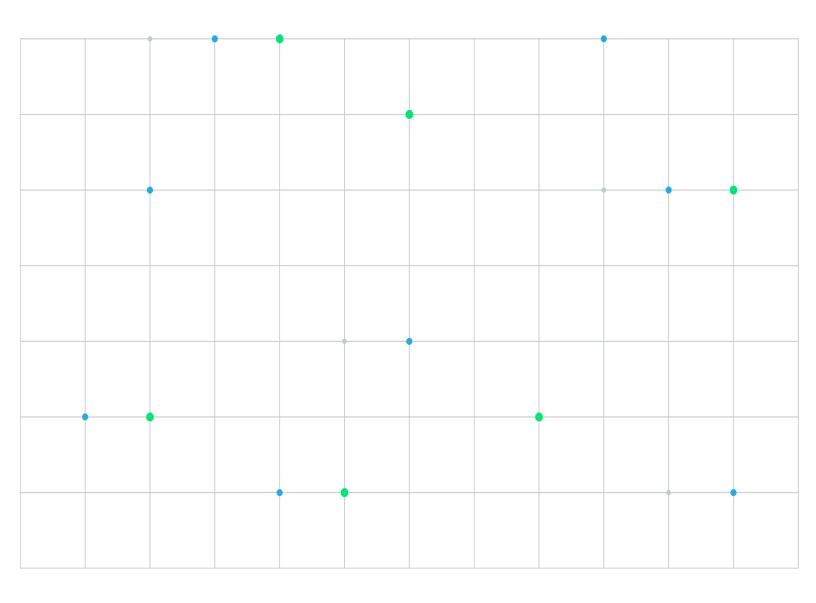


AutoCert+ CME FX Spot+ User Manual

9 April 2025



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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 FX Spot+ test suite for certifying your application. For CME customers who want to trade FX Spot+ EBS products, iLink 3 certification via AutoCert+ is required. MDP 3.0 certification is not required, however, CME Group strongly recommends that client systems test FX Spot+ products in the New Release environment before the production launch.

For CME customers who want to trade <u>FX Spot+ Futures</u> products, MDP 3.0 certification via AutoCert+ is required for their client systems. Certification for iLink 3 via AutoCert+ is not required, however, CME Group strongly recommends that futures client systems test FX Spot+ trading in notional quantity.

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.
- To access the AutoCert+ CME FX Spot+ test suite, select the following settings on the Current Testing Configuration screen.
 - a. Company Name: Select a company profile.
 - b. Market: Select either "EBS" or "Futures & Options" based on the instrument books you are testing.
 - c. Purpose: Select either "Order Entry" (EBS) or "Market Data" (Futures & Options).
 - d. **Application System**: Select a test system.
 - e. **Test Suite**: For EBS, select "EBS Order Entry for FX Spot Plus". For futures and options, select "F&O MDP for FX Spot Plus".
 - f. **Identifier**: Select a Sendercomp identifier and click **Assign**. For EBS, only iLink 3 Convenience Gateway (CGW) sessions are supported for trading CME FX Spot Plus.



- 4. Complete the Interview for this test suite.
- 5. Complete the applicable test suite: EBS Order Entry for FX Spot Plus or F&O MDP for FX Spot Plus.
- 6. Complete the certification process from the Post Certification tab.

What's New

The following table shows the updates made to the AutoCert+ CME FX Spot+ Help system.

Date	Topic(s)	Description
9 April 2025	Interview	Removed Cancel on Conclusion interview question.
9 Dec 2024	FX Spot Plus Statistics Messages	Removed trade cancel step from test. Trade bust not supported on FX Spot+ instruments.
11 Nov 2024	All	Initial release

Interview

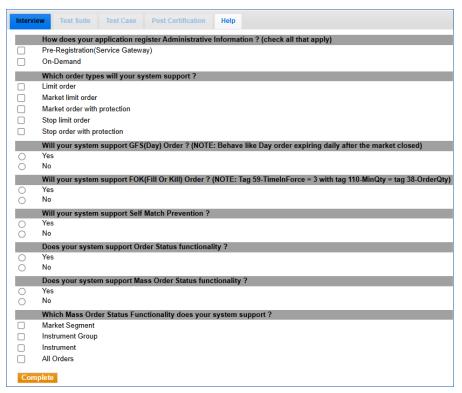
The interview consists of a series of questions about your trading application. Based on your responses, certain questions and tests are required and others are optional. You must complete the pre-certification interview before running the test suite.



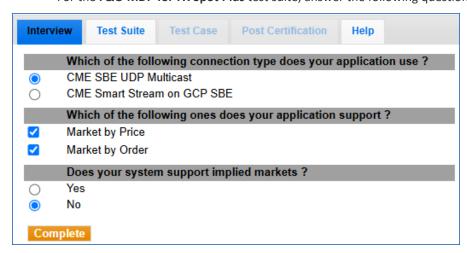
To complete the interview:

- 1. Select the Interview tab.
- 2. Answer each question and select the **Complete** button.

For the EBS Order Entry for FX Spot Plus test suite, answer the following questions:



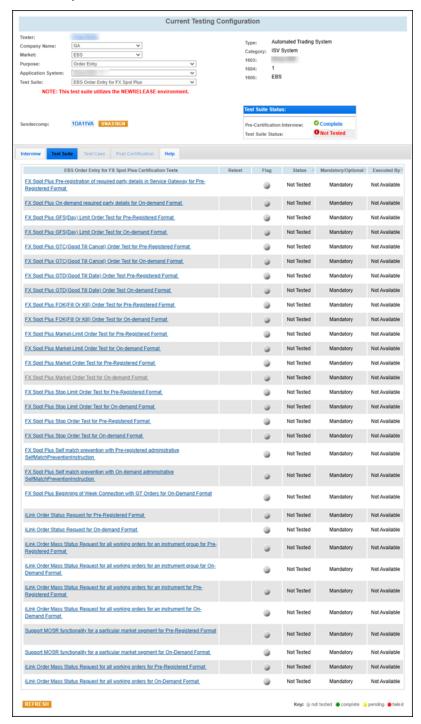
For the **F&O MDP for FX Spot Plus** test suite, answer the following questions:



After completing the interview, select the **Test Suite** tab for **EBS Order Entry for FX Spot Plus** or **F&O MDP for FX Spot Plus**.

EBS Order Entry for FX Spot Plus Certification

Use the **Test Suite** tab to run the **EBS Order Entry for FX Spot Plus** certification test cases required to certify your application. You are required to select and run each test in the test suite. Test cases are available based on your **Interview** responses.



FX Spot Plus Pre-registration of required party details in Service Gateway for Pre-Registered Format

The purpose of this test is to verify that the client system can submit an order with the required party details for trading FX Spot Plus.

This test case is mandatory if you selected **Pre-Registration** (Service Gateway) in the interview question **How does your application register Administrative Information?**



- 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 <u>Party Details Definition Request (35=CX)</u> message with the required party details to the Service Gateway for trading FX Spot Plus.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY)</u>.
- 5. Over an iLink connection, submit an order for the FX Spot Plus instrument with the Party Details registered in Step 3.
- Select Yes or No to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.



FX Spot Plus On-demand required party details for On-demand Format

The purpose of this test is to verify that the client system can submit an order with the required party details for trading FX Spot Plus.

This test case is mandatory if you selected **On-Demand** in the interview question **How does your application register Administrative Information?**



- 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. Over an iLink connection, submit a <u>Party Details Definition Request (35=CX)</u> message with the required party details using On-demand format for trading FX Spot Plus.
- 4. Submit an order for the FX Spot Plus instrument.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY)</u>.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.



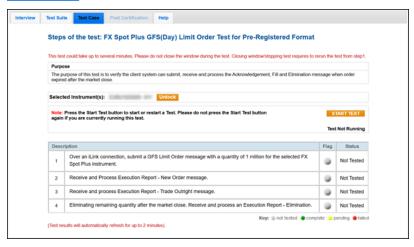
FX Spot Plus GFS (Day) Limit Order Test for Pre-Registered Format

The purpose of this test is to verify the client system can submit, receive, and process Acknowledgement, Fill, and Elimination messages when an order expires after the market close.

This test case is mandatory if you selected Yes in the interview question Will your system support GFS Order?



- 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. Over an iLink connection, submit a GFS Limit Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order</u> (35=8,39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Trade Outright</u> (35=8,39=1, 2) message.
- 6. Select **Yes** or **No** to indicate whether your system received and processed an <u>Execution Report Elimination</u> (35=8,39=C) message for eliminating the remaining quantity after the market close.



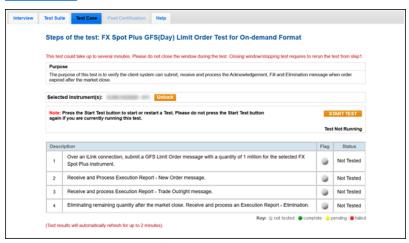
FX Spot Plus GFS (Day) Limit Order Test for On-Demand Format

The purpose of this test is to verify the client system can submit, receive, and process Acknowledgement, Fill, and Elimination messages when an order expires after the market close.

This test case is mandatory if you selected Yes in the interview question Will your system support GFS Order?



- 1. On the Test Case tab, use the Instrument(s) drop down menu to choose an instrument and channel and click SELECT.
- Select START TEST.
- 3. Over an iLink connection, submit a GFS Limit Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order</u> (35=8,39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Trade Outright</u> (35=8,39=1, 2) message.
- 6. Select **Yes** or **No** to indicate whether your system received and processed an <u>Execution Report Elimination</u> (35=8,39=C) message for eliminating the remaining quantity after the market close.



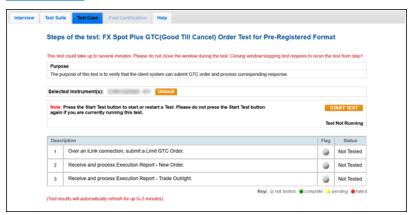
FX Spot Plus GTC (Good Till Cancel) Order Test for Pre-**Registered Format**

The purpose of this test is to verify that the client system can submit a GTC order and process the corresponding response.

This test case is mandatory if you selected Yes in the interview question Will your system support GTC Order?



- 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. Over an iLink connection, submit a Limit GTC Order.
- 4. Select Yes or No to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select Yes or No to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.



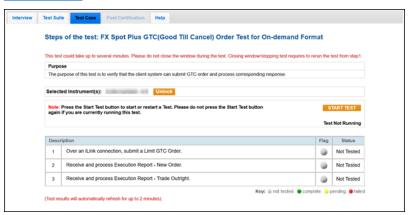
FX Spot Plus GTC (Good Till Cancel) Order Test for On-Demand **Format**

The purpose of this test is to verify that the client system can submit a GTC order and process the corresponding response.

This test case is mandatory if you selected Yes in the interview question Will your system support GTC Order?



- 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. Over an iLink connection, submit a Limit GTC Order.
- 4. Select Yes or No to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select Yes or No to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.



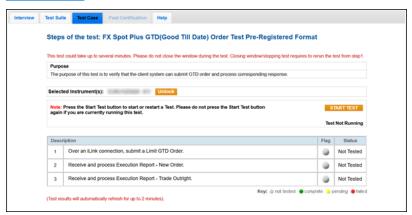
FX Spot Plus GTD (Good-Till-Date) OrderTest Pre-Registered **Format**

The purpose of this test is to verify that the client system can submit a GTD order and process the corresponding response.

This test case is mandatory if you selected Yes in the interview question Will your system support GTD Order?



- 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. Over an iLink connection, submit a Limit GTD Order.
- 4. Select Yes or No to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select Yes or No to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.



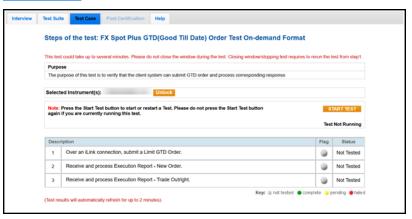
FX Spot Plus GTD (Good-Till-Date) Order Test On-Demand Format

The purpose of this test is to verify that the client system can submit a GTD order and process the corresponding response.

This test case is mandatory if you selected Yes in the interview question Will your system support GTD Order?



- 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. Over an iLink connection, submit a Limit GTD Order.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.



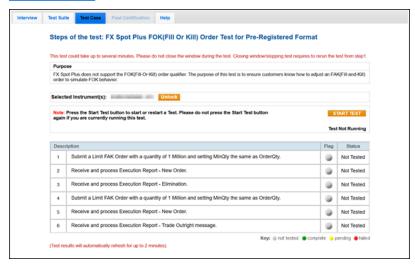
FX Spot Plus FOK (Fill-Or-Kill) Order Test for Pre-Registration Format

FX Spot Plus does not support the (FOK) Fill-Or-Kill order qualifier. The purpose of this test is to ensure customers know how to adjust a FAK (Fill-and-Kill) order to simulate FOK behavior.

This test case is mandatory if you selected Yes in the interview question Will your system support FOK Order?



- 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 Limit FAK Order with a quantity of 1 Million and set MinQty the same as OrderQty.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order</u> (35=8,39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed an <u>Execution Report Elimination</u> (35=8,39=C) message for eliminating the remaining quantity after the market close.
- 6. Submit a Limit FAK Order with a quantity of 1 Million and set MinQty the same as OrderQty.
- 7. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order</u> (35=8,39=0) message.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Trade Outright</u> (35=8,39=1, 2) message.



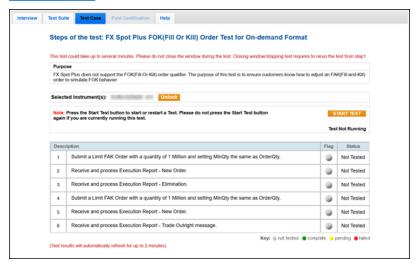
FX Spot Plus FOK (Fill-Or-Kill) Order Test for On-Demand Format

FX Spot Plus does not support the (FOK) Fill-Or-Kill order qualifier. The purpose of this test is to ensure customers know how to adjust a FAK (Fill-and-Kill) order to simulate FOK behavior.

This test case is mandatory if you selected Yes in the interview question Will your system support FOK Order?



- 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 Limit FAK Order with a quantity of 1 Million and set MinQty the same as OrderQty.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order</u> (35=8,39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed an <u>Execution Report Elimination</u> (35=8,39=C) message for eliminating the remaining quantity after the market close.
- 6. Submit a Limit FAK Order with a quantity of 1 Million and set MinQty the same as OrderQty.
- 7. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order</u> (35=8,39=0) message.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Trade Outright</u> (35=8,39=1, 2) message.



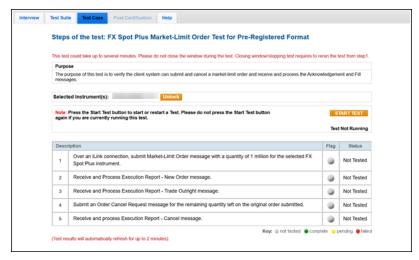
FX Spot Plus Market-Limit Order Test for Pre-Registered Format

The purpose of this test is to verify the client system can submit and cancel a Market-Limit order, and receive and process the Acknowledgement and Fill messages .

This test case is mandatory if you selected **Market Limit Order** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Market-Limit Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 6. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 7. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message.



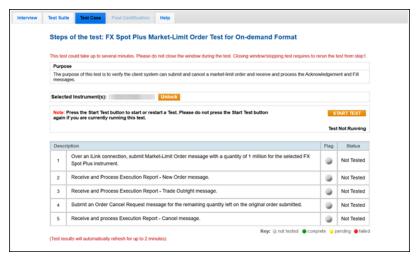
FX Spot Plus Market-Limit Order Test for On-Demand Format

The purpose of this test is to verify the client system can submit and cancel a Market-Limit order, and receive and process the Acknowledgement and Fill messages .

This test case is mandatory if you selected **Market Limit Order** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Market-Limit Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 6. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 7. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message.



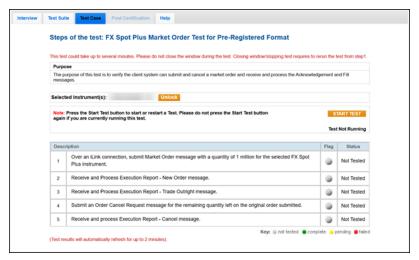
FX Spot Plus Market Order Test for Pre-Registered Format

The purpose of this test is to verify the client system can submit and cancel a Market Order and receive and process the Acknowledgement and Fill messages.

This test case is mandatory if you selected **Market order with protection** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Market Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8) (39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 6. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 7. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message.



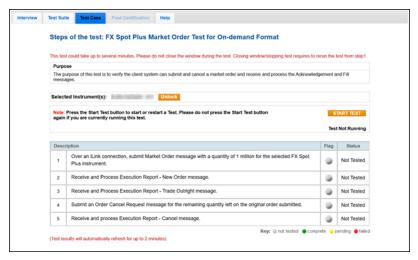
FX Spot Plus Market Order Test for On-Demand Format

The purpose of this test is to verify the client system can submit and cancel a Market Order and receive and process the Acknowledgement and Fill messages.

This test case is mandatory if you selected **Market order with protection** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Market Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8) (39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 6. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 7. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message.



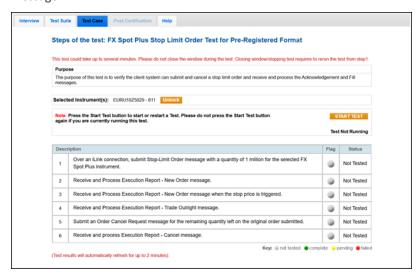
FX Spot Plus Stop-Limit Order Test for Pre-Registered Format

The purpose of this test is to verify the client system can submit and cancel a Stop-Limit order and receive and process the Acknowledgement and Fill messages.

This test case is mandatory if you selected **Stop Limit Order** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Stop-Limit Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message when the Stop is triggered.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 7. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Cancel (35=8,39=4)</u> message.



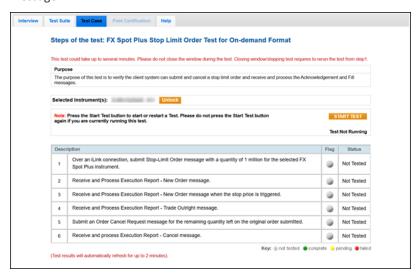
FX Spot Plus Stop-Limit Order Test for On-Demand Format

The purpose of this test is to verify the client system can submit and cancel a Stop-Limit order and receive and process the Acknowledgement and Fill messages.

This test case is mandatory if you selected **Stop Limit Order** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Stop-Limit Order message with a quantity of 1 million for the selected FX Spot Plus instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message when the Stop is triggered.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 7. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message.



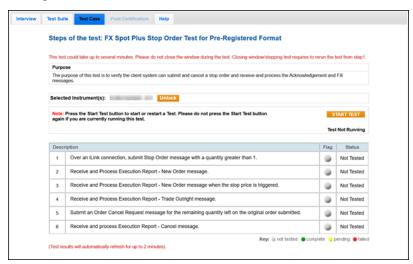
FX Spot Plus Stop Order Test for Pre-Registered Format

The purpose of this test is to verify the client system can submit and cancel a Stop Order and receive and process the Acknowledgement and Fill messages.

This test case is mandatory if you selected **Stop order with protection** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Stop Order message with a quantity greater than 1.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message when the Stop is triggered.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 7. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Cancel (35=8,39=4)</u> message.



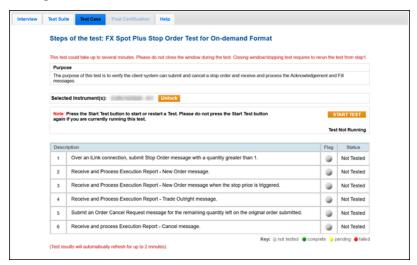
FX Spot Plus Stop Order Test for On-Demand Format

The purpose of this test is to verify the client system can submit and cancel a Stop Order and receive and process the Acknowledgement and Fill messages.

This test case is mandatory if you selected **Stop order with protection** in the interview question **Which order types will your system support?**



- 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. Over an iLink connection, submit a Stop Order message with a quantity greater than 1.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message when the Stop is triggered.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Trade Outright (35=8,39=1, 2) message.
- 7. Submit an Order Cancel Request message for the remaining quantity left on the original order submitted.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message.



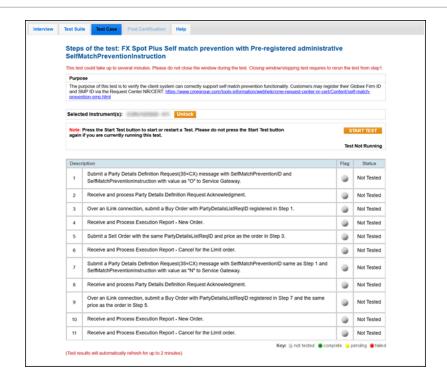
FX Spot Plus Self match prevention with Pre-registered administrative SelfMatchPreventionInstruction

The purpose of this test is to verify the client system can correctly support Self Match Prevention functionality. Customers may create and register their Globex Firm ID and SMP ID via the Request Center NR/CERT.

This test case is mandatory if you selected **Yes** in the interview question **Will your system support Self Match Prevention?**, and if you also selected **Pre-Registration (Service Gateway)** in the interview question **How does your application register Administrative Information?**



- 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 <u>Party Details Definition Request (35=CX)</u> message with a tag 2362-SelfMatchPreventionID value and a tag 8000-SelfMatchPreventionInstruction value of "O" to the Service Gateway for trading FX Spot Plus.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY).</u>
- 5. Over an iLink connection, submit a Buy Limit order with the <u>tag 1505-PartyDetailsListReqID</u> registered in Step 3.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Submit a Sell Limit order using the same tag 1505-PartyDetailsListReqID and price as the order in Step 5.
- 8. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report Cancel (35=8,39=4)</u> message for the Limit order. You should receive tag 378-ExecRestatementReason=103 (Cancel Resting due to Self Match Prevention).
- 9. Submit a <u>Party Details Definition Request (35=CX)</u> message with the same tag 2362-SelfMatchPreventionID value as Step 3 and a tag 8000-SelfMatchPreventionInstruction value of "N" to the Service Gateway for trading FX Spot Plus.
- 10. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY).</u>
- 11. Over an iLink connection, submit a Buy Order with the <u>tag 1505-PartyDetailsListReqID</u> registered in Step 9 and the same price as the order in Step 5.
- 12. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 13. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message for the Limit order. You should receive tag 378-ExecRestatementReason=107 (Cancel Aggressing due to Self Match Prevention).



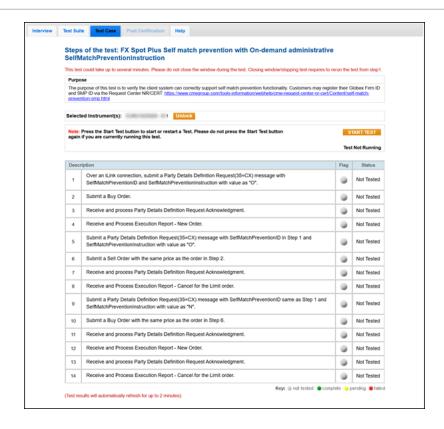
FX Spot Plus Self match prevention with On-demand administrative SelfMatchPreventionInstruction

The purpose of this test is to verify the client system can correctly support Self Match Prevention functionality. Customers may create and register their Globex Firm ID and SMP ID via the Request Center NR/CERT.

This test case is mandatory if you selected **Yes** in the interview question **Will your system support Self Match Prevention?**, and if you also selected **On-demand** in the interview question **How does your application register Administrative Information?**



- 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 <u>Party Details Definition Request (35=CX)</u> message with a tag 2362-SelfMatchPreventionID value and a tag 8000-SelfMatchPreventionInstruction value of "O" to the Service Gateway for trading FX Spot Plus.
- 4. Submit a Buy order.
- Select Yes or No to indicate whether your system received and processed the <u>Party Details Definition Request Acknow-ledgment</u> (35=CY).
- 6. Select **Yes** or **No** to indicate whether your system received and processed the <u>Execution Report New Order (35=8,3-39=0)</u> message.
- 7. Submit a Party Details Definition Request (35=CX) message with the same tag 2362-SelfMatchPreventionID value as Step 3 and a tag 8000-SelfMatchPreventionInstruction value of "O" to the Service Gateway.
- 8. Submit a Sell Order with the same price as the order in Step 4.
- 9. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY)</u>.
- Select Yes or No to indicate whether your system received and processed the <u>Execution Report Cancel (35=8,39=4)</u> message for the Limit order. You should receive tag 378-ExecRestatementReason=103 (Cancel Resting due to Self Match Prevention).
- 11. Submit a Party Details Definition Request (35=CX) message with the same tag 2362-SelfMatchPreventionID value as Step 3 and a tag 8000-SelfMatchPreventionInstruction value of "N" to the Service Gateway for trading FX Spot Plus.
- 12. Submit a Buy Order with the same price as the order in Step 8.
- 13. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY)</u>.
- 14. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 15. Select **Yes** or **No** to indicate whether your system received and processed the <u>Party Details Definition Request Acknowledgment (35=CY)</u>.
- 16. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report Cancel (35=8,39=4) message for the Limit order. You should receive tag 378-ExecRestatementReason=107 (Cancel Aggressing due to Self Match Prevention).



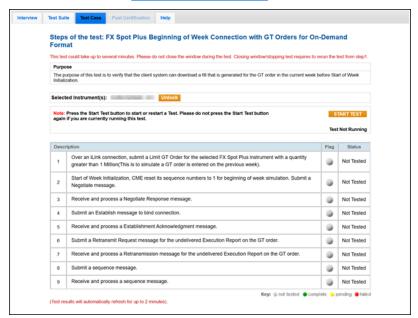
FX Spot Plus Beginning of Week Connection with GT Orders for On-Demand Format

The purpose of this test is to verify that the client system can download a fill that is generated for a GTC or GTD order in the current week before Start of Week Initialization.

This test case is mandatory if you selected **On-Demand** in the interview question **How does your application register Administrative Information**, and **Yes** in either the interview question **Will your system support GTC Order?** or **Will your system support GTD Order?**



- 1. On the Test Case tab, use the Instrument(s) drop down menu to choose an instrument and channel and click SELECT.
- Select START TEST.
- 3. Over an iLink connection, submit a Limit GT Order for the selected FX Spot Plus instrument with a quantity greater than 1 Million (this is to simulate a GT order was entered in the previous week).
- 4. Start of Week Initialization: CME resets its sequence numbers to "1" for the beginning of week simulation. Submit a Negotiate (35=Negotiate) message.
- 5. Receive and process a Negotiation Response (35=NegotiationResponse) message.
- 6. Submit an Establish (35=Establish) message to bind the connection.
- 7. Select **Yes** or **No** to indicate whether your system received and processed an <u>Establishment Acknowledgment (35=E-EstablishmentAck)</u> message.
- Submit a <u>Retransmit Request (35=RetransmitRequest)</u> message for the undelivered Execution Report on the GT order.
- 9. Select **Yes** or **No** to indicate whether your system received and processed a <u>Retransmission (35=Retransmission)</u> message for the undelivered Execution Report on the GT order.
- 10. Submit a Sequence (35=Sequence) message.
- 11. Receive and process a Sequence (35=Sequence) message.



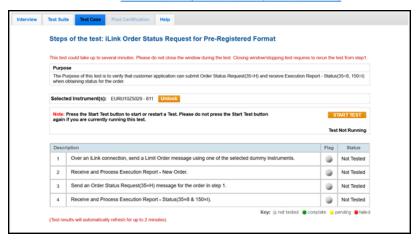
iLink Order Status Request for Pre-Registered Format

The purpose of this test is to verify that a customer application can submit an Order Status Request (35=H) and receive an Execution Report - Status (35=8, 150=I) when obtaining status for the order.

This test case is mandatory if you selected **Yes** in the interview question **Does your system support Order Status functionality?**



- 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. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Send an Order Status Request (35=H) message for the order in Step 3.
- 6. Receive and Process Execution Report Status (35=8 & 150=I).



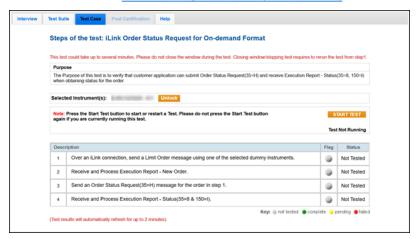
iLink Order Status Request for On-Demand Format

The Purpose of this test is to verify that a customer application can submit an Order Status Request (35=H) and receive an Execution Report - Status (35=8, 150=I) when obtaining status for the order.

This test case is mandatory if you selected **Yes** in the interview question **Does your system support Order Status functionality?**



- 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. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Send an Order Status Request (35=H) message for the order in Step 3.
- 6. Receive and Process Execution Report Status (35=8 & 150=I).



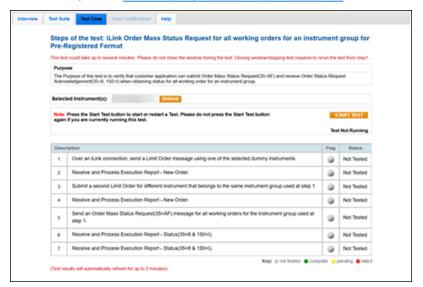
iLink Order Mass Status Request for all working orders for an instrument group for Pre-Registered Format

The Purpose of this test is to verify that the customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for an instrument group.

This test case is mandatory if you selected **Instrument Group** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Submit a second Limit Order for a different instrument in the same instrument group used in Step 3.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Send a Order Mass Status Request (35=AF) message for all working orders for the instrument group used at Step 3.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



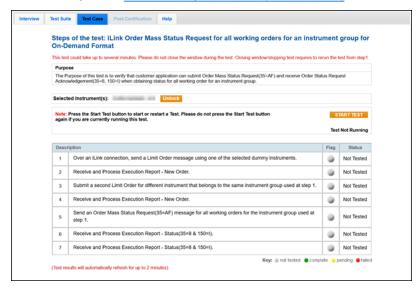
iLink Order Mass Status Request for all working orders for an instrument group for On-Demand Format

The Purpose of this test is to verify that the customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for an instrument group.

This test case is mandatory if you selected **Instrument Group** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Submit a second Limit Order for a different instrument in the same instrument group used in Step 3.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Send a Order Mass Status Request (35=AF) message for all working orders for the instrument group used at Step 3.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



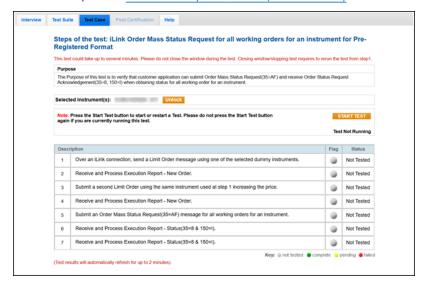
iLink Order Mass Status Request for all working orders for an instrument for Pre-Registered Format

The Purpose of this test is to verify that customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for an instrument group.

This test case is mandatory if you selected **Instrument** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Submit a second Limit Order using the same instrument used in Step 3 increasing the price.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Send a Order Mass Status Request (35=AF) message for all working orders for an instrument.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



iLink Order Mass Status Request for all working orders for an instrument for On-Demand Format

The Purpose of this test is to verify that customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for an instrument group.

This test case is mandatory if you selected **Instrument** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Submit a second Limit Order using the same instrument used in Step 3 increasing the price.
- Select Yes or No to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Send a Order Mass Status Request (35=AF) message for all working orders for an instrument.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



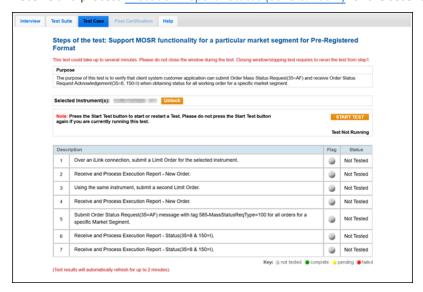
Support MOSR functionality for a particular market segment for Pre-Registration Format

The purpose of this test is to verify that the client system customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for a specific market segment.

This test case is mandatory if you selected **Market Segment** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink connection, submit a Limit Order for the selected instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Using the same instrument, submit a second Limit Order.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Submit a Mass Status Request (35=AF) message with tag 585-MassStatusReqType=100 for all orders for a specific Market Segment.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



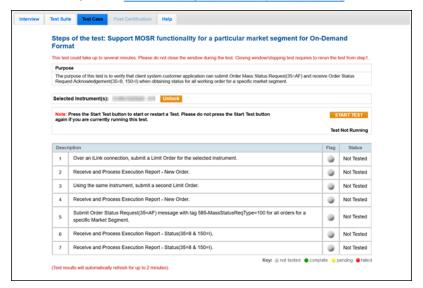
Support MOSR functionality for a particular market segment for On-Demand Format

The purpose of this test is to verify that the client system customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for a specific market segment.

This test case is mandatory if you selected **Market Segment** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink connection, submit a Limit Order for the selected instrument.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Using the same instrument, submit a second Limit Order.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Submit a Mass Status Request (35=AF) message with tag 585-MassStatusReqType=100 for all orders for a specific Market Segment.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



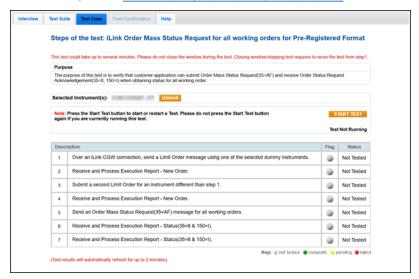
iLink Order Mass Status Request for all working orders for Pre-Registered Format

The Purpose of this test is to verify that the customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for an instrument group.

This test case is mandatory if you selected **All Orders** in the interview question **Which Mass Order Status Functionality does your system support?**



- 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. Over an iLink CGW connection, send a Limit Order message using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Submit a second Limit Order for an instrument different than Step 3.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Send a Order Mass Status Request (35=AF) message for all working orders.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



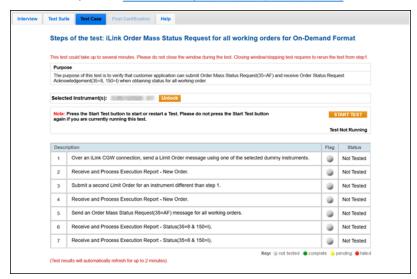
iLink Order Mass Status Request for all working orders for On-Demand Format

The Purpose of this test is to verify that the customer application can submit an Order Mass Status Request (35=AF) and receive an Order Status Request Acknowledgement (35=8, 150=I) when obtaining status for all working orders for an instrument group.

This test case is mandatory if you selected **All Orders** in the interview question **Which Mass Order Status Functionality does** your system support?

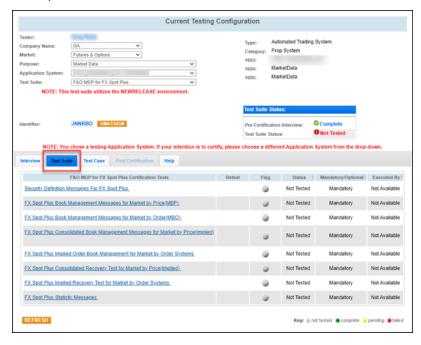


- 1. On the Test Case tab, use the Instrument(s) drop down menu to choose an instrument and channel and click SELECT.
- 2. Select START TEST.
- 3. Over an iLink connection, send a Limit Order using one of the selected dummy instruments.
- 4. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 5. Submit a second Limit Order for a different instrument in the same instrument group used in Step 3.
- 6. Select **Yes** or **No** to indicate whether your system received and processed the Execution Report New Order (35=8,3-39=0) message.
- 7. Send a Order Mass Status Request (35=AF) message for all working orders.
- 8. Receive and process Execution Report Status (35=8 & 150=I) for the first order.
- 9. Receive and process Execution Report Status (35=8 & 150=I) for the second order.



Futures and Options MDP for FX Spot Plus Certification

Use the **Test Suite** tab to run the **F&O MDP for FX Spot Plus** certification test cases required to certify your application. You are required to select and run each test case in the test suite. Test cases are available based on your **Interview** responses.



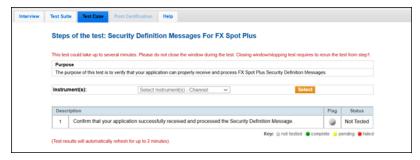
Security Definition Messages For FX Spot Plus

The purpose of this test is to verify that your application can properly receive and process FX Spot Plus Security Definition Messages.

This test case is mandatory.



- 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. Confirm that your application successfully received and processed the Security Definition Message.



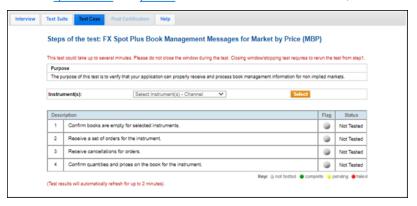
FX Spot Plus Book Management Messages for Market by Price (MBP)

The purpose of this test is to verify that your application can properly receive and process book management information for non-implied markets.

This test case is mandatory if you selected **Market by Price** in the interview question **Which of the following ones does your application support?**



- 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. Select **Yes** or **No** to confirm books are empty for the selected instruments.
- 4. Receive a set of orders for the instrument.
- 5. Receive cancellations for orders.
- 6. Confirm quantities and prices on the book for the instrument, which varies based on the instrument book sent.



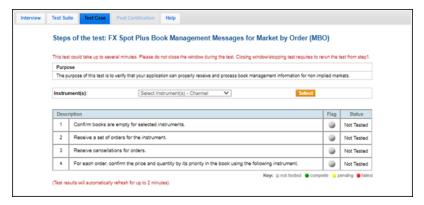
FX Spot Plus Book Management Messages for Market by Order (MBO)

The purpose of this test is to verify that your application can properly receive and process book management information for non-implied markets.

This test case is mandatory if you selected **Market by Order** in the interview question **Which of the following ones does your application support?**



- 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. Select **Yes** or **No** to confirm books are empty for the selected instruments.
- 4. Receive a set of orders for the instrument.
- 5. Receive cancellations for orders.
- 6. For each order, confirm the price (MDEntryPx) and quantity (MDEntrySize) by its priority in the book for the displayed instrument, which varies based on the instrument book sent.



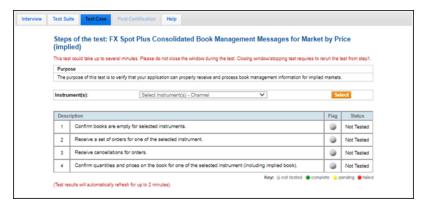
FX Spot Plus Consolidated Book Management Messages for Market by Price (Implied)

The purpose of this test is to verify that your application can properly receive and process book management information for implied markets.

This test case is mandatory if you selected **Yes** in the interview question **Does your system support implied markets?**, and selected **Market by Price** in the interview question **Which of the following ones does your application support?**.



- 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. Select **Yes** or **No** to confirm books are empty for the selected instruments.
- 4. Receive a set of orders for the instrument.
- 5. Receive cancellations for orders.
- 6. Confirm <u>quantities</u> and <u>prices</u> on the book for the instrument, including the <u>implied book</u>. The instrument varies based on the instrument book sent.



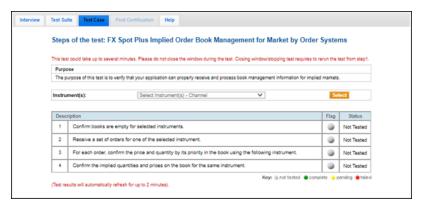
FX Spot Plus Implied Order Book Management for Market by Order Systems

The purpose of this test is to verify that your application can properly receive and process book management information for implied markets.

This test case is mandatory if you selected **Yes** in the interview question **Does your system support implied markets?**, and selected **Market by Order** in the interview question **Which of the following ones does your application support?**.



- 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. Select **Yes** or **No** to confirm books are empty for the selected instruments.
- 4. Receive a set of orders for the instrument.
- 5. For each order, confirm the price (<u>MDEntryPx</u>) and quantity (<u>MDEntrySize</u>) by its priority in the book for the displayed instrument, which varies based on the instrument book sent.
- 6. Confirm the implied quantities and prices on the book for the same instrument. The instrument varies based on the instrument book sent.



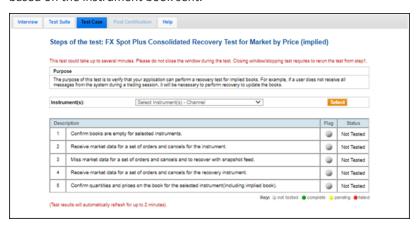
FX Spot Plus Consolidated Recovery Test for Market by Price (Implied)

The purpose of this test is to verify that your application can perform a recovery test for implied books. For example, if a user does not receive all messages from the system during a trading session, it will be necessary to perform a recovery to update the books.

This test case is mandatory if you selected **Yes** in the interview question **Does your system support implied markets?**, and selected **Market by Price** in the interview question **Which of the following ones does your application support?**.



- 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. Select Yes or No to confirm books are empty for the selected instruments.
- 4. Receive market data for a set of orders and cancels for the instrument.
- 5. Miss market data for a set of orders and cancels, and recover the messages with the snapshot feed.
- 6. Receive market data for a set of orders and cancels for the recovery instrument.
- 7. Confirm <u>quantities</u> and <u>prices</u> on the book for the instrument, including the <u>implied book</u>. The instrument varies based on the instrument book sent.



FX Spot Plus Implied Recovery Test for Market by Order Systems

The purpose of this test is to verify that your application can perform a recovery test for implied books. For example, if a user does not receive all messages from the system during a trading session, it will be necessary to perform a recovery to update the books.

This test case is mandatory if you selected **Yes** in the interview question **Does your system support implied markets?**, and selected **Market by Order** in the interview question **Which of the following ones does your application support?**.



- 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. Select Yes or No to confirm books are empty for the selected instruments.
- 4. Receive market data for a set of orders and cancels for the instrument.
- 5. Miss market data for a set of orders and cancels and recover the messages with the snapshot feed.
- 6. Receive market data for a set of orders and cancels for the recovery instrument.
- 7. Confirm <u>quantities</u> and <u>prices</u> on the book for the instrument, including the <u>implied book</u>. The instrument varies based on the instrument book sent.



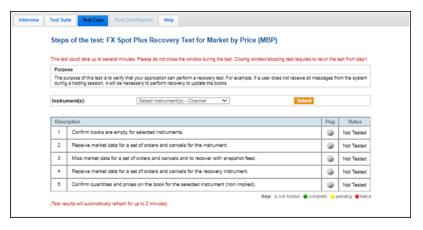
FX Spot Plus Recovery Test for Market by Price (MBP)

The purpose of this test is to verify that your application can perform a recovery test. For example, if a user does not receive all messages from the system during a trading session, it will be necessary to perform a recovery to update the books.

This test case is mandatory if you selected **No** in the interview question **Does your system support implied markets?**, and selected **Market by Price** in the interview question **Which of the following ones does your application support?**



- 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. Select **Yes** or **No** to confirm books are empty for the selected instruments.
- 4. Receive market data for a set of orders and cancels for the instrument.
- 5. Miss market data for a set of orders and cancels and recover the messages with the snapshot feed.
- 6. Receive market data for a set of orders and cancels for the recovery instrument.
- 7. Confirm <u>quantities</u> and <u>prices</u> on the book for the instrument (non-implied). The instrument varies based on the instrument book sent.



FX Spot Plus Recovery Test for Market by Order

The purpose of this test is to verify that your application can perform a recovery test for non-implied books. For example, if a user does not receive all messages from the system during a trading session, it will be necessary to perform a recovery to update the books.

This test case is mandatory if you selected **No** in the interview question **Does your system support implied markets?**, and selected **Market by Order** in the interview question **Which of the following ones does your application support?**



- 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. Select **Yes** or **No** to confirm books are empty for the selected instruments.
- 4. Receive market data for a set of orders and cancels for the instrument.
- 5. Miss market data for a set of orders and cancels and recover the messages with the snapshot feed.
- 6. Receive market data for a set of orders and cancels for the recovery instrument.
- 7. Confirm <u>quantities</u> and <u>prices</u> on the book for the instrument. The instrument varies based on the instrument book sent.



FX Spot Plus Statistic Messages

The purpose of this test is to verify that your application can properly receive and process statistic messages. This test case is mandatory.



- 1. On the Test Case tab, use the Instrument(s) drop down menu to choose an instrument and channel and click SELECT.
- Select START TEST.
- 3. A trade summary was sent. Please validate the following values based on the instrument book sent (instrument varies).
 - tag 270-MDEntryPx
 - tag 271-MDEntrySize
- 4. Electronic volume statistics were sent. Please validate the following value: tag 271-MDEntrySize.
- 5. A trading session high price was sent. Please validate the following value: tag 270-MDEntryPX.
- 6. A session low offer was sent. Please validate the following value based on the instrument book sent (instrument varies): tag 270-MDEntryPx.

