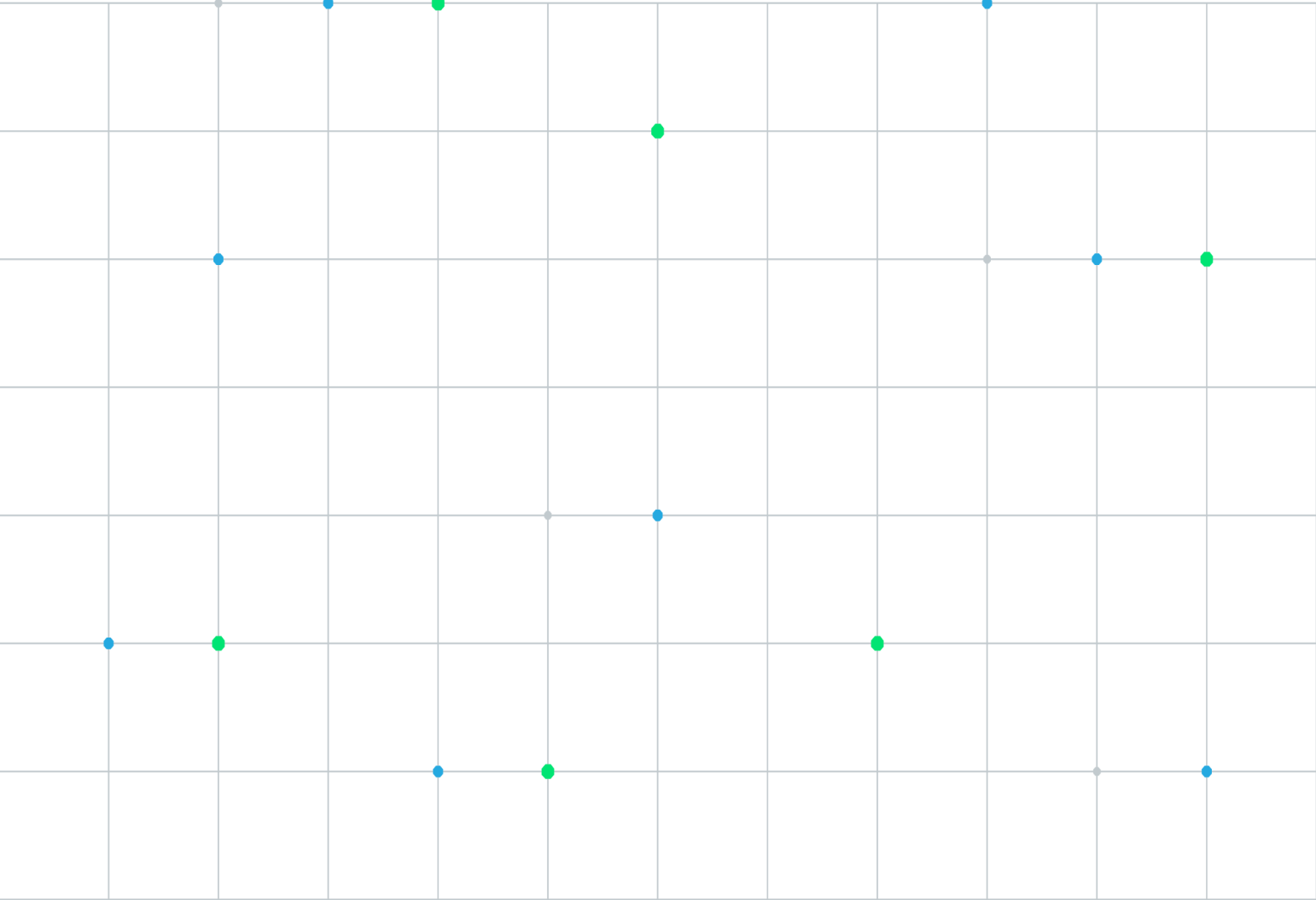


# AutoCert+ CME STP FIXML Failover User Manual

13 November 2024



## Disclaimer

---

Neither futures trading nor swaps trading are suitable for all investors, and each involves the risk of loss. Swaps trading should only be undertaken by investors who are Eligible Contract Participants (ECPs) within the meaning of Section 1a(18) of the Commodity Exchange Act. Futures and swaps each are leveraged investments and, because only a percentage of a contract's value is required to trade, it is possible to lose more than the amount of money deposited for either a futures or swaps position. Therefore, traders should only use funds that they can afford to lose without affecting their lifestyles and only a portion of those funds should be devoted to any one trade because traders cannot expect to profit on every trade. All examples discussed are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience.

CME Group, the Globe Logo and CME are trademarks of Chicago Mercantile Exchange Inc. CBOT is a trademark of the Board of Trade of the City of Chicago, Inc. NYMEX is a trademark of New York Mercantile Exchange, Inc. COMEX is a trademark of Commodity Exchange, Inc. All other trademarks are the property of their respective owners.

The information within this manual has been compiled by CME Group for general purposes only. CME Group assumes no responsibility for any errors or omissions. Additionally, all examples in this manual are hypothetical situations, used for explanation purposes only, and should not be considered investment advice or the results of actual market experience. All matters pertaining to rules and specifications herein are made subject to and are superseded by official CME, CBOT and NYMEX rules. Current rules should be consulted in all cases concerning contract specifications.

Copyright © 2024 CME Group Inc. All rights reserved.

---

# Table of Contents

---

<b>Getting Started</b> .....	<b>4</b>
Accessing and Navigating AutoCert+ .....	4
What's New .....	5
Interview .....	6
<b>Test Suite</b> .....	<b>7</b>
Failover for Request Type of Subscription with Start Time .....	8
Failover for Request Type of Subscription with Query .....	10

# Getting Started

The AutoCert+ tool is an automated testing tool for validating application functionality. It provides a web interface for using CME Group certification scenarios.

To facilitate the process of connecting a customer application to CME Globex, CME Group provides a dedicated certification environment to allow customers to test their systems before they complete certification.

This user manual accompanies the AutoCert+ CME STP FIXML Failover test suite for certifying your application. With the migration of CME STP FIXML to GCP and the fact that regional [failover](#) can occur on GCP, failover certification tests are required for FIXML customers.

## Accessing and Navigating AutoCert+

### ► To access and navigate AutoCert+:

1. [Log into](#) the automated certification tool.
2. Review general AutoCert+ test suite [navigation](#) and [general interview](#) information.
3. To access the AutoCert+ CME STP FIXML Failover test suite, select the following settings on the **Current Testing Configuration** screen.
  - a. **Company Name:** Select a company profile.
  - b. **Market:** Select "Futures & Options".
  - c. **Purpose:** Select "CME STP".
  - d. **Application System:** Select a test system.
  - e. **Test Suite:** Select "CME STP FIXML Failover".
  - f. **Identifier:** Select an identifier and click **Assign**.

The screenshot displays the 'Current Testing Configuration' interface. It includes dropdown menus for 'Company Name', 'Market' (set to 'Futures & Options'), 'Purpose' (set to 'CME STP'), 'Application System', and 'Test Suite' (set to 'CME STP FIXML Failover'). A red note indicates: 'NOTE: This test suite utilizes the NEWRELEASE environment.' At the bottom, the 'API ID' is shown as 'UNASSIGN'. On the right, the 'Test Suite Status' section shows 'Pre-Certification Interview' as 'Complete' (with a green checkmark) and 'Test Suite Status' as 'Not Tested' (with a red X).

4. Complete the [Interview](#) for this test suite.
5. Complete the applicable test cases in the [Test Suite](#).
6. Complete the certification process from the [Post Certification](#) tab.

## What's New

The following table shows the updates made to the AutoCert+ CME STP FIXML Failover Help system.

Date	Topic(s)	Description
13 Nov 2019	All	Initial release

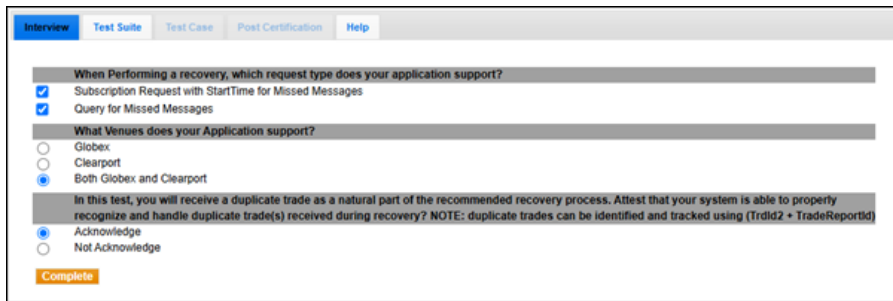
## Interview

The interview consists of a series of questions about your trading application. Based on your responses, certain questions and tests are required and others are optional. You must complete the pre-certification interview before running the test suite.

▶ **To complete the interview:**

1. Select the **Interview** tab.
2. Answer each question and click the **Complete** button.

After completing the interview, proceed to the [Test Suite](#).



The screenshot shows the 'Interview' tab selected in a navigation bar. The form contains three sections of questions:

- When Performing a recovery, which request type does your application support?**
  - ☒ Subscription Request with StartTime for Missed Messages
  - ☒ Query for Missed Messages
- What Venues does your Application support?**
  - ☐ Globex
  - ☐ Clearport
  - ☒ Both Globex and Clearport
- In this test, you will receive a duplicate trade as a natural part of the recommended recovery process. Attest that your system is able to properly recognize and handle duplicate trade(s) received during recovery? NOTE: duplicate trades can be identified and tracked using (Trdid2 + TradeReportId)**
  - ☒ Acknowledge
  - ☐ Not Acknowledge

At the bottom left of the form is an orange **Complete** button.

# Test Suite

Use the **Test Suite** tab to run the **CME STP FIXML Failover Certification Tests** required to certify your application. You are required to select and run each test in the test suite.

**Current Testing Configuration**

Tester: [Setup Tester](#)

Company Name:

Market:

Purpose:

Application System:

Test Suite:

Type: Automated Trading System

Category: Prop System

1603:

1604:

1605:

**NOTE: This test suite utilizes the NEWRELEASE environment.**

API ID: [API\\_ACP\\_STP\\_QA](#) UNASSIGN

**Test Suite Status:**

Pre-Certification Interview: Complete

Test Suite Status: Not Tested

[Interview](#) **[Test Suite](#)** [Test Case](#) [Post Certification](#) [Help](#)

[CME STP FIXML Failover Certification Tests](#) [Retest](#) [Flag](#) [Status](#) [Mandatory/Optional](#) [Executed By](#)

The following test cases are available based on your [Interview](#) responses.

- [Failover for Request Type of Subscription with Start Time](#)
- [Failover for Request Type of Subscription with Query](#)

## Failover for Request Type of Subscription with Start Time

The purpose of this test is to verify the client system can properly handle a failover event using a new subscription with a Start Time as a means of recovery. This includes identifying a failover response, subscribing with a new token, and receiving duplicate trades as part of the recommended [failover process](#) (deduping).

This test is mandatory if you selected **Subscription with StartTime for Missed Messages** in the first interview question.

### ▶ To run the test

1. On the **Test Case** tab, use the Instrument(s) drop down menu to choose an instrument and channel and click **SELECT**.
2. Select **START TEST**.

Category	IP	Port
Incremental Feed A		
Incremental Feed B		
Snapshot MBP		
Snapshot MBO		
Instrument Replay		
TCP Replay		

Category:  Link: [templates\\_FixBinary.xml](#)

**Note:** Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.

**START TEST**

Test Not Running

3. Submit a proper initial Unfiltered Subscription Request ([ReqType="1", SubReqType="1"](#)).
4. Receive an empty batch file (<Batch>).
5. Submit a continuous subscription request ([RegTyp="3", SubReqTyp="1"](#)).
6. Receive a Trade Capture Report ([TransTyp="0", TrdTyp="0"](#)). Validate the Product Code (ID), Trade Quantity (LastQty), and Last Update Time (LastUpdateTm).
7. Submit a continuous subscription request ([RegTyp="3" SubReqTyp="1"](#)).
8. Receive a [TrdCaptRptReqAck](#) message with x-cme-token expiration message and HTTP response status code 406.
9. Submit a proper Initial Subscription Request with a Start Time (StartTm) that is at least one minute prior to the Last Update Time (LastUpdateTm) of the last trade received ([ReqType="1", SubReqType="1"](#)).
10. Confirm you received a duplicate trade from step 6.



Interview
Test Suite
**Test Case**
Post Certification
Help

### Steps of the test: Failover for Request Type of Subscription with Start Time

This test could take up to several minutes. Please do not close the window during the test. Closing window/stopping test requires to rerun the test from step 1.

**Purpose**  
The purpose of this test is to verify the client system can properly handle a failover event using a new subscription with a Start Time as a means of recovery. This includes identifying a response indicating failover, proceeding to subscribe with a new token and being able to handle receiving duplicate trades as part of the failover process (deduping). The recommended approach to handle a failover is documented [here](#).

**Selected Instrument(s):** CBV6 - 699 Unlock

Category	IP	Port
Incremental Feed A		
Incremental Feed B		
Snapshot MBP		
Snapshot MBO		
Instrument Replay		
TCP Replay		

Category	Link
Templates File:	<a href="#">templates_FixBinary.xml</a>

**Note:** Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.

STOP TEST

Test In Progress

Description	Flag	Status
1 Submit a proper Initial Unfiltered Subscription Request (ReqTyp=1 SubReqTyp=1).		Not Tested
2 Receive a batch file.		Not Tested
3 Submit a continuous subscription request (ReqTyp=3 SubReqTyp=1).		Not Tested
4 Receive a Trade Capture Report (TransTyp=0 TrdTyp=0).		Not Tested
5 Submit a continuous subscription request (ReqTyp=3 SubReqTyp=1).		Not Tested
6 Receive a TrdCaptRptReqAck message with x-cme-token expiration message and http response status code 406.		Not Tested
7 Submit a proper Initial Subscription Request with a Start Time that is at least one minute prior to the LastUpdateTm of the Last trade received (ReqTyp=1 SubReqTyp=1).		Not Tested
8 Confirm you received a duplicate trade from step 4.		Not Tested

Key: @ not tested ● complete ● pending ● failed

REFRESH

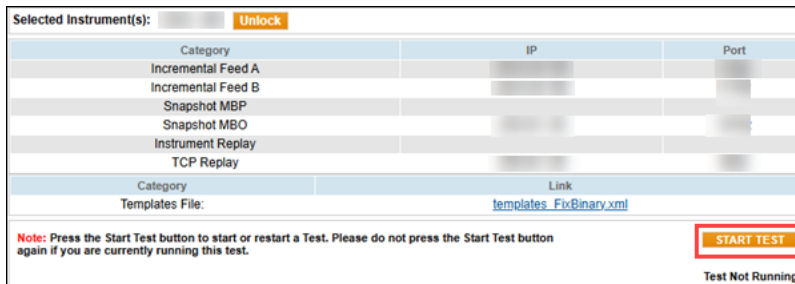
## Failover for Request Type of Subscription with Query

The purpose of this test is to verify the client system can properly handle a failover event using a Query for recovery purposes. This includes identifying a failover response, subscribing with a new token, and receiving duplicate trades as part of the [failover process](#) (deduping).

This test is mandatory if you selected **Query for Missed Messages** in the first interview question.

### ▶ To run the test

1. On the **Test Case** tab, use the Instrument(s) drop down menu to choose an instrument and channel and click **SELECT**.
2. Select **START TEST**.



Category	IP	Port
Incremental Feed A		
Incremental Feed B		
Snapshot MBP		
Snapshot MBO		
Instrument Replay		
TCP Replay		

Category:  Link: [templates\\_FixBinary.xml](#)

Note: Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.

**START TEST**

Test Not Running

3. Submit a proper Initial Unfiltered Query Request using Start Time ([ReqType="1" SubReqType="1"](#)).
4. Receive an empty batch file (<Batch>).
5. Submit a continuous subscription request ([RegTyp="3", SubReqTyp="1"](#)).
6. Receive a Trade Capture Report ([TransTyp="0", TrdTyp="0"](#)). Validate the Product Code (ID), Trade Quantity (LastQty), and Last Update Time (LastUpdateTm).
7. Submit a continuous subscription request ([RegTyp="3" SubReqTyp="1"](#)).
8. Receive a [TrdCaptRptReqAck](#) message with x-cme-token expiration message and HTTP response status code 406.
9. Submit a proper Query Request with a Start Time (StartTm) that is at least one minute prior to the Last Update Time (LastUpdateTm) of the last trade received ([ReqType="1" SubReqType="0"](#)).
10. Confirm you received a duplicate trade from step 6.

Interview
Test Suite
**Test Case**
Post Certification
Help

### Steps of the test: Failover for Request Type of Subscription with Query

This test could take up to several minutes. Please do not close the window during the test. Closing window/stopping test requires to rerun the test from step1.

**Purpose**  
The purpose of this test is to verify the client system can properly handle a failover event using a Query for recovery purposes. This includes identifying a response indicating failover, proceeding to subscribe with a new token and being able to handle receiving duplicate trades as part of the failover process (deduping). The recommended approach to handle a failover is documented [here](#).

**Selected Instrument(s):**

Category	IP	Port
Incremental Feed A		
Incremental Feed B		
Snapshot MBP		
Snapshot MBO		
Instrument Replay		
TCP Replay		

Category:  Link: [templates\\_FixBinary.xml](#)  
 Templates File: [templates\\_FixBinary.xml](#)

**Note:** Press the Start Test button to start or restart a Test. Please do not press the Start Test button again if you are currently running this test.

Test Not Running

Description	Flag	Status
1 Submit a proper Initial Unfiltered Query Request using Start time (ReqTyp=1 SubReqTyp=1).		Not Tested
2 Receive a batch file.		Not Tested
3 Submit a continuous request (ReqTyp=3 SubReqTyp=1).		Not Tested
4 Receive a Trade Capture Report (TransTyp=0 TrdTyp=0).		Not Tested
5 Submit a continuous subscription request (ReqTyp=3 SubReqTyp=1).		Not Tested
6 Receive a TrdCapRptReqAck message with x-cme-token expiration message and http response status code 406.		Not Tested
7 Submit a proper Query Request with a Start Time that is at least one minute prior to the LastUpdateTm of the Last trade received (ReqTyp=1 SubReqTyp=0).		Not Tested
8 Confirm you received a duplicate trade from step 4.		Not Tested

Key: not tested complete pending failed