

AnalyzerXL Package

Performing Technical Analysis, Investment Data Downloading and
Portfolio Management using Microsoft Excel

A White Paper

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The Power of Technical Analysis using Excel

Successful money managers know that technical analysis is a crucial tool for finding future trading opportunities and making better informed and more effective trades. They also know that having instant access to historical and current stock, index, options, and mutual fund quotes lets them make better informed trades and react faster to changes in the market. AnalyzerXL Package is a suite of technical analysis, data downloading and portfolio management tools for Microsoft Excel that is easy enough for beginners to use but powerful enough for the most demanding professionals.

The tight integration with Microsoft Excel makes customization tasks much easier than when performed using competing software packages. With just basic knowledge of VBA (Visual Basic for Applications), users can easily develop sophisticated custom indicators and experts in a fraction of the time it would take with other software. However, VBA knowledge is not required - AnalyzerXL also provides graphical tools for construction of custom indicators and functions. Users can also create and name macros using the AnalyzerXL interface.

Most software tools for downloading quotes available today require an unwieldy import process to get downloaded quotes into popular analysis tools such as Microsoft Excel. This wastes precious time that could make the difference between a good trade and a missed opportunity. AnalyzerXL Package includes tools for downloading free historical, 15-minute delayed and fee-based, real-time stock, index and mutual fund quotes, as well as 15-minute delayed options quotes directly into Excel. The software can handle downloads and updates for tens or hundreds of tickers simultaneously.

This white paper will discuss the various Excel tools included in the package and demonstrate the flexibility and power that performing technical analysis, data downloading and portfolio tracking directly in Excel provides.

Performing Technical Analysis with AnalyzerXL

Technical analysis is a visual method for analyzing market activity. It provides an investor with key indicators, showing where market forces are providing support or resistance, where a stock is overbought or oversold, and where a breakout to the upside or downside will occur. Technical analysis includes varied activities such as charting past and present price movements, trading volume, and the number of stocks advancing and declining on a specific day or over a period of time.

AnalyzerXL is a library of the 146 most effective and well-recognized technical analysis functions, indicators, and experts provided in the form of Excel formulas. The formulas implement only proven algorithms and have been well-tested in real-world scenarios. For a comprehensive list, please visit the www.analyzerxl.com Web site. AnalyzerXL provides all the necessary components for successful technical analysis:

Charts

Successful technical analysis requires clear, concise, and customizable charts that provide you with the visual indicators you need to react quickly and decisively. AnalyzerXL lets you build several types of charts, including line, candlestick, and bar charts. You can easily change periodicity and update data with just one click.

Indicators

An **indicator** is used to determine the trend of the market, the strength of the market, or the direction of the market. Popular indicators included with AnalyzerXL include Moving Average, Breadth of Market, Relative Strength Index, and Short Interest Ratio. AnalyzerXL provides you with an exhaustive list of indicators that you can add to your analysis with just a few mouse clicks. This makes it easy for you to create a sophisticated trading system customized to your needs.

Experts

An **expert** is a collection of one or more principles, rules or indicators, such as Bill Williams' Profitunity, that an investor follows and applies to make successful trades. Expert functions produce special outputs, such as Buy/Sell signals, trend directions and more. AnalyzerXL provides you with everything you need to apply experts successfully, and provides you with an exhaustive collection of the most highly-regarded and effective experts available today.

For example, an analyst can, in just two steps, apply the Cutler's RSI Expert to historical Microsoft (MSFT) data, producing the Buy/Sell signals shown below:

	A	B	C	D	E	F	G
1	Date	Open	High	Low	Close	Volume	Cutler's RSI
2	12.08.2002	17.20	17.61	17.00	17.53	35477300	
3	13.08.2002	17.40	17.99	16.69	16.70	48730600	
4	14.08.2002	16.92	18.32	16.72	18.29	55038600	
5	15.08.2002	18.34	18.80	18.02	18.61	51558800	
6	16.08.2002	18.06	19.02	17.98	18.75	54921500	S
7	19.08.2002	18.61	19.63	18.44	19.46	51720400	B
8	20.08.2002	19.18	19.32	18.75	18.97	45347100	S
9	21.08.2002	19.23	19.67	18.80	19.59	57883400	S
10	22.08.2002	19.43	19.50	18.89	19.15	55744000	-
11	23.08.2002	18.84	18.84	17.89	17.96	48371600	B
12	26.08.2002	18.10	18.22	17.61	18.13	46069000	-
13	27.08.2002	17.91	17.96	17.15	17.18	60623500	B
14	28.08.2002	17.11	17.44	16.77	16.84	55663700	B
15	29.08.2002	16.58	17.45	16.51	17.14	50516700	B
16	30.08.2002	16.89	17.08	16.65	16.67	32857100	B
17	03.09.2002	16.47	16.50	15.85	15.86	58140400	B
18	04.09.2002	15.81	16.17	15.58	16.11	66790200	-
19	05.09.2002	15.81	15.83	15.03	15.11	86969600	B
20	06.09.2002	16.40	16.55	16.11	16.22	77957400	-
21	09.09.2002	16.03	16.34	15.69	16.08	51444400	-
22	10.09.2002	16.19	16.64	16.10	16.47	57279400	-
23	11.09.2002	16.73	17.04	16.58	16.62	45864800	S
24	12.09.2002	16.36	16.38	15.67	15.70	48750200	-

Trading Systems

AnalyzerXL provides all the tools an investors need for creating their own winning **trading systems**. A trading system is a combination of one or more functions, indicators and experts that a trader uses to identify market trends. The visual patterns displayed by a trading system provide the basis for developing trading strategies and determining successful and profitable entry and exit strategies.

The AnalyzerXL component of the AnalyzerXL Package provides traders and investors with all the tools necessary for successful technical analysis. With over 146 functions, experts, and indicators, it provides enough options and flexibility for even the most demanding analyst.

Downloading Bulk Investment Data with BulkQuotesXL

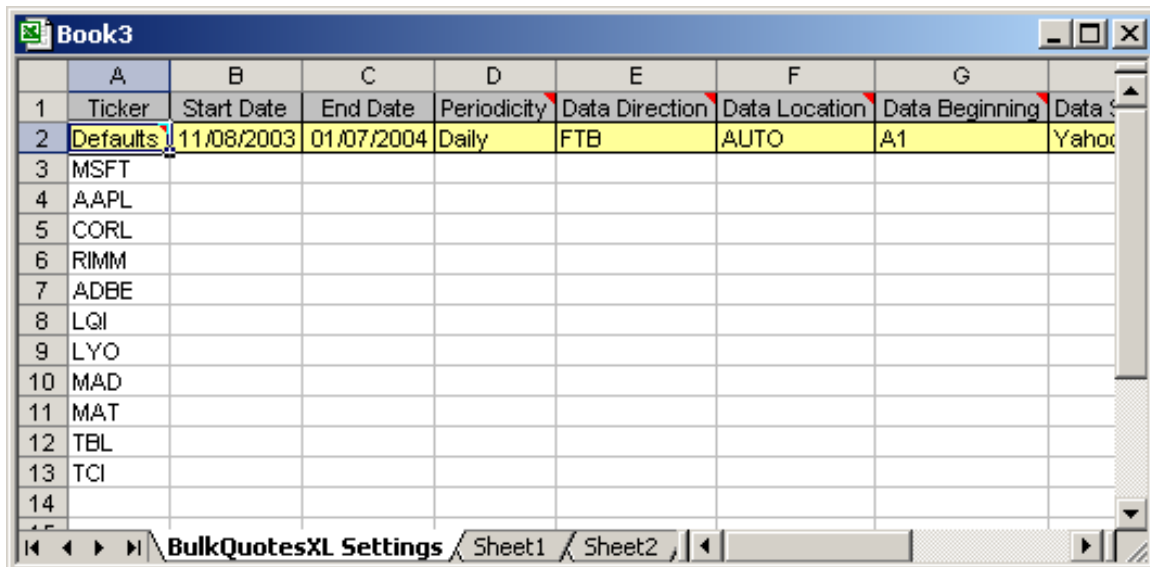
The BulkQuotesXL component of the AnalyzerXL suite is a powerful data downloading solution that can easily handle simultaneous updates/downloads for tens or hundreds of tickers. It downloads free historical stock, index and mutual fund data from Yahoo! Finance for major worldwide exchanges, and free historical end-of-day data for financial futures, commodity futures, and indexes from PiFin.

Using the AnalyzerXL component, you can apply technical analysis functions directly to downloaded data from BulkQuotesXL. You can also specify your own custom macros to be run with each data download. Candlestick, bar, and line charts can also be easily generated and manipulated.

BulkQuotesXL provides a number of pre-defined templates for downloading data, including column-by-column, row-by-row and summary templates. This makes it easy for users to download data into a format that suits the way they work. You can also selectively update data, choosing only those tickers you need to see updated immediately, saving you time and bandwidth.

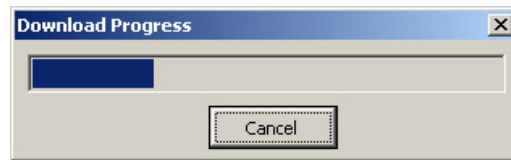
Example - BulkQuotesXL

Let's say we are interested in downloading historical data for the stocks in a portfolio. First, we select "New Download Project" from the BulkQuotesXL menu on the Excel toolbar. This brings up the standard Excel template for bulk downloads. Then, we enter our tickers in the "Ticker" column of the spreadsheet, as shown below:



	A	B	C	D	E	F	G	
1	Ticker	Start Date	End Date	Periodicity	Data Direction	Data Location	Data Beginning	Data Source
2	Defaults	11/08/2003	01/07/2004	Daily	FTB	AUTO	A1	Yahoo
3	MSFT							
4	AAPL							
5	CORL							
6	RIMM							
7	ADBE							
8	LQI							
9	LYO							
10	MAD							
11	MAT							
12	TBL							
13	TCI							
14								
15								

Now, we set the start date and end date for historical data and, if necessary, change the other download options (shown in yellow) according to our preferences. In this example, we use the default dates and download options. To begin the download, we select “Download/Refresh Data” from the BulkQuotesXL menu on the Excel toolbar. This will start the data download and display the progress bar, as shown below:



Once the download is complete, you will see that a new worksheet has been created for each ticker, each with the requested historical data for that ticker, as shown below:

	A	B	C	D	E	F	G	H
1	Date	Open	High	Low	Close	Volume		
2	11/10/2003	14.94	14.95	14.00	14.01	6700		
3	11/11/2003	14.00	14.01	13.67	13.67	3700		
4	11/12/2003	13.43	14.10	13.43	14.09	3500		
5	11/13/2003	14.19	14.19	14.17	14.17	600		
6	11/14/2003	14.18	14.18	13.88	13.88	1800		
7	11/17/2003	13.63	13.81	13.63	13.81	2000		
8	11/18/2003	13.81	14.01	13.81	14.01	1900		
9	11/19/2003	14.01	14.16	14.01	14.16	600		
10	11/20/2003	14.15	14.15	14.00	14.00	1600		
11	11/21/2003	14.00	14.01	14.00	14.01	300		
12	11/24/2003	14.01	14.56	14.01	14.56	6200		

This column-by-column format is just one of the numerous formats you can choose for downloading data. You can also display data in side-by-side rows or columns, display a summary, or choose another display format from the pre-defined templates bundled with BulkQuotesXL.

Also included in the AnalyzerXL package is the DownloaderXL add-in, which is very useful for downloading historical data for one or a small number of stocks. BulkQuotesXL is recommended, however, if you are interested in downloading tens or hundreds of tickers.

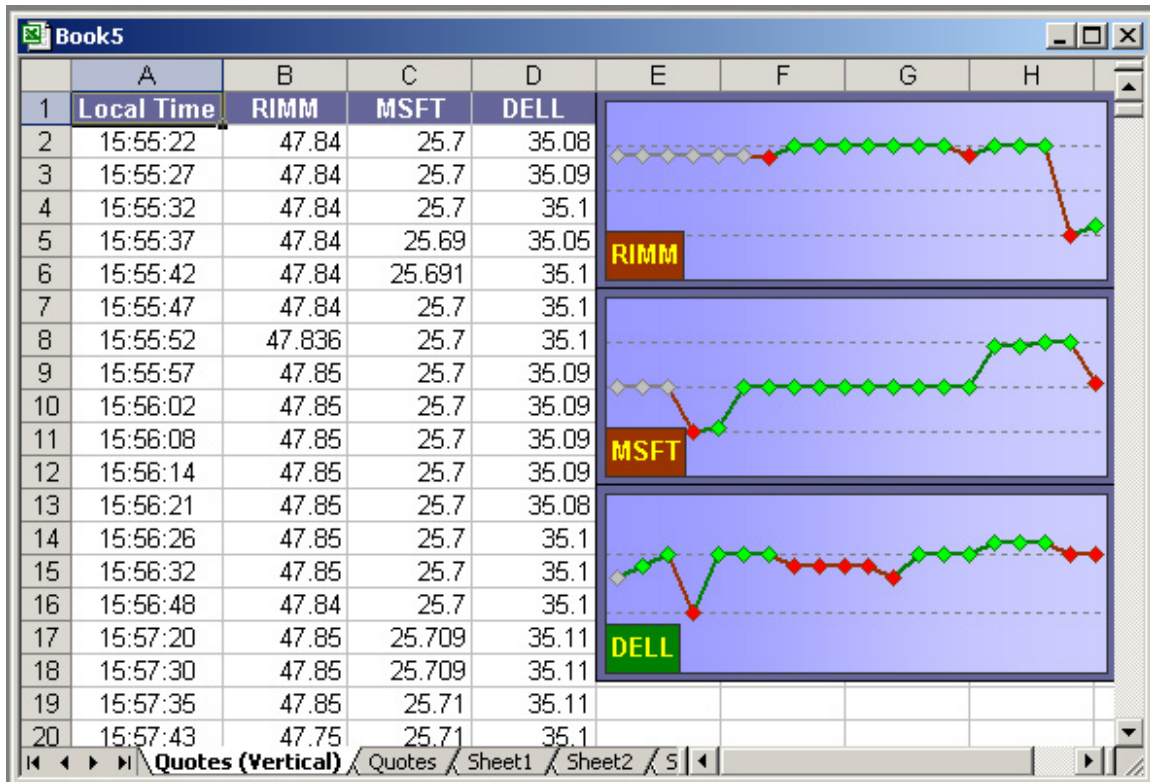
Accessing Real-time Market Data with RTQuotesXL

The next component of the suite, RTQuotesXL, downloads fee-based, real-time stock, index, futures, options and mutual fund quotes from Yahoo! Finance and PCQuotes. It also downloads free 15-minute delayed quotes from Yahoo! Finance.

RTQuotesXL can also be used as a Dynamic Data Exchange (DDE) Server, meaning it can provide real-time quotes to any third party application which is DDE-compliant.

RTQuotesXL - Example

Let's say we are interested in tracking three stocks: Research in Motion (RIMM), Microsoft (MSFT), and Dell (DELL). First, you enter the tickers into the RTQuotesXL Manager, an easy-to-use interface that launches directly from the Excel toolbar. The software then generates two spreadsheets. The first is "Quotes (Vertical)" for real-time charting and technical analysis, as shown below:



The second is the "Quotes" spreadsheet for real-time quote tracking, as shown below:

	A	B	C	D	E	F	G	H	I
1	Ticker	Last	Change	Change %	Open	High	Low	Volume	Quote Time
2	RIMM	47.760	-0.390	-0.810%	47.940	48.720	47.480	1,982,234	03:42:00
3	MSFT	25.701	-0.139	-0.538%	25.950	26.090	25.619	74,918,712	03:42:00
4	DELL	35.100	+0.210	+0.602%	34.890	35.120	34.630	15,427,529	03:42:00
5									
6									
7									
8									
9									

Both spreadsheets are updated continuously as a background process. Again, since the data is available in Excel form, it is easy to integrate your own macros or apply technical analysis functions from AnalyzerXL.

Downloading Options Data with OptionsXL

The next component in the Analyzer XL suite, OptionsXL, downloads free options data directly into your Microsoft Excel spreadsheets. The downloaded information is quite comprehensive, including Strike Price, Bid, Ask, and Expiration Date for all downloaded Calls and Puts, as shown in the output below for Microsoft (MSFT):

	A	B	C	D	E	F	G	H
1	MSFT (Nasdaq)		28.21	-0.03				
2	Jan 07 200	Bid	28.23	Ask	28.24	Size	1x52	Vol
3	Calls	Expire Dat	Strike Pric	Last Sale	Net	Bid	Ask	Vol
4	MQFAV-E	04 Jan	12.50	13.40	pc	15.70	15.80	0.00
5	MQFAV-A	04 Jan	12.50	13.40	pc	15.60	15.80	0.00
6	MQFAV-P	04 Jan	12.50	16.20	pc	15.50	16.00	0.00
7	MQFAV-X	04 Jan	12.50	14.80	pc	15.40	16.20	0.00
8	MQFAV-B	04 Jan	12.50	15.60	pc	15.70	15.80	0.00
9	MQFAC-E	04 Jan	15.00	13.10	--	13.20	13.30	4.00
10	MQFAC-A	04 Jan	15.00	11.10	pc	13.10	13.30	0.00
11	MQFAC-P	04 Jan	15.00	12.30	pc	13.00	13.50	0.00
12	MQFAC-X	04 Jan	15.00	12.80	pc	12.90	13.60	0.00
13	MQFAC-B	04 Jan	15.00	12.40	pc	13.20	13.30	0.00
14	MQFAW-E	04 Jan	17.50	8.20	pc	10.70	10.80	0.00
15	MQFAW-A	04 Jan	17.50	7.80	pc	10.60	10.80	0.00
16	MQFAW-F	04 Jan	17.50	10.00	pc	10.50	11.00	0.00

OptionsXL downloads data from the CBOE (Chicago Board Options Exchange) for virtually all options listed on the CBOE, AMEX (American Stock Exchange), PHLX (Philadelphia Stock Exchange), PCX or PSE (Pacific Stock Exchange), and ISE (International Securities Exchange).

Technical analysis can be easily performed on the downloaded data using AnalyzerXL. You can also apply your own custom macros and functions.

Portfolio Tracking in Excel using PortfolioXL

The PortfolioXL add-in brings powerful portfolio tracking capabilities to the AnalyzerXL suite. It allows you to create a portfolio of stocks that can be updated intraday. Specify the tickers, commission rate, purchase price and date, and PortfolioXL will monitor the current price value of your portfolio, along with the net and percentage gain/loss for each position. PortfolioXL downloads free delayed stock, index, and options quotes from Yahoo! Finance from over 50 markets worldwide.

In addition to providing you with a snapshot view of the current state of your investments, PortfolioXL will keep a detailed record of your transaction history in a separate worksheet. This gives you a complete record of all buy/sell activity and commissions paid on transactions.

Conclusion

The AnalyzerXL suite of Excel add-ins is a comprehensive technical analysis, investment data downloading and portfolio tracking solution. AnalyzerXL Package provides similar, and, in many cases, superior functionality than leading advanced trading software packages, but at a fraction of the cost. Whether using VBA or the provided graphical tools, AnalyzerXL is a powerful platform for building custom trading systems and indicators. The tight integration with Microsoft Excel also lets you apply technical analysis or custom functions directly to downloaded data, providing power and flexibility unmatched by competing products.