EntryPoint
Drop Copy

Certification Script

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Content

Version History

Data	Version	Description	Author
August 7, 2013	1.0	- Initial version.	DC
August 23, 2013	1.1	- Reviewing scenarios names and automation of script.	AMS
September 6, 2013	1.2	- Logon Reject scenario changed - Resend Request scenarios changed - Test Request scenarios removed - Exercise and Blocking scenario removed	AMS
January 20, 2014	1.3	- "Resend Request" scenario updated - Scenario "Buy Order Modify" incorporated at scenario "Buy Order" - Scenario "Sell Order Modify" incorporated at scenario "Sell Order" - "Full fill and Partial Fill " scenario updated - "Trading on UDS " scenario updated	AMS
February 28, 2019	1.4	- Added "RLP" scenario	Trading Certification
August 02, 2021	1.5	- Added "H.A." scenario	Trading Certification
March 08, 2022	1.6	- Added "EDS – Exchange Defined Strategies" scenario	Trading Certification
October 10, 2022	1.8	- - Added "H – Message retransmission limitation"	Trading Certification

1. Preface

This document describes the series of tests that qualify a third-party institution to connect to B3 for the purpose of receiving Drop Copy for Derivatives and Equities segments using FIX4.4 (Financial Information exchange).

FIX is a technical specification for an electronic communication of trade-related messages. It is an open standard managed by members of FIX Protocol Limited.
(www.fixprotocol.org)

This document outlines the certification process to receive Drop Copy through B3 EntryPoint and is provided for third-parties which need trading connectivity with B3.

To request copies of this document, please contact: tradingcertification@b3.com.br

2. Introduction

The test scenarios will be executed sequentially, and each one will be available for 15 minutes, this way, the expected results can be verified and initially analyzed in case of failure.

Pre-requisite

All FIX messages should follow the specification in "EntryPoint: Order Entry Messaging – Message Specification" and "EntryPoint: Order Entry Messaging - Messaging Guidelines" which are available on the B3 website at: http://www.b3.com.br/en_us/solutions/platforms/puma-trading-system/for-developers-and-vendors/entrypoint-order-entry/

A1. Logon

Available for: PUMA Equities; PUMA Derivatives
Note: Messages with Tag 141=Y will not be sent in trading or drop copy sessions

Step	Description	Expected result	Req	Status	
A1.1	Client: sends Logon with incorrect password information (tag 96)	Receives the Logout message with Logon reject	N	☐ Pass	☐ N/E
A1.2	Client: sends Logon message	Receives the Logon message	Y	☐ Pass	☐ N/E
A1.3	Trading certification: Change the sequence number for a value higher than the one sent by the client.	Receives the logou rejection message, informing that the sequence sent was too low and the correct value configured by trading certification.	Y	☐ Pass	☐ N/E

A2. Heartbeat

Available for: PUMA Equities; PUMA Derivatives

Step	Description	Expected result	Req	Status	
A2.1	Client: Sends the Heartbeat	Receives the Heartbeat	Y	☐ Pass	☐ N/E

A3. Logout

Available for: PUMA Equities; PUMA Derivatives

Step	Description	Expected result	Req	Status	
A3.1	Client: sends Logout message	Receives the Logout confirmation	N	☐ Pass	☐ N/E

	A4. Resend Request				
	Available for: PUMA Equities; PUMA Derivatives				
Step	Description	Expected result	Req	Status	
A4.1	Client disconnects from the exchange TRADING CERTIFICATION: Sends 100 messages Client: Sends the Resend Request from the 100 menssages sent (tags 7=1 e 16=0)	Client: Receives the transmission Client: Checks the SeqNum of both the first and last messages	Y	☐ Pass	☐ N/E
A4.2	Client disconnects from the exchange TRADING CERTIFICATION: Creates 100 message volume data Client: Sends the Resend Request of the messages with SeqNum 101 until 200 (tags 7=101 e 16=0)	Client: Receives the transmission Client: Checks the SeqNum of both the first and last messages	Y	☐ Pass	☐ N/E
A4.3	Client disconnects from the exchange TRADING CERTIFICATION: Creates 100 message volume data Client: Sends the Resend Request of the messages with SeqNum 101 until 200 (tags 7=201 e 16=0)	Client: Receives the transmission Client: Checks the SeqNum of both the first and last messages	Y	☐ Pass	☐ N/E
A4.4	Client disconnects from the exchange TRADING CERTIFICATION: Creates 100 message volume data Client: Sends the Resend Request of the messages with SeqNum 101 until 200 (tags 7=301 e 16=0)	Client: Receives the transmission Client: Checks the SeqNum of both the first and last messages	Y	☐ Pass	☐ N/E
A4.5	Client disconnects from the exchange TRADING CERTIFICATION: Sends 200 menssages from 2 different sessions. Client: Sends the Resend Request of the messages with the SeqNum 401 until 601 (tags 7=401 e 16=0)	Client: Receives the transmission Client: confirms how many messages related to each Order Entry session were created	Y	☐ Pass	☐ N/E
A4.6	Client Connected. TRADING CERTIFICATION: Creates a data volume of 100 messages Client: Receives messages Client: Disconnects the session TRADING CERTIFICATION: Creates a data volume of 100 messages Client: Reconnects the session Client: Envia Resend Request only for the missing messages (tags 7=701 e 16=0)	Client: Receives the messages Clent: Receives the missing messages only (tag 34 of the last received message must be equal to the tag 34 of the last message of the data volume created)	Y	☐ Pass	☐ N/E

INFORMAÇÃO INTERNA – INTERNAL INFORMATION

	B1. Buy Order				
	Avilable for: PUMA Equities; PUMA Derivatives				
Step	Description	Expected Result	Req	Status	
B1.1	TRADING CERTIFICATION: Sends a BID order	Receives new BID acknowledgement	Y	☐ Pass	☐ N/E
B1.2	TRADING CERTIFICATION: Modifies BID order	Receives BID change acknowledgement	Y	☐ Pass	☐ N/E
B1.3	TRADING CERTIFICATION: Cancels BID order	Receives BID cancel acknowledgement	Y	☐ Pass	☐ N/E
B1.4	TRADING CERTIFICATION: Sends a BID order OnBehalf of different trader	Receives new BID acknowledgement	Y	☐ Pass	☐ N/E
B1.5	TRADING CERTIFICATION: Modifies BID order OnBehalf of different trader	Receives BID change acknowledgement	Y	☐ Pass	☐ N/E
B1.6	TRADING CERTIFICATION: Cancels BID order OnBehalf of different trader	Receives BID cancel acknowledgement	Y	☐ Pass	☐ N/E
B1.7	TRADING CERTIFICATION: Sends a BID order outside price limits	Receives BID order reject	Y	☐ Pass	☐ N/E
B1.8	TRADING CERTIFICATION: Modifies BID order	Receives BID change reject	Y	☐ Pass	☐ N/E
B1.9	TRADING CERTIFICATION: Cancels BID order	Receives BID cancel reject	Y	☐ Pass	☐ N/E
B1.10	TRADING CERTIFICATION: Modifies BID order OnBehalf of different trader	Receives BID change reject	Y	☐ Pass	☐ N/E
B1.11	TRADING CERTIFICATION: Sends 2 BID orders from distinct FIX sessions	Customer: Confirm SeqNum from orders acknowledgements received and their ApplID	Y	☐ Pass	☐ N/E

	B2. Sell order				
	Available for: PUMA Equities; PUMA Derivatives				
Step	Description	Exepcted Result	Req	Status	
B2.1	TRADING CERTIFICATION: Sends a ASK order	Receives new ASK acknowledgement	Y	☐ Pass	☐ N/E
B2.2	TRADING CERTIFICATION: Modifies ASK order	Receives ASK change acknowledgement	Y	☐ Pass	☐ N/E
B2.3	TRADING CERTIFICATION: Cancels ASK order	Receives ASK cancel acknowledgement	Y	☐ Pass	☐ N/E
B2.4	TRADING CERTIFICATION: Sends a ASK order OnBehalf of different trader	Receives new ASK acknowledgement	Y	☐ Pass	☐ N/E
B2.5	TRADING CERTIFICATION: Modifies ASK order OnBehalf of different trader	Receives ASK change acknowledgement	Y	☐ Pass	☐ N/E
B2.6	TRADING CERTIFICATION: Cancels ASK order OnBehalf of different trader	Receives ASK cancel acknowledgement	Y	☐ Pass	☐ N/E
B2.7	TRADING CERTIFICATION: Sends a ASK order outside price limits	Receives ASK order reject	Y	☐ Pass	☐ N/E
B2.8	TRADING CERTIFICATION: Modifies ASK order	Receives ASK change reject	Y	☐ Pass	☐ N/E
B2.9	TRADING CERTIFICATION: Cancels ASK order	Receives ASK cancel reject	Y	☐ Pass	☐ N/E
B2.10	TRADING CERTIFICATION: Modifies ASK order OnBehalf of different trader	Receives ASK change reject	Y	☐ Pass	☐ N/E
B2.11	TRADING CERTIFICATION: Sends 2 ASK orders from distinct FIX sessions	Customer: Confirm SeqNum from orders acknowledgements received and their ApplID	Y	☐ Pass	☐ N/E

B3. Cross order					
Available for: PUMA Equities; PUMA Derivatives					
Passo	Desription	Expected result	Req	Status	
B3.1	TRADING CERTIFICATION: Sends a cross order	Client: Receives the Execution Report	N	☐ Pass	☐ N/E
B3.2	TRADING CERTIFICATION: Sends a cross order	Client: Receives an order rejection	N	☐ Pass	☐ N/E

C1. Full fill and Partial Fill					
Available for: PUMA Equities; PUMA Derivatives					
Step	Description	Expected Result	Req	Status	
C1.1	TRADING CERTIFICATION: Sends a buy Limit Day order with quantity 200 TRADING CERTIFICATION: Sends a sell Limit Day order with quantity 100	Receives the partial fill for the buy order Receives the full fill for the sell order	Y	☐ Pass	☐ N/E
C1.2	TRADING CERTIFICATION: Sends the balance cancelation of the previous remaining order. (C1.1)	Receives the cancelation	Y	☐ Pass	☐ N/E
C1.3	TRADING CERTIFICATION: Sends a GTD buy order with quantity 200 TRADING CERTIFICATION: Sends a GTD sell order with quantity 100	Receives the partial fill for the buy order Receives the full fill for the sell order	Y	☐ Pass	☐ N/E
C1.4	TRADING CERTIFICATION: Sends the balance cancelation of the previous pending order. (C1.3)	Receives the cancelation	Y	☐ Pass	☐ N/E
C1.5	TRADING CERTIFICATION: Send a sell LIMIT DAY order with quantity 200 TRADING CERTIFICATION: Send a buy LIMIT DAY order with quantity 100	Receives the partial fill for the sell order Receives the full fill for the buy order	Y	☐ Pass	☐ N/E
C1.6	TRADING CERTIFICATION: Sends the balance cancelation of the previous pending order. (C1.5)	Receives the cancelation	Y	☐ Pass	☐ N/E
C1.7	TRADING CERTIFICATION: Sends GTD sell order with quantity 200. TRADING CERTIFICATION: Sends GTD buy order with quantity 100.	Receives the partial fill for the sell order Receives the full fill for the buy order	Y	☐ Pass	☐ N/E
C1,8	TRADING CERTIFICATION: Sends the balance cancelation of the previous pending order. (C1.7)	Receives the cancelation	Y	☐ Pass	☐ N/E

C2. Cancel On Disconnect

Available for: PUMA Equities
Access Mode: DMA

Step	Description	Expected result	Req	Status	
C2.1	TRADING CERTIFICATION: Sets CoD=3 in the Order Entry Session TRADING CERTIFICATION: Sends a LIMIT day order and a GTD Order on the Entry Point Session. TRADING CERTIFICATION: Forces the Order Entry Session to be disconnected	Client: Receives the cancelation of the orders	Y	☐ Pass	☐ N/E

C3. Full execution On Behalf

Available for: PUMA Equities; PUMA Derivatives

Step	Description	Expected Result	Req	Status	
C3.1	TRADING CERTIFICATION: Adds a trade	Client: Receives the trade execution	Y	☐ Pass	☐ N/E

D1. Trading on UDS

Available for: PUMA Equities; PUMA Derivatives

Step	Description	Expected Result	Req	Status	
D1.1	TRADING CERTIFICATION: Send an order on a UDS with 2 legs.	Receives the execution report	N	☐ Pass	☐ N/E
D1.2	TRADING CERTIFICATION: Sends a trade on a UDS	Receives ack for the UDS and one ack for each leg.	N	☐ Pass	☐ N/E

E. RLP – Retail Liquidity Provider

Tags: 40=W (RLP) ; 35487=1 (RLT) ; 35487=2 (Waived Priority)
Available for: PUMA Equities; PUMA Derivatives
Access Models: DeskTrader and DMA
Customer must use the account: 123

Step	Description	Expected Result	Req	Status	
E.1	Client: Send a BUY Order RLP, Quantity: 1000, does not inform Price. Client: Send a SELL Order RLP, Quantity: 1000, does not inform Price.	Receives Execution Report with tag 40=W (RLP)	N	☐ Pass	☐ N/E
E.2	Trading Certification: Send Orders BUY: Quantity 100@35,00 SELL: Quantity 100@35,05 Client: Send a BUY Order (RLT), Quantity: 100@35,05	Receives Execution Report with tag 35487=1 (RLT) RLP Order Partial Filled (100@35.05), remaining quantity 900 from RLP Order.	N	☐ Pass	☐ N/E
E.3	Client: Send a Buy Order Waived Priority, Quantity: 100@35,00 Trading Certification: Send a SELL Order, Quantity: 100@35,00	Receives Execution Report with tag 35487=2 (Waived Priority) Receives Execution Report Total Filled with a tag 35487=2	N	☐ Pass	☐ N/E

F. H.A. – Application main instance failover

Available for: PUMA Equities; PUMA Derivatives
Access model: DMA and Desk trader

Step	Description	Expected Result	Req	Status	
F.1	Client: Send 10 buy limit order, DAY • 100@20,00	Client: Receives 10 Execution Report's	Y	☐ Pass	☐ N/E
	TRADING CERTIFICATION: Executes the process that will simulate the application main instance failover, after this process the H.A. instance goes up. Obs: The configured time to H.A. goes up in the certification environment is 30 seconds (This value should be different that production environment).				
F.2	Client: Reconnect the DropCopy session before the H.A. instance goes up (time less than 30 seconds)	Client: Reconection failed	N	☐ Pass	☐ N/E
F.3	Client: Reconnect the DropCopy session	Client: Successful recconection and the SequenceNumber is incremented correct	Y	☐ Pass	☐ N/E
F.4	Client: Send 10 buy limit order, DAY • 100@20,00	Client: Receives 10 Execution Report's	Y	☐ Pass	☐ N/E
F.5	Client: Send logout message	FIX session disconnected	Y	☐ Pass	☐ N/E
F.6	TRADING CERTIFICATION: Send the cancellation of the 10 orders	Cancellation of the pending orders	Y	☐ Pass	☐ N/E
F.7	Client: Send Resend Request of all messages	Client: Receives the transmission Client: Checks the Sequence Number of both the first and last messages	Y	☐ Pass	☐ N/E

	G. EDS – Exchange Defined Strategies				
	Available for: PUMA Derivatives Access model: DMA and Desk trader				
Step	Description	Expected Result	Req	Status	
G.1	Trading Certification: Send buy limit order, DAY • 10@10,00 Trading Certification: Send buy limit order, DAY • 10@10,00	Receivement of Execution Reports confirming the buy and sell orders Receivement of trade's Execution Reports, in the buy and sell sides for the EDS instrument and for each leg, validating the tags 442 = 3 (EDS) and 442 = 2 (Legs)	N	☐ Pass	☐ N/E
G.2	Trading Certification: Send the cancellation of the generated trade	Receivement of 6 cancellation's Execution Reports, in the buy and sell sides for the EDS instrument and for each leg, validating the tags 442 = 3 (EDS), 442=2 (Legs) and 150=H	N	☐ Pass	☐ N/E
G.3	Trading Certification: Send buy limit order, DAY • 10@10,00 Trading Certification: Send the cancellation of buy limit order, DAY through the Firmsoft (B3's system)	Receivement of Execution Report confirming the buy order Receivement of buy order cancellation's Execution Report, validating the tag 378 = 105	N	☐ Pass	☐ N/E
G.4	Trading Certification: Send cross limit order, DAY (35=s)	Receivement of Execution Reports confirming the buy and sell orders, validating the 548 Receivement of trade's Execution Reports, in the buy and sell sides for the EDS instrument and for each leg, validating the tags 442 = 3 (EDS) and 442 = 2 (Legs)	N	☐ Pass	☐ N/E

	E. Message retransmission limitation				
	Available for: PUMA Equities; PUMA Derivatives Access Models: DeskTrader and DMA				
Step	Description	Expected Result	Req	Status	
H.1	Client: Send retransmission message of a quantity gigher than the certification limit.	Receives rejection message (35=3) informing that the maximum limit was exceeded.	Y	☐ Pass	☐ N/E
H.2	Client: Send retransmission messages simultaneously	Receives rejection message (35=3) informing that only one retransmission can be required at time.	C	☐ Pass	☐ N/E
H.3	Client: Send retransmission messages simultaneously	Receives logoff message (35=5) informing that the limit os retransmission solicitations was exceeded.	C	☐ Pass	☐ N/E