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.

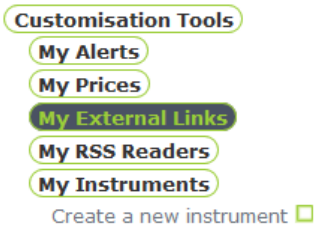
So for example, a user might want to see an instrument that uses the LME Copper Select Cash price, adds a FastMarkets Physical Premium to the exchange price and then converts the result from $US per tonne to Euro's per tonne using the spot $US / EUR exchange rate.

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:

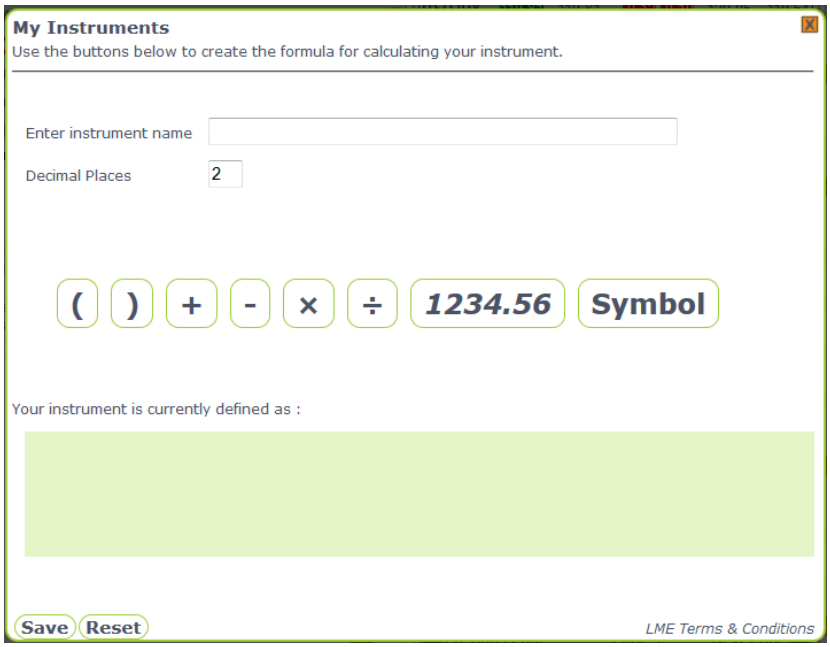
- Price parts
- Charts
- Historic Data
- DDE
- Alerts

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 icon to launch the My Instruments wizard.

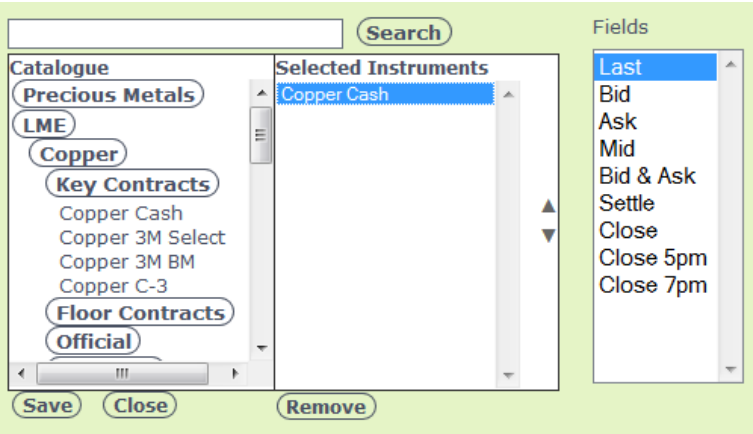


Enter a descriptive name for your instrument in the text box provided, since an instrument cannot be saved without this box being completed.

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.

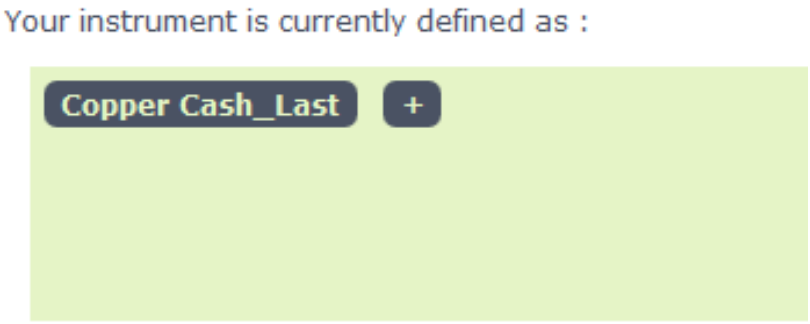
Now use the clickable buttons to build the calculation for your instrument. Let's consider the example in the introduction of an instrument that uses the LME Copper Select Cash price and adds a FastMarkets Physical Premium to the exchange price and converts the result from $US per tonne to Euro's per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

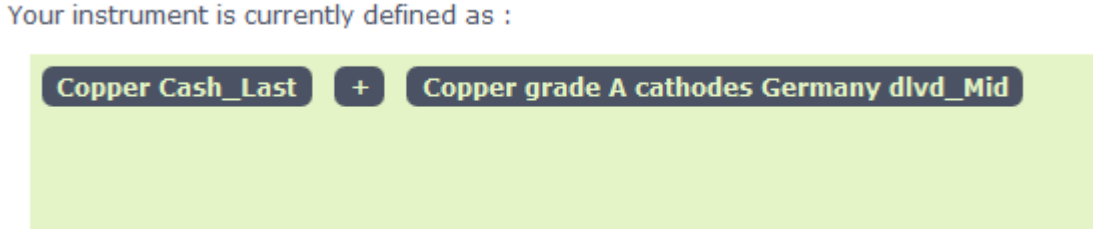


Click on the **Save** button at the foot of the catalogue and your instrument will appear in the working area of the wizard.

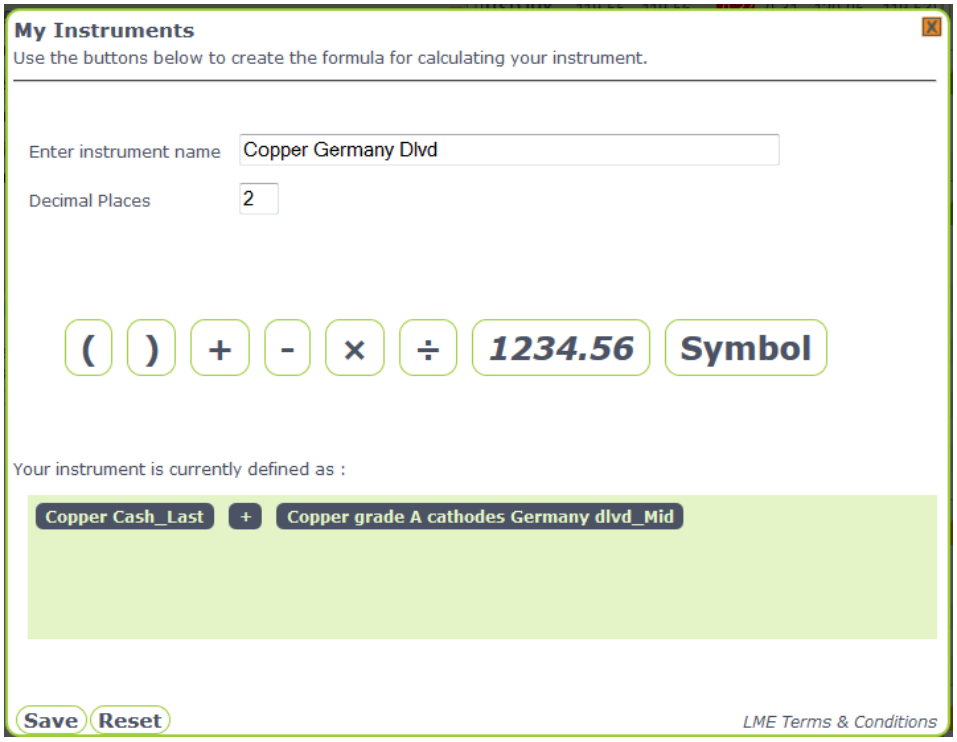
Next choose an operator and you can start to see your calculation being defined:



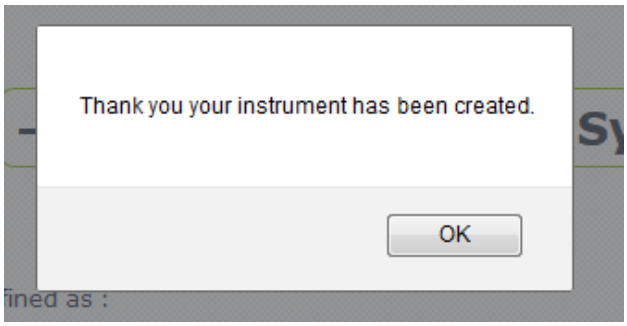
Repeat the process to select a FastMarkets Physical Premium by clicking on the **Symbol** button again. In this example the Copper grade A cathodes Germany dlvd premium has been selected. The calculation now looks like this:



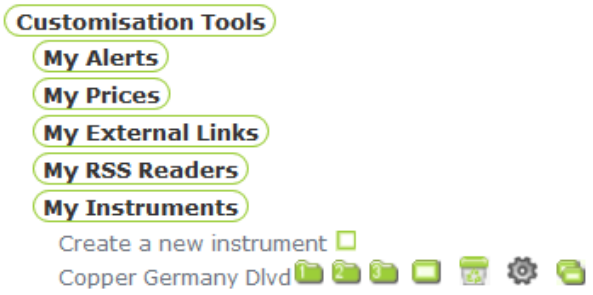
The full wizard view now looks like this:



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 .

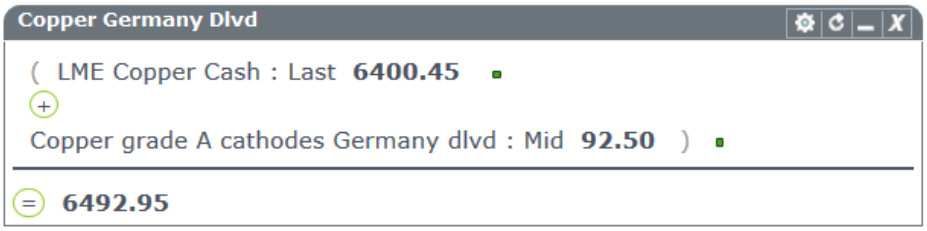


This basic instrument has combined the LME Copper cash price in $USUS per tonne with the FastMarkets German Physical Premium in $US per tonne. The instrument will now be listed in the Content Finder under My Instruments:



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

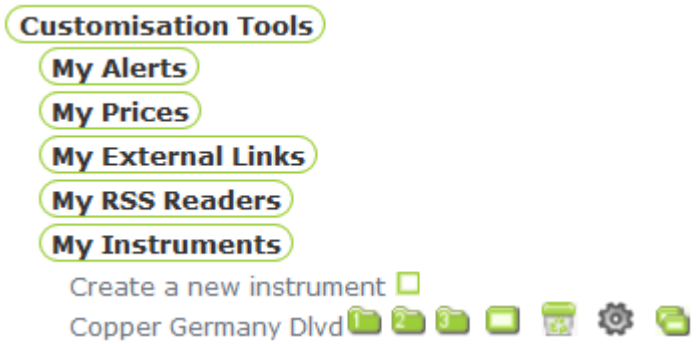
You will also notice that in this simple example the tool has also automatically added parentheses (brackets) around the equation you have created.

***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

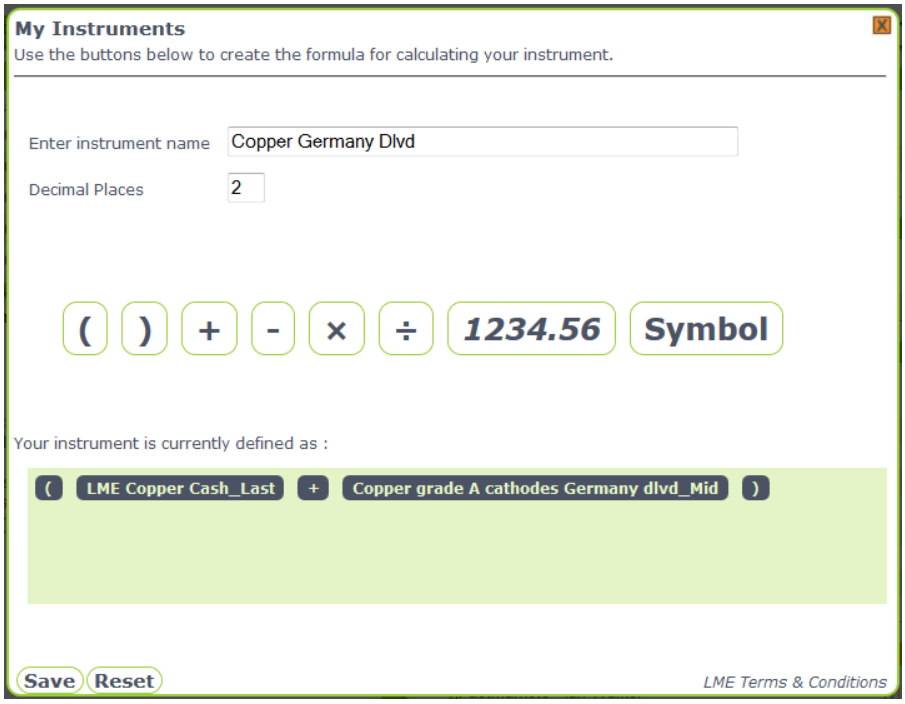
The basic **My Instrument** we created above is still priced in $US per tonne, so to make it even more useful we wanted to convert the price to Euro's at the current spot FX rate.

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.

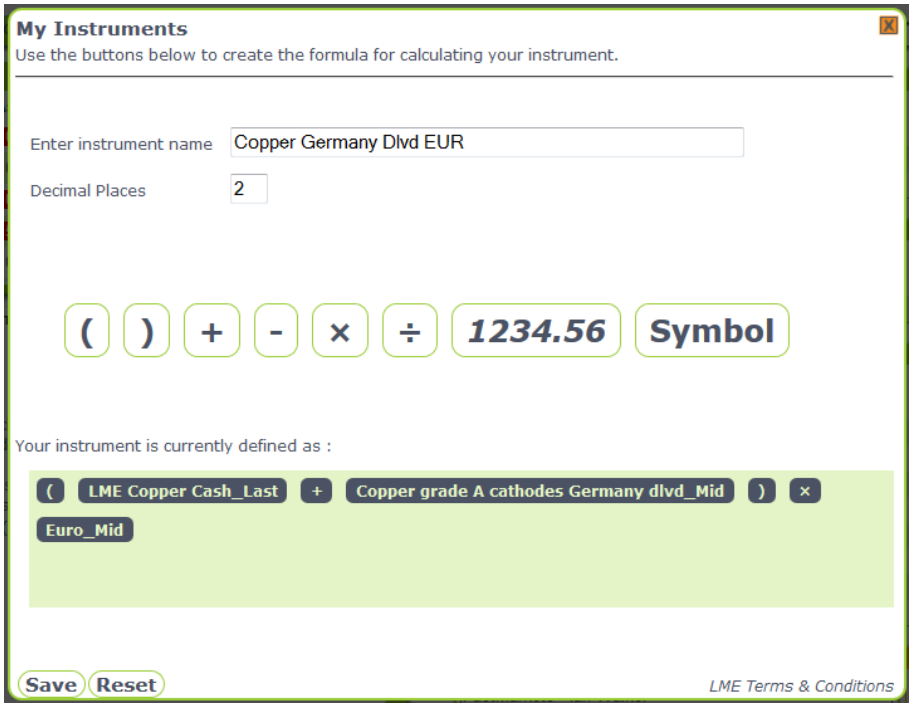


If you **modify** the existing instrument your changes will be saved over the existing version. If you use the **clone** option you can use the existing instrument as your start point, give the instrument a new name and create a modified version whilst retaining the original instrument in your **My Instruments**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

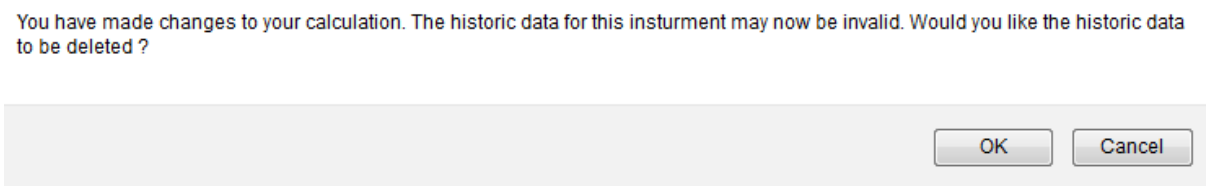
For this example we will use the **modify** function. Clicking on the **Modify** selector will reopen the **My Instrument** in the wizard so you can make amendments as required.



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.



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



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

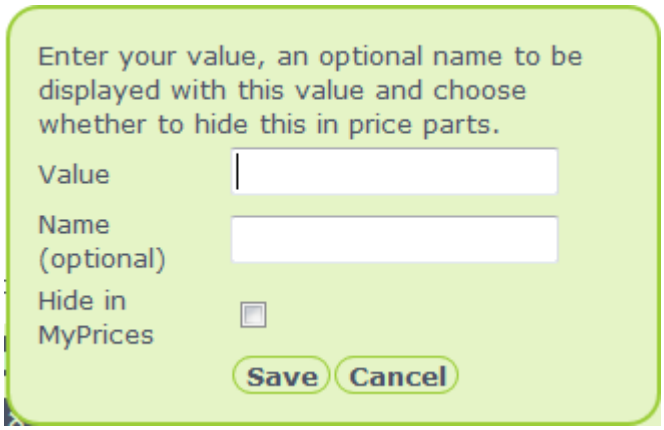
So far, the **My Instrument** we defined above has only combined existing instruments but it is also possible to include your own numerical elements to create even more relevant instruments.

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.

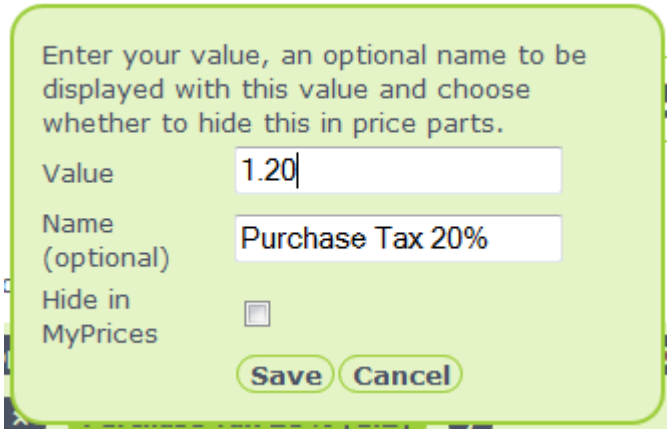
To do this, simply select to **modify** the instrument again from the content finder. The instrument as currently constructed will open in the wizard for modifying.

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

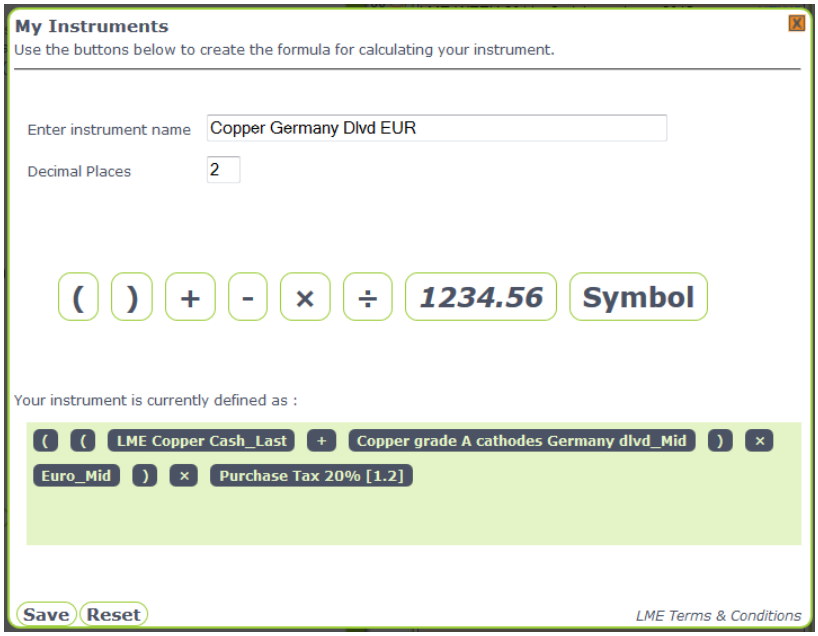
The following window will open up:



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.

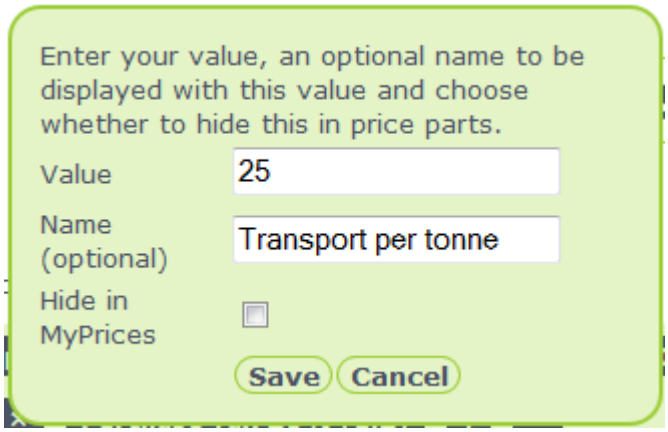


Save the input to the window using the **save** button and you will return to the wizard as shown:

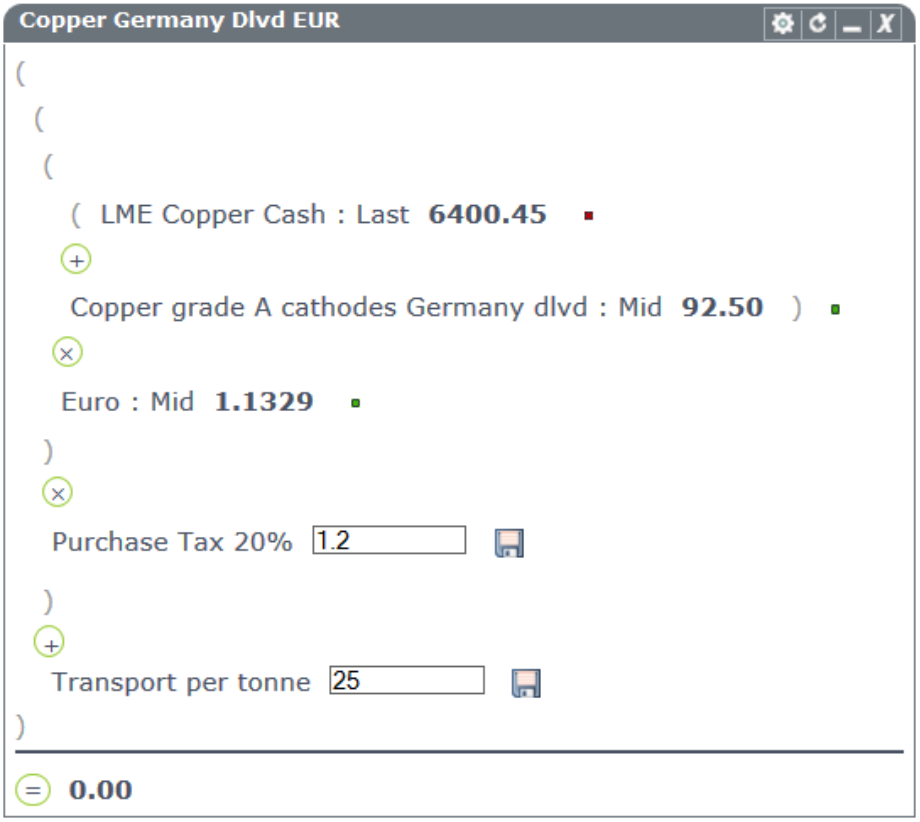


Save this new element to the calculation so the system will add the appropriate nested parentheses.

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



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
(LME Copper Cash : Last 6400.45
Copper grade A cathodes Germany dlvd : Mid 92.50)
Euro : Mid 1.1329
Purchase Tax 20% 1.2
Transport per tonne 25
0.00

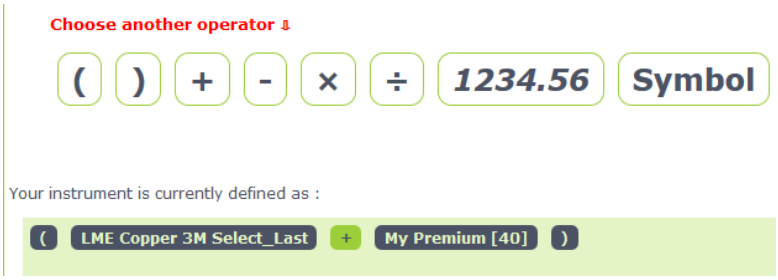
Advanced Options

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:

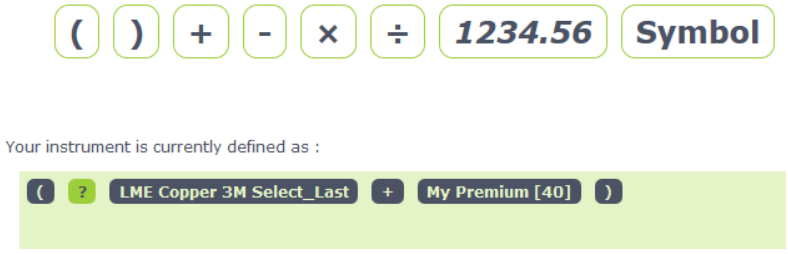
They allow you to **delete** the operand/operator, **edit** it, or **insert** a new one to the left of the currently selected.

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

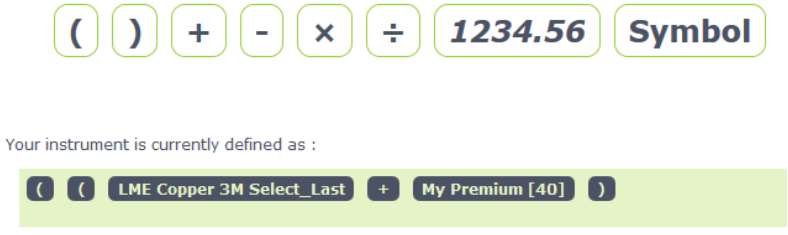


If you choose to modify a value or symbol, the dialogue boxes (previously described) will be displayed. Make the changes and click the **Save** buttons to update the calculation.

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



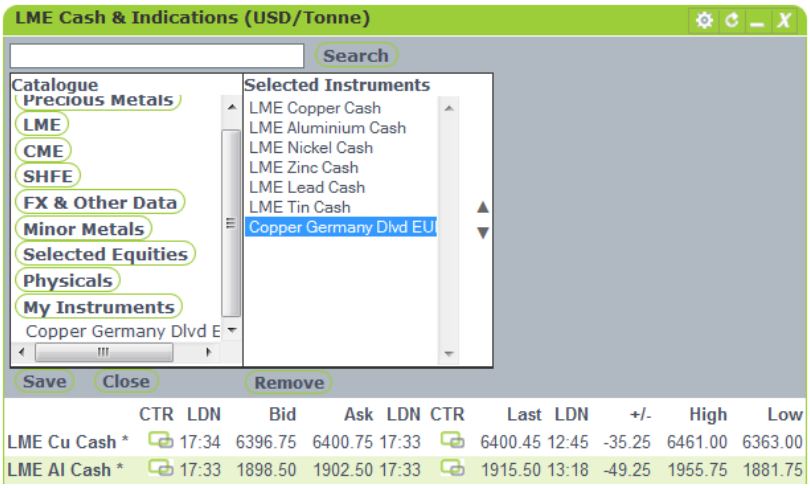
You then need to either click an operator button or choose a value or symbol, which will then replace the **?** in the calculation. For example I want to insert an opening parenthesis:



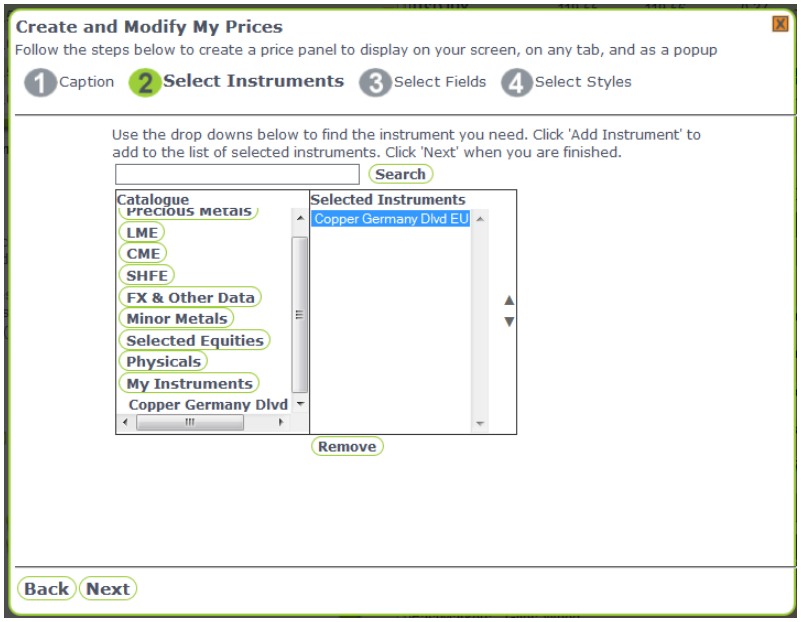
Viewing My Instruments

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:



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

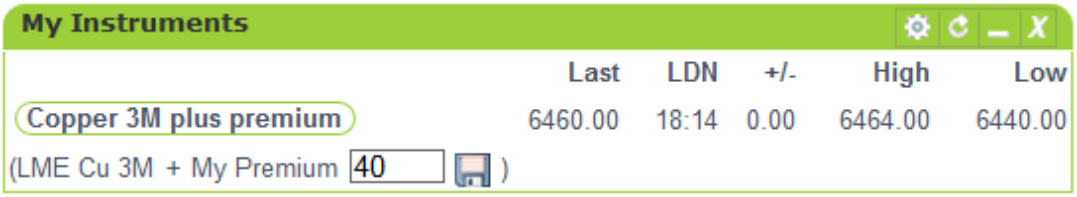


The **My Instrument** is now displayed on the price part and can be shown with other My Instruments or alongside regular instruments in the part:

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

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

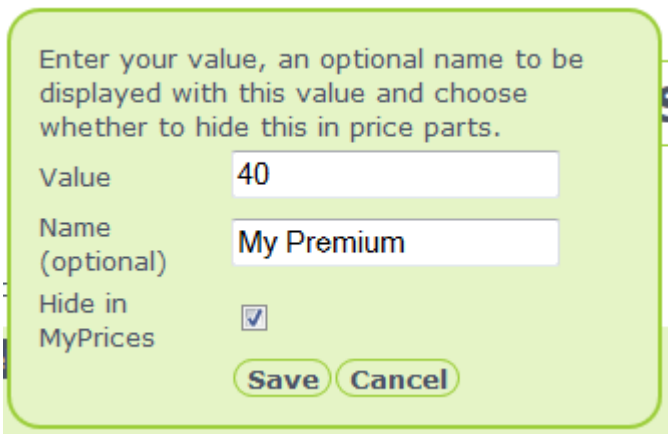
As you can see, the **My Instrument** "Copper 3m plus premium" is drawn as a button that can be clicked. If you do this it will expand the instrument to display the underlying calculation:



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**.*

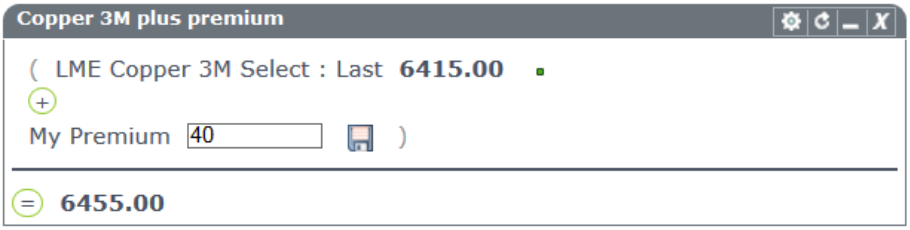
You can also choose to hide constants that you have created if you do not want them to be visible in a price part display. To do this select to modify the Instrument, then select to modify the constant and in the dialogue box tick the "**Hide in My Prices**" box and save the change.



This hides the value from view as below:

Drill View

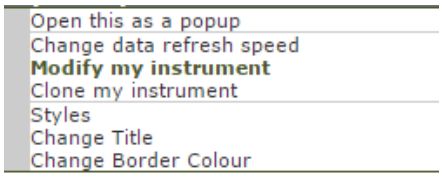
As we have already seen, you can also add a **My Instrument** directly into a tab (or to open as a popup). This shows a more graphical expanded view of the calculation for a single **My Instrument**.



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.

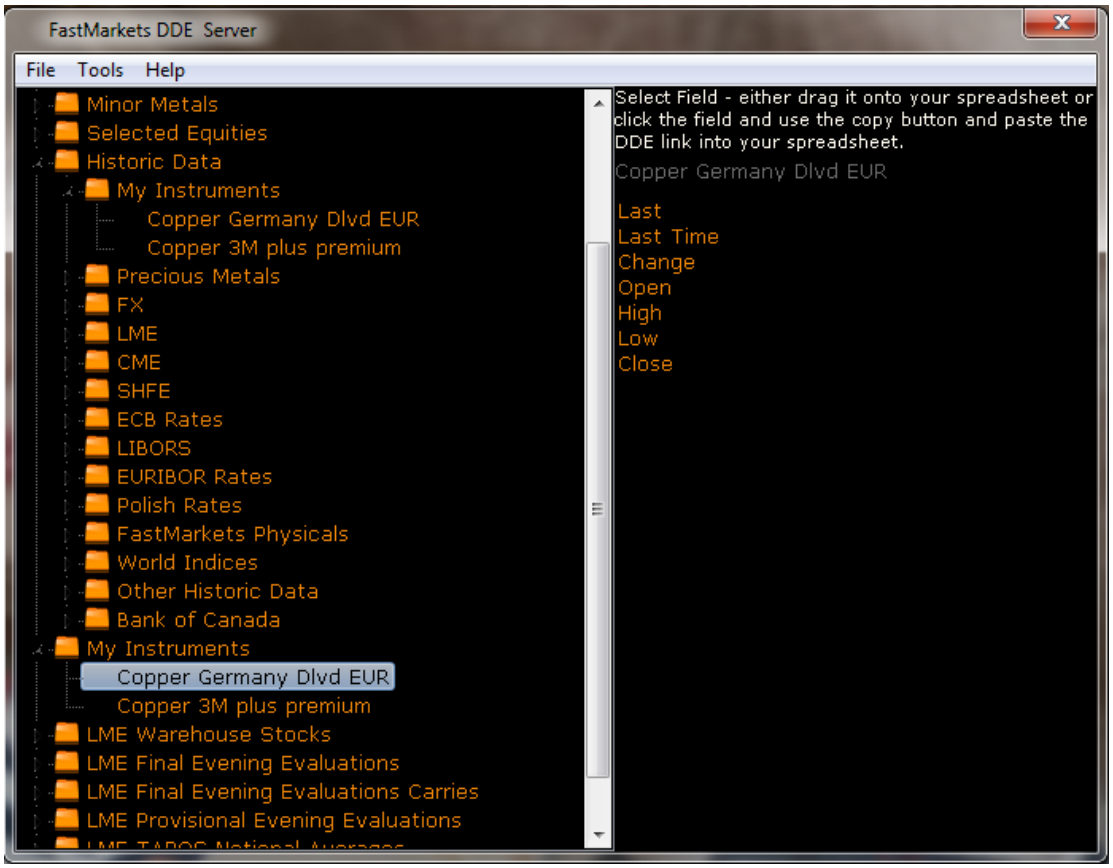
***Tip**. When you have modified a **My Instrument** and saved the changes, make sure you refresh any other parts that display the instrument to ensure the change is reflected in them,*

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.



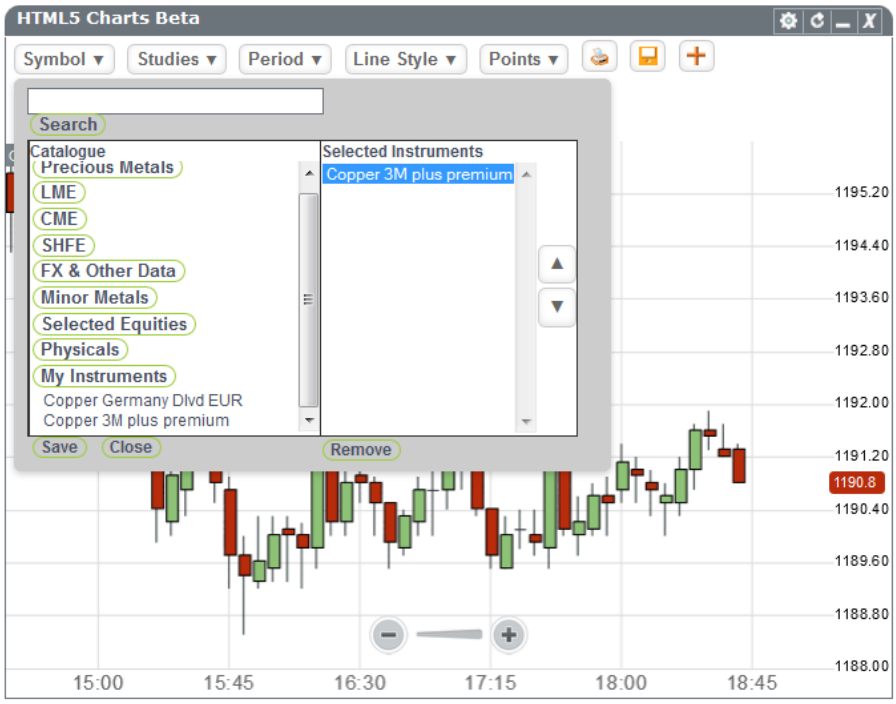
DDE

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:



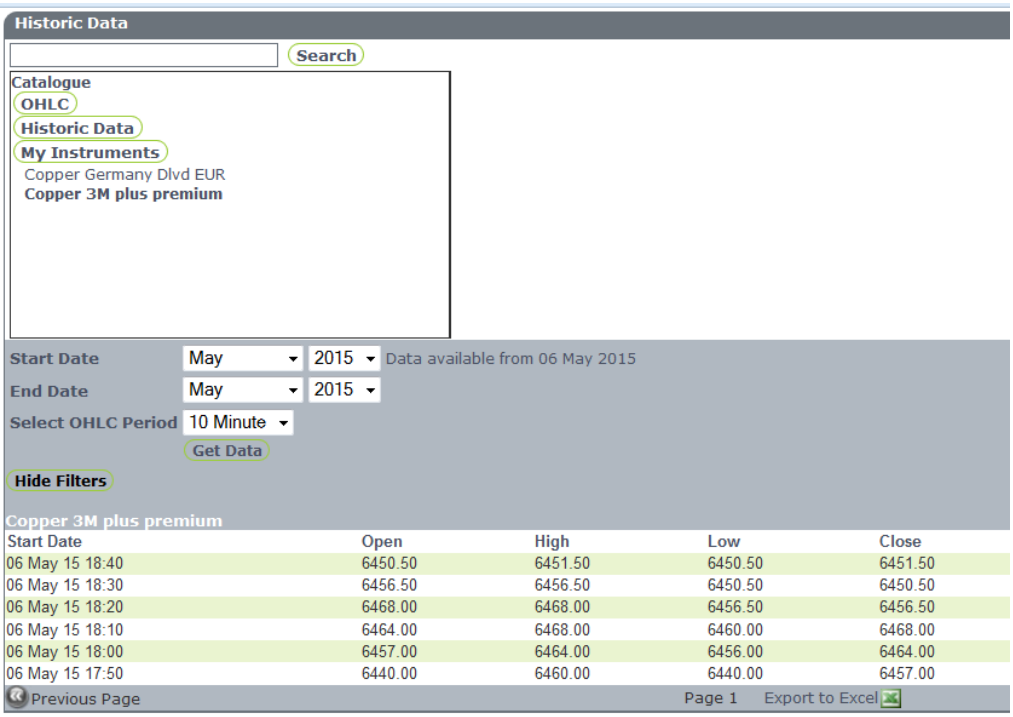
Charts

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.



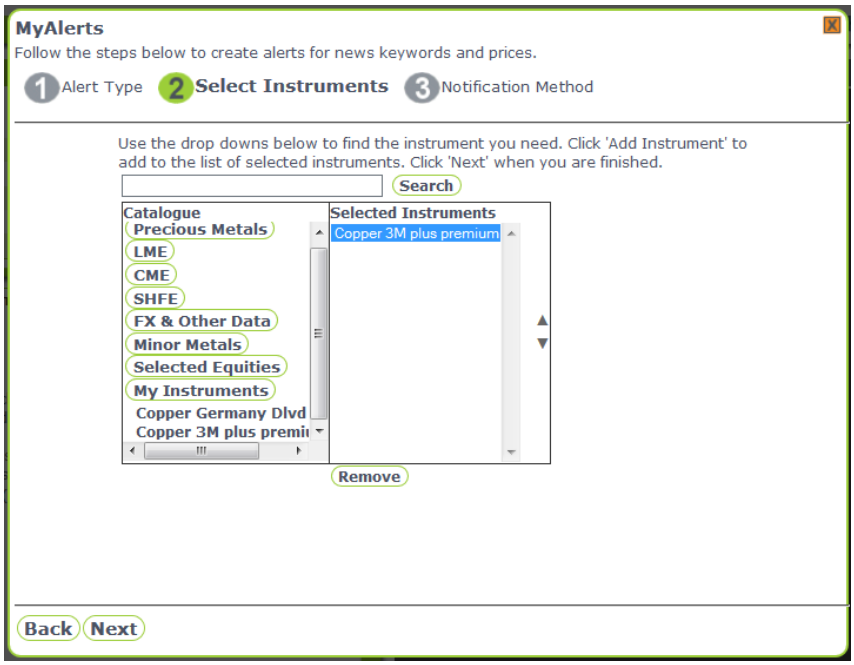
Historic Data

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



Alerts

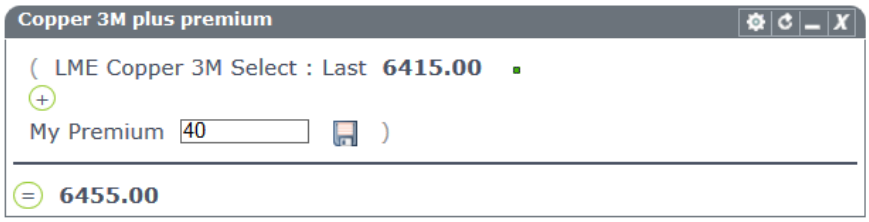
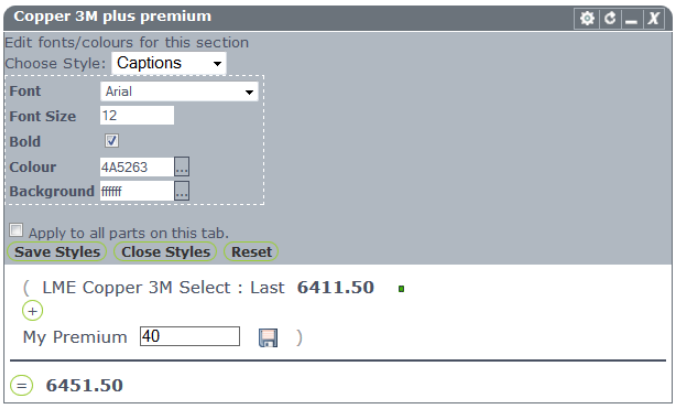
Periodic and price trigger alerts can be defined for **My Instruments** in exactly the same way as for all other instruments in FastMarkets Professional. :



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:



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.