



Quotestream Professional RTD (Real-Time Data)

Quotestream Professional's RTD functionality allows you to stream dynamic, real-time quote data to MS Excel spreadsheets in the Windows operating system.

This powerful tool greatly extends your control, whether you simply prefer to view live market data in a spreadsheet, or wish to perform specialized calculations and use specific Excel features such as charting, data aggregation, conditional formatting, macros, etc.

As data updates in Quotestream, the same data updates accordingly in your spreadsheet, embedded in streaming real time.

With Quotestream RTD, you can track a wide range of stock market statistics, from basic stock quote data (last price, volume, change, bid, ask) to price statistics (52-week high, 52-week low) and valuation parameters (earnings per share, PE ratios, dividend yields).

Data Point Coverage

Quotestream RTD supports the following data points:

Last Price	Volume	Close Price	Currency
Change	Value	Open Price	Dividend
Percent Change	VWAP	52 Week High	Yield
Bid Price	Last Trade Time	52 Week Low	Ex-Div
Bid Size	Last Trade Size	Previous Close	Earnings Per Share
Ask Price	High	Description	PE Ratio
Ask Size	Low	Exchange	Shares Outstanding

System Requirements

RTD requires a Windows machine with MS Excel 2002 or higher.

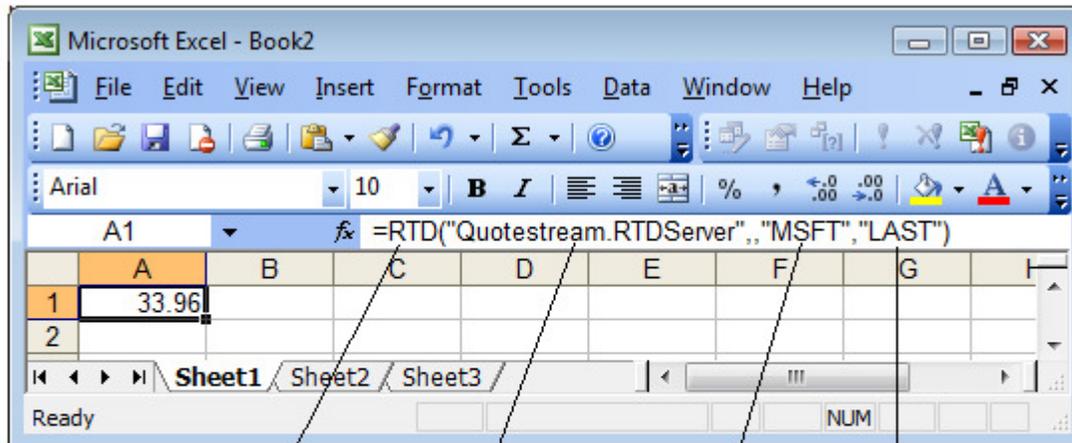
QuoteMedia's Quotestream RTD feature implementation takes advantage of the RTD (formerly DDE, "Dynamic Data Exchange"), and OLE ("Object Linking and Embedding") compound document standards developed by Microsoft Corporation, for MS Excel. These standards allow the creation of objects in one application to be linked or embedded in a second application. Embedded objects retain their original format and links to the application that created them.

These Microsoft standards are available only in Excel 2002 and higher. Consequently, Quotestream RTD is supported only these Excel versions.

How to use RTD?

Using Quotestream RTD is easy. After logging on to Quotestream Professional, open a new Excel workbook and enter an RTD function as follows:

```
=RTD("Quotestream.RTDServer",,"MSFT","LAST")
```



the "RTD" function call

RTD Server name

Stock Symbol

Data Point

There are 4 parts to an RTD function:

1. RTD Function Call – this is how Excel knows that you are calling an RTD function.
2. RTD Server Name – the name of the RTD server where the function gets processed. In this case, the value is always "Quotestream.RTDServer".
3. Stock Symbol – a symbol of a stock or other financial instrument.

Note: Symbols containing an @ (ie - options symbols) must be escaped with a single quote.

For example, @APVIN needs to be entered into Excel as '@APVIN

4. Data Point – the data point you wish to request (see "Data Points" below).

Note the two commas that come after the RTD server name and the single comma that comes after the stock symbol.

You can build your RTD spreadsheets from scratch by manually inputting RTD functions to an Excel spreadsheet. Alternatively, you can simply use one of several pre-defined RTD Excel spreadsheets we can provide for you, and customize it to your needs.

You can download **Sample RTD Excel Spreadsheets** from this web page:

>> <http://www.quotestreampro.com/RTDdocs>

Data Points

Data Points are available in long or short form for your convenience. Either may be used.

Long Name	Short Name
Last Price	Last
Change	Chg
Percent Change	PChg
Bid Price	Bid
Bid Size	BSize
Ask Price	Ask
Ask Size	ASize
Value	Val
Volume	Vol
Volume Weighted Average Price	VWAP
Last Trade Time	LTime
Last Trade Size	LSize
High	Hi
Low	Lo
Close Price	Close
Open Price	Open
Previous Close	PClose
52 Week High	52wHi
52 Week Low	52wLo
Description	Desc
Exchange	Exch
Currency	Curr
Dividend	Div
Yield	Yld
Ex-Div	ExD
Earnings Per Share	EPS
PE Ratio	PER
Shares Outstanding	ShOS

For example:

```
=RTD("Quotestream.RTDServer",,"MSFT","Last Trade Time")
```

... will return the same result as...

```
=RTD("Quotestream.RTDServer",,"MSFT","LTime")
```

Frequently-Asked Questions (FAQ)

- ***What do I need to install to use RTD?***

You do not need to install any additional software. All you have to do is log on to Quotestream Professional. Quotestream Professional does all the setup and configuration for you in the background.

- ***The quotes appearing on the Excel spreadsheets seem to update only every two seconds – how can I get the spreadsheet to update faster?***

Excel RTD is set to update every 2 seconds by default. This is called the Throttle Interval. You can change the default Throttle Interval in Excel by going to *Tools → Macro → Visual Basic Editor*. From the *Visual Basic Editor*, go to *View → Immediate Window*. On the *Immediate Window*, type in

```
Application.RTD.ThrottleInterval=0
```

and press Enter. Setting the Throttle Interval to 0 means that the spreadsheet is refreshed as soon as there are updates.

Click [here](#) for more information on the Throttle Interval.

- ***I am getting #N/A when I open my RTD spreadsheet, what should I do?***

Check that you are properly logged on and getting streaming data on Quotestream Professional.

If you are using Windows, see “For Windows Users” section of this document (see below).

For Windows Users

Windows Vista introduced a security feature called *User Account Control* that gives any program running on it much stricter access to files and registry settings. If you are using Windows Vista and the User Account Control feature is enabled in your machine, you need to run your web browser with Administrative privileges to make Quotestream RTD work.

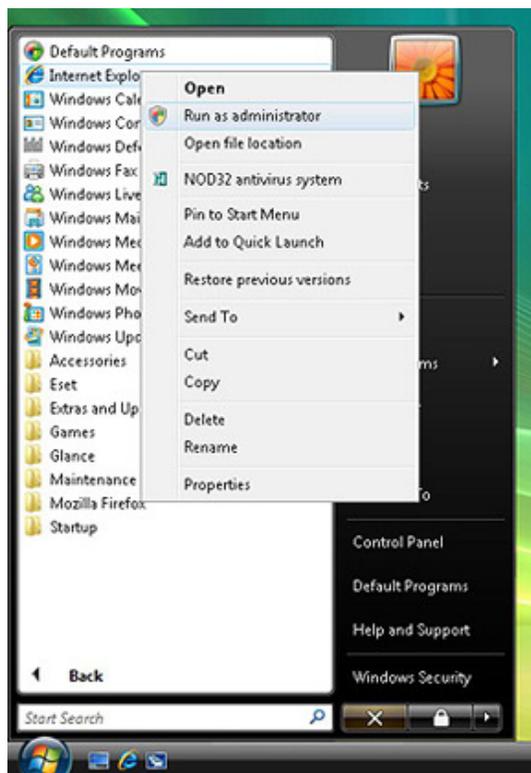
Windows XP SP2 and above implements a similar security model as Windows Vista in that only users with administrative permissions can use RTD.

Ignore these instructions if any of the following conditions apply to you:

- if you are using Windows Vista and User Account Control is disabled
- if you are using Windows Vista but do not need Quotestream RTD, you just need to use Quotestream Professional

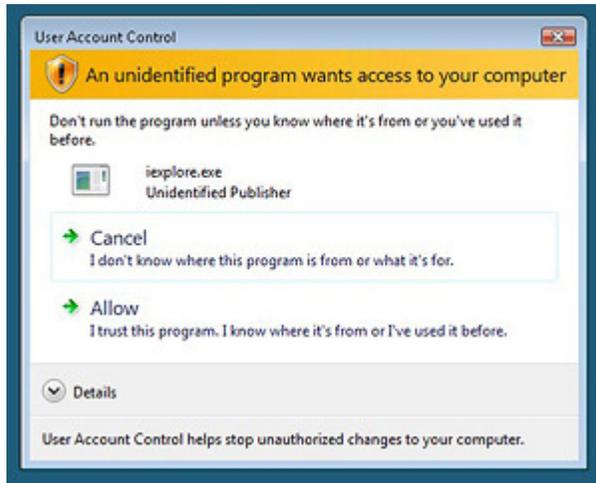
The following steps show you how to run Quotestream RTD properly, assuming that you are using Windows Vista, User Account Control is enabled and your web browser is Internet Explorer.

1. Click on the Windows Vista  logo and go to *All Programs*. Look for *Internet Explorer*, right click on it and choose *Run as Administrator*.



(Instructions for Windows Vista users are continued on the next page.)

2. From the pop-up dialog box that appears, click on *Allow*.



3. Internet Explorer opens up. Use this browser instance to log on to Quotestream Professional. Once you are properly logged on, open your Excel RTD spreadsheet. You should see data being updated on the spreadsheet.

If you are using a web browser other than Internet Explorer, you can follow the same steps to make Quotestream RTD work on Windows Vista when *User Account Control* is enabled. For instance, if you are using Mozilla Firefox, you can run Firefox with Administrative privileges by right clicking on the icon and choosing *Run as Administrator*. Then follow the succeeding steps outlined above.

