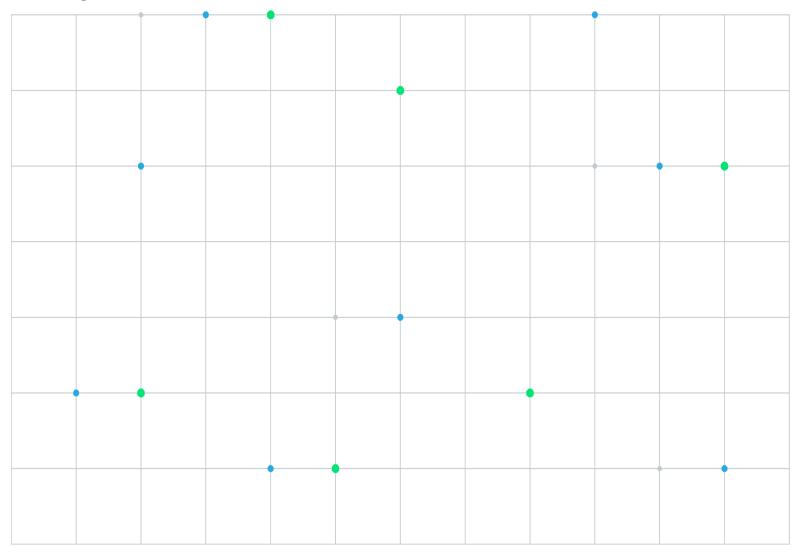


AutoCert+ CME STP FIX User Manual

August 27, 2025



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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.

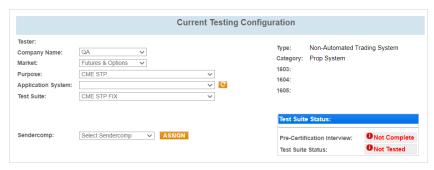
STP FIX certification session details will be assigned and forwarded to the customer, including certification target locations and firm / user Identifiers.

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



To run and navigate AutoCert+:

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



- a. Select a Company Name.
- b. For Market, select Futures & Options.
- c. For Purpose, select CME STP.
- d. Select an Application System.

To update Application Systems to include recent additions, use the refresh (button.

- e. For Test Suite, select CME STP FIX.
- 4. Select a **Sendercomp** and select **ASSIGN**.
- 5. Complete the Interview for this test suite.
- 6. Complete applicable test cases.
- 7. Complete the certification process from the Post Certification tab.

What's New

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

Date	Topic(s)	Description
August 27, 2025	 Subscription Failover recovery test Snapshot Failover recovery test 	Added recovery tests to the CME STP FIX test suite
April 29, 2025	 Snapshot Request for FX Link Trades Subscription Request for FX Link Trades 	updated test cases to include acknowledgment of tag 1851- StrategyLinkID for trade legs.
January 18, 2023	 Post Trade Allocation Request Post Trade Correction Request Post Trade Cancellation Request Post Trade Account Update 	New Post-Trade Event Tests for Asset Manager, Broker, Trading Firms to manage CME Globex / CME ClearPort trade allocations, corrections, cancellations and account updates
October 21, 2022	Format	Website and PDF format changes only
April 29, 2022	Interview	Updated screenshot
December 7, 2021	Processing Additional Tags	Updated screenshot and note
September 20, 2021		Initial release

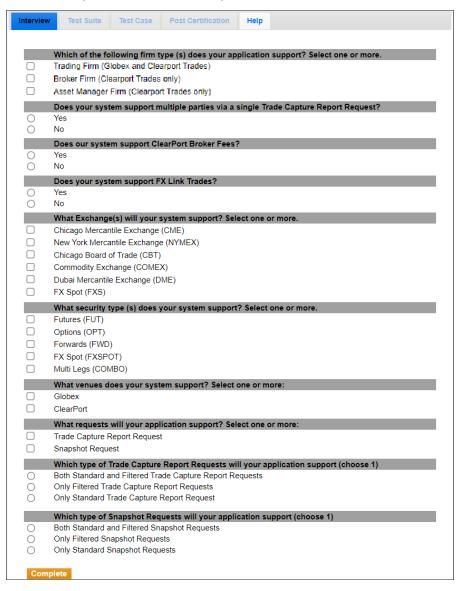
Interview

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



To complete the interview:

Answer each question and select "Complete" when finished.



Session Management Tests

- · Process a Test Request and Respond to a Resend Request
- · Detect a Gap
- · Processing Additional Tags

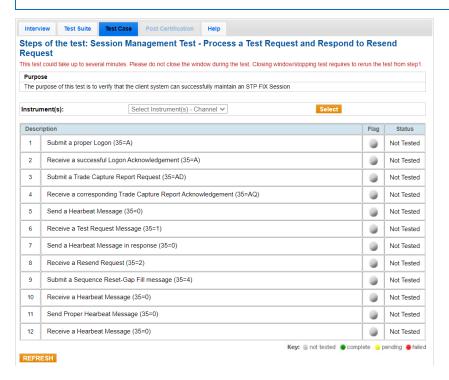
Process a Test Request and Respond to Resend Request

This test verifies that the client system can process a Test Request and respond to a Resend Request.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Process a Test Request and Respond to Resend Request test:

- 1. Submit a <u>Logon (35=A)</u>.
- 2. Receive a successful Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD).
- 4. Receive a corresponding Trade Capture Report Acknowledgment (35=AQ).

- 5. Send a Heartbeat (35=0).
- 6. Receive a Test Request (35=1).
- 7. Send a Heartbeat (35=0) in response.
- 8. Receive a Resend Request (35=2).
- 9. Submit a Sequence Reset-Gap Fill (35=4).
- 10. Receive a Heartbeat (35=0).
- 11. Send a Heartbeat (35=0).
- 12. Receive a Heartbeat (35=0).

Detect a Gap

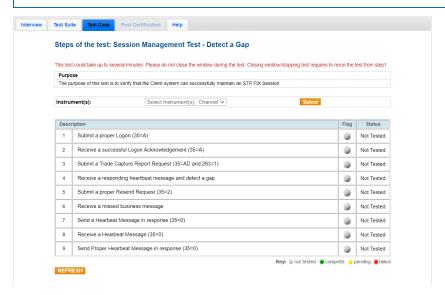
This test verifies that the client system can detect a gap and submit a Resend Request.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the **Refresh** button (**REFRESH**) below the test steps may resolve the issue.



To run a Detect a Gap test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Heartbeat (35=0) and detect a gap.
- 5. Submit a Resend Request (35=2).
- 6. Receive a missed business message.
- 7. Submit a Heartbeat (35=0).
- 8. Receive a Heartbeat (35=0).
- 9. Submit proper Heartbeat (35=0) in response.

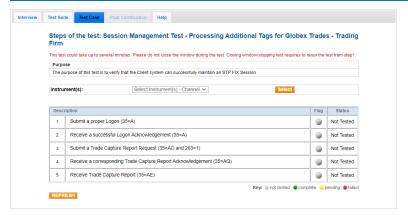
Processing Additional Tags

This test verifies that the client system can process additional tags.

The example test procedure below is for a **Processing Additional Tags for Globex Trades - Trading Firm** test and may not appear in your test suite. The tests included in the test suite will depend on the venue(s) and firm type(s) that you indicated in the Interview.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- (If applicable) From the Instrument(s) drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.
 - Note: DO NOT select the START TEST button once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Processing Additional Tags test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a corresponding Trade Capture Report Acknowledgment (35=AQ).
- 5. Receive Trade Capture Report (35=AE).

Trade Capture Report Request Test Cases

- Standard Trade Capture Report Request
- Filtered Trade Capture Report Request
- Multiple Parties via Trade Capture Report Request
- Broker Fees via Trade Capture Report Request
- Subscription Request for FX Link Trades

Last Updated Time Filtered Trade Capture Report Request

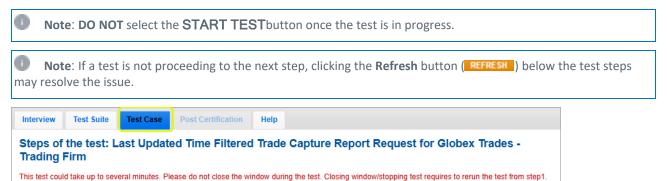
The following instructions illustrate the process to process a trade capture report request for Globex and CME ClearPort trades.

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

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.

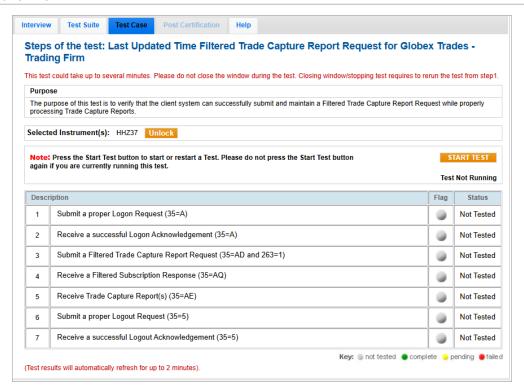
The purpose of this test is to verify that the client system can successfully submit and maintain a Filtered Trade Capture Report Request while properly

3. Select the START TEST button.



Instrument(s): Select Instrument(s) - Channel > To run a Filtered Trade Capture Report Request test:

- 1. Submit a proper Logon Request (35=A).
- 2. Receive a successful Logon Acknowledgement (35=A).
- 3. Submit a Filtered Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Filtered Subscription Response (35=AQ).
- 5. Receive Trade Capture Reports (35=AE).
- 6. Submit a proper Logout Request (35=5).
- 7. Receive a successful Logout Acknowledgement (35=5).



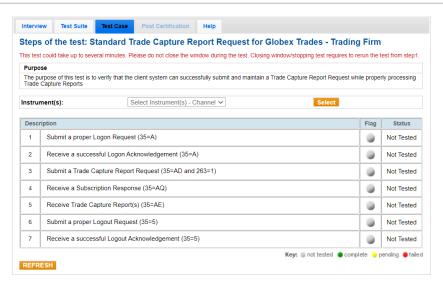
Standard Trade Capture Report Request

This test verifies that the client system can submit and maintain a Trade Capture Report Request while processing Trade Capture Reports.

Note: The example test procedure below is for a **Standard Trade Capture Report Request** 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.
 - Note: DO NOT select the START TEST button once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Standard Trade Capture Report Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment Logon (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Subscription Response (35=AQ).
- 5. Receive Trade Capture Report (35=AE).
- 6. Submit a Logout Request (35=5).
- 7. Receive a Logout Acknowledgment (35=5).

Security Exchange Filtered Trade Capture Report Request

The following instructions illustrate the process to process a trade capture report request for Globex and CME ClearPort trades

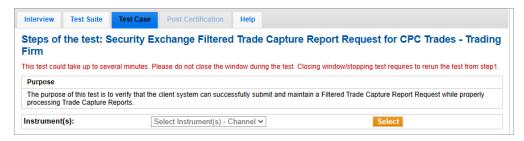
The purpose of this test is to verify that the client system can successfully submit and maintain a Filtered Trade Capture Report Request while properly processing Trade Capture Reports.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the Instrument(s) drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



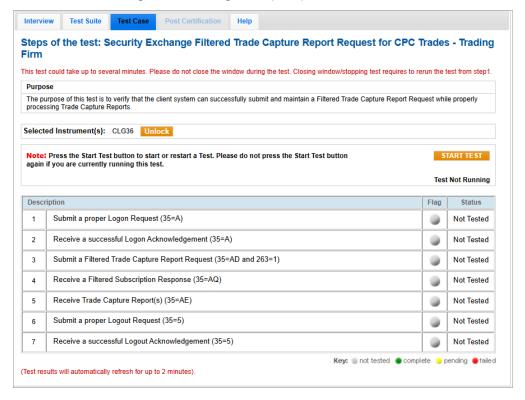
Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the **Refresh** button (**REFRESH**) below the test steps may resolve the issue.



To run the Filtered Security Exchange Filtered Trade Capture Report Request test:

- 1. Submit a proper Logon Request (35=A).
- 2. Receive a successful Logon Acknowledgement (35=A)
- 3. Submit a Filtered Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Filtered Subscription Response (35=AQ).
- 5. Receive Trade Capture Report(s) (35=AE).
- 6. Submit a proper Logout Request (35=5).
- 7. Receive a successful Logout Acknowledgement (35=5).



Filtered Trade Capture Report Request

This test verifies that the client system can submit and maintain a Filtered Trade Capture Report Request while processing Trade Capture Reports.

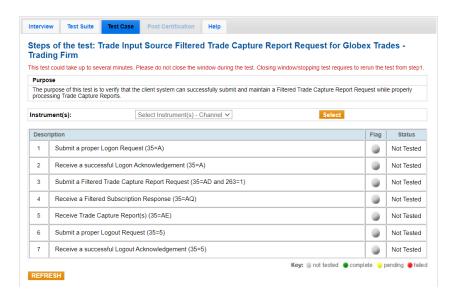
Note: The example test procedure below is for a **Trade Input Source Filtered Capture Report Request** and may not appear in your test suite. The tests included in the test suite will depend on the answers you provided in the Interview.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



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

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Filtered Trade Capture Report Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Subscription Response (35=AQ).
- 5. Receive Trade Capture Report (35=AE).
- 6. Submit a Logout Request (35=5).
- 7. Receive a Logout Acknowledgment (35=5).

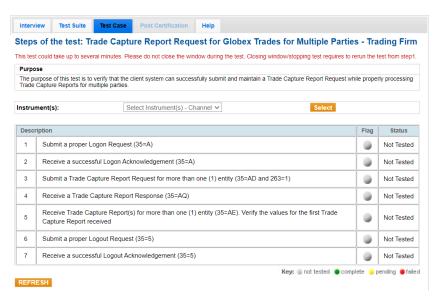
Multiple Parties via Trade Capture Report Request

This test verifies that the client system can submit and maintain a Trade Capture Report Request while processing Trade Capture Reports for multiple parties.

Note: The example test procedure below is for a **Trade Capture Report Request for Multiple Parties** 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- (If applicable) From the Instrument(s) drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.
 - Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the **Refresh** button (**REFRESH**) below the test steps may resolve the issue.



To run a Multiple Parties via Trade Capture Report Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1) for more than one (1) entity.
- 4. Receive a Trade Capture Report Response (35=AQ).
- Receive <u>Trade Capture Report (35=AE)</u> for more than one (1) entity. Enter the following values for the first Trade Capture Report received.
 - tag 48-Product Code (ID)
 - tag 31-TradePrice (LastPx)
- 6. Submit a Logout Request (35=5).
- 7. Receive a Logout Acknowledgment (35=5).

Broker Fees via Trade Capture Report Request

This test verifies that the client system can submit and maintain a Trade Capture Report Request while processing Trade Capture Reports containing Broker Fees.

Note: The example test procedure below is for a Broker Fees via Trade Capture Report Request 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.
 - Note: DO NOT select the START TEST button once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Broker Fees via Trade Capture Report Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Subscription Response (35=AQ).
- 5. Receive Trade Capture Report (35=AE) containing Broker Fees.
- 6. Submit a Logout Request (35=5).
- 7. Receive a Logout Acknowledgment (35=5).

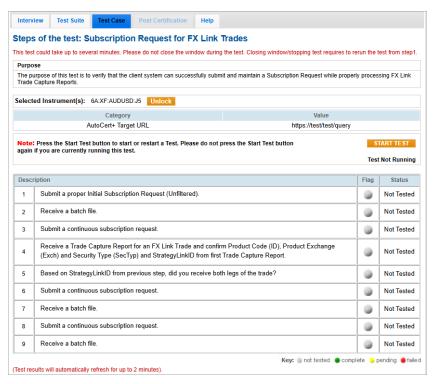
Subscription Request for FX Link Trades

This test verifies that the client system can submit and maintain a Subscription Request while processing FX Link Trade Capture Reports.

Note: The example test procedure below is for a Subscription Request for FX Link 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked
- 3. Select the START TEST button.
 - Note: DO NOT select the START TEST button once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Subscription Request for FX Link Trades test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Trade Capture Report Response (35=AQ).
- 5. Receive Trade Capture Report (35=AE) containing CME FX Link trades.

- 6. Based on [Trade Capture Report (35=AE)] StrategyLinkID (<u>tag 1851</u>) from previous step, did you receive both legs of the trade?
 - Select Yes/No.
- 7. Submit a Logout Request (35=5).
- 8. Receive a Logout Acknowledgment (35=5).

Post Trade Event Tests

- Trade Allocation Request
- Trade Correction
- Trade Cancellation
- Account Update

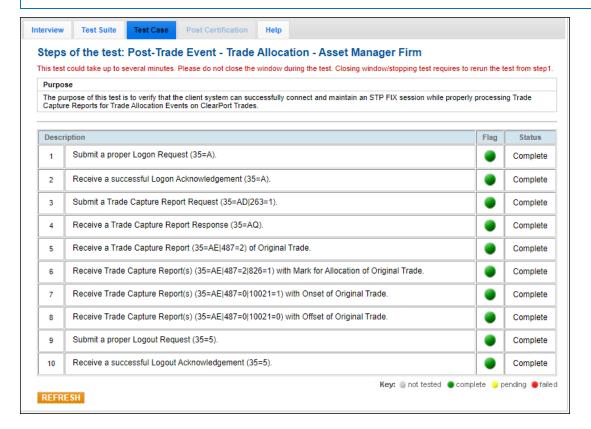
Process a Test Request and Respond to a Trade Allocation Request

The purpose of this test is to verify that the client system can successfully connect and maintain an STP FIX session while processing Trade Capture Reports for Trade Allocation Events on CME ClearPort / CME GlobexTrades.

See:CME STP - Post-Trade Events

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the Instrument(s) drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.
 - Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the **Refresh** button (**REFRESH**) below the test steps may resolve the issue.





To run a Trade Allocation test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Trade Capture Report Response (35=AQ).
- 5. Receive a Trade Capture Report (35=AE|487=2) of the Original Trade.
- 6. Receive <u>Trade Capture Report(s)</u> (35=AE | 487=2 | 826=1) with Mark for Allocation (Allocation Indicator) of the Original Trade.
- 7. Receive Trade Capture Report(s) (35=AE | 487=0 | 10021=1) with Onset of the Original Trade.
- 8. Receive Trade Capture Report(s) (35=AE | 487=0 | 10021=0) with Offset of the Original Trade.
- 9. Submit a Logout (35=5) Request.
- 10. Receive a Logout Acknowledgment (35=5).

Process a Test Request and Respond to a Trade Correction Request

The purpose of this test is to verify that the client system can successfully connect and maintain an STP FIX session while processing Trade Capture Reports for Trade Correction Events on CME ClearPort / CME GlobexTrades.

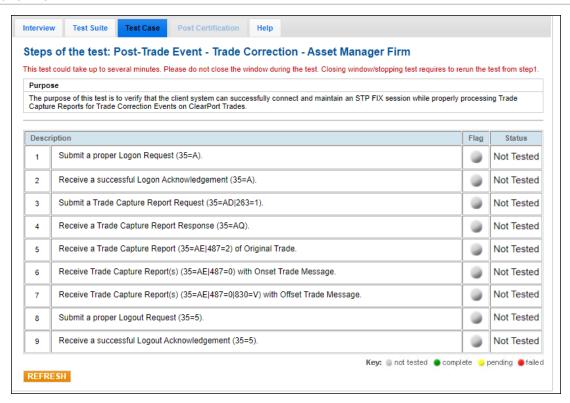
See:CME STP - Post-Trade Events

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Trade Correction test:

- 1. Submit a <u>Logon (35=A)</u>.
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Trade Capture Report Response (35=AQ).
- 5. Receive a Trade Capture Report (35=AE | 487=2) of the Original Trade.
- 6. Receive Trade Capture Report(s) (35=AE | 487=0) with the Onset Trade Message.
- 7. Receive Trade Capture Report(s) (35=AE | 487=0 | 830=V) with the Offset Trade Message.
- 8. Submit a Logout (35=5) Request.
- 9. Receive a Logout Acknowledgment (35=5).

Process a Test Request and Respond to a Trade Cancellation Request

The purpose of this test is to verify that the client system can successfully connect and maintain an STP FIX session while processing Trade Capture Reports for Trade Cancellation Events on CME ClearPort / CME GlobexTrades.

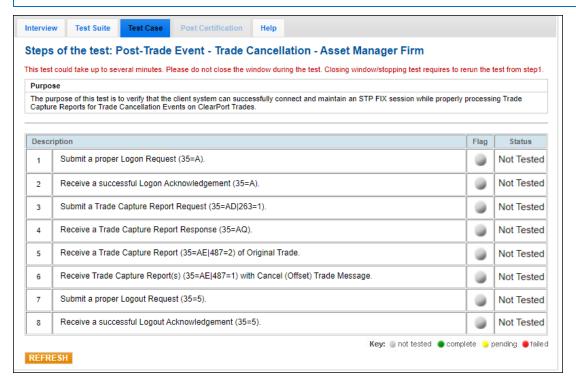
See:CME STP - Post-Trade Events

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Detect a Gap test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a Trade Capture Report Response (35=AQ).
- 5. Receive a Trade Capture Report(s) (35=AE | 487=2) of the Original Trade.
- 6. Receive Trade Capture Report(s) (35=AE | 487=1) with the Cancel (Offset) Trade Message.
- 7. Submit a Logout (35=5) Request.
- 8. Receive a Logout Acknowledgment (35=5).

Process a Test Request and Respond to an Account Update Request

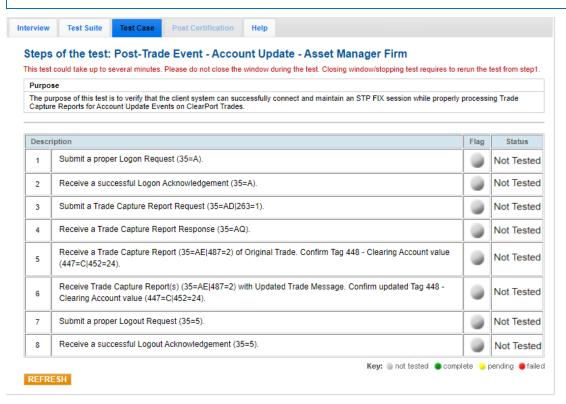
The purpose of this test is to verify that the client system can successfully connect and maintain an STP FIX session while properly processing Trade Capture Reports for Account Update Events on CME ClearPort / CME GlobexTrades.

See:CME STP - Post-Trade Events

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- (If applicable) From the Instrument(s) drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



Note: If a test is not proceeding to the next step, clicking the **Refresh** button (**REFRESH**) below the test steps may resolve the issue.



To run an Account Update test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=1).
- 4. Receive a <u>Trade Capture Report Response (35=AQ)</u>.
- 5. Receive a <u>Trade Capture Report (35=AE | 487=2)</u> of the Original Trade.

Confirm Tag 448 - Clearing Account value (447=C|452=24).

6. Receive Trade Capture Report (35=AE | 487=2) with the Updated Trade Message.

Confirm updated Tag 448 - Clearing Account value (447=C|452=24).

- 7. Submit a Logout (35=5) Request.
- 8. Receive a Logout Acknowledgment (35=5).

Snapshot Request Test Cases

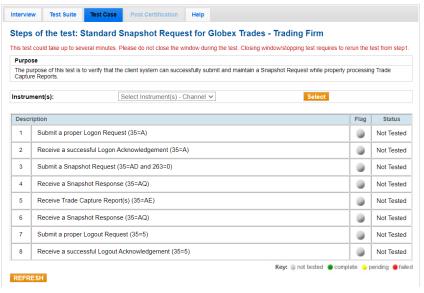
- Standard Snapshot Request
- Filtered Snapshot Request
- Multiple Parties via Snapshot Request
- Broker Fees via Snapshot Request
- Snapshot Request for FX Link Trades

Standard Snapshot Request

This test verifies that the client system can submit and maintain a Snapshot Request while processing Trade Capture Reports.

Note: The example test procedure below is for a **Standard Snapshot Request** 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.
 - Note: DO NOT select the START TEST button once the test is in progress.
 - Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Standard Snapshot Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).

- 3. Submit a Snapshot Request (35=AD and 263=0).
- 4. Receive a Snapshot Response (35=AQ).
- 5. Receive Trade Capture Report(s) (35=AE).
- 6. Receive a Snapshot Response (35=AQ).
- 7. Submit a <u>Logout (35=5)</u>.
- 8. Receive a Logout Acknowledgment (35=5).

Filtered Snapshot Request

This test verifies that the client system can submit and maintain a Filtered Snapshot Request while processing Trade Capture Reports.

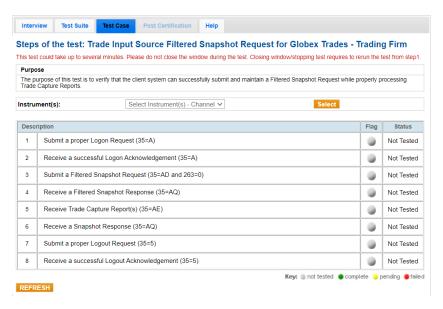
Note: The example test procedure below is for a **Trade Input Source Filtered Snapshot Request** and may not appear in your test suite. The tests included in the test suite will depend on the answers you provided in the Interview.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



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

Note: If a test is not proceeding to the next step, clicking the **Refresh** button (REFRESH) below the test steps may resolve the issue.



To run a Filtered Snapshot Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Filtered Snapshot Request (35=AD and 263=0).
- 4. Receive a Filtered Snapshot Response (35=AQ).
- 5. Receive Trade Capture Report (35=AE).
- 6. Receive a Snapshot Response (35=AQ).
- 7. Submit a Logout Request (35=5).
- 8. Receive a Logout Acknowledgment (35=5).

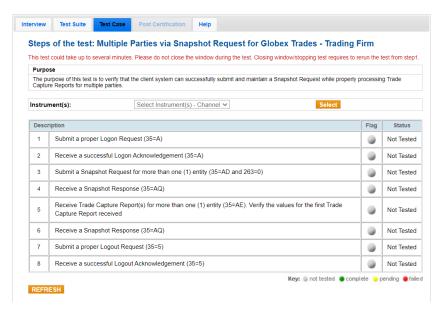
Multiple Parties via Snapshot Request

This test verifies that the client system can submit and maintain a Snapshot Request while processing Trade Capture Reports for multiple parties.

Note: The example test procedure below is for a Multiple Parties via Snapshot Request 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked
- 3. Select the START TEST button.
 - Note: DO NOT select the START TESTbutton once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Multiple Parties via Snapshot Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Snapshot Request (35=AD and 263=0) for more than one (1) entity.
- 4. Receive a Snapshot Response (35=AQ).
- Receive <u>Trade Capture Report(s) (35=AE)</u> for more than one (1) entity. Enter the values for the first Trade Capture Report received:
 - tag 48-Product Code (ID)
 - tag 31-TradePrice (LastPx)
 - · tag 448-Party ID

- 6. Receive a Snapshot Response (35=AQ).
- 7. Submit a Logout Request (35=5).
- 8. Receive a Logout Acknowledgment (35=5).

Broker Fees via Snapshot Request

This test verifies that the client system can submit and maintain a Snapshot Request while processing Trade Capture Reports containing broker fees.

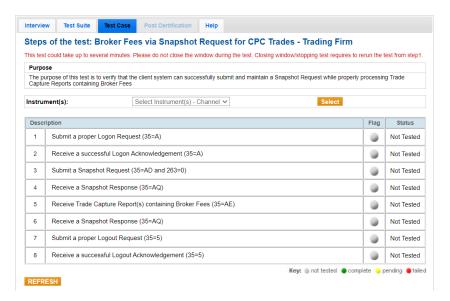
Note: The example test procedure below is for a **Broker Fees via Snapshot Request** and may not appear in your test suite. The tests included in the test suite will depend on the answers you provided in the Interview.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the Instrument(s) drop-down, select the desired instrument if the instrument is not already locked.
- 3. Select the START TEST button.



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

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Broker Fees via Snapshot Request test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Snapshot Request (35=AD and 263=0).
- 4. Receive a Snapshot Response (35=AQ).
- 5. Receive Trade Capture Report(s) (35=AE) containing broker fees.
- 6. Receive a Snapshot Response (35=AQ).
- 7. Submit a Logout (35=5).
- 8. Receive a Logout Acknowledgment (35=5).

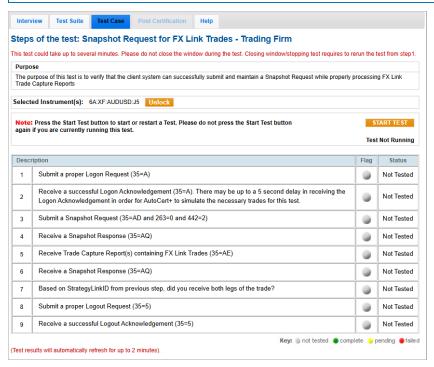
Snapshot Request for FX Link Trades

This test verifies that the client system can submit and maintain a Snapshot Request while processing FX Link Trade Capture Reports

Note: The example test procedure below is for a **Snapshot Request for FX Link 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.

- 1. Select a SenderComp / API ID from the drop-down and select ASSIGN if not already assigned.
- 2. (If applicable) From the **Instrument(s)** drop-down, select the desired instrument if the instrument is not already locked
- 3. Select the START TEST button.
 - Note: DO NOT select the START TEST button once the test is in progress.

Note: If a test is not proceeding to the next step, clicking the Refresh button (REFRESH) below the test steps may resolve the issue.



To run a Snapshot Request for FX Link Trades test:

- 1. Submit a Logon (35=A).
- 2. Receive a Logon Acknowledgment (35=A).
- 3. Submit a Trade Capture Report Request (35=AD and 263=0).
- 4. Receive a Trade Capture Report Response (35=AQ).
- 5. Receive Trade Capture Report(s) (35=AE) containing FX Link trades.
- 6. Receive a Snapshot Response (35=AQ).

- 7. Based on [Trade Capture Report (35=AE tag 263-SubscriptionRequestType=0-snapshot] StrategyLinkID (tag 1851) from previous step, did you receive both legs of the trade?
 - Select Yes/No.
- 8. Submit a proper Logout (35=5).
- 9. Receive a successful Logout Acknowledgment (35=5).

Recovery Tests

- Subscription Failover Recovery test
- Snapshot Failover Recovery test

Subscription Failover recovery test

The purpose of this test is to verify that the client system can recover all missed trades in case of a disconnect or outage. The test uses LastUpdateTime (Tag 779) to help recover missed trades.

This test is mandatory.

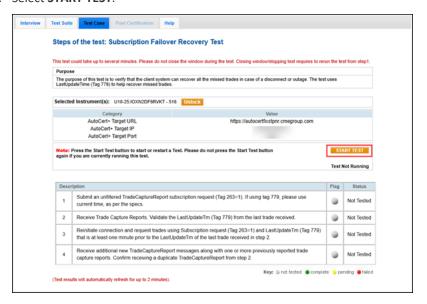


To run the test

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.



Note: Do not select **START TEST** while a test is running unless instructed to do so. Restarting a test deletes the current test results.

- 3. Submit an unfiltered Trade Capture Report subscription request (<u>263=1</u>). If using <u>Tag 779</u>, please use the current time
- 4. Receive Trade Capture Report messages. Validate LastUpdateTm (Tag 779) from the last trade received.
- 5. Reinitiate the connection and request trades using a subscription request (263=1) and LastUpdateTm (Tag 779) that is at least one minute prior to the LastUpdateTm of the last trade received in step 4.
- 6. Select **Yes** or **No** to confirm that your system received additional, new Trade Capture Report messages along with one or more previously sent Trade Capture Report messages, including a duplicate message from step 4.

Snapshot Failover Recovery Test

The purpose of this test is to verify that you can recover all missed trades in case of a disconnect or outage using the Snapshot recovery process. The test uses StartTime (Tag 9593) to recover missed trades.

This test is mandatory if you selected "Trade Capture Report Request - Snapshot with StartTime (tag 9593)" in the interview question "Which type of recovery does your application support?"

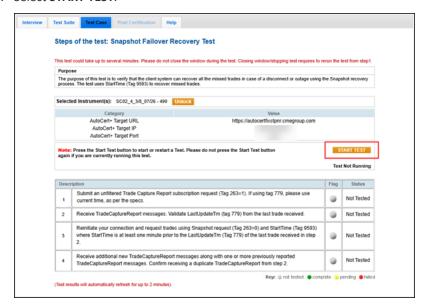


To run the test

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.



Note: Do not select **START TEST** while a test is running unless instructed to do so. Restarting a test deletes the current test results.

- 3. Submit an unfiltered Trade Capture Report subscription request (263=1). If using Tag 779, please use the current time.
- 4. Receive Trade Capture Report messages. Validate LastUpdateTm (Tag 779) from the last trade received.
- 5. Reinitiate the connection and request trades using a Snapshot request (Tag 263=0) and StartTime (Tag 9593) that is at least one minute prior to the LastUpdateTm (Tag 779) of the last trade received in step 4.
- 6. Select **Yes** or **No** to confirm that your system received additional, new Trade Capture Report messages along with one or more previously sent Trade Capture Report messages, including a duplicate message from step 4.