



Zlantrader: Excel Instructions

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Background

Zlantrader gives the user the ability to link up directly with Microsoft Excel using Real-Time Data (RTD) functionality, available via the Microsoft Stack.

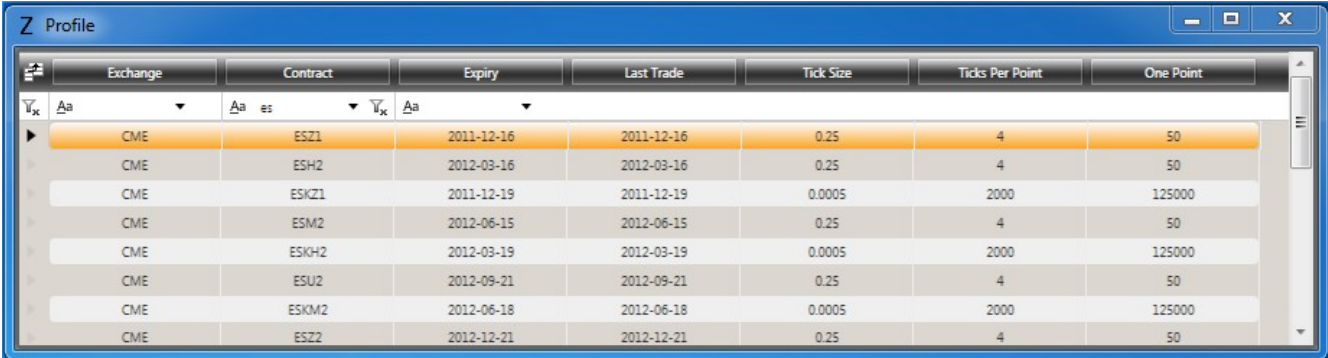
Below document provides formulas and usage scenarios for linking Zlantrader directly with Excel.

Formulas

Building the Instrument Code

RTD functions need to pick an Instrument to send/receive data to and for. To specify an instrument, the user has to build the RTD Instrument Code using Zlantrader's Profile window.

Below is an example of the ESZ1 Instrument in the Profile window.



Exchange	Contract	Expiry	Last Trade	Tick Size	Ticks Per Point	One Point
CME	ESZ1	2011-12-16	2011-12-16	0.25	4	50
CME	ESH2	2012-03-16	2012-03-16	0.25	4	50
CME	ESKZ1	2011-12-19	2011-12-19	0.0005	2000	125000
CME	ESM2	2012-06-15	2012-06-15	0.25	4	50
CME	ESKH2	2012-03-19	2012-03-19	0.0005	2000	125000
CME	ESU2	2012-09-21	2012-09-21	0.25	4	50
CME	ESKM2	2012-06-18	2012-06-18	0.0005	2000	125000
CME	ESZ2	2012-12-21	2012-12-21	0.25	4	50

In order for the user to send/receive Market Data or Orders for the ESZ1 contract, then the user must build an Instrument Code to use in the RTD formula. The formula consists of:

- Exchange: listed in the Profile window's Exchange column, CME in this example.
- Symbol: Exchange traded Symbol, for the Instrument of ESZ1 example, ES. The Symbol for a Futures Instrument is the characters before the Month/Year expiration code. Splitting the Instrument ESZ1 into its parts reveals ES as the Symbol and Z1 as the expiration.
- Expiry Year-Month-Day: from the Expiry column in the Profile window, in this example, 2011-12-16.

The fields are separated by a slash, "/".

Therefore, the Instrument Code for use in Zlantrader's RTD function for ESZ1 becomes: "CME/ES/2011-12-16"

Market Data

To send market data into a spreadsheet, the user may implement the following formulas:

- Best Bid Quantity: `RTD("zlan", "Market", "<instrument code>", "BidQty")`
- Best Bid Price: `RTD("zlan", "Market", "<instrument code>", "BidPx")`
- Best Ask Quantity: `RTD("zlan", "Market", "<instrument code>", "AskQty")`
- Best Ask Price: `RTD("zlan", "Market", "<instrument code>", "AskPx")`
- Last Traded Quantity: `RTD("zlan", "Market", "<instrument code>", "TradeQty")`
- Last Traded Price: `RTD("zlan", "Market", "<instrument code>", "TradePx")`

To further breakdown the formula:

- RTD: simply tells Excel that the data for the cell in question is coming from Real-Time Data services
- zlan: name of the RTD server
- Market: tells RTD that this is for market data
- <instrument code>: see Instrument Code section
- Type enumeration: what the user wants to see, Bid/Offer/Trade Price/Quantity

Order-sending

To implement order-sending functionality, the user may implement the following formulas:

- Buy Market Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Buy", "Market", "1")`
- Sell Market Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Sell", "Market", "1")`
- Buy Limit Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Buy", "Limit", "1", "1286")`
- Sell Limit Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Sell", "Limit", "1", "1286")`
- Buy Stop Loss Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Buy", "Stop", "1", "1286")`
- Sell Stop Loss Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Sell", "Stop", "1", "1286")`
- Buy Stop Limit Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Buy", "StopLimit", "1", "1284", "1283")`
- Sell Stop Limit Order: `RTD("zlan", "Order", "<instrument code>", "<Account ID>", "Sell", "StopLimit", "1", "1284", "1285")`

To further breakdown the formula:

- RTD: tells Excel that data will be sent via Real-Time Data services
- zlan: name of the RTD server in question
- Order: tells RTD that the formula is for order-sending

- <instrument code>: see Instrument Code section
- <Account ID>: Account that the order will be placed under. Codes may be found in the Account Manager window of Zlantrader.
- Buy/Sell: side to place the order
- Order Type: valid Order Types are Market, Limit, Stop (for Stop Loss), StopLimit (for Stop Limit).
- Quantity: order quantity
- Price 1: this field is for either Limit price or Stop Trigger Price
- Price 2: this field is only populated for Stop Limit price

Usage

'=' Operator

The '=' operator tells Excel that the succeeding cell data is a formula. In order for the user to add specific data to a cell, say the ESZ1 Best Buy Price, then the user would type in an Excel cell:

```
=RTD("zlan",,"Market","CME/ES/2011-12-16","BidPx")
```

Using Excel Logic

The '=' operator should be used with care for order-sending. If a user were to type the following in a cell...

```
=RTD("zlan",,"Order", "CME/ES/2011-12-16", "myAccountId", "Sell", "Market", "1")
```

...a Sell Market order with a quantity of 1 for the ESZ1 contract would be immediately sent.

It is recommended that the user implement spreadsheet logic to keep orders from immediately being sent. An example of using if/then logic in Excel would be:

```
=IF(C2 >= 1286,RTD("zlan",,"Order", "CME /ES/2011-12-16", "myAccountId", "Sell", "Market", "1"))
```

The C2 cell could be some Market Data cell. The formula simply says if some Price reaches 1286, then a Sell Market order for ESZ1 with a quantity of 1 will be sent.

Some care must be taken to ensure that multiple orders are not sent. If Excel logic is being used and the market is volatile, multiple orders may be sent before the user can update the logic.