



# FX Profit Exits Plug-in

Requires VTS-Connect minimum version 4.0.0.46

The *FX Profit Exits Plug-in* allow you to easily add advanced trade exits to your Expert Advisor.

*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 Profit Exits Plug-in

You must enter your License key to enable the *Profit Exit 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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1	email	david.williams@iexpertadvisor.com			Update	
×						
	Product/Features					
		Name	License Key	Status	Notes	
	edit key	VTS for MT4, Expert Advisor Builder	RBVY-2N9T-NLH1	Verified	Unlimited	
	edit key	VTS-MT4 Power Plug In	31GV-HV5H-L2DL-8	Verified	Unlimited	
1	edit key	VTS-MT4 Candlestick Plug-In	75R4-23J2-NAA1-8	Verified	Unlimited	
×	edit key	VTS-MT4 FX PowerGrid Plug-in	BGTV-29KD-HD3J	Verified	Unlimited	
	edit key	VTS-MT4 Script and Multi-Platfor	W2HX-1CPE-UQEX	Verified	Unlimited	
	edit key	VTS-MT4 Easy Email Plug-in	DQQ1-RN5L-25FG	Verified	Unlimited	
	edit key	VTS-MT4 Trend Line Plug-in	EQGK-4VHH-GKHJ	Verified	Unlimited	
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## **Profit Exit Functions in the Toolbox**

Once enabled, the Profit Exit functions are available in the <u>Toolbox</u> Function tab under the Grid menu.

These functions are dragged and dropped from the Toolbox onto the <u>Drawing Pad</u> like any other functions.



## **Profit Exit Functions in the New System Window**

Once enabled, the Profit Exit functions are available from the *New System* Window that is shown when creating a new system.

🛃 New System: system3					
Entry Drawin	gs 🕑 Exit Drawings	•			<b>→</b> ×
	Profit Exit Drawings				
	Custom Exit	(Close Buy/Sell Drawing)	Buy	Sell	
	fnBreakEven	(Move to breakeven)	Buy	Sell	
	fnBarExit	(Exit on Bar # Test)	Buy	Sell	
	fnAtrExit	(ATR-based T/S)	Buy	Sell	
	fnChandelierExit	(Chandelier T/S)	Buy	Sell	
	fnChannelExit	(Channel High/Low T/S)	Buy	Sell	
	fnTrailingExit	(Plain Trailing Stop)	Buy	Sell	
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		Nai	me:		
		system3			
?		ок	Cancel		

## In addition to the *Entry Drawings* tab, a new tab named *Exit Drawings* is available.

Exit Name	Description	Buy	Sell
Custom Exit	A custom exit will create a drawing with a non-configured Logic element. This is the same drawing that is created when the Profit Exit plug-in is not installed. <b>Note</b> : Selecting this Exit will disable all other Exits choices.	Check to create <i>CloseBuyTrad</i> e drawing.	Check to create <b>CloseSellTrade</b> drawing.
fnBreakEven	Adds the <b>fnBreakEven</b> function to the drawing.	Check to add the <b>fnBreakEven</b> function to the	Check to add the <b>fnBreakEven</b> function to the

		CloseBuyTrad e drawing.	CloseSellTrade drawing.
fnBarExit	Adds the <b>fnBarExit</b> function to the drawing.	Check to add the <i>fnBarExit</i> function to the <i>CloseBuyTrad</i> <i>e</i> drawing.	Check to add the <b>fnBarExit</b> function to the <b>CloseSellTrade</b> drawing.
fnAtrExit	Adds the <b>fnAtrExit</b> function to the drawing.	Check to add the <i>fnAtrExit</i> function to the <i>CloseBuyTrad</i> <i>e</i> drawing.	Check to add the <b>fnAtrExit</b> function to the <b>CloseSellTrade</b> drawing.
fnChandelierExit	Adds the <b>fnChandelierExit</b> function to the drawing.	Check to add the <i>fnChandelierE</i> <i>xit</i> function to the <i>CloseBuyTrad</i> <i>e</i> drawing.	Check to add the <i>fnChandelierE</i> <i>xit</i> function to the <i>CloseSellTrade</i> drawing.
fnChannelExit	Adds the <b>fnChannelExit</b> function to the drawing.	Check to add the <i>fnChannelExit</i> function to the <i>CloseBuyTrad</i> <i>e</i> drawing.	Check to add the fnChannelExit function to the CloseBuyTrad e drawing.
fnTrailingExit	Adds the <b>fnTrailingExit</b> function to the drawing.	Check to add the <i>fnTrailingExit</i> function to the <i>CloseBuyTrad</i> <i>e</i> drawing.	Check to add the fnTrailingExit function to the CloseBuyTrad e drawing.

Note: The *Profit Exit* functions are available from the *New System* menu as a convenience.

All of the *Profit Exit* functions are available from the <u>Toolbox</u> and can be manually added to any <u>drawing</u> at any time.

## **Profit Exit Functions**

The Profit Exit function library include these functions:

- <u>fnAtrExit</u>
  - Executes a trailing stop using the Average True Range (ATR) indicator.
- <u>fnBarExit</u>
  - Closes an open order after a number of bars.
- <u>fnBreakEven</u>
  - Moves an order's stoploss to the order's open price (break even).
- <u>fnChandelierExit</u>
  - Exits on a high or low since the trade was opened.
- <u>fnChannelExit</u>
  - $\circ$  Exits on a high or low seen in the last N bars (channel).
- <u>fnTrailingExit</u>
  - $\circ$  Executes a trailing stop.

#### fnAtrExit

The **Profit Exit** function *fnAtrExit* executes a trailing stop using the Average True Range (ATR) indicator.

The open order is trailed using the value of the ATR calculated at the close of the last bar. For example, if the value of the ATR is 15, the order is trailed by 15 points (or <u>PIPs</u>).

The **period** parameter is used to define the period used to calculate the ATR.

The **count** parameter is used as a multiple of the ATR value.

For example, if the value of the ATR is 15 and the value of the count parameter is 2, then the order is trailed by 30 points (or <u>PIPs</u>)

After the *fnAtrExit* function has been added to a <u>Drawing</u>, it is configured by clicking the (+) button along the bottom of the <u>Element</u>.

The <u>Function Configuration</u> window allows you to select values for each parameter.

The following table provides information about each parameter of the *fnAtrExit* function.

Order Selection	Determines what orders of the Account are monitored.	
	All: all open orders on the account.	
	<ul> <li>Symbol: only open orders matching the selected symbol.</li> </ul>	
	<ul> <li>Order Type: only open orders of the selected order type.</li> </ul>	
	<ul> <li>MagicNumber: only open orders with a matching <u>magicnumber</u>.</li> </ul>	
	• Exact Ticket: only open orders with the matching order ticket.	
	Note: Selecting Exact Ticket disables all other selection criteria.	
period	The period used to calculate the ATR value.	
count	A multiplier applied to the ATR value.	

fnAtrExit1	
Configure Notes Message	▼ ×
Order Selection	
All 🔽	
Symbol	CHART
Order Type	OP_BUY
MagicNumber	O Choose
Exact Ticket	Choose
= period	
l≡ perio	d: 12 🗸
😑 count	1
l≡ cour	nt: 2
	Name:
fnAtrEx	#1
? Do	one 🛛 👻 OK >> Details

#### **fnBarExit**

The **Profit Exit** function *fnBarExit* closes an open order after a number of bars.

The *fnBarExit* counts the number of bars (or candles) that have occurred since the order was opened. When the trade has been open for the defined number of bars, it is closed.

Note: The *fnBarExit* is normally used for testing only! Specifically, *fnBarExit* is used to test the quality of a system's entry logic.

After the *fnBarExit* function has been added to a <u>Drawing</u>, it is configured by clicking the (+) button along the bottom of the <u>Element</u>.

The <u>Function Configuration</u> window allows you to select values for each parameter.

The following table provides information about each parameter of the *fnBarExit* function.

<b>Order Selection</b>	Determines what orders of the Account are monitored.	
	All: all open orders on the account.	
	<ul> <li>Symbol: only open orders matching the selected symbol.</li> </ul>	
	<ul> <li>Order Type: only open orders of the selected order type.</li> </ul>	
	• <b>MagicNumber:</b> only open orders with a matching <u>magicnumber</u> .	
	<ul> <li>Exact Ticket: only open orders with the matching order ticket.</li> </ul>	
	Note: Selecting Exact Ticket disables all other selection criteria.	
bars	The number of bars allowed to elapse before closing the trade.	

fnBarExit1		
Order Selection	ge	
Symbol 🗌	CHART	
Order Type	OP_BUY	
MagicNumber	0	Choose
Exact Ticket 📃	0	Choose
= bars		
l≡ b	ars: 8	•
	Name:	
fnBa	rEvit 1	
?	Done 🛛 🕶 OK	>> Details

#### **fnBreakEven**

The **Profit Exit** function *fnBreakEven* moves an open order's stoploss to the order's open price (break even).

When the profit of an open order reaches a defined value, the *fnBreakEven* function moves the stoploss to order's open price value (break even).

The **points** parameter is used to define the number of points (or <u>PIPs</u>) of profit before moving the stoploss to break-even.

The **points** parameter is an integer value. For example, if **points** is 10, the order is moved to break-even when the trade has 10 points of profit.

After the *fnAtrExit* function has been added to a <u>Drawing</u>, it is configured by clicking the (+) button along the bottom of the <u>Element</u>.

The Function Configuration window allows you to select values for each parameter.

The following table provides information about each parameter of the *fnAtrExit* function.

Order Selection	Determines what orders of the Account are monitored.		
	All: all open orders on the account.		
	<ul> <li>Symbol: only open orders matching the selected symbol.</li> </ul>		
	<ul> <li>Order Type: only open orders of the selected order type.</li> </ul>		
	<ul> <li>MagicNumber: only open orders with a matching <u>magicnumber</u>.</li> </ul>		
	<ul> <li>Exact Ticket: only open orders with the matching order ticket.</li> </ul>		
	Note: Selecting Exact Ticket disables all other selection criteria.		
points	Number of points, as an integer, of profit before the order is moved to break-even		

🖌 fnBreakEven1		
Configure Notes Messa	ige	• ×
All 🔽		
Symbol	CHART	
Order Type	OP_BUY	
MagicNumber	0	Choose
Exact Ticket	0	Choose
= points		
l≡ po	ints: 10	-
	Name:	
fnBi	reakEven 1	
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#### fnChandelierExit

The **Profit Exit** function *fnChandelierExit* exits on a high or low since the trade was opened.

The *fnChandelierExit* determines its stoploss based on the highest value the market has reached since the trade has been open.

The stoploss is place somewhat beneath the highest high – in terms of points (or <u>PIPs</u>). The term chandelier is used because the stoploss hangs like a chandelier from the market high (or low).

The **offset** parameter is used to "hang" from the highest high seen during the trade's lifetime (or the lowest low).

After the *fnChandelierExit* function has been added to a <u>Drawing</u>, it is configured by clicking the (+) button along the bottom of the <u>Element</u>.

The <u>Function Configuration</u> window allows you to select values for each parameter.

The following table provides information about each parameter of the *fnChandelierExit* function.

Order Selection	Determines what orders of the Account are monitored.		
	All: all open orders on the account.		
	<ul> <li>Symbol: only open orders matching the selected symbol.</li> </ul>		
	<ul> <li>Order Type: only open orders of the selected order type.</li> </ul>		
	<ul> <li>MagicNumber: only open orders with a matching magicnumber.</li> </ul>		
	<ul> <li>Exact Ticket: only open orders with the matching order ticket.</li> </ul>		
	Note: Selecting Exact Ticket disables all other selection criteria.		
offset	The number of points away from the highest high or lowest low to place the trailing stop.		

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Configu	re 🔃 Notes 🕖 Messa	ge	<b>▼</b> ×		
Order Selecti	on				
	Symbol	CHART			
	Order Type	OP_BUY			
	MagicNumber 🗌	0	Choose		
	Exact Ticket 📃	0	Choose		
😑 offset					
IIII					
Name:					
fnChandelierExit2					
?		Done 🗸 OK	>> Details		

#### fnChannelExit

The **Profit Exit** function *fnChannelExit* exits on a high or low in the last N bars.

The *fnChannelExit* function is based on the lowest (or highest) price seen in the last N periods, or in the channel period.

For instance, if a system based on 1-hour charts uses a channel period of 24, the lowest (or highest) price seen in the last 24 periods (or bars, or hours) is set as the stoploss.

After the *fnChannelExit* function has been added to a <u>Drawing</u>, it is configured by clicking the (+) button along the bottom of the <u>Element</u>.

The <u>Function Configuration</u> window allows you to select values for each parameter.

The following table provides information about each parameter of the *fnChannelExit* function.

Order Selection	Determines what orders of the Account are monitored.			
	All: all open orders on the account.			
	• Symbol: only open orders matching the selected symbol.			
	<ul> <li>Order Type: only open orders of the selected order type.</li> </ul>			
	• <b>MagicNumber:</b> only open orders with a matching <u>magicnumber</u> .			
	<ul> <li>Exact Ticket: only open orders with the matching order ticket.</li> </ul>			
	Note: Selecting Exact Ticket disables all other selection criteria.			
startBar	The bar at which the channel begins			
endBar	The bar at which the channel ends			
channelType	The type of value to use: HIGH or LOW			

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Configure Notes Message	▼ ×			
Order Selection				
All 🗹				
Symbol	CHART			
Order Type	OP_BUY -			
MagicNumber	O Choose			
Exact Ticket	O Choose			
= startBar				
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII				
⊨ endBar				
I≡ endBar: 10 💌				
channelType				
🕮 channelType: MODE_LOW 👻				
Name:				
fnChannelExit 1				
?	Done + OK >> Details			

#### fnTrailingExit

The **Profit Exit** function *fnTrailingExit* executes a simple trailing stop. The *fnTrailingExit* function is the same as the function *fnTrailingExit* found in the Trade menu of the <u>Toolbox</u>. *fnTrailingExit* is included in the **Profit Exit** plug-in for completeness. The following table provides information about each parameter of the *fnTrailingExit* function.

Order SelectionDetermines what orders of the Account are monitored.• All: all open orders on the account.• Symbol: only open orders matching the selected symbol.• Order Type: only open orders of the selected <u>order type</u>.• MagicNumber: only open orders with a matching <u>magicnumber</u>.• Exact Ticket: only open orders with the matching <u>order ticket</u>.Note: Selecting *Exact Ticket* disables all other selection criteria.stoploss

🗲 fnTrailingExit3					
Configure Notes Me	sage	▼ ×			
Order Selection					
AII 🔽					
Symbol	CHART				
Order Type	OP_BUY				
MagicNumber	0	Choose			
Exact Ticket	0	Choose			
== stoploss					
Offset value ()	Tto	Chaosa			
Absolute value (price) 🔿		choose			
Name:					
fn Trailing Exit 3					
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## Using the Profit Exit Plug-in

The functions of the Profit Exit plug-in are used like any other functions in VTS. They can be dragged, dropped and connected in any way.

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## Logic can be implemented to employ different exits based on a characteristic of the trade.

For example, a <u>Channel Exit</u> may be used to start a trade, but after a period of time, or a

certain amount of profit a, the exit may be switched to a <u>Chandelier Exit</u> or a simple <u>Trailing stop</u>.

#### **IMPORTANT NOTE ABOUT INVALID STOPS (MQL Error 130)**

The MQL error 130 occurs when an attempt is made to modify an order with an invalid stoploss or takeprofit value.

An "invalid value" can mean zero, too small, or too large. The actual allowable

values are determined by the broker

and the type of account (standard, mini, or micro).

The error is written to the <u>Journal</u> tab when testing and the <u>Experts</u> tab when running live.

In many cases, when using advanced exits such as the ones found in the **Profit Exit** Plug-in, it is normal to see some "invalid stop" errors.

This is because the value of the stoploss is being calculated on each tick and may be outside of the allowable value for the stoploss. It is permissible for the EA to run this way until the stoploss value is valid or the trade is closed.

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	A 2013.07.08 10:58:14	2013.06.27 23:45 system2 EURUSD,H1: Trailing Stop error: invalid stops				
	A 2013.07.08 10:58:14	2013.06.27 23:45 system2 EURUSD,H1: OrderModify error 130				
	A 2013.07.08 10:58:14	2013.06.27 23:42 system2 EURUSD,H1: Trailing Stop error: invalid stops				
	<b>A</b> 2013.07.08 10:58:14	2013.06.27 23:42 system2 EURUSD,H1: OrderModify error 130				
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	A 2013.07.08 10:58:14	2013.06.27 23:35 system2 EURUSD,H1: OrderModify error 130				
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	A 2013.07.08 10:58:14	2013.06.27 23:32 system2 EURUSD,H1: OrderModify error 130				
	A 2013.07.08 10:58:14	2013.06.27 23:30 system2 EURUSD,H1: Trailing Stop error: invalid stops				
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