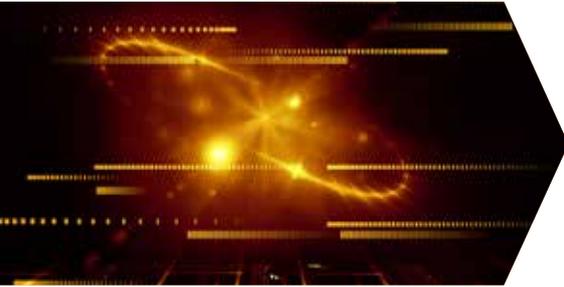


## Nanotick | CME | Raw



CME Globex Market Data Platform (MDP) wire-level logged data in a binary format. The data includes the Security Definitions from the start of the weekly session, followed by all incremental updates. The data is presented based on subscription extracts by channel and daily historical time periods.

It is intended for use where firms have their own, or third party, solutions for building order book images from raw wire-level data. Data is presented in an Extensible Record Format (.erf) file with high resolution time stamps using GPS clock synchronisation to a time resolution of sub 100 nanoseconds.

## Nanotick | CME | Replay



MDP data is preformatted to be directly replayed using the standard Replay functionality that exists within the OnixS directConnect: CME MDP Market Data Handler implementations.

The Replay data is a self standing market data set consisting of a startup section for “PreOpening” at the start of the session (i.e. no Snapshots and books are empty) and for trading days, a header section that simulates “LateJoin” with Security Definitions and Snapshot Full Refreshes. Replay data is intended to provide exact simulation of a replayed full depth Order Book for integration and back-testing automated trading strategies integrated with the OnixS directConnect: CME Market Data Handler implementations.

## Nanotick | CME | BBO and BBO Consolidated



Globex MDP high resolution time stamped data based on Top-Of-Book changes. The BBO Consolidated provides the Consolidated Book with both Direct and Implied.

This Nanotick artefact is a simple csv formatted file extract designed to ensure that it can be incorporated to a wide range of data analysis tools. It may be used directly within Excel, or by users developing strategies in Matlab, R, or other tools for analysis of quotes on specific instruments against time.

## Nanotick | CME | Trades



Globex MDP high resolution time stamped data of what trades occurred on specific instruments at specific times.

Useful to analyse trading patterns, demonstrate best price execution, or for valuation models. This Nanotick artefact is a simple csv formatted file extract designed to ensure that it can be incorporated to a wide range of data analysis tools. It may be used directly within Excel, or by users developing strategies in Matlab or R.

## Speed and Time



Any latency critical trading strategy worries about time. Synchronised high resolution time stamping is difficult.

In an environment where firms are measuring latencies in micro-seconds, nanotick offers sub micro-second resolution. i.e. nano-seconds.

## Quality



Multiple points of capture with re-sequencing for maximum data quality and integrity.

Multicast networks are not 100% reliable – thus market data updates can be lost at the network level.

Nanotick stored data is re-sequenced to ensure maximum quality and integrity.

## On-Demand



Reduces internal infrastructure spend on data storage - provides market data on an on-demand basis.

Why have to manage all market data channels when the trading strategy needs only specific market data?

Nanotick offers the ability to request specific artefacts based on specifying instruments and channels.

## Backtesting



Provides exact simulation of full depth Order Book for back-testing automated trading strategies, and associated opportunity discovery.

This is the overall key feature and the reason we created Nanotick.

## Access to Network

Access to Nanotick is available based on subscription access to the platform. Subscriptions can be by instrument or complete channel and by time – where time is based on each trading day.

Technically access is available via secure FTP and rsync access to the [data.nanotick.com](http://data.nanotick.com) platform.

## Take a closer look

We have a standard evaluation download available.

This sample data includes all Nanotick data artefact types in a single zip file for one full trading based on CME Globex Equity Futures.

Alternatively we can provide any other instruments or channels as a one day sample upon request.