Chart Execute Plug-in

Requires VTS-Connect minimum version 4.0.0.73

Use the *Chart Execute* plug-in to *execute* (or *run*) any MQL function within your Expert Advisor directly on the price chart. When you enable the *Chart Execute* feature in your VTS EA and attach the EA to a MetaTrader price chart, a button is drawn on the chart. When you click the button, a window is displayed that allows you to choose any function (and it's configurable parameters) and execute that function just once or on every price change.

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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Enable the Chart Execute Plug-in

You must enter your License key to enable the *Chart Execute Plug-in*. Your license key for all of your VTS products can be found in the <u>Members Area</u>.

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

- The email address is the email address used to purchase <u>VTS.</u>
- 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 edit the key value.

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Chart Execute in the System Manager

- Chart Execute configuration is accessed through the Chart Execute System Manager.
- System Managers are found on the right side of the VTS main application.
- Depending on your screen resolution, you may need to scroll down to view the **Chart Execute Manager** icon.
- To open the Chart Execute Manager, double-click the icon.

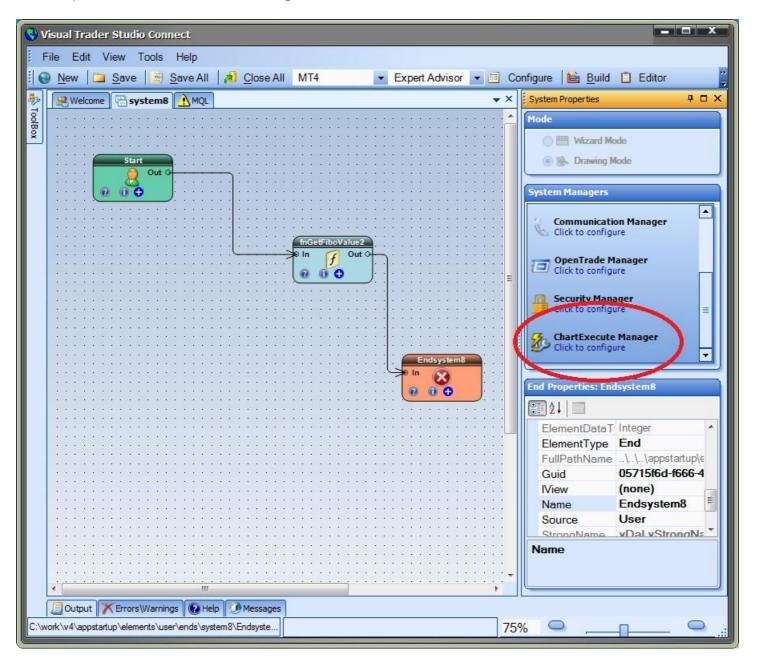


Chart Execute Configuration

- To open the Chart Execution configuration window, double-click the Chart Execute Manager.
- To enable **Chart Execution**, check the *Enable Chart Execute* checkbox.
- After **Chart Execution** has been enabled, individual functions are selected by checking the *Show* checkbox.
- Any checked functions will appear on the *Chart Execute Window* when the *Chart Execute Button* is clicked on the MetaTrader price chart.
- If **Chart Execution** is not enabled or no functions are selected, the *Chart Execute Button* will not be displayed on the MetaTrader price chart.

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Chart Execute On Price Charts

- When an EA with **Chart Execute** enabled is attached to a MetaTrader price chart, the "Chart Execute" button is displayed on the top right corner of the MetaTrader price chart.
- NOTE: When attaching the EA to the chart, DLL's imports must be allowed. On the *Common* tab, check the box *Allow DLL imports*.

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The "Chart Execute" button is displayed in the top right corner of the price chart.

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Using Chart Execute

- When an EA has been <u>configured to use Chart Execute</u> and the EA has been attached to a MetaTrader price chart, the <u>"Chart Execute" button is displayed</u> in the right hand corner of the price chart.
- Clicking the "Chart Execute" button will display the following window:

🖳 Chart Execute				- • •
	fn	GetOrderInfo	•1	
	int	InfoType	10	Â
	int	ticket	-1	E
	int	magic	-1	
	string	symbol	EURUSD	
fnGetOrder	Info1 is not ru	nning. Select S	tart or Run Once to execute fnGe	
	⊚ Sta	art 💿	Stop © Run Once	E
		Cancel	Execute	

• The pull-down menu at the top shows all functions of the EA that have been checked (to "show") in VTS Chart Execute configuration window:

Chart Execute	e	
		iBars1
	string	iBars1 iBarShift1 iClose1
	int	iHigh1 E iHighest1 E iLow1 E
		iLowest1 iOpen1 iTime1
		iVolume1
	iBars1 is no	t running. Select Start or Run Once to execute iBars1
	0	Start 💿 Stop 💿 Run Once
		Cancel Execute

- When a function is selected, the parameters for that function are displayed and are available to be edited.
- Note: Some functions do not have any parameters, in this case the parameter list is blank.

🖳 Chart Execute	
fnGetOrderli	nfo1 •
int InfoType	
int ticket	-1
int magic	-1
string symbol	EURUSD
fnGetOrderInfo1 is not running. Select	t Start or Run Once to execute fnGetOrderInfo1
⊚ Start	Stop
Cance	I Execute

- There are 3 execute **options** available:
 - The **Start** option will execute the selected function on every incoming price change (every *tick*). The function will continue to execute until it is *Stopped* or the EA is detached from the chart.
 - The **Stop** option will stop a function that is executing on every tick.
 - The **Run Once** option will execute the function just once. The function executes immediately when the *Execute* button is clicked.
- The window is closed when **Cancel** or **Execute** is clicked.
 - When **Cancel** is clicked, no action takes place. The window simply closes.
 - When **Execute** is clicked, the selected option (Start, Stop, Run Once) is executed.

Notes:

• Only one function can be managed at a time. To start each function, the "Chart Execute" button must be selected and used to start (or stop) each function individually.

- Selecting **Start** on an already started function has no effect.
- Selecting **Stop** on an already stopped function has no effect.

Chart Execute Notes

Function Parameter Values

The parameter values that appear in the "Chart Execute" window may look different than the parameter values you see in VTS. The values will often appear as their actual numerical value.

For example, for the *timeframe* parameter, instead of the value PERIOD_M30, you will see the value 30. If you are not familiar with the actual values of many of the MQL predefined variables (and most traders are not), it may be better to configure the function in VTS and run the function with the same values in "Chart Execute". By default, the parameters values in "Chart Execute" exactly match the parameter values in VTS, so if you don't change them, they will be the same.

Ghart Execute			
iA	DX2	•	
string	symbol	EURUSD	Î
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int	period	15]
int	applied_pr ice	0	
iADX2 is not ru	inning. Select St	art or Run Once to execute iADX2	?
⊚ Sta	art 💿	Stop © Run Once	
	Cancel	Execute	

Remember, VTS is full-featured Windows application and is able to present MQL predefined variables as though they are part of VTS. "Chart Execute" is a light-weight application that is built on the fly when you build your EA, therefore the presentation is not as rich.

Function Testing

Use the "Run Once" option to test your functions for the first time.

When the function is executed, all of the parameters values and the return value of the function are displayed in the "Experts" Tab on the bottom of your MetaTrader terminal window.

(Note: If the terminal window does not appear on the bottom of your MetaTrader platform, in your MT platform, go to View.>Terminal).

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Ø 2015.01.31 17:04:05	system8 EURUSD,M1: mode=0	
Ø 2015.01.31 17:04:05	system8 EURUSD,M1: applied_price=0	
2015.01.31 17:04:05	system8 EURUSD,M1: period=15	
@ 2015.01.31 17:04:05	system8 EURUSD,M1: timeframe=30	
2015.01.31 17:04:05	system8 EURUSD,M1: symbol=EURUSD	

Using a VTS Drawing to Hide Function Parameters

Many times you may not want to change any parameters of a function, or perhaps just one or two parameters, but viewing them *all* is a distraction.

One method to hide the function parameters, so they do not become a distraction, is to create a new VTS <u>Drawing</u> with just a Start <u>Element</u>, the function you want to execute and an <u>End</u> Element.

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Once the drawing is attached (see *Connecting Functions on a Drawing* below), and <u>enabled in Chart Execute</u>, the function "MyAdx" (the name of the drawing) will appear in the "Chart Execute" function list. And the "MyAdx" function will not have any parameters. It will simply execute the drawing above, including iADX3, with the parameters that are defined in the iADX3 function.

If you know you are always going to execute a function with the same parameters, this is an excellent way to insure no mistakes are made when the function is executed. If you want the ability to change just one (or more) parameters of the iADX function, this can be done by adding a <u>Variable</u> Element (of <u>scope</u> Parameter) to the drawing, and the using the variable in the ADX function.

For example, create a <u>Variable</u> named "MyPeriod", set the scope to <u>parameter</u> and add it to the <u>Drawing</u>.

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- - X f iADX3 iADX(CHART,CHART,MyPeriod,PRICE_CLOSE,MODE_MAIN,0) ¥ X Configure SPower Notes Message ADX Parameter 1 of 6 Add Input Parameter r symbol: CHART • Choose ... iADX Parameter 2 of 6 Add Input Parameter Imeframe: CHART + Choose ... iADX Parameter Add Input Parameter = period: MyPeriod Choose ... ¥ ADX Parameter 4 of 6 Add Input PRICE_CLOSE \equiv applied_price: + Choose Parameter E iADX Parameter 5 of 6 Add Input MODE_MAIN \equiv mode: -Choose ... Parameter iADX Parameter 6 of 6 Add Input ≡ shift: 0 * Choose ... Parameter Name: iADX3 ? >> Details Done OK

When configuring the ADX function, set the *period* Parameter to "MyPeriod".

Using this method, when the "MyAdx" function is displayed in "Chart Execute", the only parameter to appear will be "MyPeriod".

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Connecting Functions on a Drawing

In order for a function to be displayed in "Chart Execute", it must be connected on a Drawing in the VTS System.

There may be a situation where you want a function to be available in "Chart Execute", but the function is not needed in your EA. For this situation, you can connect the function an output of a Logic Element that will never evaluate to true, and therefore will never execute within the EA.

For example, create a Logic Element with a logic condition of "1 is equal to 2". This condition will *never* evaluate to true.

🖪 Logic1* (Element type Logic)		
📴 Configure 🔮 Power 🕐 Message 📑 Notes 🗸 👻		
Logic1* Condition 1: 1 EQUAL_TO 2 RETURN_TRUE		
Left operand I Choose Next: RETURN_TRUE	Select an operator: EQUAL_TO Choose	
Name:		
(?)	Logic 1 Done Cancel	Details

Connect the function to be used only by "Chart Execute" to the *True* output of the Logic Element. The rest of the (useful) Elements required by the EA can be connected to the *False* output, where they will execute normally when the EA

runs.

In the below <u>Drawing</u>, the MyADX function is connected to the *True* output of Logic1. The only condition within Logic1 is:

"1 is equal to 2"

which will never execute within the EA, but the MyADX function will be available to execute in "Chart Execute".

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This technique of creating **Drawing** functions to **hide** the parameters is especially useful for trading operations such as opening, closing and managing open trades. The MQL functions <u>Ordersend</u>, <u>OrderModify and OrderClose</u> have many parameters that most traders do not have a need to change when executing.