# **fastmarkets**

# FastMarkets' My Instruments™

# **User Guide**

FastMarkets' My Instruments functionality gives users the power to create real world derived prices from underlying financial instruments. From real time scrap or alloy pricing, through to finished product pricing or a complex real time arbitrage, My Instruments gives the user unprecedented control to track the prices that really matter to their businesses

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## Introduction

**My Instruments** are just like regular instruments on FastMarkets services, except they are defined by the individual user and are personal to that user's account. The **My Instrument** tool allows a user to create bespoke instruments by combining existing FastMarkets instruments from the instrument catalogue with other instruments and / or numerical constants in a defined calculation.

So for example, a user might want to see an instrument that uses the LME Copper Select Cash price, adds a FastMarkets Physical Premium to the exchange price and then converts the result from \$US per tonne to Euro's per tonne using the spot \$US / EUR exchange rate.

Once created the new bespoke instrument will update in real or delayed time (depending on the subscription level) and will be available in the following areas:

- Price parts
- Charts
- Historic Data
- DDE
- Alerts

## How to create a simple new My Instrument

In the content finder there is a new section **My Instruments** within the Customisation Tools section:



This works in the same way as creating a My Price part. Click the  $\square$  icon to launch the My Instruments wizard.

My Instruments Use the buttons below to	create the formula for calculating your instrument.	X
Enter instrument name Decimal Places	2	
()+	- × ÷ 1234.56 Symbol	)
Your instrument is current	ly defined as :	
Save Reset		ns & Conditions

Enter a descriptive name for your instrument in the text box provided, since an instrument cannot be saved without this box being completed.

If required amend the number of decimal places you want the instrument result to display. You can always return and change this later if required.

Now use the clickable buttons to build the calculation for your instrument. Let's consider the example in the introduction of an instrument that uses the <u>LME Copper Select Cash</u> <u>price</u> and adds a <u>FastMarkets Physical Premium</u> to the exchange price and converts the result from \$US per tonne to Euro's per tonne using the <u>spot \$US / EUR</u> exchange rate.

To enter an existing instrument into the calculation click on the **Symbol** button and the instrument catalogue will open in the wizard for you to select your instrument (only 1 allowed) and choose a field to base the calculation on.

		Search			Fields	
Catalogue	S	Selected Instruments			Last	*
(Precious Metals)	- (	Copper Cash	*		Bid	
(LME)					Ask	
(Copper)	=				Mid	
(Key Contracts)					Bid & Ask	
Copper Cash					Settle	
Copper 3M Select				▼	Close	
Copper 3M BM					Close 5pm	
Copper C-3					Close 7pm	
(Floor Contracts)						
Official	-					
< III +			-			Ŧ
Save) (Close)	(	Remove)				

Click on the **Save** button at the foot of the catalogue and your instrument will appear in the working area of the wizard.

Next choose an operator and you can start to see your calculation being defined:

Your instrument is currently defined as :

Copper Cash_Last +	

Repeat the process to select a FastMarkets Physical Premium by clicking on the **Symbol** button again. In this example the <u>Copper grade A cathodes Germany dlvd</u> premium has been selected. The calculation now looks like this:

Your instrument is currently defined as :



The full wizard view now looks like this:

My Instruments Use the buttons below to	create the formula for calculating your instrument.
Enter instrument name	Copper Germany Dlvd
Decimal Places	2
()+	
Your instrument is current	y defined as :
Copper Cash_Last	+ Copper grade A cathodes Germany dlvd_Mid
Save Reset	LME Terms & Condition.

If you now click on the **Save** button in the bottom left hand corner of the wizard you will create your first My Instrument, which you will be promoted to accept by clicking on the **OK** button .

Thank you your instrument has been created.	Sy
ок	

This basic instrument has combined the LME Copper cash price in \$USUS per tonne with the FastMarkets German Physical Premium in \$US per tonne. The instrument will now be listed in the Content Finder under My Instruments:

Customisation Tools			
My Alerts			
My Prices			
My External Links			
My RSS Readers			
My Instruments			
Create a new instrument 🗖	_		
Copper Germany Dlvd 🛅 🛅 🛄	42	103	6

You can now use the regular buttons you're used to using, to add the **My Instrument** to a tab  $\square \square$ , open it as a popup  $\square$ , delete it  $\blacksquare$ , modify it  $\circledast$  or use the  $\square$  button to clone it.

If you open it into a tab or as a pop-up you will see the working representation of the instrument shown below:



This displays the latest pricing for the instruments selected and the result of the calculation that you have constructed. These will automatically update with the underlying instruments in real or delayed time depending on your subscription.

Please note the small green square indicator after each FastMarkets instrument. This is the market open /closed flag that you may already be familiar with. When a market is closed the indicator shows red. If this indicator is red for any of the underlying instruments then the My Instrument will not update until all the appropriate markets are open again. For the avoidance of doubt, a **My Instrument** will only update if all the relevant markets are open.

You will also notice that in this simple example the tool has also automatically added parentheses (brackets) around the equation you have created.

**Tip**. As we move onto more complex examples, it is important to remember that each individual element of the calculation you create will need to be enclosed in a nested set of parentheses (brackets).

### How to modify an existing My Instrument

The basic **My Instrument** we created above is still priced in \$US per tonne, so to make it even more useful we wanted to convert the price to Euro's at the current spot FX rate.

We can easily modify the My Instrument definition to add in this or other additional elements. There are two options for modifying the original instrument. From the Content Finder we can find the **My Instrument** and we have the option to click on the symbol to **modify** it or the button to **clone** it.

Customisation Tools
My Alerts
My Prices
My External Links
My RSS Readers
My Instruments
Create a new instrument 🗖
Copper Germany Dlvd 🛅 🛅 🛄 👿 🧐 🧟

If you **modify** the existing instrument your changes will be saved over the existing version. If you use the **clone** option you can use the existing instrument as your start point, give the instrument a new name and create a modified version whilst retaining the original instrument in your **My Instruments** collection.

For this example we will use the **modify** function. Clicking on the **Modify** selector will reopen the **My Instrument** in the wizard so you can make amendments as required.

My Instruments	create the formula for calculating your instrument.
Enter instrument name	Copper Germany Dlvd
Decimal Places	2
())(+	) - ( x ) ( ÷ ) (1234.56 ) (Symbol)
Your instrument is currentl	y defined as :
( LME Copper Cas	h_Last + Copper grade A cathodes Germany dlvd_Mid )
Save Reset	LME Terms & Conditions

You might want to amend the Instrument name by adding a EUR reference. You can then repeat the process of adding a further mathematical operator and the Euro Spot instrument to perform the conversion from \$US to Euro's.

My Instruments Use the buttons below to	create the formula for calculating your instrument.
Enter instrument name Decimal Places	Copper Germany DIvd EUR
()+	- × ÷ 1234.56 Symbol
Your instrument is current	y defined as :
() LME Copper Cas	h_Last + Copper grade A cathodes Germany dlvd_Mid ) ×
Save Reset	LME Terms & Conditions

**Save** your amendments and you will see a prompt regarding the historic data for this instrument:

You have made changes to your calculation. The historic data for this insturment may now be invalid. Would you like the historic data to be deleted ?

ОК	Cancel

Our system starts to generate historical data for a My Instrument from the time that you save it. You have the choice to delete all previous historic data every time you amend an instrument. To do this click OK.

If you are making an amendment to the actual calculation, then generally you should delete the previous historical data to prevent storing an inaccurate historical record of the data.

If you were simply correcting a typing error in the title and make no change to the actual calculation then select cancel and the prior historical data will be retained for your records.

You will then receive a further prompt to accept the changes. Click on OK to move on.

If you now refresh the instrument where it is located on your tabs you will see it has updated to reflect the additional elements of the calculation and the title change:



You will also notice that again the tool has automatically added nested parentheses (brackets) around the two steps of the equation you have created.

**Tip**. The nested parentheses (brackets) show you how FastMarkets Professional calculates your **My Instrument**. It will always start with the inner most pair of parentheses (brackets) and calculate this partial result, before moving outwards to combine each partial result with the calculation step in the next set of parentheses.

As we will see, you can continue to modify the calculation adding further elements and complexity and a good tip when you building complex instruments for the first time is to build it up one element at a time, saving the equation at each step. This way the system will generally add the parentheses for you. If you try to build a complex equation in one go then you must correctly add in all the necessary correctly nested parentheses before you can save the new instrument.

There is validation in place to prevent some obvious mistakes that would create an invalid formula, for example consecutive operators, consecutive symbols or consecutive values, or parentheses in the wrong place. There are obviously many other ways of creating an invalid calculation, so if the wizard can't create a calculation from what you provide it will prompt you to check and correct it.

# Adding your own bespoke numerical elements into the calculation

So far, the **My Instrument** we defined above has only combined existing instruments but it is also possible to include your own numerical elements to create even more relevant instruments.

In the example created, suppose that you know you will have to pay a purchase tax of 20% and you want to allow for transport costs of 25 Euro's per tonne in a final calculated price.

To do this, simply select to **modify** the instrument again from the content finder. The instrument as currently constructed will open in the wizard for modifying.

To add your own values into the calculation add the appropriate mathematical operator then click on the 1234.56 (constant) button:



The following window will open up:

C		
displayed with	ue, an optional name to b this value and choose le this in price parts.	e
Value		
Name (optional)		
Hide in MyPrices		
	Save Cancel	

Add the value that you want to include in the calculation in the value box and assign a descriptor if required. At this point leave the "**Hide in My Prices**" box blank.

displayed wit	alue, an optional name to be h this value and choose ide this in price parts.
Value	1.20
Name (optional)	Purchase Tax 20%
Hide in MyPrices	
	Save Cancel

Save the input to the window using the **save** button and you will return to the wizard as shown:

My Instruments Use the buttons below to	create the formula for calculating your instrument.
Enter instrument name Decimal Places	Copper Germany Dlvd EUR
()+	- × ÷ 1234.56 Symbol
Your instrument is current	ly defined as :
() () LME Coppe Euro_Mid () ×	r Cash_Last (+) Copper grade A cathodes Germany dlvd_Mid () × Purchase Tax 20% [1.2]
Save Reset	LME Terms & Conditions

Save this new element to the calculation so the system will add the appropriate nested parentheses.

From the Content Finder reopen the instrument for modifying and repeat the process above to add in the transport costs as shown below:

d	lisplayed with	ue, an optional name to b this value and choose e this in price parts.	e
V	/alue	25	
	lame optional)	Transport per tonne	
	lide in 1yPrices		
		Save Cancel	

Save this new element to the calculation. Resave the instrument and refresh the instrument view in your tab and you should see the following:

Copper Germany Dlvd EUR 🔯 C 💶 X
(
(
(
( LME Copper Cash : Last 6400.45 •
Copper grade A cathodes Germany dlvd : Mid <b>92.50</b> ) •
$\otimes$
Euro : Mid 1.1329 •
)
$\otimes$
Purchase Tax 20% 1.2
Transport per tonne 25
)
∈ 0.00

# **Advanced Options**

If you make a mistake in your calculation, simply click the **Reset** button on the wizard to clear it and start afresh.

If you hover over the operands and operators in the calculation 3 option buttons will appear:  $\chi_{|\otimes|+|}$ 

They allow you to **delete** the operand/operator, **edit** it, or **insert** a new one to the left of the currently selected.

If you choose to **edit** an operator, it will be highlighted in green and you are invited to select a replacement operator:



If you choose to modify a value or symbol, the dialogue boxes (previously described) will be displayed. Make the changes and click the **Save** buttons to update the calculation.

If you choose to **insert** a new operator/operand it will appear as **?** in the calculation.



You then need to either click an operator button or choose a value or symbol, which will then replace the **?** in the calculation. For example I want to insert an opening parenthesis:



# **Viewing My Instruments**

#### **Price Parts**

**My Instruments** can be added to an existing price part on your FastMarkets Professional desktop layout. Simply select the **My Instrument** from the instruments catalogue, to include it in an existing price part:

LME Cash & Indications	; (USD/Tonne)	& C _ X
	Search	
Catalogue Precious Metals LME CME SHFE FX & Other Data Minor Metals Selected Equities Physicals My Instruments Copper Germany Dlvd E Save Close		
CTR LDN	Bid Ask LDN CTR	Last LDN +/- High Low
LME Cu Cash * 🛛 🖵 17:34	6396.75 6400.75 17:33 🗔 64	400.45 12:45 -35.25 6461.00 6363.00
LME AI Cash * 🛛 🔂 17:33	1898.50 1902.50 17:33 🕒 1	915.50 13:18 -49.25 1955.75 1881.75

Alternatively, you use the **My Prices** wizard to create a new price part with your **My Instrument** on:

Create and Modify My Prices
Follow the steps below to create a price panel to display on your screen, on any tab, and as a popup
Caption 2 Select Instruments 3 Select Fields 4 Select Styles
Use the drop downs below to find the instrument you need. Click 'Add Instrument' to add to the list of selected instruments. Click 'Next' when you are finished.
Selected Instruments  Precious metais  LME CME SHFE FX & Other Data Minor Metals Selected Equities Physicals My Instruments Copper Germany Divd  Remove
Back Next

The **My Instrument** is now displayed on the price part and can be shown with other My Instruments or alongside regular instruments in the part:

My Instruments				Ø (	3 <u> </u>
	Last	LDN	+/-	High	Low
Copper Germany Dlvd EUR	0.00	30 Dec			
LME Copper Cash *	6400.45	12:45	-14.75	6461.00	6363.00
Copper 3M plus premium	6460.00	18:08	0.00	6462.00	6440.00
LME Copper 3M Select	6420.00	18:08	-9.00	6458.00	6366.50

**Tip**. Note that only certain fields are updated on **My Instruments**, namely:

- Last Change
- Last Time Open/High/Low/Close

As you can see, the **My Instrument** "Copper 3m plus premium" is drawn as a button that can be clicked. If you do this it will expand the instrument to display the underlying calculation:

My Instruments				۰.	¢ _ X
	Last	LDN	+/-	High	Low
Copper 3M plus premium	6460.00	18:14	0.00	6464.00	6440.00
(LME Cu 3M + My Premium 40	)				

The definition of the My Instrument is shown as illustrated above and any constants are displayed as editable values which can be modified and saved directly from the price part, rather than having to go back into the wizard. If you choose to change the value of a constant in the calculation and save it, then it will be changed across all price parts that have this **My Instrument** included.

**Tip**. If you want to run the same basic calculation, but for a range of values for premiums or other constants, then you should use the **clone** function to create a series of appropriately named **My Instruments**.

You can also choose to hide constants that you have created if you do not want them to be visible in a price part display. To do this select to modify the Instrument, then select to modify the constant and in the dialogue box tick the "**Hide in My Prices**" box and save the change.

displayed with	ue, an optional name to be this value and choose e this in price parts.	
Value	40	
Name (optional)	My Premium	
Hide in MyPrices		
	Save Cancel	

This hides the value from view as below:

My Instruments				Ø.	° _ X
	Last	LDN	+/-	High	Low
Copper 3M plus premium	6468.00	18:26	0.00	6468.00	6440.00
(LME Cu 3M + My Premium)					

#### **Drill View**

As we have already seen, you can also add a **My Instrument** directly into a tab (or to open as a popup). This shows a more graphical expanded view of the calculation for a single **My Instrument**.

Copper 3M plus premium	Ø C _ X
( LME Copper 3M Select : Last <b>6415.00</b> ■	
6455.00	

As with price parts, any constants can be modified and saved. Any changes made will also be reflected in the same **My Instrument** added to price parts.

**Tip**. When you have modified a **My Instrument** and saved the changes, make sure you refresh any other parts that display the instrument to ensure the change is reflected in them,

From this part's Customise menu you have two additional options to modify the MyInstrument and make a clone of it. Both options will launch the MyInstruments wizard to make the changes.

Change data refresh speed Modify my instrument Clone my instrument Styles Change Title Change Border Colour	Open this as a popup
Clone my instrument Styles Change Title	Change data refresh speed
Styles Change Title	
Change Title	Clone my instrument
	Styles
Change Border Colour	
enange berder celour	Change Border Colour

#### DDE

Users that have the Advanced DDE role will be able to access their **My Instruments** in Excel, via the **FastMarkets DDE Server™**. The screen shot below shows the location of the **My Instruments** group in the menu, and the fields that are available for selection:



#### Charts

**My Instruments** are also available in charts. As shown below, simply select the **My Instrument** you want to chart from the **My Instruments** group in the instruments catalogue. The full range of charts from 1 minute through to monthly is available, together with all the usual analytical charting tools.



### **Historic Data**

The historic Data part shows the underlying historical data for all My Instruments that have been created by the user.

Historic Data					
	S	earch			
Catalogue OHLC Historic Data My Instruments Copper Germany Div Copper 3M plus pres	d EUR				
Start Date	May 🗸	2015 👻 Data availal	ble from 06 May 2015		
End Date		2015 -			
Select OHLC Period	10 Minute 👻				
	Get Data				
Hide Filters					
Copper 3M plus pren					
Start Date	indin	Open	High	Low	Close
06 May 15 18:40		6450.50	6451.50	6450.50	6451.50
06 May 15 18:30		6456.50	6456.50	6450.50	6450.50
06 May 15 18:20		6468.00	6468.00	6456.50	6456.50
06 May 15 18:10		6464.00	6468.00	6460.00	6468.00
06 May 15 18:00		6457.00	6464.00	6456.00	6464.00
06 May 15 17:50		6440.00	6460.00	6440.00	6457.00
Previous Page 1 Export to Excel				) Excel 🔀	

## Alerts

Periodic and price trigger alerts can be defined for **My Instruments** in exactly the same way as for all other instruments in FastMarkets Professional. :



#### **Styles**

Styles can be applied to **My Instruments** using the standard FastMarkets Professional style customisation tool that is available for all parts in the system.

The default style is shown below:

Copper 3M plus premium	Ø C _ X
( LME Copper 3M Select : Last <b>6415.00</b> ■ (+) My Premium 40	
∈ 6455.00	

When applying styles in the drill view, the **caption style** applies to the calculation background and operators, the **data style** applies to the calculation operands (constants and instruments), and finally the **instrument** style applies to the result of the calculation.

Copper 3M	plus premium	Ø C _ X
Edit fonts/co Choose Style	lours for this section :: Captions -	
Font	Arial	
Font Size	12	
Bold		
Colour	4A5263	
Background		
	Il parts on this tab.	
( LME C	opper 3M Select : Last 6411.50 •	
My Prem	ium 40 💭 🙀 )	
<b>6451</b>	.50	