

**THE DESCRIPTION
AND
WORK PRINCIPLE**

*GRALy3
TRACER_CR
CSV_to_CR*

**THE TRADING ROBOT
THE TESTER OF PARAMETERS FOR THE ROBOT
CONVERTER TIKOVYH OF DATA FOR THE TESTER**

Ver.3.0

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Introduction

From the author: *In the course of time we become more modest*

The given ready business has a wide spectrum of actions for the market of currency pairs. For today in the market is about 80 currency pairs for which the given project is developed.

With what to begin?

- To begin it is necessary from truthful history is Swiss server **DukasCopy** from which it is possible to receive any tick range histories practically on 30 trading tools in a format of a CSV-file which is located in folder **C:\Program Files\Trade_Terminal\experts\files** and it is converted by means of script **CSV_to_GR**. In a script code there is a line:

name = "USDCHF_Ticks_2012.01.01_2013.03.04.csv"; - the CSV-file name should be changed manually and to compile it with the subsequent start.

Where to place the converted history and what it has a format?

- To place the converted history in a folder:

C:\Program Files\Trade_Terminal\experts\files\Recorder

- The format is a 8-bit file for value of unit of the price and a 4-bit file for value of a time unit to the current price. Files have a format: **PAIR.ask**, **PAIR.bid**, **PAIR.dat** accordingly.

The given project contains the personal tester started as the user script. Advantage of a tester in simultaneous tracing of a condition of balance for several points of an input in the market, having identical tick length while tester MT traces only one point of an input in the market. The maximum level procorfs is regulated by parameter **BALANCE MAXIMAL PERCENT OF LOSS**.

The tester operating time can vary from several o'clock about several days depending on quantity of touched parameters and a range of their change.

Where there are touched parameters?

- They are in file **TRACER_CFG.txt** which is created automatically at the first start of a tester.

How to make touched parameters not touched and on the contrary?

- For the first case it is necessary to balance their maximum with a minimum.

- For the second case it is necessary to make these sizes various.

Some words about terminal MT indicators.

There is a set of indicators, but all of them can be ranked as one of two categories, these are advancing indicators which stick with a finger into the sky; or a category late indicators. To last category there is an example is an indicator "fractal" since considering the given indicator on history, can to start be surprised amazing accuracy of its indications, but in practice – it is late with these indications on 1-2 candles. An overall objective of the author of this article – acquaintance with ready business, therefore examples for the first category readers will find for themselves.

The given algorithm does not use indicators.

In files of touched and not touched parameters there are not used sizes.

Algorithms of a trading part.

Algorithm №1 searches of a point of an input in the market:

1. The file from Nth quantity of the indexes defined in parameter **ANALIZE TICK** (further **matrix of tick**) is filled with logs of the current tool;
2. At each new log, the latest log vanishes – there is a displacement;
3. Such file is analyzed on growth of a fresh part;
4. After the analysis the postponed orders with time of life **ORDER LIFE**, displacement **TRADE SHIFT** which type depends on parameter **USE LIMIT ORDERS ON RISE [O/I]** which is in a file of not touched parameters **CONFIG_GR.txt** is created;
5. The given algorithm in parameter **ORDER LIFE=0** is disconnected.

Algorithm №2 searches of a point of an input in the market:

1. All the same, only is analyzed growth of an old part of a trend, and recession of a fresh part (speaking in other words – there is a search of a turn of a trend);
2. In the given situation 2 variants of creation of the postponed orders depending on parameters **.. ON TURN BUY-LIMIT** and **.. ON TURN BUY-STOP** are resolved;
3. The given algorithm in parameters **ORDERLIFE ON TURN BUY-STOP=0** and **ORDERLIFE ON TURN-LIMIT=0** is disconnected.

Algorithm №3 searches of a point of an input in the market:

1. Prove to be true on operation certain quantity of the control points defined in parameter **MAX POINT**;
2. Each control point has time of a life of acknowledgement **CHECK SECOND** and the minimum log of chosen direction **CHECK LAG**;
3. The control point is considered worked if the certain log (more or equal) is in time received;
4. The given algorithm in parameter **CHECK SECOND=0** is disconnected.

Martin's algorithm always will help at its reasonable use, it is activated by parameter **MG Engine [O/I =I]** and has two parameters **MG DEPTH** – pips procorfs for Martin's activation, **MG ZOOM [I...>]** – factor of increase in a prize of the problem orders;

The exit from the market occurs on a trawl or on recognition of a turn towards the loss;

All profitable combinations are registered in a report file **res_PAIR.txt**;

The most profitable combinations are registered in a file-clean copy **q_result_PAIR.lag**.

Tester operating modes.

The tester has two modes switched by variable **PROFESSIONAL MODE [O/I]**.

- If mode **PROFESSIONAL MODE** is switched off, the tester works in a mode of automatic search of the parameters which are not demanding presence of the operator;
- If mode **PROFESSIONAL MODE** is active, the tester works in a manual mode at which all variables become opened for change on pressing **F3**.

Techniques of search of profitable parameters can be much, but all of them mean serial activation of one of above described algorithms.

The list of parameters of a tester with their description.

ENTRY POINTS IN HISTORY DATA [I... 20]

QUANTITY OF POINTS OF AN INPUT IN THE MARKET FOR THE CURRENT TOOL.

ANALYZE TICK

TICKS FOR THE ANALYSIS OF GROWTH, RECESSION AND A TREND TURN IN A FILE.

BALANCE MAXIMAL PERCENT OF LOSS

PERCENT MAXIMUM PROPORTION FROM THE STARTING DEPOSIT WHICH OVERESTIMATE WILL FORCE A TESTER TO CHANGE CURRENT SELECTED SIZE ON FOLLOWING NOT WAITING THE TESTING TERMINATIONS.

BORDER LIMIT LAG [0-Disabled, I...>]

BOUNDARY SIZE OF TRAIL THE NEXT POSTPONED ORDER WITH STEP AND A DIRECTION OF A CURRENT LOG PROVIDED THAT THE CURRENT LOG ON THE MODULE LESS OR IS EQUAL TO CURRENT VALUE.

CHECK LAG

LOG OF ACKNOWLEDGEMENT OF THE NEXT CONTROL POINT ON AN OVERESTIMATE OR EQUALITY CONDITION [ALGORITHM-3].

CHECK SECOND

SECONDS OF EXPECTATION OF ACKNOWLEDGEMENT OF THE NEXT CONTROL POINT [ALGORITHM-3].

CRUISER LOT INCREASE

UNIT OF INCREASE IN A PRICE OF THE CREATED ORDER, UNDER CONDITION OF CHANGE OF THE PRICE OF CREATION OF LAST ORDER FROM THE CURRENT PRICE OF CREATION FOR THE SIZE WHICH IS NOT EXCEEDING VALUE

CRUISER SAFE AREA IN PIPS.

CRUISER MAX LOT ZOOM [I...>]

MAXIMUM QUANTITY OF INCREASES IN A PRICE IN THE ABOVE DESCRIBED SITUATION.

CRUISER MIN DEPO [I...>]

THE MINIMUM BALANCE FOR ACTIVATION OF A MODE A CRUISER.

CRUISER MODE [0/I]

THE SWITCH OF A MODE A CRUISER IN WHICH THERE IS A PRICE INCREASE IN THE CREATED ORDER.

CRUISER SAFE AREA IN PIPS [I...>]

PIPS OF THE CONTROL OF DISPLACEMENT OF THE PRICE IN THE RESOLVED RANGE FOR PRICE INCREASE.

DIGITS

QUANTITY OF SIGNS AFTER A POINT IN THE TESTED TOOL.

ENABLE PLAY SOUND IF PROFIT CONFIG IS FOUND [0/I]

SOUND ACKNOWLEDGEMENT OF MORE PROFITABLE COMBINATION AND THE BEGINNING OF A NEW CYCLE OF ITERATION.

FRIDAY STOP TRADE HOUR [-I, 0... 24]

HOUR FRIDAY WORK BREAK THE AUCTIONS.

GENETIC METHOD STRENGTH [0-Disabled, I... 200]

PERCENT NOT FULL EXPANSION AT THE MOMENT OF SEARCH.

LOSS INSPECTION [O/I]

COMPULSORY CLOSING OF THE PROFITABLE ORDER AT THE MOMENT OF DEFINITION OF AN UNPROFITABLE TURN.

LOT SIZE IN PERCENT

PRIZE IN PERCENTAGE [A FLOATING AUTO-LOT].

MAX LOSS IN PIPS

MAXIMUM OF PIPS THE PROCORFS, WHICH OVERESTIMATE DEDUCES THE ROBOT FROM THE WAIT OF LOSS MODE.

MAX POINT

QUANTITY OF CONTROL POINTS FOR PASSAGE [ALGORITHM-3].

MAXIMUM OF ORDERS

MAXIMUM QUANTITY OF SIMULTANEOUSLY OPEN ORDERS FOR THE CURRENT TOOL.

MG DEPTH

PIPS OF BOUNDARY THE PROCORFS, WHICH OVERESTIMATE ARE ACTIVATED BY MARTIN'S ALGORITHM.

MG Engine [O/I]

MARTIN'S SWITCH.

MG ZOOM [I...>]

FACTOR OF INCREASE IN A PRIZE OF THE ORDER OF AN OPPOSITE DIRECTION ON MARTIN.

ORDERLIFE

TIME OF A LIFE OF THE POSTPONED ORDER IN SECONDS [ALGORITHM-1].

ORDERLIFE ON TURN-LIMIT

TIME OF A LIFE OF THE POSTPONED ORDER IN SECONDS [ALGORITHM-2].

ORDERLIFE ON TURN-STOP

TIME OF A LIFE OF THE POSTPONED ORDER IN SECONDS [ALGORITHM-2].

PERCENT OF CUT

PERCENT OF THE ANALYSIS OF A FRESH PART OF A TREND IN OF TICK TO A MATRIX [ALGORITHM-1, 2].

PROFESSIONAL MODE

THE SWITCH OF A MODE FOR NOT AUTOMATIC TESTING OF PARAMETERS.

RISE PIPS

PIPS OF GROWTH IN OF TICK TO A MATRIX WHICH OVERESTIMATE DEFINES GROWTH AND/OR A TURN [ALGORITHM-1, 2].

SKIP BY DEFAULT VALUE [O/I]

THE SWITCH, RESOLVING TO PASS AT SEARCH CERTAIN AVERAGE VALUES.

START DEPOSIT

THE STARTING DEPOSIT OF THE BEGINNING OF TESTING [ON THE VULGAR: STARTING DEPOT].

TRADE CONTROL ZOOM [O... I]

FACTOR OF OVERESTIMATE OF THE LOSS IN OPEN ORDERS FOR AN INTERDICTION OF THE AUCTIONS.

TRADE CONTROL [O/I]

THE SWITCH OF A MODE OF TRACKING THE GENERAL LOSS OF OPEN ORDERS.

TRADE SHIFT

TRADING DISPLACEMENT OF THE POSTPONED ORDER [ALGORITHM-1].

TRADE SHIFT ON TURN-LIMIT

TRADING DISPLACEMENT OF THE POSTPONED ORDER [ALGORITHM-2].

TRADE SHIFT ON TURN-STOP

TRADING DISPLACEMENT OF THE POSTPONED ORDER [ALGORITHM-2].

TRAILING STEP [0...>]

ABSOLUTELY NOT NECESSARY PARAMETER TRAIL [THE AUTHOR HAS NOT BEHELD ITS NECESSITY AND TO CLEAN IS AFRAID].

TRAILING STOP

PIPS OF PULLINGS UP OF A BREAK-EVEN LATH OF THE BREAK-EVEN ORDER IN THE PROFITABLE PARTY.

TRAILING STOP FIRST

PIPS OF PULLINGS UP OF A BREAK-EVEN LATH OF THE UNPROFITABLE ORDER IN THE PROFITABLE PARTY.

TURN ZOOM [0... I]

THE PIPS-FACTOR OF A TURN OF AN OLD PART OF A TREND.

USE FIVE DIGITS [0/I]

THE SWITCH OF USE OF EMULATION 5 [4 SIGN OF TRADE TERMINAL.

USE LIMIT ORDERS ON RISE [0/I]

THE SWITCH OF USE OF LIMITS-ORDERS [STOP- ORDERS] [ALGORITHM-1].

USE REVERSE [0/I]

THE SWITCH OF A COMPULSORY BACKSPACING IN A DIRECTION OF THE POSTPONED ORDERS.

__refresh_now

THE UNIFIED VARIABLE FOR MANAGEMENT OF PROCESS OF SEARCH OF PARAMETERS [3].

Shadow variable of a layer.

In tester **Tracer_GR** there is an invisible variable which is responsible for compulsory change of stagnant parameter. Change occurs at the moment of end of search of all touched values and not detection of new profit.

Functions of the unified variable.

- 1 - to start/interrupt iteration;
- 1111-to show all testing variables;
- 222 - to show a current variable of a layer;
- 666 - to show the fast statistics of the robot in a tester;
- 999 - a start from current iteration;
- 9999 - to leave

Appeal of the author.

THE GIVEN READY BUSINESS EXTENDS AS THERE IS ALSO AN AUTHOR DOES NOT BEAR ANY RESPONSIBILITY FOR A CONSEQUENCE OF ITS USE.

IN CONNECTION WITH THE ABOVE-STATED, THE AUTHOR ASKS TO RESPOND TRUE AND SYMPATHETIC FAIR TRADERS AND PROGRAMMERS IN SPHERE OF THE INDEMNIFICATION AND LOSSES OF THE AUTHOR.

IT IS NECESSARY FOR US TO WORK A LITTLE MORE WITHIN THE LIMITS OF THE GIVEN READY BUSINESS, NAMELY:

- YOU NEVER HEARD EXPRESSION QUICKLY TO WORK WELL, AND TO WORK FASTER - EVEN BETTER?

SOME WORDS ABOUT LAST STATEMENT.

THE MATTER IS THAT THE GIVEN READY BUSINESS HAS NO ERRORS, AND IS UNIQUE ITS WEAK PARTY IS A SPEED [IT SIMPLY GAPES AS BLACK LEATHER SHOES WITH A WHITE STRIP FROM SWEAT].

THEREFORE THE AUTHOR DOES TO ALL READERS OF GIVEN ARTICLE THE SPECIAL OFFER:

WHO CAN TRANSLATE THE FIRST THE GIVEN TESTER OF PARAMETERS ON LANGUAGE C++ WITH USE OF THE READY ACTIVE FORM AND WILL CREATE AN EXE-FILE, THAT WILL FEEL ALL POSITIVE SIDES OF THE GIVEN TESTER.

THE REASONS IT CAN MAKE TO BE A LITTLE:

- THE TESTER DOES NOT DEPEND NEARLY ON TRADING TERMINAL MT, AND ALL PARAMETERS STORES IN SWAPS-FILES;

- ALL READY BUSINESS EXTENDS ABSOLUTELY FREE OF CHARGE IN SOURCE CODES IN LANGUAGE MQL4;

- AFTER TRANSITION TO AN EXE-FILE USERS WILL FEEL 100% A GAIN OF SPEED [TIME BEGINS TO WORK AT 8-10 FASTER]

ADDITIONAL PROBLEMS AND OBSTACLES WHICH CAN BE FOUND OUT PROGRAMMERS AT THE MOMENT OF COPYING OR CONVERTING OF AN INITIAL CODE:

- COVER C++ KNOWS NOTHING ABOUT FUNCTIONS `GlobalVariableSet`, `GlobalVariableGet`, `GlobalVariableCheck`, `GlobalVariableDel`.

- AFOREMENTIONED FUNCTIONS ARE USED IN SOURCE CODE `Tracer_GR.MQ4` AND AT THE MOMENT OF TRANSITION TO LANGUAGE

C++ THEIR EMULATION BY THE USER FUNCTIONS IS REQUIRED, WHICH PROGRAMMERS SHOULD INCUR, IT ALSO CONCERNS THE REVEALING LIST WITH THE GLOBAL STATIC VARIABLES WHICH ARE PRESENT AT TRADING TERMINAL MT.

THE AUTHOR HAD AN ATTEMPT TO GET ACQUAINTED WITH LANGUAGE C++, BUT IT HAS FAILED AS A RESULT OF TESTING OF A NEW TESTER [TARGET RESULTS DID NOT COINCIDE WITH RESULTS OF TERMINAL MT].

IN GENERAL, I CANNOT ANY MORE, AND YOU SHOULD SHOW OWN ENTUZIAZMUS: CAN FRIENDS, ACQUAINTANCES OR FELLOW WORKERS WILL AGREE ON THIS HARD BUSINESS.