

# Fractalan – Forex Expert Advisor

Version 3.0, September 2022

**Fractalan** is a moderately aggressive EA that works according to the martingale strategy. The first order in a series can be opened by choice, using a pending order, a market order, or manually by the trader. Martingale orders are opened when the fractal level of the specified timeframe is broken. The EA has a hedging system.

## Features Fractalan EA

- types of orders: pending, market, manual trading;
- selection of a working timeframe for fractals;
- to determine the direction of the first order, you can use Auto Trend;
- pending orders are used for hedging;
- pending orders can follow the price;
- automatic magic number, individual for each currency pair;
- virtual take profit, which can be moved manually;
- dynamic step between martingale orders;
- limit for dynamic step increase;
- reducing the martingale multiplier to 1, with an increase in risk;
- breakeven for single orders and common for orders of one direction;
- trailing stop for single orders and common for orders of one direction;
- control over the use of Free margin, in case of excess - stop trading;
- closing orders by drawdown percentage;
- closing orders under a fixed profit plan;
- closing all positions on Equity;
- partial and full locking of loss positions (lock);
- automatic exit from the "lock" with the closing of all positions;
- limit on the number of open orders by martingale;
- restriction on the total lot size of all open orders of one direction;
- trade by time;
- position management using "hot" buttons;
- works on both dollar (USD) and ruble accounts (RUR);
- works on accounts with quotes of 4 and 5 decimal places.

## Importantly:

- Before starting the **Fractalan** EA on a real account, first optimize it in the strategy tester on historical data (at least 3 months) of your broker.
- For preliminary optimization, you can select the "Open prices only..." mode to check and optimize more accurately, use the "Every tick..." mode.
- How to optimize the EA see here <https://www.mql5.com/en/articles/1385>
- If your broker uses a floating spread, set the average, fixed spread value in the tester! The fact is that the spread on a demo account can be very different from the spread on a real account! In addition, some brokers increase the spread by 3 times before the close of trading on Friday. And if you optimize the EA on weekends, leaving the default spread as "Current", you will get the result as with a triple spread!

Period:	M15	Symbol properties
Spread:	25	Open chart
Optimization <input type="checkbox"/>		Modify expert

## Hot buttons

Hot buttons are designed for quick execution of one command.



**Close All** – closes and deletes all orders on the current currency pair, as well as stops the work of the EA, pressing the button again removes this lock.

**Close Loss** – closes only orders with loss on the current currency pair.

**Close Profit** – closes only orders with profit on the current currency pair.

**Delete PO** – deletes all pending orders on the current currency pair.

**Delete TP** – deletes take profit from all orders on the current currency pair.

## Block 1. GENERAL SETTINGS

Variable	Value
<b>1. GENERAL SETTINGS</b>	
Trading	true
Magic number (0 - automat)	0
Positions: >	Long & Short
Working timeframe: >	5 Minutes
Initial lot in the series	0.01
Type of the first order: >	Pending orders
Take Profit	12
Update the take profit level	true
Virtual take profit	false
Stop Loss	0
Breakeven, mode: >	Disabled
Profit to enable a breakeven	12
Breakeven level	2
Slippage	3

**Trading** = true, if you select false, then the EA will no longer open new orders, but all other functions of the EA will continue to work (trailing stop, breakeven, closing with a fixed profit, etc.).

**Magic Number (0-automat)** = 0 - allows you to specify to the EA which orders (with which magic number) it should track. If the magic number = 0, the EA will automatically select the original magic number (5-digit), which will differ depending on the currency pair on which it is installed. Instead of zero, you can set your magic number. If you put "-1" instead of 0, the EA will take into account and monitor all orders that are currently available on the chart, including orders opened manually.

**Importantly:** if the magic number is "-1", then the EA will not open new orders, but all other functions of the adviser (martingale, trailing stop, breakeven, hot buttons, etc.) will continue their work as usual.

### Positions:

- **Long only** - open and trail only buy orders;
- **Short only** - open and trail only sell orders;
- **Long & Short** - for orders of all directions.

123 Magic number (0 - automat)	0
123 Positions: >	Long & Short
123 Working timeframe: >	Long only
1/2 Initial lot in the series	Short only
123 Type of the first order: >	Long & Short
	Pending orders

**Working timeframe:** = «15 Minutes» - according to this timeframe, the EA will track the fractal levels of this period. **Importantly:** during trading, you can change the timeframe period, if the period is smaller, there will be more fractals and the EA will open more orders, if the period is longer, there will be fewer fractals and the EA will open new orders less often.

123 Positions: >	Long & Short
123 Working timeframe: >	5 Minutes
1/2 Initial lot in the series	current
123 Type of the first order: >	1 Minute
123 Take Profit	5 Minutes
	15 Minutes
	30 Minutes
Update the take profit level	1 Hour
Virtual take profit	4 Hours
123 Stop Loss	1 Day
	1 Week
123 Breakeven, mode: >	1 Month

**Initial lot in the series** = 0.01 – the volume of the first order in the series is not recommended to change it if you do not have experience in the martingale strategy.

#### Type of the first order:

- **Pending orders** – two pending Buy Stop and Sell Stop orders will be placed at once, when one of them is triggered, the second one will be automatically deleted;
- **Market order** – when the price breaks through the upper or lower fractal, the first order in the series will be opened, to confirm the breakdown, the EA will wait for the bar to close;
- **Manual trading** – the trader himself can open an order in any direction.

1/2 Initial lot in the series	0.01
123 Type of the first order: >	Pending orders
123 Take Profit	Pending orders
Update the take profit level	Market order
Virtual take profit	Manual trading
	false

**Take Profit** = 12.

**Update the take profit level** = true - when manually opening a new order or closing one of the orders in the series, the EA will automatically calculate and set a new level of averaged take profit.

**Virtual take profit** = false - invisible to the broker take profit, it can be moved with your hands on the chart, orders are closed when the price reaches the take profit line, while the total profit for all orders must be greater than 0 otherwise orders will not be closed.

**Stop Loss** = 0.

#### Breakeven, mode:

- **Usual** – breakeven for each order, individually;
- **General, united** – the average breakeven from the sum of profitable and unprofitable orders of the same direction;
- **Disabled** – breakeven is disabled and does not work.

123 Stop Loss	0
123 Breakeven, mode: >	Usual
123 Profit to enable a breakeven	Usual
123 Breakeven level	General, united
123 Slippage	3

**Profit to enable a breakeven** = 14 – level of take-profit in points, at which a breakeven is enabled.

**Breakeven level** = 2 – sets the level, at which a stop-loss must be moved: if set to 1, then the position will be closed, when the profit is 1 point; if set to 0, then the position will be closed with the profit of 0 points.

**Slippage** = 3 - the level of slippage in points on the volatile market it is better to increase.

## Block 2. MARTINGALE PARAMETRS

ab	2. MARTINGALE PARAMETERS...	
📈	Martingale	true
1/2	Fixed martingale lot	0.0
1/2	Martingale multiplier	1.5
123	Max orders with a set multiplier	8
123	Mini step between martingale orders	3
123	Indent for pending orders	6
📈	Moving pending orders	true
📈	Dynamic step	true
1/2	Multiplier for dynamic step	1.5
123	Multiply times	5
123	Max number of open orders	16
1/2	Maximum amount of lots	10.0

**Martingale** = true, if false, the EA will not open averaging orders.

**Fixed martingale lot** = 0.0 – a fixed lot for all subsequent martingale orders, regardless of the value of the martingale multiplier. If = 0.0 – does not work!

**Martingale multiplier** = 1.5 - martingale coefficient, the increase in the lot volume of the subsequent order by a given coefficient. If the multiplier = 1.0, then the EA will place orders only with a lot equal to the lot volume of the previous order.

**Max orders with a set multiplier** = 8 – the number of open orders opened in the same direction as the first order and with a set martingale multiplier. When opening new orders above the set value, the martingale multiplier is automatically reduced to 1.0. And the size of the total take profit is halved! For example: if the initial lot is 0.01, the take profit is 12, the multiplier is 1.6 and the limit is 6 orders, then the sixth order will have a volume of 0.13 and all subsequent new orders (7,8,9, etc.) will have the same volume of 0.13! The martingale multiplier will decrease to 1.0 after opening the sixth order. And the total take profit will decrease to 6. These settings will allow the adviser to wait out a protracted price correction and close all positions faster.

**Step between martingale orders** = 3 - step (distance) in points between martingale orders.

**Indent for pending orders** = 6 – indent of a pending order from the price (Bid or Ask).

**Moving pending orders** = true – allow movement of pending orders closer to the price.

**Dynamic step** = false - allow to increase the step between orders after opening a new order.

**Multiplier for dynamic step** = 1.5 - increasing the step between orders by a given coefficient.

**Multiply times** = 5 – the number of times of multiplications and increments of the dynamic step.

**Max number of open orders** = 16 - limiting the number of all open orders in one direction.

**Maximum amount of lots** = 10.0 - limit on the total volume of all lots, open orders, one direction.

### Block 3. RISK MANAGEMENT

ab	3. RISK MANAGEMENT	
1/2	Minimum free margin in %	30.0
1/2	Close all orders at drawdown in %	100.0
1/2	Fixed profit on transactions	false
1/2	Profit on transactions, in the deposit cu...	10.0
1/2	Close by Equity	false
123	Amount of Equity, in the currency of th...	3500

**Minimum free margin in %** = 30 – the minimum level of free margin in percent, if there are no open positions, then the level of free margin is 100%.

#### Importantly!

- When the level drops to the set value (for example: 30), trading will be stopped and the EA will not open new orders.
- If hedging is enabled, then with the minimum value of free margin, the EA will enter a full “lock”, open an order in the opposite direction with such a volume that the volumes of opposite positions become equal.

**Close all orders at drawdown in %** = 100 – if the drawdown reaches the set value, all orders will be closed and the EA will stop working. If you do not want to limit the work of the EA with this condition, set the value 100 here.

**Fixed profit** = false – if true, then when the fixed profit value is reached on the current pair (on which the EA is installed), the EA will close all orders.

**Importantly:** further work of the EA will be blocked until the beginning of the next day!

**Profit in the deposit currency** = 10.0 – the amount of fixed profit in the deposit currency. The profit is taken into account only for the current instrument (currency pair), and not all the profit in the terminal!

**Close by Equity** = false – if true, then close all open positions and delete all pending orders on the current currency pair when the account Equity reach the set value.

**Amount of Equity, in the currency of the deposit** = 3500 – the amount of Equity at which all orders will be closed, the value may be higher or lower than the account balance.

**Importantly!** If the orders were closed by Equity or if the drawdown exceeds the set percentage, then the further work of the EA will be blocked! To remove the lock, you need to reinstall the EA, i.e. remove it from the chart and install it again!









## Block 4. HEDGING

The EA will start hedging if there is one of the conditions if:

- there is enough free margin, and the loss on the current currency pair is greater than or equal to the established limit;
- the free margin is less than (or equal to) the established minimum;
- the margin level will be below 110%.

In the last two cases, the EA will automatically fully lock unprofitable positions, regardless of whether the "Full "lock", immediately" command is enabled or not. With full varnishing, automatic exit from the lock is possible, but unlikely.

**Importantly!** When locking, breakeven will automatically work, but only for a hedging position. You can disable it by allowing the usual breakeven with its own parameters in the EA settings.

ab	4. HEDGING	
	Hedge	false
	Lot for hedging	0.0
	If loss, hedging	10.0
	Indent for a hedge order	10
	Moving hedge order	true
	Distance for to move a hedge order	15
	Full "lock", immediately	false
	Mini profit to exit th	1.0

**Hedging** = false, if true – enable hedging.

**Lot for hedging** = 0.0 – lot size for hedging.

**Importantly:** if 0.0, then the lot size is equal to the lot size of the initial lot in the series.

**If loss, hedging** = 10.0 – the EA will start hedging only if the loss on this currency pair reaches the set value (in this case \$10.0), in the deposit currency.

**Indent for a hedge order** = 10 – indent of the hedging pending order from the price (Bid or Ask).

**Moving hedge order** = true – allow movement of the hedging pending order.

**Distance for to move a hedge order** = 15 – distance of a pending order from the price in points for move the order.

**Full "lock", immediately** = false – locking will be partial, which will allow the adviser to automatically exit the "lock", if = true, then locking will immediately be full.

**Mini profit to exit the "lock"** = 1.0 – the minimum profit to exit the "lock" in the deposit currency, you can set any other value not lower than 0!

## Block 5. AUTO TREND

ab	___ 5. AUTO TREND ___	
123	AT indicators: >	One MA
123	Timeframe for AT: >	1 Hour
123	Long MA period (for MA, and two MAs)	13
123	Long MA shift	0
123	Long MA method: >	Exponential
123	Long MA price: >	Close price
123	Short MA period (for two MAs)	8
123	Short MA shift	0
123	Short MA type: >	Exponential
123	Short MA price: >	Close price

**AutoTrend** using indicators to determine the direction of the trend for the selected timeframe. AutoTrend will only be used to select the direction when opening the first order. It is not used to determine the direction of martingale orders!

**AT indicators:** – choice of indicators for AutoTrend

- **One MA** – one moving average.
- **Two MAs** – two moving averages.
- **Disabled** – do not use auto trend.

ab	___ 5. AUTO TREND ___	
123	AT indicators: >	One MA
123	Timeframe for AT: >	One MA
123	Long MA period (for MA, and two MAs)	Two MAs
123	Long MA shift	Disabled
		0

**Timeframe for AT:** = «30 Minutes» - select the timeframe of indicators AutoTrend. Use the mouse to select the desired timeframe from the drop-down menu. If you select "current", the indicators will automatically be adjusted for the period of the chart, which is currently set in the open terminal window.

123	AT indicators: >	One MA
123	Timeframe for AT: >	1 Hour
123	Long MA period (for MA, and two MAs)	current
123	Long MA shift	1 Minute
123	Long MA method: >	5 Minutes
123	Long MA price: >	15 Minutes
123	Short MA period (for two MAs)	30 Minutes
123	Short MA shift	1 Hour
123	Short MA type: >	4 Hours
		1 Day
		1 Week
		1 Month

**Long MA period (for MA, and two MAs)** = 35 - period of the moving average, if "Two MAs" is selected, then this is the period of the long moving average.

**Long MA shift** = 0.

**Long MA method:** = Exponential.



123	Long MA shift	0
123	Long MA method: >	Exponential
123	Long MA price: >	Simple
123	Short MA period (for two MAs)	Exponential
123	Short MA shift	Smoothed
123	Short MA type: >	Linear weighted
123	Short MA type: >	Exponential

**Long MA price:** = Close price.

123	Long MA method: >	Exponential
123	Long MA price: >	Close price
123	Short MA period (for two MAs)	Close price
123	Short MA shift	Open price
123	Short MA type: >	High price
123	Short MA type: >	Low price
123	Short MA price: >	Median price
123	Short MA price: >	Typical price
ab	* * *	Weighted price

**Short MA period (for two MAs)** = 13 – the period for a short moving average only if “Two MAs” is selected, does not work for other options.

**Short MA shift** = 0.

**Short MA method:** = Exponential.

123	Short MA shift	0
123	Short MA type: >	Exponential
123	Short MA price: >	Simple
ab	* * *	Exponential
ab	* * *	Smoothed
ab	* * *	Linear weighted

**Short MA price:** = Close price.

123	Short MA type: >	Exponential
123	Short MA price: >	Close price
ab	* * *	Close price
ab	* * *	Open price
ab	* * *	High price
123	Mode trailing stop: >	Low price
123	Timeframe for trailing stop: >	Median price
123	Trailing stop by: >	Typical price
123	Trailing stop by: >	Weighted price



## Block 6. TRAILING STOP

ab	6. TRAILING STOP	
123	Mode trailing stop: >	Disabled
123	Timeframe for trailing stop: >	1 Hour
123	Trailing stop by: >	Points
123	Trailing stop level	16
123	Step trailing stop	2
123	Indent from High/Low, fractal	2

**Mode trailing stop:** – the choice of strategy is the trailing stop:

- **Normal** - standard trailing stop, starts trail only when there is profit;
- **Total** - by one (average) stop loss closes all open orders in one direction, including losing orders;
- **Disabled** - trailing stop is disabled.

ab	6. TRAILING STOP	
123	Mode trailing stop: >	Disabled
123	Timeframe for trailing stop: >	Normal
123	Trailing stop by: >	Total
123	Trailing stop level	16

**Timeframe for trailing stop:** = «1 Hour» - choice of the timeframe by which you want to work with trailing stop (except for Points).

123	Mode trailing stop: >	Disabled
123	Timeframe for trailing stop: >	1 Hour
123	Trailing stop by: >	current
123	Trailing stop level	1 Minute
123	Step trailing stop	5 Minutes
123	Indent from High/Low, fractal	15 Minutes
123		30 Minutes
ab	* * *	1 Hour
ab	7. TRADE BY TIME	4 Hours
		1 Day
		1 Week
		1 Month
	Work on Friday	

**Trailing stop by:** - selecting the type of trailing stop

- **Points** - standard trailing stop by points;
- **High/Low** - the High/Low of the previous bar.

123	Timeframe for trailing stop: >	1 Hour
123	Trailing stop by: >	Points
123	Trailing stop level	Points
123	Step trailing stop	High/Low

**Trailing stop level** = 20 - trailing stop level in points.

**Step trailing stop** = 2 - step of trailing, if the profit is 20 points, trailing will move a stop-loss to 2 points.

**Indent from High/Low** = 2 - the distance in points from the stop loss to the maximum or the minimum of the bar.

## Block 7. TRADE BY TIME

ab	___ 7. TRADE BY TIME ___	
	Work on Friday	true
	Enable time	false
ab	Start of operation time	02:00
ab	End of operation time	22:00

You can set a period of time, during which the EA operates. After the set time has passed, the adviser will stop trading and will not open new orders. At the start of the new period of time (usually it is the next day) the EA will start its operation again. "End of operation time" can be set without reference to the "Start of operation time".

**Work on Friday** = true, work on Friday, if false – then, on Friday, the EA will no longer open new orders, but all other functions of the EA will continue to work (trailing stop, breakeven, closing with fixed profit, etc.).

**Enable time** = false - enable trade by time.

**Start of operation time** = 02:00 – time, when the EA starts to operate, set in hours and minutes.

**End of operation time** = 22:00 – the time, when the EA stops its operation, set in hours and minutes.

There are several options of how to set the operation time of the EA.

**1st option:** usual method – the operation time is set in hours and minutes a colon ( : ) between hours and minutes is put.

Time: 02:00 - 22:00

**2nd option:** setting up a year, a month, a day, an hour and a minute of start and end of the operation. A point is put between a year and a month, and also between a month and a day, then a space without a points put, and afterwards a colon (:) between an hour and a minute is put.

Time: 2022.07.18 02:00 - 2022.07.22 20:00

**3rd option:** setting up a day of start and a day of end of the operation are set. A year, a month and a day of start and a day of end of the operation are set up in the EA's settings. A point is put between a year and a month, but not after a day. The EA will start operation at 00:00 and stop operation at 00:00 on the pre-set day.

Time: 2022.07.25 - 2022.07.29

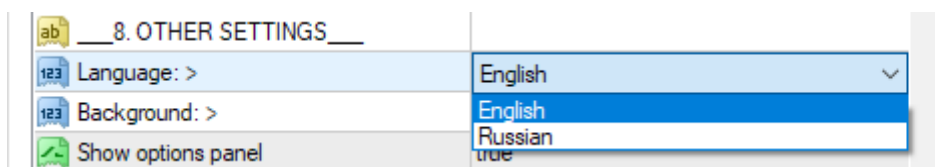
## Block 8. OTHER SETTINGS

ab	___ 8. OTHER SETTINGS ___	
123	Language: >	English
123	Background: >	Dark
	Show options panel	true
123	Font size in messages: >	Medium
	Show hot buttons	true
	Deleting objects from the graph	false
123	Delete objects, in minutes	240

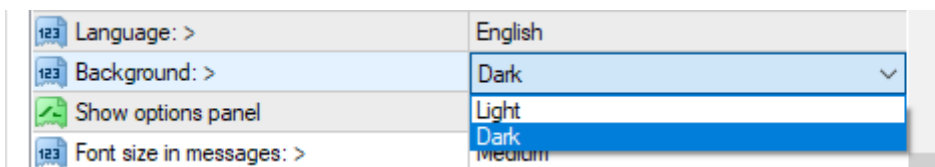
Load

Save

**Language** = English - switch the language on the info panel can be Russian or English.

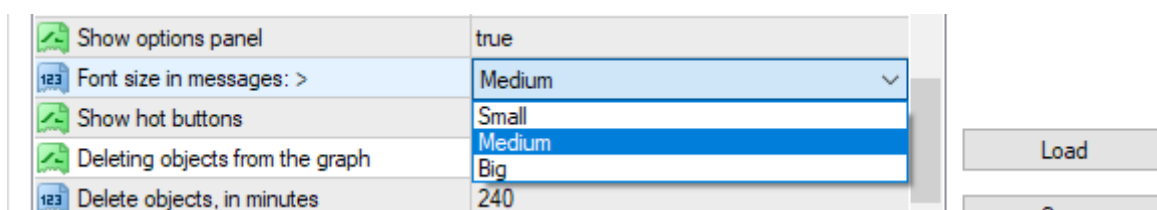


**Background** = Dark - selects the color background of the chart Dark or Light.



**Show options panel** = true - displays textual information about the financial status of the account and currently active commands on the chart, if false, it does not show messages.

**Font size in messages:**



**Show hot buttons** = true - yes, show, false - no, do not show, "hot buttons" in the strategy tester do not work!

**Deleting objects from the graph** = true – allow clearing the chart from unnecessary graphical objects (arrows, modifications of stop loss levels, take profit, etc.).

**Delete objects in minutes** = 240 - clears the chart from unnecessary graphical objects (arrows, modified stop-loss and take-profit levels, etc.) in a certain period of time set in minutes passed from the moment, when an object is created.

**Advice:** "Experts" tab in Terminal window can help you understand, how the EA operates.

**Advice:** use a Strategy Tester built-in MetaTrader in "**Visual mode**" mode to develop skills and gain a better understanding of principles of the EA operation.

You can obtain objective results by using "Every tick" mode. If accuracy of the results is not so important, and you want approximate results only, you can select "On the control points" mode.

The Strategy Tester will help you in developing your own strategy.

## Deposit for martingale

What is the minimum deposit required to work on martingale? It is difficult to clearly answer this question, the amount of the required deposit depends on many factors, they can be divided into two large groups.

### 1. Trading conditions of your broker:

- your trading account type (standard or cent);
- the contract size of the base currency (100 000 or 10 000);
- the cost of the point in the size of 0.01 lot (0.1\$ or 0.01\$);
- the leverage is at least 1:500, but there are 1:1000 and 1:2000;
- the Stop Out level, when a broker forcibly closes your positions, one broker may have this

- indicator at 10%, and another at 40%;
- fixed or floating spread, with a fixed spread, optimization and order opening will be more accurate.

## 2. Your settings and your attitude to risk

For example, let's take one of the parameters, of the allowed number of open orders. Let's say you put there a limit of no more than 7 orders.

Your **broker A** has contract size 100 000 base currency and the cost of the point with lot 0.01 = 0.10 \$. 7 allowed orders is  $0.01 + 0.02 + 0.04 + 0.08 + 0.16 + 0.32 + 0.64$  and this is 1.27 of the lot!

If leverage of 1:500 on EURUSD for this lot size 1.27 a margin will amount 293.70. USD (05.11.2021)!

What is the minimum deposit required for such a situation? At least three times more 900-1000 \$.

If the number of allowed orders is greater, the deposit must be increased accordingly.

Let's see how it will be at another **broker B** (example InstaForex) whose contract size 10 000 of the base currency and the value of the point is 0.01 \$.

On EURUSD with a leverage of 1:500 and lot 1.27, the deposit will be 29.37 USD (05.11.2021)! That is, the minimum deposit from this broker and with these settings can be only 90-100 \$.

[www.taranus.ru](http://www.taranus.ru)

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