



CBOE Application Programming Interface

CBOE FIX 4.2 Version 4.2.4 - Release Notes

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

CBOE PROPRIETARY INFORMATION

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Front Matter

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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

The material presented in this document highlight upcoming changes for the new release of the FIX 4.2 API, Version 4.2.4. Documentation changes are detailed in the sections below. Your feedback or questions regarding this document should be sent to API@cboe.com

FIX 4.2.4 Highlights

SAL and HAL in Hybrid 3.0 Classes

Effective January 23, 2008, SAL and HAL will be activated in the Hybrid 3.0 (non-Hybrid) Classes (SPX, OEX and MVR). The SAL mechanism is an auction that allows for electronic price improvement on eligible simple (non-complex) marketable orders. HAL is a mechanism that alerts members to limit orders entering the book. Both SAL and HAL are represented in the FIX field, AuctionType [9383].

As in all other Hybrid classes, the HAL flash period will be 700ms, and the allocation algorithm will be pro-rata. However, when the Exchange's BBO is represented by a manual quote on the same side as the incoming order, the limit order will automatically route to the electronic book instead of being processed by HAL and the manual quote will be canceled.

SAL details for non-Hybrid index classes are as follows:

1. Eligible marketable orders will be stopped at the LMM quote and exposed to a brief (300ms) electronic auction for price improvement. Customer orders of 50 contracts and less will be eligible.
2. The starting price for the auction will be the LMM quote. The auction increment in all three classes will be \$.05 below \$3.00 and \$.10 above \$3.00.
3. The auction message will be available to all market makers with appointments in the class and firms that have orders resting at the BBO.
4. At the end of the auction period, the order will be executed at the best price(s), including any customer book orders, auction responses and the LMM auto-quote.
5. The trade will be allocated using pro-rata, with each user's response capped at the size of the incoming order (i.e. "capped" pro-rata).
6. An auction will not begin if the incoming order size exceeds the LMM quote size or if a manual quote is present on the BBO on the opposite side of the incoming order.

Billing Type Indicators

Two new Billing Type Indicators are introduced in this release: ODD_LOT_FLASH and ODD_LOT_RESPONSE. ODD_LOT_FLASH is used for CBSX odd lot orders or the odd lot portion of a mixed lot order that is being flashed. ODD_LOT_RESPONSE is used for all responses to odd lot orders that are being flashed. Both indicators are represented in FIX field, TradeLiquidityIndicator [9730].

ODD_LOT_FLASH = N

ODD_LOT_RESPONSE = B

Document Changes

FIX-01

- No changes

FIX-03a

- No changes

FIX-03b (Including Tag Dictionary)

- Included two new TradeLiquidityIndicator [9730] to the tag dictionary
 - ODD_LOT_FLASH = N—this indicator is used for CBSX odd lot orders or the odd lot portion of a mixed lot order that is being flashed.
 - ODD_LOT_RESPONSE = B—this indicator is used for all responses to odd lot orders that are being flashed.
- Added two new sub-sections under the section: Scenarios for Business Message Reject

Business Reject Messages Requiring Special Attention

Regardless of the values of RefMsgType [372], BusinessRejectRefId [379], BusinessRejectReason [380]. If CBOE sends out a Business Reject Message with the following Text [58] value

"Ambiguous Message Dispatch Failure (SE). Contact CBOE helpdesk for confirmation of action.",

then *it is very important that this message be considered carefully*. The Electronic Trading System to which CBOE FIX 4.2 belongs is a distributed system. That particular text is only produced when there is an internal communications failure within the CBOE system. That means that the message referred to by RefMsgType [372], and BusinessRejectRefID [379] did not complete its normal processing task or did not complete within a reasonable time frame. If it is a message that affects the Market Position of the SenderCompID [49], then the SenderCompID [49] needs to:

1. Take immediate action to compensate for the ambiguous message failure (e.g., if some form of a Quote is involved, cancel or log out to cancel any resting Quotes).
2. If an order origination request failed a cancel request should be sent to ensure the order is not in the market before taking an alternate action regarding the order.

Contact the CBOE helpdesk to help determine where and what the internal communications involved failed or succeeded.

Other Messages Requiring Special Attention

Besides the Business Reject Message [35=j], it is possible that other messages could also be sent with the following Text [58] value

"Ambiguous Message Dispatch Failure (SE). Contact CBOE helpdesk for confirmation of action."

It is very important that these messages be considered carefully. The same factors used to determine the correct response to the Business Reject Messages above should be used to respond to these messages. The Messages involved will be one of the following:

- Quote Acknowledgement Message [35=b] in response to either a Mass Quote Message [35=i] or a Quote Message [35=S]
- Execution Report [35=8] reporting a reject of one or more parts of a Cross Order or Auction Pair.

Again, the fact that these messages report an action (reject) regarding a Quote or Order Action does not override the important word “**Ambiguous**” in the Text.

FIX-03c

- Removed all references to RAES
- Modified the SAL and HAL details section based on this release
- Added References to FIX-03b for Business Reject message details
- Added two new TradeLiquidityIndicator [9730]:
 - ODD_LOT_FLASH = N—this indicator is used for CBSX odd lot orders or the odd lot portion of a mixed lot order that is being flashed.
 - ODD_LOT_RESPONSE = B—this indicator is used for all responses to odd lot orders that are being flashed.

FIX-03d

- Added References to FIX-03b for Business Reject message details

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