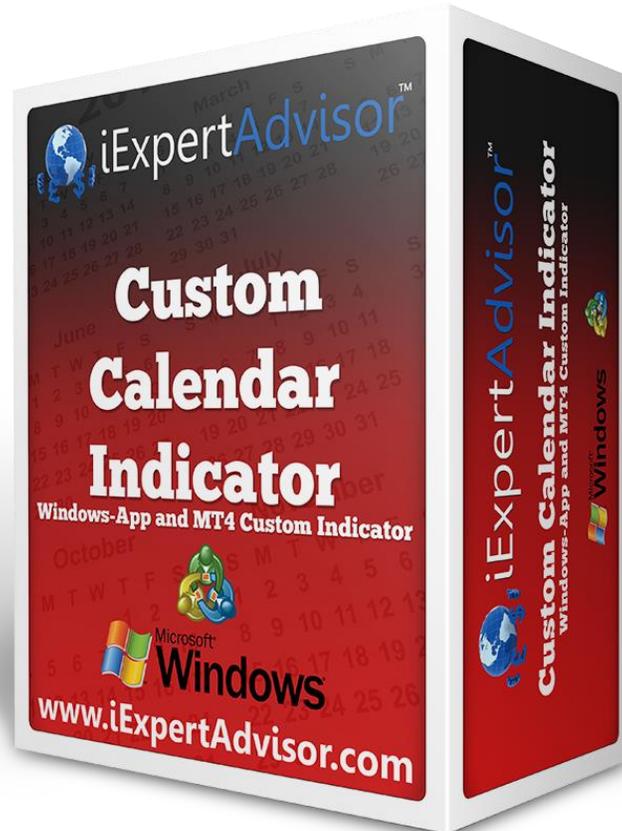# Custom Calendar Toolkit User Guide

The *Custom Calendar Toolkit* allows you to incorporate news events into your automated trading strategies, including your MetaTrader 4 Expert Advisors.

The *Toolkit* includes a *Management Console* for creating and managing calendar events and a MetaTrader Custom Indicator that plots the value of market-impacting events.

Contents

Installation

The *Custom Calendar Toolkit* installs like any Microsoft Windows program.

Step 1. Run the "setup.exe" program to install the *Management Console*.

The *Custom Calendar* icon is added to your desktop and a folder is created in your *Start* menu to access the full *Custom Calendar Toolkit*. (The *Custom Calendar Toolkit* is found under the iExpertAdvisor menu on your Start menu.)

Step 2. Copy the "**calendar.ex4**" Custom Indicator to your MetaTrader *Indicators* folder.

In order for the "calendar.ex4" Custom Indicator to appear in your MetaTrader platform, you need to copy the "calendar.ex4" file to the "MQL4\Indicators" folder of your MetaTrader platform.

Here are some common examples of the location of the *Indicators* folder for different MetaTrader platforms:

C:\Program Files (x86)\FXCM MetaTrader 4\MQL4\Indicators
C:\Program Files (x86)\IBFX MT4\MQL4\Indicators
C:\Program Files (x86)\MetaTrader 4\MQL4\Indicators

Concept and Theory

When the "calendar.ex4" Custom Indicator is attached to a chart in your MetaTrader platform, it plots a red line, which is a number between 0 and 100, on the bottom of the MetaTrader price chart.

- A value of 0 means there are no current news events that will affect the market.
- A value of 100 means there are current news events that will significantly affect the market.

Values from 1 to 99 indicate increasing market impact: The higher the value of the indicator, the higher the impact of the news event on the market.

This is allows you to quickly see any market-impacting events from within your MetaTrader platform. More importantly, it allows your Expert Advisors to make trading decisions based on news events.

The Calendar *Management Console* is used to add, edit and delete calendar events. When you are satisfied with the events on your calendar, you click a button on the *Management Console* to send the event data to the "calendar.ex4" Custom Indicator. The "calendar.ex4" Custom Indicator continually processes the event data and plots the market impact of the events.
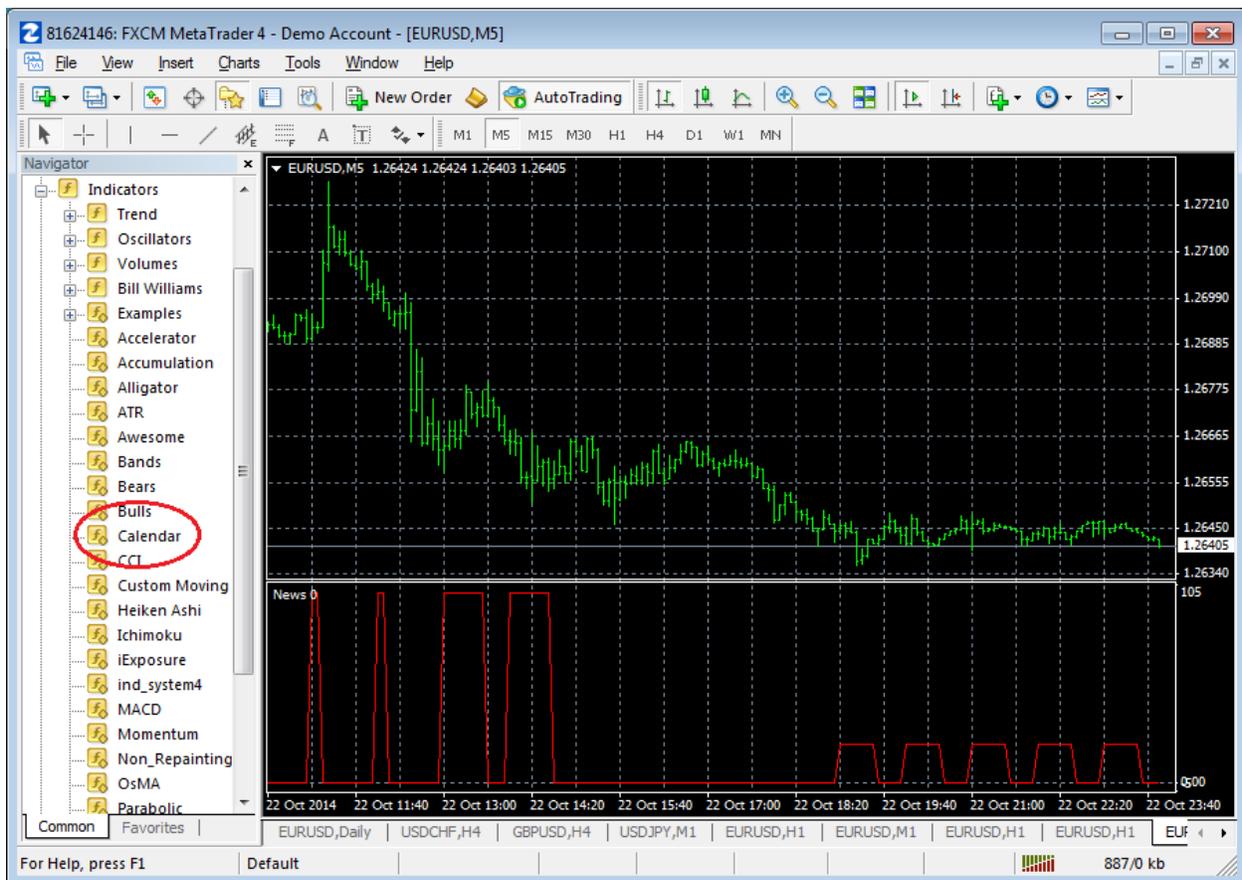
The *Custom Calendar* Management Console
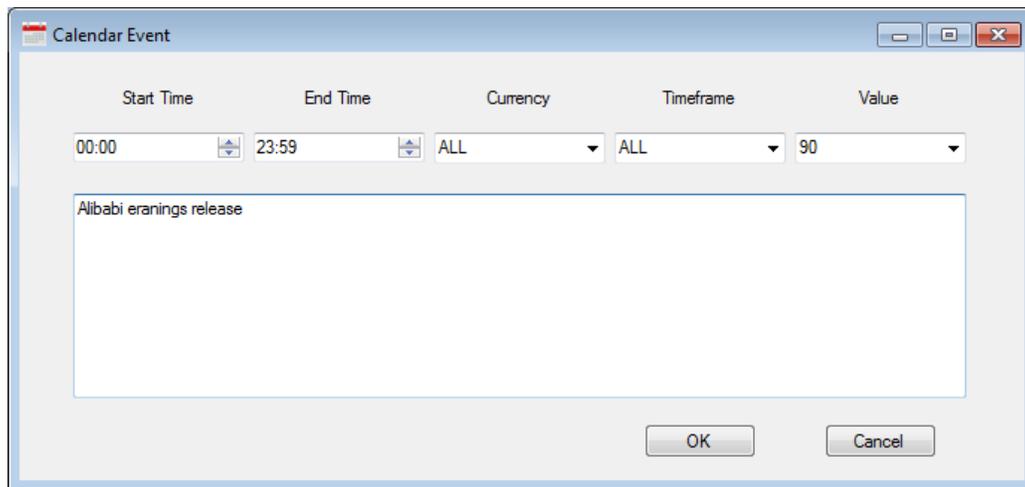
The *Management Console* is a Windows application that displays a calendar. It allows you to add, delete and update news events on the calendar.

Adding a Calendar Event

To add an event, double-click on the calendar to display the *Calendar Event* configuration window.

The following values are set using the *Calendar Event* configuration window.

Value	Description
Start Time	The starting time of the event using a 24 hour clock. Note: The date of the event is determined by the location of the event on the calendar.
End Time	The ending time of the event using a 24 hour clock. Note: The date of the event is determined by the location of the event on the calendar.
Currency	The currency this news event is expected to affect. ALL is used for most events, because most events affect all currencies in some amount. Specific currency pairs can be selected from the pull-down menu or entered manually.
Timeframe	The chart timeframe this news event is expected to affect. ALL is used for most events
Value	A value between 0 and 100 that represents the affect the news event will have on the market. Zero is the minimum affect, 100 is the maximum affect. Values can be selected from the pull-down menu or entered manually.
Text	A text description of the news event. The "calendar.ex4" Custom Indicator will display the text of the last news event when the mouse is help over the indicator's chart.

The "calendar.ex4" Custom Indicator will plot the value for the news event based on the *currency* and *timeframe* values. If the *currency* and *timeframe* values are set to ALL, the value is always plotted. Otherwise, the value is plotted only if the *currency* and *timeframe* match the currency and timeframe of the MetaTrader price chart that the "calendar.ex4" Custom Indicator is attached.

The values of all *active* news events are added and plotted. An event is *active* if the current time falls between the *start time* and *end time* of the news event.

Example:
- The "CPI" news event occurs at 08:00 and has a value of 25
- The "Retails Sales" event occurs at 08:00 and has a value of 50
- The value plotted is the sum of the two active event values: 75

However, *the maximum value plotted by the "calendar.ex4" Custom Indicator is 100*.
Example:
- The "CPI" news event occurs at 08:00 and has a value of 75
- The "Retails Sales" event occurs at 08:00 and has a value of 50
- Because the sum of the active values exceeds 100, 100 is plotted.

Downloading Economic News Events

To download current economic news events, click the link "*Download Economic Events*" on the Management Console.

News events are downloaded from the Investor.com RSS (Rich Site Summary) economic news event feed at http://www.investing.com/rss/news_95.rss.

Although there are many full-featured economic calendars available on the internet, most do not provide an RSS feed. A standard RSS feed is required for the event data to be read correctly by the *Management Console*.

All downloaded events set the currency and timeframe to ALL and the value to 100.

The *Add Economic Events* window appears after a successful download of the economic data. News Events can be checked or unchecked to add, or not add, the event to your calendar.
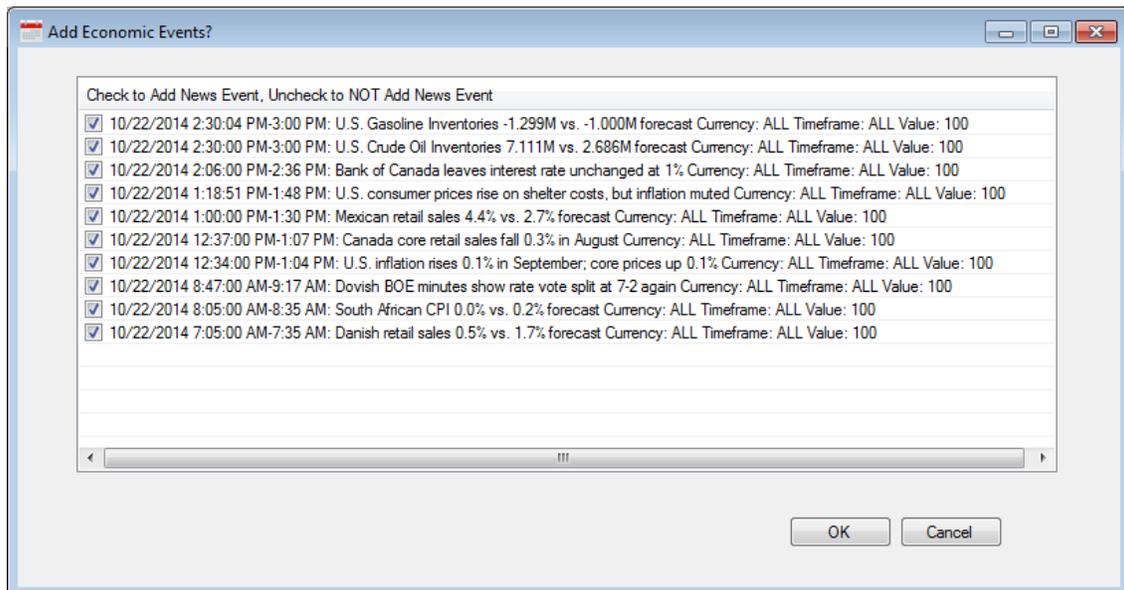
Sending News Event Data to the Custom Indicator

To send the news events shown on the calendar to the "calendar.ex4" Custom Indicator click the link "*Send News Event Data to Custom Indicator*" on the *Management Console*.

The *Custom Calendar Management Console* extracts the news event data from the calendar and creates a file of the event data that is read by the "calendar.ex4" Custom Indicator.

After any changes are made to the news events on the calendar, the link "*Send News Event Data to Custom Indicator*" must be clicked to send the data to the "calendar.ex4" Custom Indicator.

Note: The MetaTrader platform only allows files to be read from the MetaTrader "Files" folder.

Here are some common examples of the location of the *Files* folder:

     C:\Program Files (x86)\FXCM MetaTrader 4\MQL4\Files
     C:\Program Files (x86)\IBFX MT4\MQL4\Files
     C:\Program Files (x86)\MetaTrader 4\MQL4\Files

After clicking the link "*Send News Event Data to Custom Indicator*", a save-as window is displayed to save the data file to the MetaTrader "Files" folder. The name of the data file must be "custcal.csv".
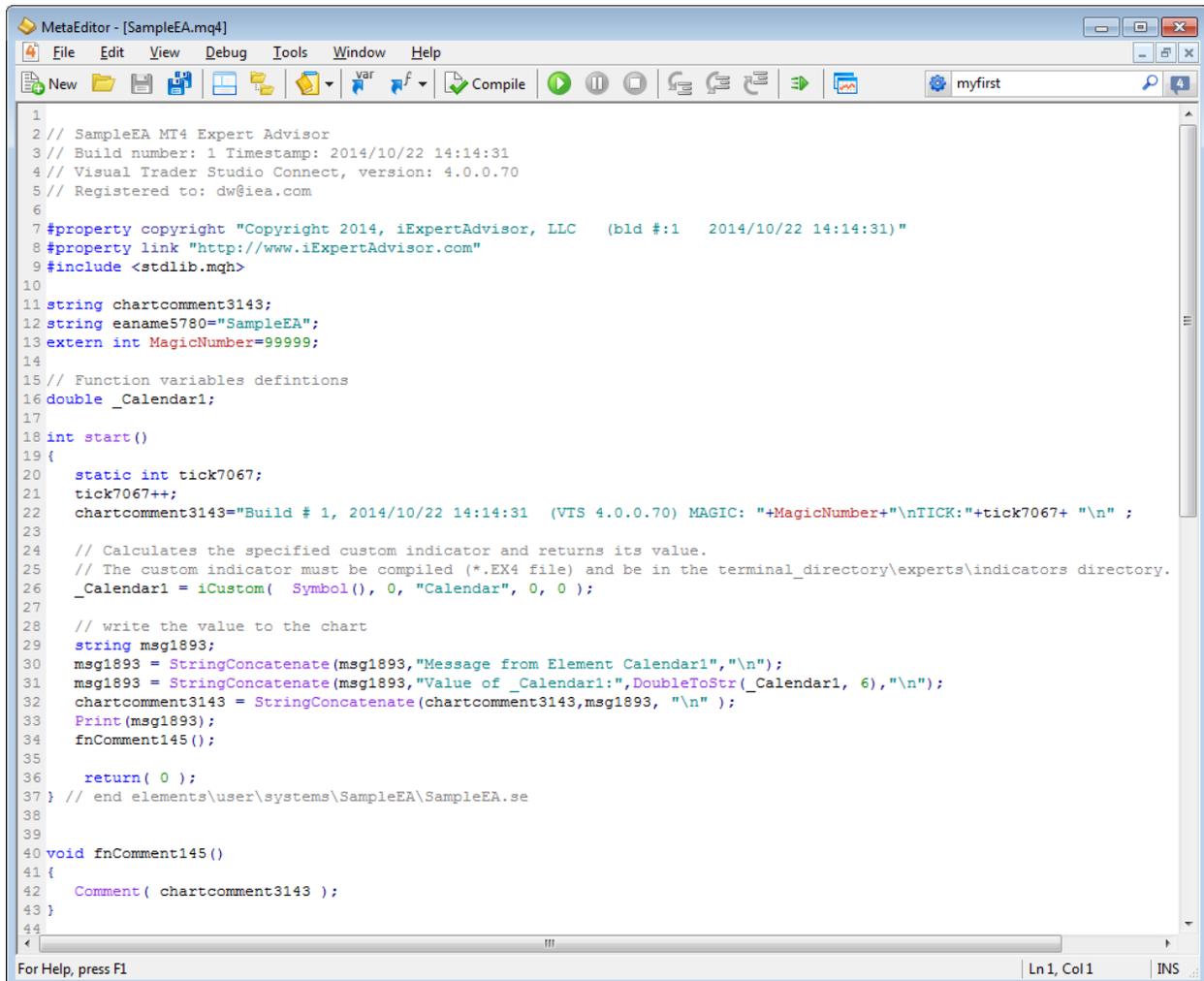
You must navigate to your MetaTrader "Files" folder and save the "custcal.csv" file at that location.
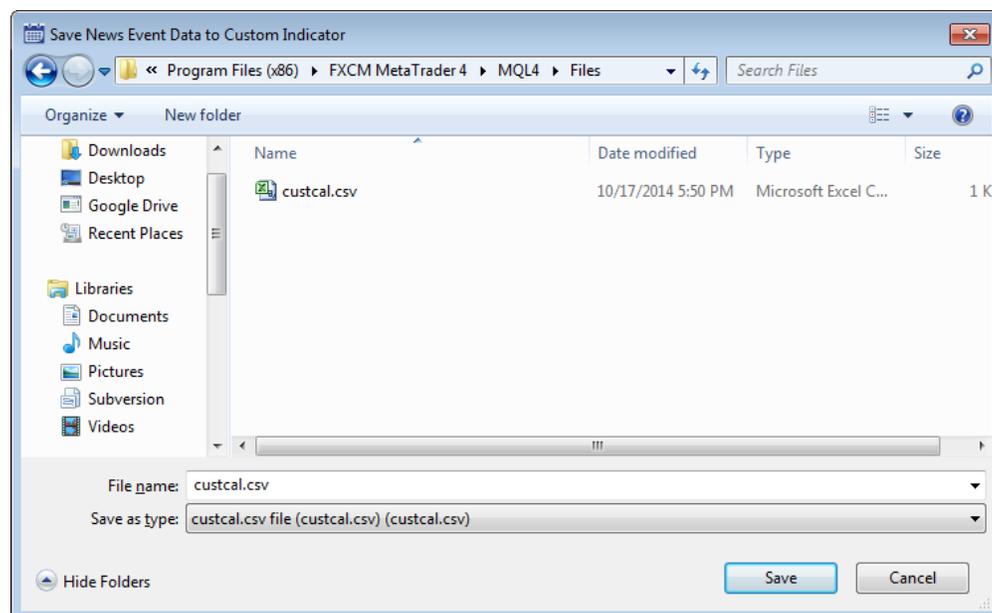
Using the Calendar Custom Indicator in an Expert Advisor

Custom indicators are accessed in MQL by using the MQL function "iCustom".

There is a sample MQL file (sampleEA.mq4) located in the *Custom Calendar Toolkit* **Help** folder that demonstrates how to use the "iCustom" function to access the value of the "calendar.ex4" Custom Indicator.

Using the Calendar Custom Indicator in a the Visual Trader Studio (VTS)

Any MetaTrader custom indicator can be used in VTS after it has been configured.

Custom indicator configuration is done within VTS and simply assigns input parameters and output lines to the custom indicator function.

The result of the VTS configuration process creates an IDF (Indicator Descriptor File) file in the VTS IDF folder (C:\Program Files (x86)\iExpertAdvisor\Visual Trader Studio Connect\cfg\idfs)
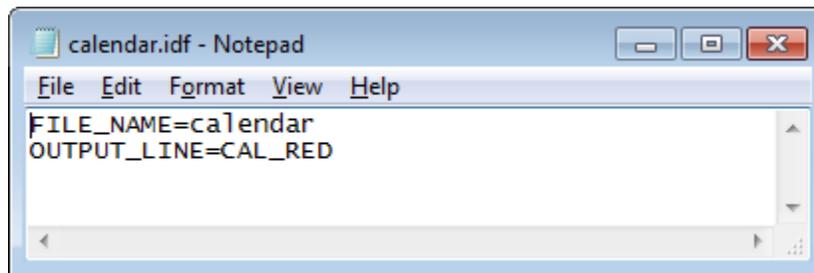
The IDF for the "calendar.ex4" Custom Indicator is automatically copied to the VTS folder when the link "Send News Event Data to Custom Indicator" is clicked on the *Management Console*.

The "calendar" function will appear in the VTS Function Toolbox under the *MQL-> Custom Indicators* folder. The "calendar" function can be dragged and dropped just like any other function in VTS.
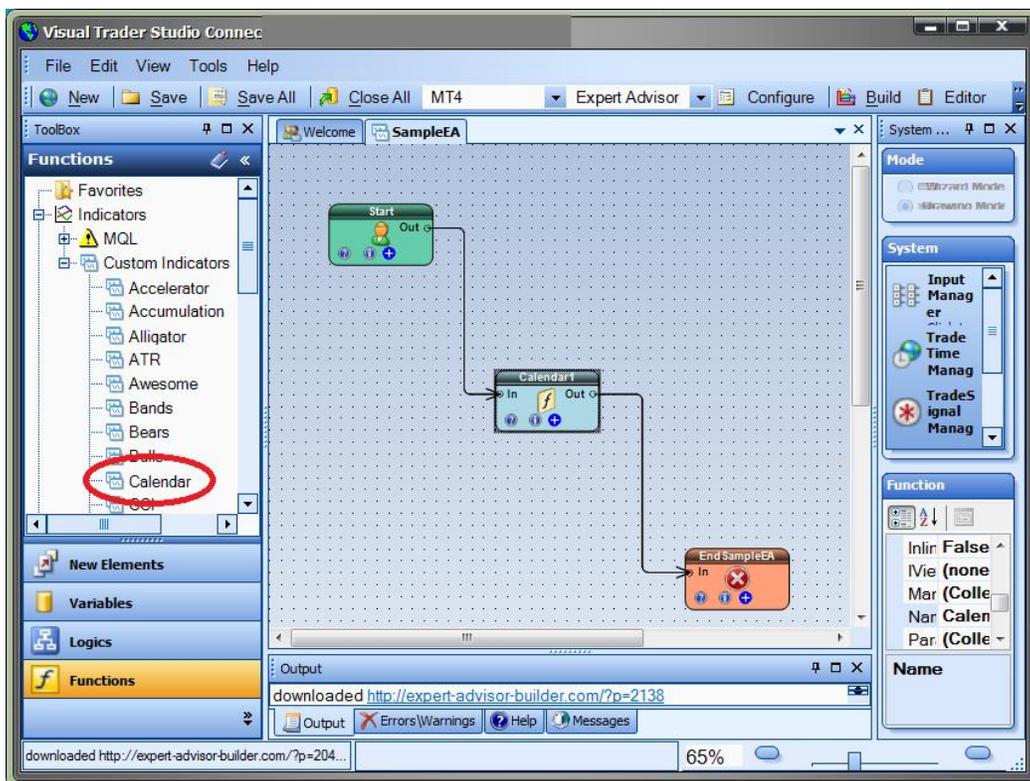
A Note on Time Differences

With your Local PC, your MetaTrader platform and the Calendar News feed, you are potentially dealing with three different time zones. The best way to resolve these differences is to test. Import news events and see when they are plotted on your MetaTrader chart. Make a note of the time difference and apply an offset to your logic when necessary. Because many traders use more than one MetaTrader platform, it is not possible to apply the same offset to all calendar events.

Video

You can watch a video overview of the *Custom Calendar Toolkit* here:

http://www.iexpertadvisor.com/custom-calendar-toolkit-mt4-custom-indicator/