

The Charles River IMS Broker Wheel in Trade Automation

Smaller trading desks, fragmented liquidity and increased regulatory requirements to demonstrate and document best execution have accelerated interest in increasing trade efficiency and automation. A key component of these solutions is the broker (or algo) wheel, an automated selection process used in trade execution workflows. Each “spoke” of the wheel represents an execution destination. When an order is routed to the wheel, the system determines the ultimate destination, thereby eliminating trader bias towards specific brokers.

Broker wheels are typically used for three purposes:

Improve Execution Quality

By distributing order flow to multiple destinations, the wheel enables comparisons, providing “like for like” results, allowing traders to analyse performance results over time, determining which brokers and algos provide the best execution quality. Traders can use the execution outcomes to work with underperforming brokers to optimize algorithmic performance.

Improve Trader Efficiency

Auto Routing Rules can systematically send low touch orders to a broker wheel, distributing order flow across the members of the wheel, freeing traders to focus on high-touch order flow. While the system or trader determines the strategy for executing a trade, the wheel selects the final destination.

Justify Broker Selection and Document Best Execution

Brokers that perform well can be given priority (increased weighting) over brokers who consistently achieved poorer results (decreased weighting). The system records which placements were created via the wheel, along with the wheel selection workflow details in order history, helping firms refine their selection criteria and document best execution.

In Charles River IMS, the broker wheel selects the execution broker and strategy from the list assigned to the wheel. Multiple wheels can be created, to allow for region, asset class and strategy specific pools of broker and broker strategy.

The broker wheel enables traders to:



Send equities, futures, options and fixed income orders to a wheel.



Configure multiple wheels, with either brokers or execution algos as members of a broker wheel.



Specify either equal (random) or custom weighted options for selection methodology.



Leverage Approved/Restricted broker rules and specify the number of times the broker wheel will re-spin to find a valid destination, when funds are restricted from certain brokers.



Use order classification rules and and/or auto-routing rules using criteria such as order size or % ADV to route orders to a specific wheel.



Modify the order quantity and/or limit price before sending the order(s) to the wheel.

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(Statistics as of Q42021)

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