



Certification Participants

LOPR Certification Test Cases for MX-R

CERT-MR-002E
Document Revision: 1.0
Date of Issue: 2011-03-01

Equities

Toronto Stock Exchange
TSX Venture Exchange
Equicom

Derivatives

Montréal Exchange
CDCC
Montréal Climate Exchange

Fixed Income

Shorcan

Energy

NGX

Data

TMX Datalinx
PC Bond

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CERT-MR-002E, Document Version 1.0

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Document History

Version.	Date	Change Description
1.0	2011-03-01	Initial Version

Document Notes

Date.	Description

Typographic Conventions

Convention	Meaning
Abbreviated menu commands	This document uses abbreviated menu. For example, "Click Display > Toolbars > Standard " means that you should click the Display menu, point to Toolbars , and click the Standard entry.
Boldface type	Boldface type is used for commands, keywords, file names URLs, or other information that you must use literally. Name of windows, dialogs, and other controls also appear in boldface type.
Initial Capital Letters	The first letter of the names of menus, dialog boxes, dialog box elements, and commands are capitalized.
<Text in angle brackets>	Angle brackets are used for variables and values that you must provide.
Emphasized type	Emphasized type is used for words and phrases that need to be emphasized, as for new terms defined in the text. Italicized type is also used for foreign languages terms.
Monospace	Code and script examples appear in a monospace font.
Plus sign in text	Keyboard shortcuts are indicated by a plus sign separating key names. For example, Ctrl+F1 means that you must press the Ctrl and F1 keys at the same time.

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Chapter 1 Introduction

This document is to be used with the CERT-MR-001E MX-R LOPR SAIL Certification Manual document, and includes the test cases required to perform the SAIL Certification procedure.

All tests as part of the CERT-01-002E SOLA Connection Test Cases document must have been executed prior to the test case described in this document.

Chapter 2 Certification Instruments

Instruments involved in the various certification test cases will be sent upon connection to the LOPR SOLA certification environment. Test cases may refer to any of these instruments.

Chapter 3 Terminology

Term	Definition
Client	Refers to a computer system able to interact with the LOPR reporting platform and to support the specific range of functionalities required by the firm's LOPR activities.
Instrument	A specific tradable option or future on which a position can be reported.
Instrument group	Refers to all instruments with the same underlying product.

Chapter 4 Certification Test Cases

4.1 TEC – Technical

Type: Technical	ID #: LOP-01	Requirement: Mandatory
Description: Establishing a SAIL connection of a reporting session with all LOPR messages types to be received.		
Comments: User Connection to SAIL LOPR (Message Type TC).		
Prerequisites		
Execution of test cases from within the CERT-01-002E MX-R SOLA Connection Test Cases document.		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Connects to SOLA. <i>Sends a TC message.</i> [ProtocolVersion: A0] [ExchangeMessageID: "0"] [NumberOfTypesToBeReceived:"7"] [MessageTypesToBeReceived: "KR"] [MessageTypesToBeReceived: "KA"] [MessageTypesToBeReceived: "KB"] [MessageTypesToBeReceived: "KF"] [MessageTypesToBeReceived: "JY"] [MessageTypesToBeReceived: "BI"] [MessageTypesToBeReceived: "KO"]	Connection established. <i>Sends a TK message</i> [User sequence ID: 0] SOLA LOPR sends all BI messages in instrument catalogue. <i>Sends BI messages</i>

4.2 ACM – Account Management

Type: Account Management	ID #: ACM-01	Requirement: Mandatory
Description: Client sends an account entry message		
Comments: Sail Account Entry (Message Type : AN)		
Prerequisites		
Execution of test case LOP-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends a valid account entry message <i>Sends an AN message.</i>	Account added to participant's accounts <i>A KR message is sent</i> [ResponseStatus: "C"]

Type: Account Management	ID #: ACM-02	Requirement: Mandatory
Description: Client sends an account update message		
Comments: Sail Account Entry (Message Type : AN)		
Prerequisites		
Execution of test case ACM-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends an account entry message on the ACM-01 created account with an updated value. <i>Sends an AN message.</i>	Account is updated in participant's accounts <i>A KR message is sent</i> <i>[ResponseStatus: "U"]</i>

Type: Account Management	ID #: ACM-03	Requirement: Mandatory
Description: Client sends an account entry message with an empty account number		
Comments: Sail Account Entry (Message Type : AN)		
Prerequisites		
Execution of test case ACM-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends an account entry message with an empty account number. <i>Sends an AN message.</i>	Account is rejected <i>An ER message is sent with an appropriate error message</i>

Type: Account Management	ID #: ACM-04	Requirement: Mandatory
Description: Client sends an account deletion message with an existing account number		
Comments: Sail Account Delete (Message Type : AD)		
Prerequisites		
Execution of test case ACM-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends an account delete message with the same account number as ACM-01. <i>Sends an AD message.</i>	Account is deleted <i>A KA message is sent</i>

Type: Account Management	ID #: ACM-05	Requirement: Mandatory
Description: Client sends an account deletion message with a non-existing account number		
Comments: Sail Account Delete (Message Type : AD)		
Prerequisites		
Execution of test case ACM-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends an account delete message with a non-existing account number. <i>Sends an AD message.</i>	Account is not deleted <i>An ER message is sent with an appropriate error message</i>

Type: Account Management	ID #: ACM-06	Requirement: Mandatory
Description: MX-R operator creates an account on behalf of the participant		
Comments: Sail Account Acknowledgment (Message Type : KR)		
Prerequisites		
Execution of test case LOP-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Connected to SOLA	
2	Account is added manually to participant's accounts by MX-R operator	<i>A KR message is sent [ResponseStatus: "C"]</i>
3	Client: Receives and processes KR message.	

Type: Account Management		ID #: ACM-07	Requirement: Mandatory
Description: MX-R operator updates an account on behalf of participant			
Comments: Sail Account Acknowledgment (Message Type : KR)			
Prerequisites			
Execution of test case ACM-05			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Connected to SOLA		
2	Account created in ACM-05 is updated manually by MX-R operator	<i>A KR message is sent</i> <i>[ResponseStatus: "U"]</i>	
3	Client: Receives and processes KR message.		

Type: Account Management		ID #: ACM-08	Requirement: Mandatory
Description: MX-R operator deletes an account on behalf of participant			
Comments: Sail Account Delete Acknowledgment (Message Type : KA)			
Prerequisites			
Execution of test case ACM-05			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Connected to SOLA		
2	Account created in ACM-05 is deleted manually by MX-R operator	<i>A KA message is sent</i>	
3	Client: Receives and processes KA message.		

4.3 Position Management

Type: Position Management		ID #: POM-01	Requirement: Mandatory
Description: Client sends an position entry message			
Comments: Sail Position Entry (Message Type : PN)			
Prerequisites			
Execution of test case LOP-01 A valid Account must exist (ACM-01)			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Sends a valid position entry message on an existing Instrument sent in a BI message (LOP-01). <i>Sends a PN message.</i>	Position is updated in participant's positions <i>A KB message is sent</i> <i>[ResponseStatus: "C"]</i>	

Type: Position Management		ID #: POM-02	Requirement: Mandatory
Description: Client sends a position update message			
Comments: Sail Position Entry (Message Type : PN)			
Prerequisites			
Execution of test case POM-01			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Sends a position entry message on the POM-01 created position with an updated value. <i>Sends a PN message.</i>	Position is updated in participant's positions <i>A KB message is sent</i> <i>[ResponseStatus: "U"]</i>	

Type: Position Management	ID #: POM-03	Requirement: Mandatory
Description: Client sends an invalid position entry message.		
Comments: Sail Position Entry (Message Type : PN)		
Prerequisites		
Execution of test case LOP-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends a position entry message with a non existing account number. <i>Sends a PN message.</i>	Position is rejected <i>An ER message is sent with an appropriate error message</i>
2	Client: Sends a position entry message with an existing account number but empty instrument <i>Sends a PN message.</i>	Position is rejected <i>An ER message is sent with an appropriate error message</i>

Type: Position Management	ID #: POM-04	Requirement: Mandatory
Description: Client sends a position deletion message with an existing account number.		
Comments: Sail Position Delete (Message Type : PD)		
Prerequisites		
Execution of test case POM-01		
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)
1	Client: Sends a position entry message with a non existing account number. <i>Sends a PN message.</i>	Position is rejected <i>An ER message is sent with an appropriate error message</i>
2	Client: Sends a position delete message with the same account number, group and instrument as POM-01. <i>Sends a PD message.</i>	Position is deleted <i>A KF message is sent</i>

Type: Position Management		ID #: POM-05	Requirement: Mandatory
Description: Client sends an position message for a product created intraday			
Comments: Sail Account Delete (Message Type : AD)			
Prerequisites			
Execution of test case LOP-01			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Connected to SOLA		
2	Intraday product is created	<i>Sends BI message</i>	
3	Client: Receives and integrates new product in Bi message		
4	Client: Sends a valid position entry message on the new Instrument sent in a BI message (Step 2). <i>Sends a PN message.</i>	Position added to the participant's positions <i>A KB message is sent</i> <i>[ResponseStatus: "C"]</i>	

Type: Position Management		ID #: POM-06	Requirement: Mandatory
Description: Client disconnects and reconnects			
Comments: All appropriate acknowledgment messages			
Prerequisites			
Execution of test case POM-05			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Disconnection		
2	Client: Execution of LOP-01	<i>Account and position messages are sent</i>	

Type: Position Management		ID #: POM-07	Requirement: Mandatory
Description: Client sends an end of position transmission message			
Comments: Sail Position Delimiter (Message Type : PU)			
Prerequisites			
Execution of test case LOP-01			
Step	Input Specifications	Expected Results SOLA LOPR Responses (SAIL)	
1	Client: Sends a Position Delimiter message to notify that no more position messages will be transmitted. <i>Sends a PU message.</i> <i>[SailContentType: "EP"]</i>	Message is acknowledged <i>A KO message is sent</i>	



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