

[logo]

[PRODUCT], [COMPANY], [SUPPORTURL], [SUPPORTEMAIL],  
[SUPPORTPHONE]

### **Service Disclaimer**

This manual and the product described herein are copyrighted, with all rights reserved. This manual and the software outputs (charts, images, data, market quotes, and other features belonging to the product) may not be copied, except as otherwise provided in your license or as expressly permitted in writing. Export of this technology may be controlled by the United States Government. Diversion contrary to U.S. law prohibited. Copyright © 2002-2010 by Modulus Financial Engineering, Inc. All rights reserved. Modulus Financial Engineering and TradeScript™ are registered trademarks of Modulus Financial Engineering, Inc. in the United States and other countries. All other trademarks and service marks are the property of their respective owners. Use of the product and other services accompanying your license and its documentation are governed by the terms set forth in your license. Such use is at your sole risk. The service and its documentation (including this manual) are provided "AS IS" and without warranty of any kind and Modulus Financial Engineering, Inc. AND ITS LICENSORS EXPRESSLY DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND AGAINST INFRINGEMENT. MFE DOES NOT WARRANT THAT THE FUNCTIONS CONTAINED IN THE SERVICE WILL MEET YOUR REQUIREMENTS, OR THAT THE OPERATION OF THE SERVICE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE SERVICE OR ERRORS IN THE DATA WILL BE CORRECTED. FURTHERMORE, MFE DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE SERVICE OR ITS DOCUMENTATION IN TERMS OF THEIR CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY MFE OR A MFE AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF THIS WARRANTY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY. UNDER NO CIRCUMSTANCES INCLUDING NEGLIGENCE, SHALL MFE, ITS LICENSORS OR THEIR DIRECTORS, OFFICERS, EMPLOYEES OR AGENTS BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES (INCLUDING DAMAGES FOR LOSS OF BUSINESS, LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION AND THE LIKE) ARISING OUT OF THE USE OR INABILITY TO USE THE SERVICE OR ITS DOCUMENTATION, EVEN IF MFE OR A MFE AUTHORIZED REPRESENTATIVE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OR

EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY. In no event shall MFE's total liability to you for all damages, losses, and causes of action (whether in contract, tort, including negligence, or otherwise) exceed the amount paid for the product and its documentation.

### **Trading Disclaimer**

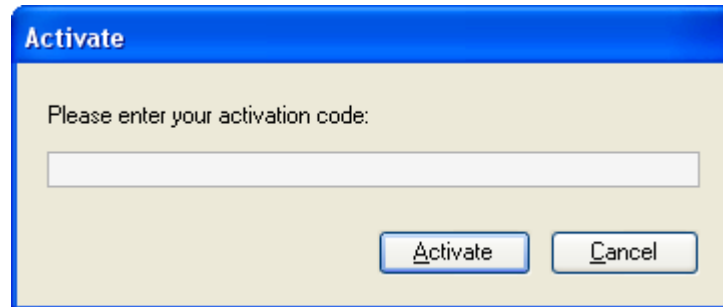
No offer or solicitation to buy or sell securities, securities derivative or futures products of any kind, or any type of trading or investment advice, recommendation or strategy, is made, given or in any manner endorsed. Past performance, whether actual or indicated by historical tests of strategies, is no guarantee of future performance or success. Active trading is generally not appropriate for someone of limited resources, limited investment or trading experience, or low-risk tolerance, or who does not have capital to risk. There is a risk of loss in stock and futures trading. Market data and order transmission may be delayed or unavailable at times due to system and software errors, Internet traffic, outages and other factors. Trading carries a high level of risk and may not be suitable for all investors. There is a possibility that you may sustain a loss equal to or greater than your entire investment; therefore, you should not invest or risk money that you cannot afford to lose. You should be aware of all risks associated with trading.

### **Prerequisites**

This trading platform requires a Windows XP, Vista, Windows 7 or higher operating system with at least 128MB of free RAM, 2GHz or higher processor, at least 50MB of free disk space and an Internet connection (a high speed connection is preferred). Because this trading application is web based, the application requires a constant and uninterrupted connection to the Internet. If your Internet connection is disconnected while using the application, you will not be able to view quotes or trade until the Internet connection is restored. If you receive error messages stating that the Internet connection is unavailable but you are certain that your computer is connected to the Internet, please edit your firewall and/or anti-virus settings to grant [PRODUCT] access to the Internet.

## Activation

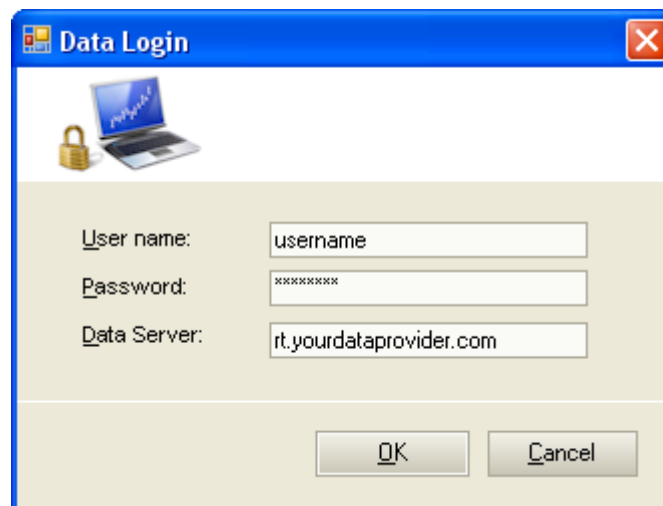
[PRODUCT] will request an activation key after the application has been started for the first time. This activation key is provided to you by [COMPANY] after you register the application. The key consists of 46 alphanumeric characters and is case sensitive.



Please ensure that your computer has Internet connectivity, then enter your activation code and click the Activate button to continue. The [PRODUCT] login screen will display if the activation is successful. An error message will display if the activation is unsuccessful.

## Data Login

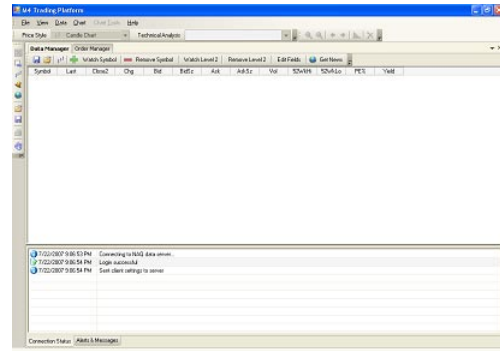
The login screen will display after the application loads. The login screen requires a username, password and data server address, all of which are assigned to you by [COMPANY].



Enter the information and ensure your computer has Internet connectivity, then click OK to continue. The [PRODUCT] Data Manager screen will display if the login is successful. Note that the Data Server text box may not be visible.

## Main Screen

The main screen consists of menus and toolbars. Depending on the trading platform version that you have installed, you may see a Data Manager and an Order Manager window. The Data Manager window allows you to monitor symbols in real time. The Order Manager window allows you to create and edit portfolios, monitor portfolio values in real time and place trades.

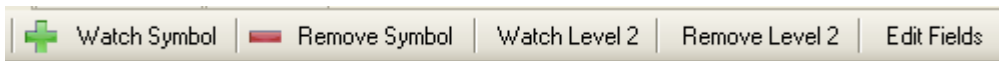


## Data Manager

The Data Manager window consists of a toolbar, a quote screen and an output window at the bottom.

Time	Symbol	Last	Bid	Bid Size	Ask	Ask Size	Volume	Chart
5/21/2010 12:00:00 AM	GOOG	\$472.05	\$0.00	0	\$0.00	0	9,693,500.00	
5/21/2010 12:00:00 AM	INTC	\$20.91	\$0.00	0	\$0.00	0	111,769,000.00	
5/21/2010 12:00:00 AM	MSFT	\$26.84	\$0.00	0	\$0.00	0	117,600,200.00	
5/23/2010 10:59:00 PM	DXYS	\$85.71	\$0.00	0	\$0.00	0	0.00	

The quote screen displays a list of symbols with their associated prices, volume, bid/ask, tick charts and other information. This list is updated in real time.



To add a symbol to the quote screen, simply click the green Watch Symbol button then type the symbol in the symbol text box.

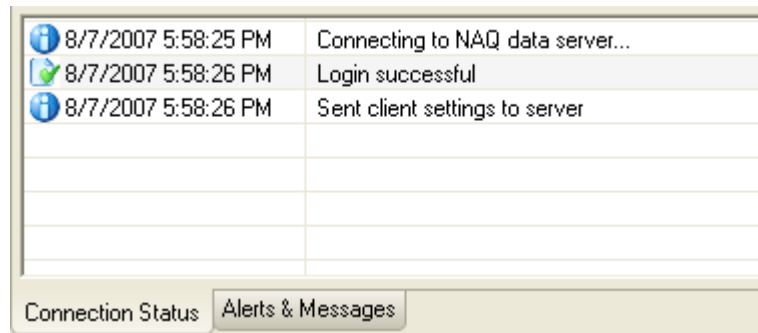
To remove a symbol, click the red Remove Symbol button. Certain symbols may not be removed from the level-1 quote screen if they are in use by the system (a trading system or alert may be using the symbol).



The save and load buttons allow you to save and load workspaces. A workspace is a list of charts and symbols that may be automatically loaded into the main screen.

## Output Window

The output window consists of two tabs. The Connection Status tab displays system messages pertaining to the data feed connection status. The Alerts & Messages tab displays information such as trading alerts, news alerts, broker messages, etc. An alert sound will play when the alert box is updated. Alerts are visible from both the Desktop and Mobile applications (if provided) and remain visible for 24 hours before the data is erased from the [COMPANY] servers.

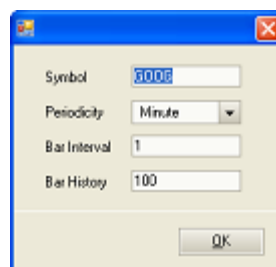


## Charts

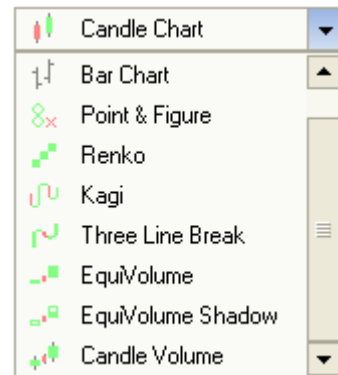
To load a chart, click the chart button on the Data Manager toolbar.



A data selection screen will display. Here you may specify the symbol, chart periodicity, bar interval, and bar history. Click the OK button to load the chart.



A three-dimensional candle chart will display by default. You may change the candle style to standard two-dimensional candles, open-high-low bars, or a number of other price styles listed in the Price Style drop down menu.

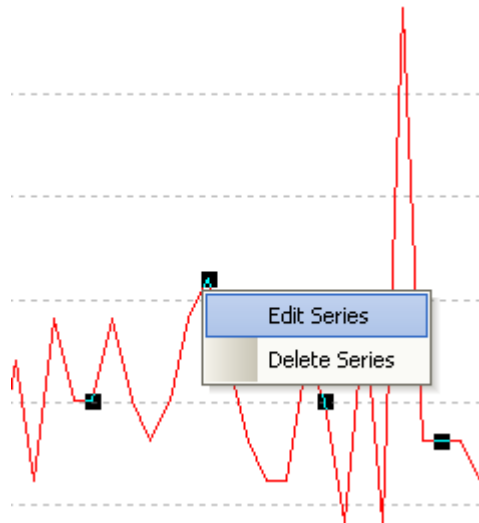


Technical indicators may be added to the chart via the Technical Indicator menu. Simply select a technical indicator then click on the chart. Note that if you have multiple charts open at the same time, you must click on a chart to select it prior to selecting a technical indicator.

If multiple charts are shown on the same screen, a selection border will be drawn around the selected chart. As you can see in the image below, a blue selection border has been drawn around the lower chart area, which is currently selected:



Once a technical indicator has been added to the chart, you may edit the indicator's properties by first left clicking on the indicator, then right clicking and selecting "Properties". The indicator property dialog will display, where you can change indicator parameters and colors.



You can drag and drop series from one area of the chart to another. To do so, simply click the series then drag it into another area (such as on top of the price bars).



You can also resize chart panels. Simply click near the borders and drag the panel either up or down.

To navigate the chart, click the zoom in, zoom out, scroll left and scroll right buttons located on the chart toolbar. Note that a chart can only be scrolled after you have zoomed in to a certain degree.



Trend lines, Gann fans, Error channels and other line studies can be added via the “Chart Tools” menu.



You can also add arrows, text objects, and other objects via the “Chart Tools” menu. These objects may be placed anywhere on the chart and may be repositioned or removed by a left click.

[Product] also allows you to apply templates to charts so that your favorite indicators and colors can be applied at once. Simply click the “Apply Template” button on the toolbar or select the Chart, Apply Chart Template menu. Note that the chart must have a volume series in order for this feature to work.

### Excel Import/Exporting (if enabled)

All values on a chart may be exported to Excel. Simply click a chart to select it then click the Export button on the main toolbar.



To import data from Excel, first open the Excel sheet that contains the data, then click the Import button on the main toolbar and select the data from within Excel. The Excel sheet must contain one record per line, with the date, open, high, low, close, and volume values.

	A	B	C	D	E	F	G
1	8/7/2007	29.19	29.28	29.19	29.27	0.2102	29.15879
2	8/8/2007	29.27	29.36	29.26	29.31	0.2646	29.16807
3	8/9/2007	29.31	29.32	29.28	29.3	0.1177	29.18593
4	8/10/2007	29.2901	29.34	29.28	29.31	0.1115	29.19786
5	8/11/2007	29.31	29.33	29.27	29.2727	0.1447	29.21072
6	8/12/2007	29.27	29.27	29.2	29.2401	0.2463	29.22072
7	8/13/2007	29.25	29.33	29.23	29.33	0.2109	29.23072



## Chart Trading

You can trade from any chart by right clicking and selecting “Buy Here” or “Sell Here”, depending on how this feature is implemented.

You will be prompted to select a portfolio and enter your order size.

Please note that only one order type is supported. Further you must understand that when you place an order on a chart, it is NOT considered a “real” market order!

Your order can be thought of as a programmed trade that has not been triggered for execution yet. It is NOT sent to the broker until the condition is met (when the candle crosses above or below the line from the reverse side).

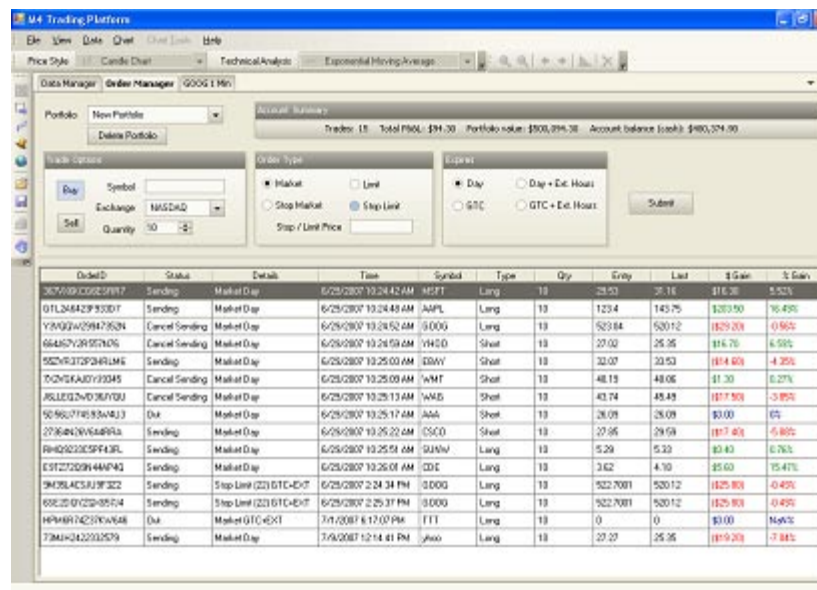
**WARNING! When using this feature be SURE to create your trigger line ABOVE or BELOW the candle and not INSIDE the candle. By placing your trigger line INSIDE a candle, your order will be triggered even though the candle may not have penetrated from the reverse side.**



Do not attempt to use this feature with price styles other than candlestick or HLC bars.

## Order Manager

The Order Manager is the control panel for monitoring portfolio values and placing orders. A portfolio must be selected from the drop down menu in order to place a trade. If no portfolios exist in the portfolio drop down menu, choose "<new portfolio...>" from the portfolio drop down menu, then choose a portfolio name and enter the portfolio starting balance to create a new portfolio. The portfolio will automatically be encrypted and saved on the [COMPANY] servers so that you may access the portfolio from any location via the Desktop application and the Mobile Application (if available).



Once a portfolio has been selected from the drop down menu, the portfolio account summary will begin to update in real time.

Account Summary				
Trades: 20	Total P&L: \$390.60	Portfolio value: \$50,390.60	Account balance (cash): \$30,145.40	

To place an order, simply enter the order instructions and click the Submit button.

<b>Trade Options</b>	<b>Order Type</b>	<b>Expires</b>	<b>Submit</b>
<input type="button" value="Buy"/> Symbol: <input type="text" value="GOOG"/>	<input checked="" type="radio"/> Market <input type="radio"/> Limit	<input type="radio"/> Day <input type="radio"/> Day + Ext. Hours	
<input type="button" value="Sell"/> Exchange: <input type="text" value="NASDAQ"/>	<input type="radio"/> Stop Market <input type="radio"/> Stop Limit	<input checked="" type="radio"/> GTC <input type="radio"/> GTC + Ext. Hours	
Quantity: <input type="text" value="10"/>	Stop / Limit Price: <input type="text"/>		

When an order is submitted or when an order has been updated, an alert is sent to all running Desktop and Mobile applications (if available).

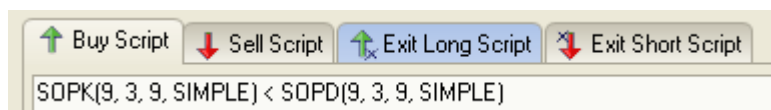
8/7/2007 2:47:38 PM	ORDER: GOOG: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=516.02, TYPE=Market, EXPIRES=Day
8/7/2007 2:48:32 PM	ORDER: GOOG: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=516.02, TYPE=Market, EXPIRES=Day
8/7/2007 2:55:37 PM	ORDER: MSFT: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=29.55, TYPE=Market, EXPIRES=Day
8/7/2007 2:56:20 PM	ORDER: MSFT: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=29.55, TYPE=Market, EXPIRES=Day
8/7/2007 2:56:49 PM	ORDER: MSFT: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=29.55, TYPE=Market, EXPIRES=Day
8/7/2007 2:58:39 PM	ORDER: MSFT: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=29.55, TYPE=Market, EXPIRES=Day
8/7/2007 2:59:17 PM	ORDER: AAPL: STATUS=Sending, SIDE=Long, QTY=10, ENTRY=135.0301, TYPE=Market, EXPIRES=Day

Connection Status Alerts & Messages

### Trade Alerts (if available)

You can provide program instructions to display trade alerts by clicking the Alert button on the side toolbar.

You can provide instructions that tell the application to play a sound or place a trade when a specific series of events occur, as specified by four program scripts. A script is a set of instructions written in the TradeScript™ programming language. For example, a script might consist of just one line such as “LAST > 350 AND HIGH > 351.25”, or it may consist of many lines of instructions.



A separate programming manual is provided for the TradeScript™ language, which can be viewed by clicking the Script Guide button on any Alert window.

[Script Guide](#)

You can load an existing alert by selecting an Alert name from the drop down menu (if any exist). To create a new alert, type an alert name, data selection criteria, enter at least a buy and sell script (exit-short and exit-long scripts are optional), then select the Automated Trading check box if you desire to place trades automatically. Finally, click the Enable Alerts button to turn the alert on. When the underlying data is matched with one of your alert scripts, an alert will broadcast to all your running Desktop and Mobile applications (if available).

If you have enabled the Automated Trading option, you must also select a portfolio and enter your order instructions in the appropriate fields.

☐ Enable Automated Trading
 

[Script Guide](#)
[Enable Alerts](#)

Portfolio
 

New Portfolio

Trade Options

Buy

Symbol

Exchange

NASDAQ

Sell

Quantity

10

Order Type

☒ Market
 ☐ Limit

☐ Stop Market
 ☐ Stop Limit

Stop / Limit Price

Expires

☒ Day
 ☐ Day + Ext. Hours

☐ GTC
 ☐ GTC + Ext. Hours

Please note that each time any of your scripts evaluates to TRUE, an order will be submitted based on the instructions you provide here. Please review the Automated Trading license agreement provided by [COMPANY] before enabling this feature.

To disable an alert at any time, simply click the Disable Alerts button.

## Back Testing (if available)

The Back Testing screen can be loaded from the Data, Back Test menu.

M4 Trading Platform

File View Data Chart Chart Tools Expert Advisors Help

Price Style Candle Chart Technical Analysis Simple Moving Average

Data Manager Order Manager Start Page **Back Test** MSFT 15 Min

Data Source

Symbol

MSFT

Bar Interval

15

Periodicity

Minute

Bar History

500

Buy Script

Sell Script

Exit Long Script

Exit Short Script

CLOSE > SMA(CLOSE, 15) AND VOLUME > REF(VOLUME, 1)

Trades

4/27/2010 12:59:59 PM to 5/21/2010 3:45:00 PM  
 Total number of trades: 157  
 Average number of trades per month: 158  
 Number of profitable trades: 86  
 Number of losing trades: 70  
 Total profit: 8.3135  
 Total loss: -3.3513  
 Percent profit: 59.689%  
 Largest profit: 0.8713  
 Largest loss: -0.7266  
 Maximum Drawdown: 0.0000  
 Maximum Drawdown (Monte Carlo): 0.0000  
 Compound Monthly ROR: 5.9622  
 Standard deviation: 0.00000000  
 Annualized standard deviation: 0.00000000  
 Downside deviation (MAR = 10%): 0.00000000  
 Value Added Monthly Index (VAMI): 1.00014365  
 Sharpe ratio (RFR = 5%): 0.00000000  
 Annualized Sharpe ratio (RFR = 5%): 0.00000000  
 Sortino ratio (MAR = 5%): 0.00000000  
 Annualized Sortino ratio (MAR = 5%): 0.00000000  
 Sterling ratio (MAR = 5%): 0.00000000  
 Calmar ratio: 0.00000000  
 Risk to reward ratio: 0.7980  
 4/29/2010 2:30:59 PM, LONG, 31.0497  
 4/29/2010 2:30:59 PM, SHORT, 31.1047  
 4/29/2010 2:45:00 PM, LONG, 31.1001  
 4/29/2010 2:45:00 PM, SHORT, 31.1242  
 4/29/2010 2:45:00 PM, LONG, 31.0760

Script Guide

Back Test

Server time: 5/23/2010 11:19:27 PM

**Back Testing** is a method that traders use to test their trading strategies against historical market conditions. Knowing how much profit or loss a trading system generated in the past may help prevent or reduce the risk of loss in real trading.

The TradeScript Back Testing engine can calculate your trading system's performance using nearly two-dozen scientific profit, loss and risk measurements. TradeScript™ allows you to specify individual instructions for buying, selling, holding, and exiting your simulated trades. To run a Back Test, simply enter and verify your buy, sell, and exit scripts then click the *Back Test* button. The *Buy Script* is a set of instructions for buying (going long) and the "Sell Script" is a set of instructions for selling (going short).

The scripts required on this screen are based on the TradeScript™ programming language. Please refer to the TradeScript™ programming guide for complete details.



### ***Back Test Results Overview***

Some trading strategies work well on a wide range of securities but work poorly with some securities. Reasons may include poor market liquidity for a particular stock (low volume), high volatility and other factors. It is a good idea to test your strategy across a wide range of securities. Just because it isn't very profitable on one security doesn't mean it won't work well with another security.

The values on the back testing page represent a range of measurements based on profitability and risk of your trading system when tested with the symbol that you supplied at the top of the back test screen. The output on the back testing results list provides an overall picture of how your strategy might perform if used as a live trading system.

## ***Overview of Back Test Outputs***

### ***Total number of trades***

Total number of trades including buy, sell, and exit trades.

### ***Average number of trades per month***

Average number of trades per month, including buy sell, and exit trades.

### ***Number of profitable trades***

Total number of profitable trades since the beginning of the back test.

### ***Number of losing trades***

Total number of un-profitable trades since the beginning of the back test.

### ***Total profit***

Total profit since the beginning of the back test.

### ***Total loss***

Total loss since the beginning of the back test.

### ***Percent profit***

Percentage of profitable trades in since the beginning of the back test.

### ***Largest profit***

Largest single-trade profit.

### ***Largest loss***

Largest single-trade loss.

### ***Maximum Drawdown***

The maximum account drawdown, defined as the percent retrenchment from equity peak to equity valley. A drawdown is in effect from the time an equity retrenchment begins until a new equity high is reached.

### ***Maximum Drawdown (Monte Carlo)***

Same as Maximum Drawdown, except the test is repeated 5,000 times, with each test introducing a small random slippage. Preferred over regular drawdown.

### ***Value Added Monthly Index (VAMI)***

Reflects the growth of a hypothetical \$1,000 in a given investment over time. The index is equal to \$1,000 at inception. Subsequent month-end values are calculated by multiplying the previous month's VAMI index by 1 plus the current month rate of return.

Where  $Vami_0 = 1000$  and

Where  $R_N = \text{Return for period } N$

$$V_{ami\ N} = (1 + R_N) \times V_{ami\ N-1}$$

### **Compound Monthly ROR**

The geometric mean is the monthly average return that assumes the same rate of return every period to arrive at the equivalent compound growth rate reflected in the actual return data.

### **Standard deviation**

Measures the degree of variation of returns around the mean (average) return. The higher the volatility of the investment returns, the higher the standard deviation will be.

Where  $R_i$  = Return for period  $i$

Where  $M_R$  = Mean of return set  $R$

Where  $N$  = Number of Periods

$$M_R = \left( \sum_{i=1} R_i \right) \div N$$

$$\left( \sum (R_i - M_R)^2 \div (N - 1) \right)^{1/2}$$

### **Annualized standard deviation**

$$\text{Standard Deviation} \times (12)^{1/2}$$

### **Downside deviation (MAR = 10%)**

Similar to the standard deviation above except the downside deviation considers only returns that fall below a defined Minimum Acceptable Return (MAR) rather than the arithmetic mean. For example, if the MAR were assumed to be 10%, the downside deviation would measure the variation of each period that falls below 10%. (The loss standard deviation, on the other hand, would take only losing periods, calculate an average return for the losing periods, and then measure the variation between each losing return and the losing return average).

Where  $R_i$  = Return for period  $i$

Where  $N$  = Number of Periods

Where  $R_{MAR}$  = Period Minimum Acceptable Return

Where  $L_i = R_i - R_{MAR}$  ( IF  $R_i - R_{MAR} < 0$  ) or 0 ( IF  $R_i - R_{MAR} \geq 0$  )

$$\left( \left( \sum_{i=1} (L_i)^2 \right) \div N \right)^{1/2}$$

$$\text{Downside Deviation} = \left( \left( \sum_{i=1} (L_i)^2 \right) \div N \right)^{1/2}$$

Where  $N_L$  = Number of Periods where  $R_i - M < 0$

### **Sharpe ratio**

A measure developed by William Sharpe that is defined as the incremental average return of an investment over the risk free rate. Risk (denominator) is defined as the standard deviation of the investment returns.

Where  $R_i$  = Return for period  $i$

Where  $M_R$  = Mean of return set  $R$

Where  $N$  = Number of Periods

Where SD=Period Standard Deviation

Where  $R_{RF}$ =Period Risk Free Return

$$M_R = \left( \sum_{I=1} R_I \right) \div N$$

$$SD = \left( \sum_{I=1} (R_I - M_R)^2 \div (N - 1) \right)^{1/2}$$

$$\text{Sharpe Ratio} = (M_R - R_{RF}) \div SD$$

**Annualized Sharpe ratio (RFR = 5%)**

$$\text{Monthly Sharpe} \times (12)^{1/2}$$

**Sortino ratio (MAR = 5%)**

A return/risk ratio developed by Frank Sortino. Return (numerator) is defined as the incremental compound average period return over a Minimum Acceptable Return (MAR). Risk (denominator) is defined as the Downside Deviation below a Minimum Acceptable Return (MAR).

Where  $R_I$ =Return for period I

Where N=Number of Periods

Where  $R_{MAR}$ =Period Minimum Acceptable Return

Where  $DD_{MAR}$ =Downside Deviation

Where  $L_I = R_I - R_{MAR}$  ( IF  $R_I - R_{MAR} < 0$  ) or 0 ( IF  $R_I - R_{MAR} \geq 0$  )

$$DD_{MAR} = \left( \sum_{I=1} (L_I)^2 \div N \right)^{1/2}$$

I=1

$$\text{Sortino Ratio} = ( \text{Compound Period Return} - R_{MAR} ) \div DD_{MAR}$$

Annualized Sortino ratio (MAR = 5%)

$$\text{Annualized Sortino} = \text{Monthly Sortino} \times (12)^{1/2}$$

**Calmar ratio**

A return/risk ratio. Return (numerator) is defined as the Compound Annualized Rate of Return over the last 3 years. Risk (denominator) is defined as the Maximum Drawdown over the last 3 years. If three years of data are not available, the available data is used.

**Sterling ratio (MAR = 5%)**

A return/risk ratio. Return (numerator) is defined as the Compound Annualized Rate of Return over the last 3 years. Risk (denominator) is defined as the Average Yearly Maximum Drawdown over the last 3 years less an arbitrary 10%. To calculate this average yearly drawdown, the latest 3 years (36 months) is divided into 3 separate 12-month periods and the maximum drawdown is calculated for each. These 3 drawdowns are averaged to produce the Average Yearly Maximum Drawdown for the 3-year period.

Where D1 Calmar Ratio = Compound Annualized ROR  $\div$  ABS (Maximum Drawdown)

= Maximum Drawdown for first 12 months



Where D2 = Maximum Drawdown for next 12 months

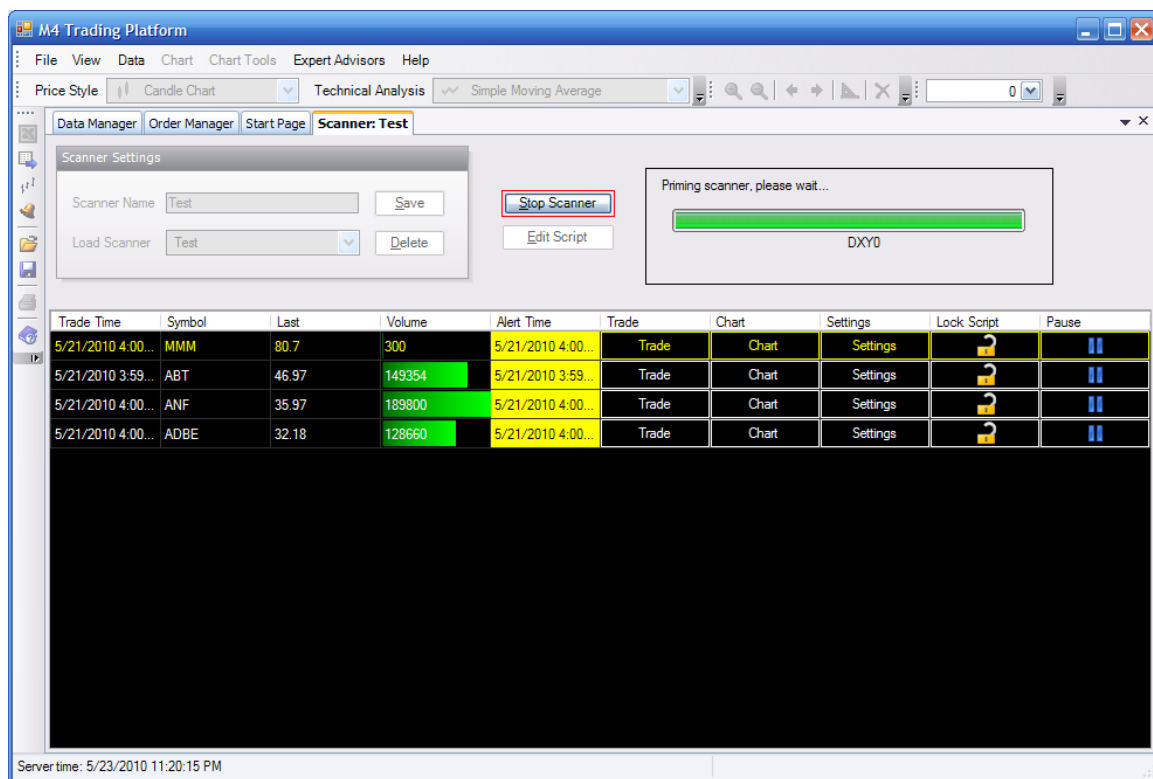
Where D3 = Maximum Drawdown for latest 12 months

Average Drawdown = ( D1 + D2 + D3 ) ÷ 3

**Sterling Ratio** = Compound Annualized ROR ÷ ABS ( (Average Drawdown – 10% ) )

## Stock Scanner (if available)

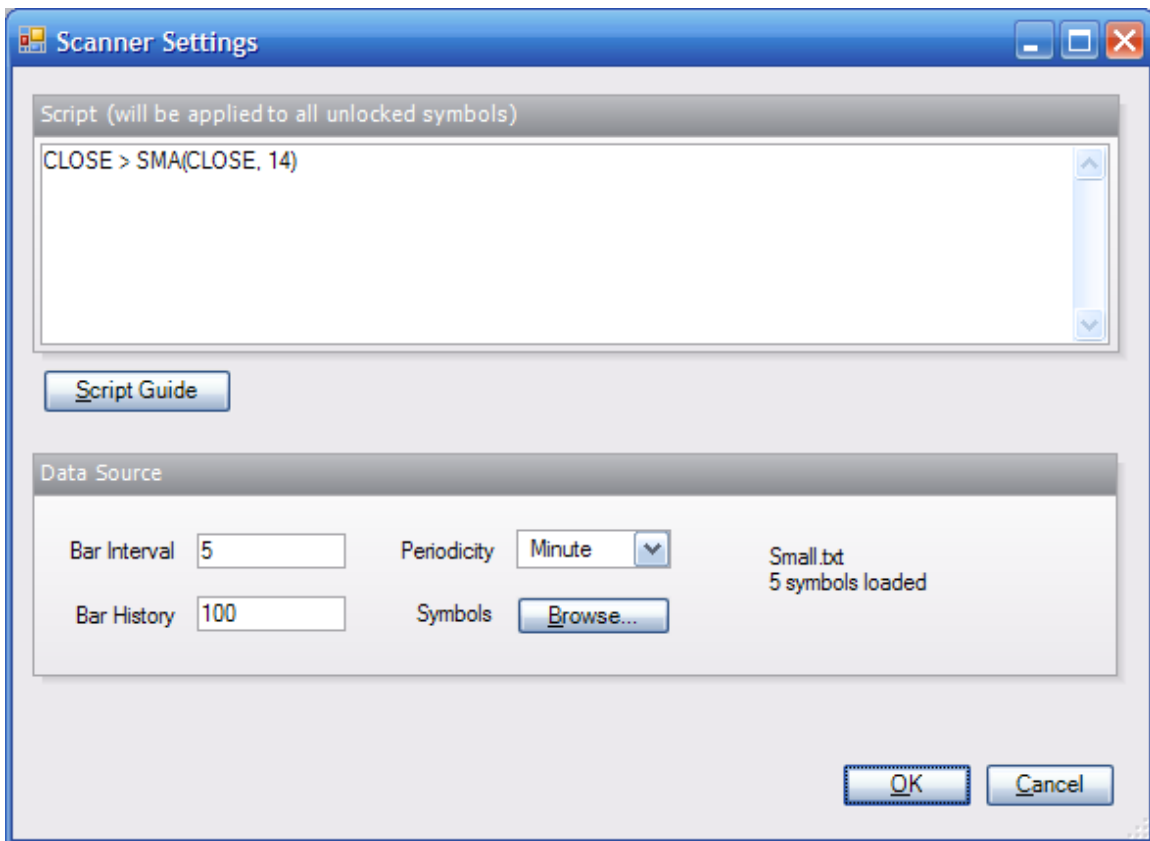
The Stock Scanner feature can be accessed from the Data, Stock Scanner menu



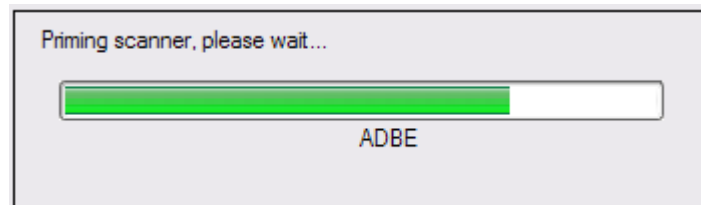
A stock scanner (also known as a screener) is a tool that allows you to search several symbols simultaneously for certain criteria.

The stock scanner that is built into [product] allows you to accomplish this by means of the TradeScript™ programming language.

To create a new scanner, select Data, Stock scanner from the main menu. Next, click the Run Scanner button. A dialog will display:



Simply type your TradeScript™ program into the script text box then choose the appropriate bar history, periodicity and bar history values. Next, click the Browse button to locate a text file that contains your symbols. The format allows for one symbol per new line. Click the OK button to start the scanner.

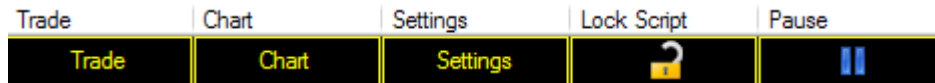


The scanner will take several moments to load the historic data into memory, therefore this startup task should be ran prior to the market opening.

The back test screen will run in real time after the historic data has been loaded into memory.

Trade Time	Symbol	Last	Volume	Alert Time
5/21/2010 4:00...	MMM	80.7	300	5/21/2010 4:00...

The Trade Time cell indicates when the last trade occurred. The Alert Time cell indicates when your script last generated a signal.



The Trade button allows you to place a trade, the Chart button allows you to open a chart, the Settings button allows you to customize the script for the selected symbol only, the Lock Script button allows you to lock a script (so that when you edit all scripts, the selected script will not be altered) and the Pause button allows you to pause or restart a script.

### Expert Advisors (if available)

Expert Advisors can be attached to charts so that a popup alert will display anytime a buy or sell strategy generates a signal.

To create an Expert Advisor, open a chart and click the Expert Advisors, Create New Expert Advisor menu.

 Screenshot of the 'Expert Advisor' dialog box. It contains fields for EA Name, Description, Message, Buy Script, and Sell Script, along with a 'Make Public' checkbox and 'Preview', 'Save', and 'Cancel' buttons.

Simply type a name, description, message, a buy script and a sell script (using the TradeScript™ programming language).

The message will be displayed in the popup window whenever your expert advisor generates a signal. You may enclose constants within brackets,

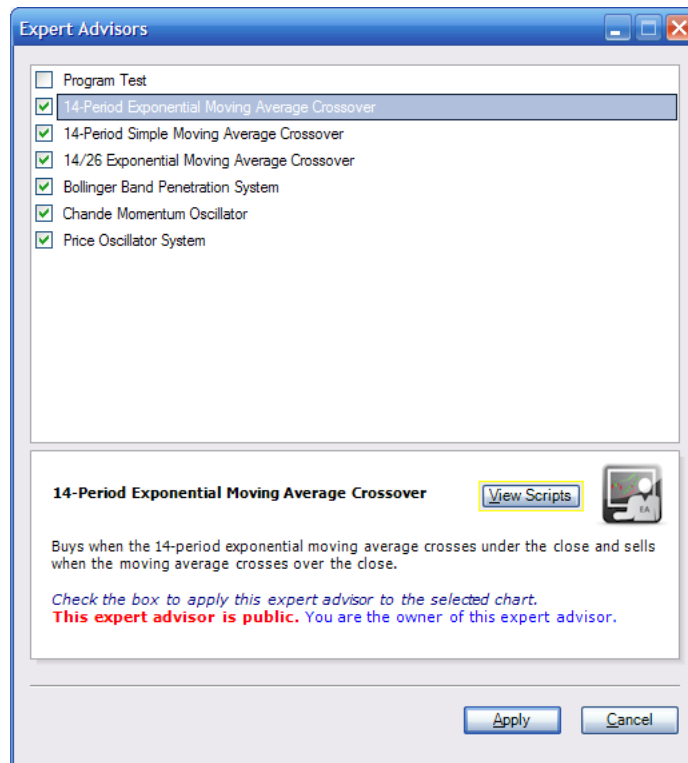
separated by a pipe character. For example you may write text such as the following: "The SMA just crossed [over|under] the close, generating a [buy|sell] signal". The first value will be interpreted for long positions while the second value will be interpreted for short positions. you can also use HTML formatted text such as <b></b> for bold, <font color=red></font> for red text, etc.

Note that if the "Make Public" text box is checked then your script will be published to the [company] servers and made available to all [product] users.

## Consensus Reports (if available)

Consensus Reports are simply groups of Expert Advisors that are processed simultaneously and the results are aggregated into one ranking value.

You may access this feature by opening a chart then selecting Chart, Consensus Report menu.



Simply select one or more Expert Advisors then click the Apply button.



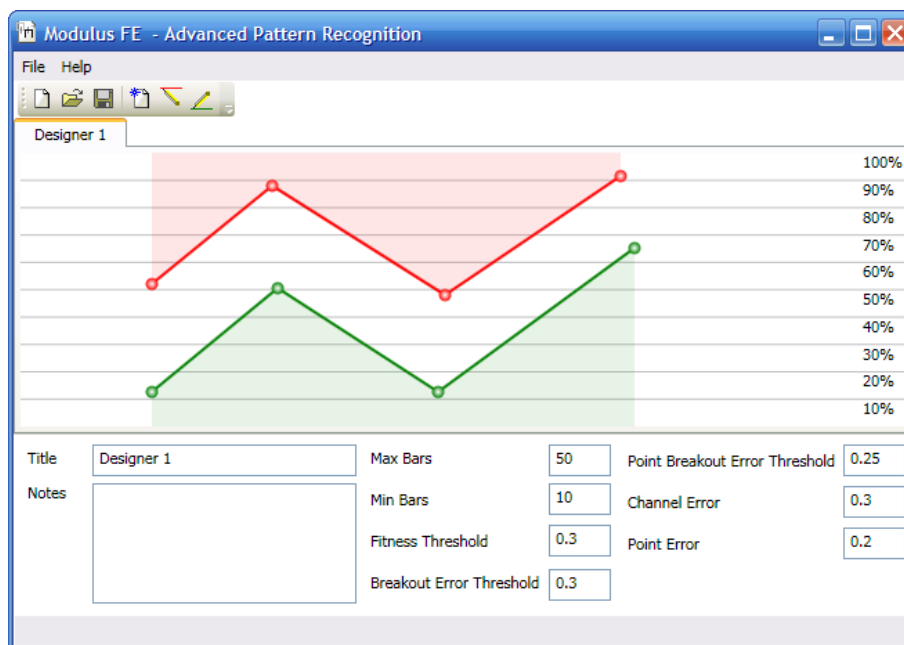
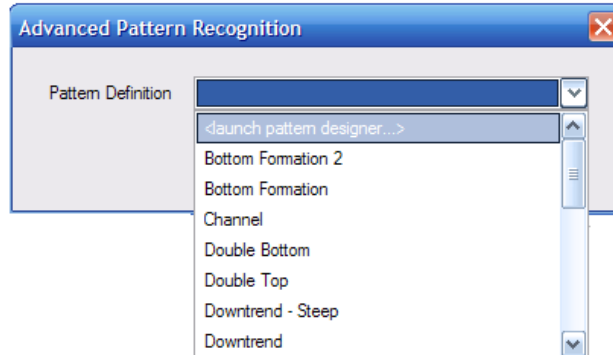
The Consensus Report will list the generated signals for each selected Expert Advisor, along with a ranking value represented inside a gauge.

## Pattern Recognition (if available)

The Pattern Recognition feature of [product] allows you to search for patterns within the currently selected chart.

To use this feature, click the Chart, Pattern Recognition item from the main menu

A dialog will display. Select <launch pattern designer...> from the list.



Use the pencil icons to draw your pattern then enter the appropriate settings in the text boxes below. Please refer to the Advanced Pattern Recognition documentation for a complete overview of these settings.

After you have clicked the Save button, return the [product] application and select Chart, Pattern Recognition again. The pattern you created will be listed. Simply click your pattern to search for it within the currently selected chart.

## **Technical Support**

You can find answers to your questions using our online support knowledge base at [SUPPORTURL]

You may contact technical support by sending an email to [SUPPORTEMAIL] - please allow 48 hours for a reply, excluding weekends and holidays.

If your support question is urgent or more consulting-oriented, you can use our Pay-Per-Incident service. A fee in the amount of \$99 will be billed to your VISA, MasterCard, Discover or American Express card. Simply call toll free from the U.S. or Canada, 24 hours a day, seven days a week, including most holidays: [SUPPORTPHONE] - press option 3 for Technical Support.