

ProFx 6

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Overview

The work includes changes to existing Indicators (*five*) and Expert Advisors (*one*). While most of the code exists it will be perhaps necessary to code some functions from scratch. Code needs to be clean and commented to make sure all the different functions are easy to identify.



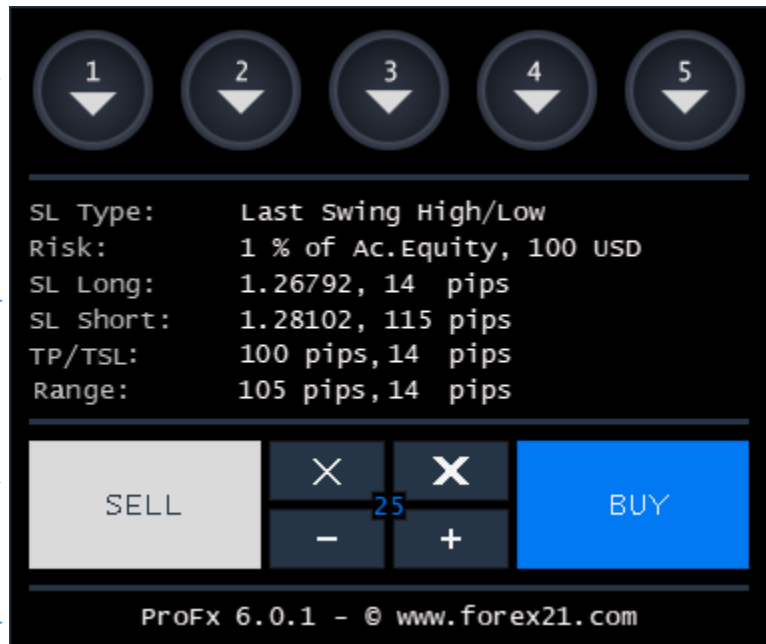
EA Trading Panel Overview

Direction of Indicators

SL, Risk, Take Profit, Trailing SL and Price
Range Information

One Click Execution Buttons

Version Info and Warning / Error
Messages.



Input Parameter for the EA

Info: Default values are marked **BOLD**.

=== Signal Generation ===		
ProFx Multi Trend	Drop Down Menu	Yes, No;
ProFx Multi Analyzes	Drop Down Menu	Yes, No;
ProFx Multi Oscillator	Drop Down Menu	Yes, No;
ProFx Moving Average	Drop Down Menu	Yes, No;
ProFx Heiken Ashi	Drop Down Menu	Yes, No;
=== Alerts ===		
Audio Alerts	Drop Down Menu	Yes, No;
Message Box	Drop Down Menu	Yes, No;
Push Notifications	Drop Down Menu	Yes, No;
E-Mail Alerts	Drop Down Menu	Yes, No;
E-Mail Address	Input field	your@email.com
=== One Click Trading ===		
Max Sell/Buy Orders	Drop Down Menu	1,2,3,4,5,6,7,8,9,10;
SL Type	Drop Down Menu	Swing High/Low, Fixed Pips, No SL;
SL Swing High/Low Min., Pips	Input Field	10.0
Swing High/Low Offset, Pips	Input Field	5.0
SL Fixed, Pips	Input Field	20.0
Show SL Line	Drop Down Menu	Yes, No;
Risk Type	Drop Down Menu	Percent, Fixed;
Risk, Percent	Input Field	1.0
Risk, Fixed Lots	Input Field	0.1
Take Profit, Pips	Input Field	100.0
Trailing Stop Loss, Pips	Input Field	0.0
Close Half Button	Drop Down Menu	Close Half – Move SL, Close Half, Move SL;
Close All Button	Drop Down Menu	Close All, Close Last;
Break Even Offset, Pips	Input Field	1.0
Increase/Decrease Size, Percent	Drop Down Menu	10, 20, 30, 40, 50 , 60, 70, 80, 90, 100;
=== Trading Session ===		
Display my Session	Drop Down Menu	Yes, No;
Session Begin	Input Field	09:00
Session End	Input Field	18:00
Session Divider Color	Color Field	Dodger Blue
Session Background Color	Color Field	23,23,23
=== Other Settings ===		
Mini Panel	Drop Down Menu	Yes, No;
Signal History	Drop Down	2, 4, 8, 16, 32;
Magic Number	Input Field	7702
ATR Period	Input Field	14

Further Info about Functions/Input Parameters

Signal Generation

Works correct but indicators needs to be replaced.

A buy signal is generated when all indicators used for signal generation point up.

That is when:

1. Multi Trend shows three blue dots (*small, medium and large*).
2. Multi Analyzes is all blue.
3. Multi Oscillator shows a rising value (*blue*).
4. The price is above the Moving Average.
5. Heiken Ashi candle is blue.

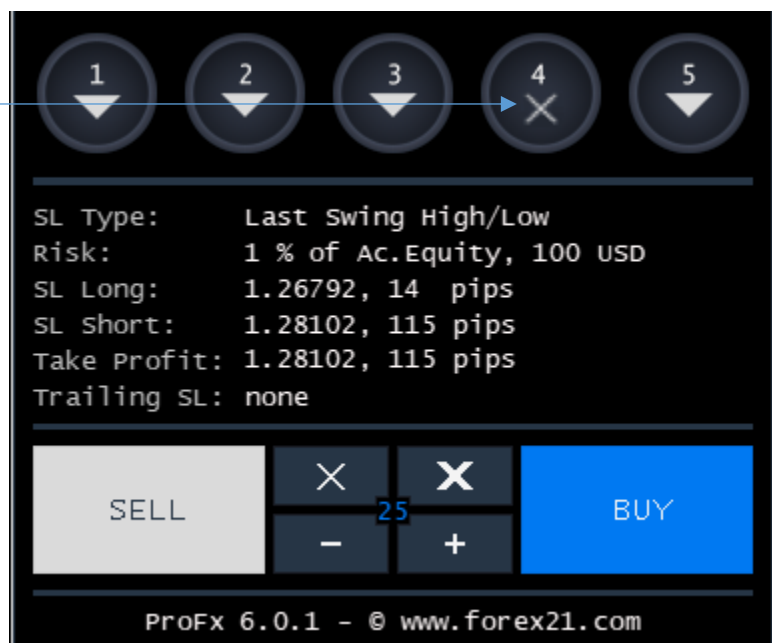


If all indicators point in the same direction a signal arrow should be drawn on the chart and the arrow on the control panel shows in the same direction. If the direction of an indicator is not clear, an X is displayed on the control panel.

As example: When two dotted lines of the [multi trend indicator](#) show an uptrend and one dotted line shows a down trend. Or when 3 out of 4 indicators of the [multi analyzes indicators](#) show an uptrend and one still points down

An X is displayed in two cases:

- 1) The direction of the indicator is not clear.
- 2) The user disabled the indicator for signal generation in the settings.



=== Signal Generation ===		
ProFx Multi Trend	Drop Down Menu	Yes, No;
ProFx Multi Analyzes	Drop Down Menu	Yes, No;
ProFx Multi Oscillator	Drop Down Menu	Yes, No;
ProFx Moving Average	Drop Down Menu	Yes, No;
ProFx Heiken Ashi	Drop Down Menu	Yes, No;

In the settings, the user can choose which indicators are used for signal generation.

Note: Caption information of indicators needs to be updated as well. See also [Caption Text](#).

Alerts

Audio Alerts	Drop Down Menu	Yes, No;
Message Box	Drop Down Menu	Yes, No;
Push Notifications	Drop Down Menu	Yes, No;
E-Mail Alerts	Drop Down Menu	Yes, No;
E-Mail Address	Input field	your@email.com

Audio Alerts

Works correct. No changes are required.

Message Box

Message Box alert needs to be added new. Text for the message box needs to include system info, currency pair, chart time frame and information about the direction. Examples:

ProFx 6 | EURUSD M30 | BUY SIGNAL

ProFx 6 | GBPUSD M5 | SELL SIGNAL

Push Notifications

What can be received on the mobile version of the terminal. Notification examples:

ProFx 6 | EURUSD M30 | BUY SIGNAL

ProFx 6 | GBPUSD M5 | SELL SIGNAL

E Mail Alerts

Works correct but functionality needs to be tested anyway. Text for the E-mails is in the EA and does not need to be changed. Only the Version info needs to be updated.

One Click Trading

=== One Click Trading ===		
Max Sell/Buy Orders	Drop Down Menu	1,2,3,4,5,6,7,8,9,10;
SL Type	Drop Down Menu	Swing High/Low, Fixed Pips, No SL;
SL Swing High/Low Min., Pips	Input Field	10.0
Swing High/Low Offset, Pips	Input Field	5.0
SL Fixed, Pips	Input Field	20.0
Show SL Line	Drop Down Menu	Yes, No;
Risk Type	Drop Down Menu	Percent, Fixed;
Risk, Percent	Input Field	1.0
Risk, Fixed Lots	Input Field	0.1
Take Profit, Pips	Input Field	100.0
Trailing Stop Loss, Pips	Input Field	0.0
Close Half Button	Drop Down Menu	Close Half – Move SL, Close Half, Move SL;
Close All Button	Drop Down Menu	Close All, Close Last;
Break Even Offset, Pips	Input Field	1.0

Max Sell/Buy Orders

Limits how much sell/buy orders can be executed through the chart panel. Works correct but should be checked anyway. Max Number needs to be increased from 4 to 10.

SL Type

Works correct. No changes required.

SL Swing High/Low Min. Pips

Works correct. The value simple defines the minimum SL in pips if the calculated value is lower.

Swing High/Low Offset, Pips

New function. If the user sets SL type to 'Swing High/Low', the input value of 'Swing High/Low Offset, Pips' will be used to add a specified amount of pips to the SL.

Example: If the last swig high/low is 20 pips away from the actual price and the offset is set to 5.5 pips, 5.5 pips will be added to the SL in pips. The new SL will be 25.5 Pips.

Note: The offset value also needs to be considered for the SL line drawn on the chart.

SL Fixed, Pips

Works correct. No changes required.

Show SL Line

Works correct. No changes required.

Risk Type

Works correct. No changes required.

Risk, Percent

Calculation of risk in percent does not work correct and needs to be corrected or coded new.

Risk, Fixed Lots

Works correct. No changes required.

Take Profit, Pips

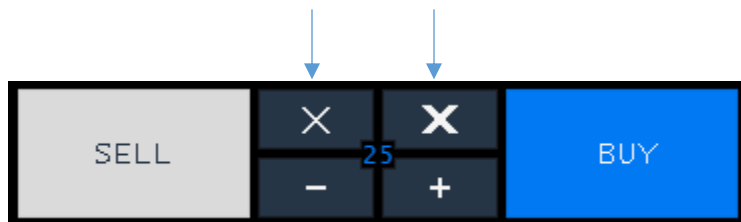
Works correct. No changes required.

Trailing Stop Loss, Pips

Works correct. No changes required.

Close Half Button

New function. If the user clicks on the close half button one of three things happen. Depends from the selected action.



- 1) Close Half – Move SL; Half of the position will be closed on the SL will be moved to break-even. (Break-even offset needs to be considered)
- 2) Close Half; half of the position will be closed, SL will not be moved.
- 3) Move SL; SL will be moved to break-even without closing the position partially.

If the price is not in the profit zone or the distance between SL and the actual price is too little to move the SL, the following error message should be displayed: Cannot move SL. See also: [Warning and Error Messages](#).

Close All Button

The button with the bold **X** closes either the last trade or all ProFx trades. The action depends on the input value of "Close All Button". To identify ProFx trades the magic number can be used.

If there are no open trades and the user clicks on the button, the following message should be displayed: No ProFx Trades to close.

Break Even Offset, Pips

The input value will be only considered if the user selected 'Close Half – Move SL'

As example: If the entry price was 1.25550 (buy) and the input value is 1, the new SL will be placed at 1.25560 when it is a buy order. If it is a sell order and the entry price is 1.25550, the new SL will be placed at 1.25540.

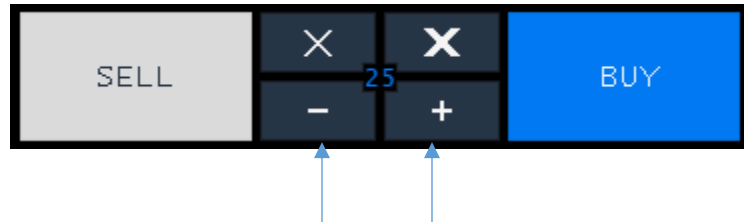
If from whatever reason the SL would be higher than the actual price (buy side), the following error message should be displayed.

Buy Orders: SL can't be higher than the actual price.

Sell Orders: SL can't be lower than the actual price.

Increase/Decrease Size, Percent

One click buttons on the chart panel what allows the user to increase/decrease the position size. By how much percent the position size will be increased/decreased depends on the selected percent value.



Example: If the input value is 50% and the lot size to start with is 1.00 lot, the lot size should be increased by 50% when the user clicks on the + button. If he clicks again on the + button we do not use 50% but the size of the last time.

Example when the user clicks on the + button:

1.00 Lot > 1.5 Lot > 2.0 Lot > 2.5 Lot

If he then decides that this is too much and starts clicking the – button:

2.5 Lot > 2.0 Lot > 1.5 lot > 1.0 Lot

Trading Sessions

=== Trading Session ===		
Display my Session	Drop Down Menu	Yes, No;
Session Begin	Input Field	09:00
Session End	Input Field	18:00
Session Divider Color	Color Field	Dodger Blue
Session Background Color	Color Field	23,23,23

Display my Session

Works correct. No changes required.

Session Begin

Works correct. No changes required.

Session End

Works correct. No changes required.

Session Divider Color

Works correct. No changes required but needs to be moved from Color Settings to Trading Session Settings.

Session Background Color

Works correct. No changes required but needs to be moved from Color Settings to Trading Session Settings.

Other Settings

Mini Panel

This is identical with the existing function Show Trade Info. It works and simple needs to be renamed.

Signal History

Simple defines how much signal arrows are shown on the chart. It works correct.

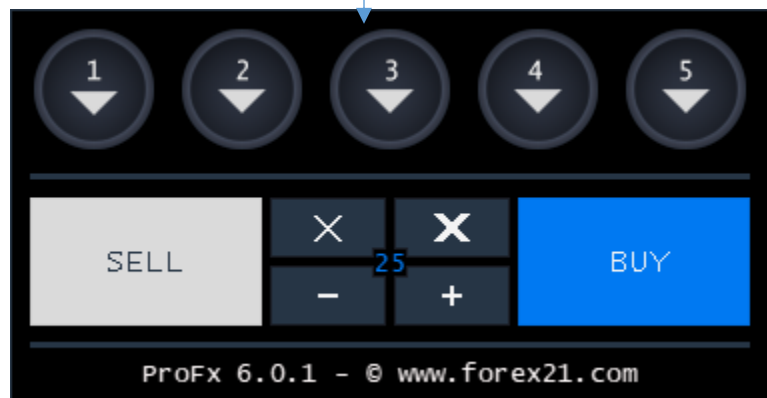
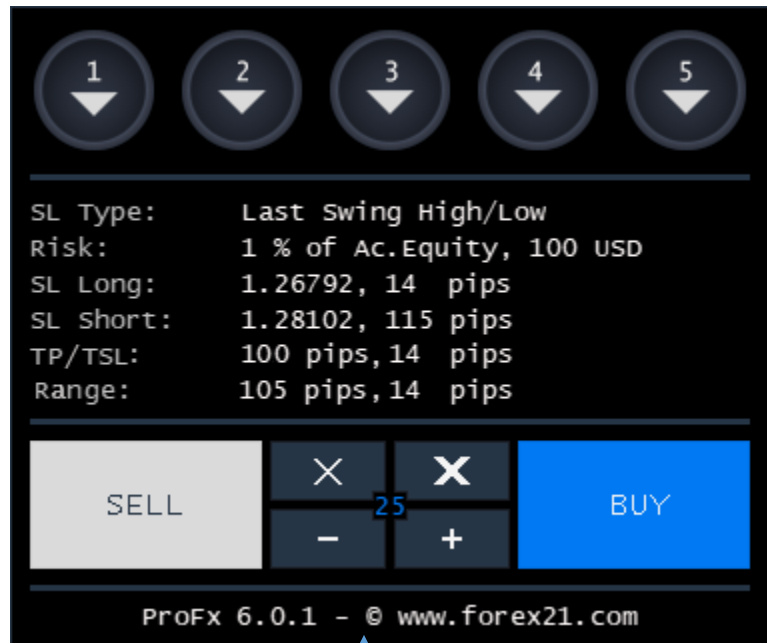
Note: The distance of the arrows to the candle needs to be corrected. I guess something like 5 pixels below candle low (*for buy signals*) and 5 pixels above the high (*for sell signals*) will work.

Magic Number

Works correct. No changes required.

ATR Period

ATR period for range calculation. The result (daily average) will be displayed on the panel (Range) in pips. After the comma the range of the actual day will be displayed.



Mini Panel = No / Mini Panel = Yes

ATR Period

Input Parameter for new function. On the Panel, next to Range information about the average daily true range (*based on selected period*) and todays range should be displayed.

=== Other Settings ===		
Mini Panel	Drop Down Menu	Yes, No ;
Signal History	Drop Down	2 , 4, 8, 16, 32;
Magic Number	Input Field	7702
ATR Period	Input Field	14

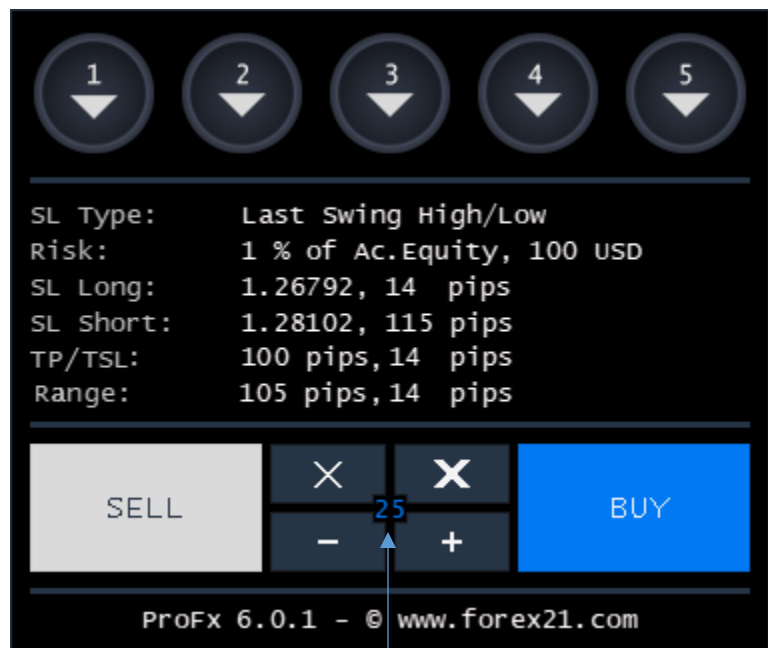
Chart Panel Changes

Actual Price

Is no longer displayed on the panel.
Only the spread is displayed in points.

Spread

Is displayed. If the spread increases in comparison with the last tick, the number is displayed in blue, if the spread decreases, the number is displayed in white.



Spread Information

Indicator disabled

Just like in the actual version, the user can choose what indicators should be used for signal generation. If the user disabled one of the indicators an X should be displayed. Note that an X is also displayed when the direction of an indicator is not clear.



TP/TSL

This information is displayed in a new way. TP is simple displayed in pips. Trailing Stop Loss is also displayed in pips. If there is no Trailing Stop Loss selected, we display “No TSL” on the Panel.

Range

New Info what is displayed. See also ATR Period.

Captions/Indicators

Captions of signal circles needs to be updated. *(From left to right)*

1. Multi Trend
2. Multi Analyzes
3. Multi Oscillator
4. Moving Average
5. Heiken Ashi



Captions/One Click

SELL: SELL Market

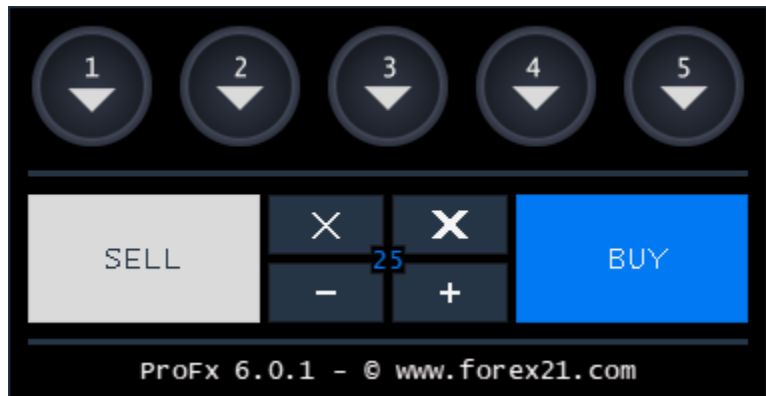
BUY: BUY Market

X: Caption depends on input value of “Close Half Button”. It is either: Close Half – Move SL, Close Half or Move SL;

X: Close All

-: Decrease Lot Size

+: Increase Lot Size



Note that when the user clicks on one of the one click trading buttons, a message is displayed where the version information is usually displayed.

Chart Panel Design Changes

While most parts do not change, the one click trading area requires some updates. New is that the buttons have a one pixel frame. Make sure that distances are kept as on the draft. For details, please open the ‘profx6_read_me.png’ file and ‘profx6_supersized_panel.png’ image.

Indicators

Bar Close Time

A very simple Indicator what shows when the actual bar will be closed. Examples of how the time should be displayed:

Bar closes in: 5 Days, 3 Hours, 29 Minutes, 2 Seconds

Bar closes in: 1 Hour, 23 Minutes, 12 Seconds

Bar closes in: 23 Minutes, 11 Seconds

Bar closes in: 9 Seconds

The standard position for the displayed time should be at the bottom of the chart (*centered*), as shown on the screenshot (*profx6_read_me.png*). Position of the displayed information should be freely to move around on the chart. Just like the EA control panel.



Standard Position

Input Fields

Font Size	Input Field for Text Size	8
Text Color	Color Field	Gainsboro

Indicator Name: ProFx 6 – Bar Close Time

Further Information: Does not require license check or expiration date. Old source file is in the indicators folder. (ProFx_Bar_Close_Time.mq4)

Heiken Ashi

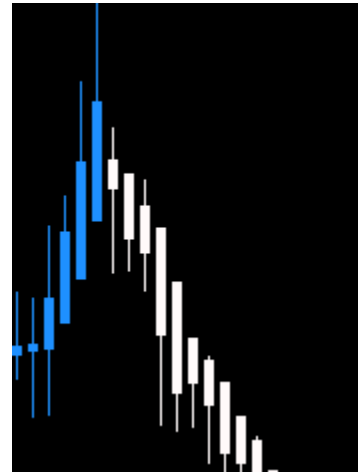
A Heiken Ashi Indicator based on 'Profx_Heiken_Ashi.mq4'. Input parameters require some small update.

Input Field

Bars Count	Input Field	1000
Color Long	Color Input Field	Dodger Blue
Color Short	Color Input Field	Snow

Indicator Name: ProFx 6 – Heiken Ashi

Further Information: Indicator is used for signal generation of the ProFx EA. Does require [license check](#) and [expiration date](#).



Moving Average

A simple moving average indicator.

Input Fields

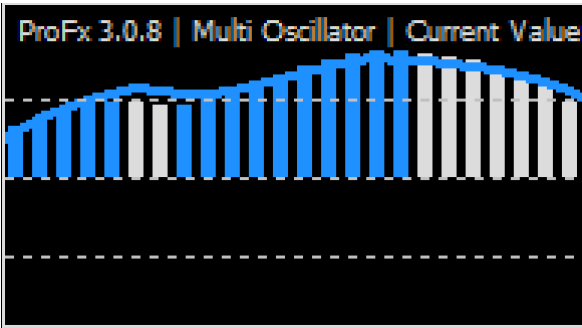
Period	Input Field	5
Shift	Input Field	2
Method	Drop Down	Simple, Exponential ;
Applied Price	Drop Down	Close , Median, Typical;
Bars Count	Input Field	1000
Color		Slate Gray

Indicator Name: ProFx 6 – Moving Average

Further Information: Indicator is used for signal generation of the ProFx EA. Does not require license check and expiration date.

Multi Oscillator

Based on the indicator 'Profx 3.0.8 – Multi Oscillator'.
This indicator needs some work because it does not
update correct in real time.



Input Fields

Period	Input Field	14
Bars Count	Input Field	1000
Color 1	Color Input Field (Bar rising value)	Dodger Blue
Color 2	Color Input Field (Bar falling value)	Gainsboro
Color 3	Color Input Field (Oscillator line)	Dodger Blue

Further Information: Indicator is used for signal generation of the ProFx EA. Does require [license check](#)
and [expiration date](#).

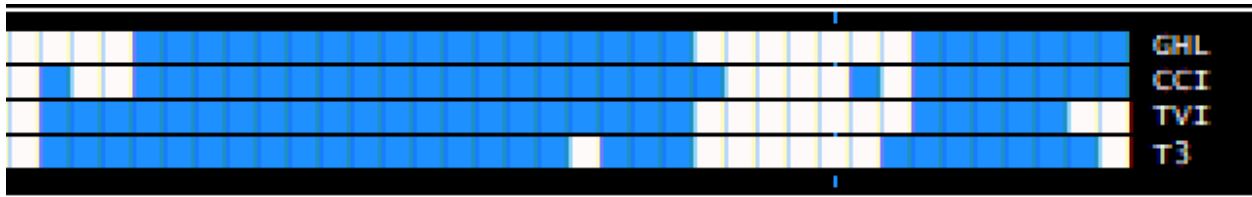
Multi Analyzes

An indicator that combines CCI, TVI, T3 and GHL. Code can be copied from 'ProFx_Multi_Analyzes.mq4'. The indicator seems to be sometimes slow and may need to be partially recoded or optimized to work quicker.

Input Fields

GHL Period	Input Field	10
CCI Period	Input Field	20
TVI R	Input Field	12
TVI S	Input Field	12
TVI U	Input Field	5
T 3 Period	Input Field	8
Show Captions	Drop Down	Yes, No;
Bars Count	Input Field	1000
Color 1	Color Input Field	Dodger Blue
Color 2	Color Input Field	Gainsboro

Indicator information displayed in the indicator window should be 'ProFx 6 | Multi Analyzes'. Actual or input values should be not displayed.



Indicator Name

ProFx 6 – Multi Analyzes

Further Information: Indicator is used for signal generation of the ProFx EA. Does require [license check](#) and [expiration date](#).

Multi Trend

Based on 'ProFx 3.0.8 Multi Trend' Indicator.

Input Fields:

Indicator Period	Input Field	20
Bars Count	Input Field	1000
Display Signal Arrows	Drop Down Field	Yes, No ;
Display Dots	Drop Down	Yes , No;
Color 1	Color Input Field	Dodger Blue
Color 2	Color Input Field	Gainsboro

- Input parameters need to be changed.
- New function. Display Dots, what allows the user to choose if dots should be displayed or not, need to be added.
- New function. Display Signal Arrows. (Yes/No)

Indicator Name

ProFx 6 – Multi Trend

Further Information: Indicator is used for signal generation of the ProFx EA. Does require [license check](#) and [expiration date](#).



Expiration Date

The Expiration date for the EA and the indicators with expiration date should be 01.01.2021. If expired, the following message should be printed to the journal.

Expired. Please download the latest version.

See also [Warning and Error Messages](#).

License

The indicators and the EA will be using the web request based license model from the Forex Force Expert Advisor and not the one from ProFx V 5.0. In other words, the old license model simple needs to be replaced with the new one. The product id needs to be changed to 11.

The EA with the actual license model what will be used is in the folder: EA_with_actual_license

Property Copyright Information and Property Link

Property and Copyright Info for indicators and the EA.

#property copyright "Copyright 2019, Forex21"

#property link <https://www.forex21.com>

Warning and Error Messages

List of Full Size Errors.

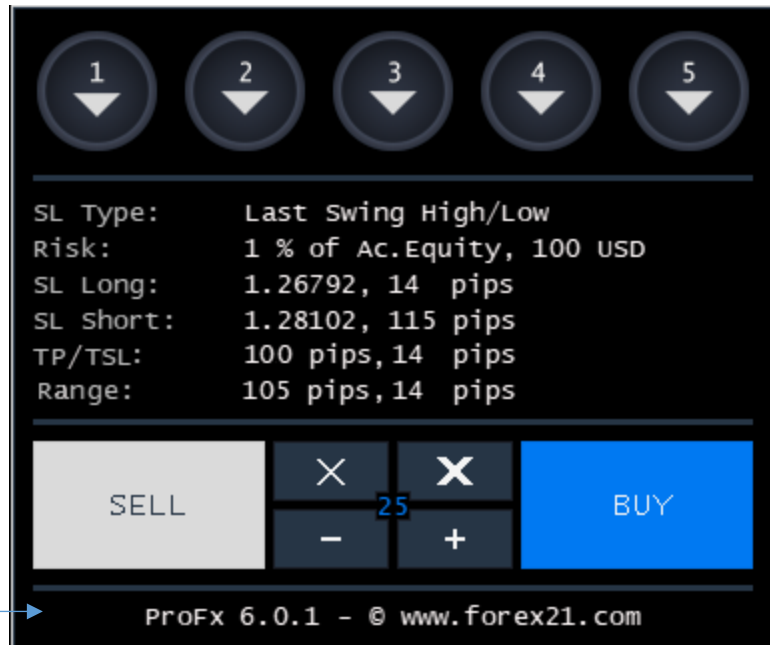
EA window simple changes as shown on the example below. The function/code exists and only needs to be changed.



No License.	No license for this account. Please update your license records.
Expired	Expired. Visit www.forex21.com and download the new version.
Web Requests are not allowed.	Please allow web Requests for secure.forex21.com .
Authentication failed and/or Time Out.	Authentication failed and/or Time Out.

Other Messages

Those should be displayed where the version info is displayed when there is no message to display. If there is a message to display, the message should be displayed instead of the version info for two seconds. After that, the version info should be again displayed.



Case	Message
(Close Half Button) If the price is not in the profit zone or the distance between SL and the actual price is too little to move the SL.	Cannot move SL.
(Close Half Button) If set to 'Close Half – Move SL'	Closed Half Position – Moved SL
(Close Half Button) If set to 'Close Half'	Closed Half Position
(Closed Half Button) If set to 'Move SL'	Moved SL
(Sell)	Sold [Lots] @ [Price]
(Buy)	Bought [Lots] @ [Price]
(Close All Button) When there are no ProFx trades and the user clicks on the close all button.	No ProFx Trades to close.
(Close All Button) When set to 'Close All'	All ProFx Trades closed.
(Close All Button) When set to 'Close Last'	Last ProFx Trade closed.
(Break Even Offset, Pips) If SL higher than actual price (Buy Side)	SL can't be higher than actual price.
(Break Even Offset, Pips) If SL lower than actual price (Sell Side)	SL can't be lower than actual price.
(- Decrease Lots)	Risk decreased.
(+ Increase Lots)	Risk increased.
If the user clicks buy/sell but Autotrading is disabled.	Auto Trading disabled.

Trade Errors

Ready code for standard trade errors can be copied from the 'TradeErrors.txt' document. Those we simple print to the journal.