

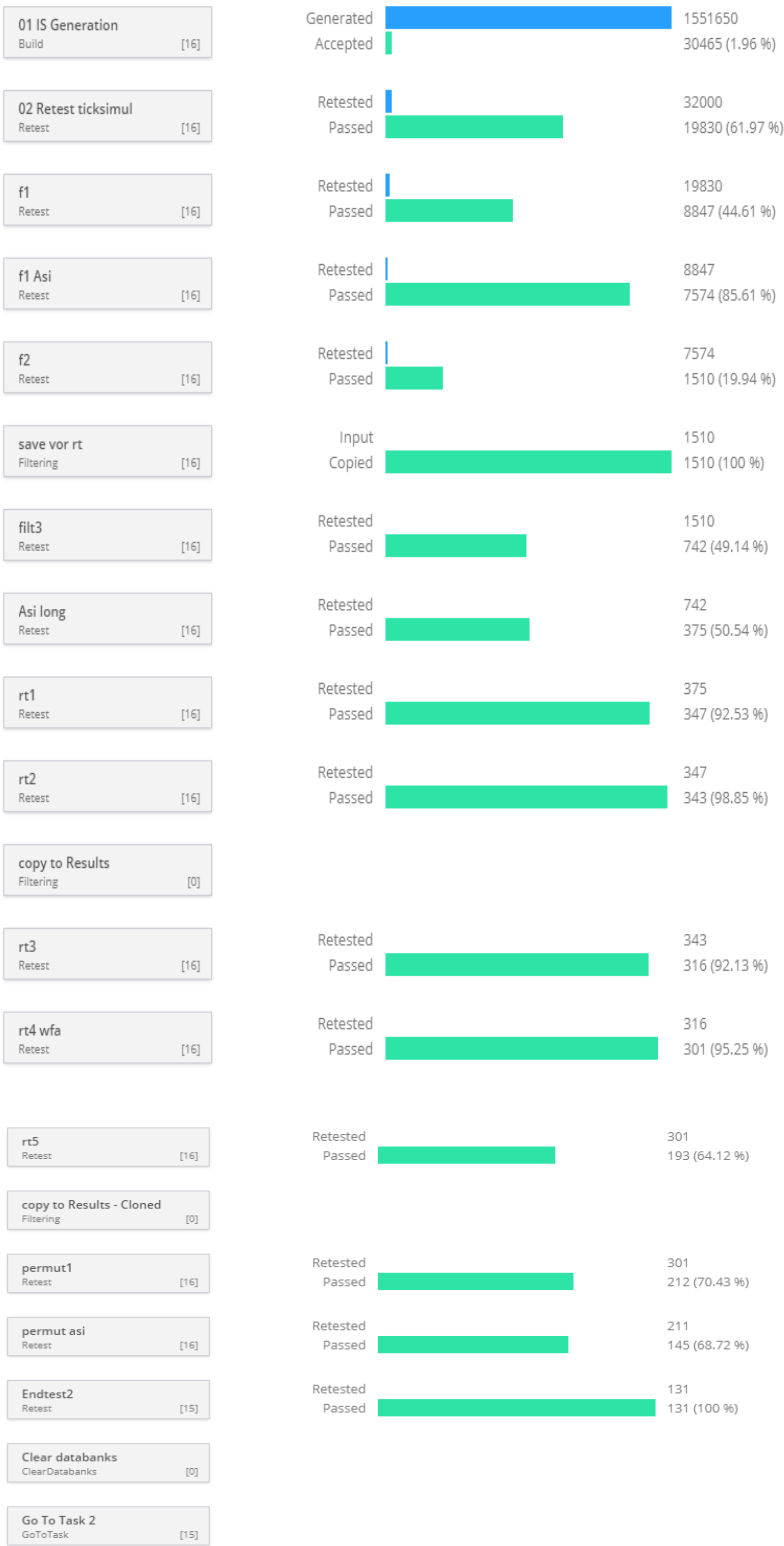
Q40 EURUSD M15 H1 workflow

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Workflow

This workflow contains the following steps



The generation was two weeks.

Generation

Trading engine
Engine: MetaTrader4

Backtest data settings
Main chart: EURUSD_M1 Timeframe: M15
Start day: 2008.01.01 End day: 2015.06.19 [Reset dates](#)
Available from: 2003.5.5 to: 2019.8.1
Subcharts (1)
Subcharts 1: Same as main chart Timeframe: H1

Test parameters
Precision: Selected timeframe only (faste... Commission: No commissions
Spread: 2 Slippage: 0.0 Min. distance: 2.0

Out of sample
1 [Show chart](#)
OOS #1 Start: 2011.9.3 End: 2015.6.19 (50%)
[Add OOS](#)

Automatic filters

1 automatic filter on [⚙](#)

Custom filters

<input type="checkbox"/>	Left value	<>=	Right value	
<input checked="" type="checkbox"/>	# of trades (IS)	> ▼	90	✖
<input checked="" type="checkbox"/>	# of trades (OOS)	> ▼	90	✖
<input checked="" type="checkbox"/>	Profit factor (IS)	> ▼	1.3	✖
<input checked="" type="checkbox"/>	Profit factor (OOS)	> ▼	1.3	✖
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	> ▼	3	✖
<input checked="" type="checkbox"/>	Ret/DD Ratio (OOS)	> ▼	3	✖

Dismiss strategies with these problems:

- ☐ Select all / Deselect all
- ☒ no trades

Filter 02 Retest ticksimul

Trading engine
Engine: MetaTrader4 Additional charts: 1 these are additional charts that strategy has access to

Backtest data settings
Main chart: EURUSD_ASI Timeframe: M15
Start day: 2004.01.01 End day: 2015.06.19 [Reset dates](#)
Available from: 1986.12.1 to: 2018.7.27
Subcharts (1)
Subcharts 1: Same as main chart Timeframe: H1

Test parameters
Precision: 1 minute data tick simulation (...) Commission: No commissions
Spread: 2 Slippage: 0.0 Min. distance: 2.0

Out of sample
1 [Show chart](#)
OOS #1 Start: 2009.08.23 End: 2015.06.19 (50%)
[Add OOS](#)

<input type="checkbox"/>	Left value	<>=	Right value	
<input checked="" type="checkbox"/>	# of trades (IS)	> ▼	90	✖
<input checked="" type="checkbox"/>	# of trades (OOS)	> ▼	90	✖
<input checked="" type="checkbox"/>	Profit factor (IS)	> ▼	1.2	✖
<input checked="" type="checkbox"/>	Profit factor (OOS)	> ▼	1.2	✖
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	> ▼	3	✖
<input checked="" type="checkbox"/>	Ret/DD Ratio (OOS)	> ▼	3	✖
<input checked="" type="checkbox"/>	Stability (IS)	> ▼	0.65	✖
<input checked="" type="checkbox"/>	Stability (OOS)	> ▼	0.65	✖

Filter f1

Backtest data settings
Main chart: EURUSD_M1 Timeframe: M15
Start day: 2004.01.01 End day: 2015.06.19 [Reset dates](#)
Available from: 2003.5.5 to: 2019.8.1
Subcharts (1)
Subcharts 1: Same as main chart Timeframe: H1

Test parameters
Precision: 1 minute data tick simulation (...) Commission: No commissions
Spread: 2 Slippage: 0 Min. distance: 2.0

Out of sample
[Show chart](#)

Custom filters

<input type="checkbox"/>	Left value	<>=	Right value	
<input type="checkbox"/>	# of trades (IS)	> ▼	90	✖
<input type="checkbox"/>	Profit factor (IS)	> ▼	1.3	✖
<input checked="" type="checkbox"/>	Stability (IS)	>= ▼	0.8	✖
<input checked="" type="checkbox"/>	Symmetry (IS)	>= ▼	20 %	✖
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	>= ▼	10	✖

Filter f1 Asi

Backtest data settings

Main chart

EURUSD_ASI

Timeframe

M15

Start day

2004.01.01

End day

2015.06.19

Reset dates

Available from

1986.12.1

to

2018.7.27

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0

Min. distance

2.0

Out of sample

Show chart

	Left value	<=>	Right value	
<input type="checkbox"/>	# of trades (IS)	>	90	✖
<input type="checkbox"/>	Profit factor (IS)	>	1.3	✖
<input checked="" type="checkbox"/>	Stability (IS)	>=	0.8	✖
<input checked="" type="checkbox"/>	Symmetry (IS)	>=	20 %	✖
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	>=	10	✖

Filter f2

Backtest data settings

Main chart

EURUSD_ASI

Timeframe

M15

Start day

2004.01.01

End day

2015.06.19

Reset dates

Available from

1986.12.1

to

2018.7.27

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0

Min. distance

2.0

Out of sample

Show chart

	Left value	<=>	Right value
<input type="checkbox"/>	# of trades (IS)	>	90
<input type="checkbox"/>	Profit factor (IS)	>	1.3
<input checked="" type="checkbox"/>	Stability (IS)	>=	0.8
<input checked="" type="checkbox"/>	Symmetry (IS)	>=	20 %
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	>=	10

Filter f3

Backtest data settings

Main chart

EURUSD_M1

Timeframe

M15

Start day

2012.01.01

End day

2015.06.13

Reset dates

Available from

2003.5.5

to

2019.8.1

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0.0

Min. distance

2.0

Out of sample

Show chart

	Left value	<=>	Right value
<input type="checkbox"/>	# of trades (IS)	>	90
<input type="checkbox"/>	Profit factor (IS)	>	1.2
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	>	4
<input checked="" type="checkbox"/>	Stability (IS)	>	0.8

Filter AsiLong

Backtest data settings

Main chart

EURUSD_ASI

Timeframe

M15

Start day

1986.12.1

End day

2015.06.16

Reset dates

Available from

1986.12.1

to

2018.7.27

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0.0

Min. distance

2.0

Out of sample

Show chart

Asi.OOS

	Left value	<=>	Right value
<input type="checkbox"/>	# of trades (IS)	>	90
<input type="checkbox"/>	Profit factor (IS)	>	1.2
<input checked="" type="checkbox"/>	Ret/DD Ratio (IS)	>	10
<input checked="" type="checkbox"/>	Stability (IS)	>	0.8

Filter rt1

Backtest data settings

Main chart

EURUSD_M1

Timeframe

M15

Start day

2004.01.01

End day

2015.06.19

Available from

2003.5.5

Reset dates

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0.0

Min. distance

2.0

Out of sample

Show chart

Strategy filtering conditions

Configure how the strategies will be recognized as PASSED or FAILED. If strategy fails any of the filter below (including cross check filters) it will be marked as FAILED.

Delete FAILED strategies from databank

Automatic filters

No automatic filters on

Custom filters

	Left value	<>=	Right value	
<input type="checkbox"/>	# of trades (IS)	>	90	✖
<input type="checkbox"/>	Profit factor (IS)	>	1.2	✖
<input type="checkbox"/>	Ret/DD Ratio (IS)	>	3	✖
<input type="checkbox"/>	Stability (IS)	>	0.65	✖

Monte Carlo trades manipulation

2 tests with 100 simulations

2 conditions

Cross check - Monte Carlo trades manipulation

This cross check uses Monte Carlo method to perform various simulations of resulting equity curve by manipulating the order of the trades. It allows you to quickly assess how much the good results are dependent on order of the trades.

Settings

Filtering

Number of simulations

100

Use

Name

☒ Randomize trades order, with method Resampling

☒ Randomly skip trades, with probability 10 %

Default

Method

Resampli...

Settings

Filtering

If you define any conditions here they will be evaluated after this cross check is computed. If strategy fails these conditions, it will be dismissed (thrown away) and no further cross check will be evaluated.

	Left value	<>=	Right value
<input checked="" type="checkbox"/>	Net profit (MC trades, Conf. level 80%)	>=	60% of Net profit
<input checked="" type="checkbox"/>	Max DD % (MC trades, Conf. level 80%)	<=	175% of Max DD %

Filter rt2

Backtest data settings

Main chart

EURUSD_M1

Timeframe

M15

Start day

2004.01.01

End day

2015.06.19

Available from

2003.5.5

Reset dates

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0.0

Min. distance

2.0

Out of sample

Show chart

STANDARD (SLOW)

Cross checks that require multiple additional backtests

Retest on additional markets

Monte Carlo retest methods

Delete FAILED strategies fr

Automatic filters

No automatic filters on

Custom filters

	Left value
<input type="checkbox"/>	# of trades (IS)
<input type="checkbox"/>	# of trades (OOS)
<input type="checkbox"/>	Profit factor (IS)
<input type="checkbox"/>	Profit factor (OOS)
<input type="checkbox"/>	Ret/DD Ratio (IS)
<input type="checkbox"/>	Ret/DD Ratio (OOS)
<input type="checkbox"/>	Stability (IS)
<input type="checkbox"/>	Stability (OOS)

Number of simulations - +

Use	Name
<input checked="" type="checkbox"/>	Randomize history data, with probability 30 % and max price change 5 % of ATR
<input type="checkbox"/>	Randomize min distance from price from 0 to 10
<input checked="" type="checkbox"/>	Randomize slippage from 0 to 3
<input checked="" type="checkbox"/>	Randomize spread from 1 to 3
<input checked="" type="checkbox"/>	Randomize starting bar, with max change 100
<input checked="" type="checkbox"/>	Randomize strategy parameters, with probability 10 % and max change 5 %

Default

Probability - +

Max change - +

undefined

Settings **Filtering**

If you define any conditions here they will be evaluated after this cross check is computed.
If strategy fails these conditions, it will be dismissed (thrown away) and no further cross check will be evaluated.

<input type="checkbox"/>	Left value	<>=	Right value
<input checked="" type="checkbox"/>	Net profit (MC retest, Conf. level 80%)	>= ▼	50% of Net profit
<input checked="" type="checkbox"/>	Max DD % (MC retest, Conf. level 80%)	<= ▼	200% of Max DD %

Filter rt3

Backtest data settings

Main chart: Timeframe:
 Start day: End day: [Reset dates](#)
 Available from: 2003.5.5 to 2019.8.1

Subcharts (1)
 Subcharts 1: Timeframe:

Test parameters

Precision: Commission: No commissions
 Spread: - + Slippage: - + Min. distance: - +

Out of sample

[Show chart](#)

☒ Delete FAILED s

Automatic filters

No automatic filters on

Custom filters

<input type="checkbox"/>	Left value
<input type="checkbox"/>	# of trades (
<input type="checkbox"/>	Profit factor
<input type="checkbox"/>	Ret/DD Ratio
<input type="checkbox"/>	Stability (IS

☒ **Opt. Profile / Sys. Param. Permutation**

This cross check performs optimization of the strategy and then evaluates its Optimization profile - see the conditions in filter.

Settings **Filtering**

Optimize: ☒ Periods ☒ Exit types

Maximum tests: - +
 you can limit the number of optimizations, and this lim

Settings **Filtering**

Optimization Profile conditions

Conditions below are evaluated. Cross check fails if any of them fail.

☒ % of Profitable Optimizations > - +

☒ Average profit (in \$) of all optimizations is > \$ - +

☒ Uniform distribution - less than - + changes from

☒ Best Optimization profit < - + StDev of average pr

System Parameters Permutation conditions

Cross check fails if any of the conditions below fails.

<input type="checkbox"/>	Left value	<>=	Right value
<input checked="" type="checkbox"/>	Net profit (Median)	> ▼	0 ✕

Filter rt4 wfa

Backtest data settings

Main chart

EURUSD_M1

Timeframe

M15

Start day

2004.01.01

End day

2015.06.13

Reset dates

Available from

2003.5.5

2019.8.1

Subcharts (1)

Subcharts 1

Same as main chart

Timeframe

H1

Test parameters

Precision

1 minute data tick simulation (...)

Commission

No commissions

Spread

2

Slippage

0.0

Min. distance

2.0

Out of sample

Show chart

Strategy filtering conditions

Configure how the strategies will be filtered. If strategy fails any of the filter below, it will be marked as FAILED.

☒

Delete FAILED strategies

Automatic filters

No automatic filters on

Custom filters

☐

Left value

☐

of trades (IS)

☐

Profit factor (IS)

☐

Ret/DD Ratio (IS)

☐

Stability (IS)

☒ Walk-Forward Matrix

Out of sample: 10 - 40 %, runs: 5 - 20, optimize Periods and Exit types

6 conditions

Settings

Filtering

Walk-Forward type:

Simulated IS, Exact OOS (slower)

Percent

Days

Floating

Fixed

Start

Stop

Step

Out of sample %:

10

40

10

Walk Forward runs:

5

20

5

Optimize:

☒ Periods

☒ Exit types

Maximum tests:

100

you can limit the number of tests WF optimization performs, and thus limit its duration

Settings

Filtering

If you define any conditions here they will be evaluated after this cross check is computed. If strategy fails these conditions, it will be dismissed (thrown away) and no further cross check will be evaluated.

WF Matrix produces a table of X rows and Y columns, where each cell is a different WF optimization test.

Filter passes when it finds an area of 3 rows and 3 columns where at least 7 results have robustness score >= 80 %

Robustness score is computed as a % of conditions that passed vs. all conditions

<input type="checkbox"/>	Left value	<=>	Right value
<input checked="" type="checkbox"/>	WF Net profit (OOS)	>	0
<input checked="" type="checkbox"/>	WF Stability of Net profit	>	60 %
<input checked="" type="checkbox"/>	WF Special - Percentage of profitable runs	>	70 %
<input checked="" type="checkbox"/>	WF Special - Max profit in one run as % of total	<	50 %
<input checked="" type="checkbox"/>	WF Special - Min trades in one run	>	20
<input checked="" type="checkbox"/>	WF Special - Max % Drawdown in one run	<=	25 %

Filter Rt5

Same as rt3 but

Settings

Filtering

Optimization Profile conditions

Conditions below are evaluated. Cross check fails if any of them fail.

☒

% of Profitable Optimizations > 30

☒

Average profit (in \$) of all optimizations is > \$ 0

☒

Uniform distribution - less than 5 changes from positive to negative

☒

Best Optimization profit < 2.3 StDev of average profit

System Parameters Permutation conditions

Cross check fails if any of the conditions below fails.

<input type="checkbox"/>	Left value	<=>	Right value
<input checked="" type="checkbox"/>	Net profit (Median)	>	0

Filter permut1

Backtest data settings

Main chart: EURUSD_M1
Start day: 2008.01.01
Available from: 2003.5.5

Timeframe: M15
End day: 2015.06.13
to: 2019.8.1
[Reset dates](#)

Subcharts (1)

Subcharts 1: Same as main chart
Timeframe: H1

Test parameters

Precision: 1 minute data tick simulation (...)
Spread: 2

Commission: No commissions
Slippage: 0.0
Min. distance: 2.0

☒ Opt. Profile / Sys. Param. Permutation

Max optimizations: 500

5 conditions

Optimization Profile conditions

Conditions below are evaluated. Cross check fails if any of them fail.

☒ % of Profitable Optimizations > 30

☒ Average profit (in \$) of all optimizations is > \$ 0

☒ Uniform distribution - less than 5 changes from positive to negative

☒ Best Optimization profit < 2.5 StDev of average profit

Filter permut asi

Backtest data settings

Main chart: EURUSD_ASI
Start day: 2008.01.01
Available from: 1986.12.1

Timeframe: M15
End day: 2015.06.13
to: 2018.7.27
[Reset dates](#)

Subcharts (1)

Subcharts 1: Same as main chart
Timeframe: H1

Test parameters

Precision: 1 minute data tick simulation (...)
Spread: 2

Commission: No commissions
Slippage: 0.0
Min. distance: 2.0

Optimization Profile conditions

Conditions below are evaluated. Cross check fails if any of them fail.

☒ % of Profitable Optimizations > 30

☒ Average profit (in \$) of all optimizations is > \$ 0

☒ Uniform distribution - less than 5 changes from positive to negative

☒ Best Optimization profit < 2.5 StDev of average profit

Make Endtest

Backtest data settings

Main chartEURUSD_M1

Start day2003.08.04

Available from2003.5.5

TimeframeM15

End day2018.12.21

to2019.8.1

Reset dates

Subcharts (1)

Subcharts 1

Same as main chart

TimeframeH1

Test parameters

Precision1 minute data tick simulation (...)

Spread2

CommissionNo commissions

Slippage0

Min. distance2.0

Out of sample

1

Show chart

OOS #1

Start2015.06.16

End2018.12.21

(22%)

Add OOS

Build Portfolio

