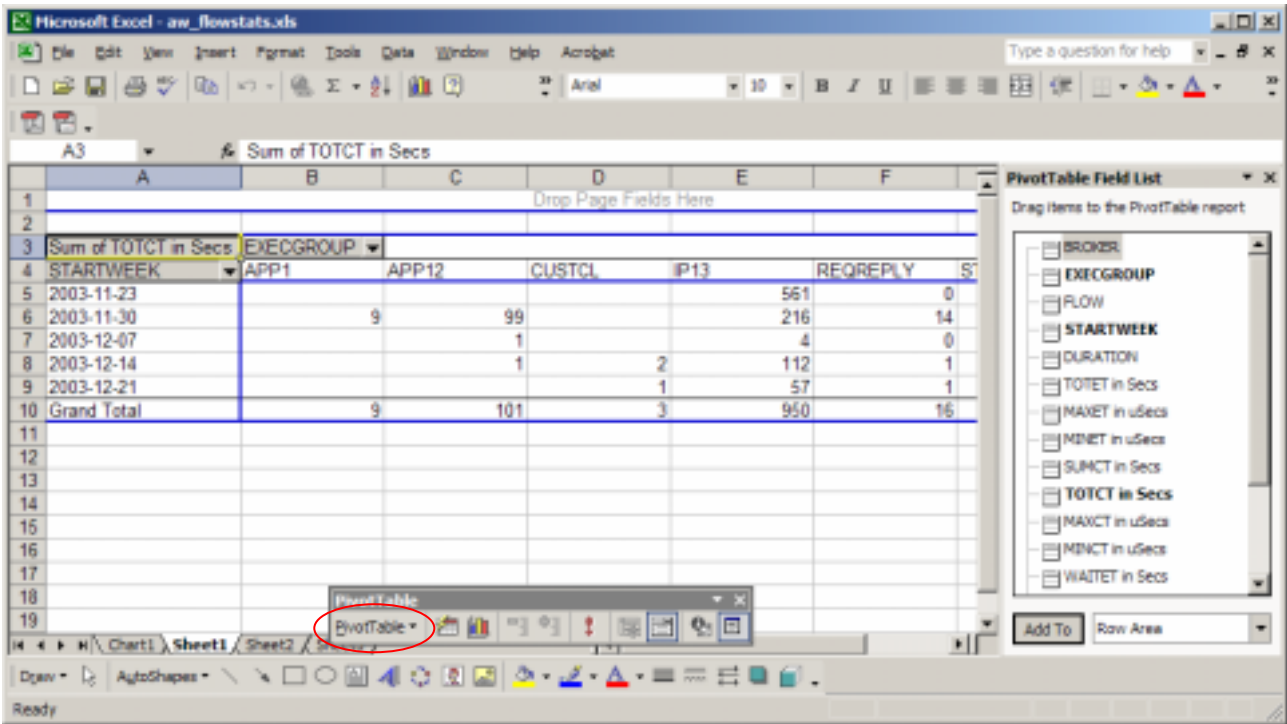


Enter your Windows User ID and password, then press OK.

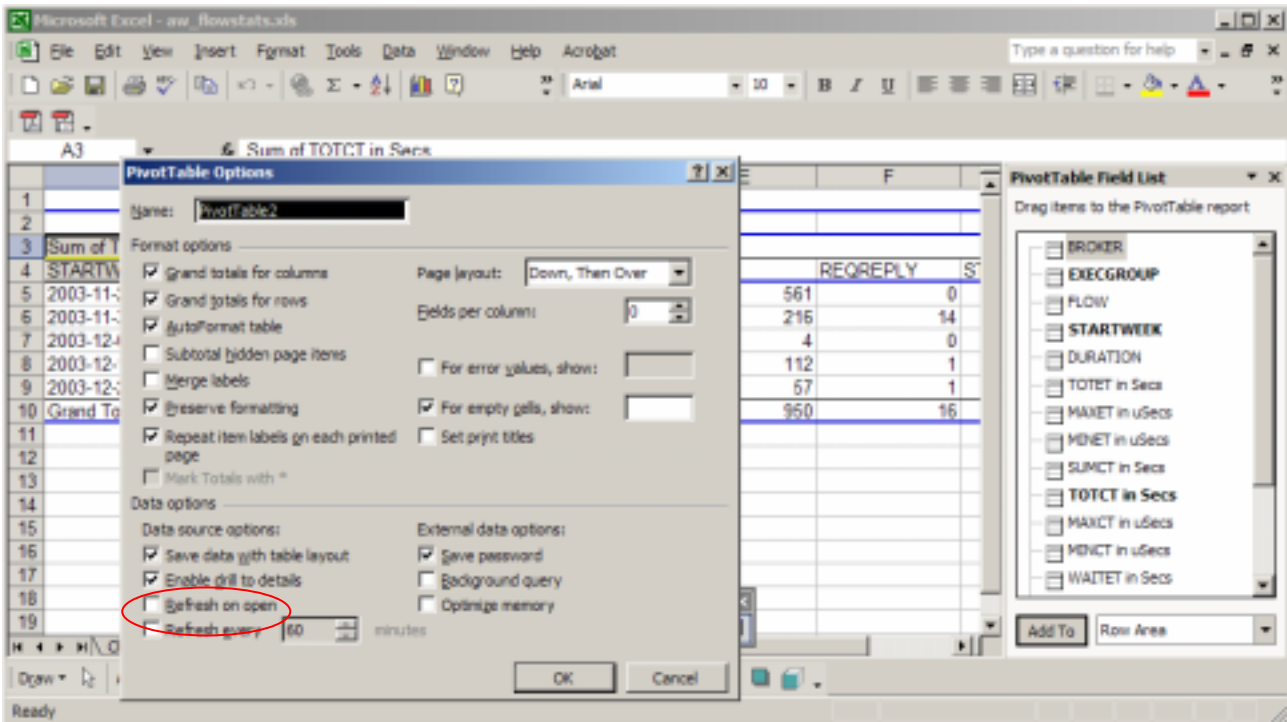
The system may ask if you want to install some software that it needs to be able to connect to DB2. Install this software.

After a short interval the refresh will return with the refreshed data.

By default the data retrieved from the database is stored in the spreadsheet and not refreshed until requested. You can change this behaviour.



Select PivotTable from the PivotTable toolbar, then select Table Options.



You can select *Refresh on Open* so that you always have the latest data when you open the spreadsheet.

You can select Refresh every ... minutes to refresh the data periodically. You might use this if you are looking at snapshot data, and you would set the refresh rate to every minute.

End of document.