

FIX 4.4 Conformance

For Futures V3.7

Please contact your Cboe Digital Sales representatives or [digital.market.operations@cboe.com](mailto:digital.market.operations@cboe.com) for more information on this documentation.

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# Introduction

This document describes the messages that must be tested and sent to Cboe Digital for review before customer applications may be used in the production environment.

# Process

Once clients have spent some time developing and testing their application they should be ready to pass a set of conformance tests.

Clients can choose to complete the Market Data, Order Entry, and Drop Copy test at their convenience. For each of the applicable tests, clients should paste the set of FIX messages relevant to each test in the space provided at the bottom of each table. Clients must include the delimiter between each tag value pair so that the conformance test can be reviewed in an efficient timeframe. This conformance guide is specifically designed for Drop Copy.

# Drop Copy Tests

## Test1: Subscribe to Trade Capture Report

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Send: TCR Request 35=AD | 568= | Client assigned id for request |  |
| 569=0 | All Trades |  |
| 263=(1/9) | 1=Snapshot+updates 9=updates |  |
| Receive: TCR ReqAck 35=AQ | 568= | Value from TAG 568 in Request Msg |  |
| 569=0 | All Trades |  |
| 263= | Either 1 or 9 for Request Type |  |
| 749=0 | TradeRequestResult 0=Successful |  |
| 750=0 | TradeRequestStatus 0=Accepted |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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## Test2: Acknowledge Trade Capture Report

* Generate a fill that will send a Trade Capture Report and acknowledge it.

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Send: TCR Request 35=AD | 568= | Client assigned id for request |  |
| 569=0 | All Trades |  |
| 263=(1/9) | 1=Snapshot+updates 9=updates |  |
| Receive: TCR ReqAck 35=AQ | 568= | Value from TAG 568 in Request Msg |  |
| 569=0 | All Trades |  |
| 263= | Either 1 or 9 for Request Type |  |
| 749=0 | TradeRequestResult 0=Successful |  |
| 750=0 | TradeRequestStatus 0=Accepted |  |
| Receive: TCR 35=AE | 150=0 | New Trade Execution Type |  |
| 167=FUT | Futures trade |  |
| 552=1 | Number of sides |  |
| 54= | 1=Buy, 2=Sell |  |
| 11= | Client Order ID |  |
| 1= | FCM Omnibus Account Number |  |
| 31= | Trade Price |  |
| 32 | Trade Quantity |  |
| 571=[TCR ID] | Trade Report ID |  |
| 1003= | Trade ID |  |
| 1116= | NoRootPartyIDs (many) |  |
| 1117=[CAR] | Customer Account Reference |  |
| 1119=24 | RootPartyRole (CAR) |  |
| *1117=[CGM]* | *Customer Gross Margin Account (Optional)* |  |
| *1119=38* | *RootPartyRole(CGM) (Optional)* |  |
| Send: TCR Ack 35=AR | 571=[TCR ID] | Trade Report ID being acknowledged |  |
| 55=NA | Symbol = NA |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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## Test3: Handle Execution Report Report (Required for Trader Survelliance Role)

* Generate a fill that will send a both a New and Filled Execution Report

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Receive: Execution Report 35=8 | 1= | FCM Omnibus Account Number |  |
| 150=0 | Exec Type= New |  |
| 39=0 | Order Status= New |  |
| *453=* | *NoPartyIDs=2 to 4* |  |
| 448=[CAR] | Customer Account Reference |  |
| 452=24 | PartyIDRole(CAR) |  |
| *448=[CGM]* | *Customer Gross Margin Account (Optional)* |  |
| *452=38* | *PartyIDRole(CGM) (Optional)* |  |
| *448=[Omni]* | FCM Omnibus Account Number |  |
| *452=3* | *CLIENT ID* |  |
| 581= | Account Type |  |
| 582= | Customer Order Capacity |  |
|  | 1116=1 | NoRootPartyIDs |  |
|  | 1117= | SenderSubID Sent by Customer in Order Add |  |
|  | 1119=44 | RootPartyRole= OrderEntryOperatorID |  |
| Receive: Execution Report 35=8 | 1= | FCM Omnibus Account Number |  |
| 150=F | Exec Type= Filled |  |
| 39=2 | Order Status= Filled |  |
| 31= | Fill price |  |
| *453=* | *NoPartyIDs=2 to 4* |  |
| 448=[CAR] | Customer Account Reference |  |
| 452=24 | PartyIDRole(CAR) |  |
| *448=[CGM]* | *Customer Gross Margin Account (Optional)* |  |
| *452=38* | *PartyIDRole(CGM) (Optional)* |  |
| *448=[Omni]* | FCM Omnibus Account Number |  |
| *452=3* | *CLIENT ID* |  |
| *581=* | *Account Type* |  |
| *582=* | *CustomerOrderCapacity* |  |
|  | 1116=1 | NoRootPartyIDs |  |
|  | 1117= | SenderSubID Sent by Customer in Order Add |  |
|  | 1119=44 | RootPartyRole= OrderEntryOperatorID |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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# Connectivity Conformance Test

## Test1: Login with sequence number reset to 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Send: Logon 35=A | 34=1 | MsgSeqNum = 1 |  |
| 98=0 | Not Encrypted |  |
| 108=30 | Heartbeat interval |  |
| 141=Y | Reset Sequence Number |  |
| 554=password | Password for the session |  |
| Receive: Logon 35=A | 34=1 | Sequence Number =1 |  |
| 98=0 | Not Encrypted |  |
| 108=30 | Heartbeat interval |  |
| 141=Y | Reset Sequence Number |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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## Test2: Receive a logon message from Exchange with Reset Sequence =Y

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Receive: Logon 35=A | 34=1 | MsgSeqNum = 1 |  |
| 98=0 | Not Encrypted |  |
| 108= | Heartbeat interval |  |
| 141=Y | Reset Sequence Number |  |
| 554=password | Password for the session |  |
| Send: Logon 35=A | 34=1 | Sequence Number =1 |  |
| 98=0 | Not Encrypted |  |
| 108= | Heartbeat interval |  |
| 141=Y | Reset Sequence Number |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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## Test3: Handle unexpected disconnect of session

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Received after forced session disconnect by Exchange | 34=1 | Sequence Number =1 |  |
| 98=0 | Not Encrypted |  |
| 108= | Heartbeat interval |  |
| 141=Y | Reset Sequence Number |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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## Test4: Send a resend request

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Rqd** | **Description** | **Test Results** |
| Send: Resend Request 35=2 | 34= | MsgSeqNum |  |
| 7= | Sequence Number |  |
| 16= | EndSeqNo |  |
| Receive: The set of message requested | 35= | MsgType |  |
| 34=Value from tag 7 | MsgSeqNum |  |
| 43=Y | PossDupFlag |  |
| 35= | MsgType |  |
| 34=.... | MsgSeqNum |  |
| 43=Y | PossDupFlag |  |
| 35= | MsgType |  |
| 34=Value from tag 16 | MsgSeqNum |  |
| 43=Y | PossDupFlag |  |
| **Paste fix message for the above scenario below.**  **Please make sure the delimiter is included between each tag value pair** | | | |
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