Guidance Note

Released:

23 August 2023

Version: 3.1

Key concepts

Matching algorithm examples

Related information

FGL Operating Rules 9.6.1

FGL Product Determinations

Recommended Audience

Managing Directors

Directors

Compliance Managers

Operations Managers

Previous Issues:

Nil

GN 22 – Matching Algorithm, Examples

Introduction

The purpose of this Guidance Note is to assist Trading Participants in their understanding of how the FGL price/time matching algorithm functions.

Guidance

Following are two worked examples to illustrate how the FGL matching algorithm works.

Price/time Algorithm

Example 1

The current market in a particular Individual FGL Product is displayed in the following orderbook:

Order Number	Time Entered	Buy Quantity	Buy Price	Sell Price	Sell Quantity	Time Entered
1				94.51	100	11:15:01
3	11:25:05	50	94.50			
4	11:25:10	25	94.50			
2	11:20:00	5	94.49			

If an Order to sell is entered into the orderbook above at the price of 94.50 for 10 lots, the following allocation under the price/time matching algorithm will occur:

Order #	Price/Time	Total Matched
3	10	10
4	0	0
Total	**10 lots**	**10 lots**

- Order #3 will be partially matched for 10 lots @ 94.50.

- No other Order will receive any allocation leaving the orderbook as below:

Order Number	Time Entered	Buy Quantity	Buy Price	Sell Price	Sell Quantity	Time Entered
1				94.51	100	11:15:01
3	11:25:05	40	94.50			
4	11:25:10	25	94.50			
2	11:20:00	5	94.49			

Example 2

If an additional Order to sell is entered into the orderbook remaining at the end of Example 1 above at the price of 94.50 for 50 lots, the following allocation under the price/time matching algorithm will occur:

Order #	Price/Time	Total Matched
3	40	40
4	10	10
Total	**50 lots**	**50 lots**

- Order #3 will first be fully matched for the remaining 40 lots @ 94.50.
- Order #4 will then be partially matched for 10 lots @ 94.50

The orderbook after Trade matching is:

Order Number	Time Entered	Buy Quantity	Buy Price	Sell Price	Sell Quantity	Time Entered
1				94.51	100	11:15:01
4	11:25:10	15	94.50			
2	11:20:00	5	94.49			