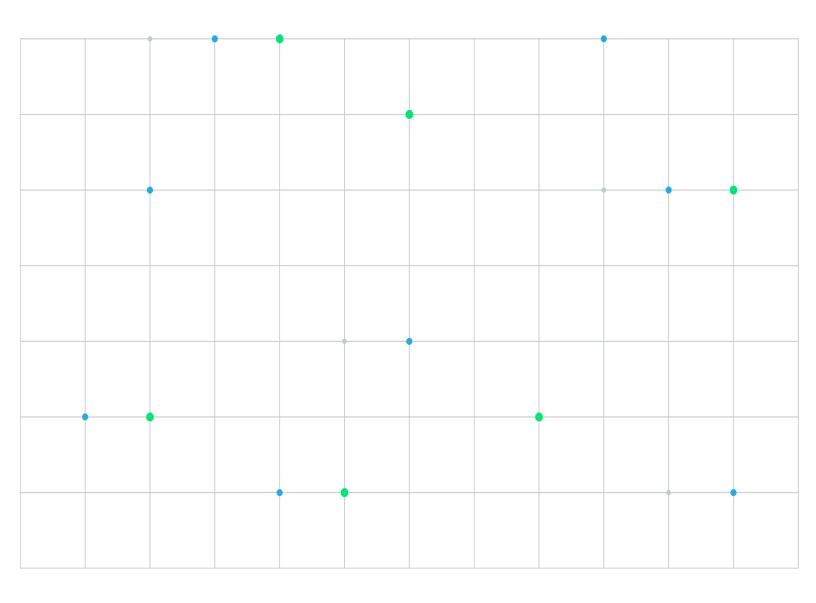


AutoCert+ CME STP User Manual

July 17, 2025



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.

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Getting Started

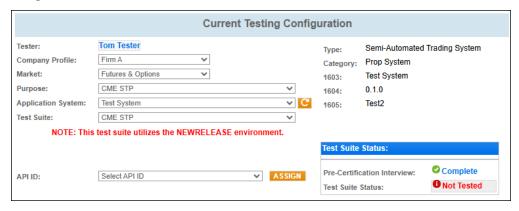
The AutoCert+ tool is an automated testing tool for validating application functionality. It provides an easy-to-use web interface for walking through CME Group certification scenarios.

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

This Help system accompanies the AutoCert+ CME STP test suite.

► To run and navigate AutoCert+:

- 1. Log into the automated certification tool.
- 2. Review general AutoCert+ test suite navigation and general interview information
- 3. Navigate to the AutoCert+ CME STP test suite.



- a. Select a Company Name.
- b. For Market, select Futures & Options.
- c. For Purpose, select CME STP.
- d. Select an **Application System**. Use the refresh (button to update the list to include recently created Application Systems.
- e. For Test Suite, select CME STP.
- 4. Complete the Interview for this test suite.
- 5. Complete applicable test cases.
- 6. Complete the certification process from the Post Certification tab.

What's New

The list below illustrates the updates made to the AutoCert+ CME STP Help system.

Date	Topic	Description
July 17, 2025	 Failover for Request Type of Subscription with Start Time Failover Using Query Request Interview 	Added supplemental CME STP Failover tests to main test suite and updated Interview.
April 29, 2025	 Subscription Requests for FX Link Trades Query Requests for Historic Trades including FX Link 	Added subscription and query tests for FX Link trades.
October 20, 2022	Format	Website and PDF format changes only.
April 29, 2022	Interview	Updated screenshot.
September 26, 2019	Interview	Updated screenshot.
	Subscription Requests Subscription Requests for Post Trade Events Query Requests	Updated screenshots and steps.
February 5, 2019		Initial release.

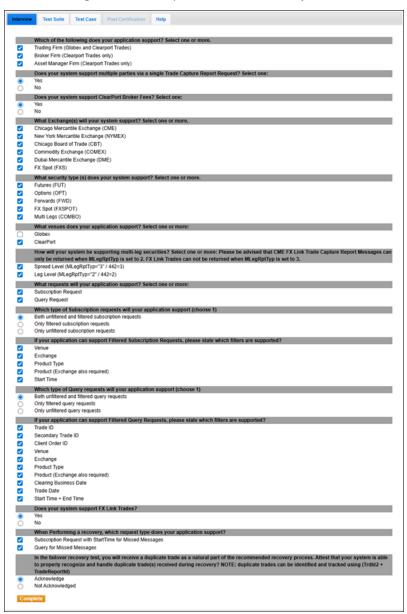
Interview

The interview consists of a series of questions about your application. Based on your responses, certain tests are mandatory and others are optional.

You must complete the pre-certification interview before running the tests.

Note: Brokered trades, including Broker Fee's (commissions data), flow through the ClearPort venue for retrieval in CME STP, enabling Clearing Firms to see the broker fees on their trade capture reports. To include tests with brokered trade data in the test suite, select 'ClearPort' in response to the interview question, "What venues does your application support? Select one or more:" Detailed information on broker fee retrieval in CME STP is available here.

After answering the Interview questions, click the **Complete** button.



Certification Tests

The AutoCert+ CME STP certification tests consist of the following:

- Subscription Requests
- Subscription Requests for FX Link Trades
- Subscription Requests for Post Trade Events
- Query Requests
- Query Request for Historic Trades including FX Link
- Failover for Request Type of Subscription with Start Time
- Failover Using Query Request

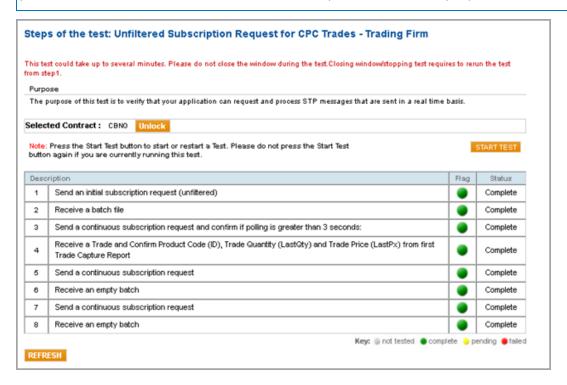
Subscription Requests

The Subscription Request tests verify that your application can request and process STP messages that are sent on a real-time basis.

Note: Brokered trades, including Broker Fee's (commissions data), flow through the ClearPort venue for retrieval in CME STP, enabling Clearing Firms to see the broker fees on their trade capture reports. To include tests with brokered trade data in the test suite, select 'ClearPort' in response to the interview question, "What venues does your application support? Select one or more:" Detailed information on broker fee retrieval in CME STP is available here.

Example Subscription Request Test

Note: The example test procedure below is for an unfiltered subscription request for CPC trades and may not appear in your test suite. The tests included in the test suite will depend on the answers you provided in the Interview.



To run the Unfiltered Subscription Request for CPC Trades test:

1. Click START TEST to begin.



Note: DO NOT select the "START TEST" button once the test is in progress.

- 2. Send an initial subscription request (unfiltered).
- 3. Receive a batch file.
- 4. Send a continuous subscription request and confirm if polling is greater than 3 seconds.
- 5. Receive a <u>Trade</u> and confirm the Product Code (ID), Trade Quantity (LastQty) and Trade Price (LastPx) from the first Trade Capture Report.

	Receive a Trade and Confirm Product Code (ID), Trade Quantity (LastQty) and Trade Price (LastPx) from first Trade Capture Report		
	Product Code (ID):		
4	Trade Quantity (LastQty):	9	Pending
	Trade Price (LastPx) :		
	Submit		

- 6. Send a continuous subscription request.
- 7. Receive an empty batch.
- 8. Send a continuous subscription request.
- 9. Receive an empty batch.

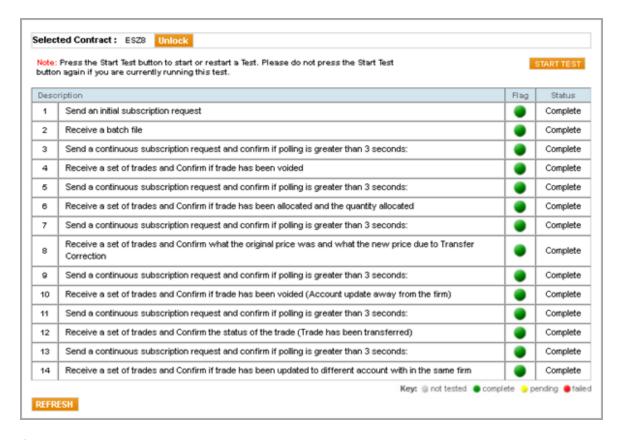
Subscription Requests for Post Trade Events

The Subscription Request for Post Trade Events tests verify that your application can properly process post trade events that occur when you have already received your STP messages.

Note: Brokered trades, including Broker Fee's (commissions data), flow through the ClearPort venue for retrieval in CME STP, enabling Clearing Firms to see the broker fees on their trade capture reports. To include tests with brokered trade data in the test suite, select 'ClearPort' in response to the interview question, "What venues does your application support? Select one or more:" Detailed information on broker fee retrieval in CME STP is available here.

Example Subscription Request Test for Post Trade Events

Note: The example test procedure below is for a subscription request for CPC trades and may not appear in your test suite. The tests included in the test suite will depend on the answers provided in the Interview.



To run the Unfiltered Subscription Request for CPC Trades test:

1. Click **START TEST** to begin.



Note: DO NOT select the "START TEST" button once the test is in progress.

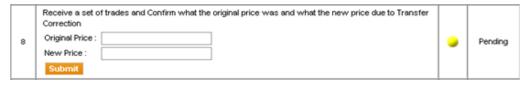
- 2. Send an initial subscription request.
- 3. Receive a batch file.
- 4. Send a continuous subscription request and confirm that polling is greater than 3 seconds.
- 5. Receive a set of trades and confirm that the trade has been voided.



- 6. Send a continuous subscription request and confirm if polling is greater than 3 seconds.
- 7. Receive a set of trades and confirm that the trade has been allocated and the quantity allocated.



- 8. Send a continuous subscription request and confirm that polling is greater than 3 seconds.
- 9. Receive a set of trades and confirm what the original price was and what the new price is due to Transfer Correction.



- 10. Send a continuous subscription request and confirm if polling is greater than 3 seconds.
- 11. Receive a set of trades and confirm that the trade has been voided (Account update away from the firm).



- 12. Send a continuous subscription request and confirm that polling is greater than 3 seconds.
- 13. Receive a set of trades and confirm the status of the trade (Trade has been transferred).



- 14. Send a continuous subscription request and confirm that polling is greater than 3 seconds.
- 15. Receive a set of trades and confirm that the trade has been updated to a different account within the same firm.



Subscription Request for FX Link Trades

The purpose of this test is to verify that the client system can successfully submit and maintain a Subscription Request while properly processing FX Link Trade Capture Reports.

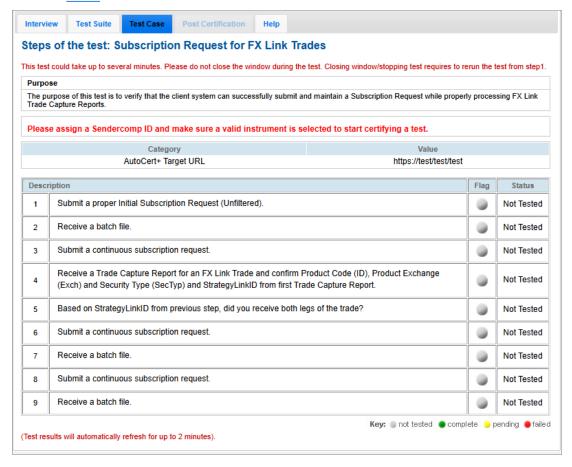
- 1. Submit a proper Initial <u>Subscription</u> Request (Unfiltered).
- 2. Receive a batch file.
- 3. Submit a continuous subscription request.

4. Receive a <u>Trade Capture Report</u> for an FX Link Trade and confirm Product Code (ID), Product Exchange (Exch) and Security Type (SecTyp) and StrategyLinkID from first Trade Capture Report.



See also: CME STP for CME FX Link and FX Spot Plus and CME STP FIXML - CME FX Link Messaging.

- 5. Based on StrategyLinkID from previous step, did you receive both legs of the trade?
- 6. Submit a continuous subscription request.
- 7. Receive a batch file.
- 8. Submit a continuous subscription request.
- 9. Receive a batch file.



Query Requests

The Query Request tests verify that your application can request and process historical STP messages.

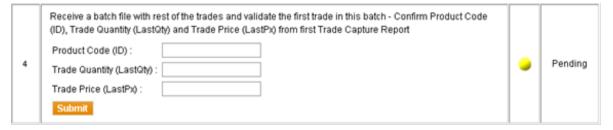
Note: Brokered trades, including Broker Fee's (commissions data), flow through the ClearPort venue for retrieval in CME STP, enabling Clearing Firms to see the broker fees on their trade capture reports. To include tests with brokered trade data in the test suite, select 'ClearPort' in response to the interview question, "What venues does your application support? Select one or more:" Detailed information on broker fee retrieval in CME STP is available here.

Example Query Request Test

Note: The example test procedure below is for an unfiltered query request for CPC trades and may not appear in your test suite. The tests included in the test suite will depend on the answers you provided in the Interview.



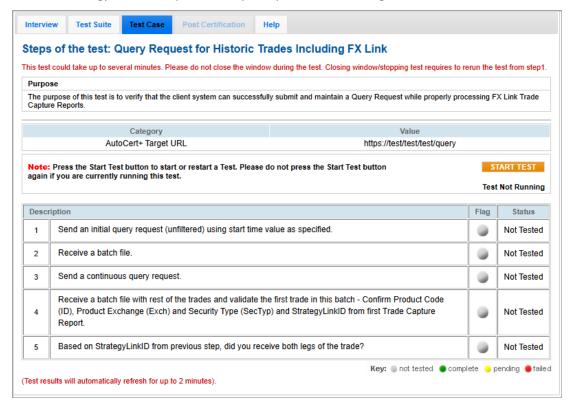
- ► To run the Unfiltered Query Request for CPC Trades test:
 - 1. Click START TEST to begin.
 - Note: DO NOT select the "START TEST" button once the test is in progress.
 - 2. Send an initial query request (unfiltered) using the start time value as displayed above.
 - 3. Receive a batch file.
 - 4. Send a continuous query request.
 - 5. Receive a batch file with the rest of the trades and validate the first trade in this batch Confirm Product Code (ID), Trade Quantity (LastQty) and Trade Price (LastPx) from the first Trade Capture Report.



Query Request for Historic Trades Including FX Link

The purpose of this test is to verify that the client system can successfully submit and maintain a Query Request while properly processing FX Link Trade Capture Reports.

- 1. Send an initial query request (unfiltered) using start time value as specified.
- 2. Receive a batch file.
- 3. Send a continuous guery request.
- 4. Receive a <u>batch</u> file with rest of the trades and validate the first trade in this batch Confirm Product Code (ID), Product Exchange (Exch) and Security Type (SecTyp) and StrategyLinkID from first Trade Capture Report.
- 5. Based on StrategyLinkID from previous step, did you receive both legs of the trade?



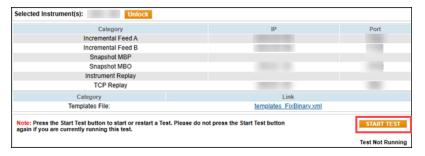
Failover for Request Type of Subscription with Start Time

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).

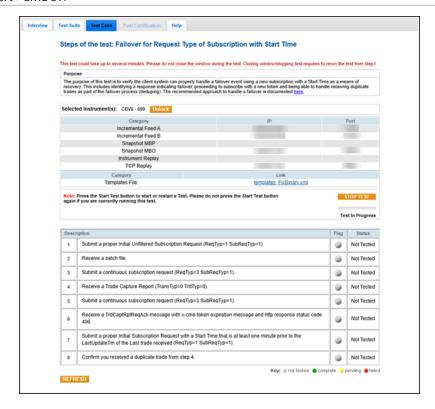
This test is mandatory if you selected **Subscription with StartTime for Missed Messages** in the interview question: **When Performing a recovery, which request type does your application support?**

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.



- 3. Submit a proper initial Unfiltered Subscription Request (RegType="1", SubRegType="1").
- 4. Receive an empty batch file (<Batch>).
- 5. Submit a continuous subscription request (RegTyp="3", SubReqTyp="1").
- 6. Receive a Trade Capture Report (<u>TransTyp="0", TrdTyp="0"</u>). 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.



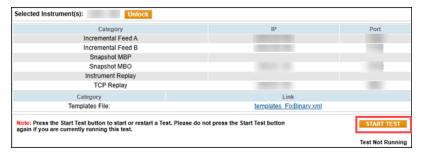
Failover Using Query Request

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 interview question: **When Performing a recovery, which request type does your application support?**

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.



- 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 (<u>TransTyp="0", TrdTyp="0"</u>). 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.

