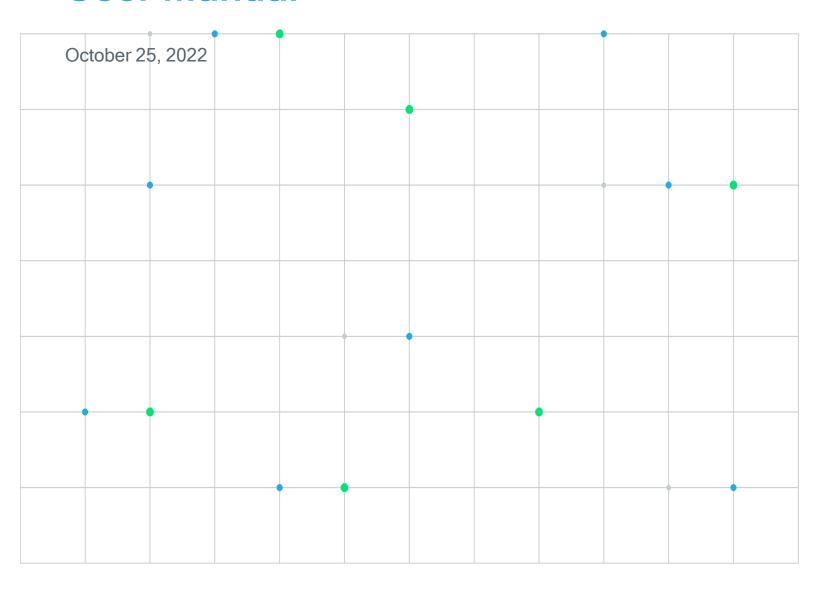


# AutoCert+ EBS Spectrum Market Data (Conflated UDP Ultra) User Manual



#### 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 All matters pertaining to rules and specifications herein are made subject to and are superseded by official CME, CBOT and NYMEX rules.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 © 2023 CME Group Inc. All rights reserved.

# **Table of Contents**

Getting Started	1
What's New	5
Interview	_
Certification Tests	7
Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP)	7

# **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+ EBS Spectrum Market Data (Conflated UDP Ultra) 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+ EBS Spectrum Market Data (Conflated UDP Ultra) test suite.



- a. Select a Company Name.
- b. For Market, select EBS.
- c. For Purpose, select Market Data Conflated UDP Ultra.
- d. Select an Application System.
- e. For Test Suite, select EBS Spectrum Market Data.
- 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+ EBS Spectrum Market Data (Conflated UDP Ultra) Help system.

Date	Description
October 25, 2022	Website and PDF format changes only.
June 16, 2021	Initial release.

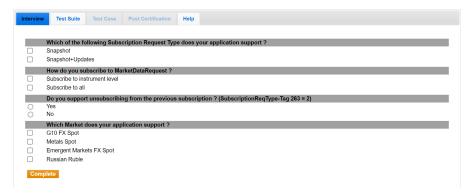
#### Interview

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.



## **Certification Tests**

Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP)

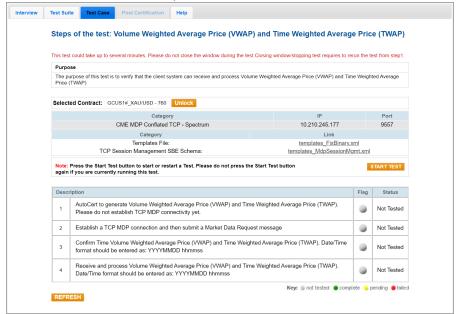
# Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP)

The purpose of this test is to verify that the client system can receive and process Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP) market data.



Note: See the EBS Spectrum Message Specification for more information.

- 1. Select a **SenderComp ID** in the drop-down.
- 2. Select Assign.
- 3. From the Contract drop-down, choose the desired contract and click Select.





Note: Step 4 is only required for systems receiving Snapshot+Updates.



To run a Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP) test:

1. AutoCert+ generates a Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP).



**Note:** Please do not establish TCP MDP connectivity yet.

- 2. Establish a TCP MDP connection and then submit a Market Data Request (tag 35-MsgType=V) message.
- 3. Enter the following tag values to confirm that your application received and processed the Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP) market data. The Date/Time format should be entered as: YYYYMMdd hhmmss.

- 270-VWAP MDEntryPx
- 271-VWAP MDEntrySize
- 273-VWAP MDEntryTime
- 270-VWAP MDEntryPx
- 271-VWAP MDEntrySize
- 273-VWAP MDEntryTime



Note: The following step is only required for systems receiving Snapshot+Updates.

- 4. Enter the following tag values to confirm that your application received and processed the Volume Weighted Average Price (VWAP) and Time Weighted Average Price (TWAP) market data. The Date/Time format should be entered as: YYYYMMdd hhmmss.
  - 270-VWAP MDEntryPx
  - 271-VWAP MDEntrySize
  - 273-VWAP MDEntryTime
  - 270-VWAP MDEntryPx
  - 271-VWAP MDEntrySize
  - 273-VWAP MDEntryTime