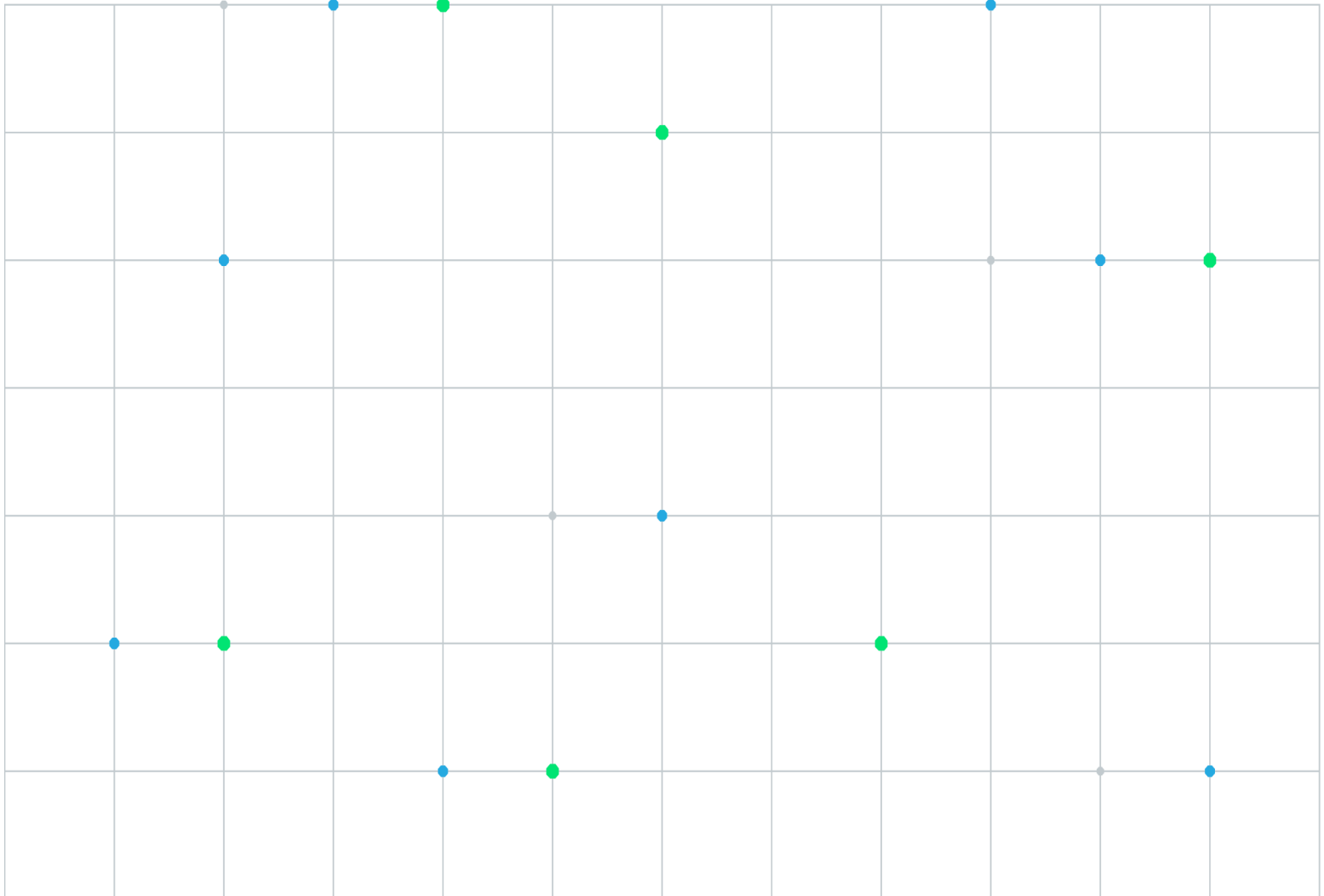


AutoCert+ CME STP FIXML Failover User Manual

13 November 2024



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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 the following elements:

- Tester:** A dropdown menu with 'Prop System' selected.
- Company Name:** A dropdown menu.
- Market:** A dropdown menu with 'Futures & Options' selected.
- Purpose:** A dropdown menu with 'CME STP' selected.
- Application System:** A dropdown menu.
- Test Suite:** A dropdown menu with 'CME STP FIXML Failover' selected.
- Type:** Automated Trading System
- Category:** Prop System
- 1603, 1604, 1605:** Fields with redacted content.
- NOTE:** This test suite utilizes the NEWRELEASE environment.
- API ID:** A field with a redacted value and an 'UNASSIGN' button.
- Test Suite Status:** A section showing 'Pre-Certification Interview' as 'Complete' (green checkmark) and 'Test Suite Status' as 'Not Tested' (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

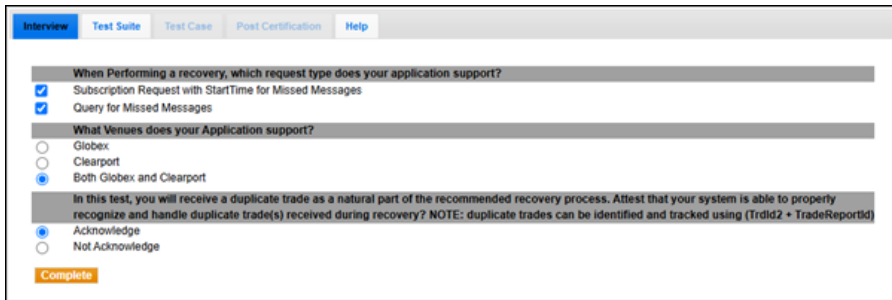
Interview

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](#).



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: [Link Tester](#)

Company Name: QA

Market: Futures & Options

Purpose: CME STP

Application System: CME STP FIXML Failover

Test Suite: CME STP FIXML Failover

NOTE: This test suite utilizes the NEWRELEASE environment.

Type: Automated Trading System

Category: Prop System

1603: [REDACTED]

1604: [REDACTED]

1605: [REDACTED]

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**.

The screenshot shows a web interface for selecting an instrument. At the top, there is a 'Selected Instrument(s):' field with an 'Unlock' button. Below this is a table with columns for 'Category', 'IP', and 'Port'. The table lists several instrument categories: Incremental Feed A, Incremental Feed B, Snapshot MBP, Snapshot MBO, Instrument Replay, and TCP Replay. Below the table, there is a 'Category' field and a 'Link' field with the value 'templates_FixBinary.xml'. At the bottom, there is a 'Templates File:' field. A red note states: '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.' To the right of the note is a red 'START TEST' button. Below the button, it says '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:	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.

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**.

The screenshot shows a web interface for selecting instruments. At the top, there is a 'Selected Instrument(s):' field with an 'Unlock' button. Below this is a table with columns for 'Category', 'IP', and 'Port'. The table lists several instrument categories: Incremental Feed A, Incremental Feed B, Snapshot MBP, Snapshot MBO, Instrument Replay, and TCP Replay. Below the table, there is a 'Category' field and a 'Link' field with a value of 'templates_FixBinary.xml'. At the bottom, there is a red 'START TEST' button and a status indicator that says 'Test Not Running'. A note at the bottom left reads: '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.'

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): **Unlock**

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

Category: Link: [templates_FixBinary.xml](#)
 Templates File:

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

Description	Flag	Status
1 Submit a proper Initial Unfiltered Query Request using Start time (ReqTyp=1 SubReqTyp=1).	<input type="radio"/>	Not Tested
2 Receive a batch file.	<input type="radio"/>	Not Tested
3 Submit a continuous request (ReqTyp=3 SubReqTyp=1).	<input type="radio"/>	Not Tested
4 Receive a Trade Capture Report (TransTyp=0 TrdTyp=0).	<input type="radio"/>	Not Tested
5 Submit a continuous subscription request (ReqTyp=3 SubReqTyp=1).	<input type="radio"/>	Not Tested
6 Receive a TrdCapRptReqAck message with x-cme-token expiration message and http response status code 406.	<input type="radio"/>	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).	<input type="radio"/>	Not Tested
8 Confirm you received a duplicate trade from step 4.	<input type="radio"/>	Not Tested

Key: not tested complete pending failed

REFRESH