



**London**  
Stock Exchange

# LSE SETS Hidden Order Enhancements

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# Facilitating MiFID II compliant dark liquidity on SETS orderbook

## Introduction of Minimum Execution Size for Mid Price Pegged Orders and Mid Price IOC orders on SETS

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London Stock Exchange is enhancing Mid Price Pegged Order functionality by introducing:

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User-defined **Minimum Execution Size ('MES')** for all resting Mid Price Pegged Orders

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**Automatic parking of Mid Price Pegged Orders** when midpoint moves outside specified limit, and re-injected into the book when midpoint moves back within the specified limit, rather than expiring

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**New IOC/FOK TIF for Mid Price Pegged Orders**, to allow IOC/FOK orders to be priced at prevailing midpoint of the visible Best Bid/Offer

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## Participants benefit from:

**Additional liquidity destination** for dark liquidity seeking algorithms to trade larger blocks in post-MiFID II environments

**No external market data latency** when re-pricing of resting Mid Price Pegged Orders each time the visible best bid or offer ('BBO') price changes

**Ability for resting Mid Price Pegged Orders to interact with both lit and dark contra liquidity** by executing against other incoming Mid Price Pegged Orders and other orders priced to cross the prevailing midpoint.

Note: On SETS, all hidden orders in MiFID securities must be above the 'Large in Scale' ('LIS') threshold as specified by ESMA, whilst a separate minimum threshold applies for non-MiFID securities. Order sizes are validated at the point of entry. If such an order is partially executed and the remaining size is below the LIS threshold, the order will remain hidden.

## Description of available Hidden Order Types

Table 1: Description of available Hidden Order Types – with MES after introduction of improvements		MES
<b>Mid Price Pegged Orders (with optional limit price)</b>	Non-displayed order with size which must exceed the relevant Min Reserve Order Value trading parameter on entry. Its price updates to the midpoint of the security's visible best bid/offer. <b>Users may enter a limit price such that if the midpoint moves beyond the limit price, the order will park until the midpoint returns to within the range of the limit price</b>	YES
<b>Hidden Limit Orders</b>	Non-displayed limit order that on entry must exceed in size the relevant Min Reserve Order Value trading Parameter	N/A

## Summary of improvements

Table 2: Mid price pegged and IOC mid price orders

	Current functionality	New functionality	Key benefits
Mid Price Pegged Orders	— No "Minimum Execution Size" (MES) option on Mid Price Pegged Orders	→ Introduction of user defined "Minimum Execution Size" (MES) option on Mid Price Pegged Orders	→ Lock-in the minimum trade size of resting order Reduced post-trade inefficiencies Trade in large blocks
	— When mid price moves outside limit, order expires	→ When mid price moves outside range of limit price, order is parked, and re-injected in the book once mid price moves back within range	→ Operational efficiency Automatic park and re-entry on the book with movements on the mid price
	— Fully Hidden Order quantity must be equal to or greater than the Large in Scale (LIS) Threshold — Orders can be entered with fixed limit price or requested to 'float' at mid price of prevailing bid and offer		
IOC/FOK Orders	— IOC/FOK orders must be priced using the defined tick size regime	→ IOC/FOK orders can be priced at the prevailing mid price, with optional limit price	→ Peg to the mid price of the visible BBO Target resting LIS liquidity

## New functionality examples

**Minimum Execution Size (MES):** Participants can specify on each Mid Price Pegged Order a minimum size for any individual trade. Each counterparty order must be at least equal to the defined MES, removing the possibility of being filled by small orders and thereby improving execution quality and reducing inefficiencies that can result from multiple smaller fills.

### Initial book state

Buy OrderID	Buy MES	Buy size	Buy Price	Sell Price	Sell Size	Sell MES	Sell OrderID
B1	[10,000]	[250,000]	[MID]	211.85	15,000		S1
B2		20,000	211.8	211.9	17,000		S2

[Square brackets denotes non-displayed order]

Two consecutive sell orders entered

i. New Sell Order S3 of 5,000 @ 211.8. S3 Sell Size < Buy Order B1 MES. S3 executes against B2 creating an execution of 5,000 @ 211.8.

ii. New Sell Order S4 of 15,000 @ 211.8. S4 Sell Size > Buy Order B1 MES. S4 executes against B1 creating an execution of 15,000 @ 211.825.

### Resulting book state

Buy OrderID	Buy MES	Buy size	Buy Price	Sell Price	Sell Size	Sell MES	Sell OrderID
B1	[10,000]	[235,000]	[MID]	211.85	15,000		S1
B2		15,000	211.8	211.9	25,000		S2

**Parked Mid Price Pegged Orders with limit price:** When the prevailing midpoint BBO moves beyond the order's limit price, the order will be parked until the midpoint returns to within the range of the limit price. The order is then automatically re-injected in the book and available for execution. The functionality removes the need for order re-entry, benefiting participants with increased operational efficiency.

Bid/Offer @ 211.80 / 211.95, Mid @ 211.875	
Midpoint Pegged Resting Order	Order Behaviour around Midpoint Price
Buy limit @ 211.90	Order <i>is</i> marketable – Remains on book
Buy limit @ 211.85	Order <i>not</i> marketable – Parks until Midpoint moves $\leq$ 211.85
Sell limit @ 211.90	Order <i>not</i> marketable – Parks until Midpoint moves $\geq$ 211.90
Sell limit @ 211.85	Order <i>is</i> marketable – Remains on book

**Mid Price Pegged IOC/FOK Order:** Mid Price Pegged Orders with IOC/FOK TIF may be submitted whereby the order is priced at the midpoint of the prevailing visible BBO at the point of entry, and with any remaining volume following execution expired immediately. The introduction of this order type offers participants the opportunity to specifically target hidden Large In Scale liquidity resting on the LSE order book. Mid Price Pegged Orders with IOC/FOK TIF are not subject to LIS validation.

#### Initial book state

Buy OrderID	Buy MES	Buy size	Buy Price	Sell Price	Sell Size	Sell MES	Sell OrderID
B1	[10,000]	[250,000]	[MID]	211.85	15,000		S1
B2		20,000	211.8	211.9	17,000		S2

[Square brackets denotes non-displayed order]

Two consecutive sell orders entered

i. New Sell Mid Price Pegged IOC Order S5 of 5,000 @ MID. S5 Sell Size < Buy Order B1 MES. S5 expires without execution.

ii. New Sell Mid Price Pegged IOC Order S6 of 20,000 @ MID. S6 Sell Size > Buy Order B1 MES. S6 executes against B1 creating an execution of 20,000 @ 211.825.

#### Resulting book state

Buy OrderID	Buy MES	Buy size	Buy Price	Sell Price	Sell Size	Sell MES	Sell OrderID
B1	[10,000]	[230,000]	[MID]	211.85	15,000		S1
B2		20,000	211.8	211.9	17,000		S2

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