

## TT-FIX Certification: Session-Level Test Instructions

The Session-Level test cases are designed to check if your application can handle and recover from sequence number mis-matches. Additionally, they can help assess if your application is able to recognize possible duplicate Execution Reports (ERs) with tag 43=Y (Poss Dupe).

Please review each of the test cases described below, and ensure your application can handle each scenario. The test cases apply to both Order Routing and Drop Copy. For Drop Copy, please be ready to place orders on the front-end TTW GUI so as to propagate ERs from filled orders. Please let us know if you require our help to test any of the scenarios.

### Recovery Messages Upon Logon

Whenever your FIX application logs on to the session, TT will automatically send Execution Reports for all orders/fills/replaces/cancels that may have occurred while your application was not connected. This is the Recovery process. After sending these queued ERs, TT will send a 35=B message with "58=Recovery is Complete". Please check that your application is able to process these queued ERs. The below Case Number 4 simulates this scenario.

For more information on this, you can visit our [FIX Help Library](#) and refer to the section titled [Handling Missed Messages](#).

A point to note is that if your application logs on with a Sequence Reset flag (141=Y) each time, then most of the tests below will not apply. Because the sequence numbers will just reset on both sides. TT will still send you any queued messages as part of the standard Recovery process.

### Session Level Test Cases to Review

Case No.	Test Scenario	Result
1.	<p>Objective: Handling of Resend Request from TT</p> <ol style="list-style-type: none"> <li>Logout from client.</li> <li>TT's expected INCOMING sequence number is adjusted to be <b>LOWER</b> than the client's last.</li> <li>Logon from client (35=A).</li> <li>Resend Request from TT (35=2).</li> <li>Client is able to send a <a href="#">Sequence Reset</a> (35=4).</li> </ol>	
2.	<p>Objective: Handling of Possible Duplicate Messages</p> <ol style="list-style-type: none"> <li>Client sends two new order single and TT fills both orders: Ex. 35=8 34=10 35=8 34=11.</li> </ol>	

	<ol style="list-style-type: none"> <li>2. Logout from client (35=5).</li> <li>3. Client LOWERS their expected INCOMING sequence num to 9.</li> <li>4. Logon from client (35=A).</li> <li>5. Resend Request from client (35=2) for 10 to infinity.</li> <li>6. TT resends executions with tag 43=Y (possible duplicates).</li> </ol> <p>Note: Clients should ensure that their application does not process these duplicate execution messages; i.e. they should not double-count these fills.</p>	
3.	<p>Objective: Handling of Logon with Critical Sequence Error</p> <ol style="list-style-type: none"> <li>1. Logout from client (35=5).</li> <li>2. Logout from TT (35=5).</li> <li>3. Client adjusts their expected INCOMING sequence number to be HIGHER than the last.</li> <li>4. Logon from client (35=A).</li> <li>5. Logon from TT (35=A); with a lower than expected sequence number.</li> <li>6. Logout from client (35=5); client rejects TT's logon due to sequence error.</li> </ol>	
4.	<p>Objective: Handling of Basic Logon Recovery Messages</p> <ol style="list-style-type: none"> <li>1. Client places 2 working orders (not filled).</li> <li>2. Logout from client (35=5).</li> <li>3. Both orders get filled.</li> <li>4. Logon from client (35=A).</li> <li>5. Logon from TT (35=A).</li> <li>6. TT sends queued ERs in sequence number order.</li> <li>7. TT sends 'Recovery is Complete' message (35=B).</li> </ol> <p>Note: Clients should be able to process these queued ERs. Fills should be counted as they are.</p>	

When you have gone through all the test cases, kindly inform us by dropping an email to [FIXIntegration@trade.tt](mailto:FIXIntegration@trade.tt). You may also email us at the same address for any queries.