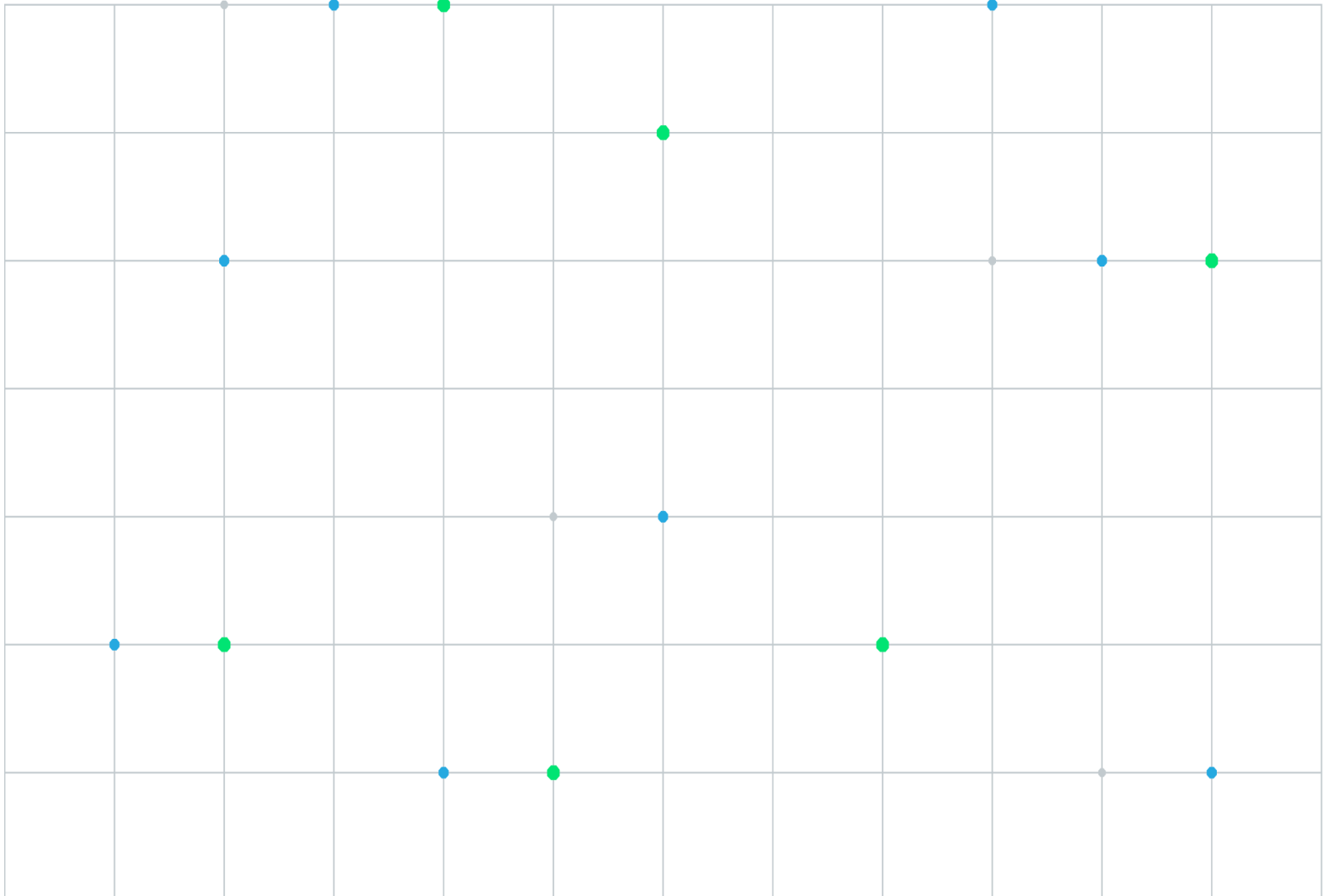


AutoCert+ BrokerTec US Treasury Data on MDP User Manual

24 Oct 2022



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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+ BrokerTec US Treasury Data on MDP test suite.

Running and Navigating AutoCert+

▶ To run and navigate AutoCert+:

1. [Log into](#) the automated certification tool.
2. Navigate to the AutoCert+ BrokerTec US Treasury Data on MDP test suite.

The screenshot shows the 'Current Testing Configuration' form. It includes fields for Tester, Company Name, Purpose (set to 'BrokerTec US Treasury Data'), Application System, and Test Suite (set to 'BrokerTec US Treasury Data on MDP'). There are also fields for Type (Automated Trading System), Category (Prop System), and 1603-1605. A 'SenderComp' field is set to 'UNASSIGN'. A 'Test Suite Status' section shows 'Pre-Certification Interview' as 'Not Complete' and 'Test Suite Status' as 'Not Tested'.

- a. Select a Company Name.
- b. From the Purpose drop-down, select "BrokerTec US Treasury Data."
- c. Select an Application System.

Note: If there are no application systems listed in the drop-down, contact your [Global Account Manager \(GAM\)](#) representative to create one.

- d. From the Test Suite drop-down, select "BrokerTec US Treasury Data on MDP."
3. Review general AutoCert+ test suite [navigation](#) and [general interview](#) information.
 4. Complete the [Interview](#) for this test suite.
 5. Complete the 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+ BrokerTec US Treasury Data on MDP Help system.

Date	Topic(s)	Description
24 Oct 2022	Format	Website and PDF format changes only.
06 Sep 2019	Recovery via TCP Replay	Updated screen shots and steps to reflect update to step 5 in the AutoCert+ test screen.
15 Aug 2019	Getting Started	Added note about application systems to step 2.
14 Aug 2019	All	Initial release

Interview

You must complete the pre-certification interview before running the test case.

Select your company type and click the **Complete** button.



The screenshot shows a web interface with a navigation bar at the top containing five tabs: "Interview" (highlighted in blue), "Test Suite", "Test Case", "Post Certification", and "Help". Below the navigation bar is a form with a question: "Will your system support TCP Replay recovery?". There are two radio button options: "Yes" (which is selected) and "No". At the bottom of the form is an orange "Complete" button.

Certification Tests

The AutoCert+ BrokerTec US Treasury Data on MDP certification test suite consists of the following:

- [Start of the Week](#)
- [Book Management](#)
- [Statistics](#)
- [Recovery via TCP Replay](#)

Start of the Week

This test verifies that your application system can properly process BrokerTec Market Data Incremental Refresh (tag 35-MsgType=X) book reset (tag 269-MDEntryType=J) messages that are sent at the beginning of the week as well as book updates to actives.

Steps of the test: Start of the Week

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 that your application can properly process BrokerTec Market Data book reset (269=J) messages that are sent at the beginning of the week, as well as book updates to Actives.

Contracts : 3_MONTH_2_YEAR_1_MONTH_WI_2_YEAR_1 - 684 Select

Category	IP	Port
Incremental Feed A	224.0.25.101	11684
Incremental Feed B	224.0.25.101	11784
Snapshot MBP	NA	NA
Snapshot MBO	NA	NA
TCP Replay	69.50.112.193	9684

Category	Link
Templates File:	templates_FixBinary.xml
Configuration File:	config.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

Description	Flag	Status
1	Start of the week has been initiated, receive and process a book reset (269=J) message and the current book for each product.	● Complete
2	Start of the week recovery is complete. Please validate the current book for the Active contract you have selected.	● Complete
3	Please validate the current Yield for the Active contract you have selected.	● Complete

Key: ● not tested ● complete ● pending ● failed

REFRESH

▶ To run the Start of the Week test

1. Select a SenderCompID.
2. Select a contract.
3. Click **START TEST**.
4. Click **REFRESH**.

Note: To restart the test, click **START TEST** and then click **REFRESH**.

5. The start of the week is initiated. Receive and process a Market Data Incremental Refresh (tag 35-MsgType=X) book reset (tag 269-MDEntryType=J) message and the current book for each product.
6. The start of the week recovery is complete.

Validate the current book for the active contract that you selected.

- Price: tag 270-MDEntryPx
- Quantity: tag 271-MDEntrySize

2	Start of the week recovery is complete. Please validate the current book for the Active contract you have selected.				Pending
	Instrument: 2_YEAR				
	BuyPrice	BuyQuantity	Sell Price	Sell Quantity	
	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	
	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	
	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	
	<input type="text" value="0.0"/>	<input type="text" value="0"/>	<input type="text" value="0.0"/>	<input type="text" value="0"/>	
<input type="button" value="Submit"/>					

- 3. Enter the bid yield and ask yield for the active contract that you selected.
 - Yield: tag 423-PriceType=9

3	Please validate the current Yield for the Active contract you have selected.		Pending
	Bid Yield :	<input type="text"/>	
	Ask Yield :	<input type="text"/>	
<input type="button" value="Submit"/>			

Book Management

This test verifies that your application system can properly process BrokerTec Market Data Incremental Refresh (tag 35-MsgType=X) book update messages.

Steps of the test: Book Management

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 that your application can properly process BrokerTec Market Data book update messages.

Description	Flag	Status
1 Start of the week has been initiated, receive and process a book reset (269=J) message and the current book for each product. Additional Book updates will start after the book reset has completed.		Complete
2 Start of the week recovery is complete. Please validate the current Yield for the WI (When Issued) contract you have selected.		Complete
3 Additional Book updates have been sent for other contracts. Please validate the current book for the Active contract you have selected.		Complete
4 Additional Book updates have been sent. Please validate the Yield for the OTR (Off-the-run) contract you have selected.		Complete

Key: not tested complete pending failed

REFRESH

To run the Book Management test

1. Select a SenderCompID.
2. Select a contract.
3. Click **START TEST**.
4. Click **REFRESH**.

Note: To restart the test, click **START TEST** and then click **REFRESH**.

5. The start of the week is initiated.

Receive and process a Market Data Incremental Refresh (tag 35-MsgType=X) book reset (tag 269-MDEntryType=J) message and the current book for each product.

Additional book updates will start after the book reset has completed.

6. The start of the week recovery is complete. Enter the current Yield (tag 423-PriceType=9) for the WI (When Issued) contract that you selected.

2 Start of the week recovery is complete. Please validate the current Yield for the WI (When Issued) contract you have selected.
Instrument: 1_MONTH_WM

BidYield AskYield

Submit

Pending

7. Additional book updates have been sent for other contracts.

Validate the current book for the active contract that you selected.

3	Additional Book updates have been sent for other contracts. Please validate the current book for the Active contract you have selected. Instrument: 2_YEAR				Pending
	BuyPrice	BuyQuantity	SellPrice	SellQuantity	
	0.0	0	0.0	0	
	0.0	0	0.0	0	
	0.0	0	0.0	0	
	0.0	0	0.0	0	
	0.0	0	0.0	0	
<input type="button" value="Submit"/>					

- 8. Additional book updates have been sent.
Enter the Yield (423=9) for the OTR (Off-the-Run) contract that you selected.

4	Additional Book updates have been sent. Please validate the Yield for the OTR (Off-the-run) contract you have selected. Instrument: 2_YEAR_1		Pending
	BidYield	AskYield	
	0.0	0.0	
<input type="button" value="Submit"/>			

Statistics

This test verifies that your application system can properly process BrokerTec Market Data Incremental Refresh (tag 35-MsgType=X) statistic messages that are sent at various times on the Incremental feed.

Steps of the test: Statistics

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 that your application can properly process BrokerTec Market Data statistic messages that are sent at various times on the incremental feed.

Selected Contract : 3_MONTH,2_YEAR,1_MONTH_WI,2_YEAR_1-684 **Unlock**

Category	IP	Port
Incremental Feed A	10.193.168.701	15684
Incremental Feed B	239.43.100.26	16684
Snapshot MBP	NA	NA
Snapshot MBO	NA	NA
TCP Replay	10.210.141.104	9784

Category	Link
Templates File:	templates: FixBinary.xml
Configuration File:	config.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**

Description	Flag	Status
1 Book and statistic updates are being sent. Provide the session low price for active contract you have selected.		Complete
2 More statistic messages are sent. Please validate the following statistics for the Active contract you have selected.		Complete

Key: not tested complete pending failed

REFRESH

To run the Statistics test

1. Select a SenderCompID.
2. Select a contract.
3. Click **START TEST**.
4. Click **REFRESH**.

Note: To restart the test, click **START TEST** and then click **REFRESH**.

5. Book and statistic updates are being sent.
Enter the session Low Trade Price for the active contract that you selected.

1	Book and statistic updates are being sent. Provide the session low price for active contract you have selected. Low price for the locked Active contract : <input type="text"/> Submit		Pending
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6. More statistic messages are sent.
Enter the following statistics for the active contract that you selected.
 - Last Trade Price - tag 270-MDEntryPx
 - Last Trade Size - tag 271-MDEntrySize
 - Volume Weighed Average Price (VWAP)
 - Volume Weighed Average Yield (VWAY)

2	More statistic messages are sent. Please validate the following statistics for the Active contract you have selected.		
	What is the Last Trade Price for the locked Active contract? :	<input type="text"/>	 Pending
	What is the Last Trade Size for the locked Active contract? :	<input type="text"/>	
	What is the VWAP (Volume Weighted Average Price) for the locked Active contract? :	<input type="text"/>	
	What is the WWAY (Volume Weighted Average Yield) for the locked Active contract? :	<input type="text"/>	
	<input type="button" value="Submit"/>		

Recovery via TCP Replay

This test verifies that your application can perform recovery via TCP Replay.

Steps of the test: Recovery via TCP Replay

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 that your application can perform recovery via TCP Replay.

Selected Contract : 3_MONTH_2_YEAR_1_MONTH_W1_2_YEAR_1 -684 Unlock

Category	IP	Port
Incremental Feed A	10.193.168.701	15684
Incremental Feed B	239.43.100.26	16684
Snapshot MBP	NA	NA
Snapshot MBO	NA	NA
TCP Replay	10.210.141.104	9784

Category	Link
Templates File:	templates_FixBinary.xml
Configuration File:	config.xml
Global TCP Recovery Schema:	Tcprecovery.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

Description	Flag	Status
1 AutoCert+ sends Market Data book updates, then creates a gap to be recovered.	●	Complete
2 Establish a TCP Connection and submit a Logon message using your AutoCert+ credentials.	●	Complete
3 Receive a logon confirmation message.	●	Complete
4 Submit a Market Data Request message.	●	Complete
5 Confirm that your application successfully received the incremental message that was requested in the TCP Market Data Request.	●	Complete
6 Receive and process Logout	●	Complete

Key: ● not tested ● complete ● pending ● failed

REFRESH

To run the Recovery via TCP Replay test

1. Select a SenderCompID.
2. Select a contract.
3. Click **START TEST**.
4. Click **REFRESH**.

Note: To restart the test, click **START TEST** and then click **REFRESH**.

5. AutoCert+ sends market data book updates, then creates a gap to be recovered.
6. Establish a TCP Connection and submit a Logon (tag 35-MsgType=A) message using your AutoCert+ credentials.
7. Receive a Logon (tag 35-MsgType=A) confirmation message.
8. Submit a Market Data Request (tag 35-MsgType=V) message.
9. Confirm that your application successfully received the Market Data Incremental Refresh (35=X) message that was requested in the Market Data Request (35=V) message.

Enter the following tag values:

- Price: tag 270-MDEntryPx
- Quantity: tag 271-MDEntrySize

6	<p>Confirm that your application successfully received the incremental message that was requested in the TCP Market Data Request:</p> <p>Price (tag 270-MDEntryPX): <input type="text"/></p> <p>Size (tag 271-MDEntrySize): <input type="text"/></p> <p><input type="button" value="Submit"/></p>		Pending
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11. Receive and process a Logout message.