

Skyler C3™ Database: Equity Ticker Plant Use Case

The Skyler C3™ Equity Ticker Plant Database—the first off-the-shelf solution for low-latency data processing infrastructure that supports market data update rates exceeding 200,000 messages/s.

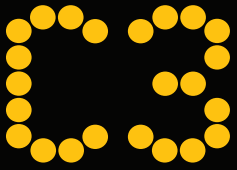
The race for faster real-time applications is drastically changing the IT landscape of the financial services industry. The need for faster trading systems, automated market making, best execution, smart order routing, and automated portfolio trading calls for more powerful and flexible low-latency data processing infrastructure. Rather than depending on third-party data aggregators, hedge funds, asset management companies, and brokerage houses increasingly receive direct feeds from exchanges and build their own internal, low-latency ticker plant platforms to support their mission-critical, real-time applications. The challenge lies in efficiently developing a scalable and flexible ticker plant that can keep up with the increasing market data volumes and update rates. Skyler addresses this need head on with its C3 Database for Dynamic Data—a low-latency ticker plant database.

The Skyler C3 Equity Ticker Plant Database allows you to:

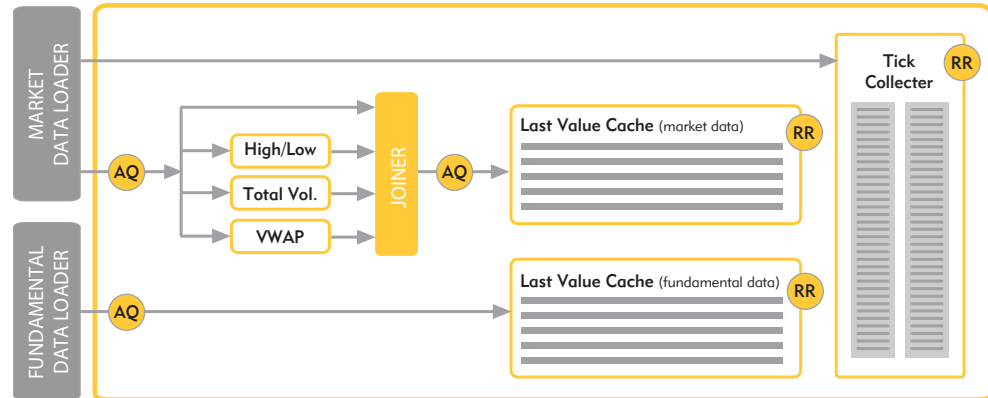
- Capture and store real-time and historical data at stream input rates exceeding 1,000,000 messages/s
- Achieve overall stream input rates into the fully configured ticker plant database at rates exceeding 200,000 messages/s
- Derive value-added data on the fly including the high/low, total volume, or the volume-weighted average price (VWAP)
- Conduct real-time tick collection in a time series store
- Maintain a last value cache with raw and derived data in real time
- Analyze stored data with fast query response time
- Pose subscription-based active queries that provide notifications upon changes to the incoming data or result sets

The Skyler C3 Equity Ticker Plant Database can receive real-time trade and quote feeds from feed handlers that are part of direct exchange market data platforms. In addition, the database can receive fundamental data. The real-time data is sent directly to a system-level tick collector. This store captures the complete history of all incoming data for time series based analytics or data replay. Value-added data, such as total volume, high/low, or VWAP, can be derived on the fly and stored in a last value cache together with the raw incoming data thereby providing you with up-to-date market data for real-time decision making. Fundamental data entering the system in parallel, through a second loader module, is stored in a separate, relational data store for fast retrieval.

Using request-response queries, users have the ability to access and analyze the latest information stored in the relational and time series stores. Additionally, users issuing active queries can receive current results stored in the data stores and updates to this result set, or updates to events only.



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A sample system concept and data flow of the Skyler C3 Equity Ticker Plant Database. RR and AQ indicate the positions where request-response and active queries respectively can be posed.

be easily configured varying the value added data calculations or storage functionalities using the C3 Administrator GUI, and an XML configuration file. In addition, the product is easy to integrate within a market data platform, such as a ticker plant. Feed handlers and associated messaging systems can interface or connect via the C3 API. The system is also easy to use. The clients retrieving data from the C3 ticker plant database can use the Skyler C3 Query Client or a command line interface to the C3 Query API.

Customer Benefits:

- Significantly faster market data infrastructure to support trading or other real-time applications
- Shorter development circles and lowered development complexity
- Lower maintenance overhead and support requirements

PERFORMANCE FOR THE C3 TICKER PLANT DATABASE:	
Data input:	NASDAQ 100 real-time plus fundamental data
Test environment:	2 Dual Core AMD 64 bit processors running Linux
Stream input rates into the data stores:	1,000,000 messages/s
Stream input rates into equity ticker plant database:	200,000 messages/s

The Skyler C3 Equity Ticker Plant Database is now available for a 30-day trial. Please contact us at 1-888-SKYLER-C3 or learn more at www.skylertech.com.