

EXCEL RTD



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1. About the Excel RTD app

The Excel RTD app lets you do two things:

- [Put real-time data into Excel](#) using only Excel's RTD() function. No macros; no programming; no XLL add-ins
- [Send simple trading commands](#) from VBA code in Excel

You can run multiple copies of the Excel RTD app for different accounts, and then combine the data for those accounts in a single spreadsheet.

The app is supplied with an example spreadsheet which lets you enter up to 5 account numbers, and then automatically displays a dashboard of equity and balance etc; symbol prices; and a consolidated list of open positions.

2 Displaying real-time data in Excel

2.1 Running the RTD app

In order to put real-time data into Excel you need to run the RTD app. The Excel formulas listed below will give blank values if the app is not running.

2.1.1 Available symbols

Information about the following symbols will be available in the Excel RTD app:

- **MT4/5:** the app will report all the symbols which are included in the MT4/5 market watch
- **Tradable:** the app will report all available symbols in the platform
- **All other platforms:** you configure which symbols the app reports using the app's Symbols menu.

2.2 Excel formula

Once the RTD app is running, you can use the following formula in Excel to insert a real-time feed of account, ticket, or price data. You simply need to fill in the account number, and the "[property](#)" which you want to display:

```
=RTD("FXBlueLabs.ExcelRTD", , "account number", "property")
```

For example, if your account number is 156734 and you want to display the account's balance, or the bid price of GBPUSD:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "balance")
=RTD("FXBlueLabs.ExcelRTD", , "156734", "bidGBPUSD")
```

Please note: with some language settings – for example, Polish – Excel may want the sections of the formula to be separate by semi-colons instead of commas. For example:

```
=RTD("FXBlueLabs.ExcelRTD"; ; "account number"; "property")
```

2.3 Property names

The RTD app supplies data about the [account](#) (e.g. equity and balance), symbol [prices](#), “[tickets](#)“, [bar history](#), and [technical indicator](#) values. The list of tickets includes both open positions and pending orders.

2.3.1 Account data properties

Property	Meaning
currency	The deposit currency of the account
balance	Account balance
equity	Account equity
pl	Floating profit/loss
usedmargin	Margin in use
freemargin	Free margin
tickets	Number of “ tickets “: open positions and pending orders

2.3.2 Price and symbol data properties

The app supplies the current ask and bid prices for all [symbols configured in the app](#). For example, if the symbol name you are interested in is EURUSD, then the property name for its ask price is askEURUSD. For example:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "askEURUSD")
```

Property	Meaning
<i>bidSymbol</i>	Bid price of symbol
<i>askSymbol</i>	Ask price of symbol
<i>highSymbol</i>	Daily high of the symbol. Not available on all platforms. The definition of the day’s start (e.g. GMT, or some other time zone) depends on the broker/platform.
<i>lowSymbol</i>	Daily low of the symbol. Not available on all platforms. The definition of the day’s start (e.g. GMT, or some other time zone) depends on the broker/platform.

The app also provides a count and a list of all configured symbols. For example, the following formulas return the number of available symbols and the name of the 5th symbol on the list (which can be in any order):

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "symbols")
```

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "s5")
```

Property	Meaning
symbols	Number of symbols
sN	Name of the nth symbol, e.g. EURUSD. The N value is an index between 1 and the total number of symbols

2.3.3 Ticket data properties

The app supplies the following information about each "ticket", i.e. each open position and pending order. The N value in each property name is an index between 1 and the total number of tickets (reported by the [tickets property](#)).

For example, you can get the symbol name and net profit of the 2nd ticket (if there is one) using the following formulas:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "t2s")
```

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "t2npl")
```

Property	Meaning
tNt	Ticket number, i.e. the ID of the open position or pending order
tNa	Action: BUY, SELL, BUYLIMIT, SELLLIMIT, BUYSTOP, SELLSTOP
tNs	Symbol name
tNv	Volume
tNnpl	Net profit (gross profit + commission + swap). Not applicable on pending orders, and reported as zero.
tNpl	Gross profit. Not applicable on pending orders, and reported as zero.
tNswap	Swap. Not applicable on pending orders, and reported as zero.
tNcomm	Commission. Not applicable on pending orders, and reported as zero.
tNsl	Stop-loss price
tNtp	Take-profit price
tNop	Open/entry price
tNcp	Current price of symbol
tNcm	Order comment
tNmng	Order magic number (MetaTrader 4 only)

t/Not

Open time (as number of seconds since 1/1/1970)

2.3.4 Bar history

You can use the Excel RTD app to request recent price history from the platform. All values are bid prices. (Please note that this price history is not available on the tradable platform.)

The property name for bar history is as follows: `@bh,symbol,timeframe,data,shift`. For example, the following formula shows the high of the current EUR/USD H1 bar:

```
=RTD("FXBlueLabs.ExcelRTD",,"156734", "@bh,EURUSD,H1,high,0")
```

2.3.4.1 Timeframe value

The bar timeframe can either be specified as a number of minutes – e.g. 60 for hourly bars – or you can use standard notations such as H1 or M3. The available timeframes are as follows:

Period	Timeframe value
M1	1
M2	2
M3	3
M4	4
M5	5
M6	6
M10	10
M12	12
M15	15
M30	30
H1	60
H2	120
H3	180
H4	240
H6	360
H8	480
D1	1440
D2	2880
W1	7200

2.3.4.2 Price data

You can request the following information about each bar:

Data	Meaning
time	Start time of the bar (in the format yyyy/mm/dd hh:mm:ss)
open	Open price
high	High price
low	Low price
close	Close price
range	Range from high to low
median	Average of high and low
typical	"Typical" price: average of high, low, and close
weighted	"Weighted" price: average of high, low, close, and close – i.e. double-weighting on the close value
change	Change in bar: close minus open, therefore negative for down bars and positive for up bars.
abschange	Absolute change value, i.e. change converted to a positive number if negative

2.3.4.3 Bar shift

The final part of the price history formula is the bar "shift", i.e. which bar to get information about. Bars are numbered with the newest at zero, and increasing in order of age. In other words, bar 0 is the current in-progress bar; bar 1 is the last complete bar etc.

Therefore, the close price on bar 0 (for any timeframe) is the current bid price. In effect, the following two formulas are identical:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "bidGBPUSD")
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@bh,GBPUSD,60,close,0")
```

The amount of data available on each timeframe depends on the underlying platform, but will typically be around 250 bars.

2.3.5 Technical indicators

The Excel RTD app has some built-in indicator calculations which you can request using formulas. For example, the following formula will show 14-bar Relative Strength Index for GBP/USD M5:


```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@rsi,GBPUSD,M5,14,0")
```

Please note that the technical indicators are not available on the tradable platform.

The property name for a technical indicator starts with an indicator name such as @rsi or @ema, and is then followed by a list of parameters separated by commas.

The first two parameters for an indicator are always the [symbol](#) name and the [timeframe](#), which can be specified either as H2 or as the equivalent number of minutes such as 120.

The last parameter is always the [bar "shift"](#). You will normally want to use a value of 0 for the shift, in order to get the current indicator value, but you can also use a shift of e.g. 1 to get the value of the indicator at the end of the previous bar. (The only exception are the [swing-point indicators](#), which always return the latest swing point and do not use a shift parameter.)

Many indicators can be applied to different [data values](#) from each bar, e.g. the high price or even the bar range instead of the close price.

Please bear in mind that exponential moving averages and similar calculations are affected by the amount of available bars. For convenience, everyone always refers to the N value in such calculations as "N bars" (e.g. "21-bar EMA"), but this is not what it truly means. The N is a weighting factor, and a calculation such as an EMA always looks at the entire bar history which it has collected, but giving increased weight to the most recent N bars. Two calculations of an EMA can be different – though only usually by small amounts – if they are using different amounts of bar history.

2.3.5.1 @sma – Simple Moving Average

You can calculate a simple moving average (i.e. arithmetic mean) using the @sma indicator. For example, the following formula does an average of the [median](#) prices for the last 10 bars on GBP/USD M5:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@sma,GBPUSD,M5,median,10,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3

data	Data to use from each bar, e.g. close or high
period	Number of bars to calculate the average over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.2 @ema – Exponential Moving Average

You can calculate an exponential moving average using the @ema indicator. For example, the following formula does an average of the [ranges](#) of the last 21 bars on GBP/USD D1:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@ema,GBPUSD,1440,range,21,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar, e.g. close or high
period	Number of bars to calculate the average over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.3 @smma – Smoothed Moving Average

You can calculate a smoothed moving average using the @smma indicator. (A smoothed average with period N is the same as an exponential moving average with period 2N-1).

For example, the following formula does an average of the [close prices](#) of the last 21 bars on GBP/USD H1:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@smma,GBPUSD,H1,close,21,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar, e.g. close or high
period	Number of bars to calculate the average over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.4 @lwma – Linear-Weighted Moving Average

You can calculate a linear-weighted moving average using the @lwma indicator. For example, the following formula does an average of the [ranges](#) of the last 21 bars on GBP/USD D1:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@lwma,GBPUSD,1440,range,21,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar, e.g. close or high
period	Number of bars to calculate the average over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.5 @macd and @macdsig – MACD

You can calculate MACD (the difference between a "fast" EMA and a "slow" EMA) using the @macd indicator. You can also use @macdsig to get the smoothed "signal" value of the MACD indicator.

For example, the following formula calculates MACD for GBP/USD M30, using the standard 12-bar fast EMA and a 26-bar slow EMA, and applying the calculation to the high price of each bar:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@macd,GBPUSD,30,high,12,26,9,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar, e.g. close or high
fast	Number of bars for the fast EMA
slow	Number of bars for the slow EMA
slowing	Smoothing period for the signal value
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.6 @atr – Average True Range

You can calculate average true range using the @atr indicator. For example, the following formula calculates the average true range of the last 21 bars on GBP/USD D1:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@atr,GBPUSD,D1,21,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
period	Number of bars to calculate the average over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.7 @rsi – Relative Strength Index

You can calculate Relative Strength Index using the @rsi indicator. For example, the following formula calculates 14-bar RSI on USD/JPY M3:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@atr,USDJPY,3,14,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
period	Number of bars to calculate the indicator over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.8 @stoch and @stochslow – Stochastic Oscillator

You can calculate the stochastic oscillator using the @stoch indicator. You can also calculate the slowed "signal" value for the indicator using @stochslow.

For example, the following formula calculates the oscillator on GBP/USD H2 bars, using standard parameters of (5,3,3) – i.e. K period of 5, D period of 5, slowing value of 3.

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@stoch,GBPUSD,120,5,3,3,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
k	K period for the calculation
d	D period for the calculation
slowing	Slowing period (moving average of D values)
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.9 @bbupper and @bblower – Bollinger bands

You can calculate "Bollinger" bands – a simple moving average plus/minus a number of standard deviations – using the @bbupper and @bblower indicators.

For example, the following formula calculates the upper band on GBP/USD M10, using an average of the close prices on the last 30 bars, and 2 standard deviations:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@bbupper,GBPUSD,10,close,30,2,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar, e.g. close or high
period	Number of bars to calculate the indicator over
deviations	Number of standard deviations to calculate (e.g. 2)
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.10 @vol – Volatility (standard deviation)

You can calculate volatility – i.e. 1 standard deviation – using the @vol indicator.

For example, the following formula calculates the volatility of the last 21 [bar-ranges](#) on GBP/USD M10:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@vol,GBPUSD,10,range,21,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar, e.g. close or high
period	Number of bars to calculate the indicator over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.11 @cci – Commodity Channel Index

You can calculate the Commodity Channel Index using the @cci indicator.

For example, the following formula calculates CCI using the [typical](#) bar price for the last 14 bars on EUR/USD H1:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@cci,EURUSD,60,typical,14,0")
```

The indicator's parameters are as follows:

Parameter	Meaning
symbol	Symbol name, e.g. GBPUSD
timeframe	Bar timeframe , as a number of minutes or a notation such as H1 or M3
data	Data to use from each bar. CCI is usually calculated on the "typical" bar price
period	Number of bars to calculate the indicator over
shift	Bar shift , e.g. zero in order to get the current value of the indicator

2.3.5.12 @high – Highest bar value

You can calculate the highest of a series of bar values using the @high indicator. For example, the following formula calculates the highest high during the last 20 GBP/USD D1 bars:

```
=RTD("FXBlueLabs.ExcelRTD", , "156734", "@high,GBPUSD,D1,high,20,0")
```

The indicator can be applied to any bar [data](#). For example, you can find the highest low as well as the highest high. You can also use it to find the bar with the largest range or change.

The indicator's parameters are as follows:

Parameter	Meaning
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