

MT5 Build 2007
Optimiser Bugs
Repeatable Case
With Brand New MT5
Installation

Clean, reproducible case of broken MT5 Build 2007

To remove variables that could affect the reproducible case, the test setup needs to be reproducible by anyone:

- Windows 10, latest updates applied, and latest drivers.
- Two test environments: With and without graphics card, i.e. with and without OpenCL capabilities (two machines might be easier)
- I tested with
 - Windows 10 Home x64 on i7(4770, 8 cores) + NVIDIA Geforce GT1030 (OpenCL 1.2)
 - Windows 10 Pro x64 in Parallels VM (2 cores) on Mac(Xeon E5-1650) with No OpenCL

Clean, reproducible case of broken MT5 Build 2007

To remove variables that could affect the reproducible case, the test setup needs to be reproducible by anyone:

- New installation of MT5, fresh download from broker
- Use the same (live) broker account to connect to for all tests
- No pre-loads of tick history - connect to live account, then run tests
- Use MQL supplied demo EA: Moving Averages, to avoid source code concerns
- Defined optimisation configuration
- No use of cloud or network agents: all optimisation on the test machine

Test Runs 1:
2 core Xeon (E5-1650) PC
Windows 10 Pro x64
Mac Parallels VM. No OpenCL

The Reproducible Case (Xeon)

Confirm this is clean, new install:

Toolbox Journal

ICMarkets-MT5 - Hedge

Live Account: New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:23:54

Symbol	Bid	Ask
EURUSD	1.13282	1.13282
GBPUSD	1.31070	1.31074
USDCHF	1.00101	1.00103
USDJPY	111.924	111.924
XAUUSD	1287.55	1287.62

+ click to add... 5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Common Favorites

Time Source Message

- 2019.03.05 12:35:17.638 Terminal update C:\Users\markflint\AppData\Roaming\MetaQuotes\Terminal\67381DD86A2959850232C0BA725E5966\MQL5 folder started
- 2019.03.05 12:35:20.519 Terminal update C:\Users\markflint\AppData\Roaming\MetaQuotes\Terminal\67381DD86A2959850232C0BA725E5966\MQL5 folder finished
- 2019.03.05 12:35:20.678 Terminal ICMarkets - MetaTrader 5 x64 build 2007 started (International Capital Markets Pty Ltd.)
- 2019.03.05 12:35:20.678 Terminal Windows 10 (build 17763) x64, IE 11, UAC, Intel Xeon E5-1650 v2 @ 3.50GHz, Memory: 1014 / 2025 Mb, Disk: 87 / 127 Gb, GMT+0
- 2019.03.05 12:35:20.678 Terminal C:\Users\markflint\AppData\Roaming\MetaQuotes\Terminal\67381DD86A2959850232C0BA725E5966
- 2019.03.05 12:35:20.689 Compiler full recompilation has been started
- 2019.03.05 12:37:11.623 Compiler full recompilation has been finished: 85 file(s) compiled
- 2019.03.05 12:37:27.938 Network '5070859': authorized on ICMarkets-MT5
- 2019.03.05 12:37:27.938 Network '5070859': previous successful authorization performed from 84.9.14.210 on 2019.03.05 14:36:58
- 2019.03.05 12:37:28.937 Network '5070859': terminal synchronized with International Capital Markets Pty Ltd.
- 2019.03.05 12:37:28.937 Network '5070859': trading has been enabled - hedging mode
- 2019.03.05 12:37:30.168 Network '5070859': scanning network for access points
- 2019.03.05 12:39:44.282 Network '5070859': scanning network finished
- 2019.03.05 12:39:44.282 Network '5070859': auto connecting to a better access point with 94 % quality (previous: 86 %)
- 2019.03.05 12:39:44.283 Network '5070859': connection to ICMarkets-MT5 lost
- 2019.03.05 12:39:44.937 Network '5070859': authorized on ICMarkets-MT5 through Access Server - EU.02 (ping: 94.12 ms)
- 2019.03.05 12:39:44.937 Network '5070859': previous successful authorization performed from 84.9.14.210 on 2019.03.05 14:37:27
- 2019.03.05 12:39:45.056 Network '5070859': terminal synchronized with International Capital Markets Pty Ltd.
- 2019.03.05 12:39:45.056 Network '5070859': trading has been enabled - hedging mode
- 2019.03.05 13:12:11.662 Tester MQL5 Cloud Server "MQL5 Cloud Europe" found

Trade Exposure History News 99 Mailbox 7 Calendar Company Market Alerts Signals Articles 1 Code Base Experts Journal Strategy Tester

For Help, press F1

Default

8328 / 20 Kb

The Reproducible Case

Confirm this is clean, new install:

Toolbox Experts tab

ICMarkets-MT5 - Hedge

Live Account. New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:24:51

Symbol	Bid	Ask
EURUSD	1.13272	1.13273
GBPUSD	1.31052	1.31055
USDCHF	1.00090	1.00091
USDJPY	111.916	111.917
XAUUSD	1287.35	1287.44
+ click to add...		5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks

Common Favorites

Time Source Message

Trade Exposure History News 99 Mailbox 7 Calendar Company Market Alerts Signals Articles 1 Code Base Experts Journal

Strategy Tester

For Help, press F1

Default

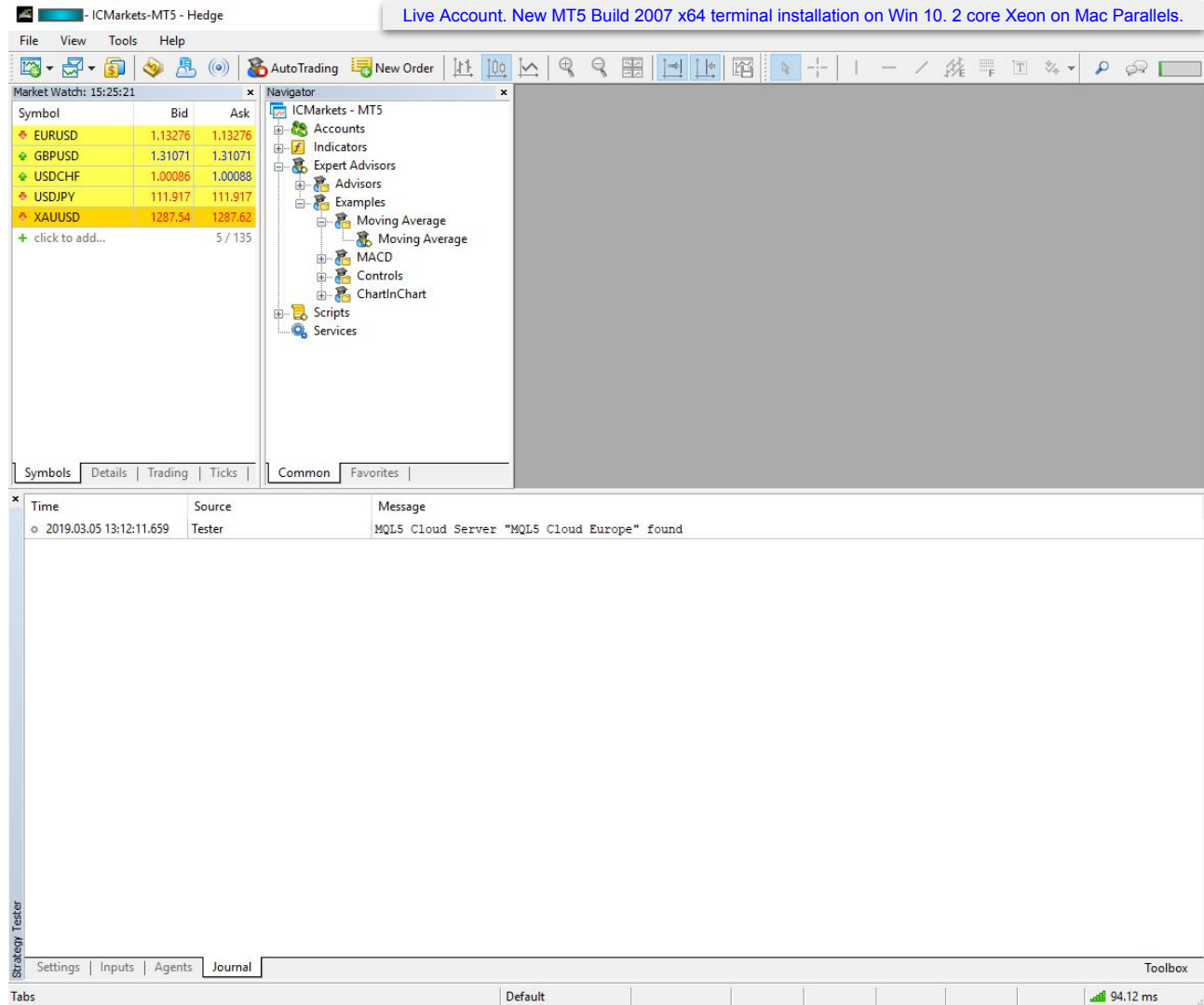
8341 / 20 Kb

The Reproducible Case

Confirm this is clean, new install:

Strategy Tester Journal

Live Account: New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.



Time	Source	Message
2019.03.05 13:12:11.659	Tester	MQL5 Cloud Server "MQL5 Cloud Europe" found

Strategy Tester Journal

Settings | Inputs | Agents | Journal | Toolbox

94.12 ms

The Reproducible Case

Confirm this is clean, new install:

Strategy Tester Agents tab.

Note that only the local cores are enabled. No access to network farm or cloud.

ICMarkets-MT5 - Hedge

Live Account: New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:26:01

Symbol	Bid	Ask
EURUSD	1.13278	1.13278
GBPUSD	1.31078	1.31082
USDCHF	1.00091	1.00092
USDJPY	111.918	111.918
XAUUSD	1287.56	1287.65
+ click to add... 5 / 135		

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks Common Favorites

Strategy Tester

Agent	Hardware	Tasks / Passed	Status
- Local: 2 cores			
Core 1	Intel Xeon E5-1650 v2 @ 3.50GHz, 2025 MB		ready
Core 2	Intel Xeon E5-1650 v2 @ 3.50GHz, 2025 MB		ready
- Local Network Farm			
- MQL5 Cloud Network: 6 677 million tasks processed, 20 887 agents available			register
- MQL5 Cloud Europe	9295 agents available of 20887		not used

Settings Inputs Agents Journal

For Help, press F1

Default

8359 / 20 Kb

The Reproducible Case

The Moving Averages EA, supplied with the installation. (standard MQL supplied code)

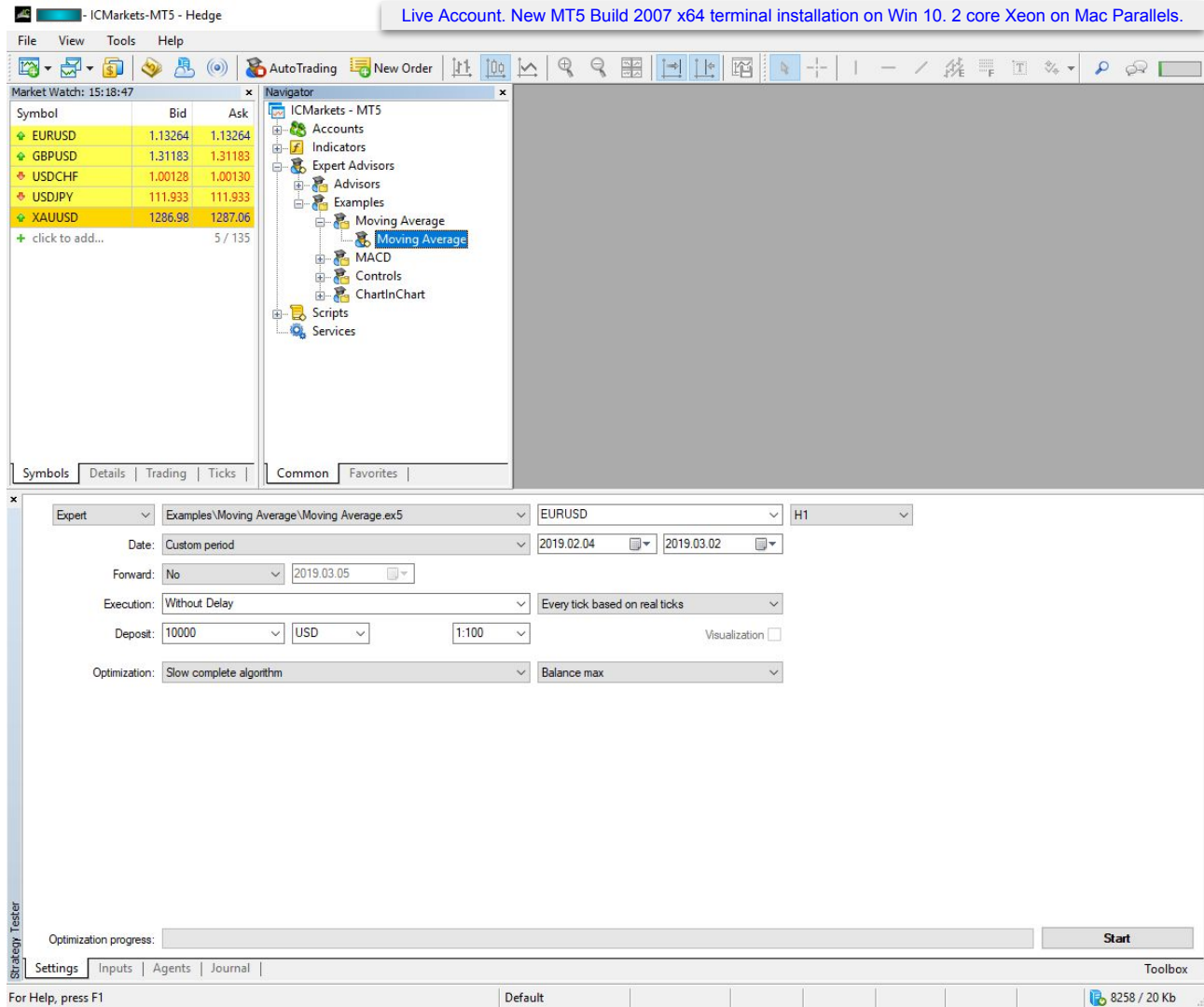
Fixed recent 4 week period. Standard H1 test. EURUSD most available pair.

Every Tick Based On Real Ticks (remove random data risk)

Without Delay (remove random time risk)

USD (remove rates conversion risk)

Slow Complete (show ALL tests)



The Reproducible Case

The Moving Averages EA, supplied with the installation. (standard MQL supplied code)

Optimise 2 of the 4 parameters. As we are using the Slow Complete method, let's not create too much output, but keep it light for this case. 9919 results is more than enough.

This is the default optimisation setup that comes with the Moving Averages EA. We'll optimise Decrease Factor and Moving Average Period only.

The screenshot displays the MetaTrader 5 (MT5) interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for trading and analysis. The main window is divided into several panels:

- Market Watch:** Displays a list of currency pairs with their current Bid and Ask prices. The list includes EURUSD, GBPUSD, USDCHF, USDJPY, and XAUUSD.
- Navigator:** Shows a tree view of the software's components, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, Controls, ChartInChart, Scripts, and Services.
- Strategy Tester:** A window for testing trading strategies. It contains a table with columns for Variable, Value, Start, Step, Stop, and Steps.

The Strategy Tester table shows the following data:

Variable	Value	Start	Step	Stop	Steps
<input type="checkbox"/> Maximum Risk in percentage	0.02	0.02	0.002	0.2	
<input checked="" type="checkbox"/> Decrease factor	3	3	0.3	30.0	91
<input checked="" type="checkbox"/> Moving Average period	12	12	1	120	109
<input type="checkbox"/> Moving Average shift	6	6	1	60	
					9919

The bottom status bar shows "For Help, press F1" and "Default". The bottom right corner indicates "8421 / 21 Kb".

The Reproducible Case

Start the test

ICMarkets-MT5 - Hedge

Live Account. New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:35:30

Symbol	Bid	Ask
EURUSD	1.13256	1.13256
GBPUSD	1.31082	1.31083
USDCHF	1.00093	1.00095
USDJPY	111.917	111.919
XAUUSD	1285.96	1286.05

+ click to add... 5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks Common Favorites

Expert: Examples\Moving Average\Moving Average ex5 EURUSD H1

Date: Custom period 2019.02.04 2019.03.02

Forward: No 2019.03.05

Execution: Without Delay Every tick based on real ticks

Deposit: 10000 USD 1:100 Visualization

Optimization: Slow complete algorithm Balance max

Strategy Tester

82 / 9919

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

Default

94.12 ms

Stop

Toolbox

The Reproducible Case

Check the Journal whilst optimisation is taking place

Live Account. New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

The screenshot displays the MetaTrader 5 (MT5) interface. The top menu bar includes File, View, Tools, and Help. The main window is divided into several panes:

- Market Watch:** Displays a table of currency pairs and their current prices.
- Navigator:** Shows a tree view of the MT5 environment, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, Controls, ChartInChart, Scripts, and Services.
- Journal:** A log window showing the execution of various tasks and the status of the optimization process.

The Journal window is currently active, showing a list of events with columns for Time, Source, and Message. The messages indicate the progress of the optimization, including the download of history data and the start of the optimization process.

Time	Source	Message
2019.03.05 13:12:11.659	Tester	MQ5 Cloud Server "MQ5 Cloud Europe" found
2019.03.05 13:35:05.940	Tester	register MQ5.community account and use MQ5 Cloud Network to speed up optimizations
2019.03.05 13:35:05.959	Tester	real ticks optimization not allowed in Cloud Network
2019.03.05 13:35:05.996	Tester	Experts\Examples\Moving Average\Moving Average.ex5 on EURUSD,H1 from 2019.02.04 00:00 to 2019.03.02 00:00
2019.03.05 13:35:05.996	Tester	EURUSD: preliminary downloading of M1 history started
2019.03.05 13:35:06.578	Tester	EURUSD: preliminary downloading of M1 history completed in 0:00.594
2019.03.05 13:35:06.578	Tester	EURUSD: history data begins from 2017.11.17 00:00
2019.03.05 13:35:06.580	Tester	EURUSD: preliminary downloading of history ticks started, it may take quite a long time
2019.03.05 13:35:06.580	Tester	EURUSD: "bases\ICMarkets-MT5\ticks\EURUSD\201903.tkc" download
2019.03.05 13:35:07.576	Tester	EURUSD: "bases\ICMarkets-MT5\ticks\EURUSD\201902.tkc" download (2302.18 Kb/sec)
2019.03.05 13:35:09.592	Tester	EURUSD: preliminary downloading of history ticks completed, 6.71 Mb in 0:03.016 (2279.02 Kb/sec)
2019.03.05 13:35:09.592	Tester	EURUSD: ticks data begins from 2019.02.04 00:00
2019.03.05 13:35:09.593	Tester	complete optimization started
2019.03.05 13:35:09.593	Tester	size of initial task batch is 1024
2019.03.05 13:35:09.677	Core 1	agent process started
2019.03.05 13:35:09.707	Core 2	agent process started
2019.03.05 13:35:10.097	Core 1	connecting to 127.0.0.1:3000
2019.03.05 13:35:10.098	Core 1	connected
2019.03.05 13:35:10.098	Core 2	connecting to 127.0.0.1:3001
2019.03.05 13:35:10.100	Core 2	connected
2019.03.05 13:35:10.124	Core 1	authorized (agent build 2007)
2019.03.05 13:35:10.124	Core 2	authorized (agent build 2007)

The bottom status bar shows the current time as 94.12 ms.

The Reproducible Case

Check the Journal whilst optimisation is taking place

Live Account: New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

The screenshot displays the MetaTrader 5 (MT5) interface. The top menu bar includes File, View, Tools, and Help. The main window is divided into several panes:

- Market Watch:** Displays a table of currency pairs with their current Bid and Ask prices. The table is as follows:

Symbol	Bid	Ask
EURUSD	1.13253	1.13254
GBPUSD	1.31094	1.31096
USDCHF	1.00098	1.00099
USDJPY	111.912	111.913
XAUUSD	1286.13	1286.18

Below the table, it says "click to add..." and "5 / 135".

- Navigator:** A tree view showing various tools and indicators available in MT5, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, Controls, ChartInChart, Scripts, and Services.
- Journal:** A log window showing the system's activity. The log entries are as follows:

Time	Source	Message
2019.03.05 13:35:07.576	Tester	EURUSD: "bases\ICMarkets-MT5\ticks\EURUSD\201902.tkc" download (2302.18 Kb/sec)
2019.03.05 13:35:09.592	Tester	EURUSD: preliminary downloading of history ticks completed, 6.71 Mb in 0:03.016 (2279.02 Kb/sec)
2019.03.05 13:35:09.592	Tester	EURUSD: ticks data begins from 2019.02.04 00:00
2019.03.05 13:35:09.593	Tester	complete optimization started
2019.03.05 13:35:09.593	Tester	size of initial task batch is 1024
2019.03.05 13:35:09.677	Core 1	agent process started
2019.03.05 13:35:09.707	Core 2	agent process started
2019.03.05 13:35:10.097	Core 1	connecting to 127.0.0.1:3000
2019.03.05 13:35:10.098	Core 1	connected
2019.03.05 13:35:10.098	Core 2	connecting to 127.0.0.1:3001
2019.03.05 13:35:10.100	Core 2	connected
2019.03.05 13:35:10.124	Core 1	authorized (agent build 2007)
2019.03.05 13:35:10.129	Core 2	authorized (agent build 2007)
2019.03.05 13:35:10.146	Core 1	common synchronization completed
2019.03.05 13:35:10.157	Core 2	common synchronization completed
2019.03.05 13:35:10.547	Core 2	EURUSD: history for 2018 year synchronized
2019.03.05 13:35:10.601	Core 2	EURUSD: history for 2019 year synchronized
2019.03.05 13:35:10.601	Core 2	EURUSD: history synchronization completed [1957 Kb]
2019.03.05 13:35:10.651	Core 2	EURUSD: 1.91 Mb of history processed in 0:00.453
2019.03.05 13:35:10.718	Core 2	EURUSD: ticks synchronization completed [6433 Kb]
2019.03.05 13:35:10.934	Core 1	EURUSD: ticks synchronized already [43 bytes]

The bottom status bar shows "For Help, press F1" and "Default". The bottom right corner displays "94.12 ms".

The Reproducible Case

Check the Agents whilst optimisation is taking place

ICMarkets-MT5 - Hedge

Live Account: New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:37:50

Symbol	Bid	Ask
EURUSD	1.13257	1.13257
GBPUSD	1.31072	1.31076
USDCHF	1.00098	1.00100
USDJPY	111.910	111.910
XAUUSD	1286.07	1286.16

+ click to add... 5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks Common Favorites

Agent	Hardware	Tasks / Passed	Status
- Local: 2 cores			
Core 1	Intel Xeon E5-1650 v2 @ 3.50GHz, 2025 MB	1024 / 335	33.9%
Core 2	Intel Xeon E5-1650 v2 @ 3.50GHz, 2025 MB	1024 / 338	34.2%
- Local Network Farm			
- MQL5 Cloud Network: 6 677 million tasks processed, 20 904 agents available register			
- MQL5 Cloud Europe	9289 agents available of 20904		not used

Strategy Tester

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

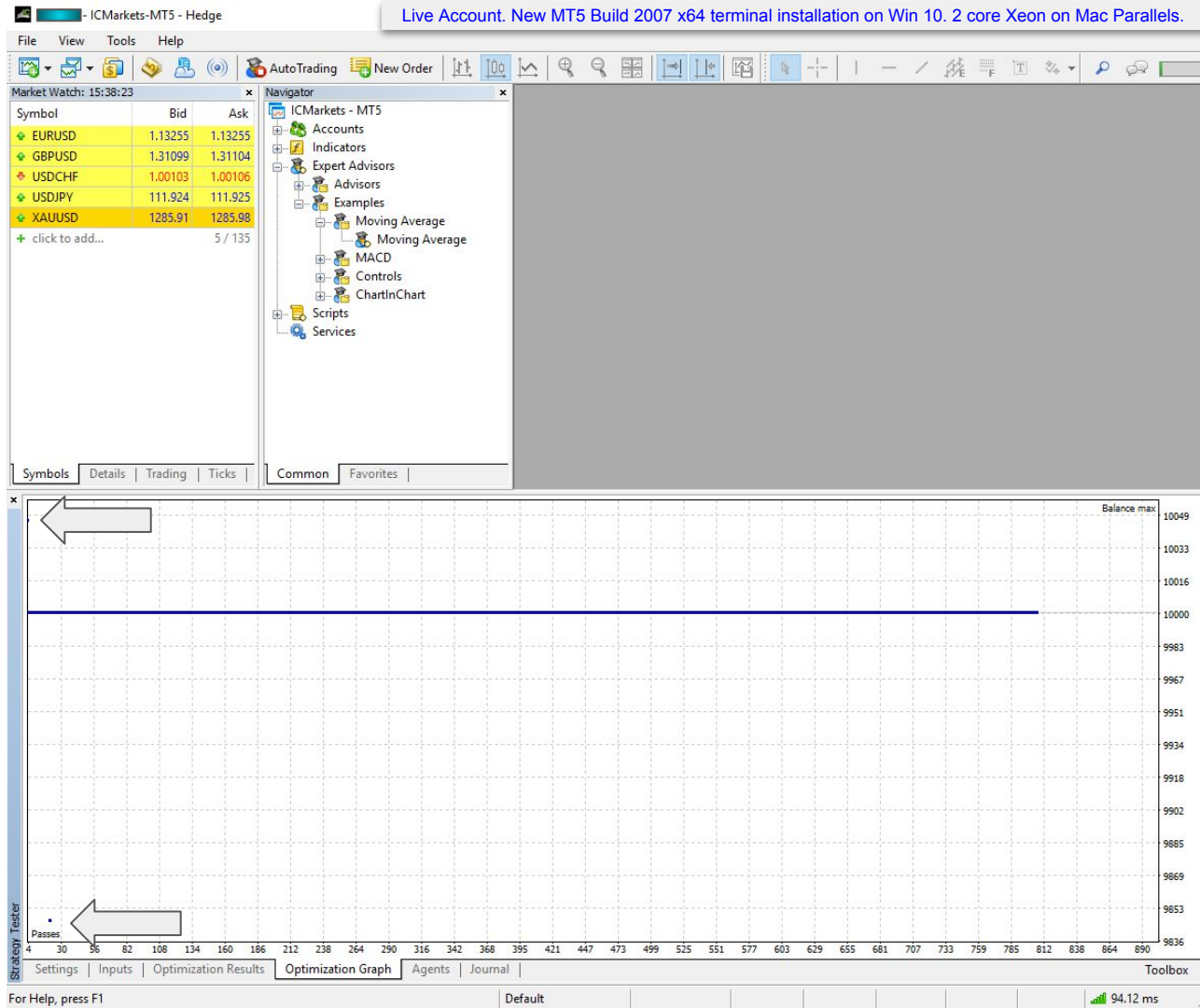
Default

16.5 / 8.3 Mb

The Reproducible Case

Check the Optimisation Graph whilst optimisation is taking place

Looks like the typical problem is already showing up: Pass 0 gets a result. A few more passes might show something, but the rest show nothing.



The Reproducible Case

Check the Optimisation Results whilst optimisation is taking place

Let's see if Pass 0 works and most do nothing...

Yes. Pass 0 and one other so far.

Now, when the optimisation finishes, Pass 0 is expected to show an equity curve with the listed profit.

But of the others that show trades, how many will show equity curves that match the shown figures?

ICMarkets-MT5 - Hedge

Live CentOS Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:41:52

Symbol	Bid	Ask
EURUSD	1.13270	1.13270
GBPUSD	1.31141	1.31144
USDCHF	1.00102	1.00104
USDJPY	111.922	111.924
XAUUSD	1285.98	1286.07

+ click to add... 5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Common Favorites

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1	10000.00	0.00	0	3.3	12
2	10000.00	0.00	0	3.6	12
3	10000.00	0.00	0	3.9	12
4	10000.00	0.00	0	4.2	12
5	10000.00	0.00	0	4.5	12
6	10000.00	0.00	0	4.8	12
7	10000.00	0.00	0	5.1	12
8	10000.00	0.00	0	5.4	12
9	10000.00	0.00	0	5.7	12
10	10000.00	0.00	0	6.0	12
11	10000.00	0.00	0	6.3	12
12	10000.00	0.00	0	6.6	12
13	10000.00	0.00	0	6.9	12
14	10000.00	0.00	0	7.2	12
15	10000.00	0.00	0	7.5	12
16	10000.00	0.00	0	7.8	12
17	10000.00	0.00	0	8.1	12
1024	9846.20	-153.80	23	9.9	23
1025	10000.00	0.00	0	10.2	23
1026	10000.00	0.00	0	10.5	23
1027	10000.00	0.00	0	10.8	23

Strategy Tester

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

Default

16.6 / 8.3 Mb

The Reproducible Case

Check the Optimisation Results whilst optimisation is taking place

Now: Given the only parameter here that affects entry and exit is the Moving Period, and for Pass 0 the Moving Period is 12, then **why do the other tests for the same Moving Period 12 have zero trades?** They should all have the same 26 trades as Pass 0 (subject to account not going bust)

ICMarkets-MT5 - Hedge

File View Tools Help

AutoTrading New Order

Market Watch: 15:41:52

Symbol	Bid	Ask
EURUSD	1.13270	1.13270
GBPUSD	1.31141	1.31144
USDCHF	1.00102	1.00104
USDJPY	111.922	111.924
XAUUSD	1285.98	1286.07

+ click to add... 5 / 135

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- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
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 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks Common Favorites

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1	10000.00	0.00	0	3.3	12
2	10000.00	0.00	0	3.6	12
3	10000.00	0.00	0	3.9	12
4	10000.00	0.00	0	4.2	12
5	10000.00	0.00	0	4.5	12
6	10000.00	0.00	0	4.8	12
7	10000.00	0.00	0	5.1	12
8	10000.00	0.00	0	5.4	12
9	10000.00	0.00	0	5.7	12
10	10000.00	0.00	0	6.0	12
11	10000.00	0.00	0	6.3	12
12	10000.00	0.00	0	6.6	12
13	10000.00	0.00	0	6.9	12
14	10000.00	0.00	0	7.2	12
15	10000.00	0.00	0	7.5	12
16	10000.00	0.00	0	7.8	12
17	10000.00	0.00	0	8.1	12
1024	9846.20	-153.80	23	9.9	23
1025	10000.00	0.00	0	10.2	23
1026	10000.00	0.00	0	10.5	23
1027	10000.00	0.00	0	10.8	23

Strategy Tester

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

Default

16.6 / 8.3 Mb

The Reproducible Case

Still progressing through the tests...

ICMarkets-MT5 - Hedge

Live Account. New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 15:48:31

Symbol	Bid	Ask
EURUSD	1.13269	1.13269
GBPUSD	1.31127	1.31129
USDCHF	1.00100	1.00101
USDJPY	111.913	111.915
XAUUSD	1286.21	1286.29

+ click to add... 5 / 135

Navigator

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 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks Common Favorites

Expert: Examples\Moving Average\Moving Average ex5 EURUSD H1

Date: Custom period 2019.02.04 2019.03.02

Forward: No 2019.03.05

Execution: Without Delay Every tick based on real ticks

Deposit: 10000 USD 1:100 Visualization

Optimization: Slow complete algorithm Balance max

3480 / 9919

Stop

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

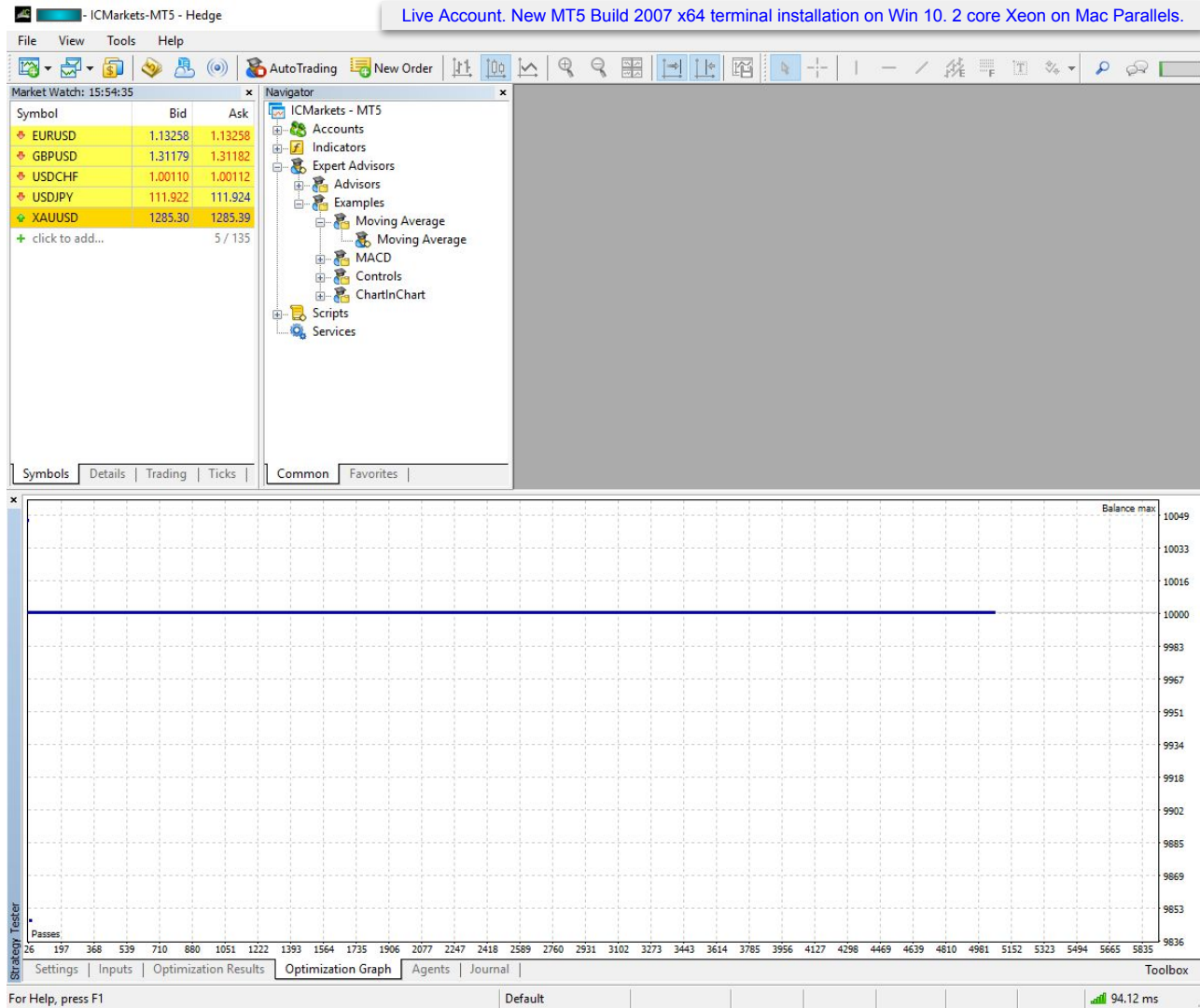
Default

94.12 ms

The Reproducible Case

Check the Optimisation Graph whilst optimisation is taking place

Still progressing through the tests...



The Reproducible Case

Tests are done...

ICMarkets-MT5 - Hedge

File View Tools Help

AutoTrading New Order

Market Watch: 16:24:37

Symbol	Bid	Ask
EURUSD	1.13277	1.13277
GBPUSD	1.31244	1.31248
USDCHF	1.00087	1.00087
USDJPY	111.879	111.880
XAUUSD	1285.52	1285.56

+ click to add... 5 / 135

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 - Moving Average
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 - Controls
 - ChartInChart
 - Scripts
 - Services

Expert: Examples\Moving Average\Moving Average.ex5

Symbol: EURUSD

Timeframe: H1

Date: Custom period 2019.02.04 2019.03.02

Forward: No 2019.03.05

Execution: Without Delay Every tick based on real ticks

Deposit: 10000 USD 1:100 Visualization

Optimization: Slow complete algorithm Balance max

9919 / 9919

Start

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

Default

94.12 ms

The Reproducible Case

Check the Journal for any problems.

No problems showing here.

ICMarkets-MT5 - Hedge

Live Account: New MT5 Build 2007.x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

File View Tools Help

AutoTrading New Order

Market Watch: 16:28:58

Symbol	Bid	Ask
EURUSD	1.13238	1.13239
GBPUSD	1.31200	1.31203
USDCHF	1.00116	1.00117
USDJPY	111.915	111.916
XAUUSD	1285.14	1285.19

+ click to add... 5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Symbols Details Trading Ticks

Common Favorites

Time	Source	Message
2019.03.05 13:35:10.097	Core 1	connecting to 127.0.0.1:3000
2019.03.05 13:35:10.098	Core 1	connected
2019.03.05 13:35:10.098	Core 2	connecting to 127.0.0.1:3001
2019.03.05 13:35:10.100	Core 2	connected
2019.03.05 13:35:10.124	Core 1	authorized (agent build 2007)
2019.03.05 13:35:10.129	Core 2	authorized (agent build 2007)
2019.03.05 13:35:10.146	Core 1	common synchronization completed
2019.03.05 13:35:10.157	Core 2	common synchronization completed
2019.03.05 13:35:10.547	Core 2	EURUSD: history for 2018 year synchronized
2019.03.05 13:35:10.601	Core 2	EURUSD: history for 2019 year synchronized
2019.03.05 13:35:10.601	Core 2	EURUSD: history synchronization completed [1957 Kb]
2019.03.05 13:35:10.651	Core 2	EURUSD: 1.91 Mb of history processed in 0:00.453
2019.03.05 13:35:10.718	Core 2	EURUSD: ticks synchronization completed [6433 Kb]
2019.03.05 13:35:10.934	Core 1	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 14:13:07.518	Tester	optimization finished, total passes 9919
2019.03.05 14:13:07.528	Statistics	optimization done in 38 minutes 02 seconds
2019.03.05 14:13:07.528	Statistics	shortest pass 0:00:00.328, longest pass 0:00:01.489, average pass 0:00:00.457
2019.03.05 14:13:07.528	Statistics	local 9919 tasks (100%), remote 0 tasks (0%), cloud 0 tasks (0%)
2019.03.05 14:13:07.528	Core 1	connection closed
2019.03.05 14:13:07.532	Core 2	connection closed
2019.03.05 14:13:07.580	Tester	9919 new records saved to cache file 'tester\cache\Moving Average.EURUSD.H1.20190204.20190302.40.A6D848B8570F...

Settings Inputs Optimization Results Optimization Graph Agents Journal

Toolbox

For Help, press F1

Default

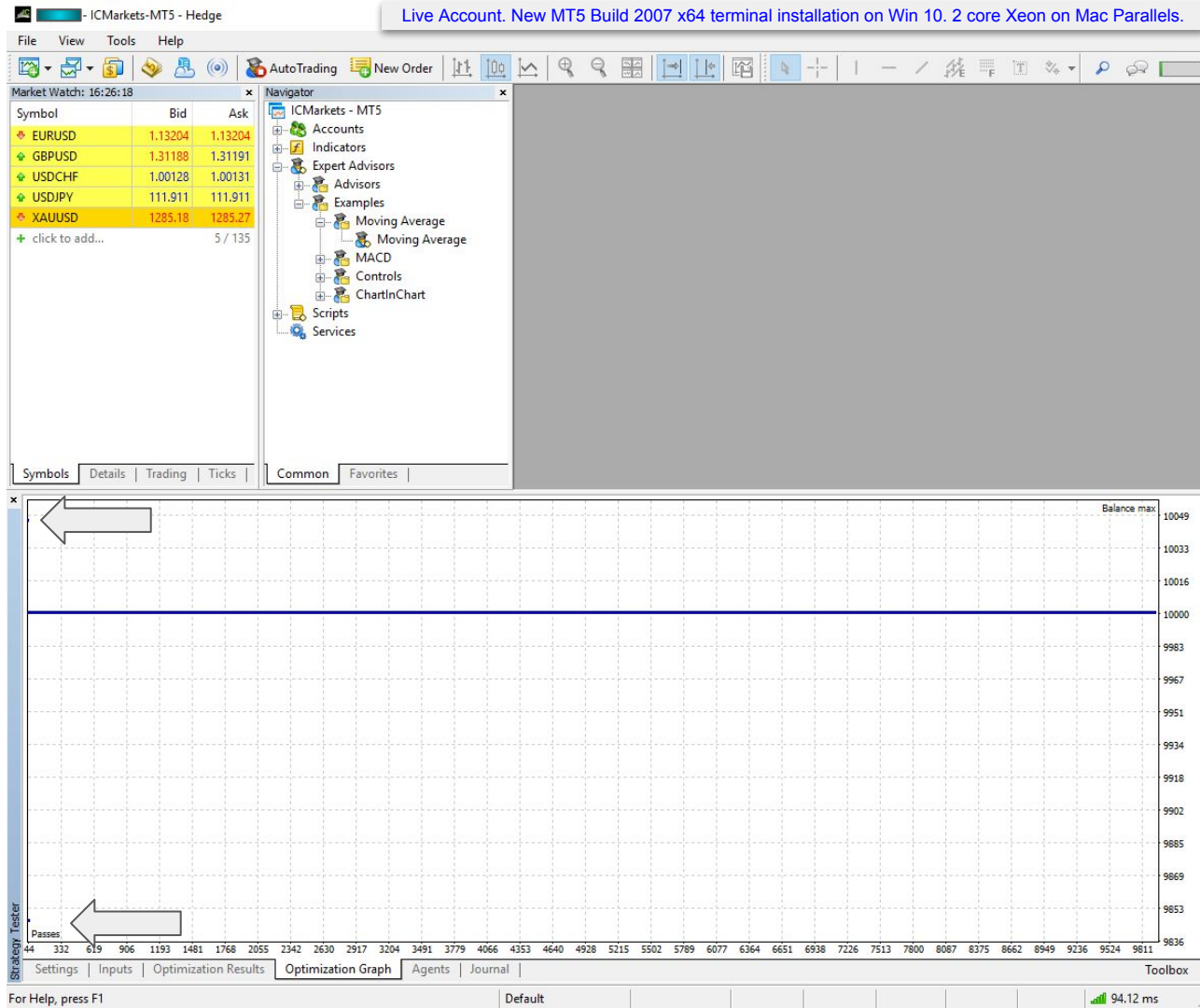
17.3 / 8.4 Mb

The Reproducible Case

Check the Optimisation Graph

Looks like just 2 setups actually traded and the other 9917 did not trade at all.

Alarm bells!



The Reproducible Case

Check the Optimisation Results

Sadly only 2 setups actually traded.
(One per core?)

If Moving Period 12 trades for Pass 0,
then it must also trade for the other
passes using the same Moving Period.

Likewise for Moving Period 23, it
makes no sense to only have one
trading result for a given moving
period.

What is happening to the other test
runs using Moving Period 12 or 23?
Where are the results?

Live Account - New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

The screenshot displays the ICMarkets-MT5 Hedge platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market data, trading, and analysis. The main window is divided into several panes:

- Market Watch:** Displays a table of currency pairs with their current Bid and Ask prices. The pairs listed are EURUSD, GBPUSD, USDCHF, USDJPY, and XAUUSD. XAUUSD is highlighted in yellow.
- Navigator:** A tree view showing the structure of the platform, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, Controls, ChartInChart, Scripts, and Services.
- Strategy Tester:** A window showing the results of optimization tests. It includes a table with columns for Pass, Result, Profit, Total trades, DecreaseFactor, and MovingPeriod. The table shows results for various passes (0 to 9901) and moving periods (12 and 23).

The Strategy Tester table data is as follows:

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1024	9846.20	-153.80	23	9.9	23
9918	10000.00	0.00	0	30.0	120
9917	10000.00	0.00	0	29.7	120
9916	10000.00	0.00	0	29.4	120
9915	10000.00	0.00	0	29.1	120
9914	10000.00	0.00	0	28.8	120
9913	10000.00	0.00	0	28.5	120
9912	10000.00	0.00	0	28.2	120
9911	10000.00	0.00	0	27.9	120
9910	10000.00	0.00	0	27.6	120
9909	10000.00	0.00	0	27.3	120
9908	10000.00	0.00	0	27.0	120
9907	10000.00	0.00	0	26.7	120
9906	10000.00	0.00	0	26.4	120
9905	10000.00	0.00	0	26.1	120
9904	10000.00	0.00	0	25.8	120
9903	10000.00	0.00	0	25.5	120
9902	10000.00	0.00	0	25.2	120
9901	10000.00	0.00	0	24.9	120

The bottom status bar shows the current time as 17.3 / 8.4 Mb.

The Reproducible Case

Now let's do the 'Run Single Test' for the top 3 lines.

Remember of the 4 possible inputs, 2 are not optimised:

MaximumRisk Percentage 0.02

Moving Average Shift 6.

Live Account - New MT5 Build 2007 x64 terminal installation on Win 10. 2 core Xeon on Mac Parallels.

Market Watch: 16:28:11

Symbol	Bid	Ask
EURUSD	1.13228	1.13228
GBPUSD	1.31189	1.31193
USDCHF	1.00120	1.00122
USDJPY	111.920	111.921
XAUUSD	1284.95	1284.99

click to add... 5 / 135

Navigator

- ICMarkets - MT5
 - Accounts
 - Indicators
 - Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls
 - ChartInChart
 - Scripts
 - Services

Strategy Tester

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1024	9846.20	-153.80	23	9.9	23
9918	10000.00	0.00	0	30.0	120
9917	10000.00	0.00	0	29.7	120
9916	10000.00	0.00	0	29.4	120
9915	10000.00	0.00	0	29.1	120
9914	10000.00	0.00	0	28.8	120
9913	10000.00	0.00	0	28.5	120
9912	10000.00	0.00	0	28.2	120
9911	10000.00	0.00	0	27.9	120
9910	10000.00	0.00	0	27.6	120
9909	10000.00	0.00	0	27.3	120
9908	10000.00	0.00	0	27.0	120
9907	10000.00	0.00	0	26.7	120
9906	10000.00	0.00	0	26.4	120
9905	10000.00	0.00	0	26.1	120
9904	10000.00	0.00	0	25.8	120
9903	10000.00	0.00	0	25.5	120
9902	10000.00	0.00	0	25.2	120
9901	10000.00	0.00	0	24.9	120

Settings | Inputs | Optimization Results | Optimization Graph | Agents | Journal | Toolbox

For Help, press F1

Default

17.3 / 8.4 Mb

The Reproducible Case

Now let's do the 'Run Single Test' for the top 3 lines.

We are expecting:

Pass 0: End result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0

Pass 1024: End result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9

Pass 9918: End result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

The screenshot displays the ICMarkets-MT5 Hedge terminal interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market watch, navigation, and trading. The main window is divided into several panels:

- Market Watch:** Displays a table of currency pairs with their current bid and ask prices. The top three entries are EURUSD, GBPUSD, and USDCHF.
- Navigator:** A tree view showing the structure of the terminal, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, Controls, ChartInChart, Scripts, and Services.
- Strategy Tester:** A table showing the results of a trading strategy. The table has columns for Pass, Result, Profit, Total trades, DecreaseFactor, and MovingPeriod. A context menu is open over the table, showing options like Run Single Test, Profit Factor, Expected Payoff, Drawdown %, Recovery Factor, Sharpe Ratio, Optimized Inputs, Export to XML (MS Office Excel), Export Optimization Cache File, Import Optimization Cache File, Auto Switch to Results, Auto Scroll, Auto Arrange, and Grid.

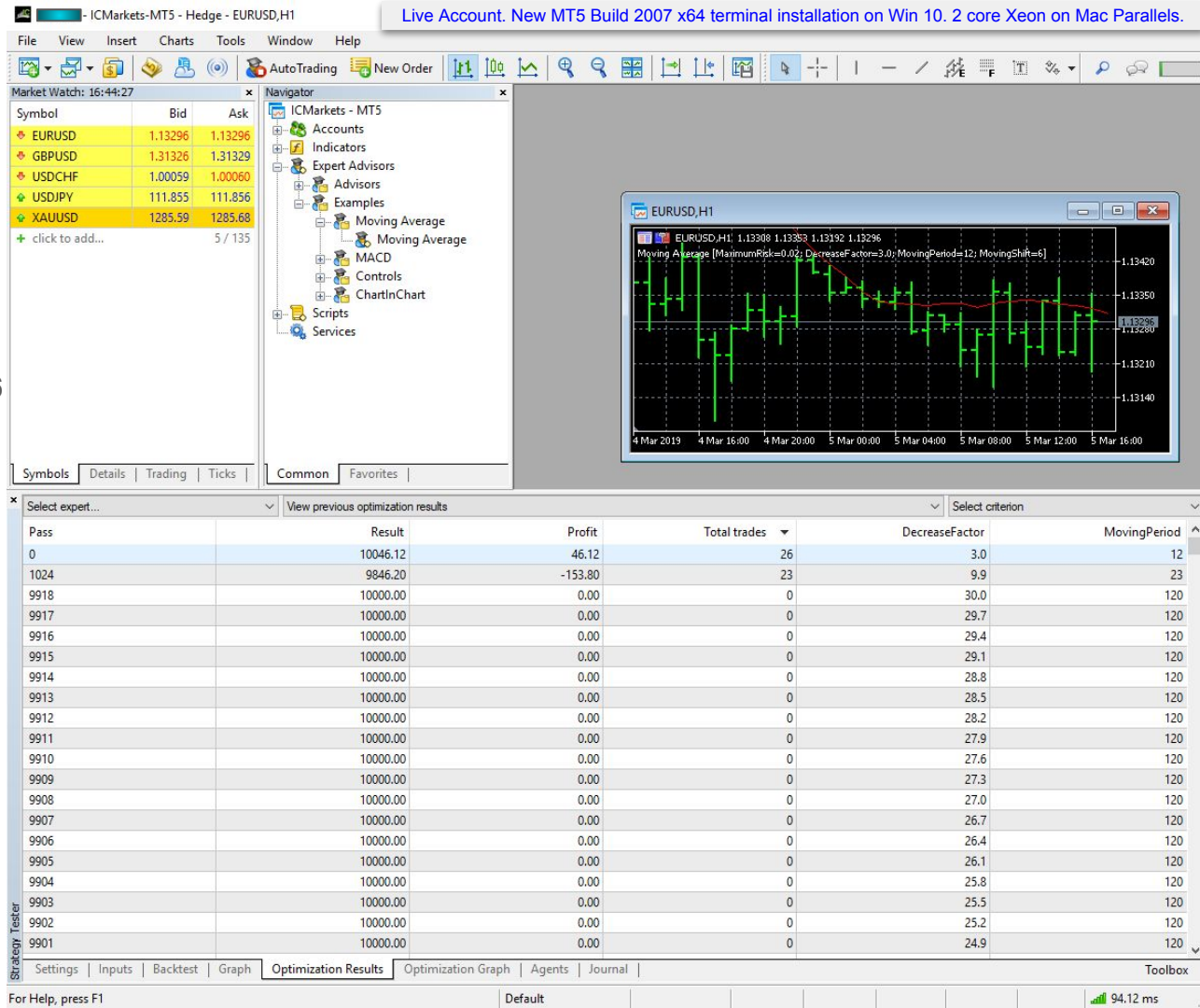
The Strategy Tester table shows the following data:

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12		3.0	12
1024	9846.20	-153.80		9.9	23
9918	10000.00	0.00		30.0	120
9917	10000.00	0.00		29.7	120
9916	10000.00	0.00		29.4	120
9915	10000.00	0.00		29.1	120
9914	10000.00	0.00		28.8	120
9913	10000.00	0.00		28.5	120
9912	10000.00	0.00		28.2	120
9911	10000.00	0.00		27.9	120
9910	10000.00	0.00		27.6	120
9909	10000.00	0.00		27.3	120
9908	10000.00	0.00		27.0	120
9907	10000.00	0.00		26.7	120
9906	10000.00	0.00		26.4	120
9905	10000.00	0.00		26.1	120
9904	10000.00	0.00		25.8	120
9903	10000.00	0.00		25.5	120
9902	10000.00	0.00		25.2	120
9901	10000.00	0.00		24.9	120

The Reproducible Case

Pass 0:

Expecting end result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0

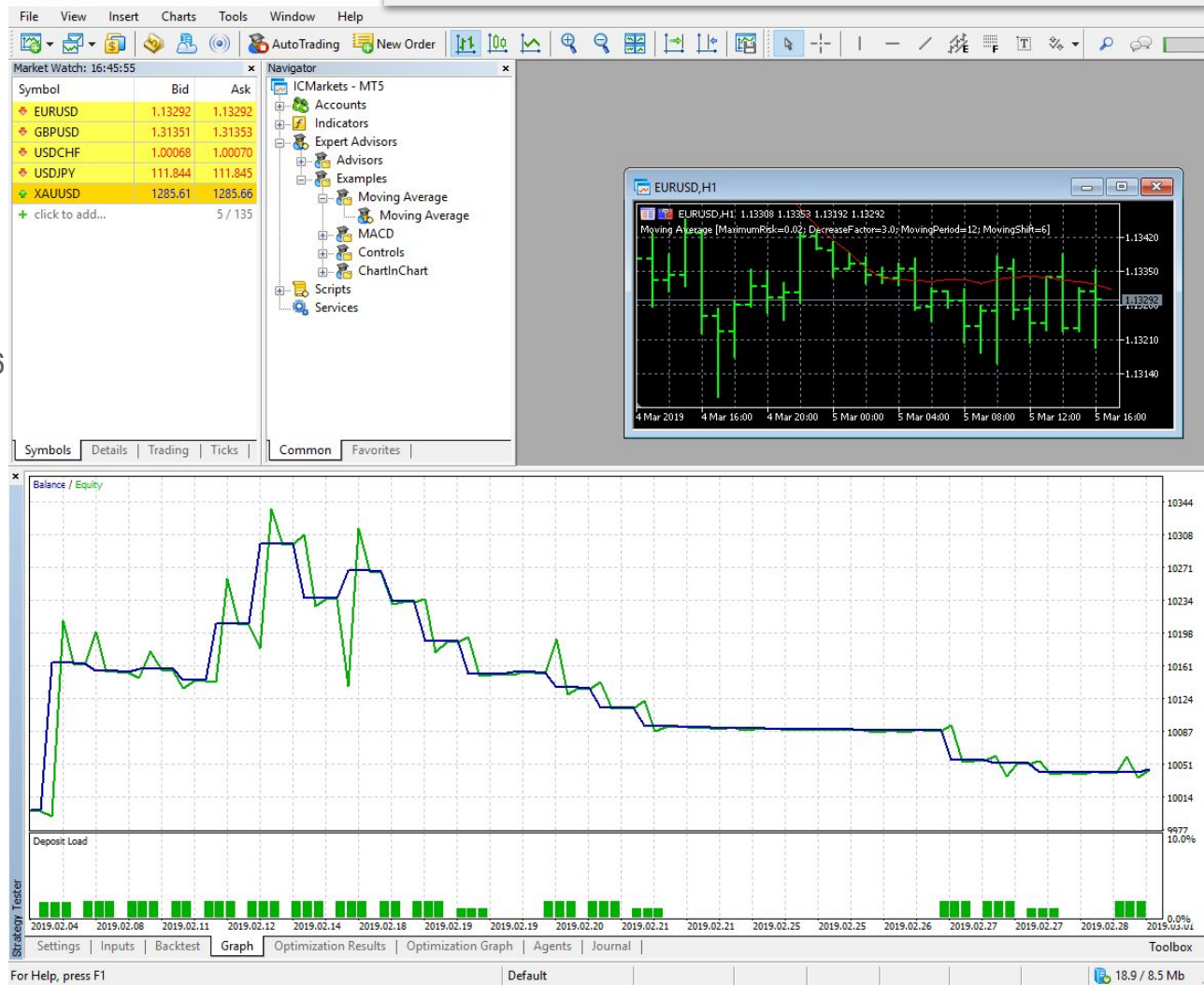


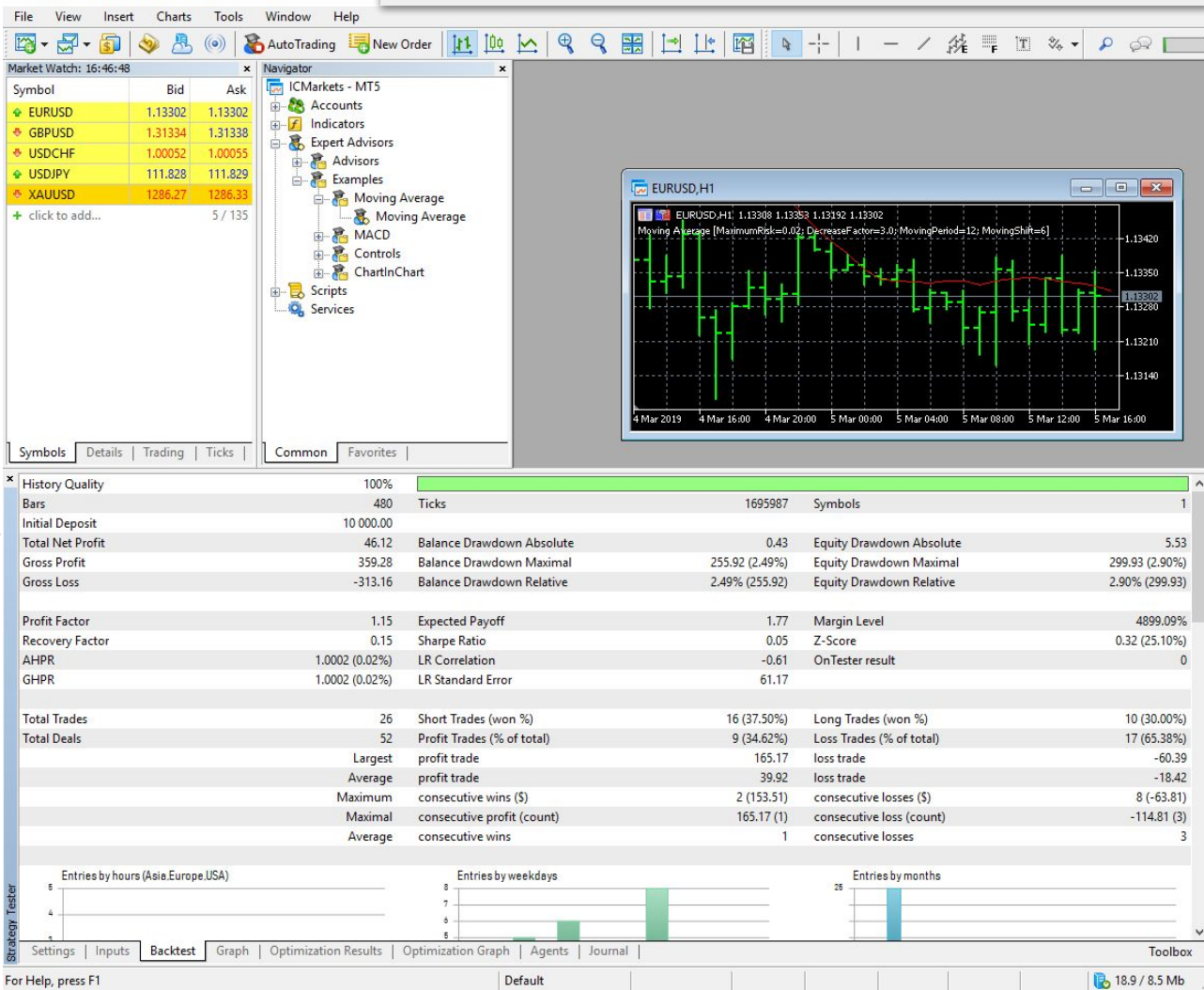
The Reproducible Case

Pass 0: Graph

Expecting end result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0

Looks OK... let's check the Backtest





The Reproducible Case

Pass 0: Backtest

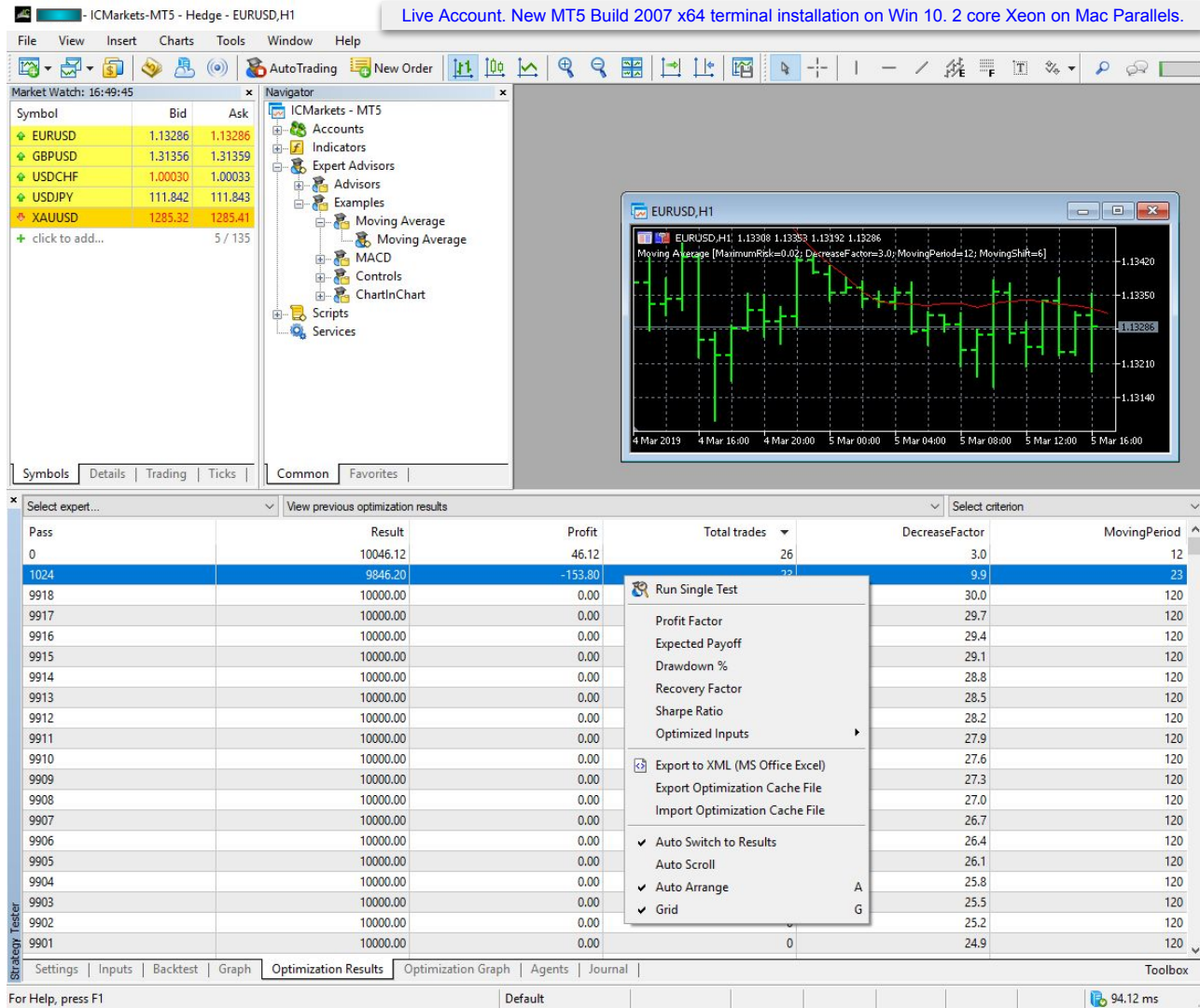
Expecting end result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0

Backtest shows perfect match for Pass 0.

The Reproducible Case

Pass 1024:

Expecting end result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9

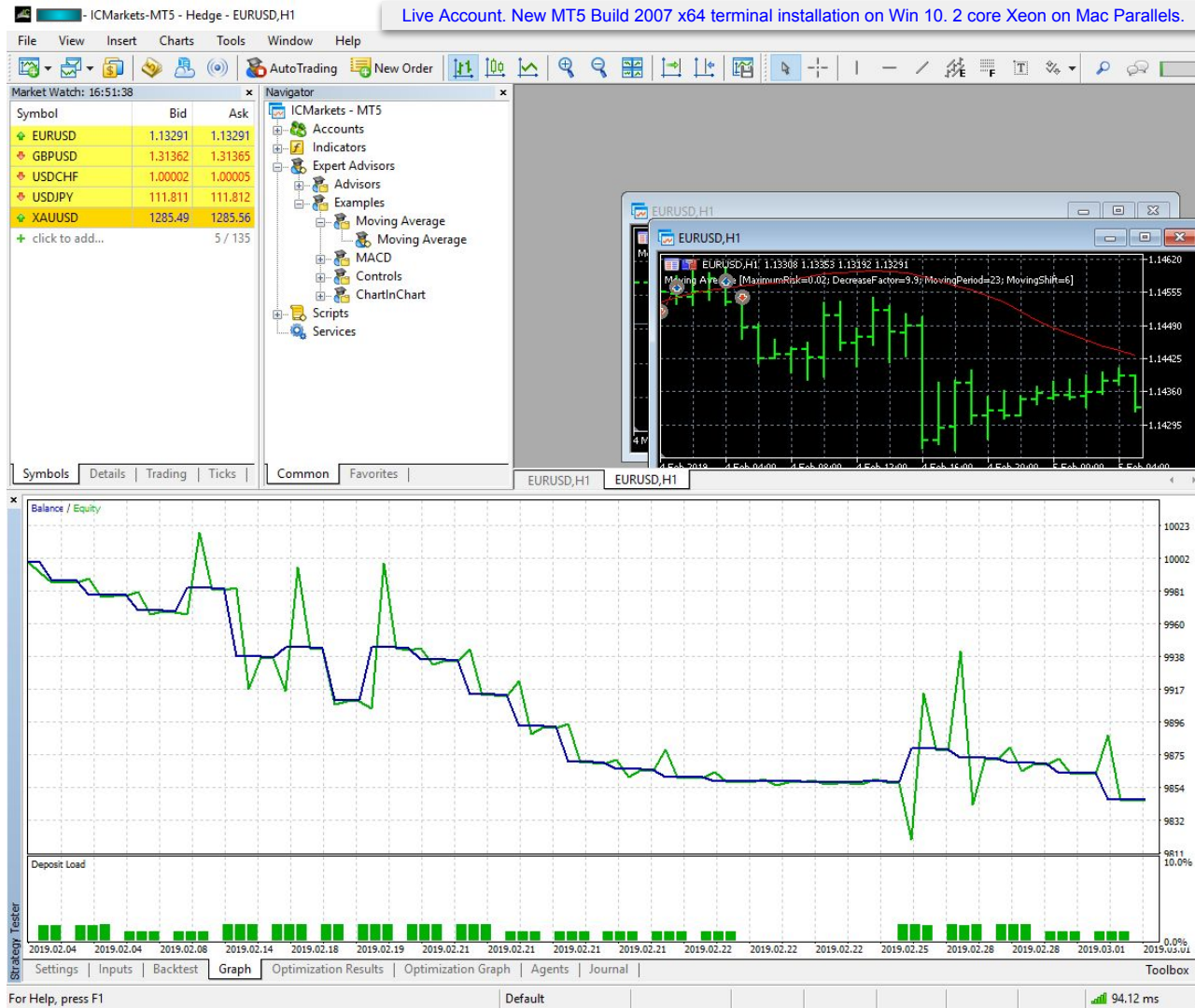


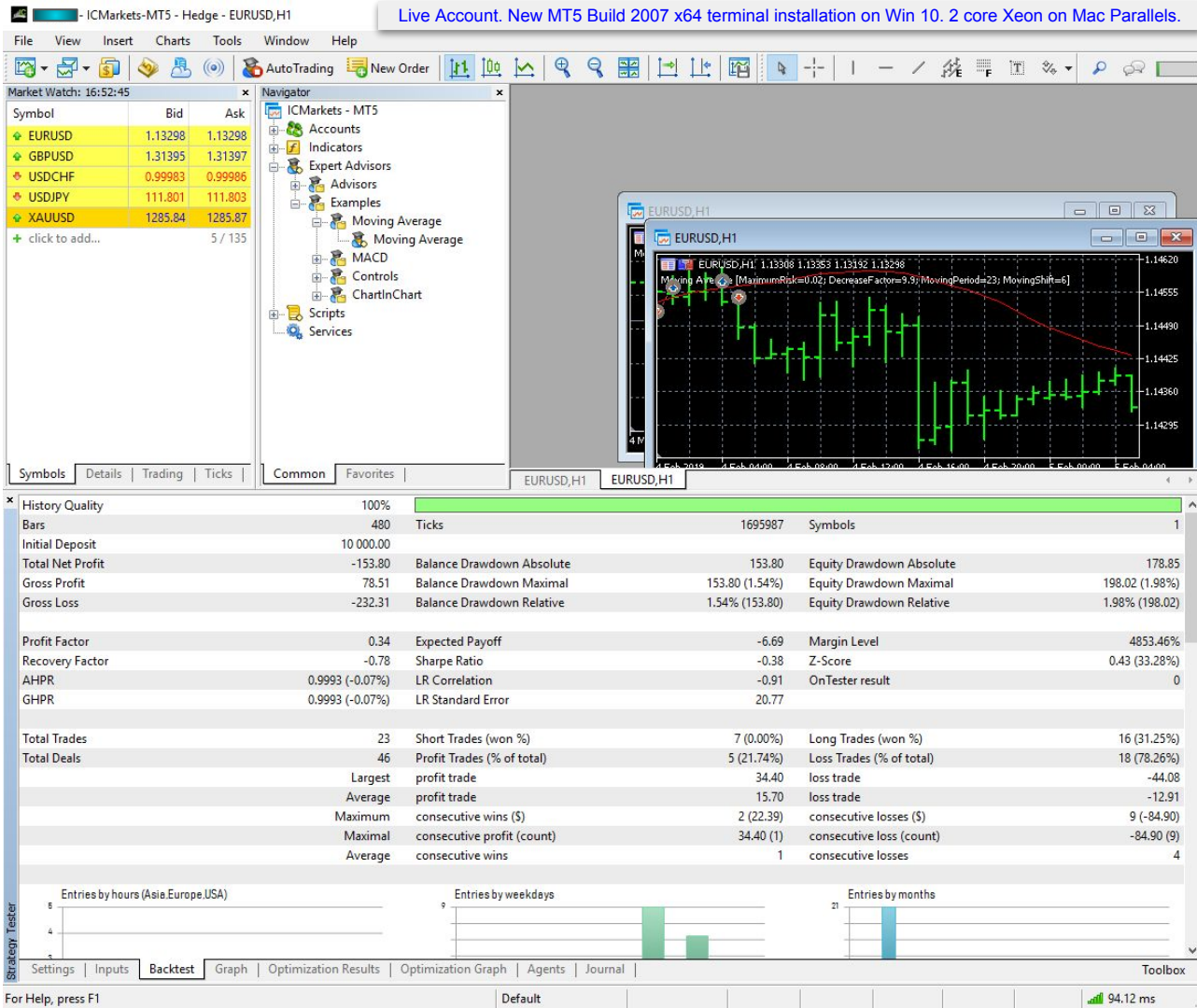
The Reproducible Case

Pass 1024:

Expecting end result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9

The Graph looks OK, let's check the Backtest





The Reproducible Case

Pass 1024:

Expecting end result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9

Quick maths check:

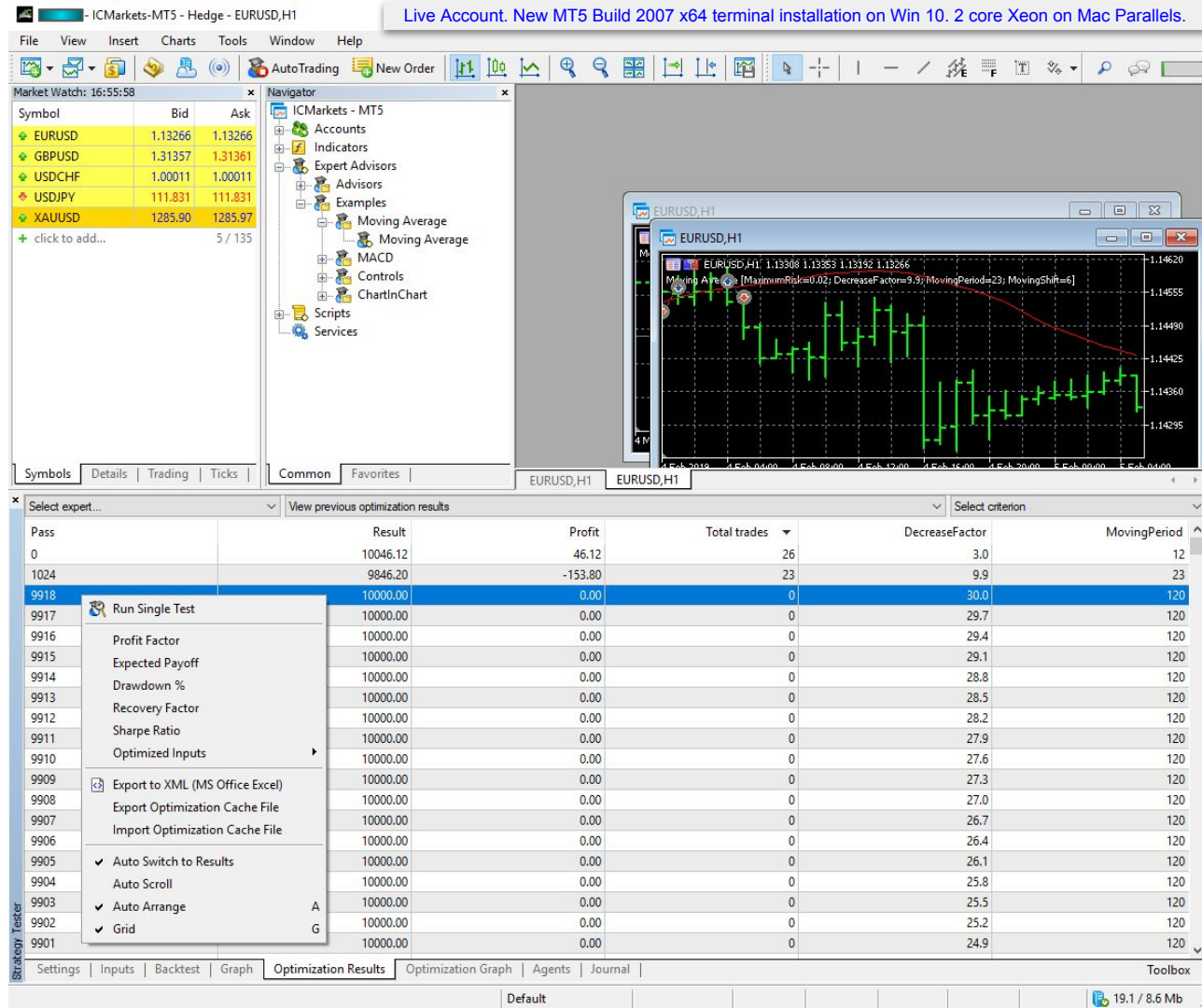
$10000 - 9846.20 = 153.80$ loss

Perfect match!

The Reproducible Case

Pass 9918:

Expecting end result 10000.00 from
zero trades using Moving Period 120,
Decrease Factor 30.0



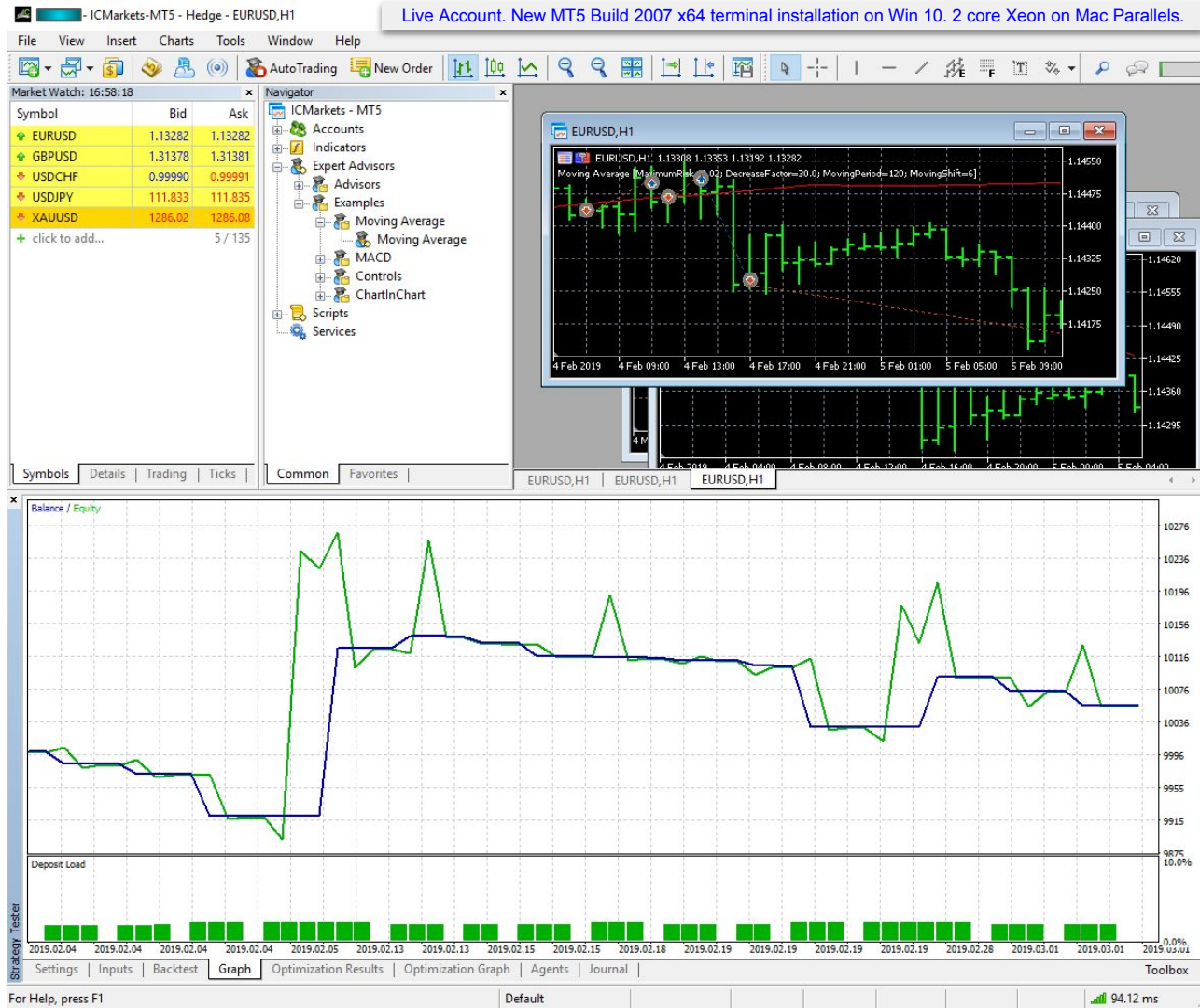
The Reproducible Case

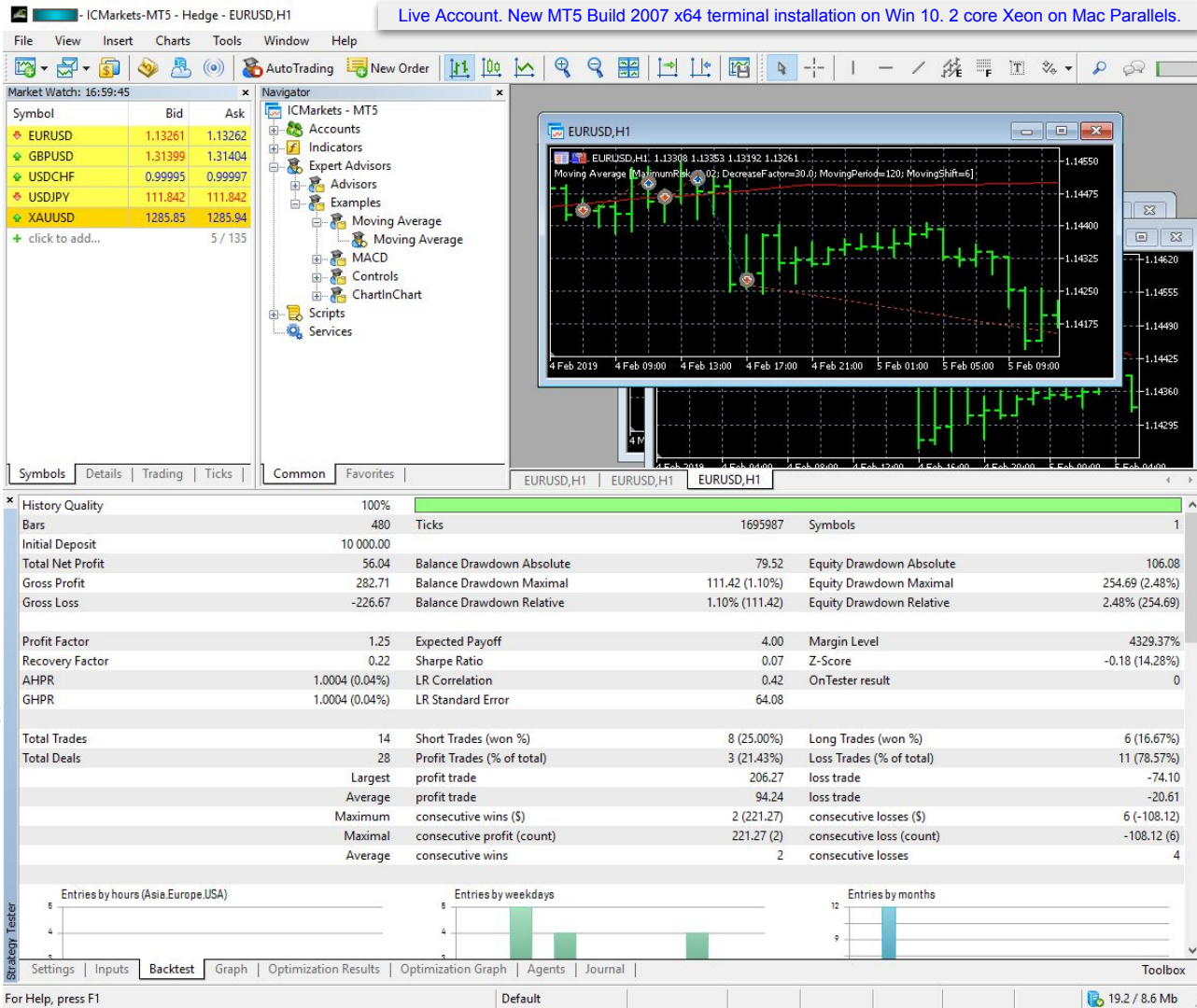
Pass 9918:

Expecting end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

Oh, hang on: This one is not supposed to trade, according to the Optimisation run.

Let's see the Backtest...





The Reproducible Case

Pass 9918:

Expecting end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

14 trades, end result 10056.04.

That actually makes this configuration the best so far. **According to the Optimisation run, this config did not trade at all, and yet it does.**

The Reproducible Case

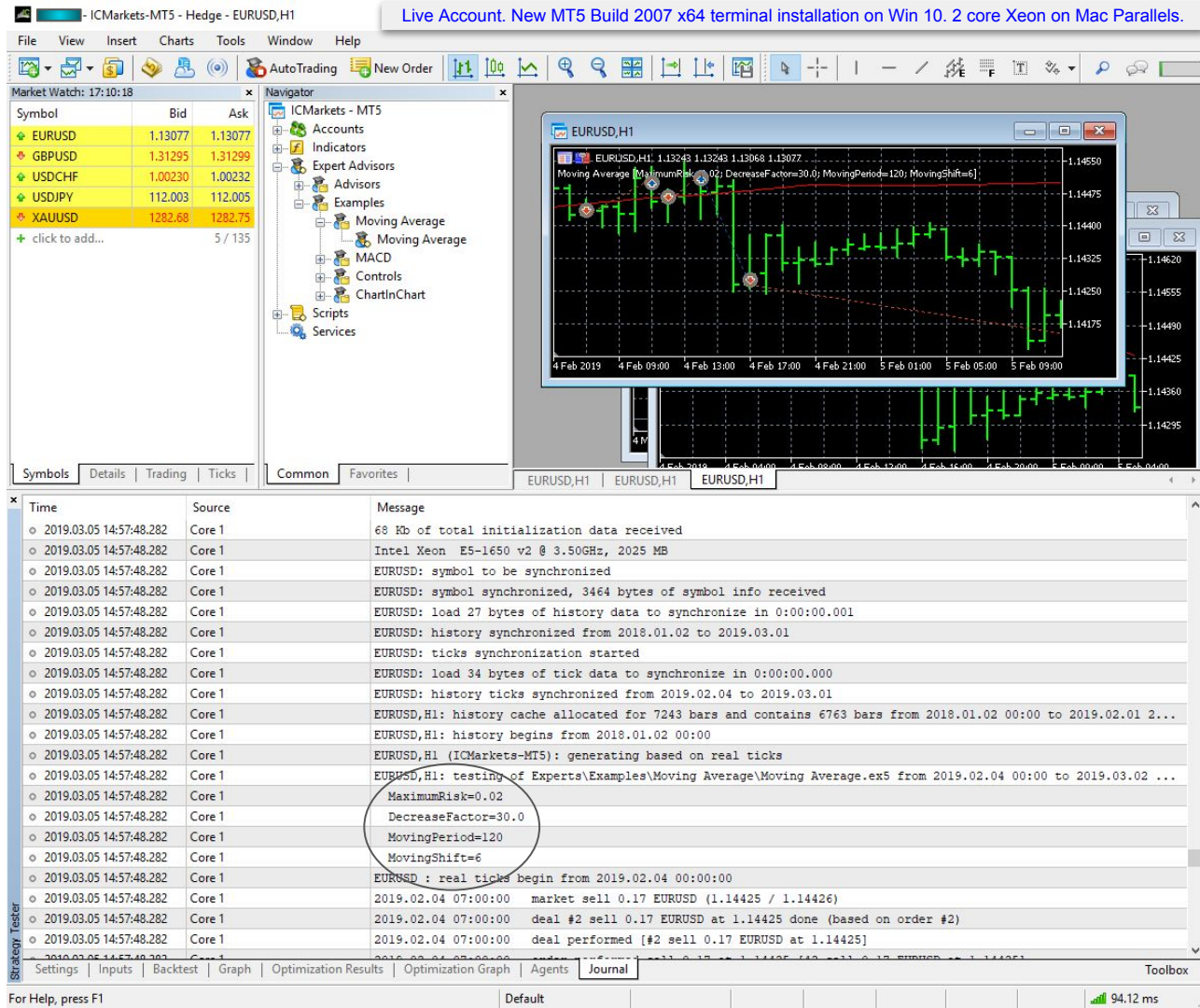
Pass 9918:

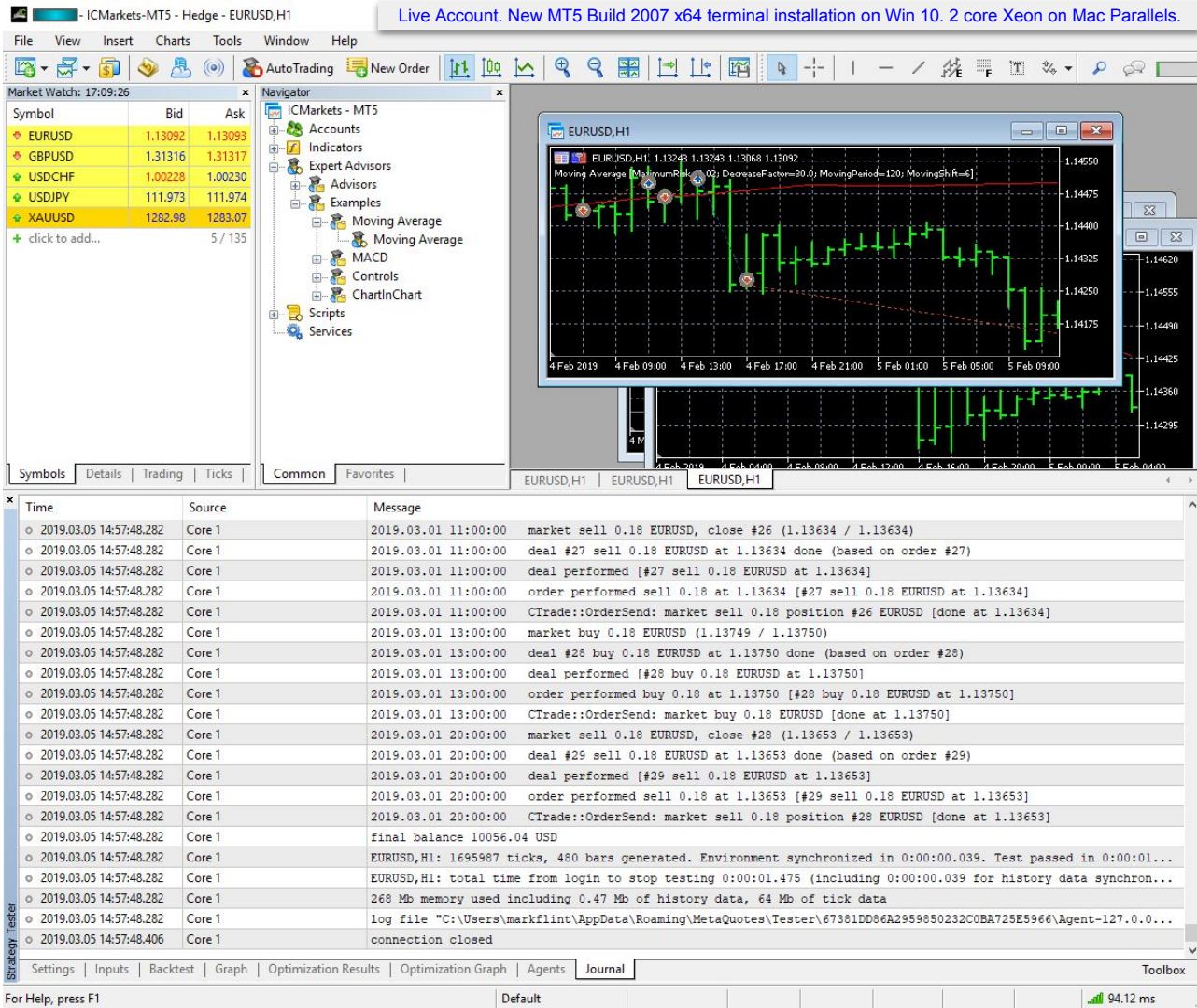
Expecting end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

14 trades, end result 10056.04.

Quick Journal check to see if there are any errors.

Note the correct parameters are listed for this run.





The Reproducible Case

Pass 9918:

Expecting end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

14 trades, end result 10056.04.

Quick Journal check to see if there are any errors.

Nothing wrong showing up. Except it traded when the Optimiser showed zero trades.

The Reproducible Case

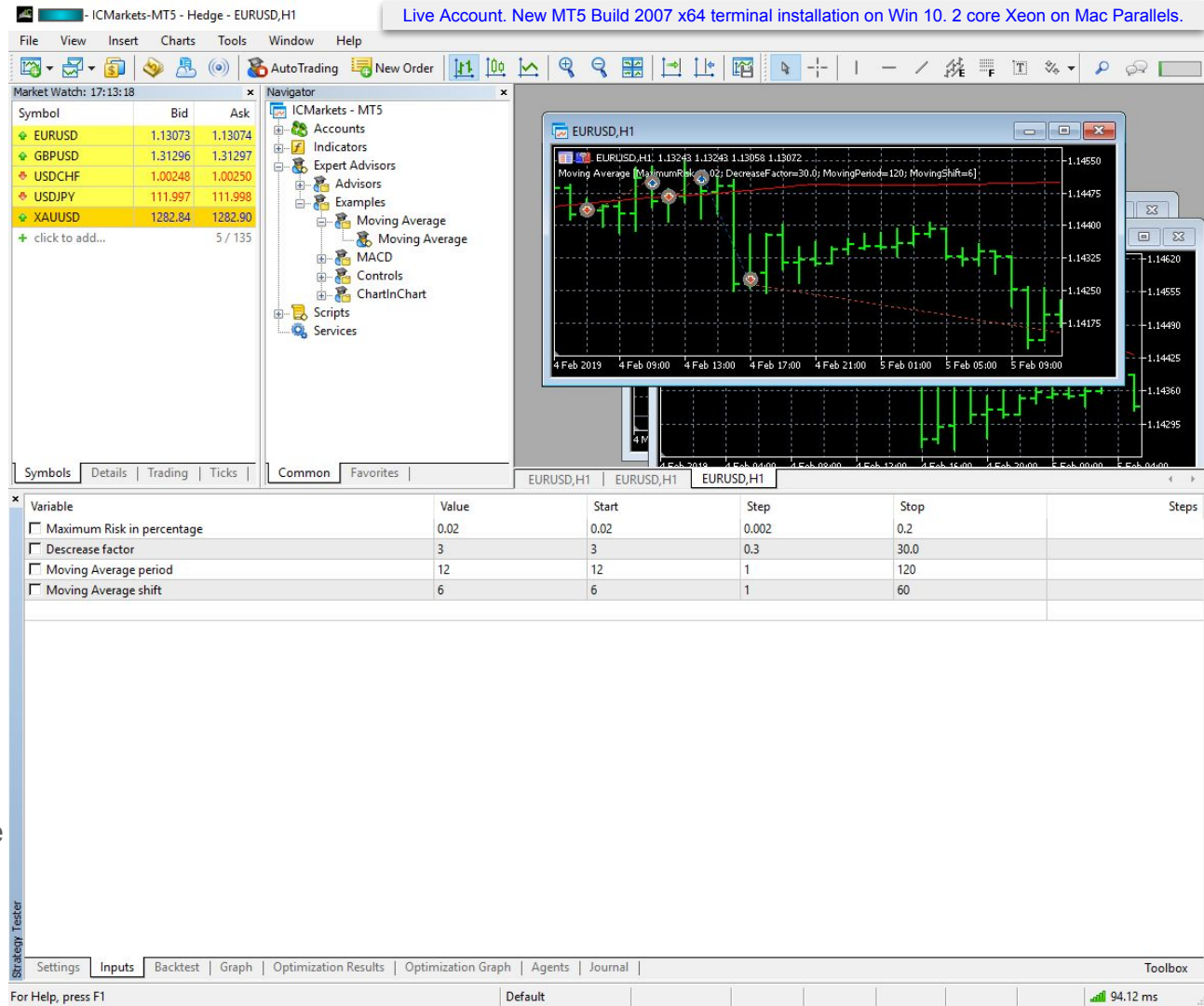
Pass 9918:

Expecting end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

Check the Inputs tab to ensure the correct parameters were copied over for the Run Single Test...

No they were not copied across correctly.

(But we know from the Journal that the correct parameters were used)

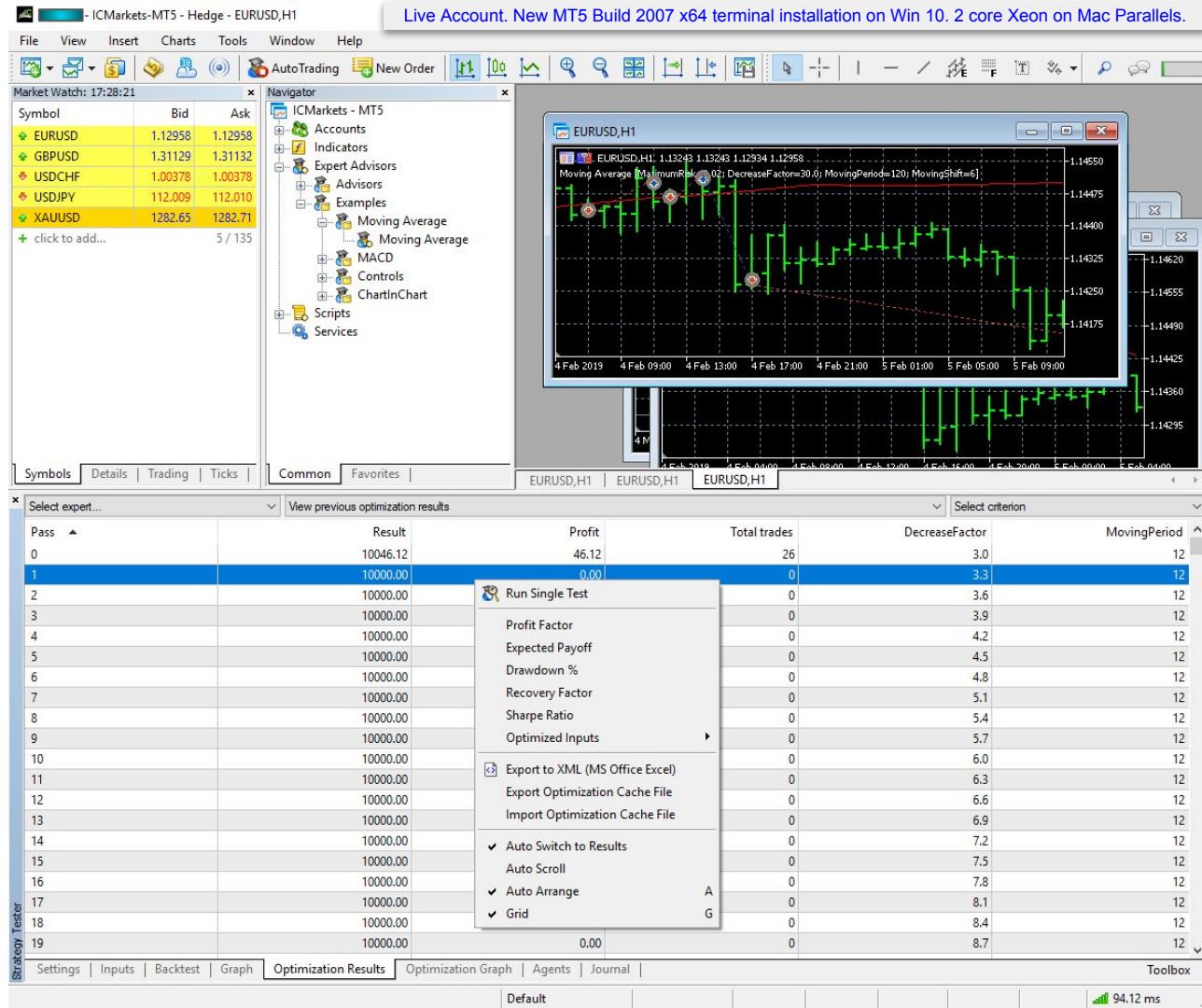


The Reproducible Case

Let's go back and look at the next 2 passes that shares the same Moving Period as Pass 0...

Pass 1:

Optimiser shows zero trades for Pass 1, yet logically it should have just as many trades as Pass 0, as they share the same key parameter: Moving Period 12.



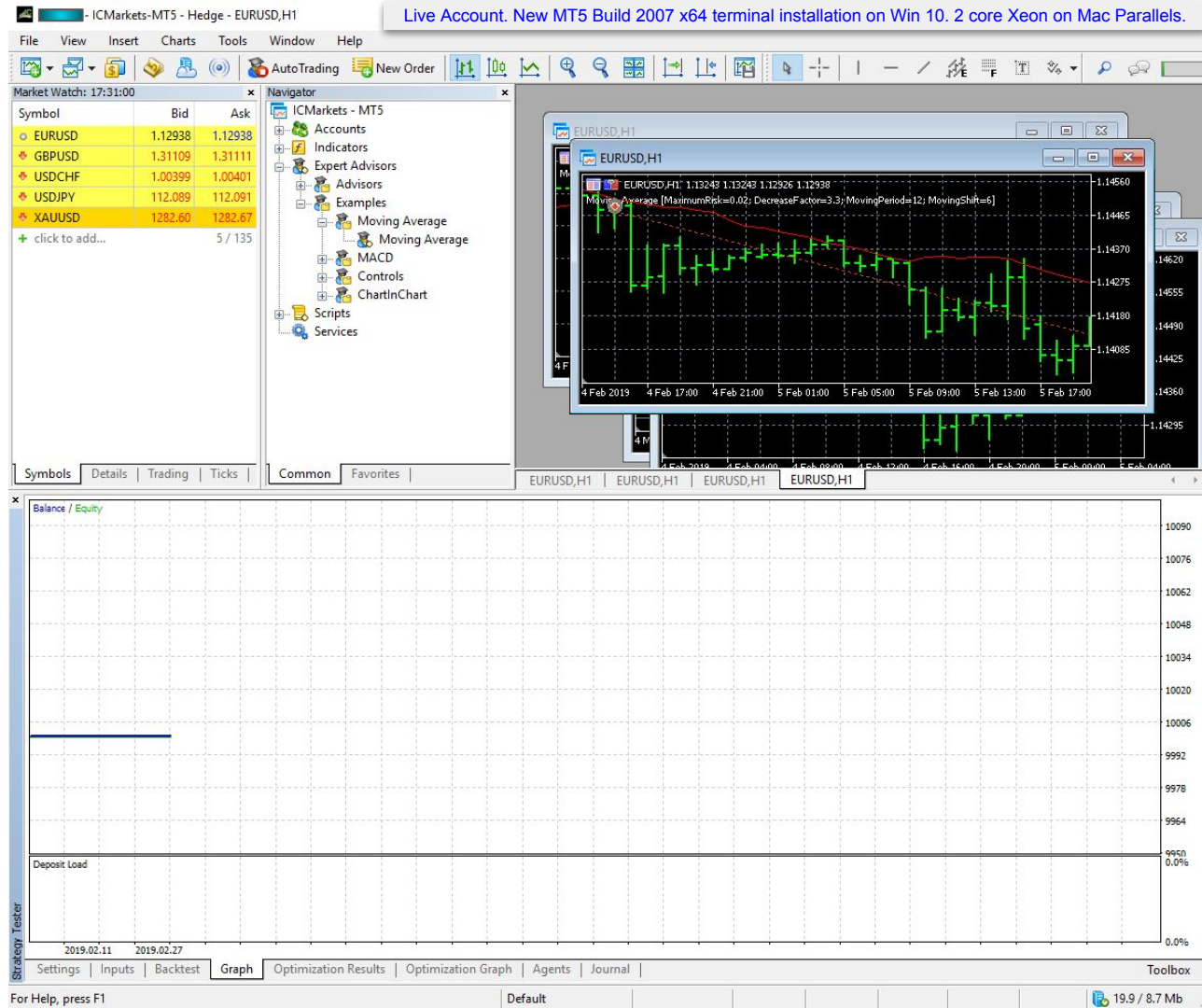
The Reproducible Case

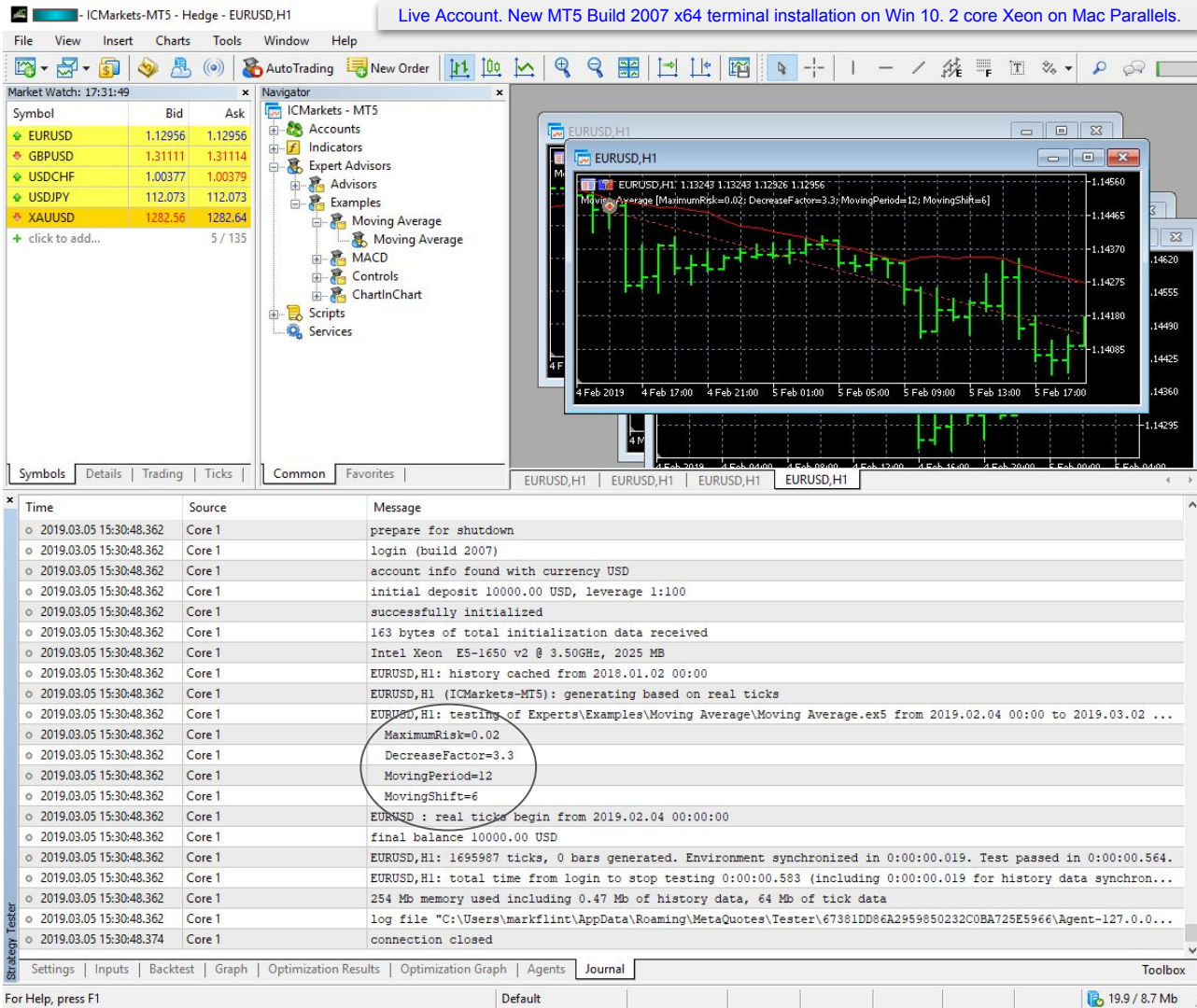
Pass 1:

Optimiser shows zero trades.

Logic suggests 26 trades (as per Pass 0)

Actual result zero.





The Reproducible Case

Pass 1:

Optimiser shows zero trades.

Logic suggests 26 trades (as per Pass 0)

Actual result zero.

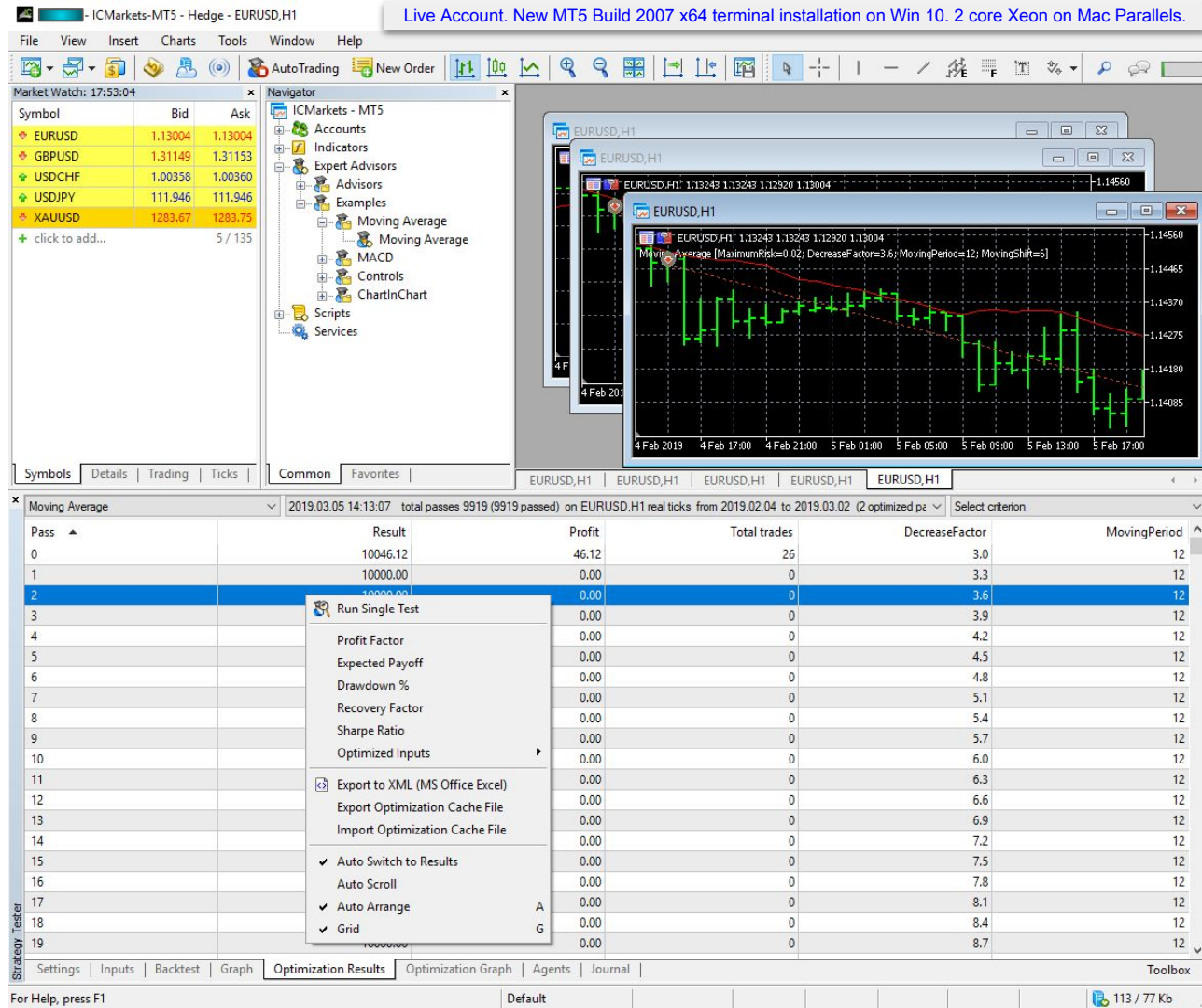
Journal confirms the correct parameters were used.

This does not make sense!

The Reproducible Case

Pass 2:

Optimiser shows zero trades for Pass 2, yet logically it should have just as many trades as Pass 0, as they share the same key parameter: Moving Period 12.



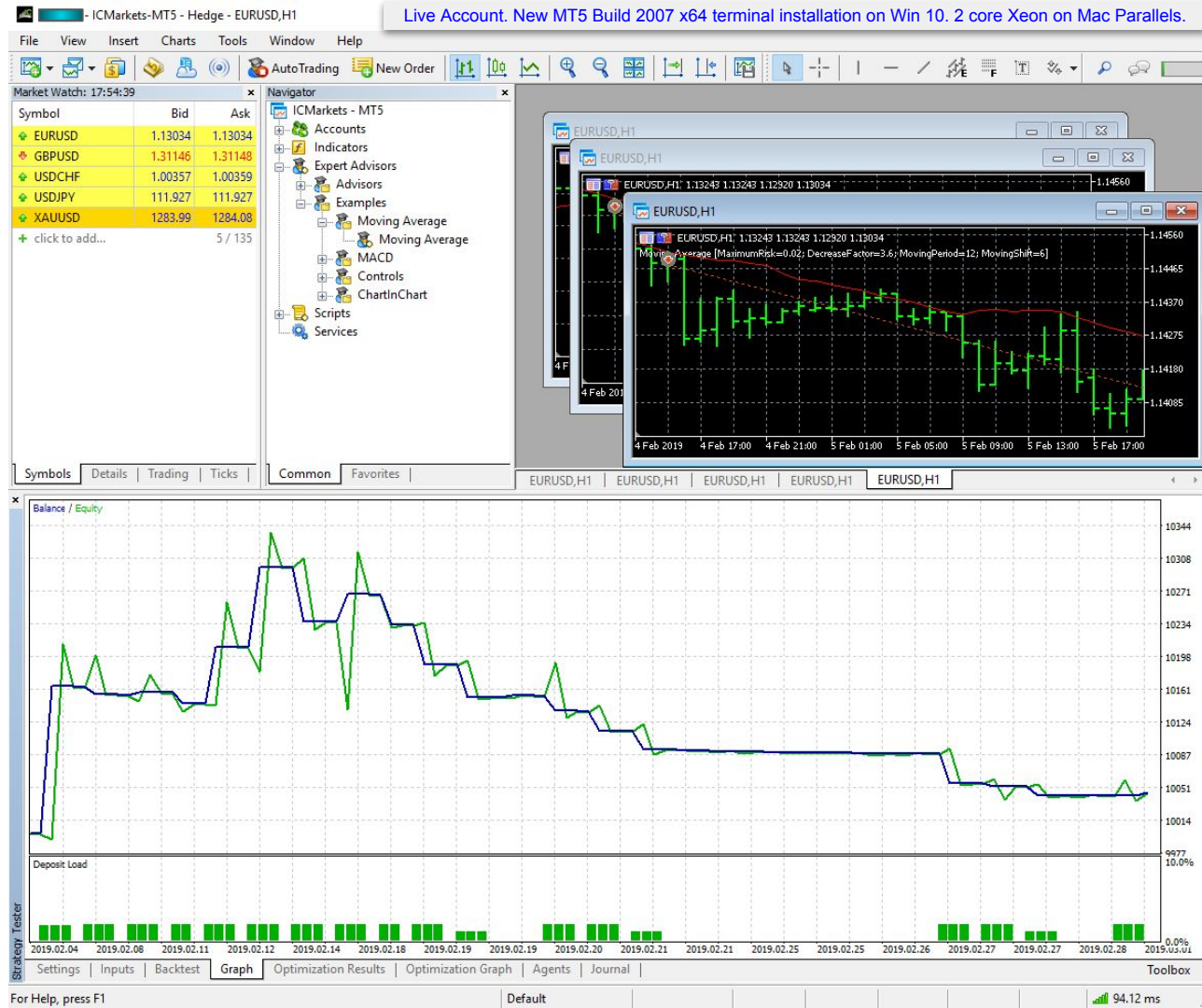
The Reproducible Case

Pass 2:

Optimiser shows zero trades.

Logic suggests 26 trades (as per Pass 0)

Actual result... trades!



The Reproducible Case

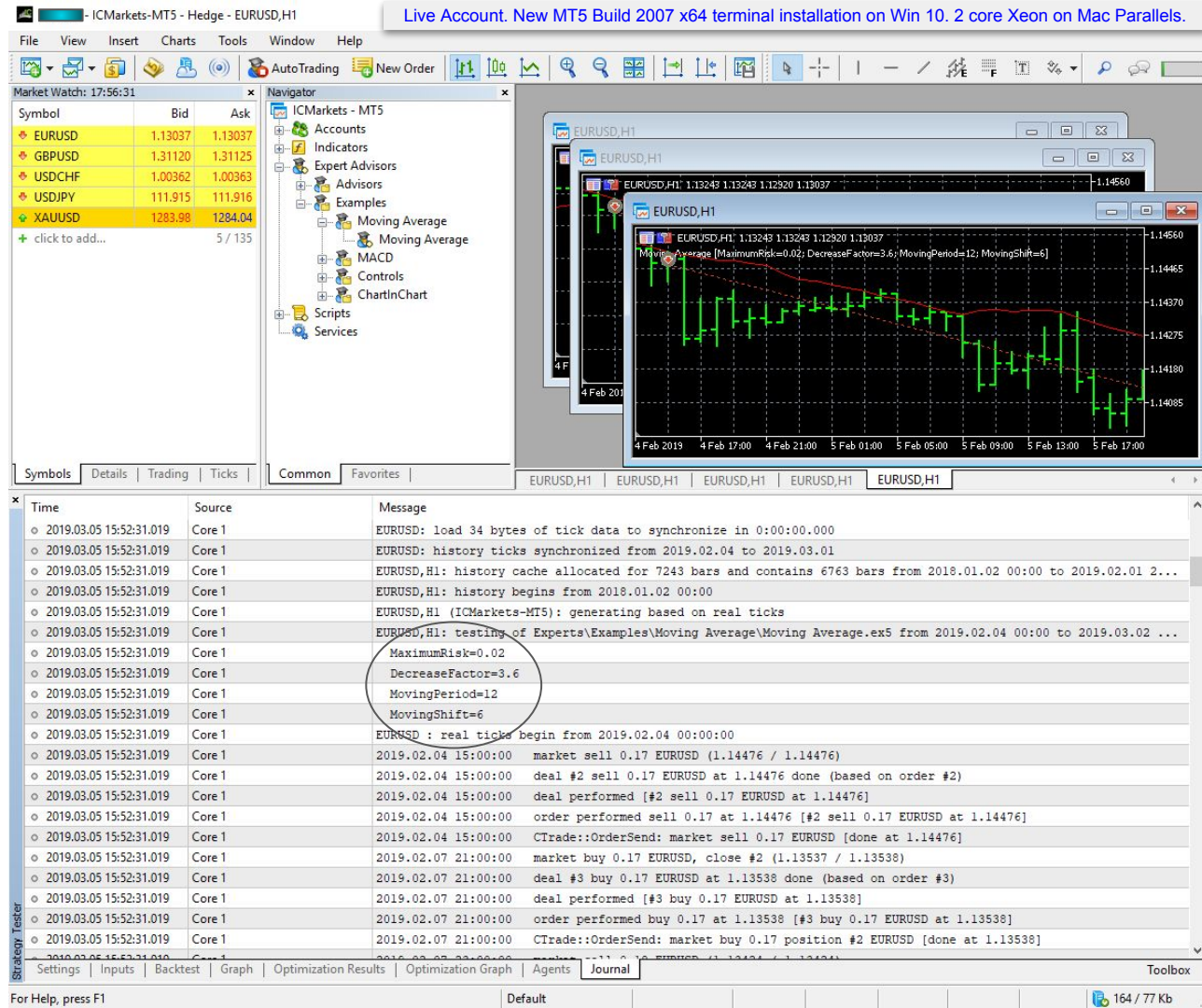
Pass 2:

Optimiser shows zero trades.

Logic suggests 26 trades (as per Pass 0)

Actual result are trades.

Journal confirms the correct parameters were used.



Test Runs 2:
8 core i7(4770) PC
Windows 10 x64
OpenCL 1.2 on NVidia Geforce GT1030

The Reproducible Case (i7)

Confirm this is clean, new install:

Toolbox Journal

Live Account - MT5 Build x64 terminal installation on Win 10. 8 core i7(4770)

File View Tools Help

AutoTrading New Order

Market Watch: 20:26:00

Symbol	Bid	Ask
EURUSD	1.13002	1.13003
GBPUSD	1.31674	1.31677
USDCHF	1.00489	1.00493
USDJPY	111.894	111.895

+ click to add... 4 / 135

Symbols Details Trading Ticks

Navigator

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average

Common Favorites

Time Source Message

- 2019.03.05 18:15:43.233 Terminal update C:\Users\Mark\AppData\Roaming\MetaQuotes\Terminal\91B85E7C52B57BF365F85A909F61CC9C\MQL5 folder started
- 2019.03.05 18:15:45.770 Terminal update C:\Users\Mark\AppData\Roaming\MetaQuotes\Terminal\91B85E7C52B57BF365F85A909F61CC9C\MQL5 folder finished
- 2019.03.05 18:15:45.875 Terminal XM UK MT5 x64 build 2007 started (Trading Point Of Financial Instruments UK LTD)
- 2019.03.05 18:15:45.875 Terminal Windows 10 (build 17763) x64, IE 11, UAC, Intel Core i7-4770 @ 3.40GHz, Memory: 6294 / 16323 Mb, Disk: 127 / 456 Gb, GMT+0
- 2019.03.05 18:15:45.875 Terminal C:\Users\Mark\AppData\Roaming\MetaQuotes\Terminal\91B85E7C52B57BF365F85A909F61CC9C
- 2019.03.05 18:15:45.876 Compiler full recompilation has been started
- 2019.03.05 18:15:46.114 MQL5.community activated for 'flima02', balance: 3.65
- 2019.03.05 18:15:46.194 MQL5.chats activated for 'flima02'
- 2019.03.05 18:16:59.405 Compiler full recompilation has been finished: 85 file(s) compiled
- 2019.03.05 18:17:26.834 Network '5070859': authorized on ICMarkets-MT5
- 2019.03.05 18:17:26.834 Network '5070859': previous successful authorization performed from 84.9.14.210 on 2019.03.05 19:17:03
- 2019.03.05 18:17:27.434 Network '5070859': terminal synchronized with International Capital Markets Pty Ltd.
- 2019.03.05 18:17:27.434 Network '5070859': trading has been enabled - hedging mode
- 2019.03.05 18:17:28.563 Network '5070859': scanning network for access points
- 2019.03.05 18:19:23.184 Network '5070859': scanning network finished
- 2019.03.05 18:19:23.184 Network '5070859': auto connecting to a better access point with 94 % quality (previous: 87 %)
- 2019.03.05 18:19:23.184 Network '5070859': connection to ICMarkets-MT5 lost
- 2019.03.05 18:19:23.840 Network '5070859': authorized on ICMarkets-MT5 through Access Server - EU.02 (ping: 92.86 ms)
- 2019.03.05 18:19:23.840 Network '5070859': previous successful authorization performed from 84.9.14.210 on 2019.03.05 20:17:26
- 2019.03.05 18:19:23.959 Network '5070859': terminal synchronized with International Capital Markets Pty Ltd.
- 2019.03.05 18:19:23.959 Network '5070859': trading has been enabled - hedging mode
- 2019.03.05 18:24:24.520 Tester MQL5 Cloud Server "MQL5 Cloud Europe" found

Trade | Exposure | History | News | Mailbox | Calendar | Company | Market | Alerts | Signals | Articles | Code Base | Experts | Journal | Strategy Tester

For Help, press F1

Default

92.86 ms

The Reproducible Case

Confirm this is clean, new install:

Toolbox Experts tab

Live Account (same). New MT5 Build 2007 x64 terminal installation on Win 10. 8 core i7(4770)

File View Tools Help

AutoTrading New Order

Market Watch: 20:26:19

Symbol	Bid	Ask
EURUSD	1.13009	1.13010
GBPUSD	1.31699	1.31701
USDCHF	1.00487	1.00490
USDJPY	111.889	111.890

+ click to add... 4 / 135

Symbols Details Trading Ticks

Navigator

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average

Common Favorites

Time Source Message

Trade Exposure History News 99 Mailbox 7 Calendar Company Market Alerts Signals Articles 1 Code Base Experts Journal

Strategy Tester

For Help, press F1

Default

92.86 ms

The Reproducible Case

Confirm this is clean, new install:

Strategy Tester Journal

XM - ICMarkets-MT5 - Hedge Live Account (same). New MT5 Build 2007 x64 terminal installation on Win 10. 8 core i7(4770)

File View Tools Help

AutoTrading New Order

Market Watch: 20:26:45

Symbol	Bid	Ask
EURUSD	1.13021	1.13022
GBPUSD	1.31725	1.31730
USDCHF	1.00476	1.00479
USDJPY	111.886	111.886

+ click to add... 4 / 135

Symbols Details Trading Ticks

Navigator

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- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

Common Favorites

Time Source Message

- 2019.03.05 18:24:24.519 Tester MQL5 Cloud Server "MQL5 Cloud Europe" found

Strategy Tester

Settings Inputs Agents Journal

For Help, press F1

Default

9952 / 23 Kb

The Reproducible Case

Confirm this is clean, new install:

Strategy Tester Agents tab.

Note that only the local cores are enabled. No access to network farm or cloud.

Live Account - Hedge

File View Tools Help

AutoTrading New Order

Market Watch: 20:27:00

Symbol	Bid	Ask
EURUSD	1.13023	1.13024
GBPUSD	1.31740	1.31745
USDCHF	1.00476	1.00479
USDJPY	111.884	111.885

+ click to add... 4 / 135

Symbols Details Trading Ticks

Navigator

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 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

Common Favorites

Agent

Agent	Hardware	Tasks / Passed	Status
Local: 8 cores			
Core 1	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 2	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 3	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 4	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 5	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 6	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 7	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Core 8	Intel Core i7-4770 @ 3.40GHz, 16323 MB		ready
Local Network Farm			
MQL5 Cloud Network: 6 677 million tasks processed, 21 358 agents available			Balance: 3.65
MQL5 Cloud Europe	16450 agents available of 21358		not used

Settings Inputs Agents Journal

For Help, press F1

Default

92.86 ms

The Reproducible Case

The Moving Averages EA, supplied with the installation. (standard MQL supplied code)

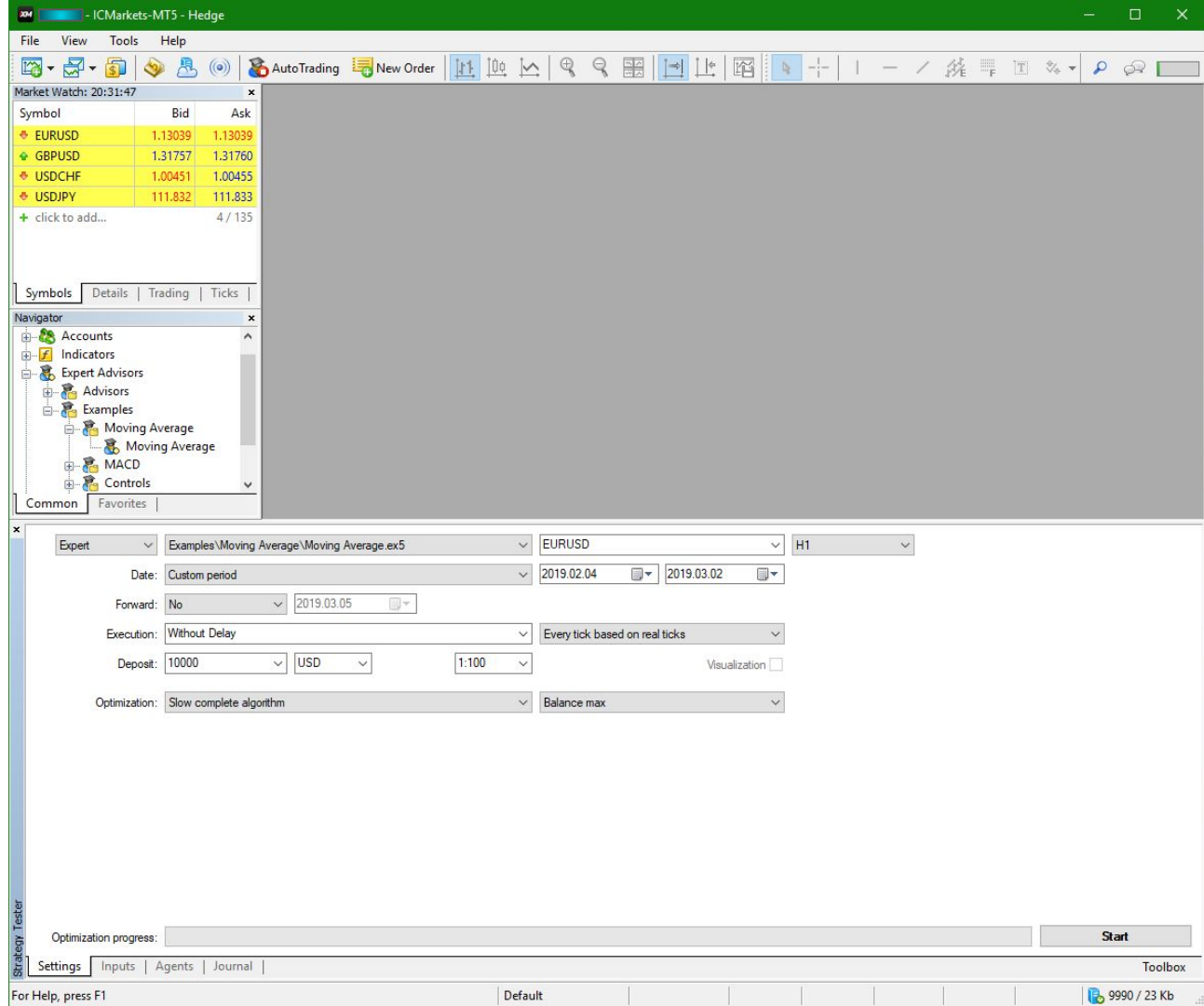
Fixed recent 4 week period. Standard H1 test. EURUSD most available pair.

Every Tick Based On Real Ticks
(remove random data risk)

Without Delay (remove random time risk)

USD (remove rates conversion risk)

Slow Complete (show ALL tests)



The Reproducible Case

The Moving Averages EA, supplied with the installation. (standard MQL supplied code)

Optimise 2 of the 4 parameters. As we are using the Slow Complete method, let's not create too much output, but keep it light for this case. 9919 results is more than enough.

This is the default optimisation setup that comes with the Moving Averages EA. We'll optimise Decrease Factor and Moving Average Period only.

The screenshot displays the ICMarkets-MT5 Hedge platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market analysis and trading.

The **Market Watch** window (top left) shows a list of currency pairs with their current Bid and Ask prices:

Symbol	Bid	Ask
EURUSD	1.13037	1.13038
GBPUSD	1.31749	1.31753
USDCHF	1.00452	1.00455
USDJPY	111.840	111.840

The **Navigator** window (middle left) shows a tree view of the platform's content, including Accounts, Indicators, Expert Advisors, and Examples. The **Common** tab is selected.

The **Strategy Tester** window (bottom) displays the optimization results for the Moving Averages EA. The **Inputs** tab is active, showing the following parameters:

Variable	Value	Start	Step	Stop	Steps
<input type="checkbox"/> Maximum Risk in percentage	0.02	0.02	0.002	0.2	
<input checked="" type="checkbox"/> Decrease factor	3	3	0.3	30.0	91
<input checked="" type="checkbox"/> Moving Average period	12	12	1	120	109
<input type="checkbox"/> Moving Average shift	6	6	1	60	

The total number of steps for the optimization is 9919.

The Reproducible Case

Start the test

The screenshot displays the ICMarkets-MT5 Hedge trading platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for trading and analysis.

The **Market Watch** window (top left) shows a table of currency pairs with their current Bid and Ask prices:

Symbol	Bid	Ask
EURUSD	1.13052	1.13053
GBPUSD	1.31756	1.31759
USDCHF	1.00445	1.00449
USDJPY	111.823	111.824

Below the table, it says "+ click to add..." and "4 / 135".

The **Navigator** window (middle left) shows a tree view of the platform's structure:

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

The **Strategy Tester** window (bottom) is the primary focus, showing the configuration for testing an Expert Advisor (EA). The "Expert" dropdown is set to "Examples\Moving Average\Moving Average.ex5". The "Symbol" is set to "EURUSD" and the "Timeframe" is "H1". The "Date" is set to "Custom period" with a range from "2019.02.04" to "2019.03.02". The "Forward" is set to "No" with a date of "2019.03.05". The "Execution" is set to "Without Delay" and "Every tick based on real ticks". The "Deposit" is set to "10000" USD with a "1:100" leverage. The "Optimization" is set to "Slow complete algorithm" and "Balance max". A "Visualization" checkbox is present but unchecked.

At the bottom of the Strategy Tester window, a progress bar shows "139 / 9919" and a "Stop" button is visible. The bottom status bar includes "Settings", "Inputs", "Optimization Results", "Optimization Graph", "Agents", "Journal", and "Toolbox". The system tray at the very bottom shows "For Help, press F1", "Default", and a network status indicator showing "92.86 ms".

The Reproducible Case

Check the Journal whilst optimisation is taking place

ICMarkets-MT5 - Hedge

File View Tools Help

AutoTrading New Order

Market Watch: 20:33:33

Symbol	Bid	Ask
EURUSD	1.13047	1.13048
GBPUSD	1.31747	1.31750
USDCHF	1.00450	1.00454
USDJPY	111.825	111.825

+ click to add... 4 / 135

Symbols Details Trading Ticks

Navigator

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

Common Favorites

Journal

Time	Source	Message
2019.03.05 18:24:24.519	Tester	MQL5 Cloud Server "MQL5 Cloud Europe" found
2019.03.05 18:32:49.649	Tester	real ticks optimization not allowed in Cloud Network
2019.03.05 18:32:49.671	Tester	Experts\Examples\Moving Average\Moving Average.ex5 on EURUSD,H1 from 2019.02.04 00:00 to 2019.03.02 00:00
2019.03.05 18:32:49.672	Tester	EURUSD: preliminary downloading of M1 history started
2019.03.05 18:32:49.937	Tester	EURUSD: preliminary downloading of M1 history completed in 0:00.266
2019.03.05 18:32:49.937	Tester	EURUSD: history data begins from 2017.11.17 00:00
2019.03.05 18:32:49.940	Tester	EURUSD: preliminary downloading of history ticks started, it may take quite a long time
2019.03.05 18:32:49.940	Tester	EURUSD: "bases\ICMarkets-MT5\ticks\EURUSD\201903.tkc" download
2019.03.05 18:32:50.939	Tester	EURUSD: "bases\ICMarkets-MT5\ticks\EURUSD\201902.tkc" download (4656.39 Kb/sec)
2019.03.05 18:32:51.940	Tester	EURUSD: preliminary downloading of history ticks completed, 6.79 Mb in 0:02.000 (3477.84 Kb/sec)
2019.03.05 18:32:51.940	Tester	EURUSD: ticks data begins from 2019.02.04 00:00
2019.03.05 18:32:51.940	Tester	complete optimization started
2019.03.05 18:32:51.941	Tester	size of initial task batch is 1024
2019.03.05 18:32:51.974	Core 1	agent process started
2019.03.05 18:32:51.977	Core 2	agent process started
2019.03.05 18:32:51.980	Core 3	agent process started
2019.03.05 18:32:51.983	Core 4	agent process started
2019.03.05 18:32:51.988	Core 5	agent process started
2019.03.05 18:32:51.992	Core 6	agent process started
2019.03.05 18:32:51.996	Core 7	agent process started

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

Default

18.1 / 8.8 Mb

The Reproducible Case

Check the Journal whilst optimisation is taking place

Market Watch: 20:33:58

Symbol	Bid	Ask
EURUSD	1.13049	1.13049
GBPUSD	1.31736	1.31740
USDCHF	1.00441	1.00442
USDJPY	111.825	111.825

+ click to add... 4 / 135

Navigator

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

Common Favorites

Journal

Time	Source	Message
2019.03.05 18:32:52.438	Core 8	authorized (agent build 2007)
2019.03.05 18:32:52.445	Core 8	common synchronization completed
2019.03.05 18:32:52.447	Core 6	common synchronization completed
2019.03.05 18:32:52.460	Core 7	connecting to 127.0.0.1:3006
2019.03.05 18:32:52.460	Core 7	connected
2019.03.05 18:32:52.466	Core 7	authorized (agent build 2007)
2019.03.05 18:32:52.472	Core 7	common synchronization completed
2019.03.05 18:32:52.498	Core 4	EURUSD: history for 2018 year synchronized
2019.03.05 18:32:52.521	Core 4	EURUSD: history for 2019 year synchronized
2019.03.05 18:32:52.521	Core 4	EURUSD: history synchronization completed [1957 Kb]
2019.03.05 18:32:52.551	Core 4	EURUSD: 1.91 Mb of history processed in 0:00.265
2019.03.05 18:32:52.601	Core 4	EURUSD: ticks synchronization completed [6433 Kb]
2019.03.05 18:32:52.788	Core 1	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.791	Core 8	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.793	Core 6	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.796	Core 5	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.802	Core 2	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.804	Core 7	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.811	Core 3	EURUSD: ticks synchronized already [43 bytes]

Settings Inputs Optimization Results Optimization Graph Agents Journal

For Help, press F1

Default

92.86 ms

The Reproducible Case

Check the Agents whilst optimisation is taking place

The screenshot displays the IC Markets MT5 Hedge software interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market analysis and trading. The main window is divided into several panels:

- Market Watch:** A table showing currency pairs and their current bid and ask prices.
- Navigator:** A tree view showing the software's structure, including Accounts, Indicators, Expert Advisors, and Examples.
- Agents:** A table showing the status of agents running on local hardware and cloud networks.

The Agents table is expanded, showing the following data:

Agent	Hardware	Tasks / Passed	Status
Local: 8 cores			
Core 1	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 165	17.0%
Core 2	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 162	16.5%
Core 3	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 157	16.1%
Core 4	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 165	16.9%
Core 5	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 165	16.9%
Core 6	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 155	15.9%
Core 7	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 158	16.1%
Core 8	Intel Core i7-4770 @ 3.40GHz, 16323 MB	1024 / 156	15.9%
Local Network Farm			
MQL5 Cloud Network: 6 677 million tasks processed, 21 178 agents available			Balance: 3.65
MQL5 Cloud Europe			not used

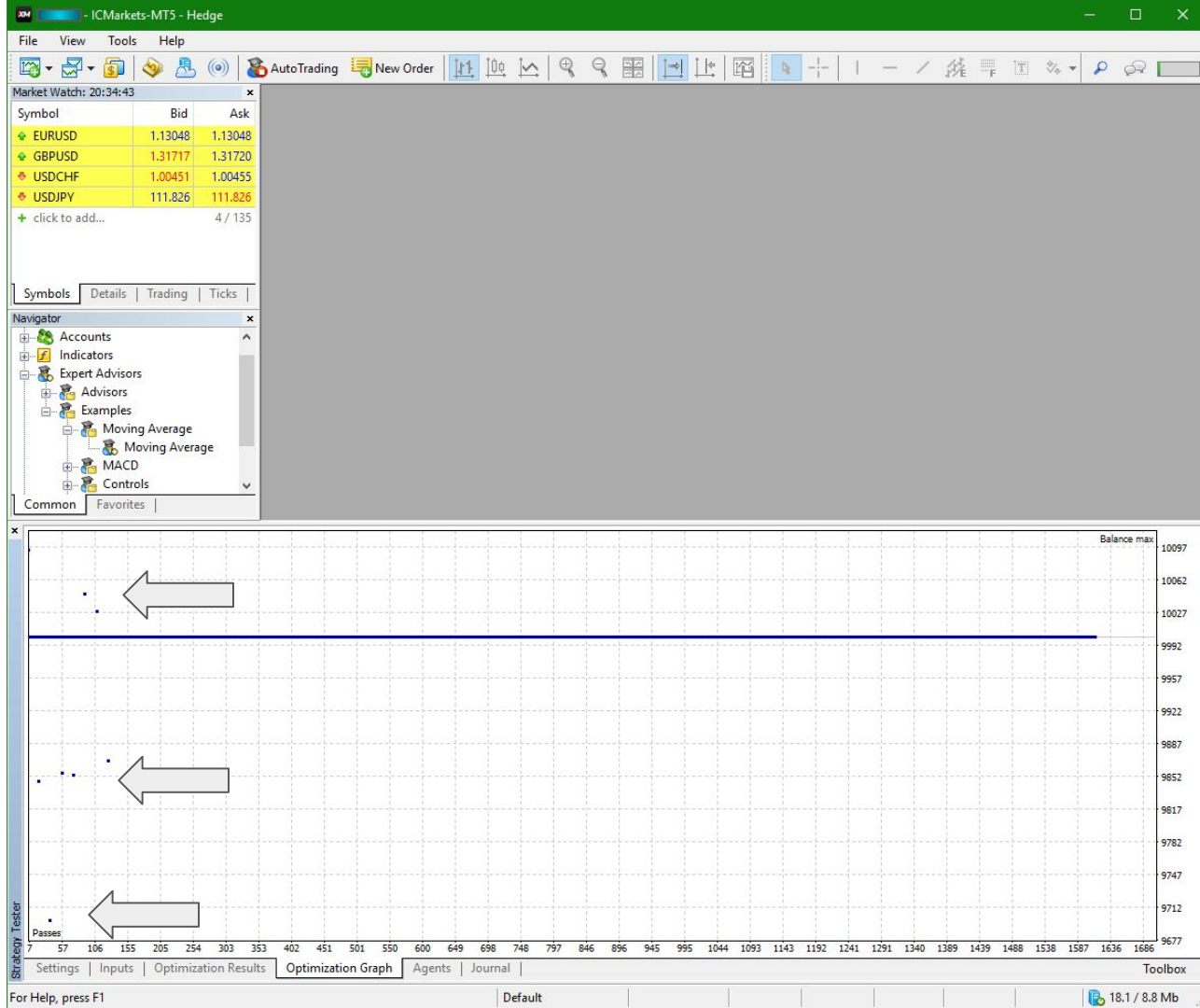
The bottom of the interface features a status bar with the text "For Help, press F1" and a "Toolbox" button.

The Reproducible Case

Check the Optimisation Graph whilst optimisation is taking place

Looks like the typical problem is already showing up: Pass 0 gets a result. A few more passes might show something, but the rest show nothing.

Interestingly this is already *slightly* different to the optimisation run on the Xeon.



The Reproducible Case

Check the Optimisation Results whilst optimisation is taking place

Let's see if Pass 0 works and most do nothing...

Yes. Pass 0 is same as Xeon run.

Now, when the optimisation finishes, Pass 0 is expected to show an equity curve with the listed profit.

But of the others that show trades, how many will show equity curves that match the shown figures?

The screenshot displays the ICMarkets-MT5 Hedge platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market watch, new orders, and charting. The main window is divided into several panels:

- Market Watch:** Displays a table of currency pairs with their current bid and ask prices. The table has columns for Symbol, Bid, and Ask. The listed pairs are EURUSD, GBPUSD, USDCHF, and USDJPY. A link to add more pairs is provided at the bottom.
- Navigator:** A tree view showing the structure of the platform, including Accounts, Indicators, Expert Advisors, and Examples. The Examples folder is expanded, showing sub-folders for Moving Average, MACD, and Controls.
- Strategy Tester:** A table showing the results of an optimization run. The table has columns for Pass, Result, Profit, Total trades, DecreaseFactor, and MovingPeriod. The results for Pass 0 are highlighted, showing a profit of 46.12 and 26 total trades. A callout box points to the 'Total trades' column for Pass 0, indicating it is the same as the Xeon run.

The Strategy Tester table data is as follows:

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1	10000.00	0.00	0	3.3	12
2	10000.00	0.00	0	3.6	12
3	10000.00	0.00	0	3.9	12
4	10000.00	0.00	0	4.2	12
5	10000.00	0.00	0	4.5	12
6	10000.00	0.00	0	4.8	12
7	10000.00	0.00	0	5.1	12
8	10000.00	0.00	0	5.4	12
9	10000.00	0.00	0	5.7	12
10	10000.00	0.00	0	6.0	12
11	10000.00	0.00	0	6.3	12
12	10000.00	0.00	0	6.6	12
13	10000.00	0.00	0	6.9	12
14	10000.00	0.00	0	7.2	12
15	10000.00	0.00	0	7.5	12
16	10000.00	0.00	0	7.8	12
17	10000.00	0.00	0	8.1	12
18	10000.00	0.00	0	8.4	12
19	10000.00	0.00	0	8.7	12

The bottom status bar shows the current time as 18:2 / 8.8 Mb and provides a link to the Help page.

The Reproducible Case

Check the Optimisation Results whilst optimisation is taking place

Same issues with the Zero Trades results:

Given the only parameter here that affects entry and exit is the Moving Period, and for Pass 0 the Moving Period is 12, then **why do the other tests for the same Moving Period 12 have zero trades?** They should all have the same 26 trades as Pass 0 (subject to account not going bust)

The screenshot displays the ICMarkets-MT5 Hedge platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market watch, new orders, and charting. The main window is divided into several panels:

- Market Watch:** Displays a table of currency pairs with their current bid and ask prices. The table includes columns for Symbol, Bid, and Ask. The listed pairs are EURUSD, GBPUSD, USDCHF, and USDJPY.
- Navigator:** A tree view showing the structure of the platform, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, and Controls.
- Strategy Tester:** A table showing the results of a strategy test. The table has columns for Pass, Result, Profit, Total trades, DecreaseFactor, and MovingPeriod. A large white arrow points to the 'Total trades' column, highlighting the discrepancy between Pass 0 (26 trades) and subsequent passes (0 trades).

The Strategy Tester table data is as follows:

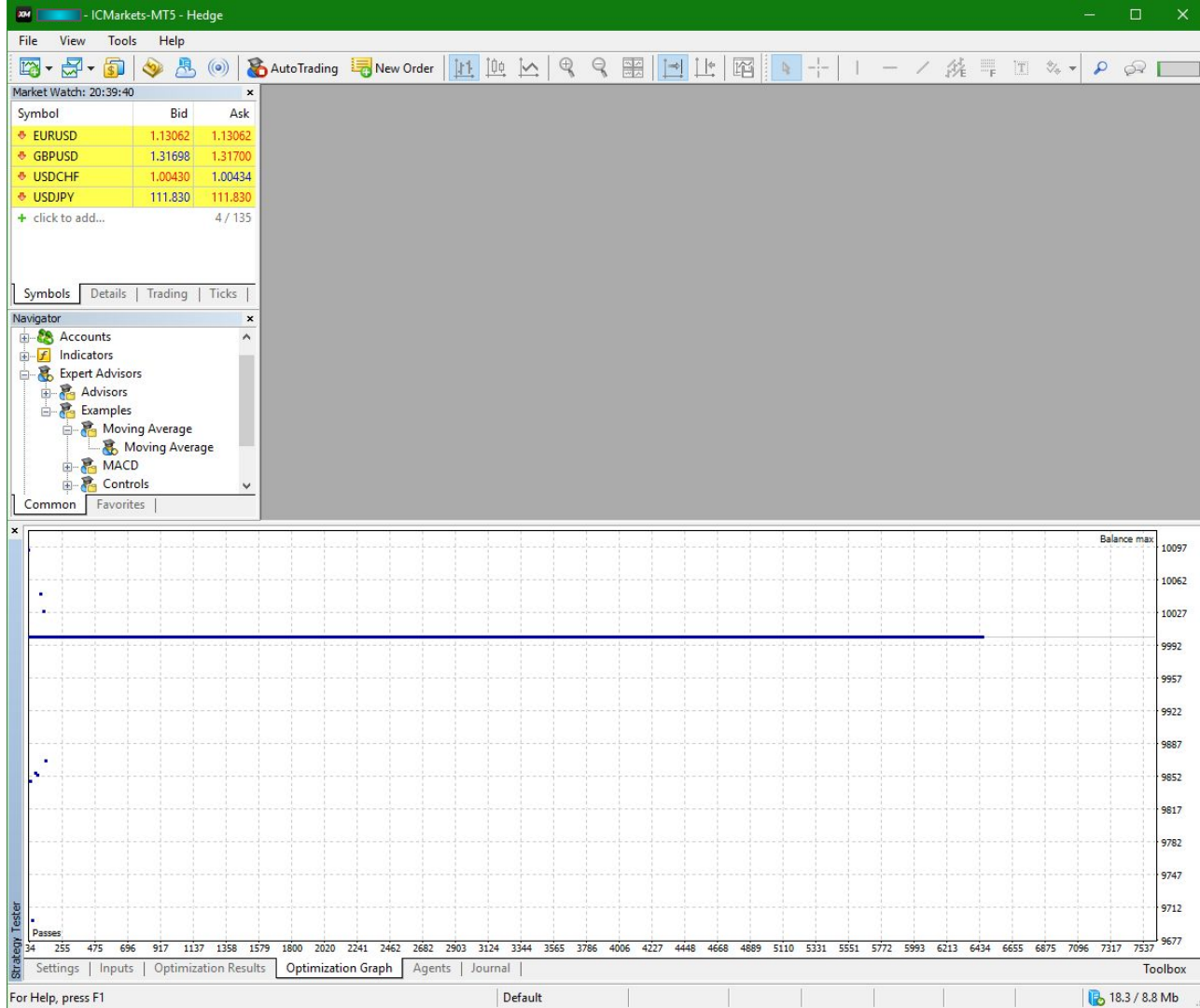
Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1	10000.00	0.00	0	3.3	12
2	10000.00	0.00	0	3.6	12
3	10000.00	0.00	0	3.9	12
4	10000.00	0.00	0	4.2	12
5	10000.00	0.00	0	4.5	12
6	10000.00	0.00	0	4.8	12
7	10000.00	0.00	0	5.1	12
8	10000.00	0.00	0	5.4	12
9	10000.00	0.00	0	5.7	12
10	10000.00	0.00	0	6.0	12
11	10000.00	0.00	0	6.3	12
12	10000.00	0.00	0	6.6	12
13	10000.00	0.00	0	6.9	12
14	10000.00	0.00	0	7.2	12
15	10000.00	0.00	0	7.5	12
16	10000.00	0.00	0	7.8	12
17	10000.00	0.00	0	8.1	12
18	10000.00	0.00	0	8.4	12
19	10000.00	0.00	0	8.7	12

The bottom status bar shows the current time as 18:2 / 8.8 Mb and the text "For Help, press F1".

The Reproducible Case

Check the Optimisation Graph whilst optimisation is taking place

Still progressing through the tests...



The Reproducible Case

Tests are done...

The screenshot displays the ICMarkets-MT5 Hedge trading platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for trading and analysis.

The **Market Watch** window (top left) shows a table of currency pairs with their current Bid and Ask prices:

Symbol	Bid	Ask
EURUSD	1.13080	1.13081
GBPUSD	1.31690	1.31690
USDCHF	1.00416	1.00419
USDJPY	111.822	111.823

Below the table, it says "+ click to add..." and "4 / 135".

The **Navigator** window (middle left) shows a tree view of the platform's content:

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

The **Strategy Tester** window (bottom) is the primary focus, showing the configuration for testing an Expert Advisor (EA). The settings are as follows:

- Expert:** Examples\Moving Average\Moving Average.ex5
- Symbol:** EURUSD
- Timeframe:** H1
- Date:** Custom period (2019.02.04 to 2019.03.02)
- Forward:** No (2019.03.05)
- Execution:** Without Delay
- Deposit:** 10000 USD, 1:100
- Optimization:** Slow complete algorithm, Balance max

At the bottom of the Strategy Tester window, there is a progress bar showing "9919 / 9919" and a **Start** button.

The bottom status bar includes the text "For Help, press F1" and "Default".

The Reproducible Case

Check the Journal for any problems.

No problems showing here.

The screenshot displays the ICMarkets-MT5 trading platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market watch, new orders, and charting. The main window is divided into several panels:

- Market Watch:** A table showing currency pairs and their bid/ask prices.
- Navigator:** A tree view showing the structure of the platform, including Accounts, Indicators, Expert Advisors, and Examples.
- Journal:** A log of system messages and events.

The Journal window is currently active, showing a list of messages. The messages are organized into columns: Time, Source, and Message.

Time	Source	Message
2019.03.05 18:32:52.791	Core 8	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.793	Core 6	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.796	Core 5	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.802	Core 2	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.804	Core 7	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:32:52.811	Core 3	EURUSD: ticks synchronized already [43 bytes]
2019.03.05 18:43:11.631	Tester	optimization finished, total passes 9919
2019.03.05 18:43:11.642	Statistics	optimization done in 10 minutes 22 seconds
2019.03.05 18:43:11.642	Statistics	shortest pass 0:00:00.218, longest pass 0:00:01.811, average pass 0:00:00.495
2019.03.05 18:43:11.642	Statistics	local 9919 tasks (100%), remote 0 tasks (0%), cloud 0 tasks (0%)
2019.03.05 18:43:11.642	Core 1	connection closed
2019.03.05 18:43:11.642	Core 2	connection closed
2019.03.05 18:43:11.642	Core 3	connection closed
2019.03.05 18:43:11.643	Core 4	connection closed
2019.03.05 18:43:11.643	Core 5	connection closed
2019.03.05 18:43:11.643	Core 6	connection closed
2019.03.05 18:43:11.644	Core 7	connection closed
2019.03.05 18:43:11.644	Core 8	connection closed
2019.03.05 18:43:11.661	Tester	9919 new records saved to cache file 'tester\cache\Moving Average.EURUSD.H1.20190204.20190302.40.A6D848B8570F...

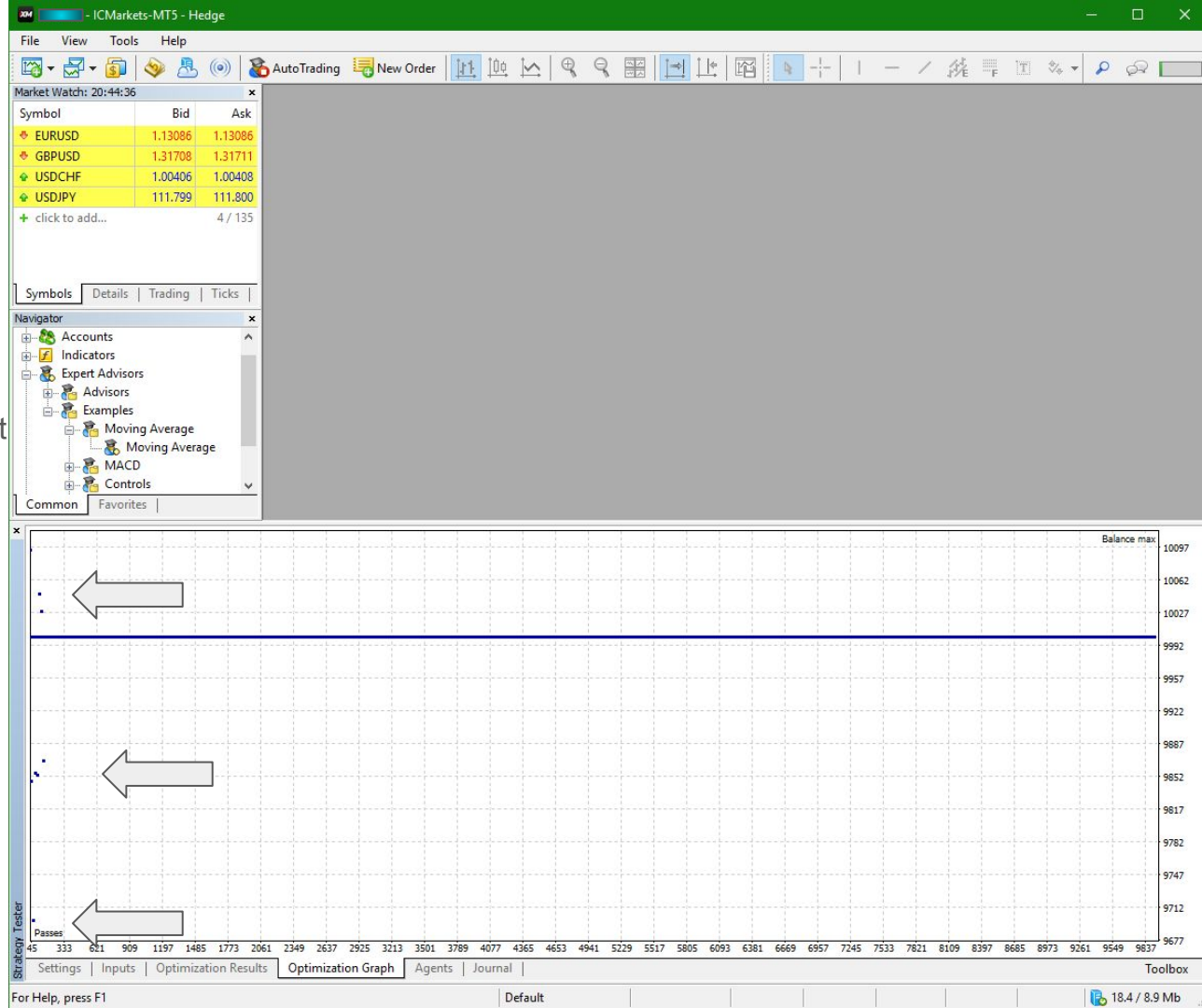
The bottom status bar shows the current time as 92.86 ms.

The Reproducible Case

Check the Optimisation Graph

Looks like just a few setups actually traded and most others did not trade at all.

More alarm bells!



The Reproducible Case

Check the Optimisation Results

Sadly only 8 setups actually traded.
(One per core?)

If Moving Period 12 trades for Pass 0, then it must also trade for the other passes using the same Moving Period.

Likewise for Moving Periods 23,45,57,68,34,79, and 90; it makes no sense to only have one trading result for a given moving period.

What is happening to the other test runs using these Moving Periods?
Where are the results?

The screenshot displays the ICMarkets-MT5 Hedge trading platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for market watch, new orders, and charting. The main window is divided into several panels:

- Market Watch:** Shows a table of currency pairs with their current bid and ask prices. The pairs listed are EURUSD, GBPUSD, USDCHF, and USDJPY.
- Navigator:** A tree view on the left side showing the hierarchy of the platform's components, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, and Controls.
- Strategy Tester:** A large table at the bottom showing the results of optimization tests. The table has columns for Pass, Result, Profit, Total trades, DecreaseFactor, and MovingPeriod. The data shows that for each pass, only one result is recorded, and the profit is consistently 0.00 for all passes except for the first pass (Pass 0) which has a profit of 46.12.

An orange text box on the right side of the screenshot contains the following text:

Is it possible that only the first/one pass for each agent core is recording a result?

- My 2 core test recorded 2 results.
- This 8 core test recorded 8 results.

The Strategy Tester table data is as follows:

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1024	9846.20	-153.80	23	9.9	23
3072	9696.50	-303.50	21	23.7	45
4096	9867.53	-132.47	20	3.3	57
5120	10093.71	93.71	18	10.2	68
2048	10027.55	27.55	17	16.8	34
6144	9854.41	-145.59	16	17.1	79
7168	9851.87	-148.13	15	24.0	90
9918	10000.00	0.00	0	30.0	120
9917	10000.00	0.00	0	29.7	120
9916	10000.00	0.00	0	29.4	120
9915	10000.00	0.00	0	29.1	120
9914	10000.00	0.00	0	28.8	120
9913	10000.00	0.00	0	28.5	120
9912	10000.00	0.00	0	28.2	120
9911	10000.00	0.00	0	27.9	120
9910	10000.00	0.00	0	27.6	120
9909	10000.00	0.00	0	27.3	120
9908	10000.00	0.00	0	27.0	120

The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

Remember of the 4 possible inputs, 2 are not optimised:

MaximumRisk Percentage 0.02

Moving Average Shift 6.

The screenshot displays the ICMarkets-MT5 Hedge trading platform interface. The top menu bar includes File, View, Tools, and Help. Below the menu is a toolbar with various icons for trading and analysis. The main window is divided into several panels:

- Market Watch:** Displays a table of currency pairs with their current Bid and Ask prices. The table shows EURUSD, GBPUSD, USDCHF, and USDJPY.
- Navigator:** A tree view showing the structure of the platform, including Accounts, Indicators, Expert Advisors, Advisors, Examples, Moving Average, MACD, and Controls.
- Strategy Tester:** A table showing the results of a strategy test. The table has columns for Pass, Result, Profit, Total trades, DecreaseFactor, and MovingPeriod. The table lists various parameters and their corresponding results.

The Strategy Tester table data is as follows:

Pass	Result	Profit	Total trades	DecreaseFactor	MovingPeriod
0	10046.12	46.12	26	3.0	12
1024	9846.20	-153.80	23	9.9	23
3072	9696.50	-303.50	21	23.7	45
4096	9867.53	-132.47	20	3.3	57
5120	10093.71	93.71	18	10.2	68
2048	10027.55	27.55	17	16.8	34
6144	9854.41	-145.59	16	17.1	79
7168	9851.87	-148.13	15	24.0	90
9918	10000.00	0.00	0	30.0	120
9917	10000.00	0.00	0	29.7	120
9916	10000.00	0.00	0	29.4	120
9915	10000.00	0.00	0	29.1	120
9914	10000.00	0.00	0	28.8	120
9913	10000.00	0.00	0	28.5	120
9912	10000.00	0.00	0	28.2	120
9911	10000.00	0.00	0	27.9	120
9910	10000.00	0.00	0	27.6	120
9909	10000.00	0.00	0	27.3	120
9908	10000.00	0.00	0	27.0	120

The bottom status bar shows the current time as 18.4 / 8.9 Mb and the text "For Help, press F1".

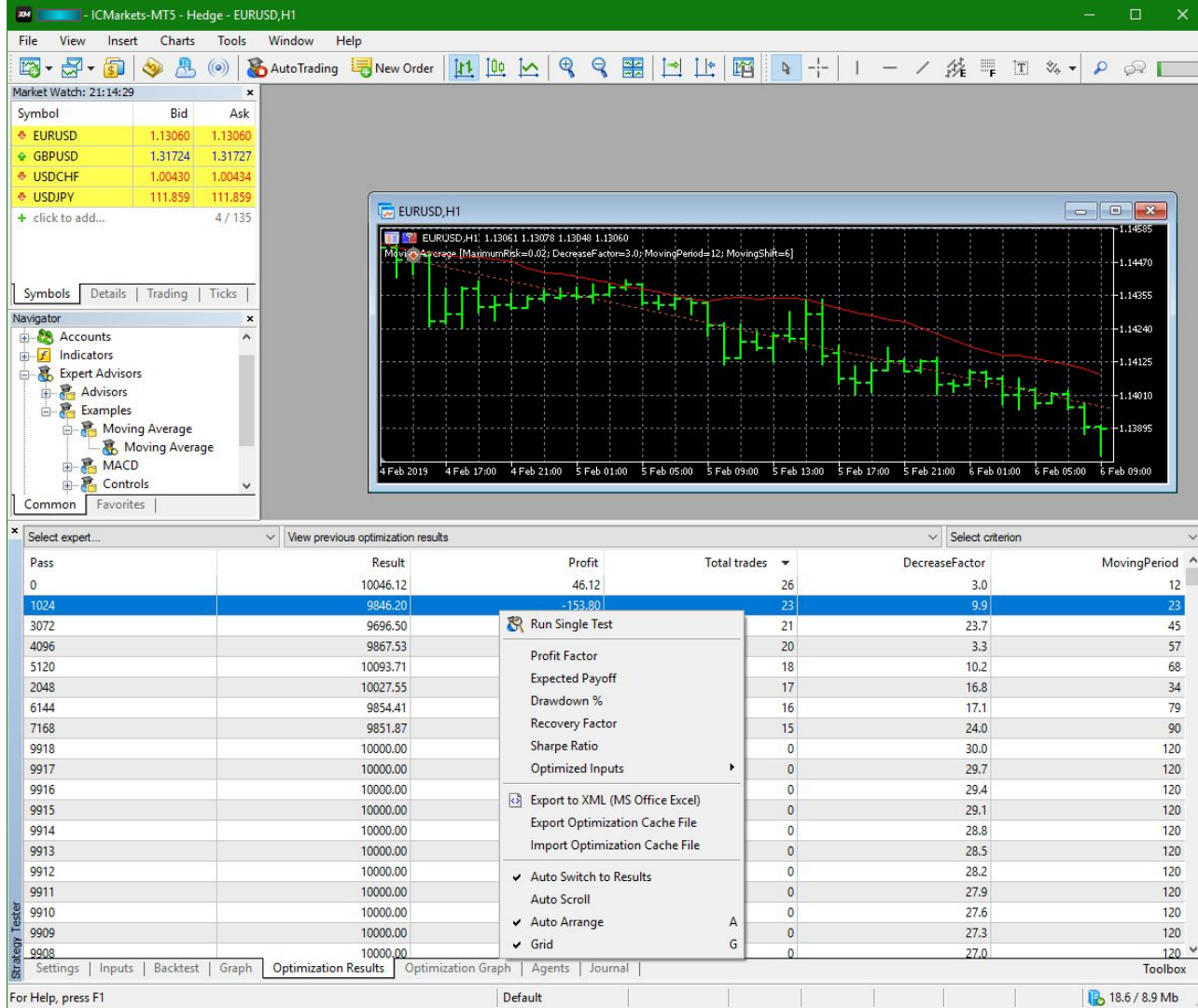
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

Pass 0: OK, matched.

Pass 1024:

Expect end result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9



The Reproducible Case

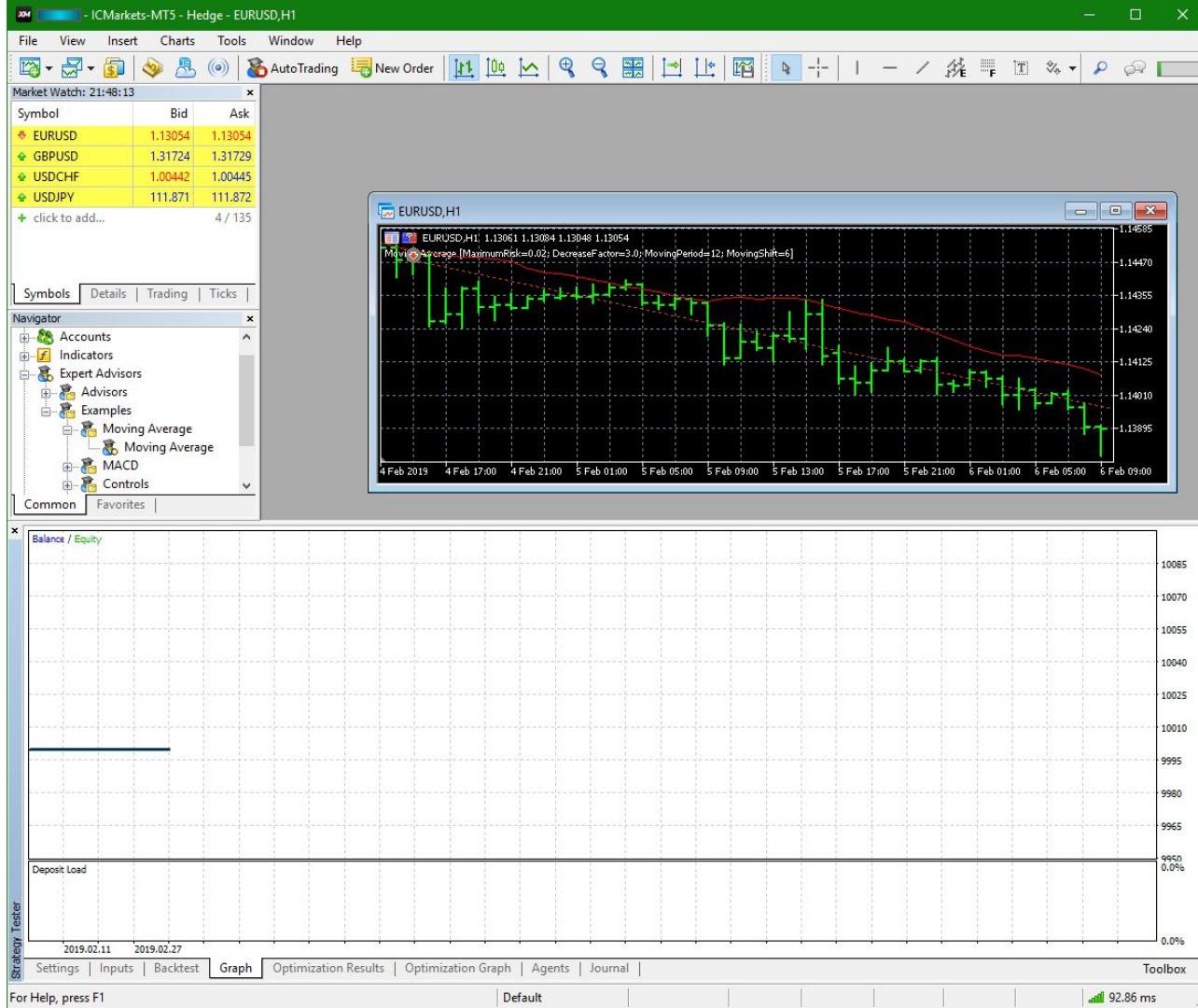
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 1024:

Expect end result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9

Got: **Nothing**. Yet the same run on the Xeon computer worked.



The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

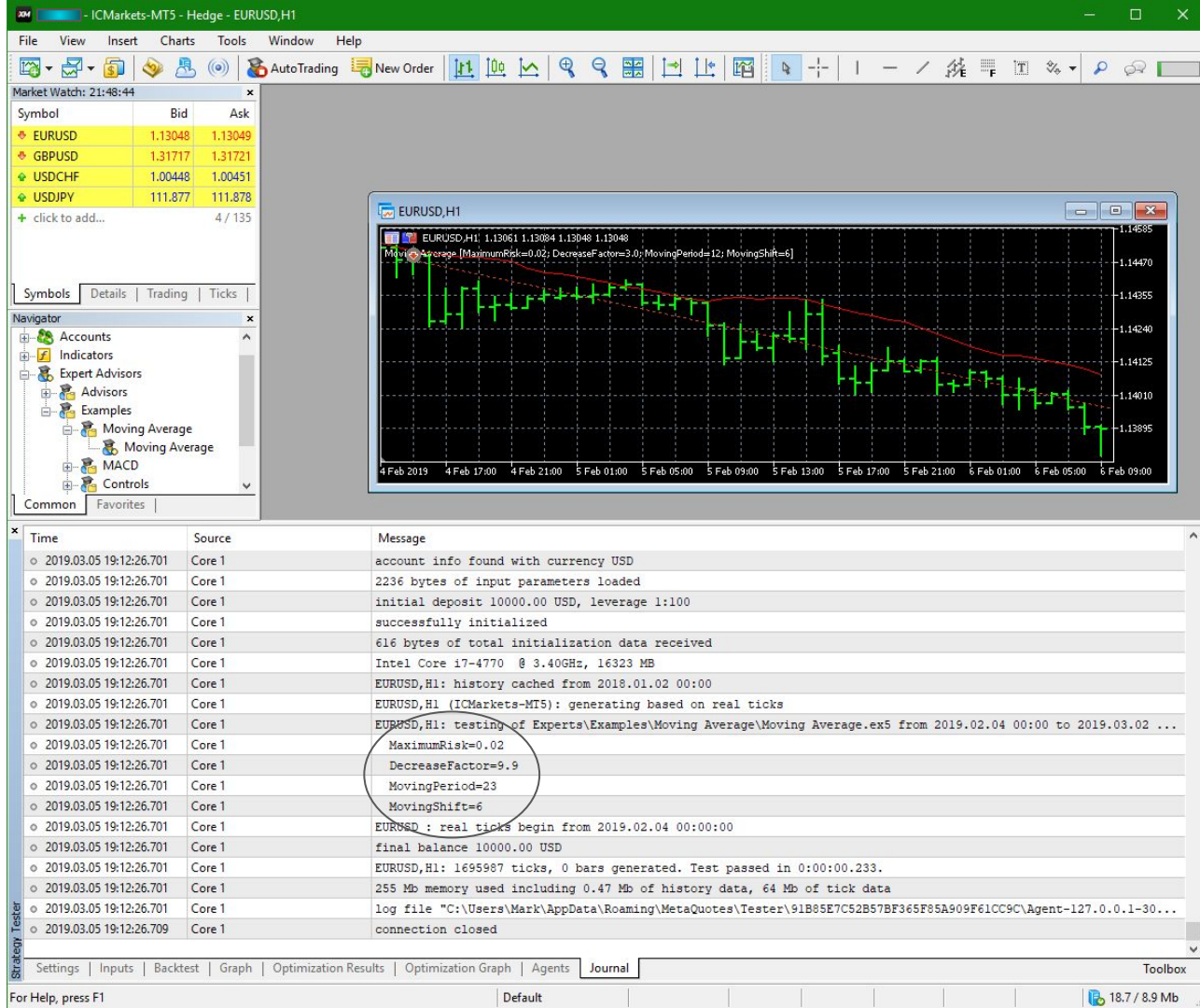
We are expecting:

Pass 1024:

Expect end result 9846.20 from 23 trades using Moving Period 23, Decrease Factor 9.9

Got: **Nothing**. Problem.

Parameters are correct.



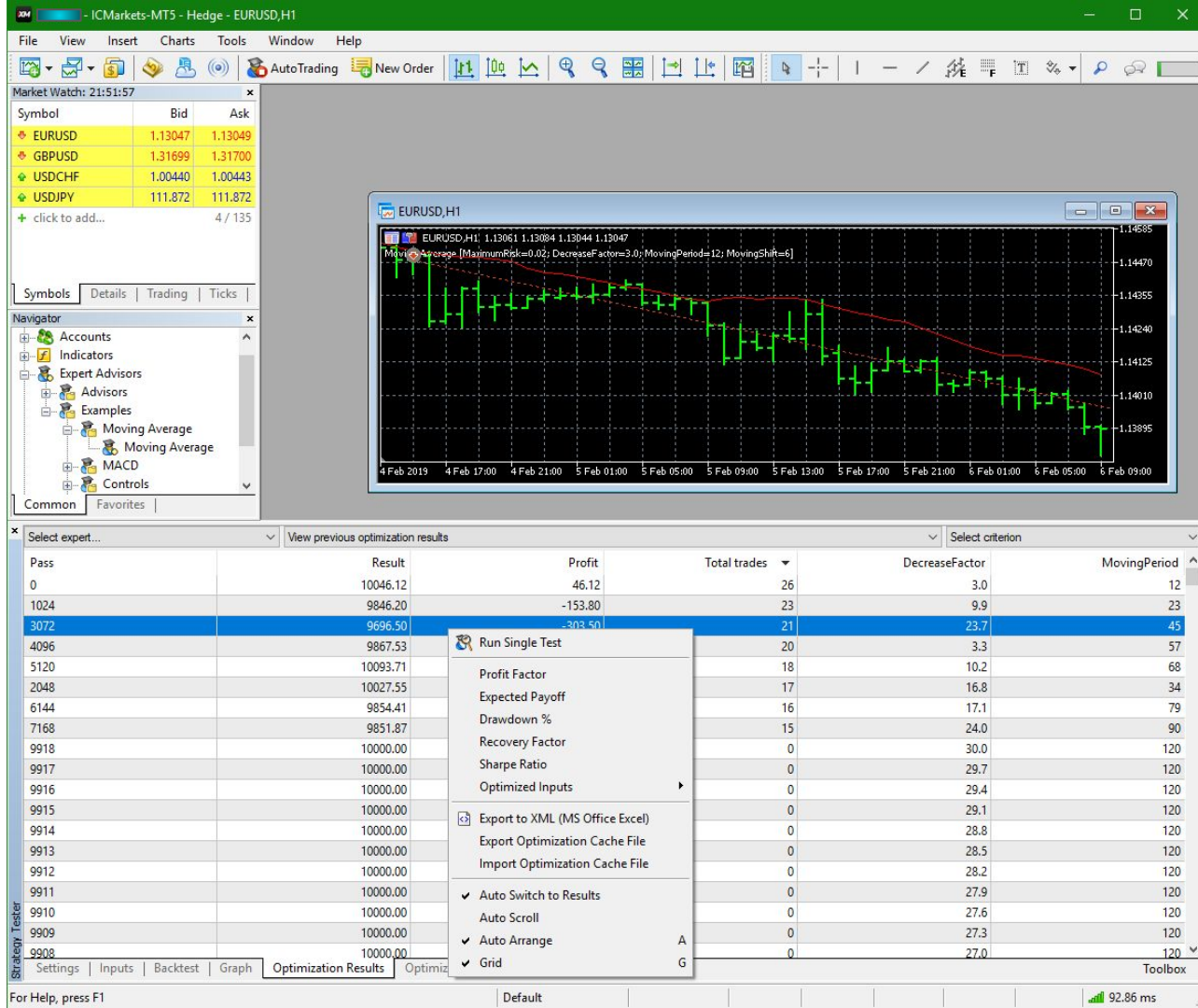
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 3072:

Expect end result 9696.50 from 21 trades using Moving Period 45, Decrease Factor 23.7



The Reproducible Case

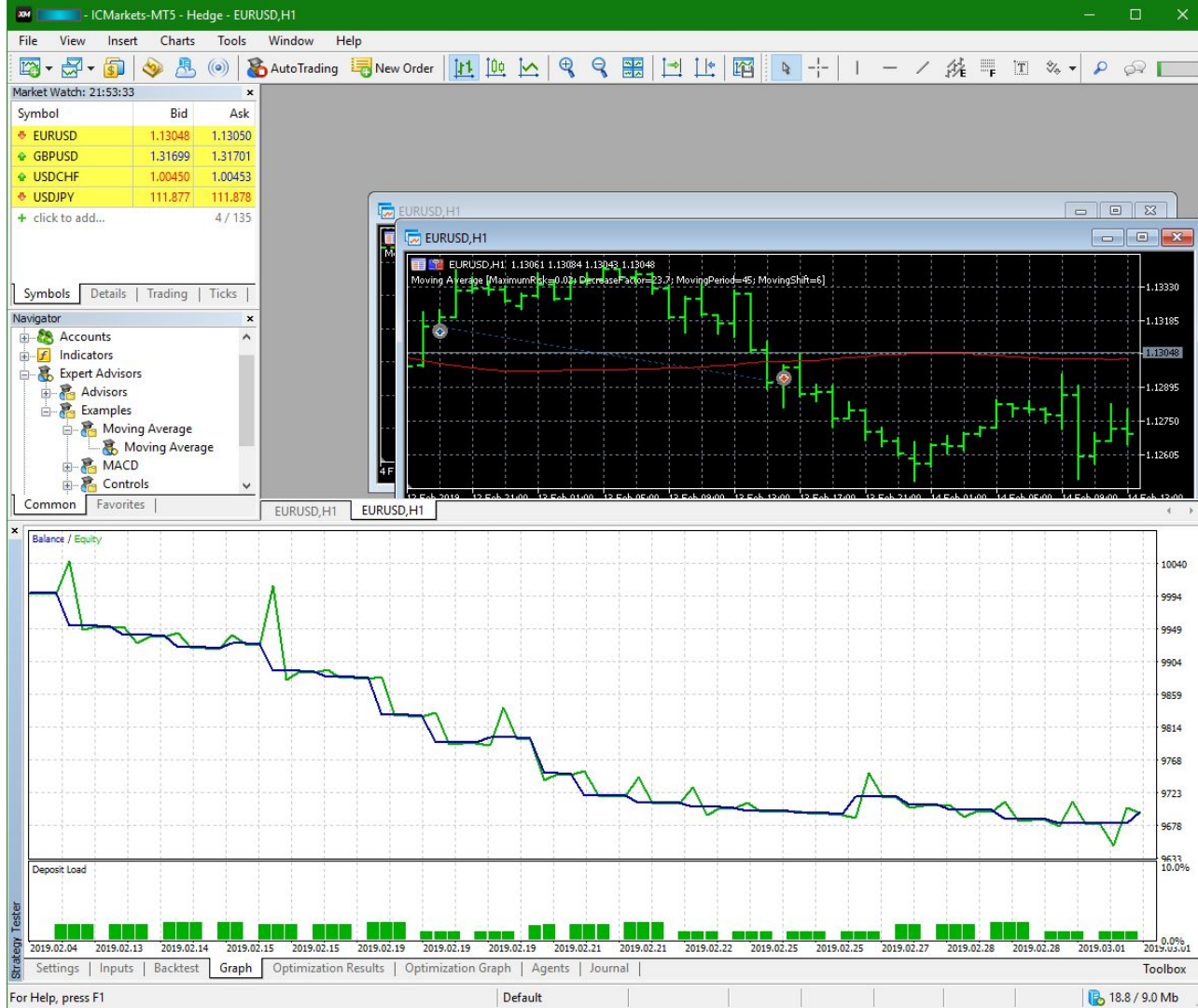
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 3072:

Expect end result 9696.50 from 21 trades using Moving Period 45, Decrease Factor 23.7

Looks OK. Check Backtest.



The Reproducible Case

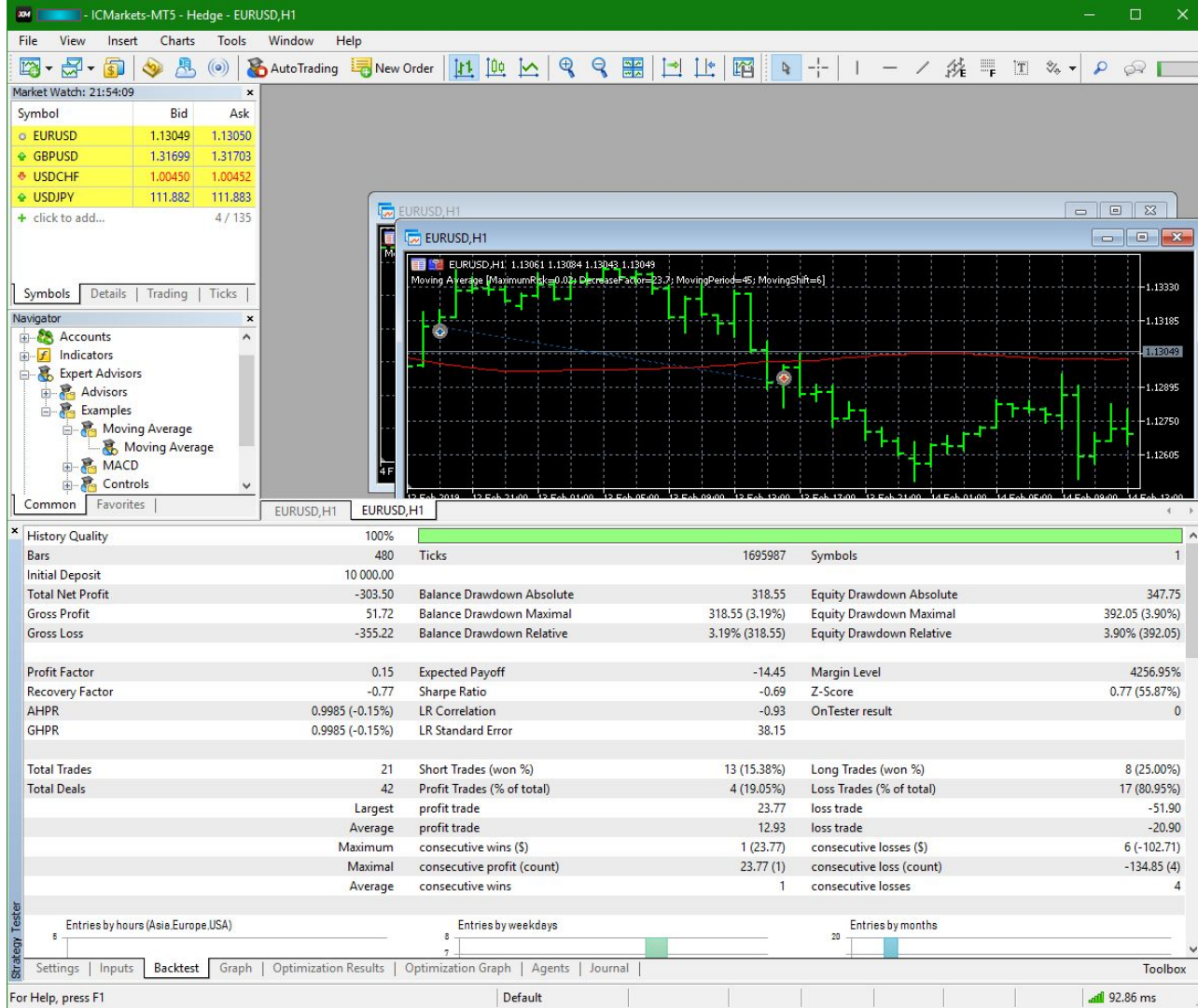
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 3072:

Expect end result 9696.50 from 21 trades using Moving Period 45, Decrease Factor 23.7

Backtest shows perfect match.



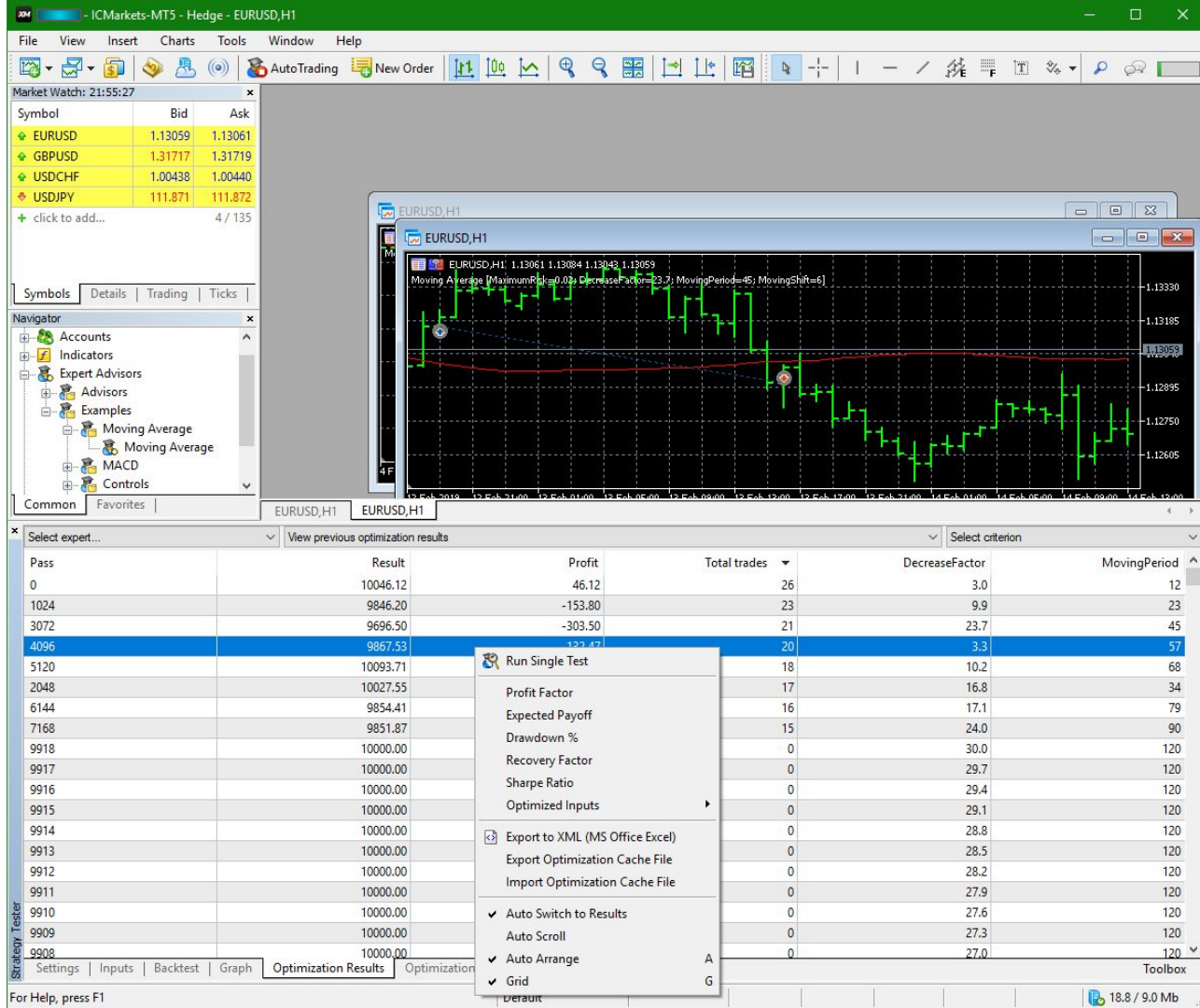
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 4096:

Expect end result 9867.53 from 20 trades using Moving Period 57, Decrease Factor 3.3



The Reproducible Case

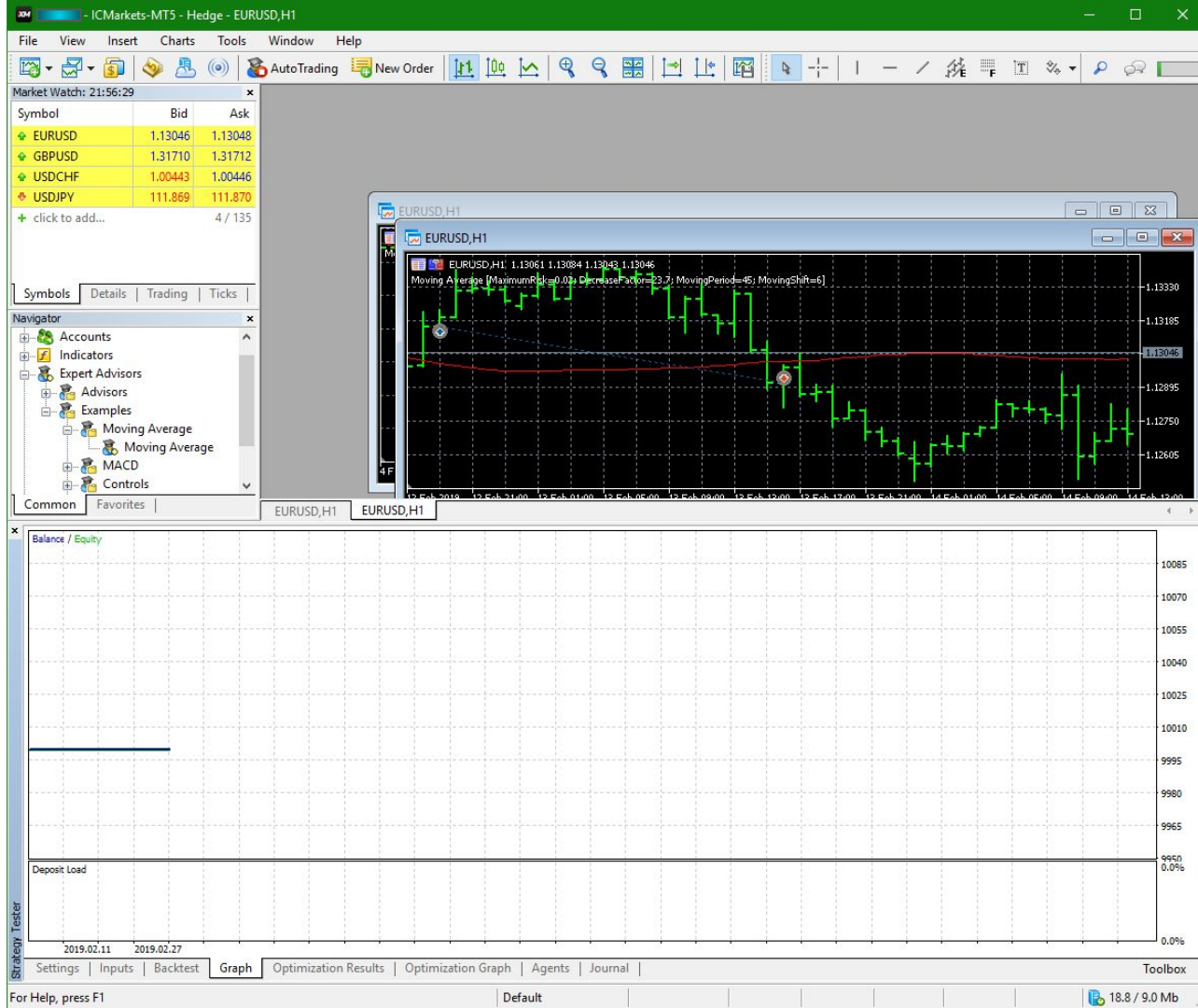
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 4096:

Expect end result 9867.53 from 20 trades using Moving Period 57, Decrease Factor 3.3

Got: **Nothing.** Problem.



The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

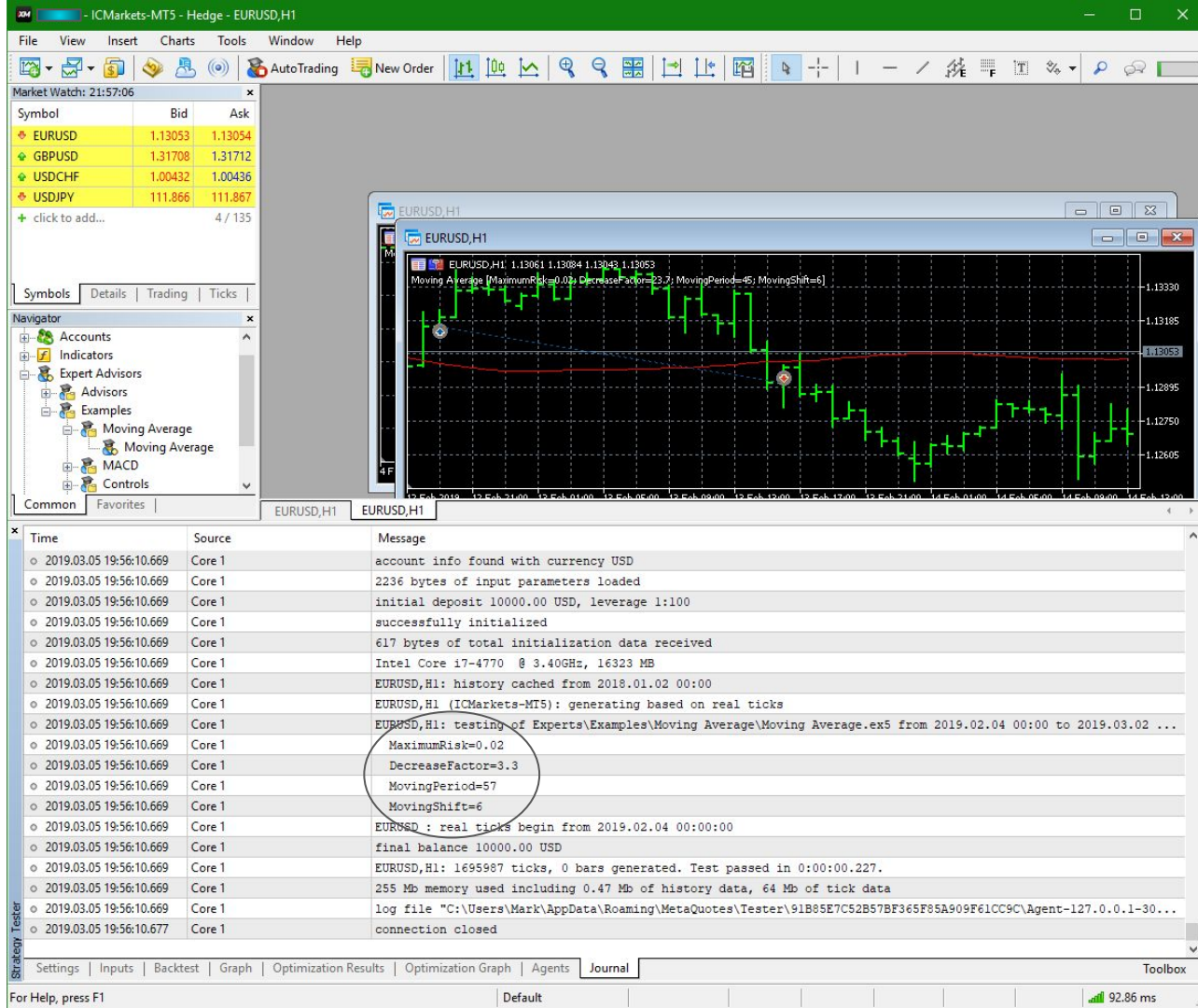
We are expecting:

Pass 4096:

Expect end result 9867.53 from 20 trades using Moving Period 57, Decrease Factor 3.3

Check Journal.

No errors and correct parameters used.



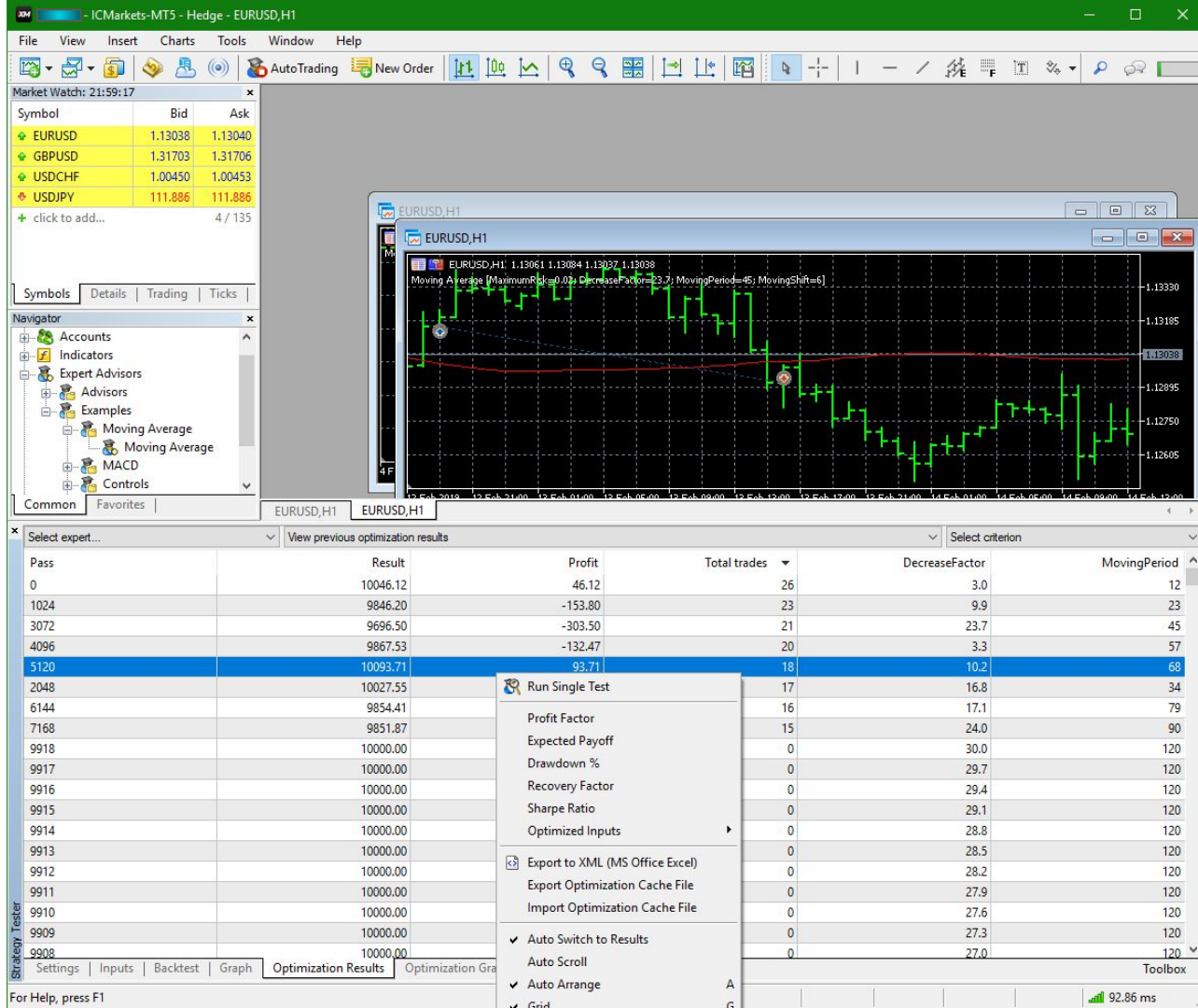
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 5120:

Expect end result 10093.71 from 18 trades using Moving Period 68, Decrease Factor 10.2



The Reproducible Case

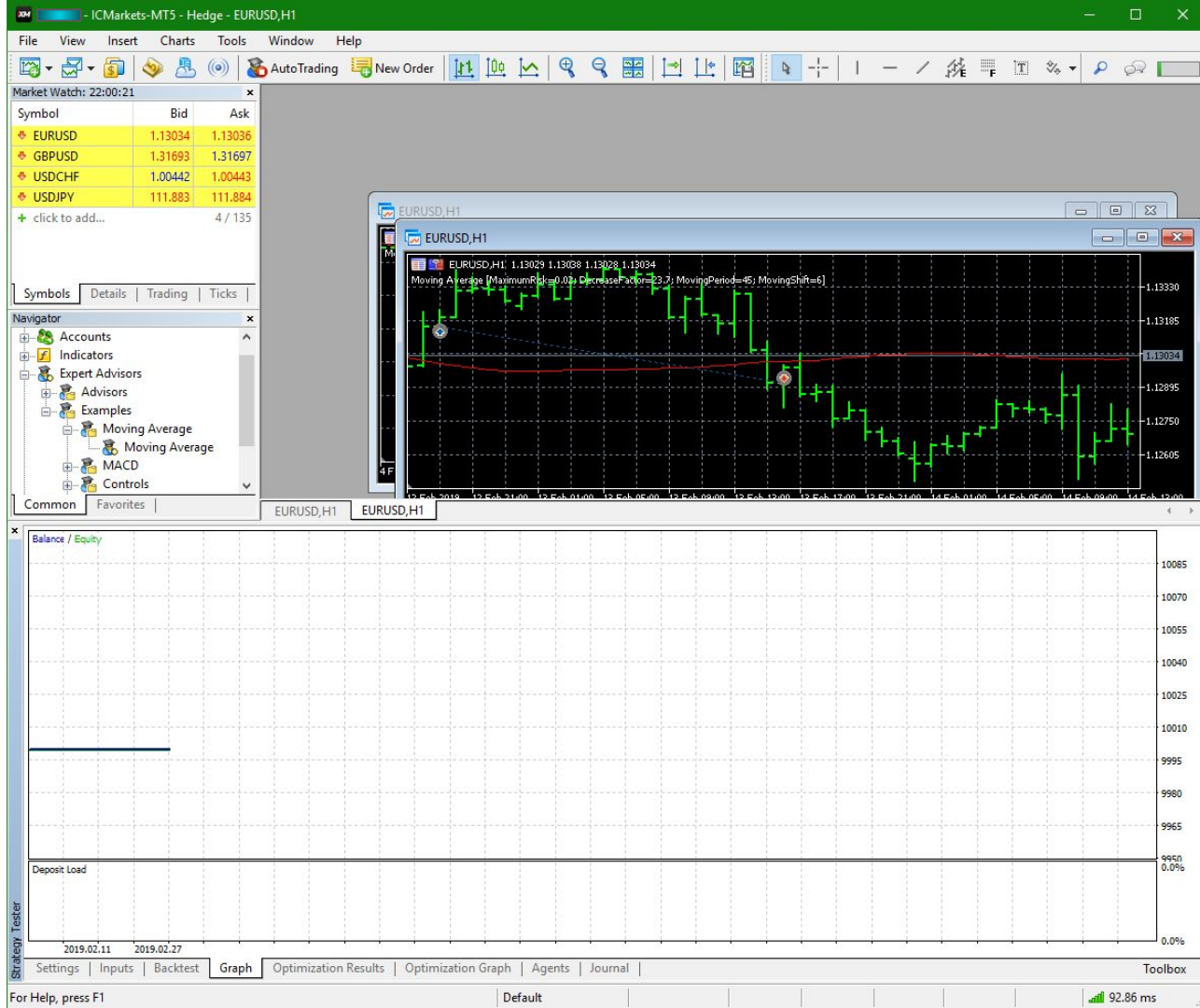
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 5120:

Expect end result 10093.71 from 18 trades using Moving Period 68, Decrease Factor 10.2

Got: **Nothing**. Problem.



The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

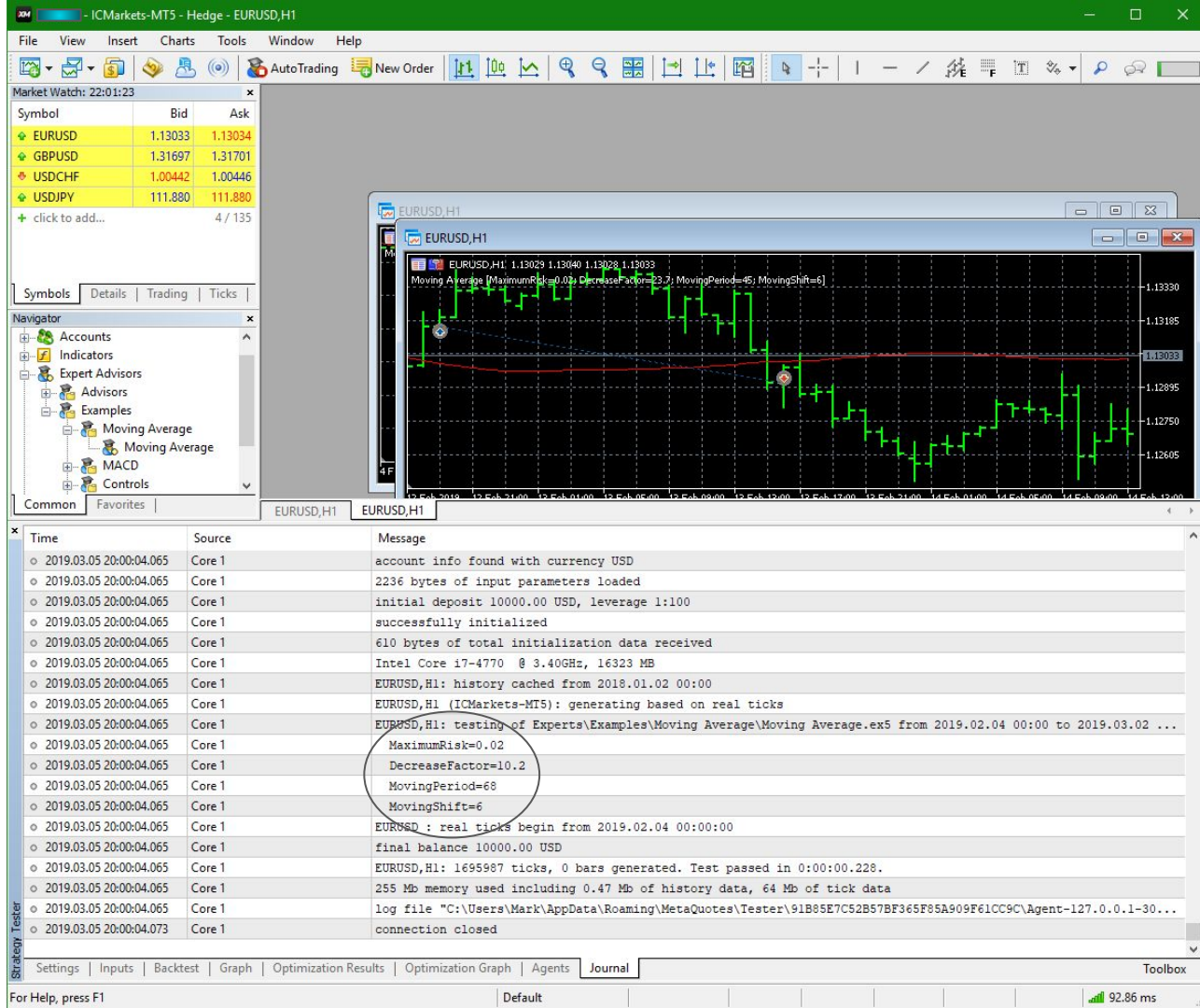
We are expecting:

Pass 5120:

Expect end result 10093.71 from 18 trades using Moving Period 68, Decrease Factor 10.2

Got: **Nothing**. Problem.

Check Journal - no errors and correct parameters used.



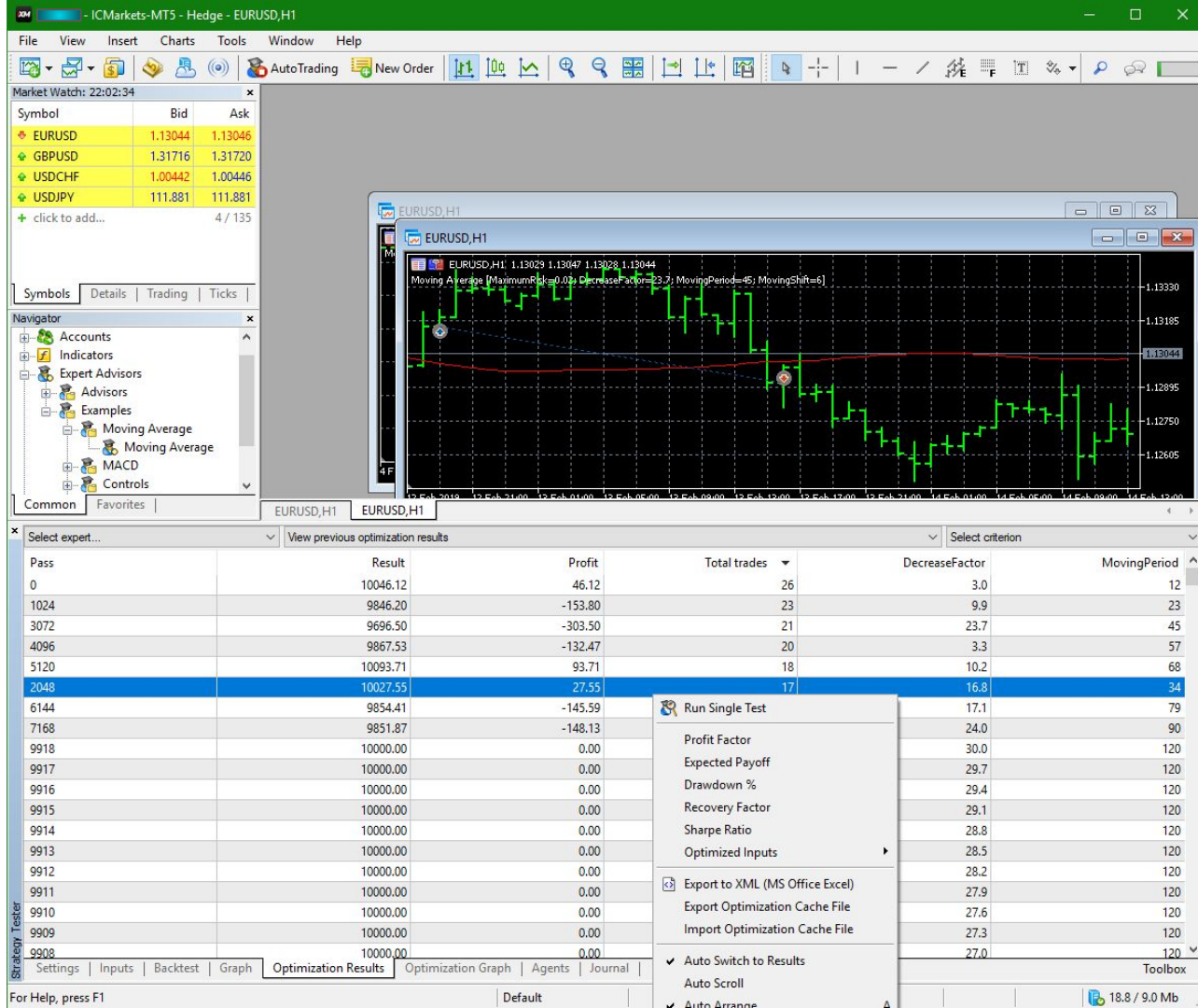
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 2048:

Expect end result 10027.55 from 17 trades using Moving Period 34, Decrease Factor 16.8



The Reproducible Case

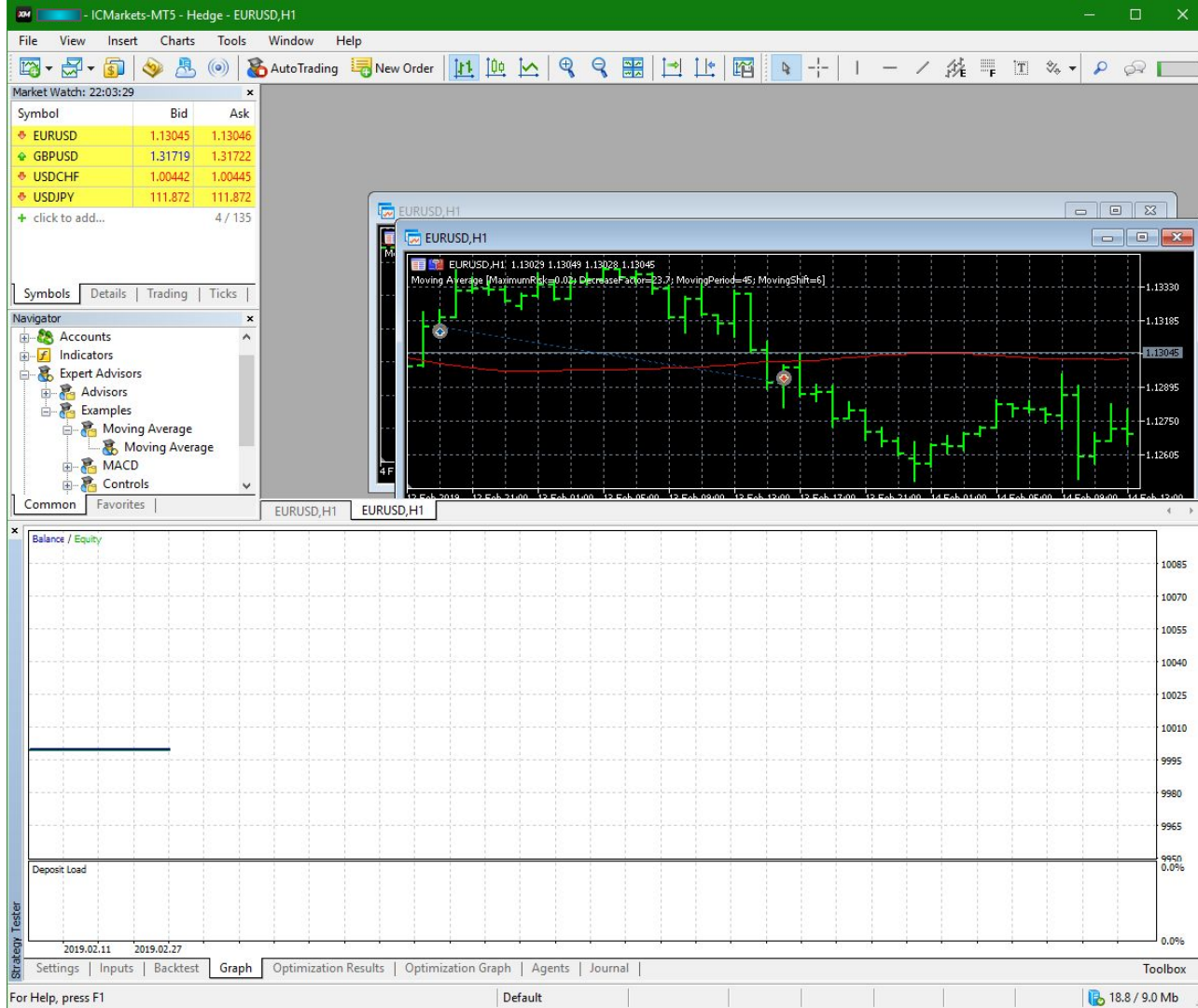
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 2048:

Expect end result 10027.55 from 17 trades using Moving Period 34, Decrease Factor 16.8

Got: **Nothing.** Problem.



The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

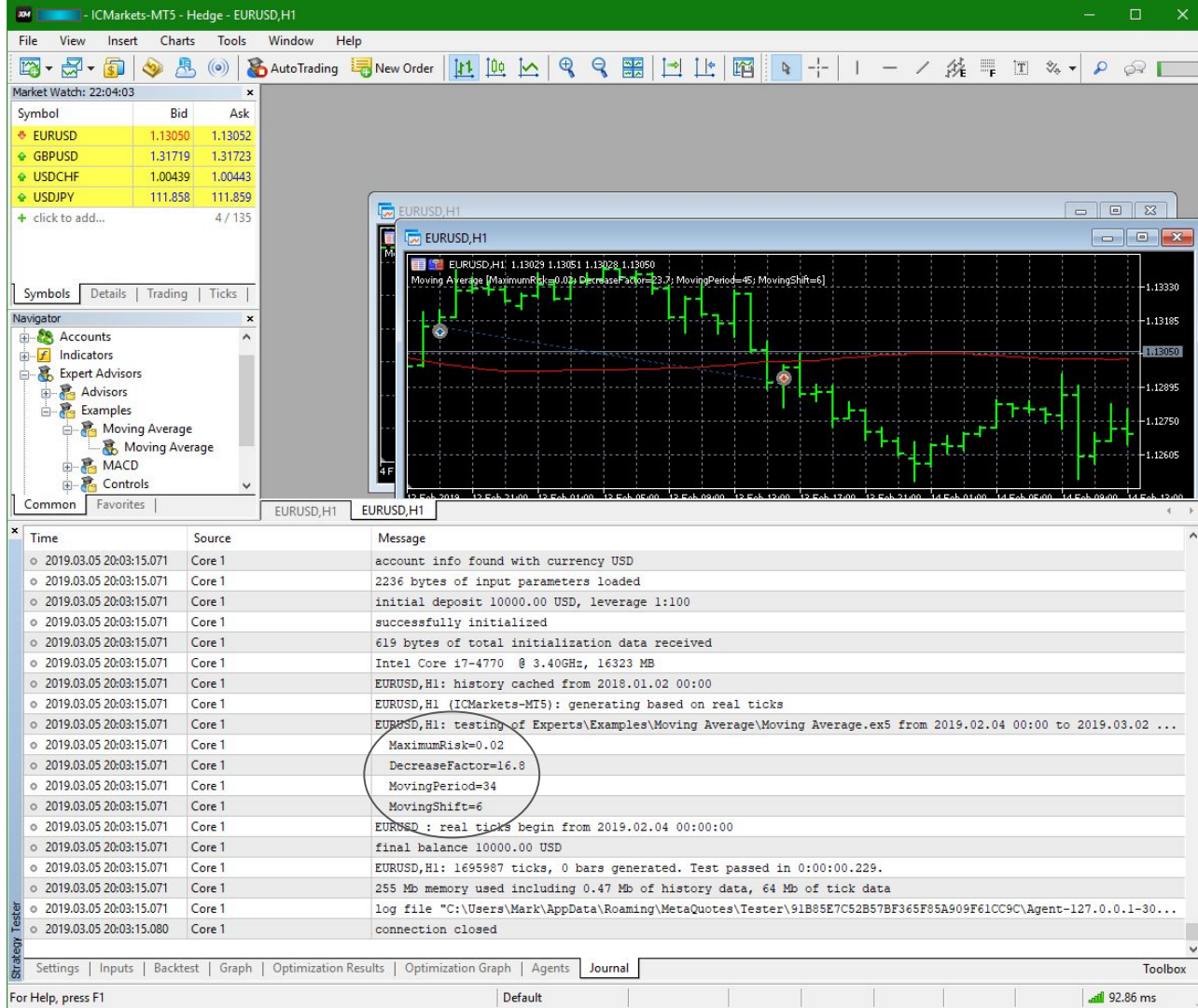
We are expecting:

Pass 2048:

Expect end result 10027.55 from 17 trades using Moving Period 34, Decrease Factor 16.8

Got: **Nothing**. Problem.

Journal shows no errors and correct parameters used.



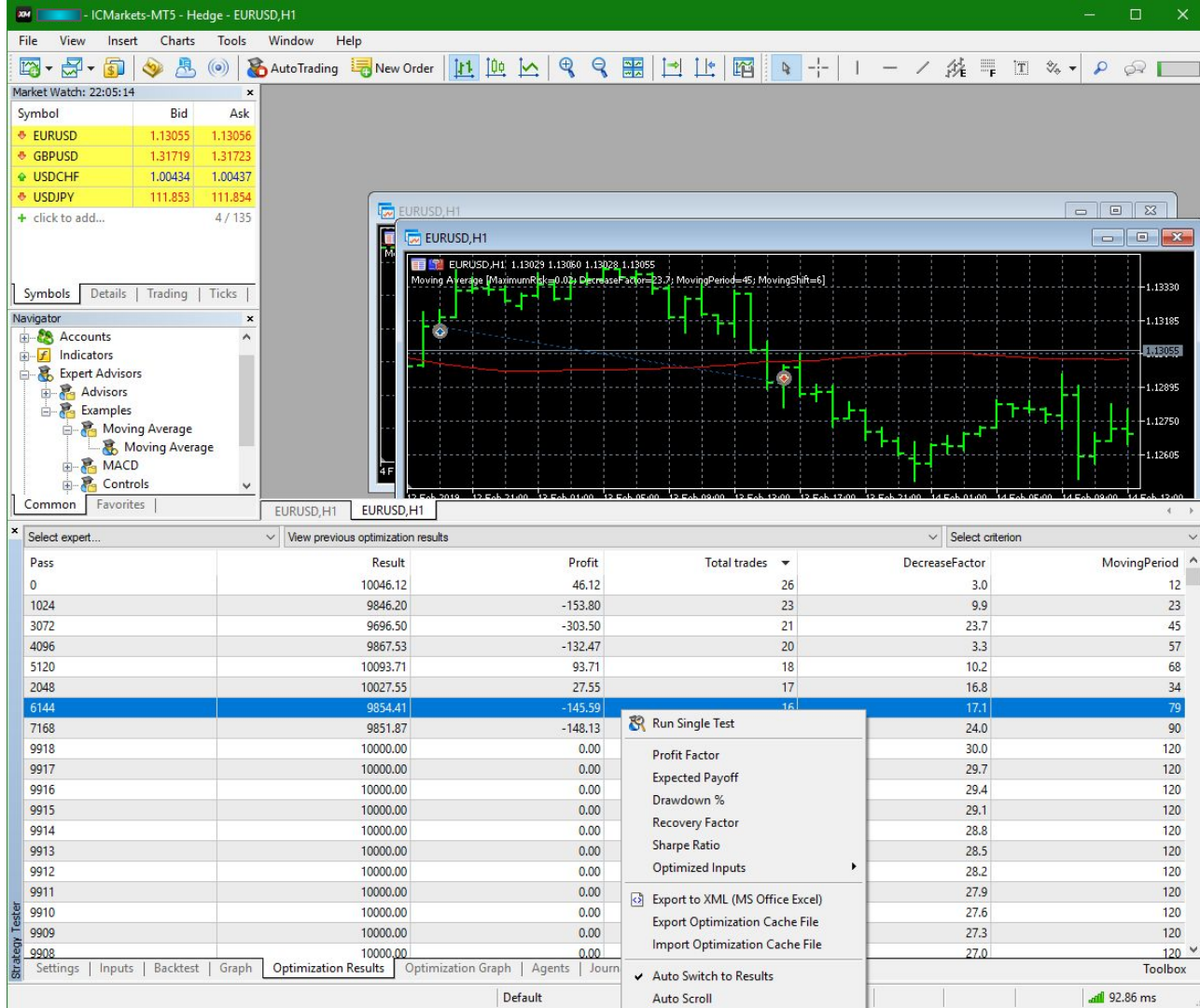
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 6144:

Expect end result 9854.41 from 16 trades using Moving Period 79, Decrease Factor 17.1



The Reproducible Case

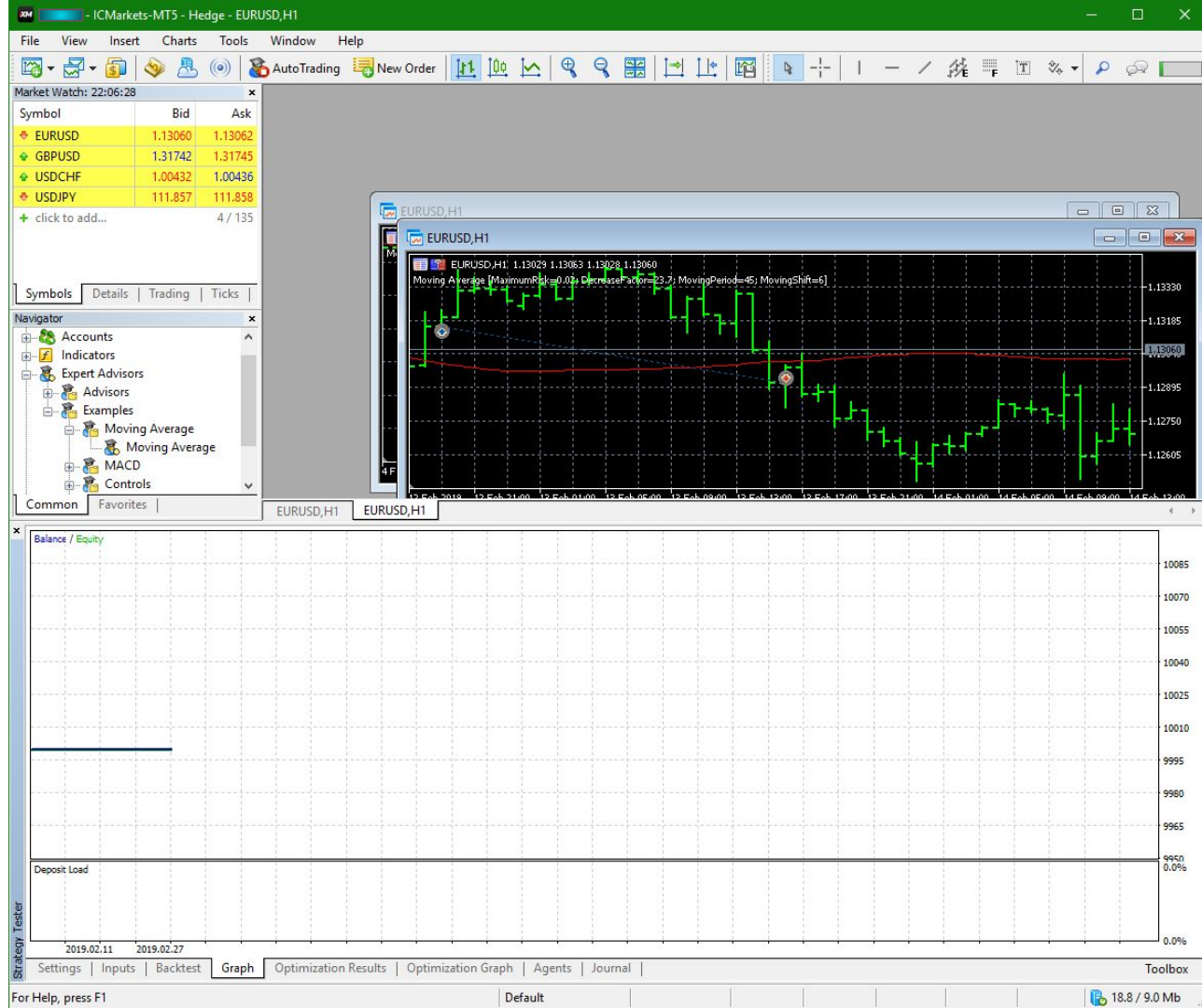
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 6144:

Expect end result 9854.41 from 16 trades using Moving Period 79, Decrease Factor 17.1

Got: **Nothing**. Problem.



The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 6144:

Expect end result 9854.41 from 16 trades using Moving Period 79, Decrease Factor 17.1

Got: **Nothing**. Problem.

Check Journals and see no errors and correct parameters used.

The screenshot displays the ICMarkets-MT5 trading platform interface. The top menu bar includes File, View, Insert, Charts, Tools, Window, and Help. The Market Watch window shows the following data:

Symbol	Bid	Ask
EURUSD	1.13064	1.13066
GBPUSD	1.31734	1.31736
USDCHF	1.00432	1.00433
USDJPY	111.856	111.857

The Navigator window shows the following structure:

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

The main chart area displays the EURUSD,H1 price movement with a red moving average line. The Strategy Tester window is open, showing the following log entries:

Time	Source	Message
2019.03.05 20:06:19.464	Core 1	login (build 2007)
2019.03.05 20:06:19.464	Core 1	account info found with currency USD
2019.03.05 20:06:19.464	Core 1	initial deposit 10000.00 USD, leverage 1:100
2019.03.05 20:06:19.464	Core 1	successfully initialized
2019.03.05 20:06:19.464	Core 1	163 bytes of total initialization data received
2019.03.05 20:06:19.464	Core 1	Intel Core i7-4770 @ 3.40GHz, 16323 MB
2019.03.05 20:06:19.464	Core 1	EURUSD,H1: history cached from 2018.01.02 00:00
2019.03.05 20:06:19.464	Core 1	EURUSD,H1 (ICMarkets-MT5): generating based on real ticks
2019.03.05 20:06:19.464	Core 1	EURUSD,H1: testing of Experts\Examples\Moving Average\Moving Average.ex5 from 2019.02.04 00:00 to 2019.03.02 ...
2019.03.05 20:06:19.464	Core 1	MaximumRisk=0.02
2019.03.05 20:06:19.464	Core 1	DecreaseFactor=17.1
2019.03.05 20:06:19.464	Core 1	MovingPeriod=79
2019.03.05 20:06:19.464	Core 1	MovingShift=6
2019.03.05 20:06:19.464	Core 1	EURUSD : real ticks begin from 2019.02.04 00:00:00
2019.03.05 20:06:19.464	Core 1	final balance 10000.00 USD
2019.03.05 20:06:19.464	Core 1	EURUSD,H1: 1695987 ticks, 0 bars generated. Test passed in 0:00:00.443.
2019.03.05 20:06:19.464	Core 1	255 Mb memory used including 0.47 Mb of history data, 64 Mb of tick data
2019.03.05 20:06:19.464	Core 1	log file "C:\Users\Mark\AppData\Roaming\MetaQuotes\Tester\91B85E7C52B57BF365F85A909F61CC9C\Agent-127.0.0.1-30...
2019.03.05 20:06:19.473	Core 1	connection closed

The Strategy Tester window also shows the following settings:

- Settings | Inputs | Backtest | Graph | Optimization Results | Optimization Graph | Agents | Journal | Toolbox

For Help, press F1

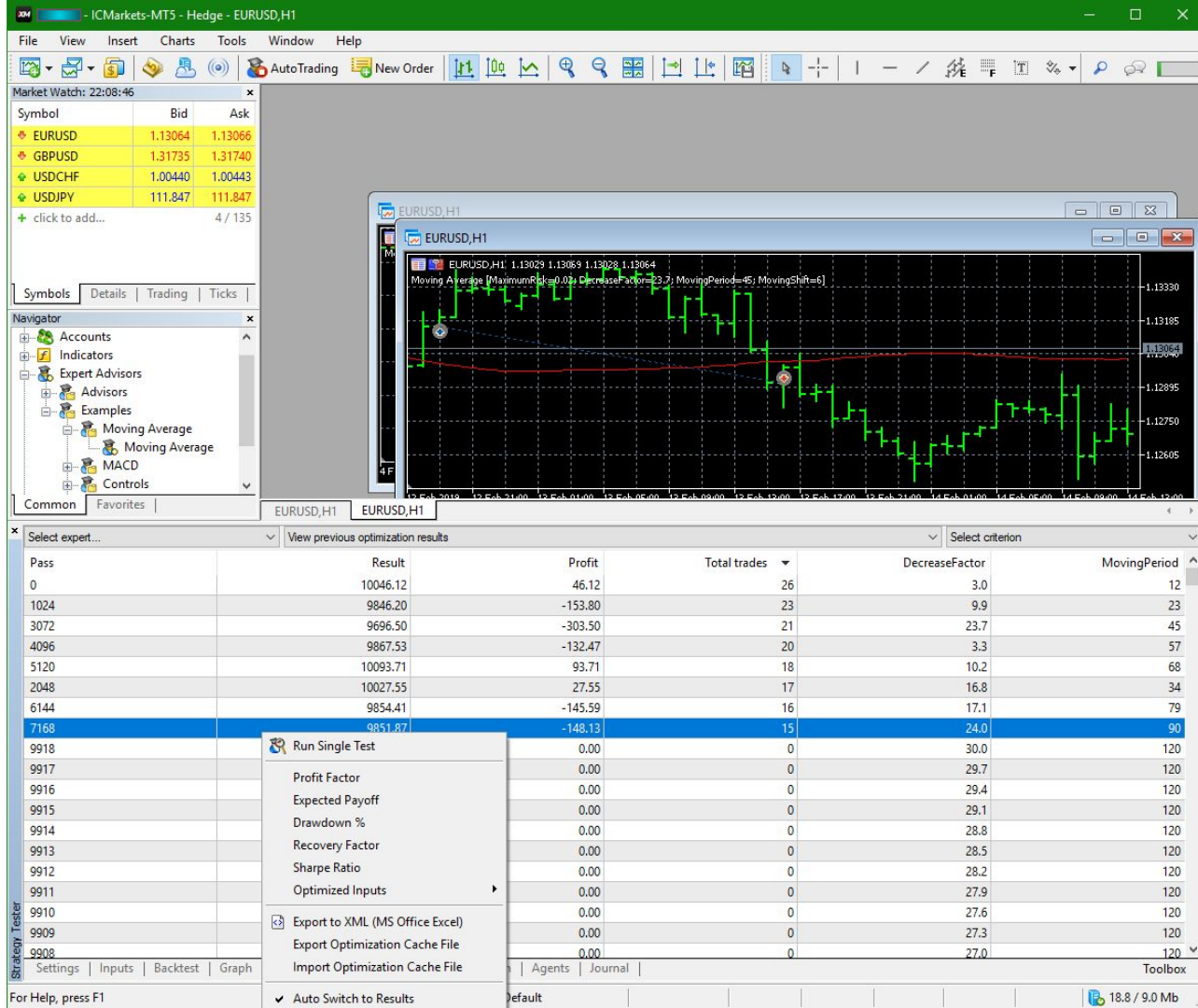
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 7168:

Expect end result 9851.87 from 15 trades using Moving Period 90, Decrease Factor 24.0



The Reproducible Case

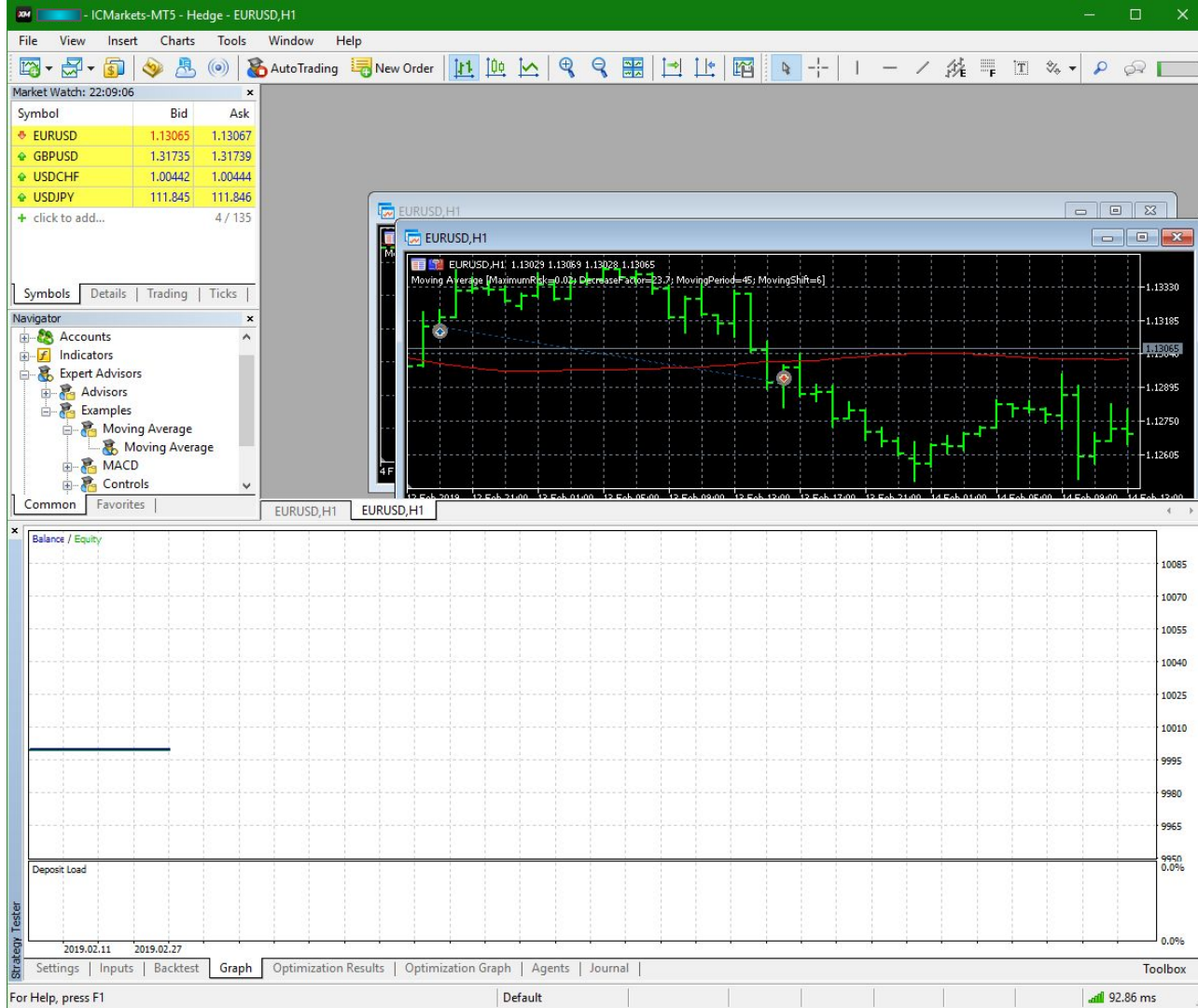
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 7168:

Expect end result 9851.87 from 15 trades using Moving Period 90, Decrease Factor 24.0

Got: **Nothing**. Problem.



The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 7168:

Expect end result 9851.87 from 15 trades using Moving Period 90, Decrease Factor 24.0

Got: **Nothing**. Problem.

Check Journal and confirm no errors and correct parameters used.

The screenshot displays the ICMarkets-MT5 trading platform interface. The top menu bar includes File, View, Insert, Charts, Tools, Window, and Help. The Market Watch window shows the following data:

Symbol	Bid	Ask
EURUSD	1.13068	1.13069
GBPUSD	1.31745	1.31748
USDCHF	1.00435	1.00439
USDJPY	111.847	111.848

The Navigator window shows the following structure:

- Accounts
- Indicators
- Expert Advisors
 - Advisors
 - Examples
 - Moving Average
 - Moving Average
 - MACD
 - Controls

The Strategy Tester window shows the following log entries:

Time	Source	Message
2019.03.05 20:09:01.369	Core 1	account info found with currency USD
2019.03.05 20:09:01.369	Core 1	2236 bytes of input parameters loaded
2019.03.05 20:09:01.369	Core 1	initial deposit 10000.00 USD, leverage 1:100
2019.03.05 20:09:01.369	Core 1	successfully initialized
2019.03.05 20:09:01.369	Core 1	618 bytes of total initialization data received
2019.03.05 20:09:01.369	Core 1	Intel Core i7-4770 @ 3.40GHz, 16323 MB
2019.03.05 20:09:01.369	Core 1	EURUSD,H1: history cached from 2018.01.02 00:00
2019.03.05 20:09:01.369	Core 1	EURUSD,H1 (ICMarkets-MT5): generating based on real ticks
2019.03.05 20:09:01.369	Core 1	EURUSD,H1: testing of Experts\Examples\Moving Average\Moving Average.ex5 from 2019.02.04 00:00 to 2019.03.02 ...
2019.03.05 20:09:01.369	Core 1	MaximumRisk=0.02
2019.03.05 20:09:01.369	Core 1	DecreaseFactor=24.0
2019.03.05 20:09:01.369	Core 1	MovingPeriod=90
2019.03.05 20:09:01.369	Core 1	MovingShift=6
2019.03.05 20:09:01.369	Core 1	EURUSD : real ticks begin from 2019.02.04 00:00:00
2019.03.05 20:09:01.369	Core 1	final balance 10000.00 USD
2019.03.05 20:09:01.369	Core 1	EURUSD,H1: 1695987 ticks, 0 bars generated. Test passed in 0:00:00.225.
2019.03.05 20:09:01.369	Core 1	255 Mb memory used including 0.47 Mb of history data, 64 Mb of tick data
2019.03.05 20:09:01.369	Core 1	log file "C:\Users\Mark\AppData\Roaming\MetaQuotes\Tester\91B85E7C52B57BF365F85A909F61CC9C\Agent-127.0.0.1-30...
2019.03.05 20:09:01.376	Core 1	connection closed

The bottom status bar shows the following information:

- For Help, press F1
- Default
- 18.8 / 9.0 Mb

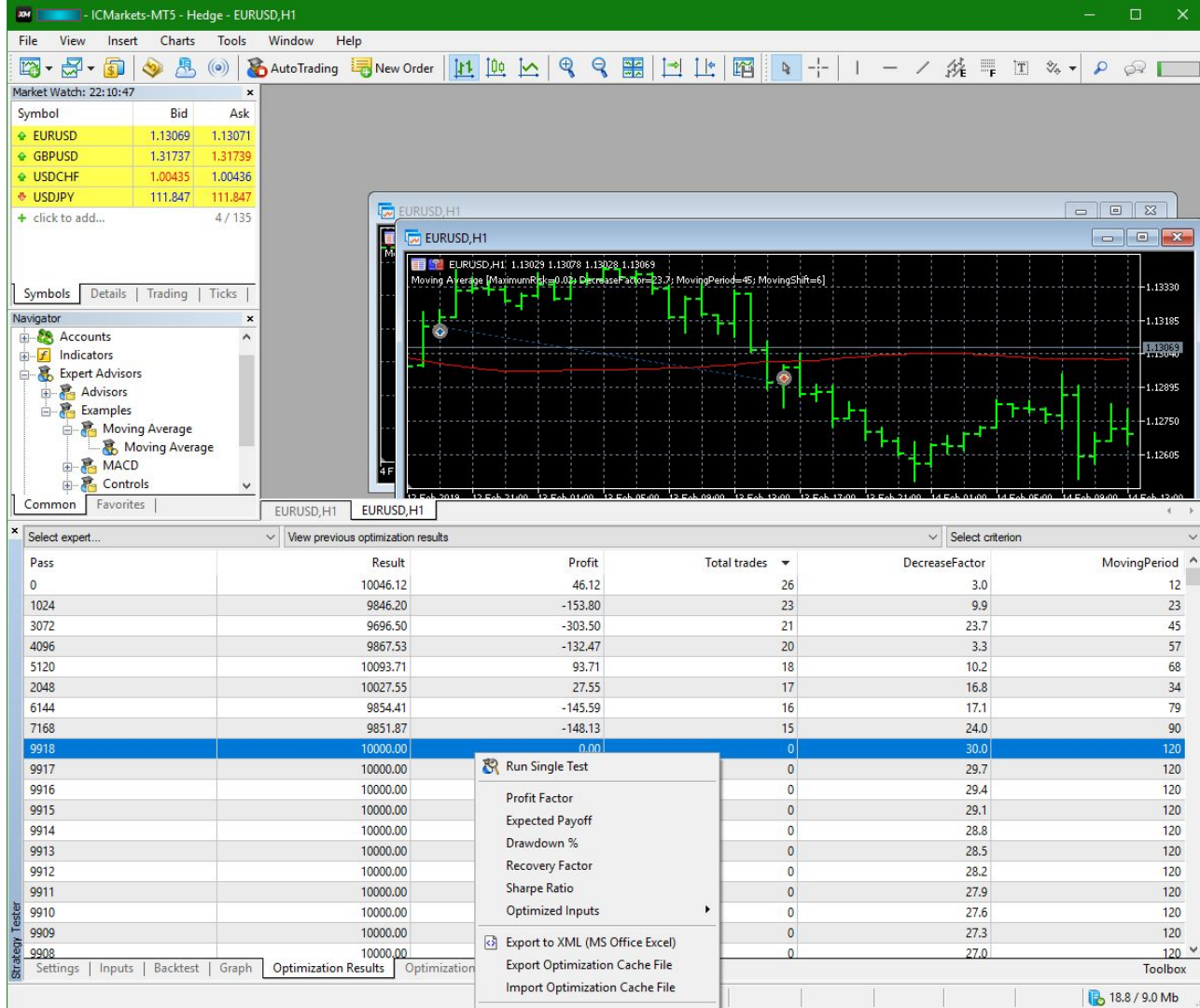
The Reproducible Case

Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 9918:

Expect end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0



The Reproducible Case

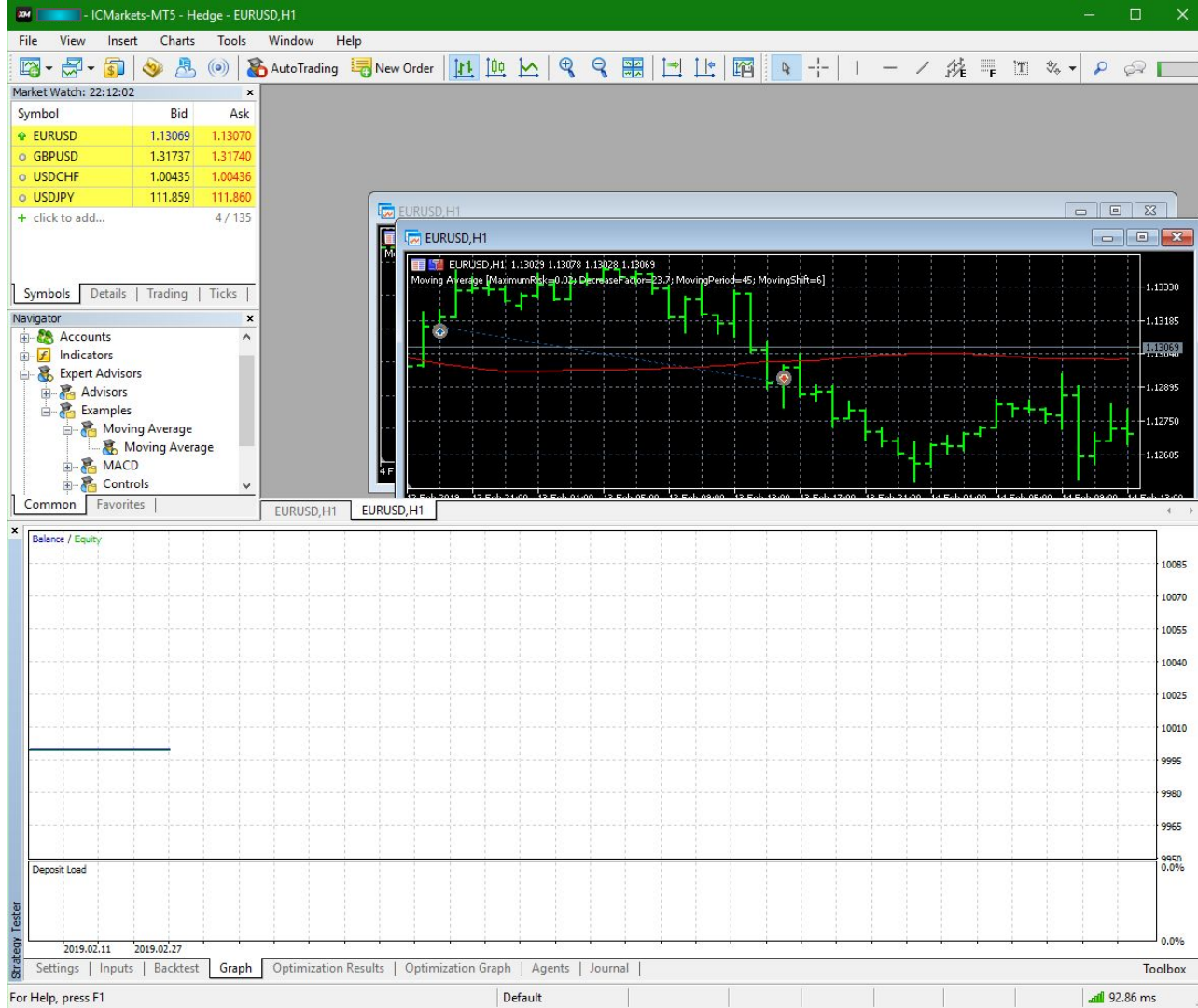
Now let's do the 'Run Single Test' for the top few lines.

We are expecting:

Pass 9918:

Expect end result 10000.00 from zero trades using Moving Period 120, Decrease Factor 30.0

Got nothing - but this time it matches the expectation.

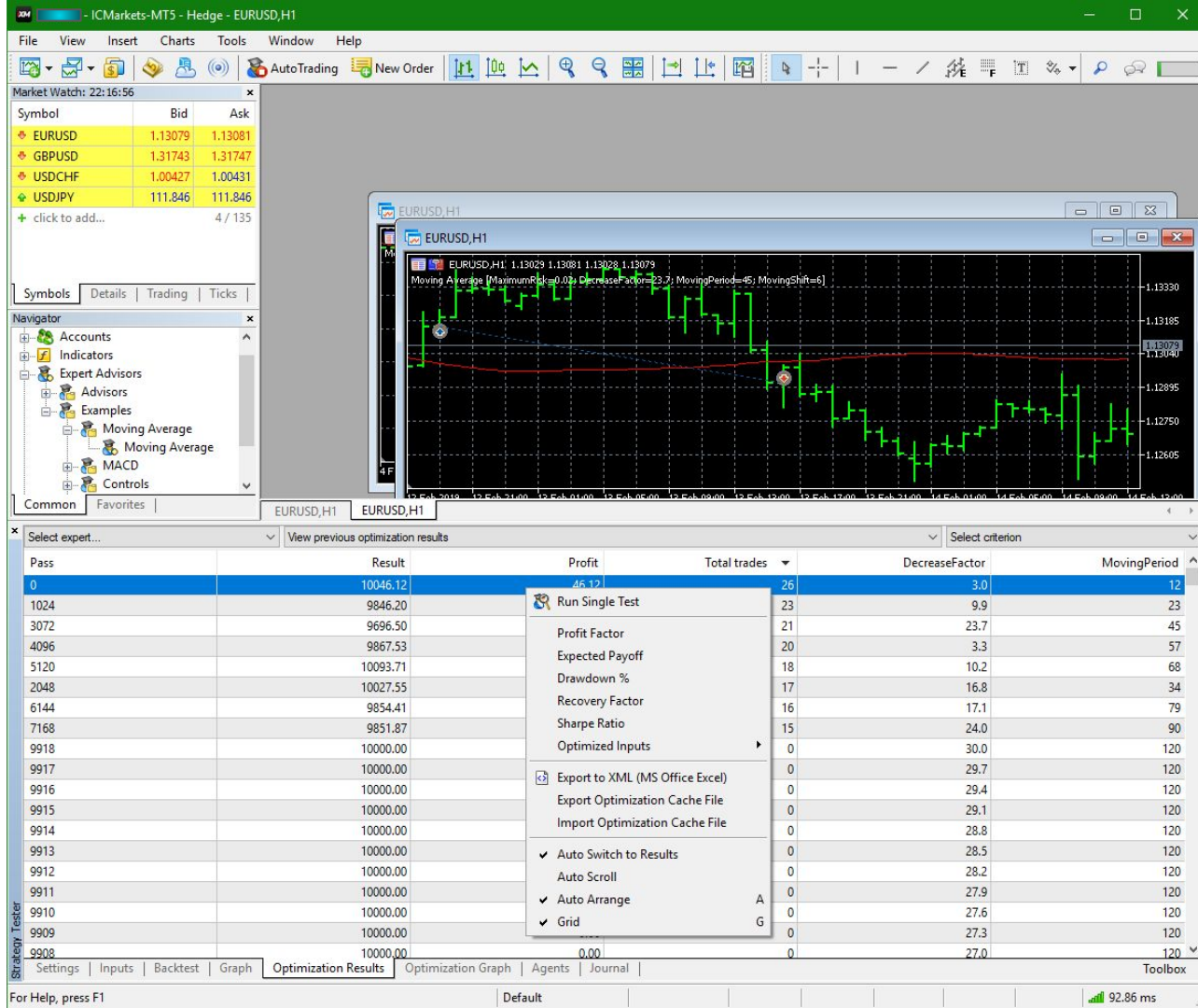


The Reproducible Case

Given we have had several zero results, let's re-run tests to confirm even those are still OK

Pass 0 Re-Run:

Expect end result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0



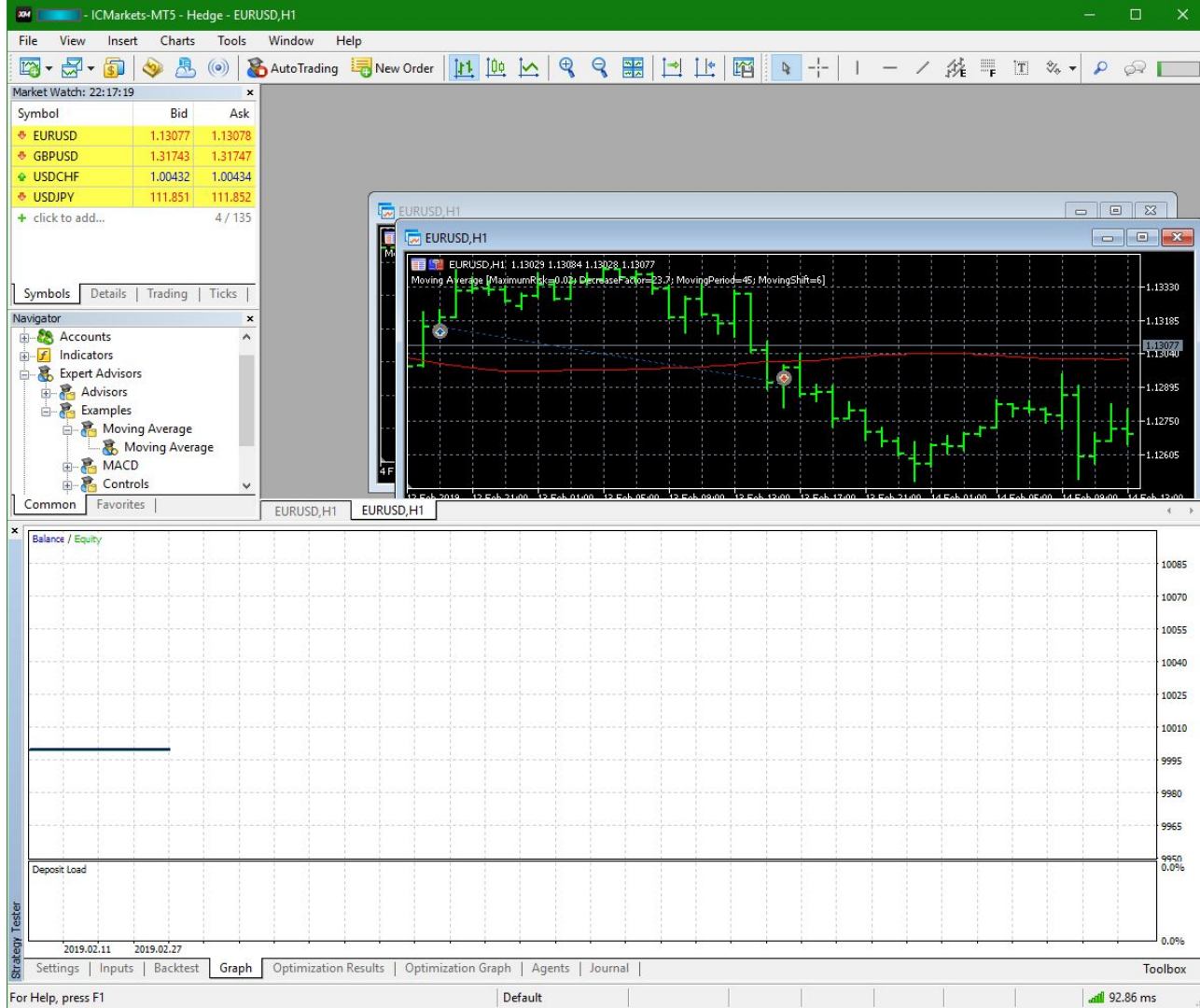
The Reproducible Case

Given we have had several zero results, let's re-run tests to confirm even those are still OK

Pass 0 rerun:

Expect end result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0

Problem: Rerun of **previously successful test is now producing a zero result.**



The Reproducible Case

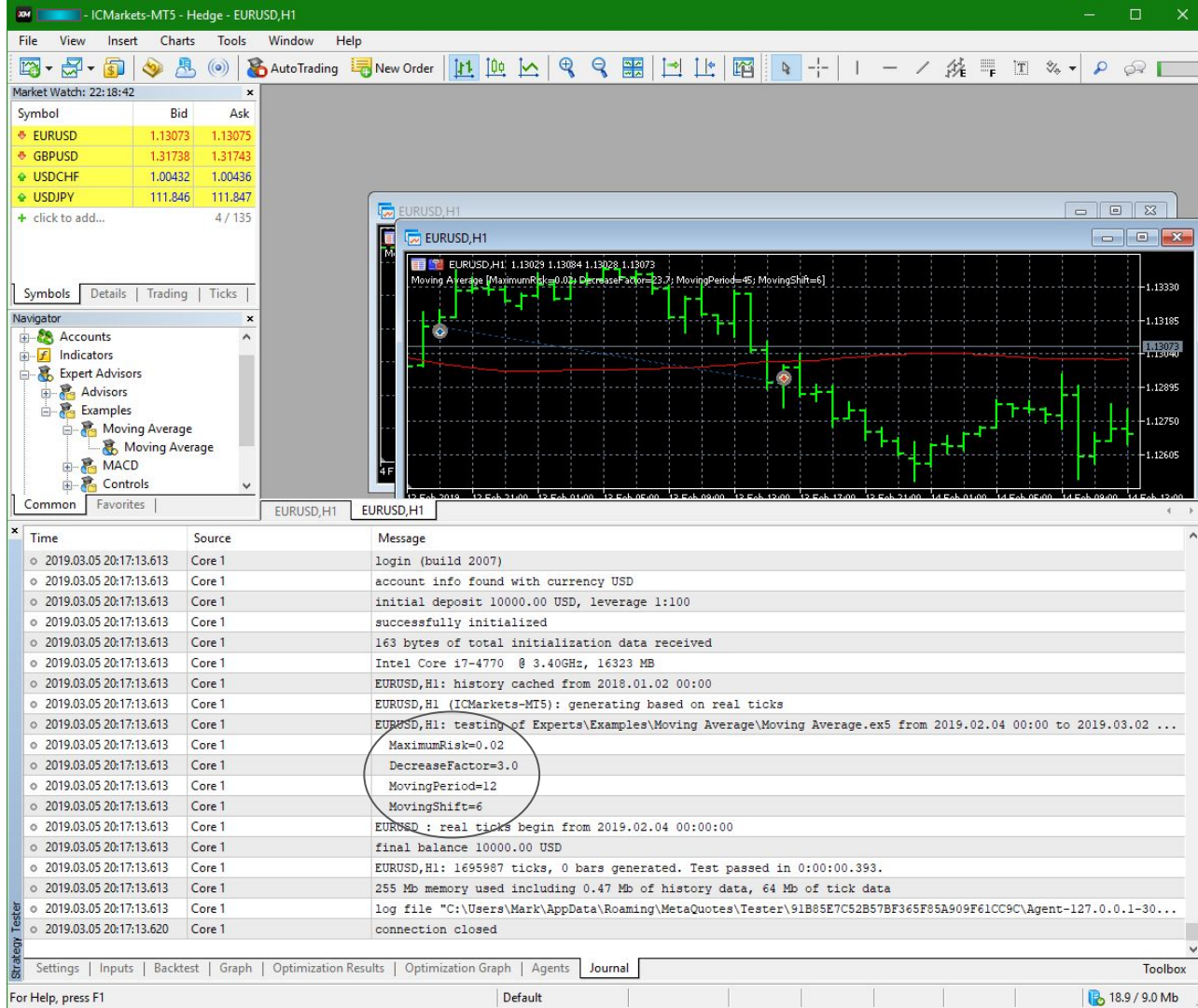
Given we have had several zero results, let's re-run tests to confirm even those are still OK

Pass 0 rerun:

Expect end result 10046.12 from 26 trades using Moving Period 12, Decrease Factor 3.0

Problem: Rerun of **previously successful test is now producing a zero result.**

Journal confirms correct parameters and no errors. Yet different outcome.



Findings

In my testing across 2 different computers with brand new MT5 installations:

- Pass 0 is always correct. (Bugs in boundary conditions?)
- Many Optimisation Results show zero trades, yet they do trade.
- Many Optimisation Results showing zero trades should trade, yet don't.
- Often results showing trades give wildly different results when 'Run Single Test'
 - Zero trade results do trade.
 - Trading results give different results to expected
- There may be a connection between the number of cores and the number of recorded results from the optimisation process.
- The Journal confirms the parameters used for a given single test, but the Inputs tab gets it wrong and can no longer be relied upon to show what parameters were just used.
- Rerun tests and the outcomes can change from showing trades to showing no trades. Inconsistent results cause further confusion.

MT5 Build 2006/2007 is Broken

How can community members develop and optimise EAs if the testing environment is so broken?

How can we pick the best parameters for analysis and trading?

Parameters picked in good faith from this build of the Optimiser may in fact be disastrous when trading.

Given how bad this release is, I question the commitment to improving quality of MT5 releases. What regression testing and test driven development is in place?

In my conclusion, I believe MT5 builds 2006/2007 to be fundamentally broken. I think it would take a brave soul to use this software for trading, development or EA optimisation. I believe all users would be wise to cease using these MT5 versions until proven stable replacements are made available.