

Database Guide

Bloomberg

Bloomberg provides real-time and historical financial market data and economic data, covering all sectors worldwide. It also features analytics, company financials, news, and customizable charting.

This guide provides a quick introduction to the Bloomberg system, including the custom keyboard and basic function keys, as well as the Excel Add-in functionality.

LOG ON

Bloomberg terminal is located in room 4235. To log on:

1. Open Bloomberg.
2. Enter the username/password. Press **GO**

LOG OFF

1. Press **CONN DFLT** or right-click on screen > select **Exit Bloomberg**.
2. Remember to log yourself off the computer.

HELP

Three ways to use **HELP** key:

1. Press the key to define terminology, formulas, and applications.
2. Type the terms you'd like to research, and press the key to get related data menu
3. Press the key twice to chat with a specialist at Bloomberg's Analytics desk anytime around the clock. Usually the specialists from Bloomberg support answer you in 24 hours. To get support quickly write in English.

Enter **BU GO** to access "Bloomberg University" online tutorials and a schedule of Bloomberg training courses.

THE BLOOMBERG KEYBOARD

The Bloomberg keyboard is color-coded to give users quick access to data and to specific functions.

Yellow Market Sector Keys

| | | | |
|--------------|---|---------------|---|
| GOVT | Worldwide sovereign and agency securities | PFD | Preferred stocks |
| CORP | Corporate debt | EQUITY | Common stocks, options, mutual funds, company financials, SEC filings |
| MTGE | Mortgage market instruments | CMDTY | Commodities, futures, options |
| M-MKT | Money market information | INDEX | Global equity indices, economic indices |
| MUNI | U.S. municipality issued debt | CRNCY | Currency markets |

Green Action Keys

| | | | |
|-------------|--------------------|--------------|---|
| GO | Execute a function | HELP | Get definitions, related data menu; press twice to chat with a Bloomberg specialist |
| MENU | Go back one level | PRINT | Print a screen |

SEARCHING BLOOMBERG

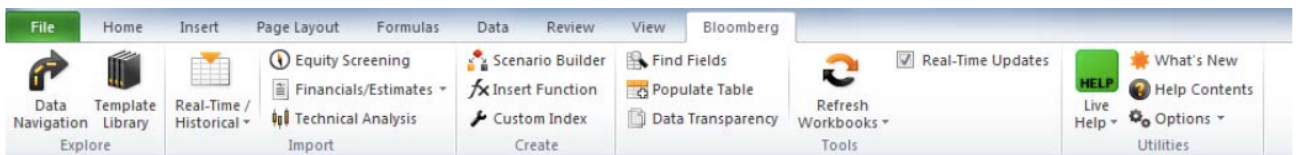
Upon login, Bloomberg opens four windows. Press **PANEL** to toggle between the windows. Bloomberg is a menu-driven database. To access the menu of any functions, use the **Market Sector** keys, mnemonics, or enter a term followed by the **HELP** key.

Mnemonics are shortcuts to functions and they are displayed in capital letters next to the numbers on a menu, e.g. **HP** for Historical Price, **WEI** for World Equity Indices, **MA** for Mergers and Acquisitions, etc.

| Data | Enter Function at Top of Screen | Examples |
|---|--|-----------------------------|
| Screening equities | EQS GO | |
| Finding the ticker for a company | EQUITY TK GO company name GO | EQUITY TK GO Apple Inc GO |
| Searching for a company | Company name HELP GO | Apple Inc HELP GO |
| | Ticker HELP GO | AAPL HELP GO |
| Historical stock prices | Ticker EQUITY HP GO | AAPL EQUITY HP GO |
| Company description | Ticker EQUITY DES GO | AAPL EQUITY DES GO |
| Company financials | Ticker EQUITY GO, then choose 4) Fundamentals and Estimates | AAPL EQUITY GO |
| | Ticker EQUITY FA GO | AAPL EQUITY FA GO |
| Dividends | Ticker EQUITY DVD GO | AAPL EQUITY DVD GO |
| Comparing stock performance with S&P500 | Ticker EQUITY SPX INDEX GO | AAPL EQUITY SPX INDEX GO |
| Company news | Ticker EQUITY CN GO | AAPL EQUITY CN GO |
| Options | Ticker EQUITY OMON GO | AAPL EQUITY OMON GO |
| Historical beta | Ticker EQUITY BETA GO | AAPL EQUITY BETA GO |
| Comparing two stocks | Ticker 1 EQUITY Ticker 2 EQUITY GO | AAPL EQUITY GOOG EQUITY GO |
| Total return analysis | Ticker EQUITY TRA GO | AAPL EQUITY TRA GO |
| | Index symbol INDEX TRA GO | SPX INDEX TRA GO |
| Corporate bonds | Search by issuer: Ticker CORP GO | GOOG CORP GO |
| | Search for specific bond: Ticker Coupon Rate Maturity CORP GO | GOOG 3.625 05/19/21 CORP GO |
| | Worldwide government bonds: WB GO | |
| Government bonds | US Treasury bonds: CT10 GOVT GO for the 10 year bond CT5 GOVT GO for the 5 year bond | |
| | US generic bonds: USGG5YR INDEX GO USGG10YR INDEX GO | |
| | | |
| League tables for equity or bond deals | LEAG GO | |
| M&A | MA GO | |
| Futures contracts | WF GO | |
| Spot and forward rates | CRNCY FRD GO | |
| Exchange rates | Search by region: CRNCY TKC GO | |
| | For world currency rages: CRNCY WCR GO | |

BLOOMBERG EXCEL ADD-IN

Bloomberg Excel Add-in is a powerful tool that delivers Bloomberg data directly into Excel spreadsheet for custom analysis and calculations.



Data Wizard

Click the **Real-Time/Historical** icon to open the Data Wizard.



Market, Reference, Analytical, Data Sets : the most recent data from 500+ fields, including analytics, real time prices, fundamentals, etc.



Historical End of Day: time series data for a specified time period in increments of days, weeks, months, quarters, or years



Historic Intraday Bars: intra-day data for various market parameters for up-to 50 days with an interval down to one minute



Historical Intraday Ticks: Intraday market ticks for time increments, based on big, ask, or trade events.



Download Time Series Data for a List of Securities on a Spreadsheet

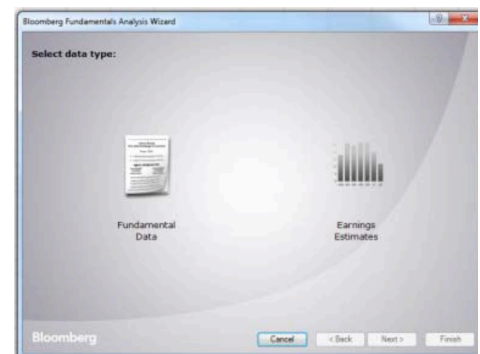
1. Open a spreadsheet containing a list of securities, in the format with Bloomberg identifiers, e.g. AAPL Equity.
2. Click on **Real-Time/Historical** icon to open the Data Wizard, and select the type of data you need.
3. Use the **Select securities > From** drop-down list to select **Spreadsheet**.
4. Enter the range of input fields, e.g. **\$A\$2:\$A\$4**
5. Click **Import > Next**. Follow the steps in the Wizard to select search criteria, periodicity, and time frame.

Fundamental Analysis wizard

Click on Financials/Estimates to open the wizard.

Fundamental Data: Use the Fundamental Wizard to select templates for securities and retrieve end-of-day data for a specified period of time in increments of days, weeks, months, quarters, or years.

Earnings Estimates: Use the Earning Estimates wizard to display earnings projections, for a specific equity or group of equities, so you can quickly gauge market expectations.



Field Search

Click on **Find Fields** to create a data table by selecting and applying available data fields directly to a row or column of the spreadsheet and populate the table with data extracted from Bloomberg. For example:

1. Enter a list of securities to the first column, starting from **A2**. You must add the market sector identifier after the ticker, e.g. **AAPL US Equity**.
2. Place the cursor in the first row, starting from **B1**, and click **Find Fields** in the Bloomberg Ribbon. Select as many fields as you need; click **Apply**.
3. Place the cursor in **A1**. Click **Populate Table Fields** in the Ribbon. Bloomberg data will populate your spreadsheet. 3

Bloomberg Formulas

Use Bloomberg formulas to populate data in your spreadsheet. Most used formulas are:

BDP (Bloomberg Data Point): Returns data to a single cell in your Excel spreadsheet. This formula contains only one ticker and only one field.

Formula syntax=**BDP**(Security,Field)

For example: **=BDP("IBM US Equity","Px_Last")** retrieves the price of the last trade on IBM.

BDH (Bloomberg Data History): Returns the historical data for a security.

Formula syntax: **=BDP**(Security,Field,Start Date,End Date)

For example: **=BDH ("IBM US Equity","Px_Last","01/01/01","12/31/01")** retrieves the closing prices on IBM from 01/01/01 to 12/31/01

BDS (Bloomberg Data Set): Returns multi-cell descriptive data to your spreadsheet.

Formula syntax: **=BDS** (Security,Field)

For example:**=BDS ("IBM US Equity", "CIE_DES_BULK")** retrieves IBM company's business description.

A more flexible way to perform calculations using Bloomberg formulas is to use Excel cell references instead of entering tickers or field mnemonics. For example, type **IBM US Equity** in cell **A2**, then change the formulas shown above to:

=BDP(A2,"Px_Last")

=BDH(A2,"Px_Last","01/01/01","12/31/01")

=BDS(A2,"CIE_DES_BULK")

Insert Function: use the function builder tool in the Bloomberg Ribbon to create formulas. In the pop-up window, select **Bloomberg** in the **Category** drop-down.

Calculation Override

Click **Scenario Builder** in the Ribbon and follow the guided process to select fields and input your own data.

This feature allows you to input your own data for specific fields to create a “*what if*” scenario for variables which depend on each other, such as *price* and *yield*. Bloomberg uses its calculation libraries to project the value of a dependent variable based on your input. For example, you can calculate what will be the *Ask Yield to Conversion* price (YLD_CONV_ASK) of a \$90 bond.

Equity Screening

Use the Equity Screening task pane in the Excel Add-In to execute searches previously created using the Bloomberg’s equity screening function.

1. In Bloomberg, type **EQS GO**
2. Click **Create Screen**, and enter your screening criteria.
3. On the results screen, click on **Output** drop-down on the top and select Excel. An Excel spreadsheet will open with your results.
4. Alternatively, you may save the screening in Bloomberg and then use the Excel Add-In to retrieve data from Bloomberg:
 - a. Click **Actions** tab > **Save**, and enter a name.
 - b. Open the Excel Add-In, and click **Equity Screening**.
 - c. Keep the **General** Group drop-down > Click **My Screens** > Highlight your screen name > Click **Execute**

DOWNLOAD

Click on the **Export** drop-down from the top bar, you can print a screen, email a screen (i.e. Grab Screen), or save a screen as a file or an image.

On some screen, you can click on the **Actions** or **Output** tab above the results and select **Output to Excel**.