

Open Technology

Power your applications with programmatic access to Virtu's data feeds

The right data can mean the difference between guessing and knowing. Virtu's data can help empower you so that you will not have to wonder what is next, you will know—even if you are not a programmer.

Our comprehensive **Open Technology** platform offers secure and easy access to Virtu's API¹ library and comes equipped with tools that connect, aggregate and quickly upload the raw Virtu data to your destination of choice for further in-house or third-party processing. The data, once translated by your preferred business intelligence, visualization or enriched analytics tools, can help you uncover new correlations and discover new insights into your business performance.

TECHNOLOGY IS POWERFUL WHEN IT EMPOWERS EVERYONE

As software and basic programming literacy becomes more ubiquitous, those in non-developer roles may find value in creating their own API integrations. Our Developer Toolkit makes it easy to get started. Sample code in several languages show you how to write scripts that can range from simple queries that access benchmark trade data or the analysis of historic transaction cost analysis (TCA) results. Because API data can be combined and analyzed with other data you acquire, the combinative possibilities are endless and make advanced interrogations of in-depth market data across equity, futures, fixed income and FX possible. As new data becomes available, Virtu will update the individual APIs. Automating data exports to run on a schedule is recommended so that your dataset is fresh.

¹APIs are a set of rules for interacting with a webservice (in this case Virtu), for data retrieval. APIs provide a mechanism to access and manipulate stored data. You make a request to a Virtu's webservice, that webservice accesses the applicable Virtu database and returns the request data. This same request/response cycle is used when you access a webpage in your browser. The major difference is that API response data is in a raw format, not intended to be rendered by a browser into a user experience—APIs require interpretive intervention by business intelligence, visualization or enriched analytic tools for it to be of meaningful use.



Current suite of APIs

Product	Availability	Description
Equity TCA	T+1	Third-party OMS and EMS data is available through the Equity TCA API. This includes all client benchmarks, metrics and order characteristics.
Triton	Real-time and post-trade	All trades executed through Virtu's Triton Execution Management system are available as part of a real-time and post-trade API.
Algo	Post-trade	All trades executed through the Virtu algo suite are available as part of a post-trade API including the child-intention flag.
Equity Market Data	Daily	Stock-specific market data points including tick and quote-based pricing, full-day metrics, and stock characteristics. Parameters are available to handle corporate actions and holidays.
Futures Market Data	Daily	Contract-specific market data points including quote-based pricing, full-day metrics, and futures contract characteristics.
FX Market Data	Daily	Currency pair specific market data points including mid and best price points at the time of the trade.
Fixed Income Market Data	Daily	Fixed income security specific market data points included bond rating and other relevant metrics.
Equity ACE	Daily	Virtu's industry standard Equity ACE model is available through an API and can be directly integrated into other OMS/EMS platforms.
FX ACE	Daily	Built off of a similar framework to Virtu's industry standard Equity ACE model, the FX ACE model provides expected costs for various currency pairs across several sizes and strategies.
Fixed Income ACE	Daily	Virtu's Fixed Income ACE model provides both expected market impact estimates for sovereign and corporate bonds, as well as bond liquidity scores that can be used as part of regulatory reporting.

Expected in 1H 2020

Product	Timing	Description
Futures TCA	T+1	Third-party OMS and EMS data is available through the Futures TCA API. This includes all client benchmarks, metrics and order characteristics.
FX TCA	T+1	Third-party OMS and EMS data is available through the FX TCA API. This includes all client benchmarks, metrics and order characteristics.
Fixed Income TCA	T+1	Third-party OMS and EMS data is available through the Fixed Income TCA API. This includes all client benchmarks, metrics and order characteristics.
eNAV	Real-time and post-trade	Virtu's real-time and post-trade eNAV metric for ETFs to track the real-bid and offer of an ETF are available in API form.



ABOUT VIRTU

Virtu is a leading financial services firm that leverages cutting-edge technology to provide execution services and data, analytics and connectivity products to its clients and deliver liquidity to the global markets. Leveraging its global market making expertise and infrastructure, Virtu provides a robust product suite including offerings in execution, liquidity sourcing, analytics and broker-neutral, multi-dealer platforms in workflow technology. Virtu's product offerings allow clients to trade on hundreds of venues across 50+ countries and in multiple asset classes, including global equities, ETFs, foreign exchange, futures, fixed income and myriad other commodities. In addition, Virtu's integrated, multi-asset analytics platform provides a range of pre and post-trade services, data products and compliance tools that clients rely upon to invest, trade and manage risk across global markets.

To learn more, contact your sales representative or call our desk at **+1.212.588.4812**
analytics@virtu.com | www.virtu.com

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