

Quantitative Asset Management: Learning Bloomberg

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Abstract

This is a short manual designed to introduce students to using Bloomberg terminals. A wealth of information is available via Bloomberg, though finding it can be a daunting task for a novice. Select examples will instruct how to use Bloomberg's help and reference resources to acquire data.

Keywords: Bloomberg, SAS, R, Matlab

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Learning Bloomberg

When first logging in to Bloomberg, we will see a basic screen with some advertisements. The text bar at the top of the page is one where you can enter queries for information.



Figure 0.1: The initial screen after first logging in to Bloomberg.

There are two types of queries:

1. Queries for information related to specified securities.
2. Bloomberg Functions

The *first* type of query is categorized by asset class. To query a specific security, the identifier is first entered into the query bar and followed by an asset class tag. The function keys on a windows keyboard describe the different types of asset classes available. For instance, F8 is tied to equities, so if we want to look up information tied to Apple Inc.'s publicly listed stock, we enter into the query bar "AAPL", and then press F8, which will append " EQUITY" to the end of Apple's stock ticker.

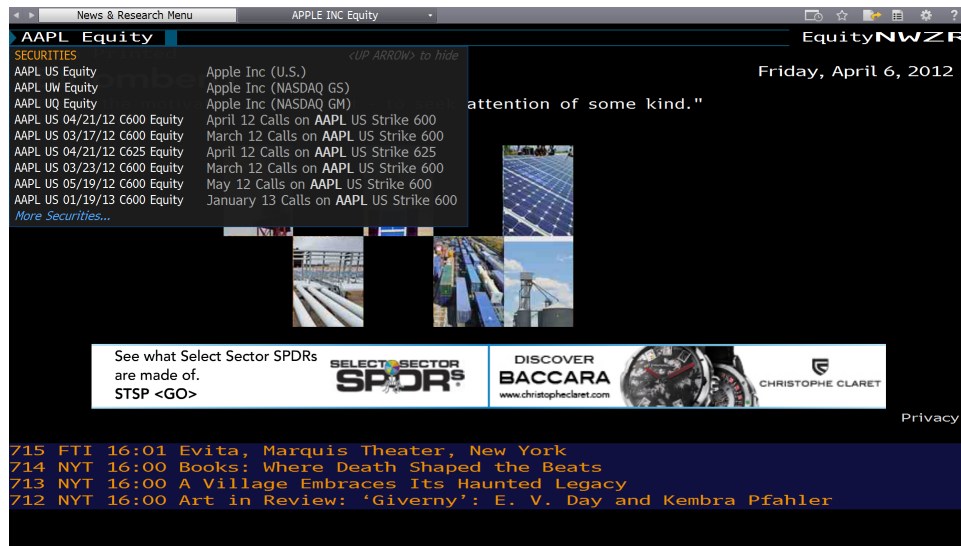


Figure 0.2: Typing information related to Apple in Bloomberg automatically generates a list of related securities.

Notice a number of related securities show up in the drop down menu. We could have simply entered the text “Apple” and seen a similar result. If you do not know what ticker you are looking for, try experimenting by typing in information related to what you looking for. Often times the correct security will show up in the list of suggestions. To execute this query, we simply hit the Enter key which sends the command `<GO>` to Bloomberg. To quickly review what was done, we simply type “AAPL” + F8 + `<GO>`.

To get a description of AAPL, we simply type `DES + <GO>`. A new screen with numerous analytics regarding the firm’s historical stock price, its officers, financial performance and so on.

We can look at the historical prices for AAPL by clicking on the Price Chart window on the DES home screen. We could also type `GP + <GO>` or `6 + <GO>` from the DES screen. Or, if we do not have AAPL currently queried, we could type `AAPL + <EQUITY> + <DES> + <GO>`.

Now, if we want to compare the performance of AAPL to some relevant stock indexes, we can type `COMP <GO>` from the screen displaying historical prices. A new screen will



Figure 0.3: The home screen for Apple Inc.'s stock. From this screen, we can type DES <GO> or 2 <GO> to get a description of the company. If we were not at home screen of AAPL, we can type AAPL EQUITY DES <GO> to get to the same description screen.



Figure 0.4: A description screen offering general facts about AAPL. More screens are available, we can scroll through by using the Page Up and Page Down keys on our keyboard.

display the comparative total returns of holding AAPL compared to the S&P 500 index and the S&P 500 Information Technology subindex.

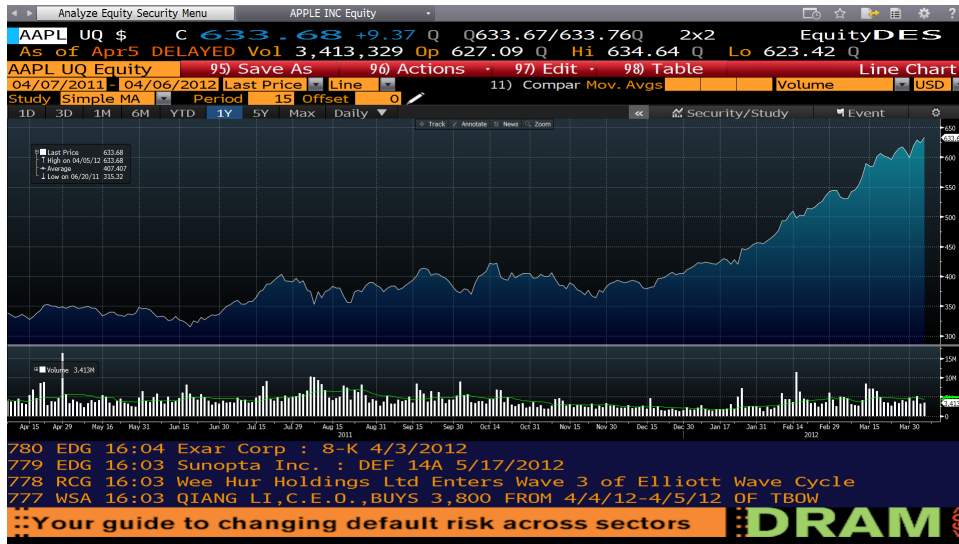


Figure 0.5: Historical price and volume data for AAPL.

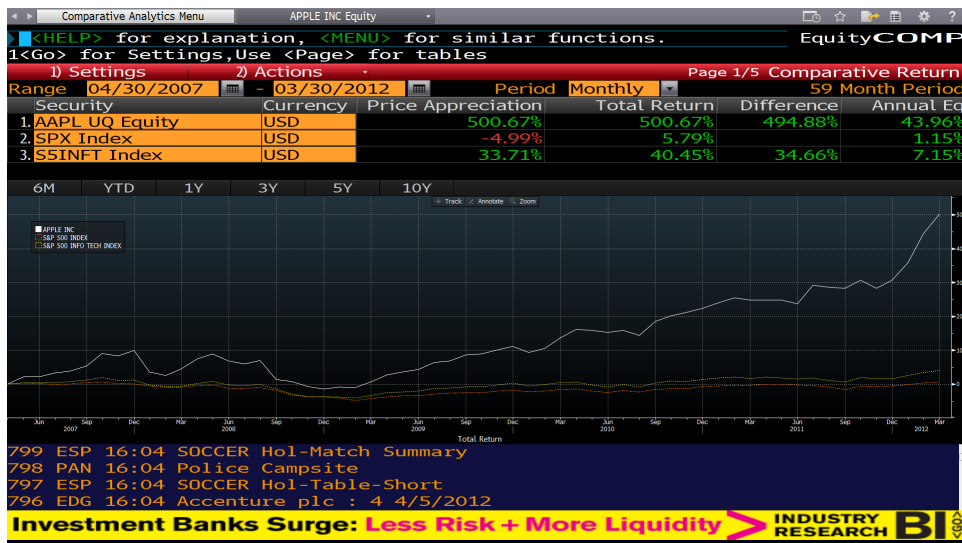


Figure 0.6: Notice the fields allowing for custom date ranges, and for changing the frequency of returns.

The *second* type of query, Bloomberg functions, can be used to help find useful information hubs and analytical tools on Bloomberg. Because equity indexes are so commonly used for benchmarking strategy performance, they are often the topic of a Bloomberg search. A very useful hub which displays primary country and region stock indexes can be found by

typing WEI <GO>, which stands for world equity index. From this page, we can click on the regional categories to get more detailed listings of local indexes, or we could simply select one of the major global indexes.

Equities Menu

APPLE INC Equity

WEI

#<Go> for Index Details

EquityWEI

95) Settings

96) News

97) Feedback

World Equity Indices

Americas

Movers

Volatility

Ratios

Futures

AVAT vs

10d

Mkt. Cap

USD

1) Americas

2day

Value

Net Chg

% Chg

Δ AVAT

Time

MktCap

MktCapCur

11) DOW JONES

13060.14

-14.61

-0.11%

-20.14%

04/05 c

3.92T

3.92T

12) S&P 500

1398.08

-0.88

-0.06%

-11.16%

04/05 c

12.92T

12.92T

13) NASDAQ

3080.50

+12.41

+0.40%

-7.79%

04/05 c

4.95T

4.95T

14) TSX

12103.11 d

-75.55

-0.62%

-14.73%

04/05 c

1.61T

1.61T

15) MEX IPC

39398.88 d

-526.05

-1.32%

-45.84%

04/04 c

4.15T

319.08B

16) BOVESPA

63691.18

+162.53

+0.26%

-11.23%

04/05 c

1.66T

909.35B

17) CHILE SLCT

4647.99

+13.40

+0.29%

N.A.

04/05 c

111.28T

230.05B

18) COL GENL

14949.73 d

-53.80

-0.36%

N.A.

04/04 c

421.84T

238.13B

19) ARG Merval

2557.46 d

-48.04

-1.84%

N.A.

04/04 c

719.94B

164.11B

20) PERU GENL

23622.59 d

-413.02

-1.72%

N.A.

04/04 c

N.A.

N.A.

2) EMEA

21) Euro Stoxx

2392.54 d

-5.92

-0.25%

+18.86%

04/05 c

1.74T

2.27T

22) FTSE 100

5723.67 d

+19.90

+0.35%

-5.93%

04/05 c

1.61T

2.55T

23) CAC 40

3319.81 d

+6.34

+0.19%

+40.32%

04/05 c

861.22B

1.13T

24) DAX

6775.26 d

-8.80

-0.13%

+31.08%

04/05 c

711.02B

931.27B

3) Asia/Pacific

31) NIKKEI

9688.45 d

-79.16

-0.81%

-16.28%

02:28 c

188.51T

2.31T

32) HANG SENG

20593.00 d

-197.98

-0.95%

-4.55%

04/05 c

11.65T

1.50T

33) Shanghai Comp

2306.55 d

+4.31

+0.19%

-5.66%

03:15 c

15.75T

2.50T

34) ASX 200

4319.85

-14.02

-0.32%

-10.98%

04/05 c

1.16T

1.20T

983 NS1 16:09 Daily

Mail: Bryce Harper a hit in Triple A debut

982 NS1 16:09 Daily

Mail: HIGH SCHOOL BASEBALL, SOFTBALL ROUNDUP: ; Hoover gets

981 NS1 16:09 Daily

Mail: Blue Jays beat Tribe in 16 innings

980 NS1 16:09 Daily

Mail: Halladay allows 2 hits as Phillies beat Pirates

CAST

What is Xstrata PLC's Capital Structure?

Figure 0.7:

Another Bloomberg function which is extremely useful is BU + <GO>. This takes us to the Bloomberg University, a collection of videos and training modules which provide in depth coverage of different functions and asset classes.

The next most valuable thing to know about Bloomberg is their live help desk. Live operators are standing by 24/7/365 to help users with technical issues regarding the Bloomberg terminal. If we reach a dead end when searching for data, which is inevitable in most jobs in quantitative finance, often times the best resource is the Bloomberg help desk. Simply type HELP + <GO>, and then from the help page type 1 + <GO>. A window will pop up where you can type a question for a Bloomberg employee. If the initial operator cannot help resolve our question, it will be escalated to a specialist.

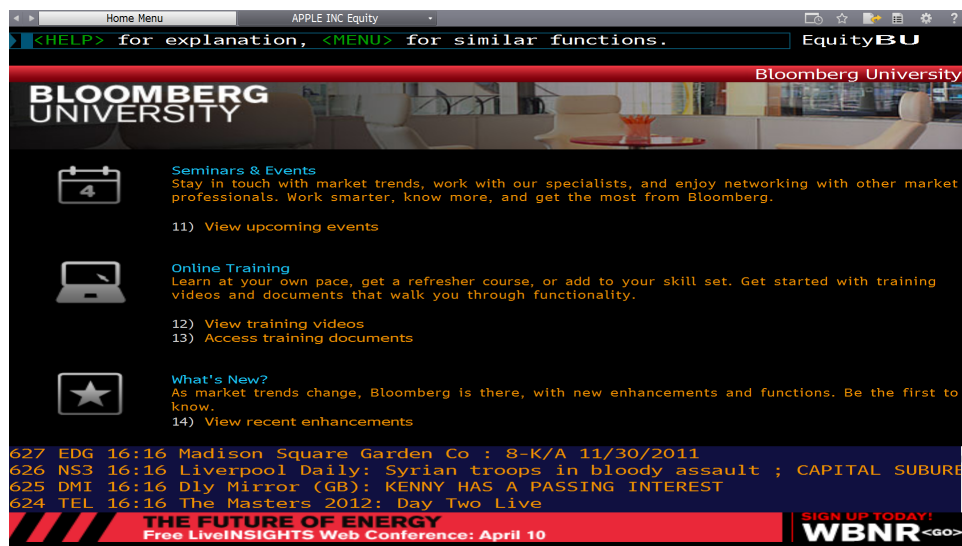


Figure 0.8: The Bloomberg University home screen. Use this to acquire training and documentation on different asset classes provided by the Bloomberg platform.



Figure 0.9: The Bloomberg help desk with a question window open. Enter a question into the text field to connect with a Bloomberg help desk employee.

Homework Assignment:

Part 1:

- Create your own personal Bloomberg account.
- Go to Bloomberg University by entering BU + <GO> in the command prompt. Under the category “Online Training”, click “View Training Videos”. You will see a category “Bloomberg Core Videos” and links to four videos. Watch all four videos (these take about twenty minutes each). Under “Bloomberg Market Sector Videos” click and watch the “Equity Essentials” video.
- After you have completed watching all videos, click “View and Take Exams”. You will be tested on your knowledge from the videos, and each exam may be retaken once (this prevents guessing).
- When you have finished the exams, click “Request Your Acknowledgement of Completion” and you will have passed the BESS certification from Bloomberg. Turn this in as evidence of completing part 1. This is not a difficult certification to pass, but it nonetheless may be put on a resume or mentioned in a job interview to signal core proficiency with a Bloomberg terminal.

Part 2:

- Devise a simple question regarding some data or functionality you are curious about in Bloomberg.
- Ask this question to the live Bloomberg help desk. The question does not need to be perfectly resolved, just work with the Bloomberg employees to get as close as you can to an answer. Create a copy of your text dialogue with the Bloomberg help desk and turn this in.

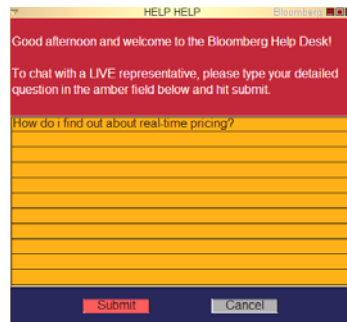
This assignment should take two to three hours to complete.

LIVE CUSTOMER SERVICE - IB HELP GO

The Bloomberg Help Desk - available 24 hours a day, 7 days a week provides immediate and comprehensive assistance to our customers worldwide. The INSTANT BLOOMBERG (IB) communication platform allows you to send enquiries and receive help in real-time! Whatever your question, whatever time of day or night, contact us via the BLOOMBERG PROFESSIONAL® service by simply pressing the HELP key twice.

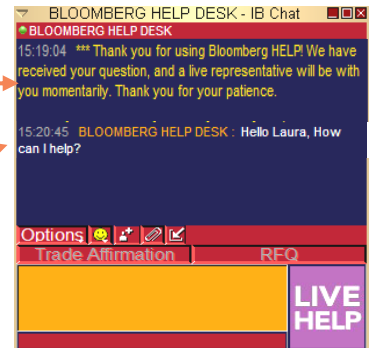
Step 1: Making Contact

Press the HELP key twice to open the 'Live Help' chat window. In the orange box type your question and click on 'Submit' to send.



Immediately you will see an acknowledgement that your enquiry has been received.

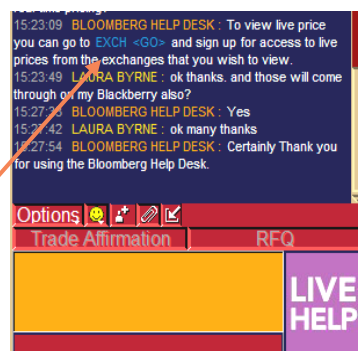
Followed by a direct response from the Bloomberg Help Desk representative who has been assigned to assist you:



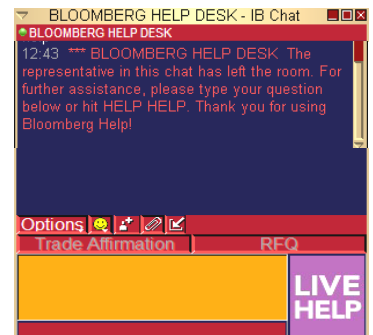
Step 2: Responding

If your enquiry can be solved within the IB window, the help desk rep will send the answer back to you including any specific functions involved.

If your enquiry is of a more complex nature the help desk rep will respond that they are going to call you directly to discuss your question further.

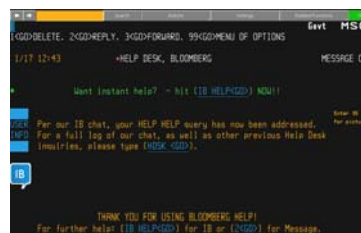


Once you have confirmed that you are happy with the response received the help desk rep will close the window. Notification will appear on the IB window that the rep has left the room.

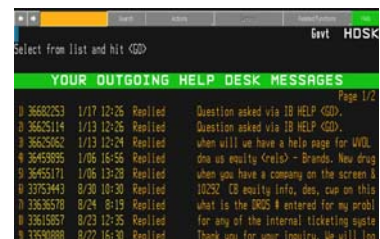


Archived Responses

A confirmation message of the IB chat with the Help Desk is sent to your Bloomberg.

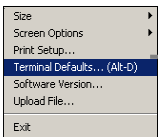
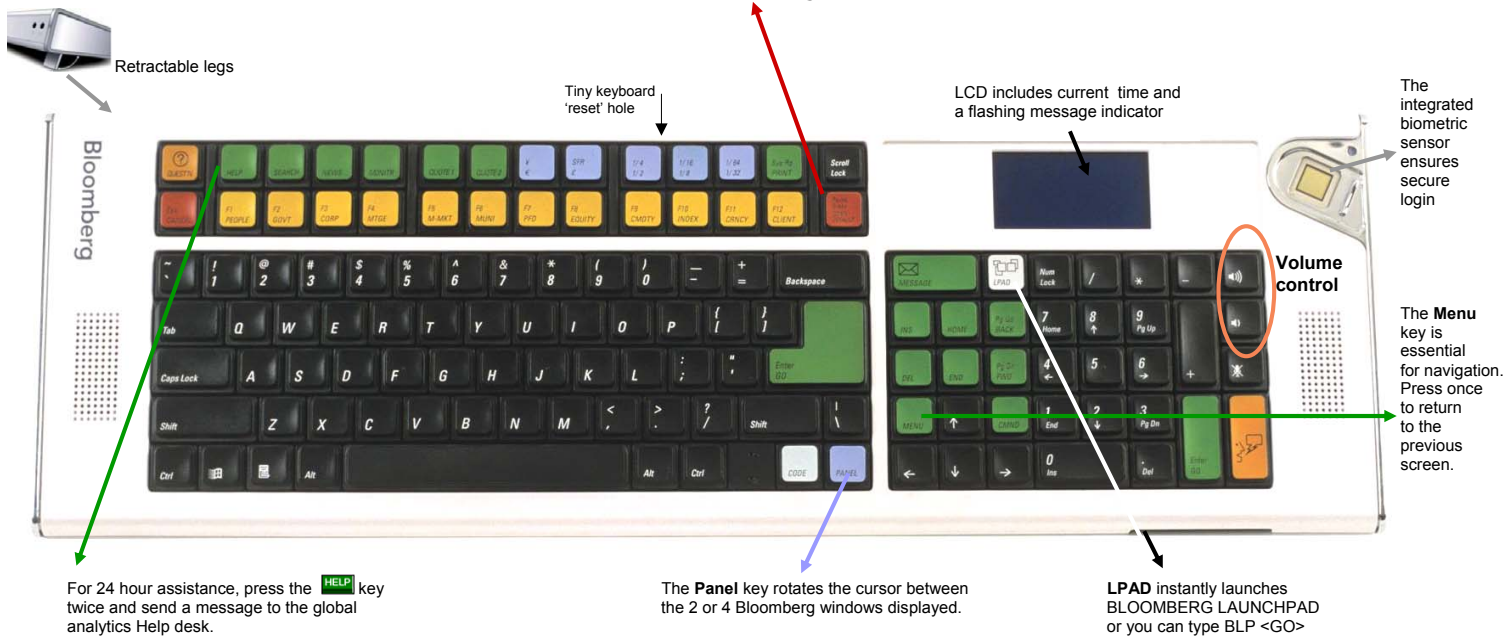


To view all historical questions and answers type HDSK and press GO



INTRODUCTION TO THE BLOOMBERG KEYBOARD

To log on to the BLOOMBERG PROFESSIONAL® service
press the **DFLT** key.



Right mouse click, select 'Terminal Defaults' to customize specific settings, including:

- Enable point & click
- Ask before exiting – confirmation prompt before closing the Bloomberg software

Ensure 'Keyboard Type' is set to Bloomberg KEYBOARD

Trouble Shooting: If keys do not respond after Keyboard Type is specified as Bloomberg, re-set the keyboard as follow:
Insert a paper clip into the small hole at the back of the keyboard between the ½ and ¼ keys

Keyboard Tricks & Tips



'Go' is equivalent to 'Enter' and should follow every function/command to activate that page.



Menu takes you back to the previous screen.



Scroll forward or back within a screen that contains multiple pages.



E.g. To move from page 2 to page 15, type 13 and press **Page Fwd**.



A Re-cap of the previously used function appears in the top left of the screen each time you press 'Command'

LAST <GO>

Manually type LAST to review the last 8 functions used.



Press print once to print the current page.



= the no. of pages you wish to print. E.g. If this is a 5 page function or news story, press 5 & **Print**



Press Help key once to display the on-line Help and description of how to use the current function



Press the Help key twice to make e-mail contact with the 24 hour Help desk

EASY <GO>

A list of Bloomberg tips and shortcuts

HDSK <GO>

A list of all your historical questions and answers sent/received from the Bloomberg Help Desk

<Alt> K

Display a graphic of the Bloomberg keyboard



This key appears to the left of the space bar on your keyboard. Combine it with:
Key + E To open a new file 'Explorer' window
Key + D To minimize/restore all windows

FRANKFURT
+49 69 9204 1210

HONG KONG
+852 2977 6000

LONDON
+44 20 7330 7500

NEW YORK
+1 212 318 2000

SAN FRANCISCO
+1 415 912 2960

SÃO PAULO
+55 11 3048 4500

SINGAPORE
+65 6212 1000

SYDNEY
+612 9777 8600

TOKYO
+81 3 3201 8900

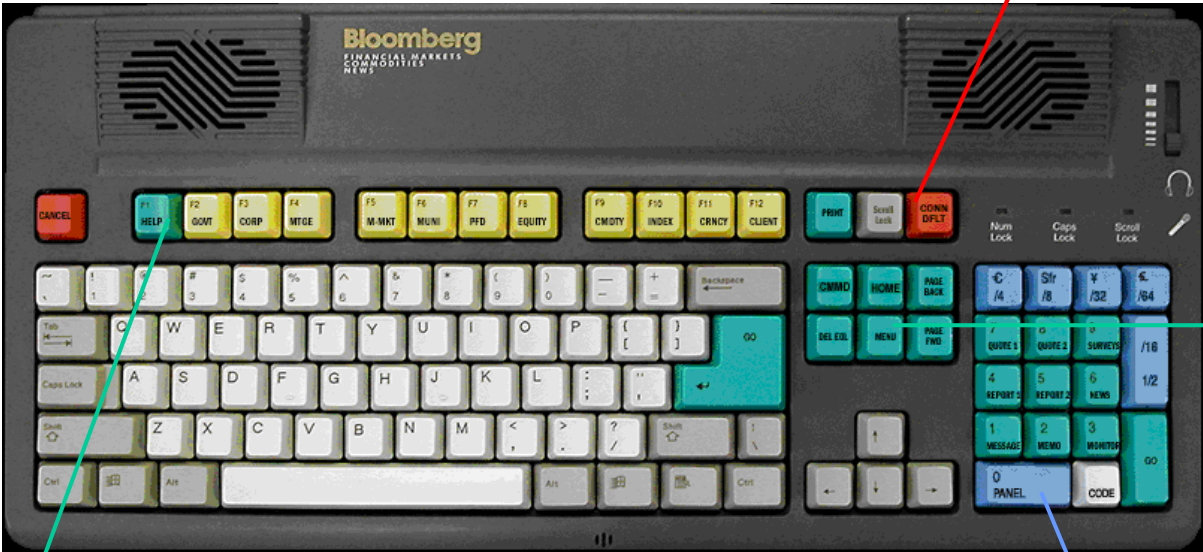


Press the <HELP>
key twice for instant
live assistance.


Bloomberg

TRADITIONAL KEYBOARD

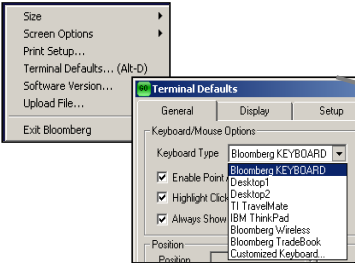
To log on to the BLOOMBERG PROFESSIONAL® service press the  key.



The menu key is essential for navigation. Menu returns you to the previous page/screen.


For 24 hour assistance, press the  key twice and send a message to the global analytics Help desk.


The panel key rotates the cursor between either the 2 or 4 Bloomberg windows displayed. To choose between 2 or 4 go to **PDFU7 <GO>**





Right mouse click, select Terminal Defaults and Select a keyboard type according to your hardware. Desktop 1 = numerical key pad responds with 1,2,3 Desktop 2 = numerical key pad responds as Bloomberg keys. E.g. Message, News,


Keyboard Tricks & Tips

- 


'Go' is equivalent to 'Enter' and should follow every mnemonic/command to activate that page.
- 

Menu takes you back to the previous screen.
- 


Scroll forward or back within a screen that contains multiple pages.
- 

E.g. To move from page 2 to page 15, type 13 and press **Page Fwd**.
- 



A Re-cap of the previously used function appears in the top left of the screen each time you press 'Command'.
- LAST** <GO>



Manually type LAST to review the last 8 functions used.
- 

Press print once to print the current page.
- #



= the no. of pages you wish to print.

E.g. If this is a 5 page function or news story, press 5 & 
- 

Press Help key *once* to display the on-line Help and description of how to use the current function
- 

Press the Help key *twice* to open an INSTANT BLOOMBERG (IB) chat window to make initial e-mail contact with the 24 hour Help desk
- HDSK** <GO>

All your historical Help Desk Enquiries
- EASY** <GO>

A list of Bloomberg tips and shortcuts

GETTING STARTED

This Getting Started guide provides basic instructions on how to successfully navigate and use the BLOOMBERG PROFESSIONAL® service. We recommend the essential function codes listed below.

Enter
GO

Remember, press **Enter** after each command to run the function.

Getting Started

MAIN	Main menu
PDF	Set personal defaults
BIO	Manage your personal profile
BLP	Bloomberg Launchpad™
FAVE	Bookmark your favorite functions
AUTC	Autocomplete options and tutorial
SECF	Security Finder
MAG	<i>Bloomberg Markets</i> magazine
EASY	Essential tips and shortcuts
MOBILE	Bloomberg mobile products

Training and Resources

BREP	Sales and installation representatives
HELP PAGE	Press <HELP> to access Help page
HELP DESK	Press <HELP><HELP> to contact Help Desk
CHEA	Cheat sheet directory
BU	Bloomberg University (training resources)

News You Can Use

N	Main News menu
NSE	News Search Engine
RSE	Search for research reports
READ	Most-read News
TOP	Today's TOP headlines
LIVE	Live broadcasts and interviews
SALT	Suggested real-time and daily news alerts
BKMK	Manage news and research stories
FIRS	Bloomberg First Word news stories
BI	Bloomberg Industries
BRIEF	<i>Bloomberg Brief</i> newsletters
NLRT	Manage news alerts

Communication Tools

MSG	Message System function
MSGM	Message System main menu
MSGH	Message System enhancements
IBH	Instant Bloomberg® enhancements
BVLT	Bloomberg Vault message archiving
MEMO	Create, store, and search personal memos
TAGS	Manage Message System shortcut buttons
PFM	Personal File Manager for Message System
SPDL	Address book of your contacts

World Monitors

WEI	World Equity Indices
WEIF	World Equity Index Futures
WB	World Government Bonds
WBF	World Bond Futures
WIR	World Interest Rate Futures
WCDS	World CDS Pricing
WCRS	World Currency Ranker
CMD5	U.S. soft/hard commodity markets
BTMM	U.S. Treasury and money markets monitor

The Economy

TOP ECO	TOP economic news
ECO	Economic calendars
ECFC	Economic forecasts
ECOF	Economic indicators
ECST	World Economic Statistics

Equity Markets

TOP STK	TOP stock news
EQS	Equities search
EVTS	Events and earnings calendar
MA	Mergers and acquisitions
MMAP	Analyze and chart global markets
AQR*	Average Quote Recap
MGMT*	Company management profiles
FA*	Financial history of companies or indices
EEO*	Earnings projections
RV*	Peer group relative value analysis

Credit Markets

TOP BON	TOP bond news
CG	Manage curves
NIM	New issue monitor
RATC	Company credit rating revisions
IMGR	Run lists from RUNS or data mining
YAS*	Yield and spread analysis
QMGR*	Monitor quote activity for bonds
BVAL*	Snapshot of Bloomberg Valuation prices
CRVD*	Credit relative value
ALLQ*	Monitor fixed income market information
COMB*	Compare syndicated loans or bonds
HG*	Analyze single name CDS curve trades

Bloomberg

GETTING STARTED

Emerging Markets

TOP EM	TOP emerging markets news
EMKT	Emerging markets
EMMV	Emerging markets market view
EMEQ	Emerging markets equity indices
OTC	Real-time emerging markets monitor

Municipal Markets

MSRC	Municipal bond search
SMUN	Municipal issuer screening
CDRA	Municipal fixed rate calendar
SPLY	Municipal bond visible supply
MNPL	Municipal key news
TDH*	Trade disclosure history
PICK	Municipal bond offerings/trades

Funds

TOP FUND	TOP fund news
FL	Fund ticker lookup
FSRC	Fund search
FLNG	13F filing summaries
FUND	Funds and portfolio holdings
HFND	Hedge fund home page
FREP*	Fund performance reports

Commodity Markets

TOP CMD	TOP commodities news
NRG	Bloomberg Energy service
OIL	Crude oil prices
NATG	Natural gas markets
COAL	Coal markets
VOLT	Electricity markets and statistics
ENVR	Emissions/green markets
BIOM	Biofuel markets
BMAP	Bloomberg maps
CMBQ*	Price specific market/commodity pairings

Foreign Exchange Markets

TOP FX	TOP foreign exchange news
XDSH	FX dashboard
FRD	Calculate spot and forward rates
FXDV	FX derivatives menu
BFIX	Currency fixing rates
FXFM	FX rate forecast model
FXFC	Composite FX forecasts

Interest Rate Derivatives

IRSM	Interest rates and credit derivatives menu
USSW	U.S. Govt, swap, and agency monitor
IRDD	List interest rate derivative deals
ICVS	Custom interest rate swap curves
FWCM	Forward curve matrix
SWPM	Manage interest rate swaps and derivatives

Credit Default Swaps

CDS	Analyze single name credit default swaps
GCDS	Analyze and chart credit default swaps
CMOV	World credit default swap biggest movers
CDSW*	Create and value credit default swaps
SOVR	Monitor CDS rates for sovereigns
QCDS	Quick CDS calculator

Mortgage Markets

MDF	Mortgage defaults
CPD*	CMO and ABS paydown information
SYT*	Mortgage price, yield, and spread analysis
SYTH*	Historical prepayment, default, and severities
SPA*	Structure paydown analysis
OAS1*	Option-adjusted spread analysis
CLC*	Collateral composition
MTCS*	Mortgage credit support

Charts

TDEF	Set chart and technical study defaults
GRAP	Charts home page
G	Create custom charts from templates
ALRT	Manage custom alerts

Portfolio Management

PRTU	Create and manage portfolios
BBAT	Calculate portfolio return vs. benchmark
PREP	Portfolio reports
HFA	Historical portfolio analysis
PSD	Analyze portfolio fundamentals
BSA	Portfolio P&L and horizon reports
PRT	Track intraday portfolio performance
ALPHA	Portfolio analysis and risk solution

Electronic Trading

FIT	Stage, monitor, execute, and allocate trades
EMSX	Execution management system
BTRD	Bloomberg Tradebook home page
FX	FX electronic trading
BOOM	Search money market offerings

Order Management

OMS	Bloomberg order management systems
AIM	Asset and Investment Manager
TOMS	Trade Order Management System
SSEOMS	Sell-side Execution and Order Management

Data Solutions

DAPI	Excel data and calculations
SAPI	Bloomberg server API
DLIN	Data licensing
BPIP	Real-time consolidated market data feed
REG	Third-party vendor documentation
BVLI	Bloomberg valuation service

* Denotes a security-specific function.