Excel Add-ins – Quick Start Guide

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Bloomberg - Excel Add-In

Bloomberg has an excel add-in tool which allows users to download current information, historical information and bulk data to their excel spreadsheets.

1) To launch the Wizard, select "Bloomberg" and then click "Real-Time/ Historical". Then select the type of data needed based on your objective. Note that for "Historical End of Day", the starting and ending dates are both compulsory.
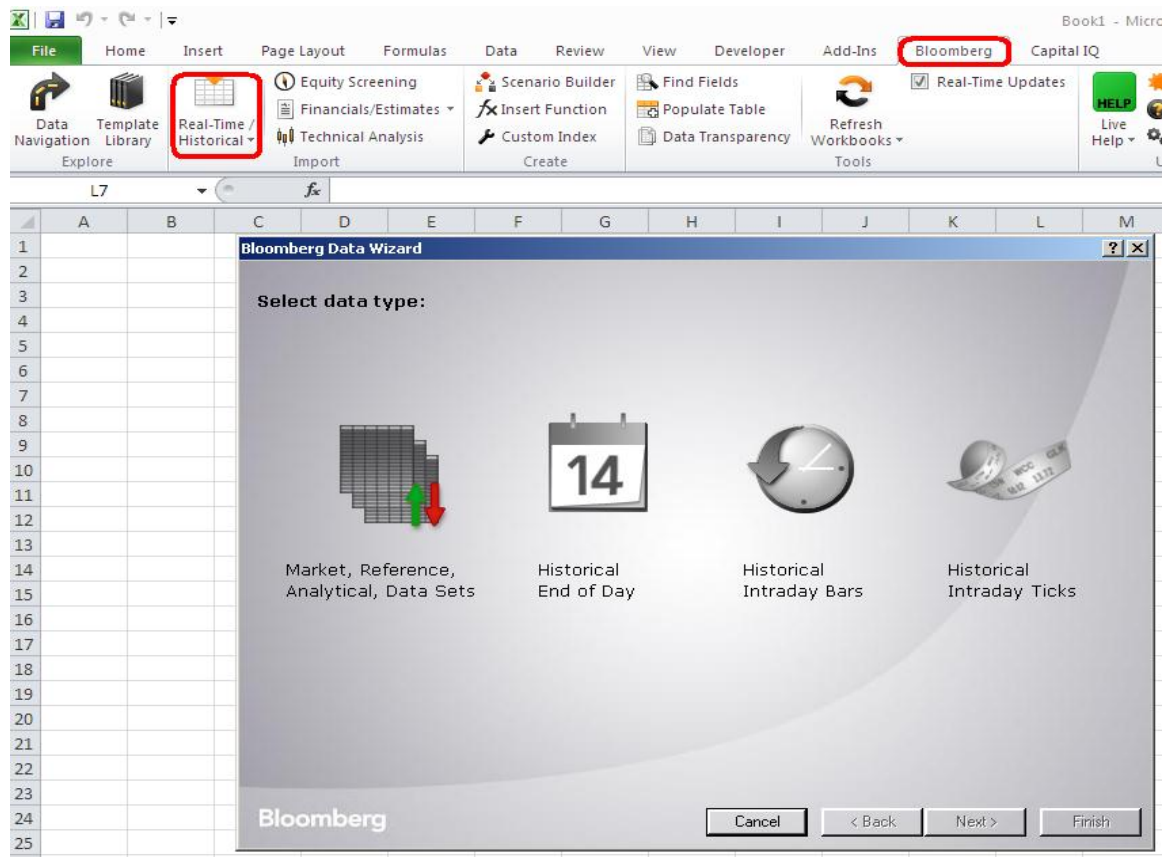
2) For example, if you want to find out the price of all stocks in the Dow Jones Industrial Average, select "**Market, Reference, Analytical, Data Sets**" and then find the DJIA index and click <ADD ALL> <NEXT>.
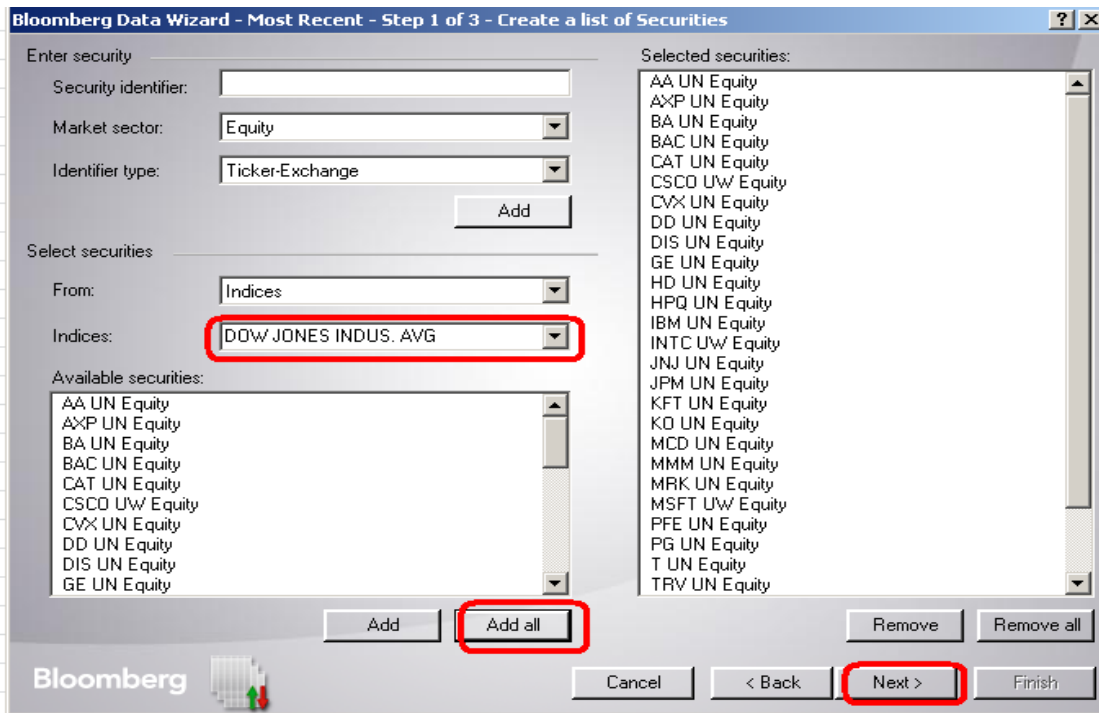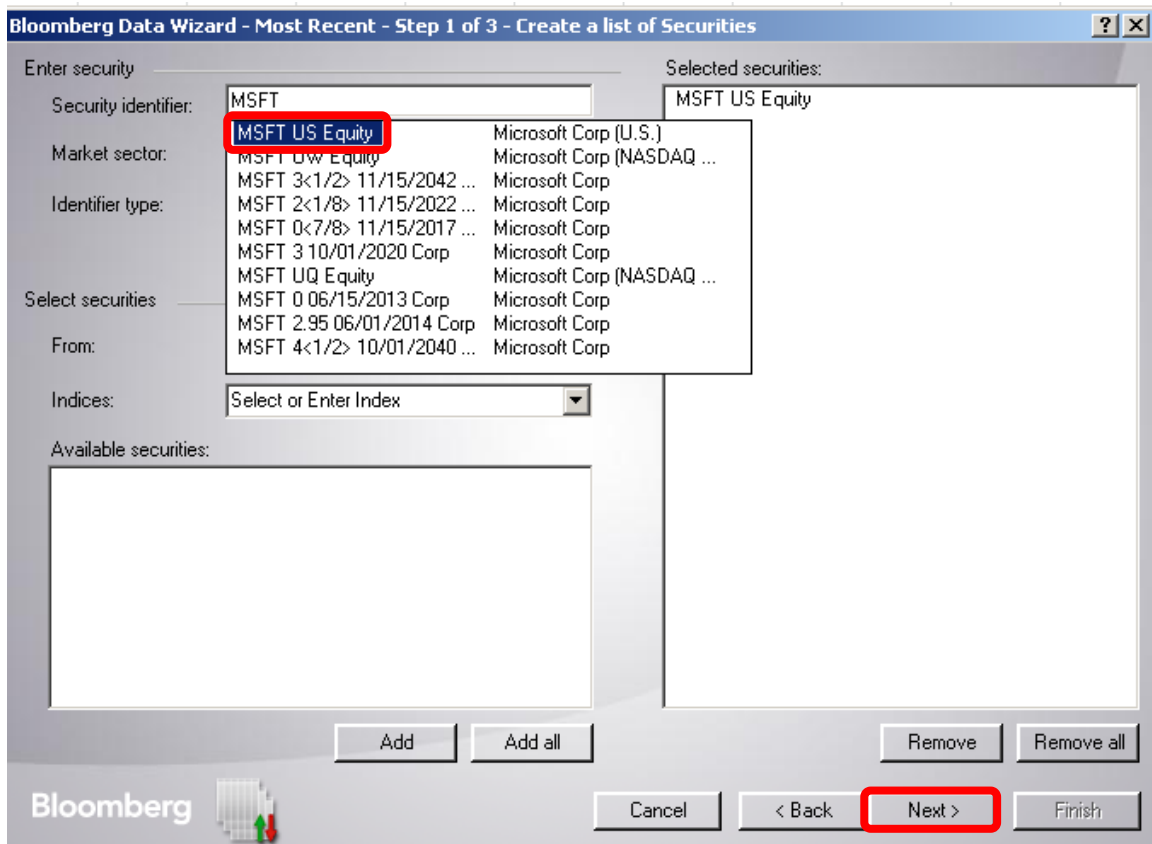
3) Then type in "Price" to search for relevant fields. In this case, double click "PX_LAST" to add that to your field.

4) After selecting the desired format and layout, the data should be exported into excel.
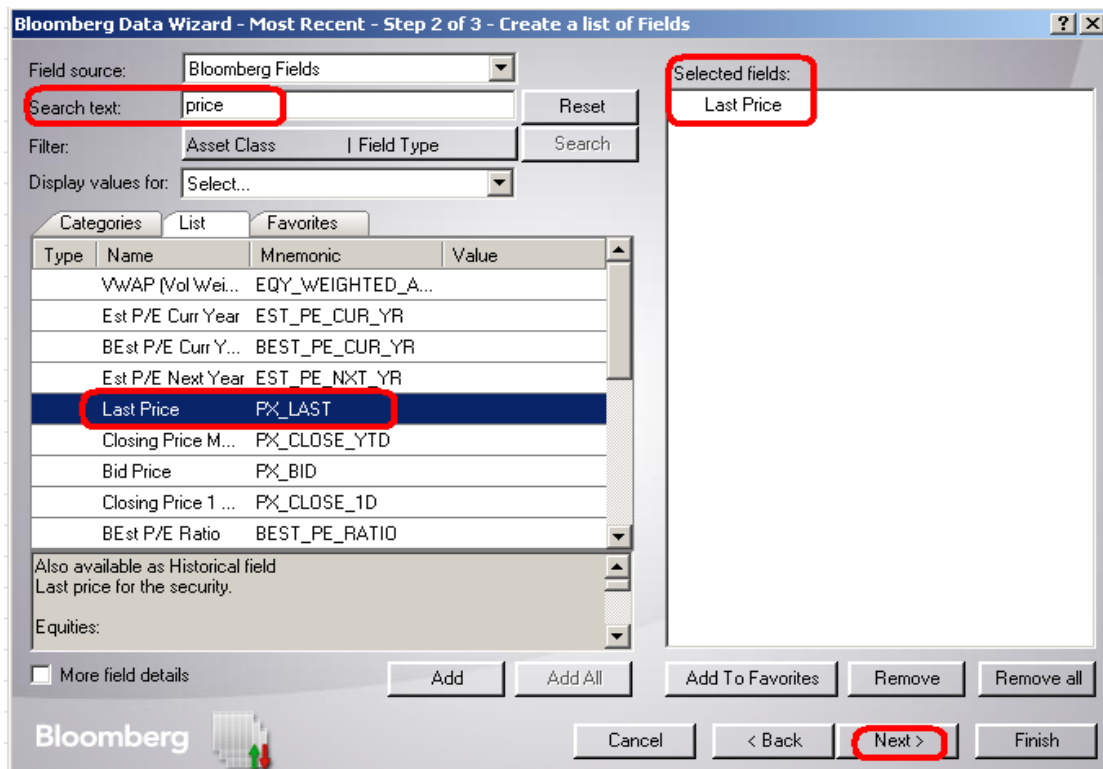
Obtaining Real-Time Quotes

1) To obtain a real time quote for one or more securities, select "**Market, Reference, Analytical, Data Sets**".

2) In the screen that follows, type the desired ticker into the "Security Identifier" field and double-click on the specific security from the auto-complete dropdown menu. This security should now appear in the "Selected securities" box on the right. The Bloomberg ticker convention for equities is as follows: **<ticker><space><country code><space><security type>.** The ticker symbol for Microsoft would be **MSFT US Equity**. Once the desired security has been selected, click **Next**.

3) Leave the "Field Source" as "Bloomberg Fields" and select the relevant data fields by expanding the categories below. You can also search for data fields by entering keywords into the "Search text" field and clicking the **Search** button.

For example, you can search for the Bid Price, Ask Price, and Last Price fields. Other commonly used keywords include Volume, Change, High, Low, EPS, P/E, Beta, and Dividend Yield. The selected fields should appear in the box on the right. Click **Next** once the desired fields have been selected.
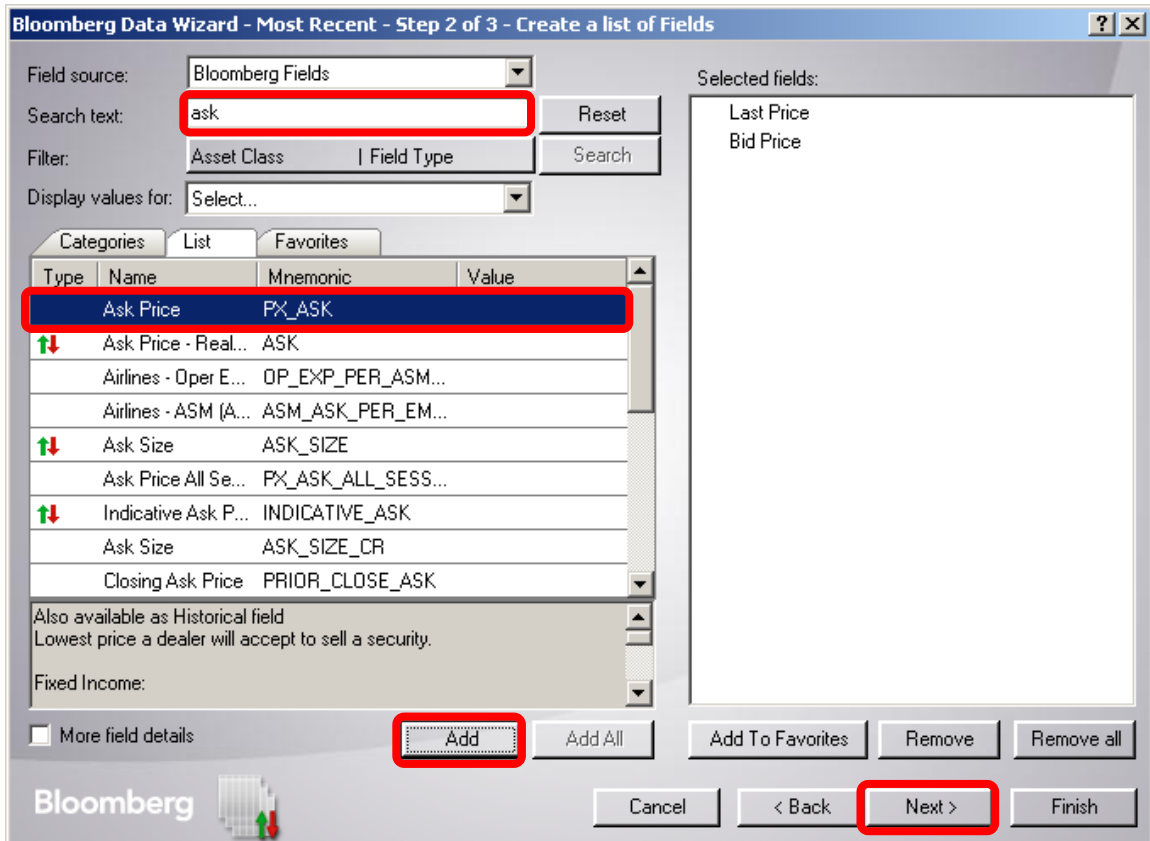
4) The last step is optional and allows you to specify the layout of the data output on your Excel worksheet. Click **Finish** when you are satisfied with the specified layout.

Ensure that the "Real-Time Updates" box is checked.
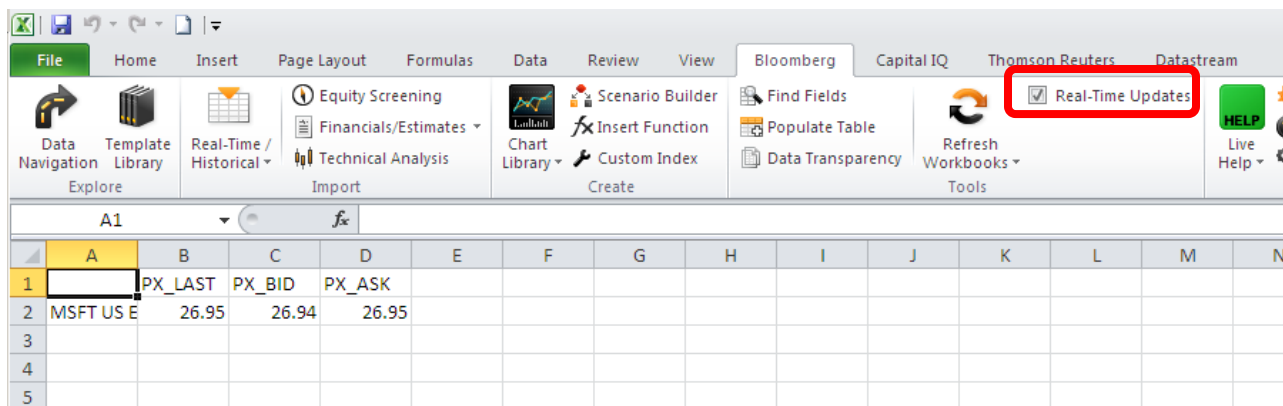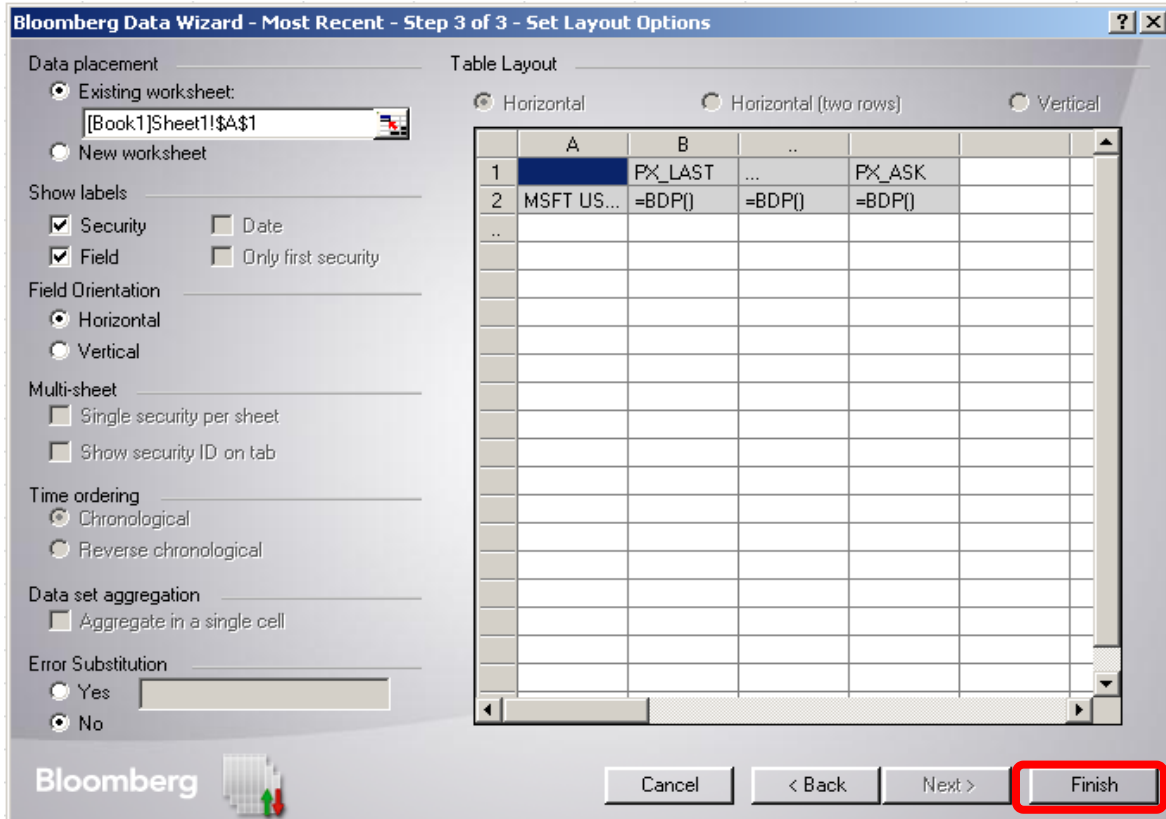
5) In order to obtain real-time quotes for all of the securities in an index, follow Steps 1 above. In the following screen, leave the "Security identifier" field blank and choose "Indices" in the "From:" drop-down menu under the "Select securities" section. Select the desired index from the "Indices:" drop-down menu, then click **Add all**. You may also choose to select only specific securities from the index and then click **Add**. The relevant securities should appear in the "Selected securities" box on the right. Click **Next** and follow Steps 3 and 4 above to finish.
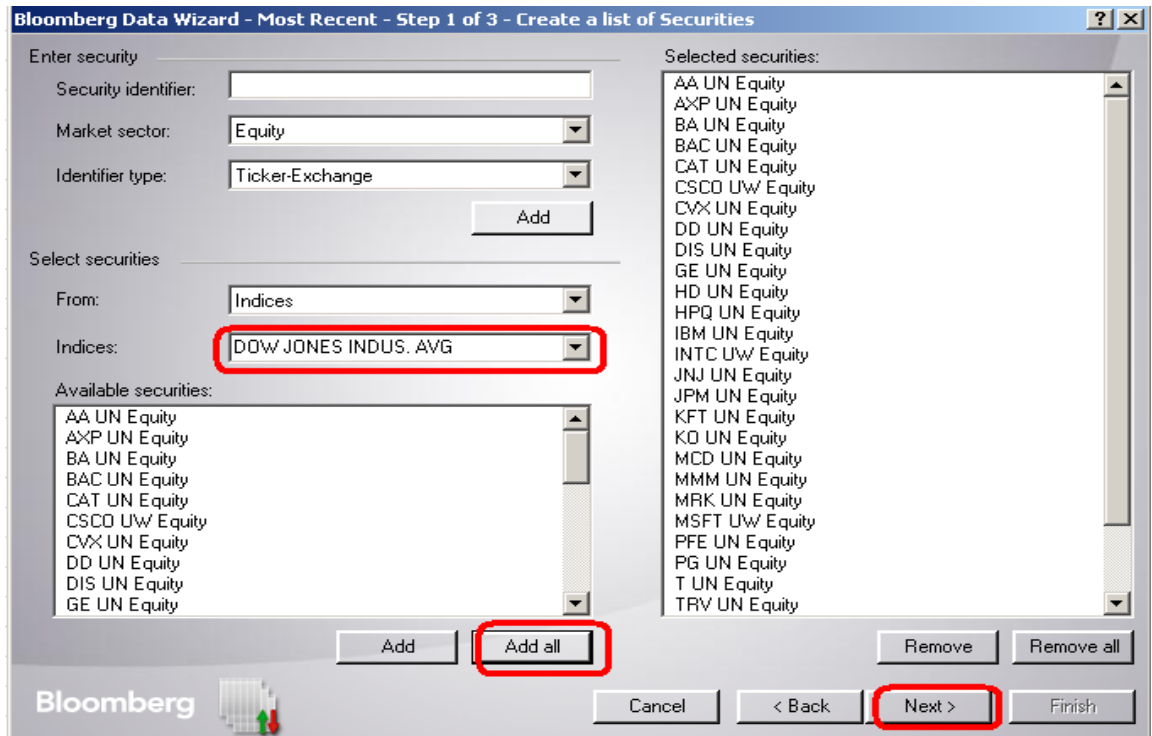
Obtaining Historical Quotes

1) To obtain historical quotes for one or more securities, select "**Historical End of Day**".

2) From the Real-Time Quotes section above, follow Steps 2 and 3 for individual securities, or Step 5 for securities in an index. When selecting fields, similar data such as "Last Price" can be obtained. It is unnecessary to select the "Date" field, as dates will be automatically populated in Excel when obtaining historical quotes through the Bloomberg add-in.

3) For historical data, you must select your preferred Periodicity and Time Frame. Fixed Time Series produces historical data for a fixed time frame. Please note Fixed time series, both a start date (the "From:" field) and an end date (the "To:" field) must be entered. Relative Time Series produces historical data for a fixed number of periods, which will constantly be updated as "current day" changes. If we select Relative Time Series with the End date as **Today** and Number of Periods as **30 days**, the data output will update accordingly and pull out the historical data for the past 30 days from today's date. Once you have selected your Periodicity and Time Frame, click **Next.**

4) You may wish to select a different currency in which to report the historical quotes, or retain the default for the specific security. Click **Finish** once you are satisfied with the parameters selected.

Datastream - Excel Add-in

What does the Datastream Excel Add-in do?

The excel Add-in allows you to access the Datastream database directly from within Microsoft Excel. Using excel, you can create and embed data requests that put the data you want straight into your excel spreadsheet. Datastream gives you access to the world's largest and most respected historical financial numerical database. Datastream provides a range of charting and reporting tools that enable you to manipulate and display, or simply download that data in the way that you want.

Where is the Datastream Add-in?

The add-in for Datastream can be found at the top right tab under "Datastream".
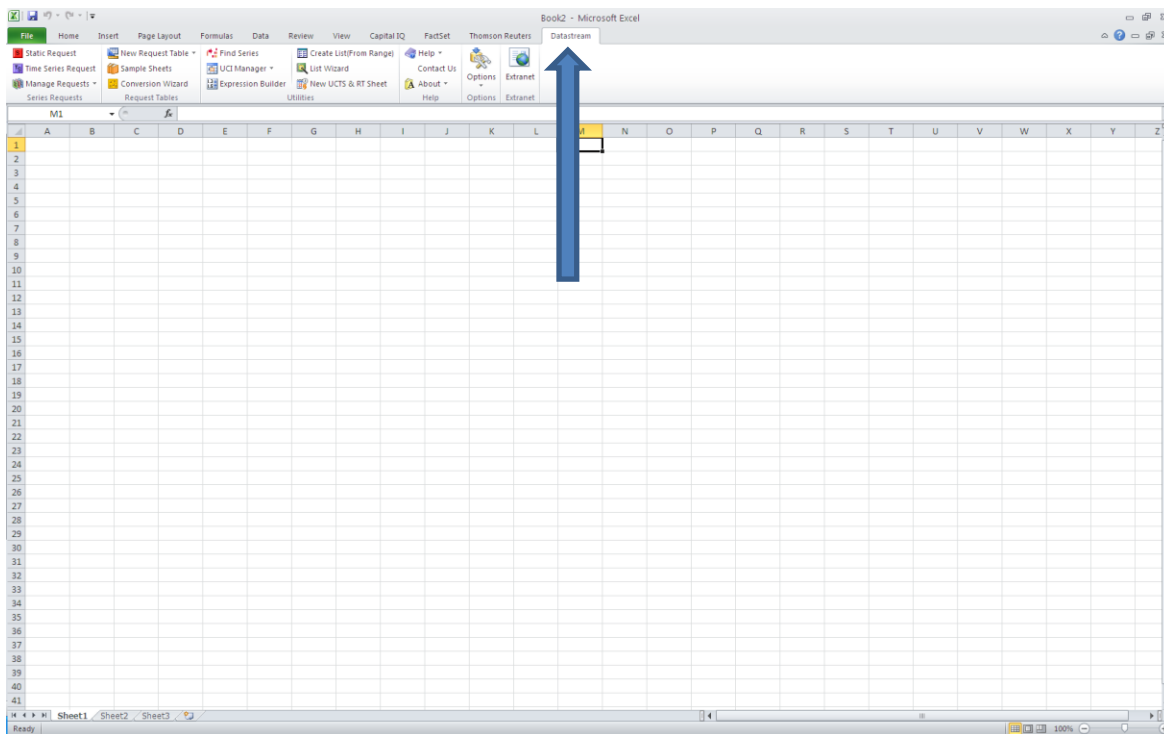
Downloading data from Datastream to Excel

In order to download data you have to make a "request". There are two types of requests:

1. **Time series request**: requesting data of one or more series over a certain time period.
2. **Static request:** requesting data of one or more series on a specific date.

Each of these request types consists out of 4 steps:

1. Enter the **series** for which data is needed.
2. Enter the **type (datatype)** of data needed.
3. Specify the **date** or **time period** over which the data is needed
4. Set **options**

First step: choose the series

While still under the Datastream Tab, choose the type of request that you are interested in. In this case, we will choose **Time series request.**
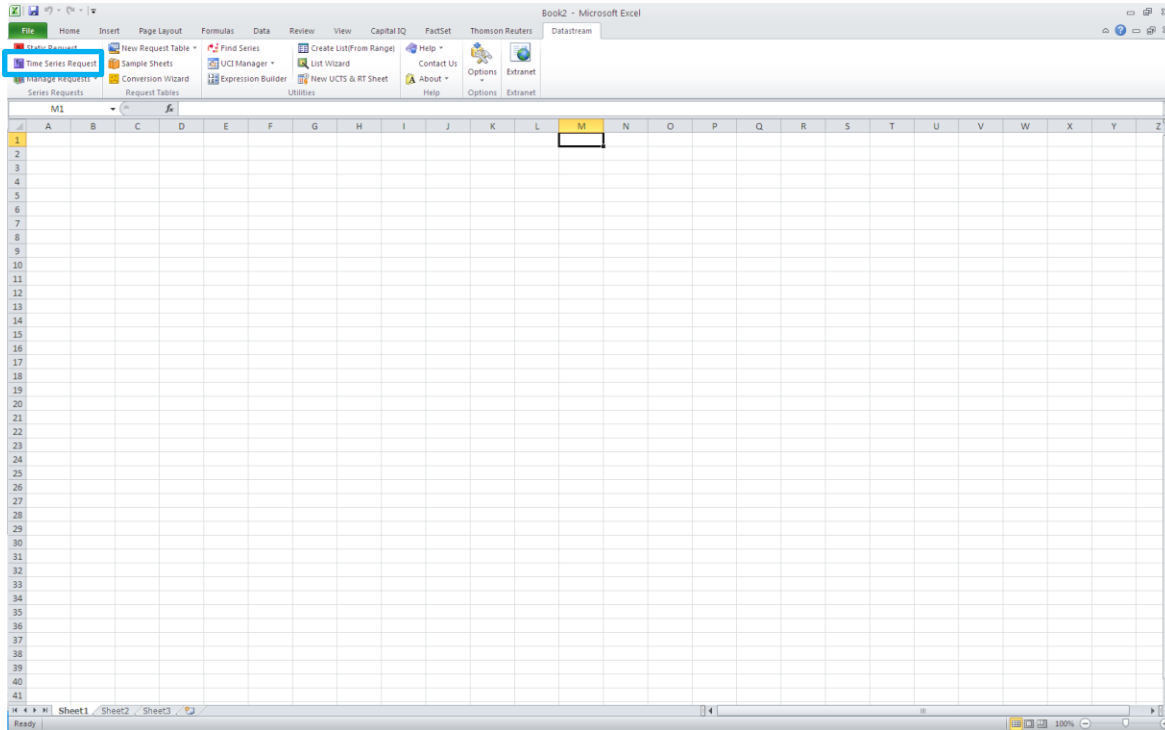
Second step: choose the datatype

In the Time series request window, once you have identified the security for which data is required, it is important to specify which kind of information is needed by filling in the **datatypes** box. If this is left blank, a default setting will be assumed. To choose the datatype click "**f$_x$**" on the left side of the datatypes field. This will take you to a window that provides you with the various datatypes available along with their respective definitions. The datatypes in this window can be sorted by **function** and **description.**

Next page: see picture of time series window along with datatypes (Function help) window.
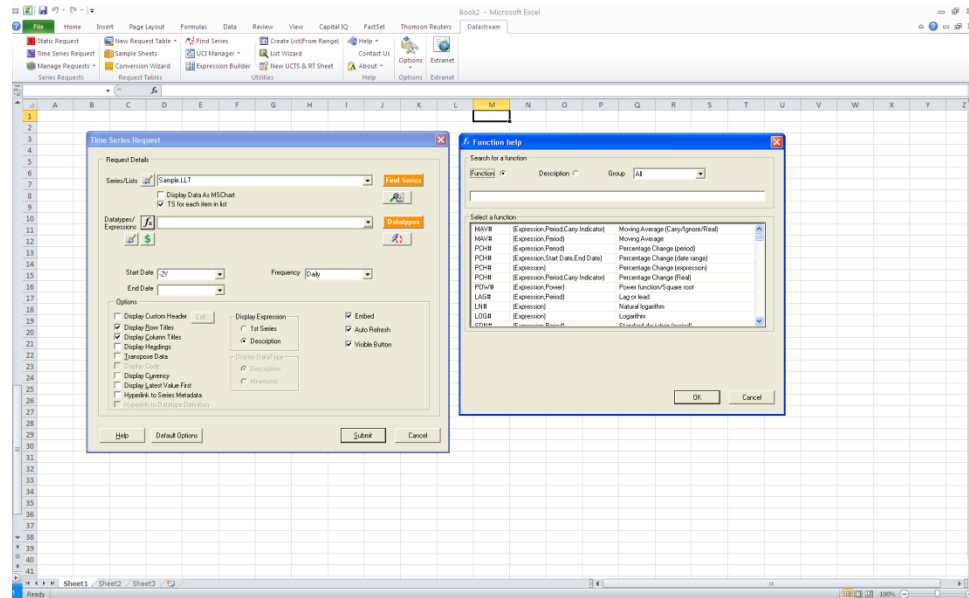
Third step: specify the data period

Within the time series request window, to choose the data period there are 3 boxes of input available:

1. **Start date:** you can enter the start date in in two ways, (1) relative or (2) absolute.
    a. **Relative:** the default setting "-2Y" will result in data being downloaded from the past 2 years to the end date. Here "Y" means years. But you can also use "D" for days, "W" for weeks, "M" for months, and "Q" for quarters.
    b. **Absolute:** this is used to retrieve data for a fixed time period. Enter the start date and end date in the following format: dd/mm/yyyy. You can also enter **"Base Date"**, this will start the data series from the date that data is first available.
2. **Frequency:** choose from the drop down menu the time intervals for your data series.
3. **End date:** Choose your end date. If left blank, the default setting will be to choose the most recent date.

Fourth step: choose options

You can set options about how the output will be downloaded to Excel. It is useful to check "Display Row Titles", "Display Column Titles", "Display Headings" and "Display Currency" to have a clear overview about which data was downloaded. It is also useful to check the "Embed" and "Visible Button" boxes. This will embed the request into the Excel sheet so that the user can easily update or edit the request. If the "Auto Refresh" box is checked your work will be automatically updated the next time you open Excel, provided that you are using a computer with Datastream.

Next page: Submitting the request
Submitting the request

Once the criteria above have been accomplished, it is now time to submit the request. Simply click the submit button.

Datastream will download a time series for each datatypes requested. By default,
all the essential information about the request is indicated in the Excel sheet. By having checked the "Embed" and "Visible" boxes, there is also a Refresh button. By clicking it, the request is updated. By right-clicking on it, you can cut, copy, or delete this request. You can also open the Editor which brings you back to the input screen.

FactSet - Excel Add-in

1) To download historical or series data, ensure that the FactSet Add-in is already enabled.
   File > Options > Add-Ins > FactSet Office COM Add-In
2) If it's not already enabled, please contact the Financial Research & Trading Lab assistants.
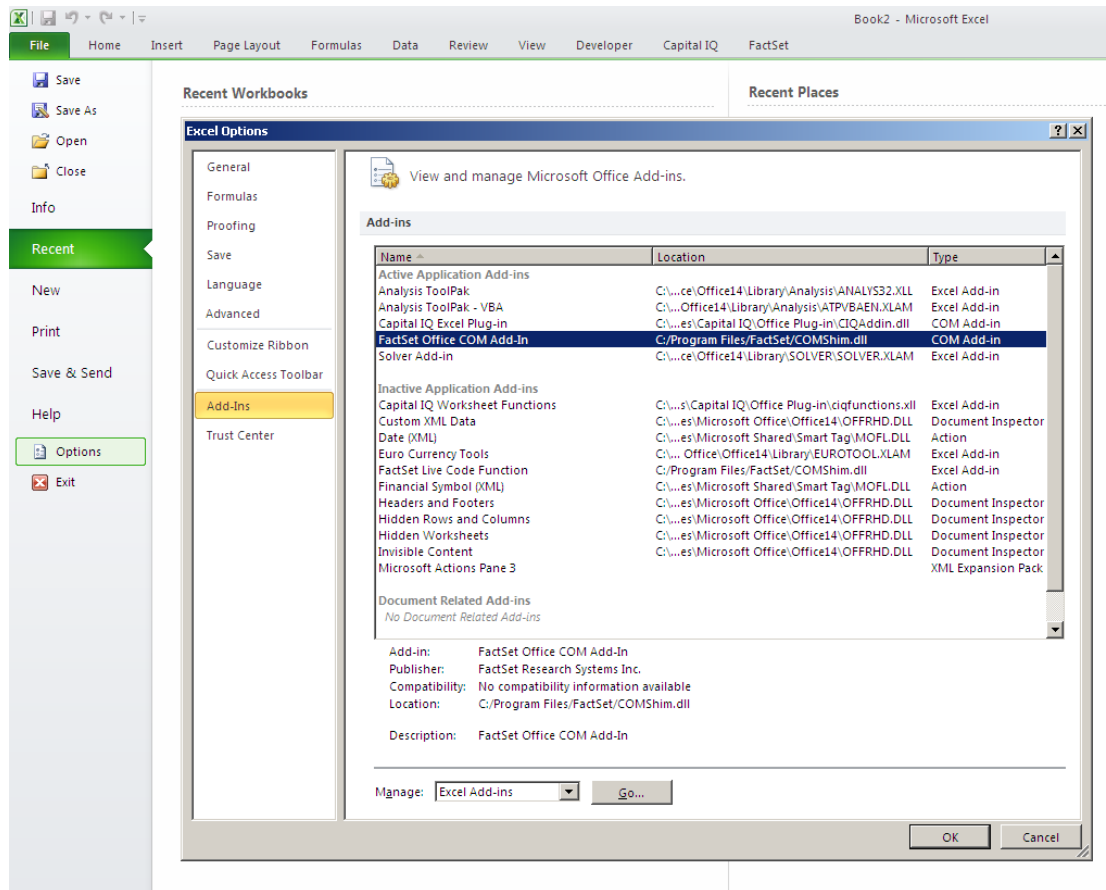
3) If FactSet Add-In is enabled, you will be able to see FactSet on the toolbar.
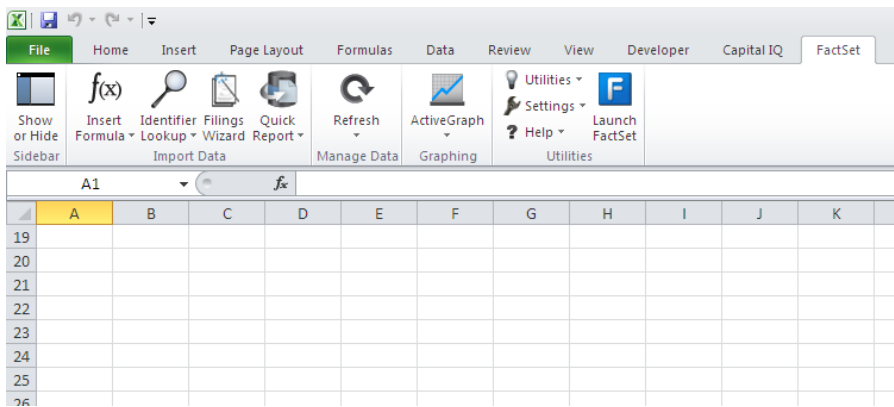
To insert a simple table of a data item versus date, you can click **Sidebar > Insert**, select the identifier(s), the data item and input details, and then hit **Insert** at the bottom.
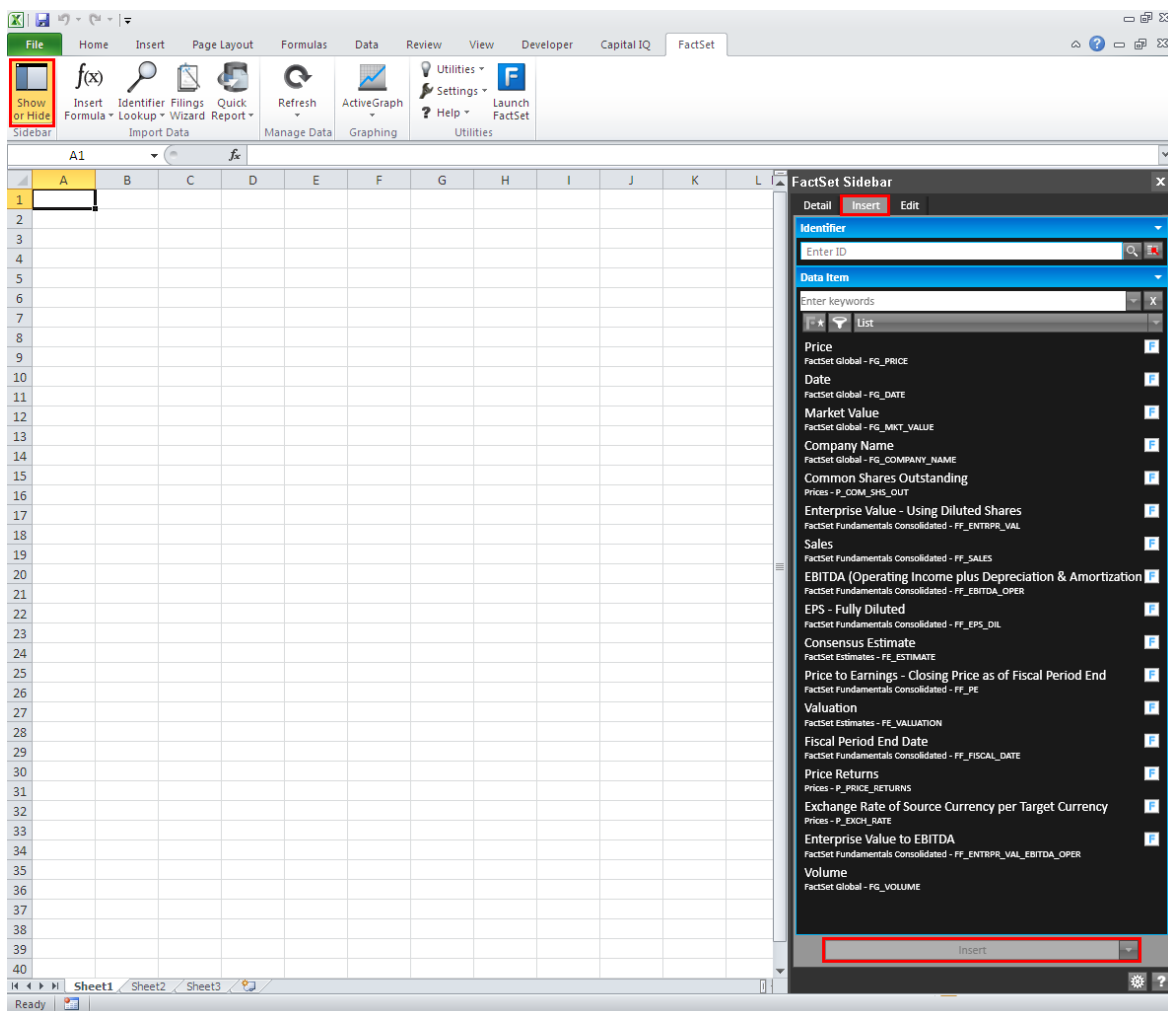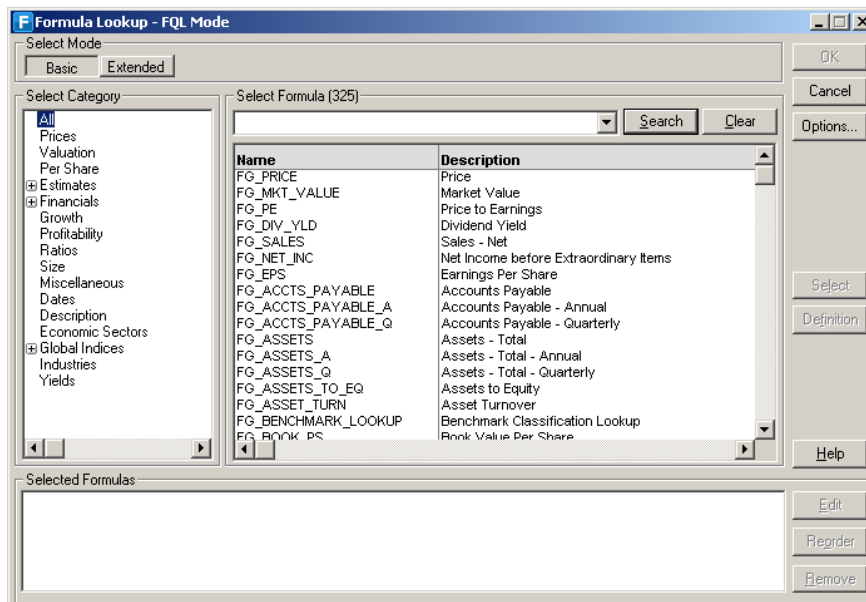

Note: You can only retrieve one type of series at once using this method.

Formula Lookup (FQL)

To look up a formula, go to the Insert Formula Dropdown Menu > Formula Lookup, and the Formula Lookup window will pop up.

With Formula Lookup, you can search and select the Formula you will use to download and retrieve data from FactSet.

Retrieving Data

There are two ways to retrieve data – **Data Downloading** and **=FDS Codes**.
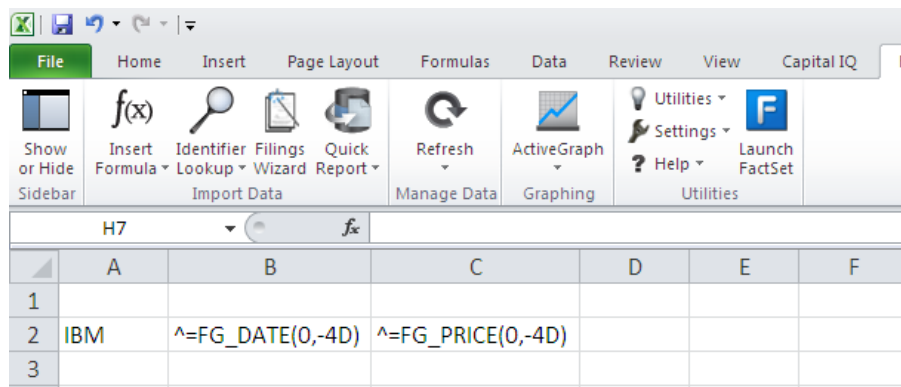
Data Downloading

Downloading codes are used in spreadsheets to request data from the databases on FactSet via Data Downloading. To create a template for Data Downloading, first add security identifiers to the spreadsheet (so you will know which company's data it is), then include your desired Data Downloading request codes (using Formula Lookup - FQL). Finally, apply any preferred formatting to your template cells.

Once the template is set up and saved, you can download the requested data by selecting Data Downloading from the FactSet menu in your spreadsheet (FactSet-Excel menu > Refresh Dropdown Menu > Data Downloading). FactSet will ask you to key in the identifiers, of which you would like to retrieve the data. Once the ticker is selected, Excel will create a separate file (or **data file**) for each identifier which displays the requested data. If you want to make any changes to the codes in your spreadsheet (formatting, adding new codes, etc.), make sure you

make the changes in the original file (or **template file**), and refresh the data from the FactSet dropdown menu and view the results in the new data file.

In Data Downloading, FactSet processes the requests simultaneously (=FDS codes calculate one by one). As a result, Downloading codes in larger spreadsheets calculate faster than =FDS codes, and therefore Data Downloading is often used to retrieve historic data, while =FDS Codes are used for real-time data.
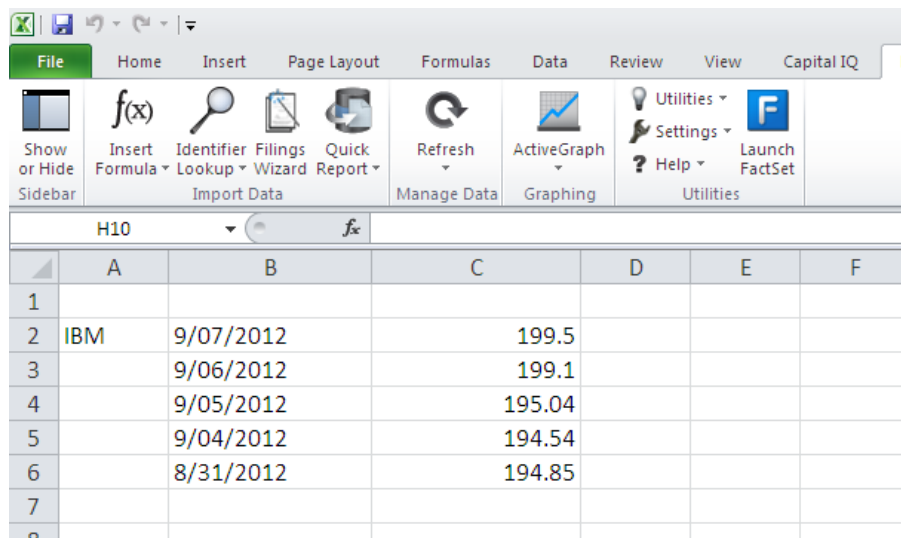
Template File:

Data File:

Using =FDS Codes

=FDS codes are DDE (dynamic data exchange) codes that make a direct call from Excel to FactSet's mainframe. To request data with =FDS codes, first place the =FDS codes (which use FQL standard syntax) in an Excel spreadsheet, then select one of the recalculate options from the FactSet menu.

=FDS codes contain both the identifier and the data item. They calculate in the spreadsheet with your codes, so FactSet does not create a separate data file (i.e., you only work with one spreadsheet).

To change the template, you would simply change the FDS formula. As for refreshing your data, you can go to the FactSet Ribbon > Refresh Dropdown Menu > select either *All =FDS Codes* or *Selected =FDS Codes*.

=FDS Code Syntax

The general syntax for using =FDS codes in Excel is as follows:

=FDS("symbol","item(date)")

Unlike Data Downloading codes, there is no caret (^) at the beginning of an =FDS code. Instead, the formula begins with =FDS. The symbol and item are enclosed in quotation marks.

Syntax for Requesting a Time Series of Data

The general syntax for using =FDS codes to bring in a time series of data is as follows:
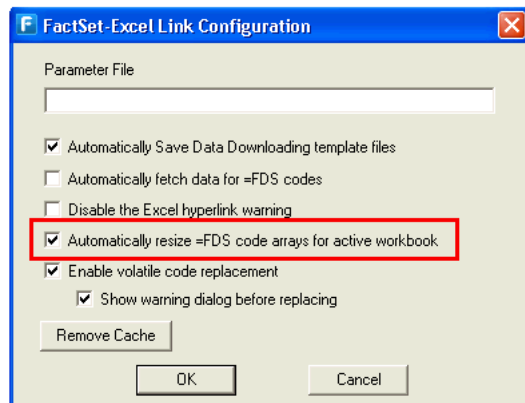
=FDS("symbol","item(start_date,end_date,frequency)")

In order to bring a time series of data into an Excel spreadsheet using =FDS codes, you must define an array; otherwise, the =FDS code will place only the first element of the time series into the spreadsheet.

1. Type your =FDS code in an Excel cell, then press ENTER.
2. Highlight the cells containing the code and the range of cells, both across and down, where the data will fill in.
3. With the range still highlighted, press F2 key.
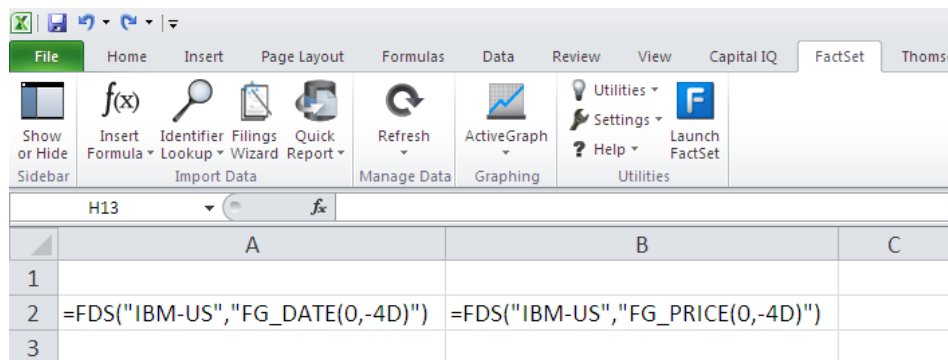4. Press CTRL + SHIFT + ENTER simultaneously.

If you would like the =FDS code to define the array for you, enable the =FDS automatic array-resizing functionality. By default, the =FDS automatic array-resizing functionality is disabled. To activate it for all Excel files, you must launch System-Wide Preferences.

Select the FactSet Ribbon > Settings > Configuration.

Then, select or deselect the check box:

=FDS Spreadsheet - Code View

	A	B	C
1			
2	=FDS("IBM-US","FG_DATE(0,-4D)")	=FDS("IBM-US","FG_PRICE(0,-4D)")	
3			

=FDS Spreadsheet - Data View

	A	B	C
1			
2	9/07/2012	199.5	
3	9/06/2012	199.1	
4	9/05/2012	195.04	
5	9/04/2012	194.54	
6	8/31/2012	194.85	
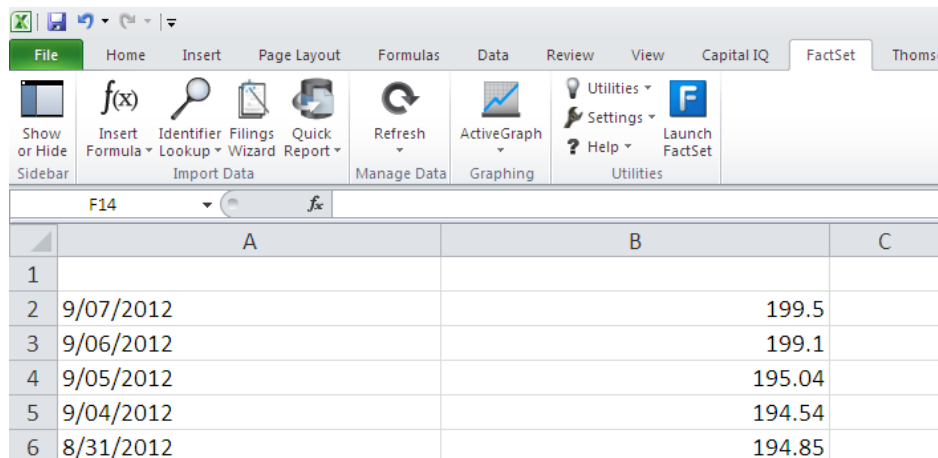
Thomson Reuters Eikon - Excel Add-in
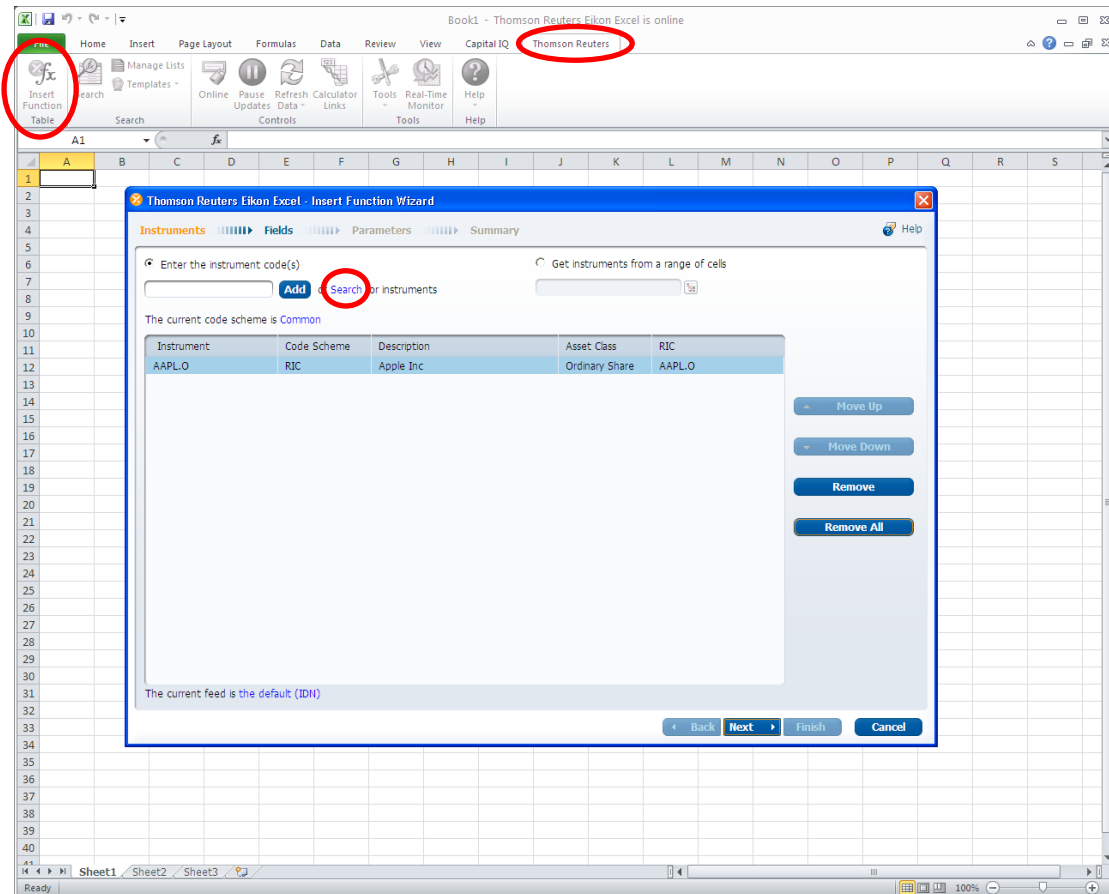
Eikon's excel add-in is a very useful tool to extract historical market data or create live links to current market data to an excel spreadsheet. In order to access the add-in, go to the "Thomson Reuters" tab and click on "Insert Function". This will bring you to the Function Wizard, which is the easiest way to extract data from Eikon.

From this screen, you can enter the instrument code that you would like to extract information on. It is important that the code you use follows the Eikon syntax. For example, if you wanted historical price information on Apple, you would enter the instrument code AAPL.O and the instrument would appear below with a brief description to ensure it is what you were looking for. If you are unsure of the correct Eikon syntax, you can use the search function highlighted above. You simply enter a key word and Eikon will return all pertinent results. From the results, select the desired RIC from the right of the screen or click on the results for more options.

On the next screen, you are able to select the specific information you need on the security. You can choose to select "Real Time and Fundamental" data or "Time Series" (Historical) data. For example, if you wanted real time data on the Bid, Ask, and Close of Apple shares as they are currently trading in the market, you would choose those fields, click add and see them in the "Selected Fields" portion on the right of the screen. It is recommended to always add Date as a field. Once done, click next. The following screen will summarize your request and output.
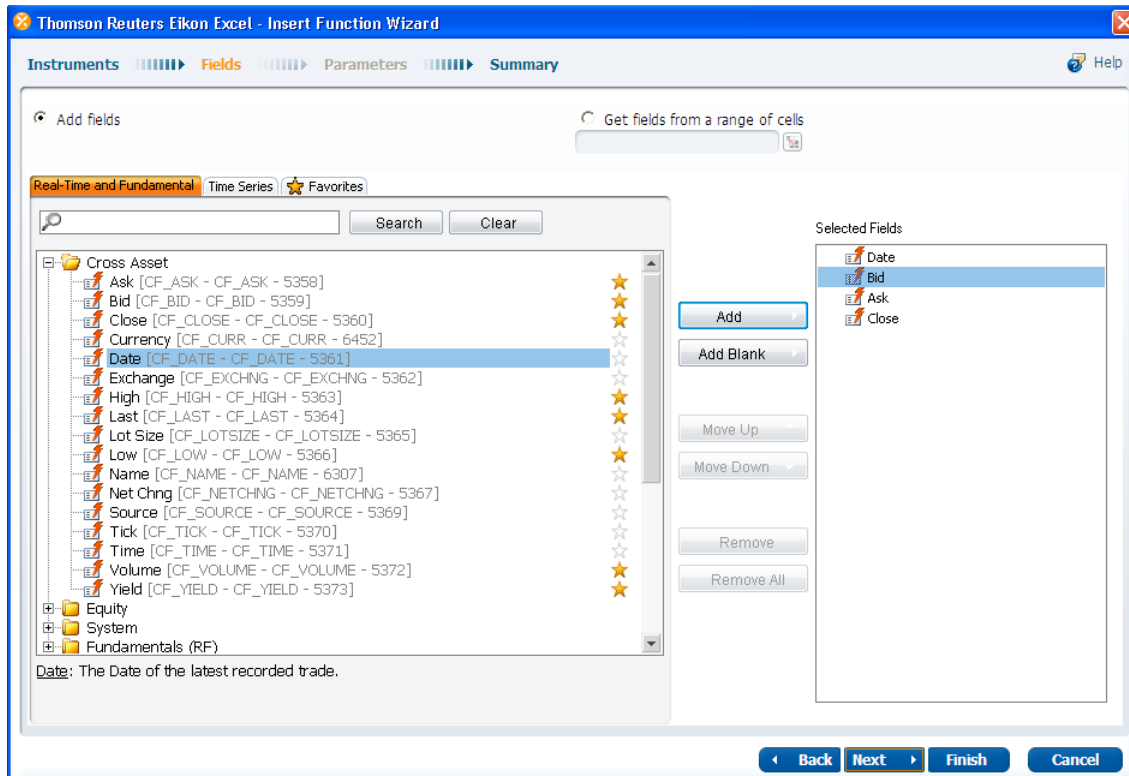

After you click finish, the requested data will be displayed as shown below. This data offers a live link to Eikon and will update as market prices change.

If you required historical data, you would simply select the "Time Series" tab instead of the "Real Time and Fundamental" tab and choose your desired fields. Be sure select the interval or frequency of the data needed, as shown below. The default is set to daily.
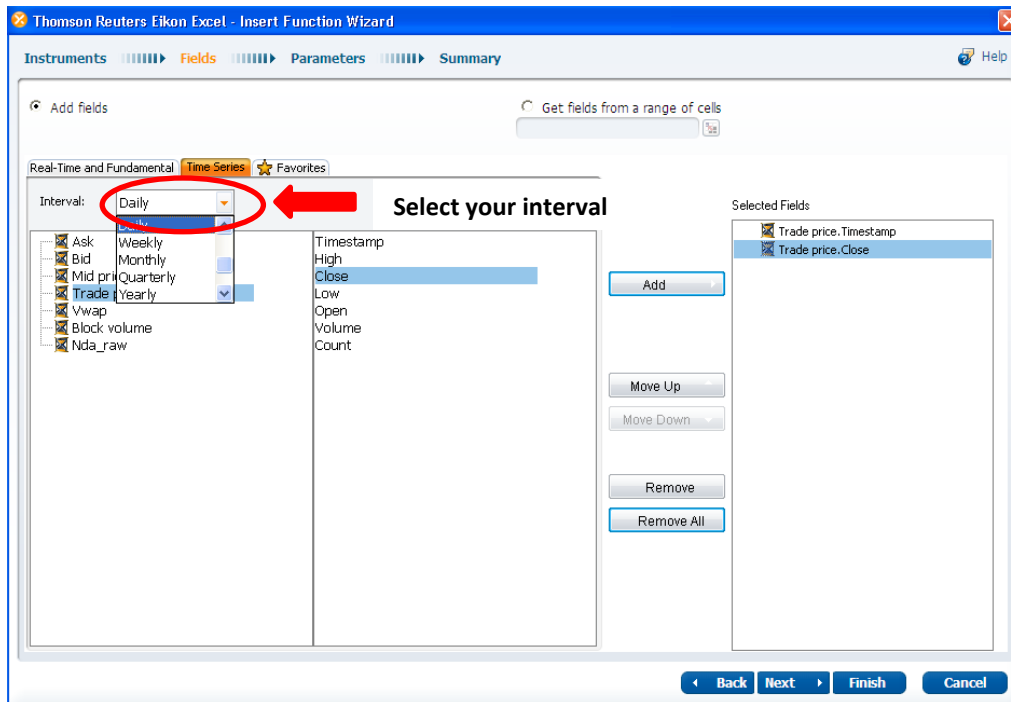
After selecting your fields, the next screen will differ from the Real Time and Fundamental data page. With Time Series data you will need to select the time frame of historical data required.
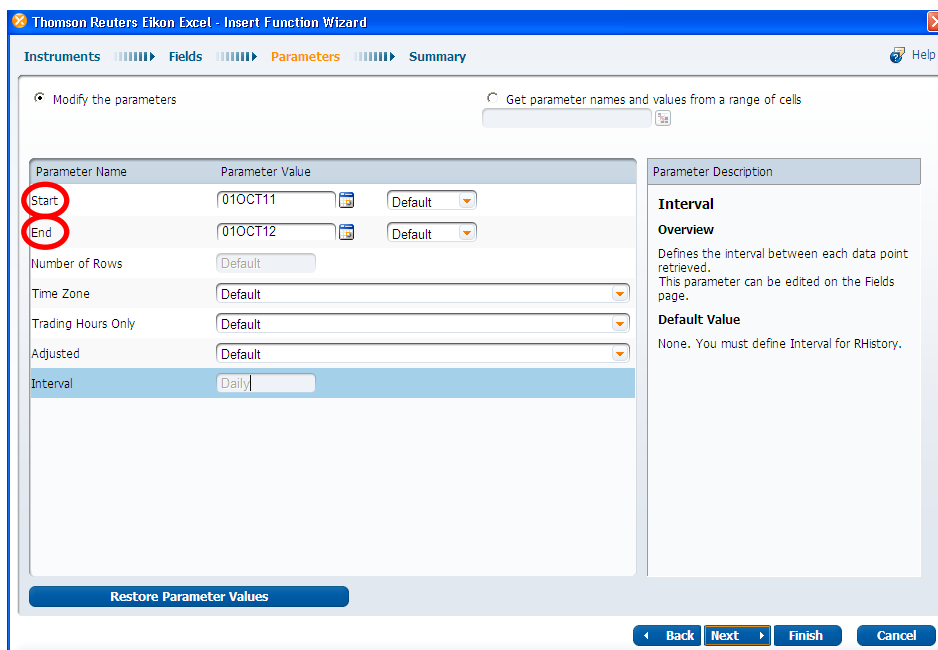
The following screen will be a summary page is similar to the one before, with a summary of all parameters and options. The excel output for historical data is shown below.

	A	B	C	D
1	Updated at 19:29:12	TRDPRC_1.TIMESTAMP	TRDPRC_1.CLOSE	
2		AAPL.O	AAPL.O	
3		Timestamp	Trade Close	
4		1-Oct-12	659.39	
5		28-Sep-12	667.11	
6		27-Sep-12	681.32	
7		26-Sep-12	665.18	
8		25-Sep-12	673.54	
9		24-Sep-12	690.79	
10		21-Sep-12	700.10	
11		20-Sep-12	698.70	
12		19-Sep-12	702.10	
13		18-Sep-12	701.91	