

Message Types and Interpretation

The RTS Market Data Platform 5.1.0 provides real-time market data to data vendors and exchange members. The data can then be used internally or redistributed to end clients or other data vendors.

Market Data Platform Architecture

The Market Data Platform is based on FIX and FAST for increased efficiency. FIX is used as the core message structure and business meaning while FAST Protocol provides efficient bandwidth utilization.

Real-time Data

The aim of Market Data Platform is to provide real-time market data with lowest possible delays. Multiple market events are combined into a single message, preventing the overhead of decomposing the information stream into separate messages. The result is reduced latency as overall processing efficiency increases.

Incremental Refresh

The consumption of network bandwidth and CPU resources can be significantly reduced by using incremental refresh method. A minimum number of instructions are used to update the book instead of retransmitting full book contents on each update. With incremental approach the platform only sends the data necessary to convey the impact of a market event.

FIX Messaging Format

All messages have standard format, described by the industry-driven FIX protocol. The Financial Information Exchange (FIX) Protocol is a messaging standard developed specifically for the real-time electronic exchange of securities transactions. FIX is a public-domain specification which provides efficient support for all RTS requirements.

FAST Compression

FAST (FIX Adapted for Streaming) is a newly developed compression solution that removes most of redundant data (including message fields headers) and serializes what remains into compact binary messages without introducing significant overhead. FAST can reduce latency and increase network capacity by decreasing the transfer time of data.

Recovery

Rapid recovery has become increasingly important as clients must be in the market at all times. The goal of Market Data Platform is to allow recovery of each market segment without any impact on the latency of the real-time data. The platform documentation describes all recovery algorithms in details and contains recommended recovery approaches for all situations.

Platform Documentation

The complete user guide to implementing Market Data Platform connection consists of several documents.

Service Levels Overview

This document provides high-level overview of Market Data Platform. It describes all data channels and their contents and relationship.

Connectivity Guide

This document describes the structure of Market Data Channels, the distinct streams of information that can be combined in different ways to meet the client requirements. It explains the purpose of each channel and what types of messages are transmitted in each. The document also describes the general rules of message sequencing and access to configuration data.

Message Types and Interpretation

This document outlines the business logic associated with different types of messages and the way market data events are conveyed within the information streams. This is a guide to interpretation of the market data once it has been extracted from the Market Data Platform.

Encoding and Compression

This document provides the technical details about the way Market Data Platform implements the FAST protocol including the handling of message templates as well as the choice and encoding of data types.

Recovery Procedures

This document contains information on market data recovery in case of network outage, software failure, or late join. It outlines the purpose and usage of various recovery channels and suggests the most efficient scenarios of implementation of fault-tolerant solutions.

Market-Specific Details

This document is supplementary to official regulations. It describes financial instruments symbol formats, other product-specific functionality and provides links to useful RTS website sections.

Data Aggregation

The goal of Market Data Platform is to provide real-time market data with minimum latency. If several market events involving the same security and overlaying one another (such as book updates) happen almost simultaneously, RTS may only report the last one. Due to this approach, client systems will always get the current information with no need of processing stale market data.