

Function **iAOfunc** for MQL4.

Standard function **iAO** (<http://docs.mql4.com/indicators/iAO>) is calculated by formula:

$$\text{AO} = \text{SMA}(\text{MEDIAN}, 5) - \text{SMA}(\text{MEDIAN}, 34)$$

where:

- MEDIAN - median price,
- SMA - simple moving average,
- 5, 34 - periods.

without the possibility to choose price, moving average and periods.

Function **iAOfunc** allows calculate value with possibility to choose price, moving average and periods according to the following formula:

$$\text{AO} = \text{MA_mode}(\text{Applied_price}, \text{Period_1}) - \text{MA_mode}(\text{Applied_price}, \text{Period_2})$$

double iAOfunc (string Sy, int Tf, int MA_mode, int Applied_price, int Period_1, int Period_2, int Shift)

Parameters:

- Sy** - Symbol the data of which should be used to calculate indicator.
NULL means the current symbol.
- Tf** - Timeframe. It can be any of timeframe enumeration values (<http://docs.mql4.com/constants/timeframes>). 0 means the current chart timeframe.
- MA_mode** - MA method. It can be any of the moving average method enumeration value (<http://docs.mql4.com/constants/movings>).
- Applied_price** - Applied price. It can be any of applied price enumeration values (<http://docs.mql4.com/constants/prices>).
- Period_1** - Averaging period for calculation 1st moving average.
- Period_2** - Averaging period for calculation 2nd moving average.
- Shift** - Index of the value taken from the indicator buffer (shift relative to the current bar the given amount of periods ago).

Example 1.

- Symbol - current chart (NULL),
- Timeframe - current chart (0),
- MA method - exponential moving average (MODE_EMA),
- Applied price - close (PRICE_CLOSE),
- Period 1 - 7,
- Period 2 - 35,
- Index of the value taken from the indicator buffer - 0.

```
double result=iAOfunc(NULL, 0, MODE_EMA, PRICE_CLOSE, 7, 35, 0);
```

Example 2.

Symbol - GBPUSD,
Timeframe - H4 (PERIOD_H4),
MA method - smoothed moving average (MODE_SMMA),
Applied price - high (PRICE_HIGH),
Period 1 - 3,
Period 2 - 14,
Index of the value taken from the indicator buffer - 5.

```
double result=iAOfunc("GBPUSD", PERIOD_H4, MODE_SMMA, PRICE_HIGH, 3, 14, 5);
```

How to include custom function into program (e.g. expert, script) in MQL4.

The compiled file-library "iAOfunc.ex4" must be copied into directory *MT4_directory\experts\libraries* . In code of the program before input parameters operator *#import* must to be used (<http://docs.mql4.com/basis/preprocessor/import>).

Example.

```
//+-----+
#import "iAOfunc.ex4"
double iAOfunc(string Sy,int Tf,int MA_mode,int Applied_price,
               int Period_1,int Period_2,int Shift);
#import

//+-----+
int init() { return(0); }
//+-----+
int start()
{
//----
// Body of program
//----
return(0);
}
//+-----+
int deinit() { return(0); }
//+-----+
```