EURONEXT TRADER USER GUIDE

Issue 1.0 | 13TH OCTOBER 2022



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Revision History

Date	Version	Description	Author
October 2022	1.0	First release	ENX

1. INTRODUCTION



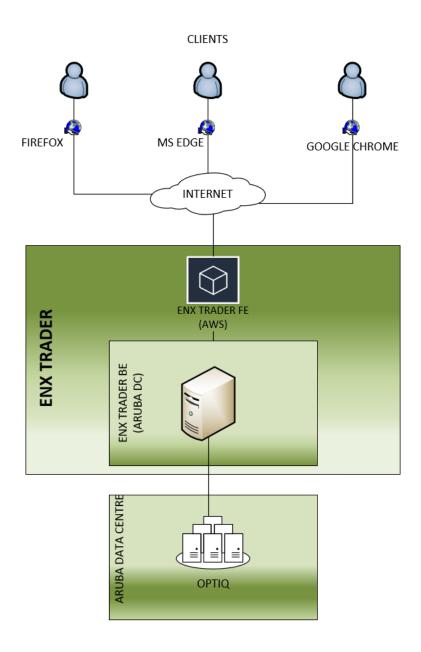
ENX Trader is a multi market client application that works as trading and market data front-end for the Euronext Derivatives segments.

All the other Euronext asset classes will be soon added and made available to all the relevant users.

ENX Trader is operated by Euronext as a "Software as a Service" and is fully accessible via web browser, no need then for clients to install anything on their side.

Clients can access ENX Trader through the following URL

- Production: https://enxtrader.euronext.com/
- EUA: https://enxtrader-peua.euronext.com/





2. SCOPE AND REFERENCES



This document provides basic information to use ENX Trader for the Derivatives market, providing an overview of the functionalitities available.



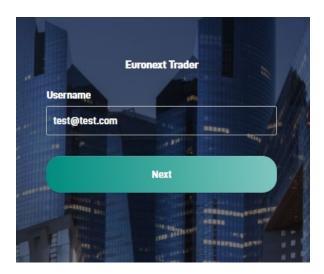
3. GETTING STARTED



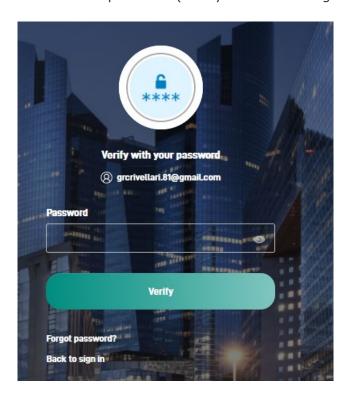
3.1 Login

When getting to the landing page, login credentials are required:

1. Username is the first information required and it corresponds to the email address of the user

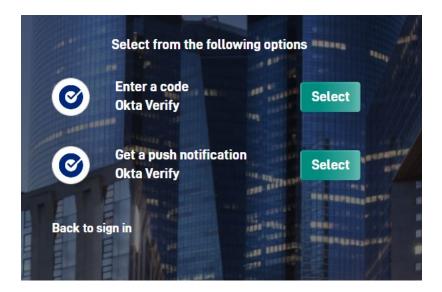


2. Second step is to enter the password (set by the user during the enrolment)





3. If the password is correct, last step is based on the Multi Factor Authentication process selected during the enrolment



TBN: Prod and EUA can be accessed using the same email address, however, the other credentials (password and Okta Verify code) could be different (unless the same password is set for the two environments).

In particular for the Okta Verify code, since two different tokens need to be set, generating two different codes each 30 seconds.

3.2 Widget's Menu

Once logged in, the widget's menu can be prompted by clicking on the "three circles and and a plus" icon on the left top corner

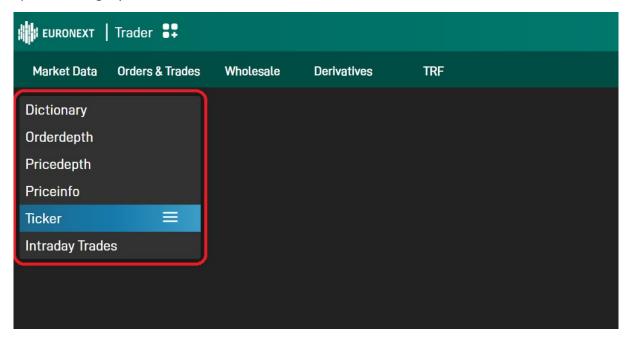


This action causes widget categories to become visible





Clicking then on each category is possible to get the list of widgets available for that specific category



Widgets can then be added to the main window by clicking on each of them or dragging any item in the main window through the icon \blacksquare .

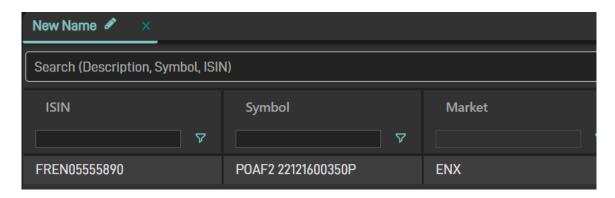
3.2.1 Rename a widget

Each widget name can be changed by clicking on the pencil icon







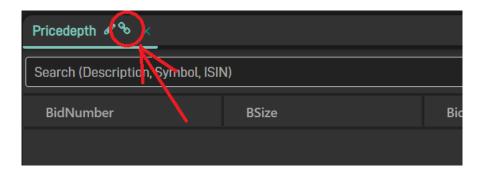


3.2.2 Widget Link

Linking two widgets causes the selection applied on one of the two, to be automatically applied to the other one.

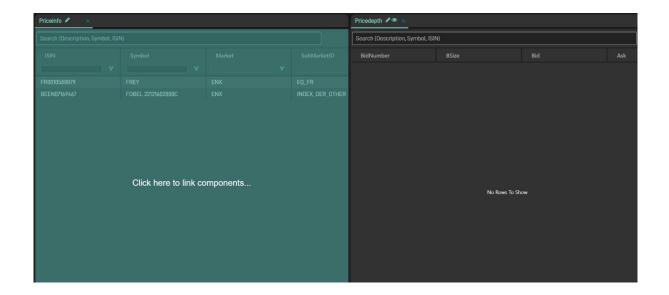
For example, having a Price Info widget with several instruments in, linked to a Price Depth widget, could help to visualize each instrument book simply changing the selection of the instrument inside the Price Info.

The link can be applied through the chain icon



And selecting then the widget to link (after clicking on the chain icon all widgets that can be linked becomes green).

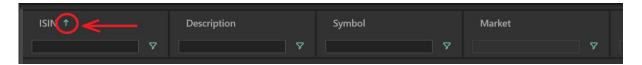




3.2.3 Columns Management

Almost all the widgets provide the same set of functionalities to manage columns (add, remove, sort, etc.).

Sorting values inside a column can be easily done by clicking on the header. This causes an arrow to appear, showing if the sorting is ascending or descending (clicking a third time the arrow disappears).

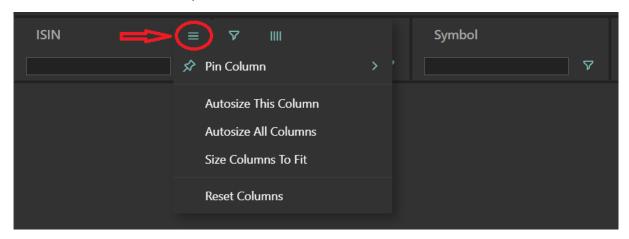


Moving the mouse pointer on the header of each column, causes a "three horizontal lines icon" to become visible

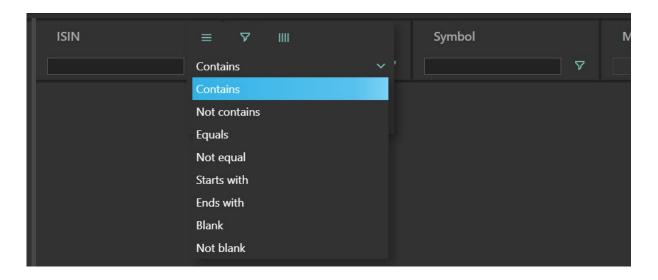




Clicking on the icon, an additional menu is prompted. This menu can be used to pin or resize the column

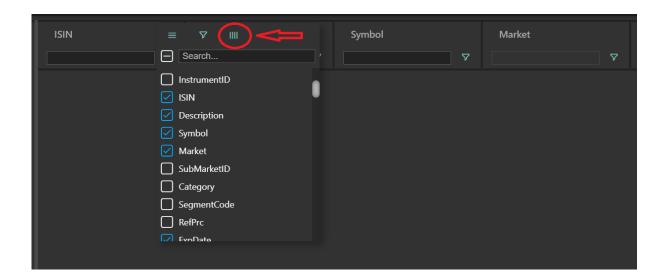


To filter values inside the column



Or to select which columns should be visible and which ones hidden





Drag & Drop is also available to move columns changing their place inside the widget.



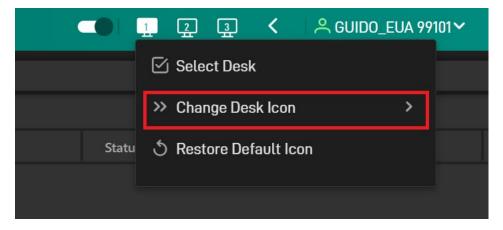


3.3 Virtual Desks

In **ENX Trader** the term Virtual Desk is meant as the set and lay-out of the windows working at the same time on the screen.



Right Clicking on a Desk button is possible to change the desk icon.



3.3.1 Adding a new desk

Clicking on the "<" icon next to the desks



A new icon will be prompted



Clicking on which a new desk is added to the list.

3.3.2 Removing a desk

Drag and dropping a desk icon will make a "trash" icon to be prompted. Moving the desk on that icon will make the desk to be removed.





3.3.3 Saving a Desk

There are three ways to save a desk layout:

- Clicking on the current active desk icon
- Moving to another desk
- Logging out



4. MARKET DATA

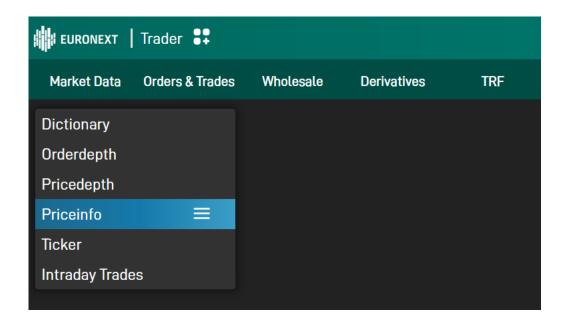


Market Data widgets show information disseminated through the Euronext public market data feeds. There are two ways of providing these information:

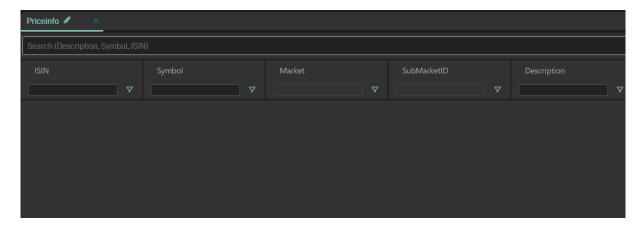
- 15 minyes delayed (basic users for the "free" version)
- Real time

4.1 Price Info

The **Price Info** window displays real-time (15 minutes delayed for basic users) market data for a set of financial instruments or indices selected by the user and allows order entry as well. The **Price Info** window can be opened by selecting the corresponding widget.



Once added to the main desk, a Price Info widget is empty



Adding an instrument is possible by simply typing some digits from the instrument description, symbol or ISIN



```
FR

[EQ_FR] ALTAREIT FROM FR0000039216

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[INDEX_DER_FR] 1FC 0CT22 FUT C JF1FC 22100700000F FREN07222341

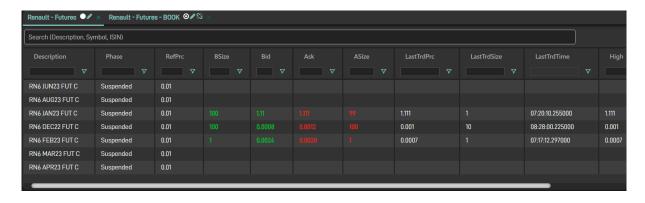
[EQ_DER_FR] 24R DEC22 FUT C PF24R 22121600000F FREN06383961

[FO_DER_FR] 24R JUN23 FUT C PF24R 23061600000F FREN06989908
```

Price Info widgets can be used to visualize dynamic information such as:

- Best Bid Offer
- Last Trade
- Statistics (high, low, cumulative size, etc.)
- Trading phase

And many more

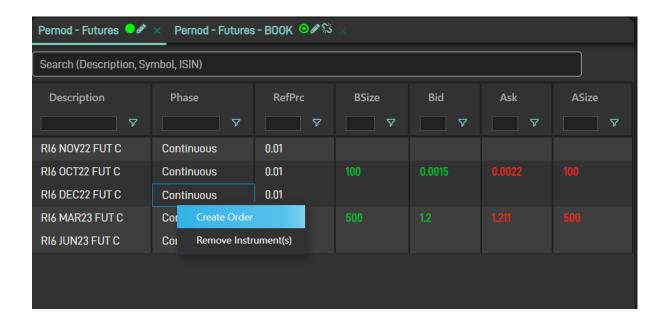




4.1.1 Order Entry

Right clicking on an instrument provides the ability to enter a new order for that specific instrument and, in case there are prices on the book, right clicking o te price causes to open an order enter with that price in the price field.

Clickng on the quantity, both price and quantity are reported in the order entry widget.



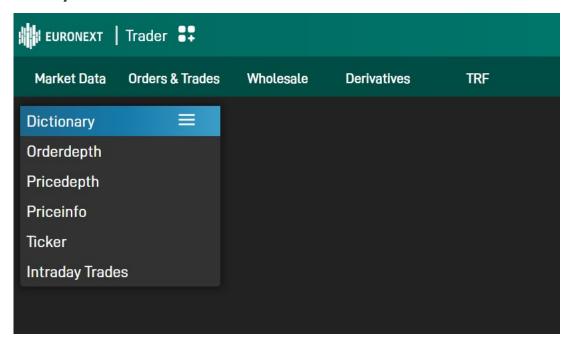
Please note Order Entry is not available for the "basic user" configuration (free access).

4.2 Dictionary

The **Dictionary** window displays reference data of all financial instruments and indices currently tradable in all the markets available to the user. Data is organized according to specific markets.



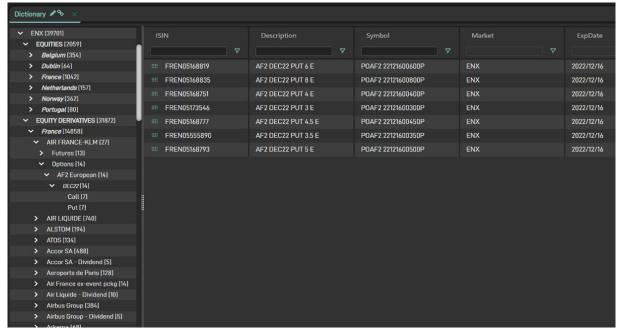
The **Dictionary** window can be opened from the widgets menu **Market Data** → **Dictionary**



The **Dictionary** window is made up by a selection area and two frames: the left-side tree shows all the markets available to the user, whereas the right pane displays data for all instruments available in the selected market.

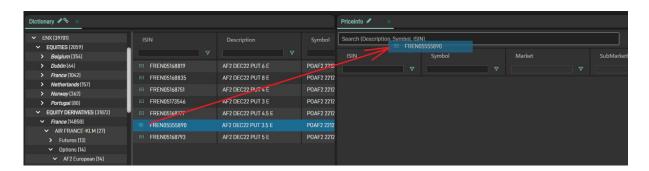
Once a market has been selected a list of all financial instruments and indices populates the right-side pane.

The structure of the tree on the left side reflects the Optiq multicast channels through which market data are disseminated





"Drag & Drop" instruments is available from Price Info widget to other widgets using the "dots icon" on the left of the ISIN.



4.3 Order/Price Depth

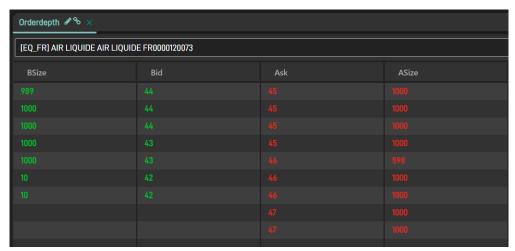
The **Order** and the **Price Depth** windows displays market depth and related real-time/static info for the selected instrument (15 minutes delayed for basic users). The **Order/Price Depth** window can be opened by selecting the corresponding widget: **Market Data** \rightarrow **Order/Price Depth**.

Price Depth provides information about the aggregated book, aggregating levels by price





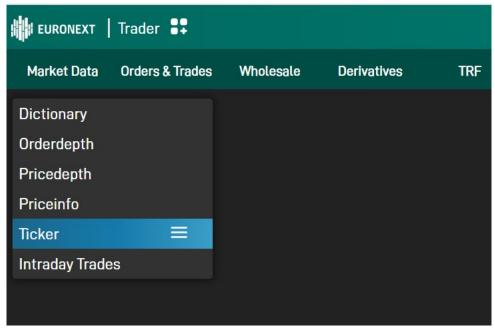
Order Depth shows each single order available on the book



Please note for Derivatives instruments only Price Depth can be used due to limitation on the related market data feed.

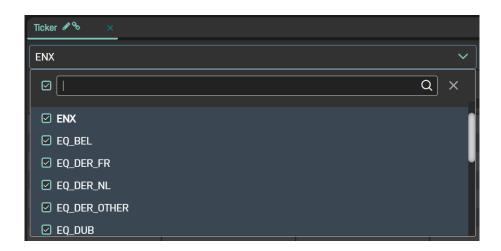
4.4 Ticker

The **Ticker** window displays real-time (15 minutes delayed for basic users) data related to all trades executed in one or more markets. Each new trade will be shown in the first row of the window table: at any time a system-defined maximum number of trades will be made available to the user. The Ticker widget can be opened from **Market Data > Ticker**

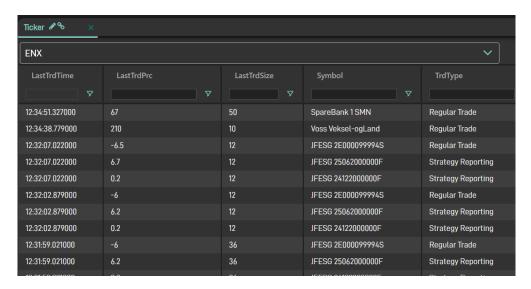




Once the ticker is added to the main widget, in order to start getting real time(15 minutes delayed for basic users) trades for the interested asset classes, a subscription is required



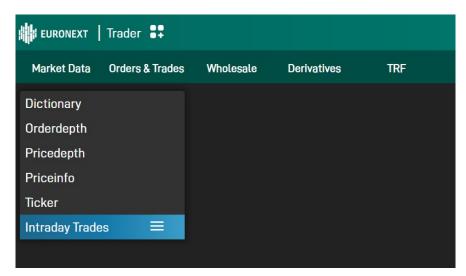
From the subscription time moment onword each new trade will be visible in the widget





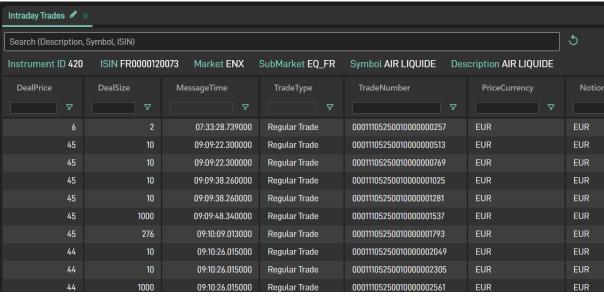
4.5 Intraday Trades

Intraday Trades widget could be added through the widget menu **Market Data** → **Intraday Trades**.



Through this widget is possible to query trades for a specific instrument.

All trades done from start of day for that specific instrument are then prompted



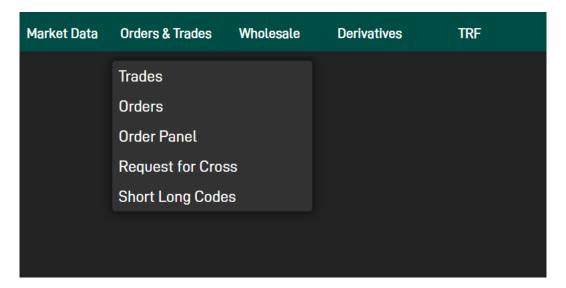
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5. ORDERS & TRADES

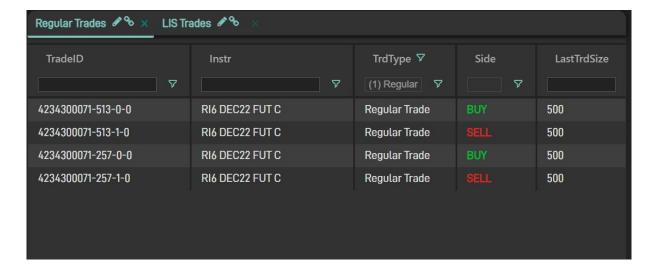


The Order & Trades widget group contains five widgets



5.1 Trades

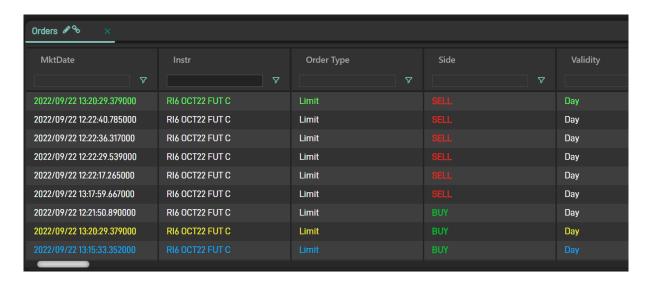
The **Trades** widget shows all trades executed from orders, wholesale orders or request for cross entered by the user (or all users of the member, depending on the functionality level).





5.2 Orders

The **Orders** Section shows all orders entered by the user (or all users of the member, depending on the functionality level) into the selected markets. Each order is shown as a single row marked with its most recent status.



The color legend is:

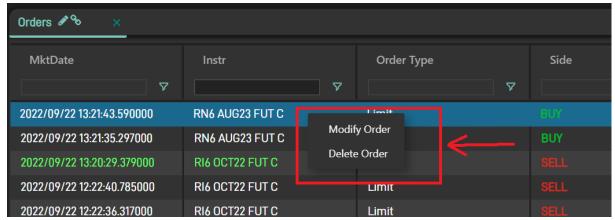
- White: open order not matched

Yellow: partially filledGreen: fully matchedBlue: order deletedRed: order rejected

Right clicking on a selected order row an options list pops-up.

Clicking on the items of the list the following actions can be performed:

- Modify: allows to change price and size of the order entered;
- **Delete:** cancels order form the market and orderbook;



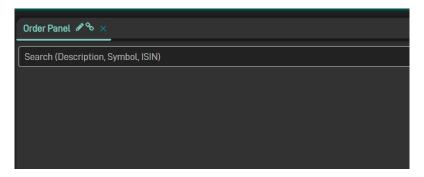


5.3 Order Panel

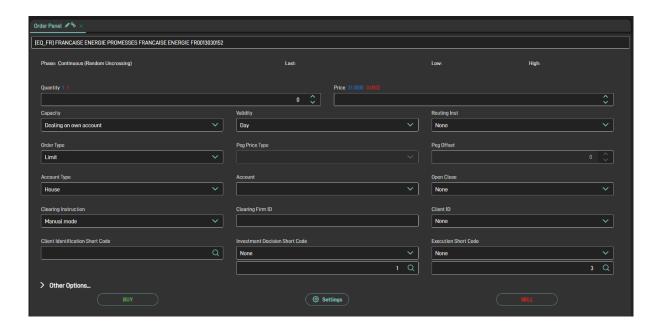
This feature is not available for the "basic user" configuration (free access).

Order Panel widget allows user to enter orders on the selected instrument.

Once added to a desk, Order Panel widget is empty

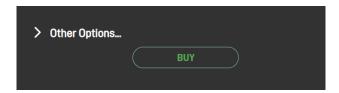


Once the instrument is selected (or dragged from the Dictionary), order entry fields become visible

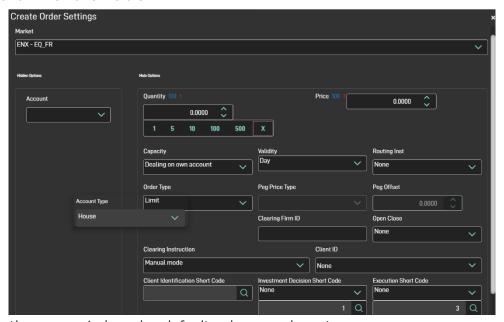




There are othe hidden fields, that become visible clicking on "Other Options"



Clicking on the "Settings" button is possible to decide which fields must be hidden by default and which one visible

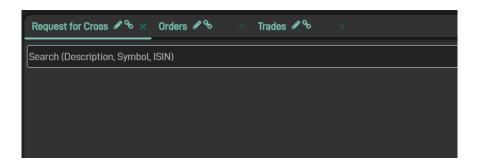


Through the same window also default values can be set.

Please note this changes are applied to the next Order Panel widget opened.

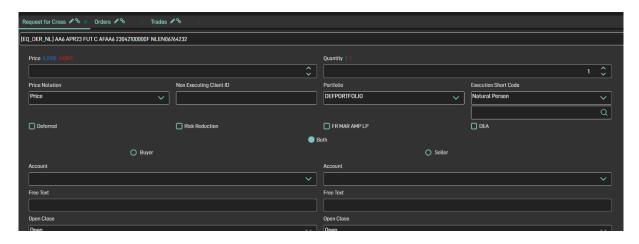
5.4 Request For Cross

At first glance, **Request For Cross** widget is empty

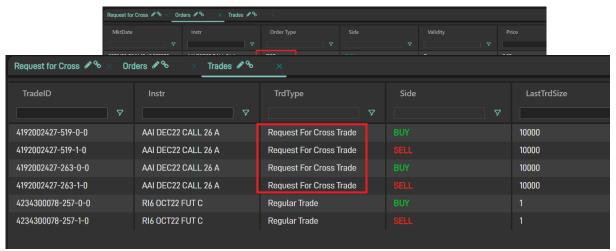




Selecting an instrument, all the fields become visible



Once correctly populated, if the transaction is accepted, it is then visible in the Orders widget



And in case one or more trades are generated, also in the Trades widget

5.5 Short Long Code

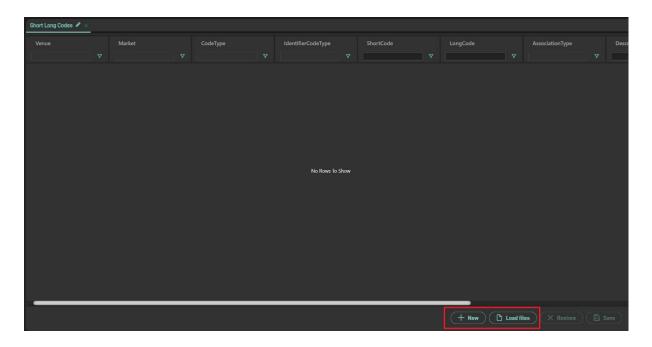
Items added in the Short Long Code widget are then retrievable from injecting widgets such as Order Panel, Wholesale Order and Request For Cross.

There are two ways to add new items

- "+ New" to add items one by one



"Load files"



Once all the items are ready to be saved (highigted in green), saving can be done by clicking on the "Save" button



Items can be added with three different "association type":

- Member: the item is visible to all the users belonging to that member
- Group: the item is visible only to the users belomnging to that group(s)
- User: the item is visible only the the selected user(s)

Please note each user able to see the "Short Long Code" widget and therefore to create new SLC items, are automatically identified as "SLC administrator" and the allowed to see all the items created for that member, independently from the association type.





6. WHOLESALE



Wholesale Trading Facilities allow market participants to enter prearranged bilateral agreed On-Exchange / Off-Book trades.

Wholesale Trading combines the benefits of the regulated market with those of the OTC market, and helps to reduce counterparty risks as they are guaranteed and cleared by Euronext clearing partner.

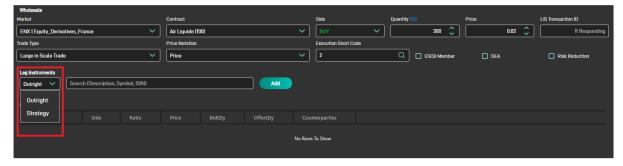
A Wholesale Order is made up of one or multiple pre-agreed one-side or two-sides transactions. Matching can either immediately occur when the order is submitted as a cross or will occur when the different counterparts (Reactors) have all replied to the Initiator Wholesale Order.

If all the Reactors involved in the transaction haven't replied within 5 minutes, the Wholesale expires.

6.1 Initiate Wholesale Order

Wholesale Order widget allows users to enter wholesale transactions, both as initiator than reactor.

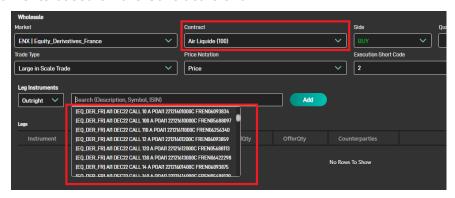
Wholesale orders can be entered either for a single instrument (Outright) or for a strategy If Outright is selected,





6.1.1 Wholesale on Outright Instruments

If Outright is selected, moving the focus on the text box next the the "Add" button, a list of instruments based on the Contract is shown.



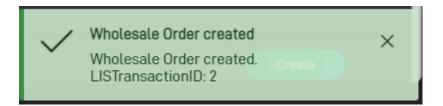
Typing some letter the selection is restricted.

Adding then the instrument a new row is added to the "Legs" area, to be filled with missing values.

It is possible to select one or more counterparties, identified then as reactors



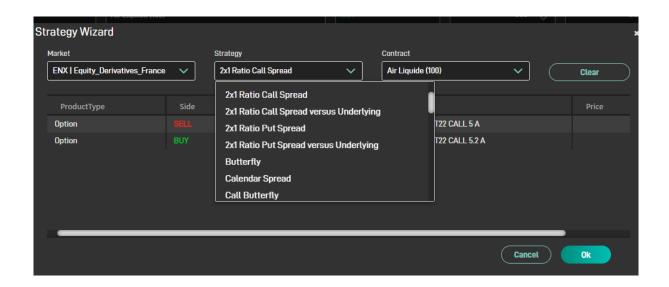
Last point is then to fill Clearing Data and then push the "Create" button.



6.1.2 Wholesale on a Strategy Instrument

If the selection is for a Strategy instrument, a "Wizard" button becomes visible. Clicking on it, a popup is prompted. Through this prompted window is possible to chose the wanted strategy type and, once selected, the expected fields below (e.g. Product Type, Legs, Ratio, etc.) are updated accordingly.





Moving forward, the "Legs" section is then updated

Legs							
Instrument	Side	Ratio	Price	BidQty	OfferQty	Counterparties	
AF1 DEC22 CALL 3 A		1	0.02		300		
AF1 DEC22 CALL 3.5 A	BUY	2	0.02	600			

There are few rules to which users need to comply entering values for a wholesale:

- Overall price should reflect legs prices (and viceversa), the rule:
 - Overall price = buy legs prices sell legs prices
 All considering the ratio.

Example from the above screenshot where Ratio = 2 for the buy leg:

- \circ Buy leg price = 0.02
- Sell leg price = 0.02
- \circ A possible value for the overall price can be 0.02 = (0.02 x 2) 0.02
- Even the overall quantity should be in line with legs quantities
 - o If the wholesale side is BUY:
 - BidQty on buy legs should be populated according to the overall quantity, considering the ratio
 - OfferQty on sell legs should be populated according to the overall quantity, considering the ratio
 - o If the wholesale side is BUY:
 - BidQty on sell legs should be populated according to the overall quantity, considering the ratio
 - OfferQty on buy legs should be populated according to the overall quantity, considering the ratio

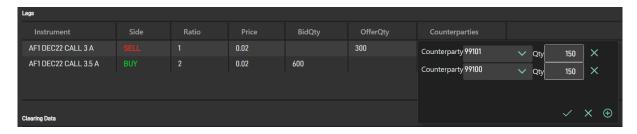
Example:

○ Side = Buy



- Overall quantity = 300
- Sell Leg Ratio = 1
- Buy Leg Ratio = 2
- Sell Leg should have OfferQty = 300
- Buy Leg should have BidQty = 600

It is then possible to select counterparties for each leg (a single leg can even be slipt across multiple counterparties):



All the ENX Trader counterparties, configured to use the Wholesale widget, will become automatically visible in the "Counterparty" drop down list and can be called to participate in the transaction as reactors.

6.1.3 Minimum Quantity

When entering a Wholesale Order, if the quantity is below the expected minimum quantity, the transaction is rejected.

ENX Trader makes this limit visible, so that the user can set the value properly



6.1.4 Wholesale Monitor

All the Wholesale transaction entered by users are then visible in the Wholesale Monitor widget

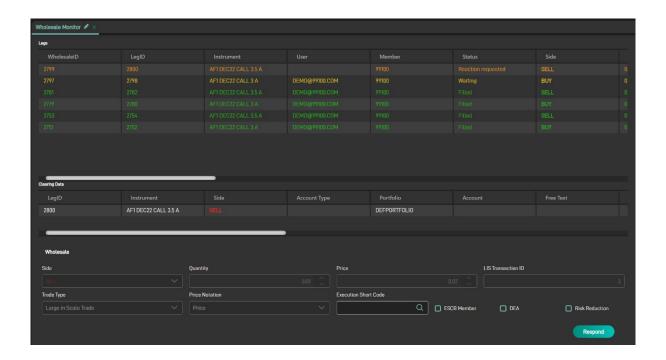




6.2 React to a Wholesale Order

6.2.1 Wholesale Monitor

Wholesale monitor window also shows transactions where the member has been asked to react



Those rows can be identified by the status, set to "Reaction requested". Clicking on those rows, almost all the expected fields are automatically filled.

6.2.2 LIS Transaction ID

In case the initiator should not be using ENX Trader, it is anyway possible to submit a Wholesale Order as reactors, specifying the LIS Transaction ID of the original request.

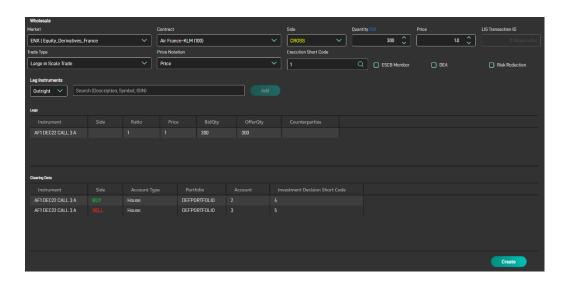


6.3 Wholesale Cross

Wholesale can be submitted as Cross. In this case the initiator must provide information for all sides of the order, that would match against each other.

No reactor can then submit messages to complete such wholesale order.

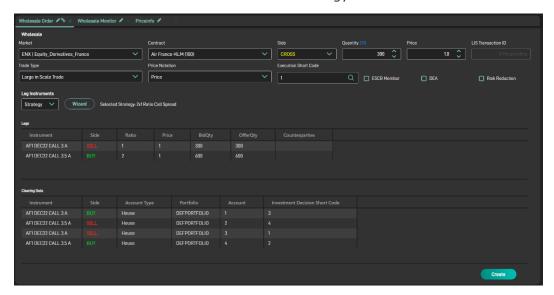
Entering a Wholesale as cross can be done selecting Side = Cross.



Counterparties must not be entered. Required data in this specific case are:

- Quantities for both sides
- Clearing Data for each side

The same if the transaction is submitted for a strategy instrument

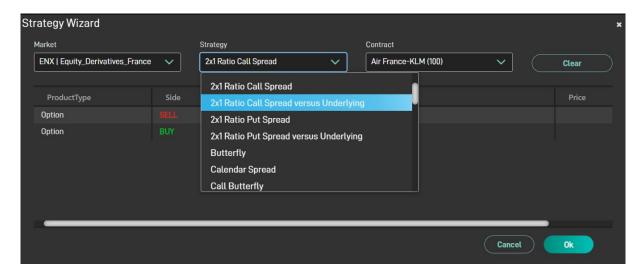




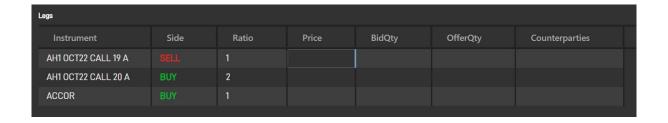
6.4 Wholesale on Delta Neutra Strategies

Options have delta's and one of the ways the delta is used is to determine how much underlying units have to be bought or sold against the option position to become so-called delta neutral. Please note that a delta neutral strategy can consist of a single option versus the underlying instrument or a combination of options versus the underlying instrument. On the Euronext Derivatives markets delta neutral strategies can have either shares (Cash equity) or futures as underlying instrument.

Wholesale Order for Delta Neutral strategies can be entered through ENX Trader by selecting one of the strategy type which definition contains "versus Underlying"



A third leg is then added to the strategy definition, corresponding to the underlying





7. DERIVATIVES



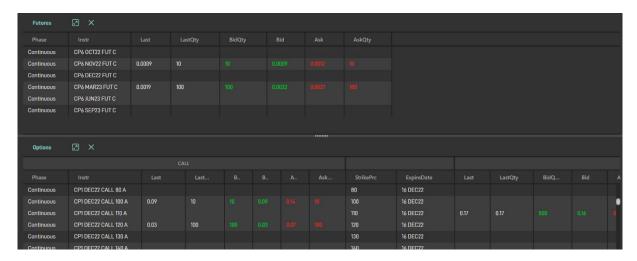
7.1 Derivatives Price Info

The **Derivatives Price Info** window gives a compact view of all the derivative instruments linked to the same underlying instrument or index. A tray created for each underlying will contain three panes: **Underlying**, **Futures**, **Strategies** and **Options**.

Select the underlying instrument in the tab panel, selecting the product from the drop down list or entering a text



Once selected, **Underlying, Strategies** and **Futures** panes will start receiving real-time (15 minutes delayed for basic users) data from the corresponding markets

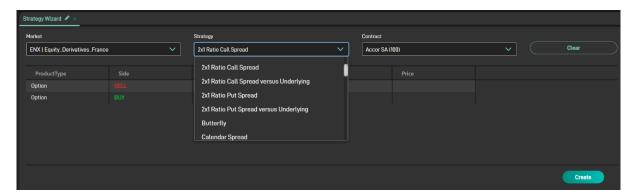


Options pane shows CALL instruments on right part and PUT instruments on the left one. In the middle, two columns common to these two parts, shows Expiry Date and Strike Price.

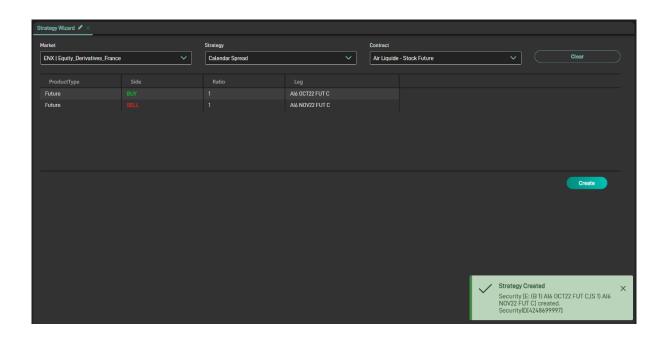


7.2 Strategy Wizard

New strategy instruments can be created intraday through the Strategy Wizard widget



If the creation is accepted without any error, a popup with the identification of the new instrument is prompted



Using that code is then posible to retrieve the newly creatd instrument from other widgets



8. TRF



A total return future is a listed contract which replicates the economics of a total return swap. Being traded on-exchange, the contract offers centralised order book and central clearing. It is a solution to the increased capital requirements, allowing new investors to access implied equity repo as a new asset class.

TABLE 1: TWO WAYS TO TRADE THE TOTAL RETURN FUTURE ON CAC 40

	A. Trading At Index Close (TAIC)	B. Trading At Market (TAM)	
Trading facility	Via Central Order Book & Wholesale Facilities	Via Wholesale Facilities only	
Order entry	TRF Spread in bps, e.g. 50 bps	TRF Futures price in index points, e.g. 5,739 points	
Trade price	Final futures price is known at the end of the day (after the index close is known)	Final futures price is known at the time of trading	

8.1 TRF Pricer

Converting price for TRF products, from BP points to Index points (and viceversa) is regulated through a complex algorithm.

TRF Pricer implement this algorithm, making this convertion easier .

Users just need to select

- Publication Date
- Contract Code
- Expiry Code

Entering then the price to be converted and clicking the button "Calculate" the conversion is carried out.



Linking a TRF Pricer widget to an Order Panel, will cause the instrument selected and the converted price to be automatically entered to the Order Panel window, avoiding "copy & paste" issues.





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