

Algo Wheel

A systematic, quantifiable approach to best ex

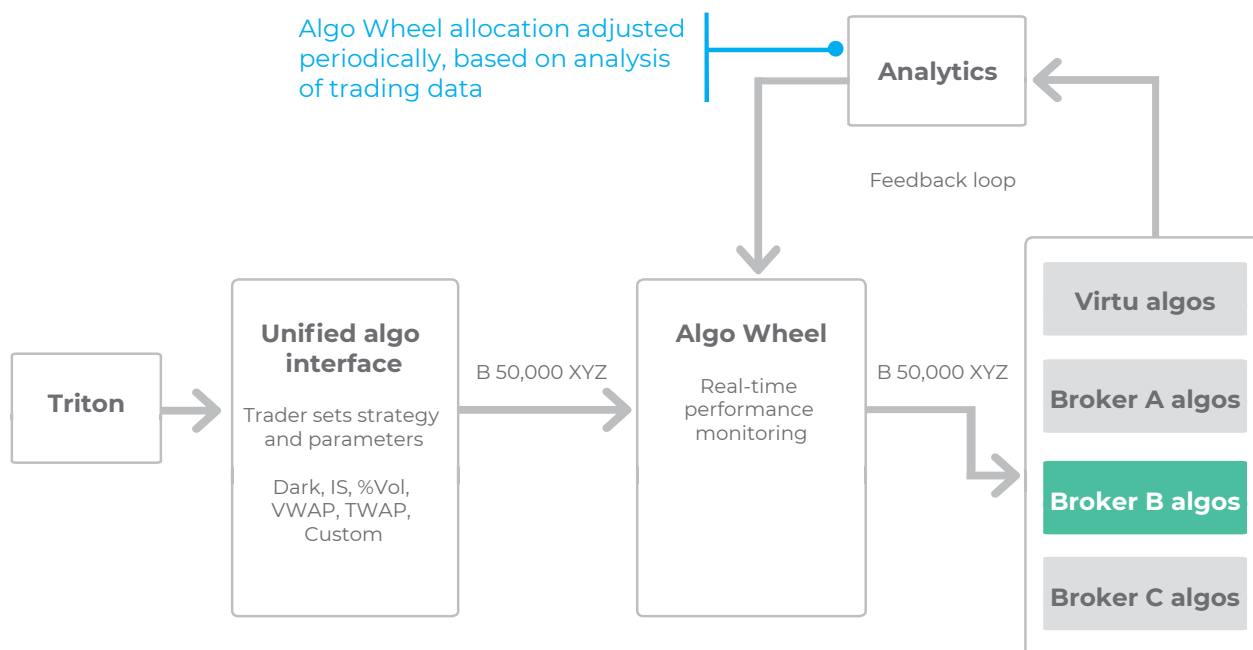
DATA-DRIVEN BROKER SELECTION

To achieve robust systematic broker selection, it is important to reduce noise or bias from other sources—and this means separating the broker choice (“which broker will I send this order to?”) from the algo strategy choice (“which type of algo will I send this order to?”).

By providing a single unified interface for all brokers across a set of algo strategies, Algo Wheel allows traders to focus on algo strategy selection at the time of trade, while Algo Wheel makes a systematic, data-driven broker selection that aims to reduce bias using inputs like historical transaction cost analytics (TCA).

When selecting a broker for an order, Algo Wheel can account for constraints such as broker restrictions, minimization of settlement costs and bi-directional trading in the same security. Normalization of algo parameters across brokers for each strategy via Algo Wheel has the added advantage of further reducing the number of performance variables and the complexity of managing a large universe of brokers.

Implementing Algo Wheel Workflow on Triton EMS



Feedback loop featuring unified order entry screen, broker selection logic and data capture.
Source: Virtu 2017



IMPROVING PERFORMANCE

Execution and order data for Algo Wheel trades is captured and benchmarked automatically. Performance numbers are adjusted to account for variables such as order difficulty and market conditions.

Having reduced bias and input variables through use of Algo Wheel, the adjusted data provides an apples-to-apples framework for measuring and ranking the relative performance of each broker's algo. As a sufficiently large data set is collected over time, performance patterns can emerge for specific order profiles and market conditions by strategy. Opportunities can then be identified to provide actionable feedback to participating brokers, allowing them to fine-tune their algos for improved performance.

This intelligent feedback loop allows for periodic adjustments and is driven by our award-winning TCA. Using data-driven broker selection and aligning incentives by subsequently rewarding brokers who show good performance, Algo Wheel can help demonstrate a trading workflow that not only meets best ex requirements, but can ultimately facilitate continuous guidance on performance improvement.

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APAC +852.2846.3592 | **CAN** +1.416.874.0800 | **EMEA** +44.20.7670.4066 | **US** +1.212.444.6250
info@virtu.com | www.virtu.com

Sample Algo Wheel Data Analysis



Source: Virtu sample data July–December 2016

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