



*iExpertAdvisor*TM



Market Score Plug-in

Requires VTS-Connect minimum version 4.0.0.67

Use the **Market Score** plug-in to find the best market for your trading strategy. The **Market Score** plug-in calculates a score for your trading strategy on each market (or currency pair) that you choose. You can choose as many currency pairs as you like. **Market Score** finds the currency pair with highest score.

What is a Plug-in?

VTS stands for **Visual Traders Studio**.

The VTS *Expert Advisor* Builder is a Windows graphical application that enables non-programmers to build complex Expert Advisors by dragging, dropping and connecting logical elements.

The VTS application contains basic functionality to build almost any Expert Advisor.

A **VTS Plug-in** allows traders to easily implement advanced trading techniques using an add-on user interface.

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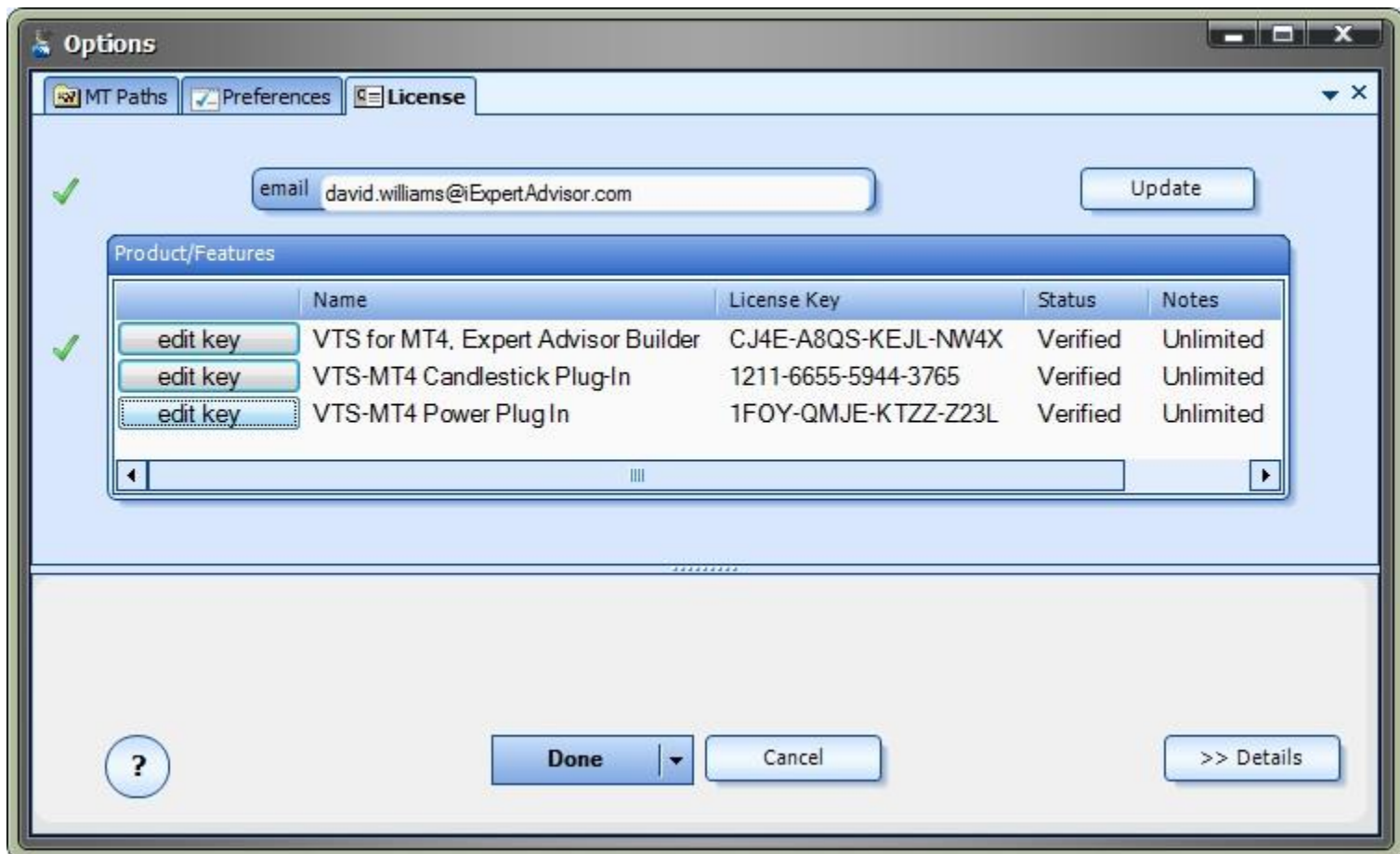
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Enable the Market Score Plug-in

You must enter your License key to enable the **Market Score Plug-in**. Your license key for all of your VTS products can be found in the [Members Area](#).

License keys are entered in Visual Traders Studio (VTS) from the License entry tab.

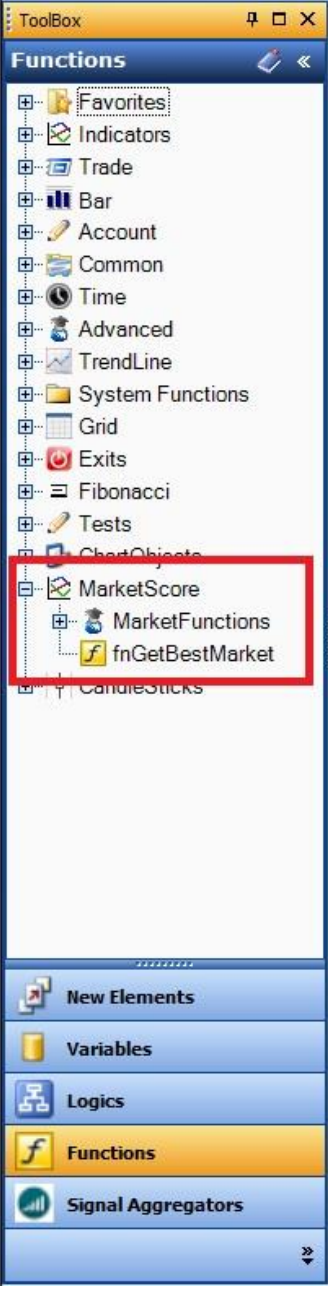
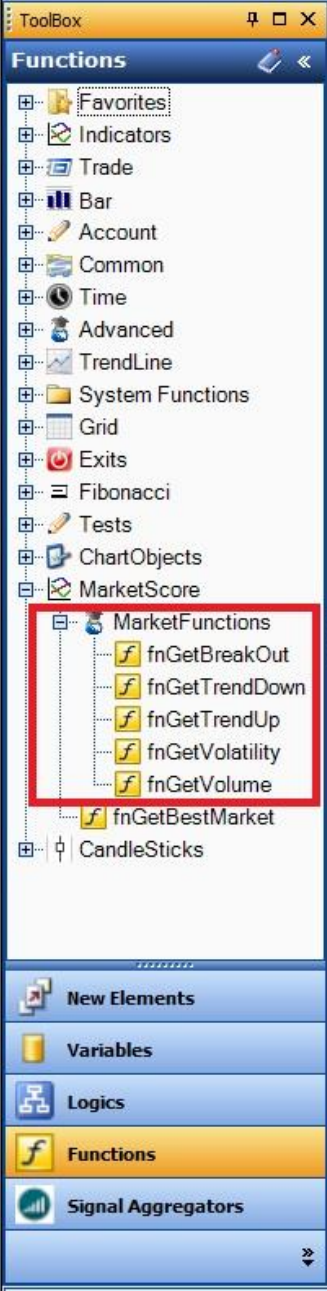
- The **email** address is the email address used to purchase [VTS](#).
- The **License Key** is the key listed in the Members Area.
- The **Update** button is used to verify the email address and license key.
- The **edit key** button is used to edit the key value.



Market Score Functions in the Toolbox

Once enabled, the **Market Score** functions are available in the [Toolbox](#) Function tab under the **MarketScore** menu.

These functions are dragged and dropped from the Toolbox onto the [Drawing Pad](#) like any other functions.

The main Market Score function fnGetBestMarket	The Market Functions used by fnGetBestMarket
 <p>The screenshot shows the 'ToolBox' window with the 'Functions' tab selected. The 'MarketScore' folder is expanded, and its sub-items, 'MarketFunctions' and 'fnGetBestMarket', are highlighted with a red box. The 'fnGetBestMarket' item is a yellow function icon.</p>	 <p>The screenshot shows the 'ToolBox' window with the 'Functions' tab selected. The 'MarketFunctions' folder is expanded, and its sub-items, 'fnGetBreakOut', 'fnGetTrendDown', 'fnGetTrendUp', 'fnGetVolatility', 'fnGetVolume', and 'fnGetBestMarket', are highlighted with a red box. All these items are yellow function icons.</p>

Market Score Functions

The **Market Score** function library uses a single main function to find the best market:
fnGetBestMarket

The function [fnGetBestMarket](#) uses any of the available [Market Functions](#) to calculate the market score for all markets.

The built-in **Market Functions** are:

- fnGetVolatility
- fnGetVolume
- fnGetTrendUp
- fnGetTrendDown
- fnGetBreakOut

Note: Any number of **Market Functions** can be [added](#).

fnGetBestMarket

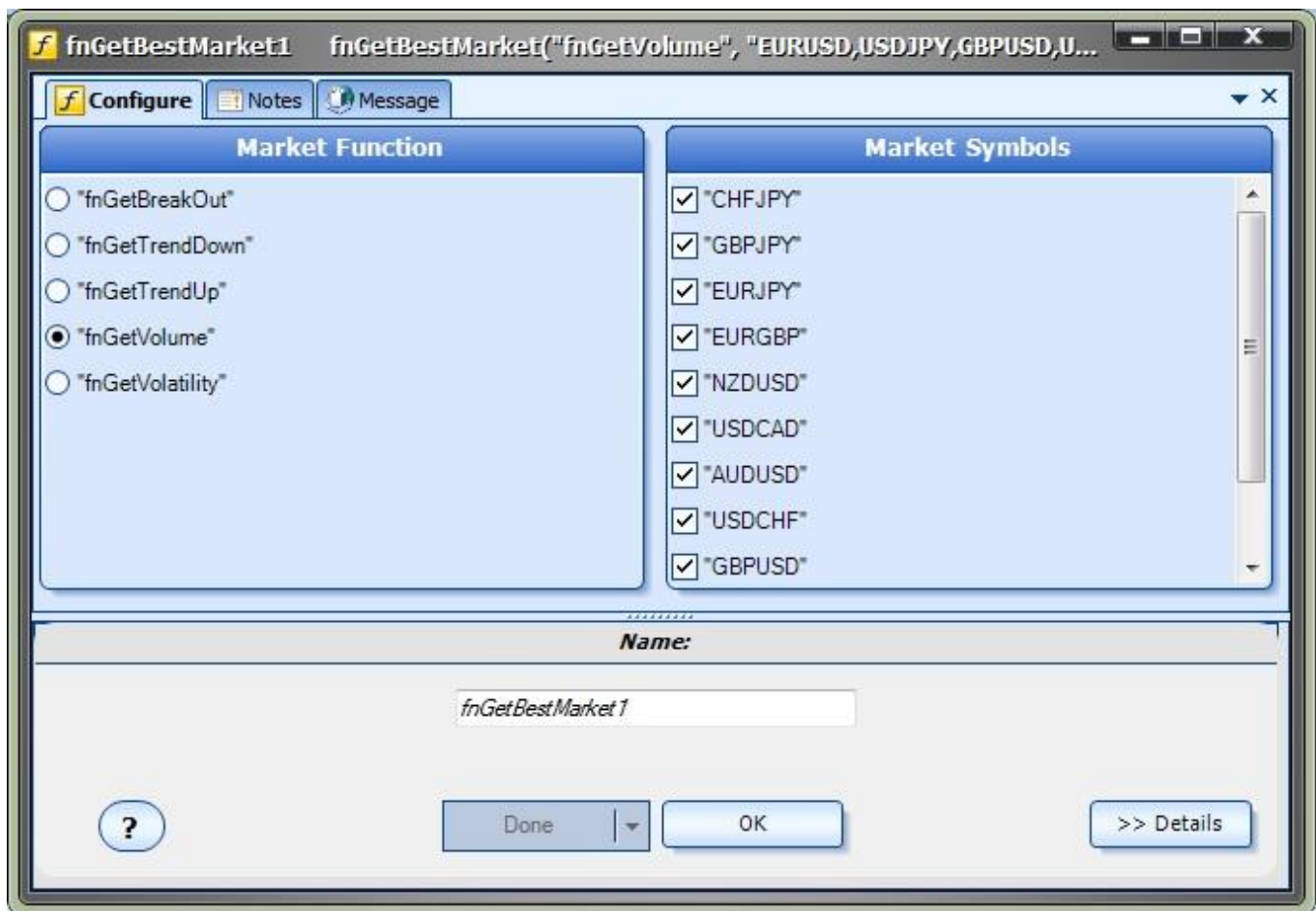
The function **fnGetBestMarket** is used to find the single best market (or currency pair) for a given strategy.

After the **fnGetBestMarket** function has been added to a [Drawing](#), it is configured by clicking the (+) button along the bottom of the [Element](#).

The [Function Configuration](#) window allows you to select values for each parameter.

The **Market Function** section allows you to select a single market function. (To add more functions see [Adding Market Functions](#))

The **Market Symbols** section allows you to any number of currency pairs. (To add more symbols see [Adding Symbols](#))



Market Functions

- [fnGetVolatility](#)
- [fnGetVolume](#)
- [fnGetTrendUp](#)
- [fnGetTrendDown](#)
- [fnGetBreakOut](#)

Note: Any number of **Market Functions** can be [added](#).

fnGetBreakOut

The *market function* **fnGetBreakOut** calculates the degree to which a market is breaking out of a current price pattern.

Notes:

- A *market function* is any VTS function that accepts a symbol as a parameter and returns a positive number.
- The [fnGetBestMarket](#) function calls a *market function* for all selected symbols and returns the symbol with the highest score.
- Although a *market function* can be dragged and dropped onto a drawing, **typically this is not done**. Instead the *market function* is selected in *Function* section of the [fnGetBestMarket](#) function

fnGetTrendDown

The *market function* **fnGetTrendDown** calculates the degree to which a market is trending down.

Notes:

- A *market function* is any VTS function that accepts a symbol as a parameter and returns a positive number.
- The [fnGetBestMarket](#) function calls a *market function* for all selected symbols and returns the symbol with the highest score.
- Although a *market function* can be dragged and dropped onto a drawing, **typically this is not done**. Instead the *market function* is selected in *Function* section of the [fnGetBestMarket](#) function

fnGetTrendUp

The *market function* **fnGetTrendUp** calculates the degree to which a market is trending up.

Notes:

- A *market function* is any VTS function that accepts a symbol as a parameter and returns a positive number.
- The [fnGetBestMarket](#) function calls a *market function* for all selected symbols and returns the symbol with the highest score.
- Although a *market function* can be dragged and dropped onto a drawing, **typically this is not done**. Instead the *market function* is selected in *Function* section of the [fnGetBestMarket](#) function

fnGetVolatility

The *market function* **fnGetVolatility** calculates volatility of a market.

Notes:

- A *market function* is any VTS function that accepts a symbol as a parameter and returns a positive number.
- The [fnGetBestMarket](#) function calls a *market function* for all selected symbols and returns the symbol with the highest score.
- Although a *market function* can be dragged and dropped onto a drawing, **typically this is not done**. Instead the *market function* is selected in *Function* section of the [fnGetBestMarket](#) function

fnGetVolume

The *market function* **fnGetVolume** calculates volume of a market.

Notes:

- A *market function* is any VTS function that accepts a symbol as a parameter and returns a positive number.
- The [fnGetBestMarket](#) function calls a *market function* for all selected symbols and returns the symbol with the highest score.
- Although a *market function* can be dragged and dropped onto a drawing, **typically this is not done**. Instead the *market function* is selected in *Function* section of the [fnGetBestMarket](#) function

Adding Market Functions

- A *market function* can be any VTS function that accepts a symbol as a parameter and returns a positive number.
- The [fnGetBestMarket](#) function calls a *market function* for all selected symbols and returns the symbol with the highest score.
- Although a *market function* can be dragged and dropped onto a drawing, **typically this is not done**. Instead the *market function* is selected in *Function* section of the [fnGetBestMarket](#) function.

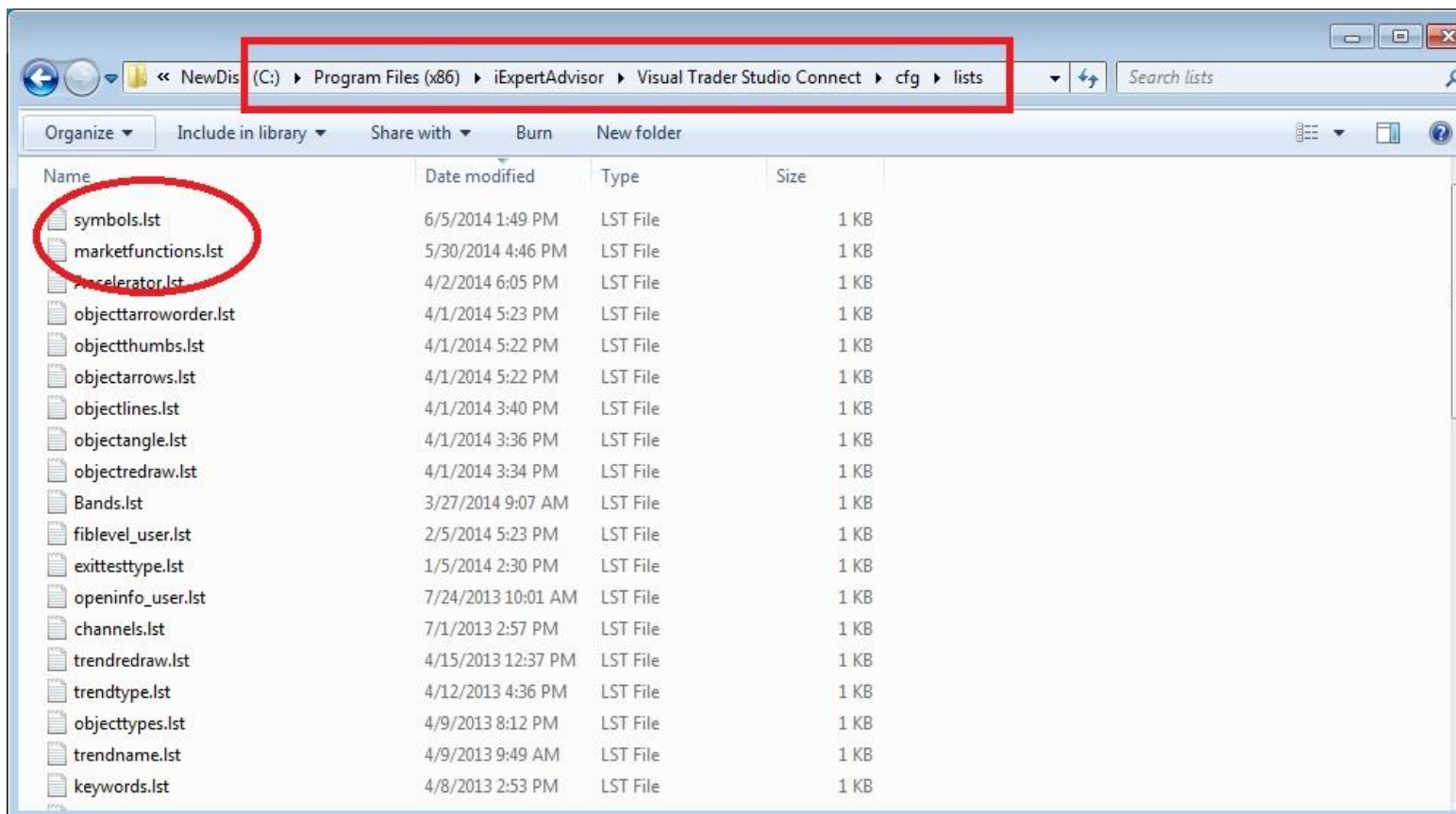
Any MQL function in VTS can be used as a market function. The function must have a single string parameter and return a double value.

To have the function appear in *Function* section of the [fnGetBestMarket](#) function, the function name is added to the **marketfunction.lst** file.

The **marketfunction.lst** file is a text file that lists all of the available market functions. It can be edited with any text editor, including NotePad.

The **marketfunction.lst** file is located at:

C:\Program Files (x86)\iExpertAdvisor\Visual Trader Studio Connect\cfg\list



The original contents of the **marketfunction.lst** file:

```
"fnGetVolatility"  
"fnGetVolume"  
"fnGetTrendUp"  
"fnGetTrendDown"  
"fnGetBreakOut"
```

To add a new function, enter the name of the function, in quotes, on a new line and save the file. For example:

```
"MyNewMqlFunction"
```

Adding Symbols

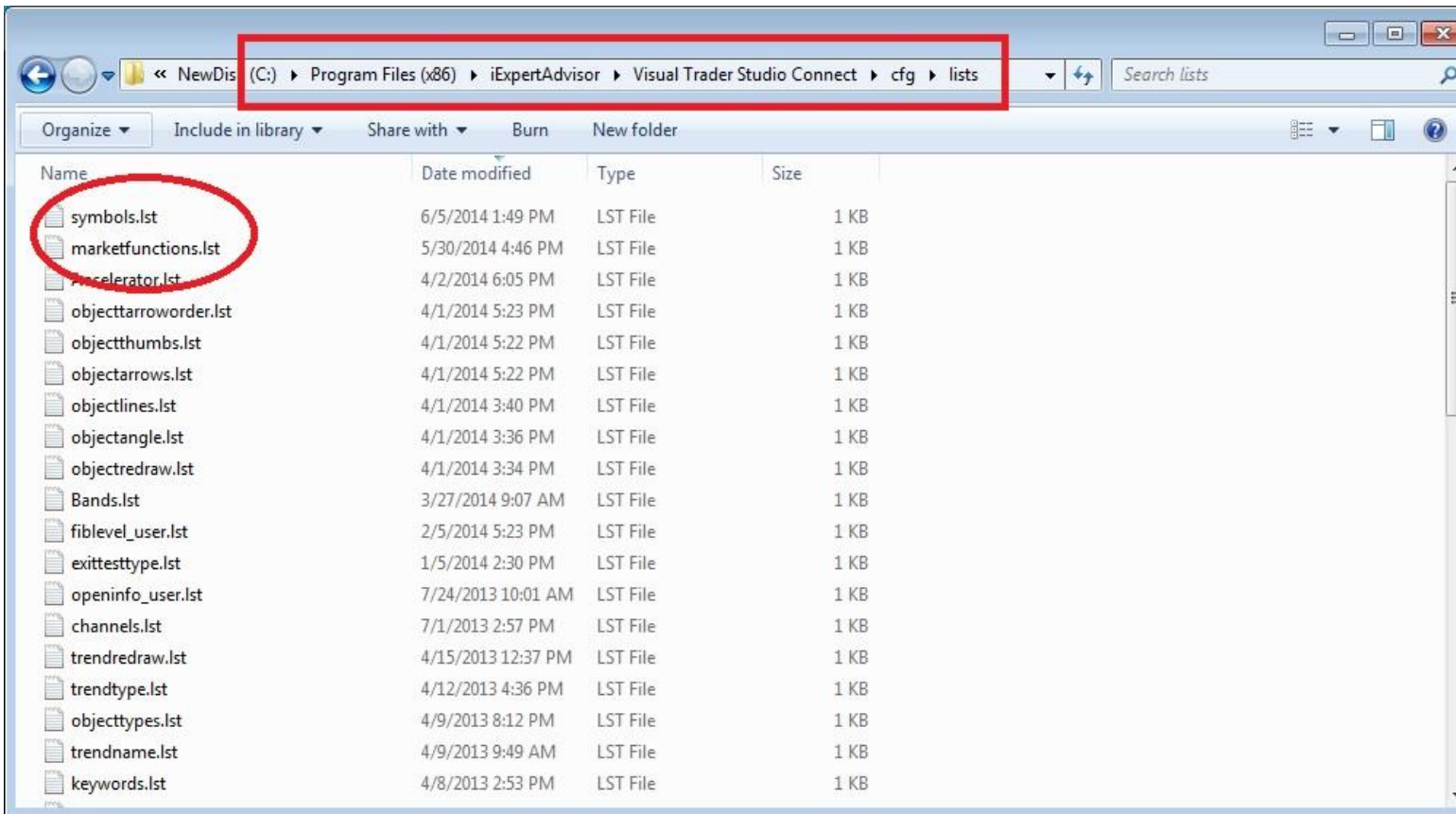
Any Symbol supported by your MetaTrader broker can be added to the **Market Score** Plug-in.

To have the function appear in *Symbols* section of the [fnGetBestMarket](#) function, the function name must be added to the **symbols.lst** file.

The **symbols.lst** file is a text file that lists all of the available market functions. It can be edited with any text editor, including NotePad.

The **symbols.lst** file is located at:

C:\Program Files (x86)\iExpertAdvisor\Visual Trader Studio Connect\cfg\list



The original contents of the **symbols.lst** file:

```
CHART
"EURUSD"
"USDJPY"
"GBPUSD"
"USDCHF"
"AUDUSD"
"USDCAD"
"NZDUSD"
"EURGBP"
"EURJPY"
"GBPJPY"
"CHFJPY"
```

To add a new symbol, enter the name of the symbol, in quotes, on a new line and save the file. For example:

```
"mEURUSD"
```

Market Score on the Drawing Pad

The image below shows how the **Market Score** plug-in is used.

- The **Function Elements** VolSymbol, TrendUpSymbol and TrendDownSymbol are **fnGetBestMarket** functions renamed for clarity.
- The variables that hold the return values for the functions are named **_VolSymbol**, **_TrendUpSymbol** and **_TrendDownSymbol**. (**Note the preceding underscore** _). These variables will hold the symbol with the highest market score.
- The **Logic Elements** IsUp and IsDown use the variables to make a trading decision.
- The **OpenBuy** and **OpenSell** functions use the selected variable to open an order for the Symbol with the highest score.

