CHICAGO BOARD OPTIONS EXCHANGE

CBOE Application Programming Interface

CBOE FIX 4.2 Version 5.3 - Release Notes

Provides an overview of the updates and changes to the FIX 4.2 with this version release.

CBOE PROPRIETARY INFORMATION

~~November 25, 2008~~ January 05, 2009

Document #[FIX-00]

Front Matter

Disclaimer

Support and Questions Regarding This Document

Questions regarding this document can be directed to The Chicago Board Options Exchange at 312.786.7300 or via e-mail: api@cboe.com.

The latest version of this document can be found at the CBOE web site http://systems.cboe.com.

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Overview

Release notes for the FIX 4.2 API, Version 5.3, were initially published on November 25, 2008. Version 5.3 supports new functionality for Multiple Linkage Routers, Order/Quote Processing Enhancements and a new order contingency type, Intermarket Sweep Book (ISB). Since the initial publication, the mapping of the FIX fields for ISB has changed. Refer to the section "New Order Contingency Type" for ISB details.

Overall documentation changes are detailed in the sections below. Your feedback or questions regarding this document should be sent to API@cboe.com

FIX 4.2, V5.2 Highlights

The highlights discussed below will be available in the December 2008 CBOEdirect software release.

Multiple Linkage Routers

The format of the *New Order- Single Message (MsgType=D)* will be enhanced to provide multiple routing choices for Linkage orders sent through CBOE. This will be done by the addition of a new UDF (User Defined Field),

- 6818 – BrokerRoutingID

This new UDF may not always be present. Valid values for this field are:

- REDI
- OES
- BRASS
- LIME
- ASSENT

Order/Quote Processing Enhancement

Currently, the FIX order and quote processing mechanism is multi-threaded on a class basis. All orders and quotes entered through FIX belonging to a specific class are queued up one behind the other on the same thread. This architecture is efficient for users who send in orders and quotes on a large number of classes. It is not efficient for a user who is quoting with orders or quotes on a few classes.

As an optional feature, CBOE is enhancing its FIX order/quote threading mechanism to allow multiple concurrent quote and order messages up to a configurable limit. This threading enhancement will be user based, rather than class based. For users that wish to continue to use the existing multi-threaded class based processes, no changes are required. FIX users that would like to use the new concurrent thread model can choose so using the *Logon Message (MsgType=A)*. This will be done by the addition of a new UDF, ConcurrentOrder/QuoteIndicator [9192]. Valid values for this field are:

    1=Enable concurrent quote Model

2=Enable concurrent order Model

3=Enable both concurrent order and quote model

With the concurrent thread model there is a possibility of the user's cancel request getting rejected when an order is in flight. The Firm will have to make a change to their software so that they resubmit the cancel request if they think they still have an open order in the market which is not completely filled or cancelled.

New Order Contingency Type

CBOE will support a new order type, Intermarket Sweep Book (ISB). Orders marked ISB will trade immediately or book. ISB will be represented in the *FIX New Order- Single Message (MsgType=D)* with ExecInst[18] = "f" and TimeInForce[59] = "0" or "1". Intermarket Sweep Order (ISO) is represented as ExecInst[18] = "f" and TimeInForce[59] = "3".

Document Changes

FIX-01

- No changes

FIX-03a

- Updated TargetSubID[57] to include the compression of ExecID[17]. At logon, CBOE will publish an ExecID[17] field that will be a maximum of 30 characters.
- Updated *Logon Message (MsgType=A)* to include the new UDF for the concurrent threading model, ConcurrentOrder/QuoteIndicator[9192]. This field is optional for all users.

FIX-03b (Including Tag Dictionary)

- Added the following UDFs to the tag dictionary:
  - BrokerRoutingID [6818]
  - ConcurrentOrder/QuoteIndicator [9192]

FIX-03c

- Based on this release, updated the *New Order- Single Message (MsgType=D)* to include the new UDF, BrokerRoutingID[6818].
- Updated ExecInst[18] and OrdType[40] to include Intermarket Sweep Book in the *New Order- Single Message (MsgType=D.*
- Add a new Order Processing section to describe the concurrent thread model feature.

FIX-03d

- Add a new Quote Processing section to describe the concurrent thread model feature.

- Updated the section "Recommended Market Making Guidelines" to read as follows:

  1) Waiting on acknowledgements. For FIX users, orders and quotes in particular, <u>please</u> obey the protocol of ***receiving the ack*** from the prior transaction ***before*** sending in another transaction for the same class. Quoters or order flow providers who do not wait for an ack prior to sending another transaction are, in effect, exacerbating perceived slowness within the system and may be exposing themselves to processing stale quotes.

  2) Logout implications. The logout is an expensive function. We have observed traders logging out of the system in what appears to be a panic. A less severe method of removing quotes would be to send a ***cancel all quotes*** message.

  3) Excessive quoting/thrashing. We have observed firms sending in mass quotes, then single cancels, followed by mass quotes again. If there is a perceived reason validating the need for cancels, then they should not be immediately followed by mass quotes. If the intent is to update the quote, then the cancel is superfluous.

  4) There are many single quote blocks entered. It is more efficient to block multiple quotes together within a single message, when possible.

FIX-06

- No changes

FIX-07

- No changes

Test Plan Changes

FIX Phase 2 Test Plans

3a, Security Definition Test Plan

- No changes

3b, Market Data Test Plan

- No changes

3c, Quote Test Plan - Hybrid-ONE-CFE (includes 3j, Hybrid Sections and 3L, CFE Supplemental Tests)

- No changes

3e, W_MAIN-ONE-CFE Order Test Plan (includes 3k, CFE Supplemental Tests)

- No changes

3f, Clearing Firm, Duplicate Message Test Plan

- No changes

3g, Strategy Quote Test Plan - ONE-CFE

- No changes

3i, W_MAIN-ONE-CFE Strategy Order Test Plan

- No changes

3m, Stock Trading On CBOEdirect (STOC) Order Test Plan

- No changes

3n, Stock Trading On CBOEdirect (STOC) Quote Test Plan

- No changes

3o, Stock Trading On CBOEdirect (STOC) DPM Administrative Test Plan

- No changes

Phase 4 Test Plan

- No changes