

DuettoFX Matrix Manual

DuettoFX Matrix Indicator

The “DuettoFX Matrix” indicator is able to calculate the correlation between any couple of instruments that are available on your MT4 trading platform (including commodities and stock indices). If more than two instruments are selected in the input parameters then “DuettoFX Matrix” displays a matrix that can be as large as 30 rows x 30 columns.. The calculation can be performed on any timeframe at the beginning of each new price bar or in realtime (tick by tick). The following picture shows a classic setup on the daily timeframe with 30 instruments (28 currency pairs plus Gold and Silver):



You can notice how the matrix highlights the best direct and inverse correlations (numbers that are close to +100 and to -100 respectively). You are free to mix up currency pairs, commodities and stock indices that your broker makes available on your MT4 platform, so that DuettoFX Matrix becomes an effective inter-market analysis tool.

Installation

The installation process:

1. Copy the “**DuettoFX_Matrix.ex4**” file into the “experts/indicators/” folder of your MetaTrader 4 installation.
2. Copy the “**DuettoFX_Matrix.dll**” file into the “experts/libraries/” folder of your MetaTrader 4 installation.
3. Copy the “**duettofx_full_matrix.tpl**“, “**duettofx_full_matrix_withgold.tpl**“, “**duettofx_small_matrix.tpl**“, and “**duettofx_small_matrix_withgold.tpl**“ files into the “templates/” folder of your MetaTrader 4 installation.
4. Restart the Metatrader 4 platform.

How To Read and Trade It

The “**DuettoFX Matrix**” is a matrix displayed in the main chart window. The most simple way of applying this indicator is with the default templates:

- **duettofx_full_matrix**: includes the 28 major currency pairs
- **duettofx_full_matrix_withgold**: includes the 28 major currency pairs plus gold and silver
- **duettofx_small_matrix**: includes only the 6 major currency pairs (EURGBP, EURUSD, EURJPY, GBPJPY, GBPUSD, and GBPJPY)
- **duettofx_small_matrix_withgold**: includes the 6 major currency pairs plus gold and silver

The following picture refers to the last template on a daily timeframe:

DUETTO_FX CORRELATION MATRIX v1.0 - <http://www.pimpmymea.com>
TIMEFRAME:1D - PERIOD: 120

	EURGBP	EURJPY	EURUSD	GBPJPY	GBPUSD	USDJPY	GOLD	SILVER
EURGBP	----	-5.6	47.5	-41.6	-55.0	-28.8	47.3	30.7
EURJPY	-5.6	----	64.2	[93.1]	66.3	[93.5]	21.0	47.9
EURUSD	47.5	64.2	----	41.5	47.4	32.9	59.1	59.3
GBPJPY	-41.6	[93.1]	41.5	----	[80.7]	[95.6]	1.9	32.3
GBPUSD	-55.0	66.3	47.4	[80.7]	----	59.8	8.7	25.3
USDJPY	-28.8	[93.5]	32.9	[95.6]	59.8	----	-1.4	31.7
GOLD	47.3	21.0	59.1	1.9	8.7	-1.4	----	[88.8]
SILVER	30.7	47.9	59.3	32.3	25.3	31.7	[88.8]	----

The color green is associated to direct correlation (positive numbers), while the red color is associated to inverse correlation (negative numbers). The numbers within brackets are the best direct and inverse correlations (by default bigger than +80 and smaller than -80 respectively). There are many ways a trader can use this information for making sound trading decisions. As an example if you use the DuettoFX indicator you'd better apply it to a couple of currency pairs which show a strong inverse correlation in this matrix, because the most robust trends tend to develop in this way.

Example of Use – Read Carefully

I'll describe how to use DuettoFX Matrix with the 5 currency pairs that we have backtested for the [DuettoFX](#) indicator, namely EURUSD, GBPUSD, USDCHF, AUDUSD, and USDCAD.

The settings you should change are the following:

- number_of_pairs = 5
- pair_01 = EURUSD
- pair_02 = GBPUSD
- pair_03 = USDCHF
- pair_04 = AUDUSD
- pair_05 = USDCAD

Once you have applied the indicator with these settings, the best thing to do is to save them in a template, so that you can apply it each time you want with a single mouse click without having to edit the settings again. I've personally saved the settings described above as “**duettofx_duetto_matrix.tpl**” on my MT4 platform. You can save as many templates as you wish in this way.

Limitations

Please keep in mind DuettoFX Matrix elaborates data coming from multiple currency pairs. For this reason you may experience some “strange” behavior on your MT4 platform, like the indicator not showing up immediately when you restart the platform, or some blank cells in the matrix. Unfortunately this is caused by inherent MT4 limitations (the platform requires some time to download the data for all the involved pairs). Most of the time you can just switch timeframe back and forth on your chart in order to see DuettoFX Matrix displayed correctly. Another warning: when you apply DuettoFX Matrix for the first time on a chart the indicator may not be displayed correctly, because MT4 has not elaborated ALL the data (from all currency pairs) that are needed. Usually switching timeframes on the chart is the best way to make sure that the indicator is properly set. Also make sure you select “Show All” in the MT4 Market Watch window.

Options

number_of_pairs (30)

This is the number of pairs (from “pair_01” to “pair_30”) that are taken into account when calculating the correlation matrix. As an example if number_of_pairs=5 then the matrix has 5 rows and 5 columns corresponding to the instruments specified in the input parameters “pair_01”, “pair_02”, “pair_03”, “pair_04”, and “pair_05”. The input parameters from “pair_06” to “pair_30” are not taken into account in this case.

pair_01 (“AUDCAD”)

pair_02 (“AUDCHF”)

....

pair_30 (“XAGUSD”)

You should put pair_01 equal to the first currency pair you want to include in the DuettoFX Matrix. The inputs from “pair_02” to “pair_30” have a similar meaning.

If your broker uses non standard symbols (e.g. “EURUSDm” instead of “EURUSD”) then make sure you write them properly in the setting (for example:

pair_01=“EURUSDm”).

realtime (false)

If true then the correlation matrix is computed at each new incoming tick. This can be very CPU consuming, so the suggested value is false (matrix updated at the beginning of each new price bar).

period (120)

It's the number of bars DuettoFX Matrix looks in the past in order to calculate the correlations. The default value 120 corresponds to 1 forex trading week when it is applied on hourly charts.

correlation_level (80)

This is the threshold used by the indicator in order to highlight the best direct and inverse correlations. According to the default value (80) only correlations which are $\geq +80$ or ≤ -80 are highlighted in the matrix.

base_text_size (7)

It is the size of the numbers below “correlation_level” in the matrix.

startx (0)

It is the number of pixels the DuettoFX Matrix is translated on the horizontal axis of the chart. The default value (0) is the best setting in most cases.

starty (0)

It is the number of pixels the DuettoFX Matrix is translated on the vertical axis of the chart.
The default value (0) is the best setting in most cases.