



**BOX**<sup>SM</sup>  
O P T I O N S

Informational Circular

IC-2021-21

**TO: BOX Options Participants**  
**FROM: BOX Market Operations Center**  
**SUBJECT: New Features for FIX and SAIL Protocol**  
**DATE: April 22, 2021**

**Overview**

BOX Options Market LLC (“BOX”) will introduce the following features on **May 3, 2021**:

- Support of SubAccount, representing the Market Maker ID (MMID) at the OCC, in both FIX and SAIL protocol.
- Introduction of BOX Internal FIX B5 protocol with updated Error Management.

<b>SAIL Protocol</b>	
	<b>Supported protocol versions</b>
<b>SubAccount Support in Post-Trading Instruction field</b>	
A <i>Post-Trading Instruction (PTI)</i> field is added to message <b>BD</b> - Bulk Quote Data (This field is optional – BD message can be sent with or without PTI)	B3
A <i>Post-Trading Instruction</i> field (PTI) is added to message <b>OI</b> - Improvement Order (This field is optional – OI message can be sent with or without PTI)	B3
<b>SubAccount will be supported in the Post-Trading Instructions fields of the following messages:</b> <ul style="list-style-type: none"> <li>• <b>BD</b> – Bulk Quote Data*</li> <li>• <b>OA</b> – Auction Entry</li> <li>• <b>OD</b> – Directed Order Acceptation</li> <li>• <b>OE</b> – Order Entry</li> <li>• <b>OI</b> – Improvement Order Entry*</li> <li>• <b>OM</b> – Order Modification</li> <li>• <b>OT</b> – Complex Order Auction Entry</li> </ul>	B3
* BD and OI with new Post-Trading Instruction field	
<b>Declaration of SubAccount in Post-Trading field in above messages:</b> <ul style="list-style-type: none"> <li>• The SubAccount field is defined as AlphaNumeric up to 3 characters as is currently supported by the OCC.</li> </ul>	B3

<ul style="list-style-type: none"> <li>• The SubAccount filed should be declared in the Post-Trading Instructions (PTI) field and should be enclosed between 2 # (pound signs) <ul style="list-style-type: none"> <li>○ Preceding spaces are accepted and sent as is to the OCC.</li> <li>○ Trailing spaces are accepted but will be ignored when sent out to the OCC.</li> <li>○ If SubAccount length is greater than 3 characters, only the first 3 characters are retained.</li> </ul> </li> <li>• Examples of SubAccount declaration in PTI: <ul style="list-style-type: none"> <li>○ #ABC# means 'ABC' will be sent to the OCC (sent as is)</li> <li>○ # AB# means ' AB' will be sent to the OCC (preceding space conserved)</li> <li>○ #AB # means 'AB' will be sent to the OCC (trailing space removed)</li> <li>○ #ABCD# means 'ABC' will be sent to the OCC (first 3 characters retained)</li> </ul> </li> </ul>	
<p><b>Usage of SubAccount on Order/Auction Entry v.s QuickID (as created by MOC per Participant instruction)</b></p> <ul style="list-style-type: none"> <li>• Participants who wish to use their pre-configured post-trade instructions can specify their pre-configured QuickID on order entry. The provided QuickID will be used to look up the pre-configured SubAccount, Giveup, Allocation or CMTA and perform automatic post-trade operations.</li> <li>• Alternatively, Participants who wish to use their pre-trade clearing instructions defined by the 'Post-Trade Instructions' field at Order/Auction entry level <b>must not</b> specify their QuickID in the Clearing Instruction field. The latter can still be used to specify a Client Account Number as long as this does not match any pre-configured QuickID.</li> <li>• If both the QuickID and Post-Trade Instructions are specified at Order/Auction entry level, the <b>QuickID</b> has <b>higher precedence</b> (priority), and BOX will apply the pre-defined instructions per the QuickID.</li> </ul>	B3

FIX Protocol	
<b>SubAccount Support with new Tag [ClearingAccount 440]</b>	<b>Supported protocol versions</b>
<p><b>Addition of new ClearingAccount (Tag 440) in the following messages:</b></p> <ul style="list-style-type: none"> <li>• <b>D</b> – New Order Single</li> <li>• <b>G</b> – Cancel/Replace Single Order Request</li> <li>• <b>PI</b> – Auction Initial Order</li> <li>• <b>8</b> – Execution Report</li> <li>• <b>AB</b> – New Multi-Leg Order</li> <li>• <b>AC</b> – Cancel/Replace Multi-Leg Order</li> </ul> <p>Note that the ClearingAccount (Tag 440) is optional in any of the above messages.</p>	<p>B4 <b>B5 (new)</b></p>
<p><b>Declaration of SubAccount using ClearingAccount (Tag 440):</b></p> <ul style="list-style-type: none"> <li>• The SubAccount field is defined as AlphaNumeric up to 3 characters as currently supported by OCC <ul style="list-style-type: none"> <li>○ Preceding spaces are accepted and sent as is to the OCC.</li> <li>○ Trailing spaces are accepted but will be ignored when sent to the OCC.</li> <li>○ If SubAccount length is greater than 3 characters, only the first 3 characters are retained.</li> </ul> </li> <li>• Examples of SubAccount declaration <ul style="list-style-type: none"> <li>○ Tag 440='ABC' means 'ABC' will be sent to the OCC (sent as is)</li> <li>○ Tag 440= ' AB' means ' AB' will be sent to the OCC (preceding space conserved)</li> <li>○ Tag 440= 'AB ' means 'AB' will be sent to the OCC (trailing space removed)</li> <li>○ Tag 440= 'ABCD' means 'ABC' will be sent to the OCC (first 3 characters retained)</li> </ul> </li> </ul>	<p>B4 <b>B5 (new)</b></p>
<p><b>Usage of ClearingAccount 440 on Order/Auction Entry v.s QuickID (as created by MOC per Participant instruction)</b></p> <ul style="list-style-type: none"> <li>• Participants who wish to use their pre-configured post-trade instructions can specify the Account (Tag 1) as QuickID. The provided QuickID will then be used to look up the pre-configured SubAccount, Giveup, Allocation or CMTA and perform automatic post-trade operations.</li> <li>• Alternatively, Participants who wish to use their pre-trade clearing instructions ([ClearingFirm or CMTA 439], [ClearingAccount 440] [ExecBroker or GiveUpFirm 76]) defined at Order/Auction entry level <b>must not</b> specify their QuickID as Account (Tag 1). The Account (Tag 1) can be used to specify the Client Account Number as long as this does not match any pre-configured QuickID.</li> <li>• If however, both the QuickID and post-clearing instructions (Tags 439, 440, 76) are specified at Order/Auction entry level, the <b>QuickID</b> has <b>higher precedence</b> (priority).</li> </ul>	<p>B4 <b>B5 (new)</b></p>

## FIX Protocol

### Error Management in new FIX Internal B5 protocol

FIX Internal B5 protocol is designed to better handle error management for business/application type errors within the FIX Standards. The goal of FIX Internal B5 protocol is to restrict the use of FIX '3' messages to more technical errors.

The following table summarizes the changes of Error Management in the new FIX Internal B5 protocol.

- FIX '3' is a session-level reject which is sent when encountering a session-level error (e.g. when a message refers to a MsgType which is not supported and prevents further processing).
- If a message can be processed but contains errors (e.g. mandatory tag missing, incorrect value or out of range, tag not defined for message type, etc.), then a business reject message ('j', '8', '9') is sent in B5 protocol instead of FIX '3' in the B4 protocol. These business reject messages will contain a reference to the ClientOrderId (Tag 11) where applicable.
- Business reject messages ('j', '8', '9') which were already being sent out in the B4 protocol will remain as is in the B5 protocol.

Error handling	B4	B5
<b>Administration Messages</b>	<b>Administration Messages - Business Errors</b>	
A: Logon	3: FIX Protocol Error / Reject	j: Business Message Reject
0: Heartbeat		
1: Test Request		
2: Resend Request		
4: Sequence Reset		
5: Logout		
<b>Application Messages</b>	<b>Application Messages - Business Errors</b>	
D: New Single/Complex Order	8: Execution Report	8: Execution Report
	3: FIX Protocol Error / Reject	8: Execution Report
G: Cancel/Replace Single/Complex Order Request (Order Modification Request)	9: Order Single / Complex Cancel Reject	9: Order Single / Complex Cancel Reject
	3: FIX Protocol Error / Reject	9: Order Single/Complex Cancel Reject
PI: Auction Initial Order	8: Execution Report	8: Execution Report
	j: Business Message Reject	j: Business Message Reject
	3: FIX Protocol Error / Reject	8: Execution Report(s)
F: Order Single/Complex Cancel Request	9: Order Single/Complex Cancel Reject	9: Order Single/Complex Cancel Reject
	3: FIX Protocol Error / Reject	9: Order Single/Complex Cancel Reject
R: Quote Request	3: FIX Protocol Error / Reject	j: Business Message Reject
c: Security Definition Request	j: Business Message Reject	j: Business Message Reject
	3: FIX Protocol Error / Reject	j: Business Message Reject
AF: Order Mass Status Request	3: FIX Protocol Error / Reject	j: Business Message Reject
AB: New Multi-Leg Order - Single	8: Execution Report	8: Execution Report
	j: Business Message Reject	j: Business Message Reject
	3: FIX Protocol Error / Reject	8: Execution Report

AC: Cancel/Replace Multi-Leg Order	9: Order Single/Complex Cancel Reject	9: Order Single/Complex Cancel Reject
	3: FIX Protocol Error / Reject	9: Order Single/Complex Cancel Reject
BE: User Request	j: Business Message Reject	8: Execution Report
	3: FIX Protocol Error / Reject	8: Execution Report

Updated Trading Specification Guides can be found on the [BOX website](#).

**Contacts**

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