

# Quantitative Electronic Services

For Institutional Investors use only

## SG QES: Global Team

QES service team provides 24 hours coverage through all time-zones. Orders can be queued for release at market open where clients do not trade live hours.

Eclipse  
With Volume  
VWAP/TWAP  
Implementation Shortfall  
Relative Value  
Pairs  
Open/Close  
Peg  
Portfolio

Algorithm	Eclipse	Relative Value	Peg	VWAP	TWAP	With Volume	Implementation Shortfall	Open/Close
<b>Objective</b>	Liquidity-seeking algorithm seeks to capture both lit/dark liquidity whilst minimising market impact	Participation style algorithm which varies its % volume as stock performance diverges from the sector index	Order is pegged relative to the bid/offer and will float as the quote moves displaying an iceberg quantity	Aims to match VWAP for a specified time period	Executes order evenly over a specified time period whilst randomising time and size of slices	Participates at a user defined target %	Seeks to minimise slippage between execution price and benchmark by balancing market impact versus risk	Executes the order in the auction
<b>Key parameters</b>	Trading style controls level of aggressiveness. Block only style will execute in AlphaX and Dark only	Min/Max % controls range of participation. Initial participation is average of the two Trading style controls rate of increase/decrease in participation as relative value changes	Trading style controls pegging to passive (Conservative), Mid (Neutral) or touch (Aggressive)	Start and end time will ensure order executes over specified period; max vol % can be used to limit impact	Start and end time will ensure order executes over specified period; max vol % can be used to limit impact	Target vol %	Benchmark is set using Ref price; use Trading Style to manage level of participation; min/ max % volume can be used to cap the max or limit the min % participation	To limit impact in the auction the Residual flag can be set to Y allowing the order to trade after the auction (open) or before (close)
<b>Special features</b>	A more aggressive style can be set per client. Eclipse never posts orders but will only use aggressive orders	Can use either index or sector for relative performance Divergence from index/sector can be set as trigger to start order	Iceberg quantity can be user defined as share amount or % of order	Can be optionally configured to take less discretion and trade more closely to the volume curve	Randomises timing and sizes of orders sent to market to prevent gaming	Can be optionally configured to take less discretion and trade more closely to the volume curve	Choice of reference price (snap, open, close, previous close)	Option to execute part of order during continuous trading; will cross in AlphaX on close; style of trading in continuous phase can be set
<b>Trading Style</b> <i>Mandatory Parameters</i>	Block only Conservative Neutral (default) Aggressive	Conservative Neutral (default) Aggressive	Conservative (default) Neutral Aggressive				Conservative Neutral (default) Aggressive	
<b>Options</b>			<b>Display size:</b> # shares or % of order				<b>Reference Price:</b> MID (SNAP) (default), OPEN, Previous Close (PCLS)	<b>Residual:</b> Yes, No (default) <b>Resid Part %:</b> % participation in continuous trading <b>Benchmark:</b> WITHVOL, TWAP, VWAP

Standard Parameters	Eclipse	Relative Value	Peg	VWAP	TWAP	With Volume	Implementation Shortfall	Open/Close
<b>Start time:</b> Default = Now	✓	✓	✓	✓	✓	✓	✓	
<b>End time:</b> Default = Close	✓	✓	✓	✓	✓	✓	✓	
<b>Max vol %:</b> Default = 33%	✓	✓	✓	✓	✓	✓	✓	✓
<b>Min % vol</b>		✓					✓	
<b>Completion price</b> Level at which you are willing to complete the order	✓	✓	✓	✓	✓	✓	✓	
<b>Block cross:</b> Default = N Cross blocks in AlphaX and dark (Y/N)		✓	✓	✓	✓	✓	✓	
<b>Block cross max %:</b> Default = 100% Total % of order willing to cross in block mode		✓	✓	✓	✓	✓	✓	
<b>Block cross Price:</b> Default = order limit price Alternative limit for block cross mode		✓	✓	✓	✓	✓	✓	
<b>Open Auction:</b> Default = N Participate in open auction		✓	✓	✓	✓	✓	✓	
<b>Close Auction:</b> Default = N Participate in closing auction		✓		✓	✓	✓	✓	

✓ = Optional parameter