

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Basic	Connectivity	Logon (A)	Instruction: The customer submits a valid and correctly formatted Logon message to log on their SLE session
BIN	Basic	Connectivity	Logout Reject (I)	Instruction: The customer initiates an SLE session with invalid SLE ID. If an invalid SLE cannot be configured please let CTSG know.
BIN	Basic	Connectivity	Test Request (1)	Instruction: If possible, the customer submits a Test Request (1) message with a numerical ID in the TestReqID.
BIN	Basic	Connectivity	Heartbeat (0)	Instruction: The customer should confirm the HeartBInt setting in their Logon message
BIN	Basic	Submission of Application Messages	New Order (D)	Instruction: The customer submits a valid and correctly formatted BUY and SELL limit orders that remain active.
BIN	Basic	Submission of Application Messages	Order Cancel Request (F)	Instruction: The customer submits a valid and correctly formatted Order Cancel Request
BIN	Basic	Submission of Application Messages	Cancel/Replace Order (G)	Instruction: The customer submits a valid and correctly formatted Order Cancel/Replace Request that will replace an existing order in the order book.
BIN	Basic	Submission of Application Messages	Order Status Request (H)	Instruction: The customer submits a valid and correctly formatted Order Status Request.
BIN	Basic	Response Messages (Solicited and Unsolicited)	Order Fill(2)	Instruction: CTSG will trade one or more of the customer's orders.
BIN	Basic	Response Messages (Solicited and Unsolicited)	Order Killed(4)	Instruction: CTSG will cancel one of the customer's orders.
BIN	Basic	Response Messages (Solicited and Unsolicited)	Bulk Cancel Ack / Report (K)	Instruction: The customer submits a valid and correctly formatted Order Cancel Request for multiple orders.
BIN	Basic	Response Messages (Solicited and Unsolicited)	Trading Session Status (h)	Instruction: The CTSG Analyst will change the market session state of an instrument.

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Basic	Response Messages (Solicited and Unsolicited)	Order Cancel / Replace / Reject (8)	Instruction: The customer submits an invalid order. For example, submit an order in an invalid instrument.
BIN	Basic	Response Messages (Solicited and Unsolicited)	Bust / Correct (C)	Instruction: CTSG will cancel one of the customer's trades
BIN	Basic	Response Messages (Solicited and Unsolicited)	Extended Response (x)	Instruction: This test is for Drop Copy sessions. CTSG will generate trade updates that will be sent to the customer's drop copy session.
BIN	Basic	Response Messages (Solicited and Unsolicited)	Class Event (Q)	Instruction: No test. The customer should confirm if their application supports the receipt of Class Event (Q) message.
BIN	Advanced	Session Management	Logon Failure Due to Invalid Sequence Number	Instruction: The customer initiates an SLE session with the last MsgSeqNum higher than last received.
BIN	Advanced	Session Management	Logon Failure Due to Existing Connection	Instruction: a. The customer initiates a first SLE session with valid sequence number. b. The customer initiates a second SLE session with valid sequence number.
BIN	Advanced	Session Management	'Start of Day' Restart	Instruction: a. The customer initiates a start of day restart by setting the last MsgSeqNum equal to 0. b. Exchange sends an unsolicited message to customer's SLE. c. The customer submits a new order.
BIN	Advanced	Session Management	Customer Initiated Logout	Instruction: The customer logs out their SLE session.
BIN	Advanced	Session Management	'Continuous' Restart	Instruction: a. The customer initiates a 'continuous' restart by setting the next expected MsgSeqNum equal to last sequence number +1 received before logout. b. CTSG sends an unsolicited message to customer's SLE. c. The customer submits a new order.
BIN	Advanced	Session Management	Exchange Initiated Logout	Instruction: CTSG will log out the customer's SLE session.

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Advanced	Session Management	Restart After and Exchange Initiated Logout	Instruction: a. After the SLE is disconnected by CTSG, the customer initiates a restart. b. CTSG sends an unsolicited message to customer's SLE. c. The customer submits a new order.
BIN	Advanced	Order & Trade Management	Market Order	Instruction: The customer submits a valid and correctly formatted Market Order (OrdType='1') in a selected instrument.
BIN	Advanced	Order & Trade Management	Limit Order	Instruction: The customer submits a valid and correctly formatted Limit Order (OrdType='2') in a selected instrument.
BIN	Advanced	Order & Trade Management	Day/Session Order	Instruction: The customer submits a valid and correctly formatted Day/Session Order (TimeInForce=0).
BIN	Advanced	Order & Trade Management	Immediate Or Cancel (IOC) Order	Instruction: The customer submits a valid and correctly formatted IOC Order (TimeInForce=3) for each of the following conditions: a. IOC Order fully trades with an active order. b. IOC Order partially trades with an active order.
BIN	Advanced	Order & Trade Management	Fill Or Kill (FOK) Order	Instruction: The customer submits a valid and correctly formatted FOK Order (TimeInForce=4) for each of the following conditions: a. FOK Order successfully trades with an active order. b. FOK Order fails to trade with an active order.
BIN	Advanced	Order & Trade Management	Good Till Date Order	Instruction: The customer submits a valid and correctly formatted Good Till Date Order (TimeInForce=6).
BIN	Advanced	Order & Trade Management	Cross Order	Instruction: The customer submits a valid and correctly formatted Cross Order (OrdType=2; ExecInst=X; Price=<user defined>).
BIN	Advanced	Order & Trade Management	Limit On Close Order	Instruction: The customer submits a valid and correctly formatted Limit on Close Order (OrdType=2; TimeInForce=7).
BIN	Advanced	Order & Trade Management	Market On Close Order	Instruction: The customer submits a valid and correctly formatted Market on Close Order (OrdType=1; TimeInForce=7). Please note, market must be in Closing Auction.

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Advanced	Order & Trade Management	Min Qty Order	Instruction: The customer submits a valid and correctly formatted Min Qty Order (OrdType=2; TimeInForce=0; Min Qty= <user defined>) in a selected instrument for each of the following conditions: a. There is sufficient qty in the market to satisfy the minimum order quantity requirement. b. There is not sufficient qty in the market to satisfy the minimum order quantity requirement.
BIN	Advanced	Order & Trade Management	Iceberg order (Reserve order)	Instruction: a. The customer s an submits an order with a disclosed quantity (MaxFloor). b. The customer enters an order with a disclosed quantity (MaxFloor) and price type of: Stop, Market To Limit or Cross Order
BIN	Advanced	Order & Trade Management	New Order Reject	Instruction: The customer submits a valid and correctly formatted New Order in a selected instrument where order entry is disabled. For example, Market status is Halted and order entry is disabled.
BIN	Advanced	Order & Trade Management	Order Modification – Price Only	Instruction: The customer submits a valid and correctly formatted Order Cancel/Replace Request message which updates the price of an active order.
BIN	Advanced	Order & Trade Management	Order Modification – Qty Only	Instruction: The customer submits a valid and correctly formatted Order Cancel/Replace Request message which updates the qty of an active order.
BIN	Advanced	Order & Trade Management	Order Modification – Price and Qty	Instruction: The customer submits a valid and correctly formatted Order Cancel/Replace Request message which updates the qty and price of an active order.
BIN	Advanced	Order & Trade Management	Order Cancelation - Individual Order	Instruction: The customer submits a valid and correctly formatted Order Cancel Request for a single order.
BIN	Advanced	Order & Trade Management	Order Mass Cancelation – By Instrument	Instruction: The customer submits a valid and correctly formatted Order Mass Cancel Request to cancel multiple orders for a given instrument.
BIN	Advanced	Order & Trade Management	Order Expiry – Day/Session Orders	Instruction: The customer submits a Day order in a selected instrument. The following trading day the order will be cancelled.

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Advanced	Order & Trade Management	Trade Execution - Full Execution	Instruction: For the following tests, please use OrdType=2 and TimeInForce=1, 2, or 6. To start the test, the book should be empty: a. CTSG enters a single SELL order (OrderPrice=X; OrderQty= 10). The customer submits a single BUY order (OrderPrice=X; OrderQty= 10). b. The customer enters a single SELL order (OrderPrice=X; OrderQty= 10). CTSG submits a single BUY order (OrderPrice=X; OrderQty= 10). c. The customer enters 10 SELL orders (OrderPrice=X; OrderQty= 5). CTSG submits a single BUY order (OrderPrice=X; OrderQty= 50).
BIN	Advanced	Order & Trade Management	Trade Execution - Partial Execution	Instruction: For the following tests, please use OrdType=2 and TimeInForce=1, 2, or 6. To start, CTSG enters a single SELL order OrderPrice=X; OrderQty= 10) a. The customer submits a single BUY order (OrderPrice=X; OrderQty= 25). b. CTSG submits a single BUY order (OrderPrice=X; OrderQty= 1). c. CTSG submits a single BUY order (OrderPrice=X; OrderQty= 4). d. CTSG submits a single BUY order (OrderPrice=X; OrderQty= 10).
BIN	Advanced	Order & Trade Management	Trade Cancelation (Initiated by the Exchange)	Instruction: The CTSG Analyst will cancel a trade belonging to the customer.
BIN	Advanced	Order & Trade Management	Trade Creation (Initiated by the Exchange)	Instruction: CTSG will create a new trade on the customer's behalf.
BIN	Advanced	Order & Trade Management	Client Account	Instruction: The customer submits a valid and correctly formatted order that is designated to the Client account.
BIN	Advanced	Order & Trade Management	House Account	Instruction: The customer submits a valid and correctly formatted order that is designated to the House account.
BIN	Advanced	Order & Trade Management	Liquidity Provider Account	Instruction: The customer submits a valid and correctly formatted order that is designated to the Liquidity Provider account.
BIN	Advanced	Order & Trade Management	Related Party Account	Instruction: The customer submits a valid and correctly formatted order that is designated to the Related Party account.
BIN	Advanced	Order & Trade Management	Service Bureau Access - Send Order with Instance 01	Instruction: The customer submits a valid and correctly formatted order with valid prefix and instance 01
BIN	Advanced	Order & Trade Management	Service Bureau Access - Send Order with Instance 02	Instruction: The customer submits a valid and correctly formatted order with valid prefix and instance 02

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Advanced	Order & Trade Management	Service Bureau Access - Send Order with Prefix 002	Instruction: The customer submits a valid and correctly formatted order with prefix 002
BIN	Advanced	Order & Trade Management	Service Bureau Access - Send Order with Invalid Prefix	Instruction: The customer submits a valid and correctly formatted order with invalid prefix
BIN	Advanced	Order & Trade Management	Service Bureau Access - Intermediated	Instruction: The customer submits a valid and correctly formatted order with a valid Intermediated code in the ClOrdID prefix
BIN	Advanced	Order & Trade Management	Regular Access – Send Order with Instance 002 (3 bytes)	Instruction: The customer submits a valid and correctly formatted order with instance 002
BIN	Advanced	Order & Trade Management	Order Accepted Outside Collar	Instruction: CTSG informs the customer of the current Collar limit values. a) The customer submits a valid and correctly formatted BUY order (that does not trade) below the lower Collar limit b) The customer submits a valid and correctly formatted BUY order (that does not trade) above the upper Collar limit
BIN	Advanced	Order & Trade Management	Order Rejected – Outside of Collar	Instruction: CTSG submits a SELL order which is priced above the upper Collar limit. The customer should attempt to trade this order.
BIN	Advanced	Order & Trade Management	Order Rejected Following a Modification– Outside Collar	Instruction: a. CTSG submits a SELL order which is priced above the upper Collar limit. The customer submits a BUY order which is inside the collar limits. b. The customer modifies the price of their BUY order so that it will trade the SELL order (the customer should not confirm the rejected order).
BIN	Advanced	Order & Trade Management	Full Execution Outside the Collars	Instruction: a. CTSG submits a SELL order which is priced above the upper Collar limit. The customer should attempt to trade the order. b. In response to the Error Notice (8) the customer sends a Cancel/Replace Order message (G) including same price and quantity of the original order within x seconds.
BIN	Advanced	Order & Trade Management	Partial Execution Outside the Collars	Instruction: a. CTSG submits two SELL orders: one is priced inside the collar limits, the other is priced above the upper collar limit. The customer should attempt to trade both orders with a single BUY order. b. In response to the Error Notice (8) the customer sends a Cancel/Replace Order message (G) including same price and remaining quantity as the second execution within x seconds.

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Advanced	Order & Trade Management	Full Execution Outside Collars – Replace Order is Rejected	Instruction: a. Exchange submits a SELL limit order which is priced above the upper collar limit. customer should attempt to trade the order. b. In response to the Error Notice (8) the customer sends a Cancel/Replace Order message (G) with the same price but a different qty as the original order within x seconds.
BIN	Advanced	Order & Trade Management	Order Rejected – Outside of Static Collar	Instruction: CTSG submits a SELL order which is priced above the static collar limit. The customer should attempt to trade this order.
BIN	Advanced	Order & Trade Management	Receive messages for each member SLE is entitled to route for	Instruction: The CTSG Analyst will submit an order for each of the membercodes the customer's SLE is entitled to route for.
BIN	Advanced	Order & Trade Management	Order Entry for each member SLE is entitled to route orders for.	Instruction: The customer submits a valid and correctly formatted order for each entitled member they are entitled to route orders for.
BIN	Advanced	Order & Trade Management	Early Monitoring (EAMO)	Instruction: In a selected Instrument, CTSG will change the session state to Early Monitoring (EAMO).
BIN	Advanced	Order & Trade Management	Core Continuous (COCO)	Instruction: In a selected Instrument, CTSG will change the session state to Core Continuous (COCO).
BIN	Advanced	Order & Trade Management	Late Monitoring (LAMO)	Instruction: In a selected Instrument, CTSG will change the session state to Late Monitoring (LAMO).
BIN	Advanced	Order & Trade Management	Halted (HALT) - Order Entry Enabled	Instruction: In a selected Instrument, CTSG will change the session state to Halted (HALT).
BIN	Advanced	Order & Trade Management	Halted (HALT) - Order Entry Disabled	Instruction: In a selected Instrument, CTSG will change the session state to Halted (HALT).
BIN	Advanced	Order & Trade Management	Closed (CLSD)	Instruction: In a selected Instrument, CTSG will change the session state to Closed (CLSD).

NYSE BondMatch - Full Conformance Script for Binary Interface

Protocol	Section		Test Case Title	Test Case Description
BIN	Technical	High Availability	CCG Failover	<p>Instruction:</p> <p>a) The customer submits valid and correctly formatted orders to a selected instrument at a sustained rate (suggest 1msg per second).</p> <p>b) Exchange initiates a CCG failover</p> <p>c) The customer continues to submit orders at a sustained rate.</p>
BIN	Technical	High Availability	Sequence Number Reset	<p>Instruction: before the message sequence number is reset and the CCG restarted, the customer should establish a SLE session and submit a number of orders to a selected instrument.</p> <p>Instruction:</p> <p>a. CTSG stops the CCG, resets the message sequence number and restarts the CCG.</p> <p>b. When prompted, the customer logs back on to the CCG, recovers their order book and submits a number of new orders.</p>