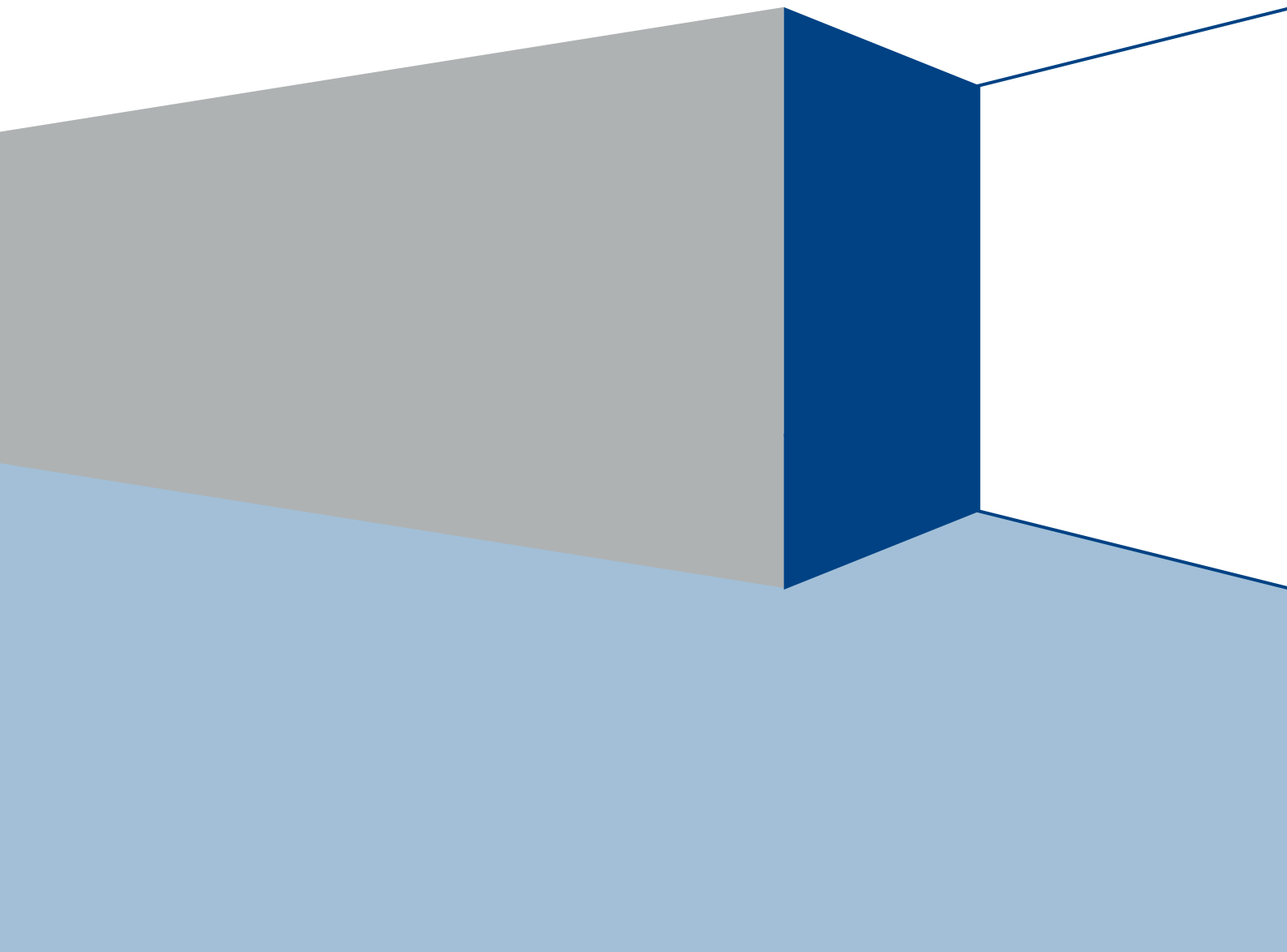


IDEM MIGRATION TO SOLA 5

FIX Certification Test Cases Guide

SOLA® Certification Specification



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1 Introduction

1.1 Purpose

The purpose of this publication is to provide customers with the test cases and details necessary for successfully completing certification for the SOLA trading system.

This SAL Certification Test Cases Guide provides test cases for participants and independent software vendors for the certification of their application in order to interface with SOLA using the native SOLA Access Information Language (SAIL) protocol.

1.2 Readership

The target audience for these publications is anyone working at either the business or Information Technology (IT) level of an organisation interested in certification for the SOLA 5 trading platform.

1.3 Enquiries

Please contact either Client Technology Services or your Technical Account Manager if you have any functional questions about the IDEM Sola Exchange services outlined in this document.

Client Technology Services (ITA) can be contacted at:

- Service Desk Free Toll Number: 008-00 26772-000
- Email: service-desk@borsaitaliana.it
clients-services@borsaitaliana.it

2 Service Overview

2.1 Structure of the testing environment

The Exchange provides a single Customer Development Service (CDS) environment which is a simulation of the production service for both customer development and customer certification.

Customers will perform their development activities on this environment and when their applications are in a “ready state” customers can look to certify.

The Exchange provides Service Desk Analysts (SDA’s) who will be able to assist customers in parts of their certification testing and provide a report at the end of each test.

Customers will be able to do the majority of their testing independently and only contact the SDA when they are satisfied with their test run and require SDA involvement to support co-ordinated test cases.

2.2 Conformance test execution

A new Certification service has been designed to allow customers to “Self” certify their applications. Customers are able to do their development and certify their software on the same environment, using a single set of enablement details.

The Live Simulation Service will continue to mirror the Production service for both Trading Interfaces and Information feeds.

Customers will now be required to 'self certify' core functionality before completing the remaining mandatory test cycles with SDA.

A Certification report will be run after the customer has confirmed a successful run of their application on the CDS.

The report will extract all the relevant functions performed by the application and presented them in a format to be reviewed by a SDA to confirm a pass or fail.

Prior to the report being run the customer will be required to confirm the gateway interfaces they are certifying and the userIDs they are using for each gateway. This will be detailed in the supporting certification report (detailed below) submitted by the customer. The reporting tool will use this information to extract all behaviour for a given time period.

Considerations for the report are listed below.

- The report will be run against any of the interfaces at once or against each separate interface individually depending on the customer application.
- The report will be run specifying a time range limited to a single day.
- The report will extract all message interface behaviour and represent this in a readable format in order to identify a successful set of functional testing.
- The report will identify if the session was maintained for the entire period or if it dropped.
- The report will check for any and all errors produced over the time period.
- The report will be sent to the customer to sign off the application as fit for purpose and ready for production access.

2.3 Submitting execution testing scenario

The Certification Report outlines what functions (scenarios) are supported by the customer application and therefore details what actions must be performed by the application in order to pass Self Certification and Certification.

On the Self Certification Session of the Conformance Test customer must identify the execution test cases they intend to perform, mark them and once finished specify the execution time and the test results. In the column Test Case Result customer must specify if the test has been passed and where necessary also information related to the orders/quotes entered during the test.

The Certification Report can be found on the dedicated section on Borsa Italiana's website and should be completed and submitted by the customer to service-desk@borsaitaliana.it.

2.4 Booking Self Certification or Certification test

Service Desk Analysts after have received the Certification Report that identify the execution testing scenario will execute the following actions:

- Check of the submitted Certification Report testing scenario
- Request to the customer a document review if necessary
- Confirm or rescheduling of the Execution Date & Time Window provided on the basis of the Customers submitted requests
- Booking and reply to the customer in order to confirm the Execution Date & Time Window

2.5 Submitting execution report and notifying result

The customer once it has executed a Self Certification or Certification report he has to submit report to the SDA at the email account service-desk@borsaitaliana.it

Service Desk Analysts after receiving the Certification Report will run a test validation session.

The time policy that is applied to validate Certification Report is defined below:

- Self Certification Validation time:
from 1 to 3 working days depending on pending customer validation requests
- Certification Validation time:
from 1 to 3 working days depending on pending customer validation requests

At end of Validation the SDA will sent back to the customer the result of Validation (PASS or FAIL) and the Certification Report integrated with test cases SDA outcome.

2.6 Certification Instruments

Instruments involved in the various certification test cases are identified as INST1 to INST22. These symbols may refer to any instrument available in the IDEM test environment. According to the client requirements, the list of instruments to be used may either be formally defined prior to the certification or “on the fly” as the certification goes.

Symbols GRP1 and GRP2 may refer to any instrument group available in the IDEM test environment. Symbol GRP1 may refer to any strategy instrument group. As for instruments, the list of groups to be used may either be formally defined prior to the certification or “on the fly” as the certification goes, in accordance with the client’s requirements

The price and quantity specified in the test case description are indicative.

Customer must follow the prices and quantities accepted for the instrument on which it operates

Terminology:

Term	Definition
Client	Refers to a computer system able to interact with the BIT electronic trading platform and to support the specific range of functionalities required by the firm’s trading activities.
Instrument	A specific tradable option or future or strategy. For options, there are two instruments for each underlying, expiry month and strike price combination: one put and one call.
Instrument group	Refers to all instruments with the same underlying.

3 SDA Support

Service Desk Analysts will be available to assist customers in completing part of their certification test by performing both mandatory and optional functions as detailed below.

The following email account should be used for customers to book SDA actions and confirm details for the certification report.

service-desk@borsaitaliana.it

SDAs will be able to perform the following functions.

- Supporting the co-ordinated test cases.
- SDA will run reports for each customer application and liaise to inform pass/fail and reasons.

4 Certification Test Cases

4.1 Test Procedure

Execute the test steps as documented in the test case scenarios.

Once a test step has been executed, document the results in the Certification Report.

When documenting the test results, include all information as requested in the test step, including the following:

- Order/quoteMsg ID (if any)
- time of the order/quote/operation submission/execution

If the result does not match the expected result, document the actual result in the Certification Report and provide comments including the following:

- Order/QuoteMsg ID (if any)
- time of the order/quote/operation submission/execution
- error messages received
- any information which may be helpful in troubleshooting the error

Unless a log off or disconnect request is specified in the test case, please complete all test cases without logging off or disconnecting.

If there are any unexpected log offs or disconnects, please document these in the comments section of the Certification Report.

5 Certification Test Cases

5.1 Administrative Test Cases

ID #: ADM-01	Type: Administrative	Class: Mandatory	Co-ordinated Test: N
Description: Establishing a FIX session.			
Comments: None.			
Prerequisites			
None.			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Establishes a FIX session. <i>Sends a Logon message [MsgType 35=A].</i>	Logon is accepted and session is established. A Logon message is sent to the client [MsgType 35=A].	

ID #: ADM-02	Type: Administrative	Class: Mandatory	Co-ordinated Test: N
Description: Terminating a FIX session.			
Comments: None.			
Prerequisites			

1. Successful execution of test case ADM-01.
2. Group for instrument INST1 must be in Pre-Opening or in Continuous Trading mode.
3. The instrument INST1 must be authorized.

#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters 3 regular orders for instrument INST1 at 1.00\$. <i>Sends 3 New Order Single messages [MsgType 35=D].</i>	The 3 orders are accepted and booked. <i>3 [MsgType 35=8] messages are sent with [OrdStatus 39=0].</i>	Quote or Market Depth sent. <i>Three F/FF or H/HF messages are sent.</i>
2	<u>Client:</u> Disconnecting from BIT. <i>Sends a Logout message [MsgType 35=5].</i>	Connection terminated. <i>Server responds with a Logout message [MsgType 35=5].</i>	

ID #: ADM-03	Type: Administrative	Class: Mandatory	Co-ordinated Test: N
Description: Restarting a FIX session in recovery.			
Comments: None.			
Prerequisites			
Executing test cases ADM-01 and ADM-02.			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Re-Connecting to BIT. <i>Sends a Logon message [MsgType 35=A].</i>	Logon is accepted and session is re-established. <i>A Logon message is sent to the client [MsgType 35=A].</i>	
2	<u>Client:</u> Enters 2 regular orders for instrument INST1 at 1.00\$. <i>Sends 2 New Order Single messages [MsgType 35=D].</i>	The 2 orders are accepted and booked. <i>2 Execution Report messages [MsgType 35=8] are sent with [OrdStatus 39=0].</i>	Quote or Market Depth sent. <i>Two F/FF or H/HF messages are sent.</i>

ID #: ADM-04	Type: Administrative	Class: Mandatory	Co-ordinated Test: N
Description: Client sends a HeartBeat message.			
Comments: None.			
Prerequisites			
Logon done with HeartBtInt set to some reasonable value (30 secs is the lowest value).			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Stops flow of	A Heartbeat message is	

	client messages for longer than the HeartBtInt period. <i>One HeartBeat message is sent [MsgType 35=0].</i>	received.	
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ID #: ADM-05	Type: Administrative	Class: Optional	Co-ordinated Test: N
Description: Client initiates a Resend Request.			
Comments: This test case is recommended.			
Prerequisites			
A FIX session must be established. Access to FixFe gateway logs for modifications.			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Sends 6 orders to be booked. <i>6 [MsgType 35=D] messages are sent.</i>	Orders are accepted and booked. <i>6 Execution Report messages [MsgType 35=8] are sent with [OrdStatus 39=0].</i>	
2	<u>Client:</u> logs out or cut off the connection. <i>[MsgType 35=5] message is sent.</i>	<i>A [MsgType 35=5] message is sent back.</i>	
3	<u>Client:</u> Logs on and sends a Resend Request for the 4 last execution reports. <i>A [MsgType 35=A and 2] messages are sent where [BeginSeqNo 7=4 less than the sequence number in the logon response sent to client].</i>	Logon is accepted and session is re-established. <i>A Logon message is sent to the client [MsgType 35=A].</i> Retransmits 4 requested messages. <i>Original messages with [PossdupFlag 43=Y].</i>	

ID #: ADM-06	Type: Administrative	Class: Optional	Co-ordinated Test: N
Description: Connecting with a SenderCompID and using a defined SenderSubID.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The Market for instrument INST1 must be set to 10 [2.00 – 2.50]. 2. Group state is 'Continuous Trading' mode. 3. Client should have a SenderCompID along with one or more SenderSubIDs already defined: SBD1 SBD2 ... 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF

1	<p>Client: Establishes a Fix Session.</p> <p><i>Sends a Logon [MsgType 35=A].</i></p> <p><i>With 49 SenderCompID 49=CMPIDX.</i></p>	<p>Logon is accepted and session is established.</p> <p><i>A message [MsgType 35=A] is sent to the Client.</i></p>	
2	<p>Client: Enters a Sell Market Order for 20 contracts for INST1.</p> <p><i>Sends a [MsgType 35=D] with [SenderSubID 56=SBD1].</i></p> <p>SenderSubID SBDx is defined.</p>	<p>The order is accepted.</p> <p><i>A [MsgType 35=8, 39=0, 57=SBDx] is sent.</i></p> <p>The order is partially traded.</p> <p><i>A [MsgType 35=8] is sent with [OrderStatus 39=1 and TargetSubID 57=SBD1].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>A C message is sent.</i></p>
3	<p>Client: Cancels the previous order.</p> <p><i>Sends a [MsgType 35=F] with [SenderSubID 56=SBD1].</i></p>	<p>The remainder of the order is cancelled.</p> <p><i>A [MsgType 35=8] is sent with [OrderStatus 39=4, LeavesQty 151=0 and TargetSubID 57=SBD1].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An F or H message is sent.</i></p>

ID #: ADM-07	Type: Administrative	Class: Optional	Co-ordinated Test: N
Description: Connecting with a SenderCompID and using an undefined SenderSubID.			
Comments:			
Prerequisites			
<ol style="list-style-type: none"> 1. The Market for instrument INST1 must be set to 10 [2.00 – 2.50]. 2. Group state is 'Continuous Trading' mode. 3. Client should have a SenderCompID along with one or more SenderSubIDs already defined: SBD1 SBD2 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Establishes a Fix Session.</p> <p><i>Sends a Logon [MsgType 35=A]</i></p> <p><i>With 49 SenderCompID 49=CMPIDX.</i></p>	<p>Logon is accepted and session is established.</p> <p><i>A message [MsgType 35=A] is sent to the Client.</i></p>	
2	<p>Client: Enters a Sell Market Order for 20 contracts for INST1.</p> <p><i>Sends a [MsgType 35=D] with [SenderSubID 56=SBDx].</i></p> <p>SenderSubID SBDx is not defined.</p>	<p>The order is accepted.</p> <p><i>A [MsgType 35=8, 39=0, 57=SBDx] is sent.</i></p> <p>The order is partially traded.</p> <p><i>A [MsgType 35=8] is sent with [OrderStatus 39=1 and</i></p>	<p>Quote or Market Depth sent.</p> <p><i>A C/CF message is sent.</i></p>

		<i>TargetSubID 57=SBDx]. Default user will be associated with this execution report (SenderCompID=CMPIDX).</i>	
3	<u>Client:</u> Cancels the previous order. <i>Sends a [MsgType 35=F] with [SenderSubID 56=SBDx].</i>	The remainder of the order is cancelled. <i>A [MsgType 35=8] is sent with [OrderStatus 39=4, LeavesQty 151=0 and TargetSubID 57=SBDx].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: ADM-08	Type: Administrative	Class: Optional	Co-ordinated Test: N
Description: Multiple connections with more than one SenderCompID and without SenderSubID.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The Market for instrument INST1 must be set to 10 [2.00 – 2.50]. 2. Group state is 'Continuous Trading' mode. 3. Client should have two SenderCompIDs along with or without SenderSubIDs already defined. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSUF
1	<u>Client:</u> Establishes 2 Fix Sessions. <i>Sends a Logon [MsgType 35=A] With SenderCompID 49=CMPIDX1. Sends a Logon [MsgType 35=A] With 49 SenderCompID 49=CMPIDX2.</i>	Logons are accepted and sessions are established. <i>A message [MsgType 35=A] is sent to the Client for each logon.</i>	
2	<u>Client:</u> Enters 2 Sell/Buy Market Orders for 20 contracts for INST1 through each session. <i>Sends a [MsgType 35=D] with [SenderCompID 49=CMPIDX1 and 49=CMPIDX2].</i>	Orders are accepted in each session. <i>2 [MsgType 35=8, 39=0, 56= CMPIDX1 and CMPIDX2] are sent. Orders are partially traded. 2 [MsgType 35=8] is sent with [OrderStatus 39=1, 56= CMPIDX1 and CMPIDX2].</i>	Quote or Market Depth sent. <i>A C/CF message is sent.</i>
3	<u>Client:</u> Cancels the previous orders. <i>Sends a [MsgType 35=F] with [SenderCompID 49=CMPIDX1 and 49=CMPIDX2].</i>	The remainder of each order is cancelled. <i>A [MsgType 35=8] is sent with [OrderStatus 39=4, LeavesQty 151=0 and 56= CMPIDX1 and CMPIDX2].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

5.2 Order Creation Test Cases

ID #: ORD-01	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a Market Order Top that gets partially filled; the remaining quantity is booked at a Limit price.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [12@2.00 – 10@2.50]; no other orders must be in the Book. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSUF
1	<u>Client:</u> Enters a Sell Market Order for 20 contracts for instrument INST1. <i>Sends a [MsgType 35=D] message with [OrdType 40=1].</i>	Order is accepted. <i>A [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=20].</i> Trade 12@2.00. <i>A [MsgType 35=8] message is sent with [LastShares 32=12], [LastPx 31=2.00], [LeavesQty 151=8].</i> Remaining 8@2.00 is booked.	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade is sent. <i>A C/CF message is sent.</i>

ID #: ORD-02	Type: Order Creation	Class: Mandatory	Co-ordinated Test: N
Description: Entering a limit order that gets partially filled; the remaining quantity is booked. The order opens the position.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [12@0.10 – 10@0.20]. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSUF
1	<u>Client:</u> Enters a Buy order 15@0.20, Open Position, for instrument INST1. <i>Sends a [MsgType 35=D] message with [OrdType 40=2], [OpenClose 77=0].</i>	Order is accepted. <i>A [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=15].</i> Trade 10@0.20. <i>A [MsgType 35=8] message is sent with [LastShares 32=10], [OrdStatus 39=1], [LastPx 31=0.20], [LeavesQty</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>

		151=5]. Remaining 5@0.20 is booked, Buyer Clearing Data=Open Position.	
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ID #: ORD-03	Type: Order Creation	Class: Mandatory	Co-ordinated Test: N
Description: Entering a limit order that gets totally filled. The order closes the position. The order is good until cancelled by the trader.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [12@200.00 – 10@201.50]. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Sell order 12@200.00, Close Position, for instrument INST1. <i>Sends a [MsgType 35=D] message with [OrdType 40=2], [OpenClose 77=C].</i>	Order is accepted. <i>A [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=12].</i> Trade 12@200.00, seller clearing data=Close Position. <i>A [MsgType 35=8] is sent with [LastShares 32=12], [LastPx 31=200.00], [OrdStatus 39=2] [LeavesQty 151=0].</i>	Quote or Market Depth sent. <i>An F or H message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>

ID #: ORD-04	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a limit order that gets booked. The order is good until a specific date. This test is to validate that the client application is using the right date format 'YYYYMMDD'.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [10@200.00 – 10@201.50]. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Sell order 12@201.40, Good until Date with a date before the instrument expiry with a day number less than 12 (ex.: Dec 10 th , June 5 th , March 2 nd), for instrument INST1. <i>Sends a [MsgType 35=D] message with</i>	Order is accepted and booked at 201.40 and is good until the date chosen. <i>A [MsgType 35=8] is sent with [OrdStatus 39=0], [TimeInForce 59=6], [ExpireDate 432=YYYYMMDD].</i>	

	[OrdType 40=2], [TimeInForce 59=6], [ExpireDate 432=YYYYMMDD].		
--	-------------------------------------------------------------------------	--	--

ID #: ORD-05	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering an 'Immediate or Cancel' order that gets cancelled.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [12@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Sell 'Immediate or Cancel' order 10@2.50 for instrument INST1. <i>Sends a [MsgType 35=D] message with [OrdType 40=2] and [TimeInForce 59=3].</i>	Order is cancelled. <i>A [MsgType 35=8] is sent with [OrdStatus 39=4].</i>	

ID #: ORD-06	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering an 'Immediate or Cancel' order that gets partially filled.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [12@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Sell 'Immediate or Cancel' order 15@2.00 for instrument INST1. <i>Sends a [MsgType 35=D] message with [OrdType 40=2] and [TimeInForce 59=3].</i>	Order is accepted. <i>A [MsgType 35=8] is sent with [OrdStatus 39=0].</i> Order is partially filled 12@2.00 and the remaining quantity is cancelled. <i>A [MsgType 35=8] is sent with [LastShares 32=15], [LastPx 31=2.00], [TimeInForce 59=3],[OrdStatus 39=1].</i> Remaining quantity is cancelled. <i>A [MsgType 35=8] is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i> Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: ORD-07	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a House limit order.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enters a limit Order Buy 100@2.40, House, for instrument INST1.</p> <p><i>Sends a [MsgType 35=D] message with [Rule80A 47=F],[CombinedOrdType 7906=2].</i></p>	<p>Order is accepted and booked.</p> <p><i>A [MsgType 35=8] is sent with [OrdStatus 39=0].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An F/FF or H/HF message is sent.</i></p>

ID #: ORD-8	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a limit order with an Account.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enters a limit Order Sell 40@2.25 with an Account Number, for instrument INST1.</p> <p><i>Sends a [MsgType 35=D] message with [Account 1=123A].</i></p>	<p>Order is accepted and booked.</p> <p><i>A [MsgType 35=8] is sent with [OrdStatus 39=0].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An F/FF or H/HF message is sent.</i></p>

ID #: ORD-9	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a limit order with a Text.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enters a limit Order Sell 40@2.25 with a Memo, for instrument INST1.</p>	<p>Order is accepted and booked.</p> <p><i>A [MsgType 35=8] is sent with [OrdStatus 39=0].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An F/FF or H/HF message is sent.</i></p>

	<i>Sends a [MsgType 35=D] message with [Text 58=HelloLSE].</i>		
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ID #: ORD-10	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Trading a Strategy (Trade in the strategy book)			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The instrument INST24 is a strategy and contains 2 legs (spread INST22 – INST23) 2. The market for instrument INST24 must be set to [10@2.00 – 10@2.50]. 3. The market for instrument INST22 (1st leg of spread) must be set to [5@3.20 – 10@3.30]. 4. The market for instrument INST23 (2nd leg of spread) must be set to [10@1.00 – 10@1.10]. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSUF
1	<p>Client: Enters a limit Order Sell 10@2.00 for instrument INST24.</p> <p><i>Sends a [MsgType 35=D] message, with [SecurityType 167=STR], [CIOrdID 11=abc].</i></p>	<p>Order is accepted and booked.</p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=0], [CIOrdID 11=abc].</i></p> <p>An execution report for the Strategy is sent.</p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=2], [CIOrdID 11=abc], [MultipleReportingType 442=3]</i></p> <p>An Execution report for each Leg is sent:</p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=2], [CIOrdID 11=abc], [MultipleReportingType 442=2]</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An FS or HS message is sent.</i></p> <p>Strategy Trade sent.</p> <p><i>A CS message is sent. (PriceIndicatorMarker = 'P')</i></p> <p>Leg Trades sent</p> <p><i>A C/CF message per leg is sent (PriceIndicatorMarker = 'P')</i></p>

ID #: ORD-11	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Trading a Strategy against its leg markets (Implied Trade)			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. Instrument INST24 is a strategy (spread INST22 – INST23) with legs INST22 and INST23 2. The market for instrument INST22 must be set to [10@2.00 – 10@2.50]. 3. The market for instrument INST23 must be set to [5@1.00 – 5@1.50]. 4. The market for the spread INST24 must be set to [15@0.60 – 15@1.60]. 5. The implied market on INST24 is [5@0.50 – 5@1.50]. 			
#	Test Steps	Expected Results	

		Order Entry – FIX	Market Information - HSVF
1	<p><u>Client:</u> Enters a limit Order Buy 5@1.50 for instrument INST24.</p> <p>Sends a [MsgType 35=D] message, with [SecurityType 167=STR]. [CIOrdID 11=abc].</p>	<p>Order is accepted and traded.</p> <p>A [MsgType 35=8] message is sent with [OrdStatus 39=0], [CIOrdID 11=abc].</p> <p>An execution report for the Strategy is sent.</p> <p>A [MsgType 35=8] message is sent with [OrdStatus 39=2], [CIOrdID 11=abc], [MultipleReportingType 442=3]</p> <p>An Execution report for each Leg is sent:</p> <p>A [MsgType 35=8] message is sent with [OrdStatus 39=2], [CIOrdID 11=abc], [MultipleReportingType 442=2]</p>	<p>Quote or Market Depth sent.</p> <p>An FS or HS message is sent.</p> <p>Leg Trades are sent</p> <p>A C/CF messages are sent. (PriceIndicatorMarker = '1')</p> <p>NOTE: For the strategy, no CS message is broadcasted.</p>

ID #: ORD-12	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a Stop Order and being able to handle it when it gets triggered.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The INST21 needs to allow Stop Order 2. The market for instrument INST21 must be set to [30@2.00 – 10@2.50]. 3. The last Price or the previous day's close on INST21 must be greater than 2.00. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p><u>Client:</u> Enters a Sell Stop Order 9@2.00 for instrument INST21, trigger price @2.10.</p> <p>Sends a [MsgType 35=D] message, with [StopPx 99=2.10] and [OrdType 40=4].</p>	<p>Order is accepted and booked.</p> <p>A [MsgType 35=8] message is sent with [OrdStatus 39=0] and [OrdType 40=4].</p>	<p>Quote or Market Depth sent.</p> <p>An F/FF or H/HF message is sent.</p>
2	<p><u>Client:</u> Enters an order on INST21 to Sell 25@2.00.</p>	<p>Order is accepted and 25 contracts are traded @2.00 against the booked order. The client order is triggered and traded 5@2.00. The remaining 4 contracts are booked @2.00.</p> <p>For the Stop order being triggered:</p> <p>A [MsgType 35=8] message is sent with</p>	<p>Quote or Market Depth sent.</p> <p>An F/FF or H/HF message is sent.</p> <p>Trade sent.</p> <p>A C/CF message is sent.</p>

		<p><i>[OrdStatus 39=0], [OrdType 40=2].</i></p> <p>For the partial Trade: <i>A [MsgType 35=8] message is sent with [OrdStatus 39=1].</i></p>	
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ID #: ORD-13	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a limit order with a Disclosed quantity.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50]. 2. Min displayed quantity value is consistent in the system rule (configuration manager) 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enters a limit Order Buy 30@2.10 with a disclosed quantity of 25 for instrument INST1.</p> <p><i>Sends a [MsgType 35=D] message, with [MaxShow 210=25].</i></p>	<p>Order is accepted and booked and only 25 contracts are shown.</p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=0].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An F/FF or H/HF message is sent.</i></p>

ID #: ORD-14	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a limit order with a Minimum quantity.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50]			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enters a limit Order Buy 30@2.10 with a minimum quantity of 10 for instrument INST1.</p> <p><i>Sends a [MsgType 35=D] message, with [MinQty 110=10].</i></p>	<p>Order is eliminated because there is no volume to fill it at 2.10.</p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=4].</i></p>	
2	<p>Client: Enters a limit Order Buy 30@2.50 with a minimum quantity of 10 for instrument INST1.</p> <p><i>Sends a [MsgType 35=D] message, with [MinQty 110=10].</i></p>	<p>Order is traded for 10 and the remainder is booked for 20@2.50.</p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=0].</i></p> <p><i>A [MsgType 35=8] message is sent with [OrdStatus 39=1].</i></p>	<p>Quote or Market Depth sent.</p> <p><i>An F/FF or H/HF message is sent.</i></p> <p>Trade sent.</p> <p><i>A C/CF message is sent.</i></p>

ID #: ORD-015	Type: Order Creation	Class: Mandatory	Co-ordinated Test: N
Description: Entering a Market Top Order at limit price.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [12@0.0001 – 10@99999.5000]; no other orders must be in the Book. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p><u>Client:</u> Enters a Buy @0.0001 for 20 contracts for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40=2].</p> <p><u>Client:</u> Enters a Sell market for 12 contracts for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40=1].</p>	<p>Order is accepted. A [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=20].</p> <p>Trade 12@0.0001. A [MsgType 35=8] message is sent with [LastShares 32=12], [LastPx 31=0.0001], [OrdStatus 39=2]</p>	<p>Quote or Market Depth sent. An F/FF or H/HF message is sent.</p> <p>Trade is sent. A C/CF message is sent.</p>
2	<p><u>Client:</u> Enters a Sell @99999.5000 for 15 contracts for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40=2].</p> <p><u>Client:</u> Enters a Buy market for 15 contracts for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40=1].</p>	<p>Order is accepted. A [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=15].</p> <p>Trade 15@99999.5000 A [MsgType 35=8] message is sent with [LastShares 32=12], [LastPx 31=99999.5000], [OrdStatus 39=2]</p>	<p>Quote or Market Depth sent. An F/FF or H/HF message is sent.</p> <p>Trade is sent. A C/CF message is sent.</p>

ID #: ORD-16	Type: Order Creation	Class: Mandatory	Co-ordinated Test: N
Description: Entering a Market any price that gets partially filled; the remaining quantity is booked at a Limit price.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [12@2.000 – 10@2.50]; Group for instrument INST1 must be in 'Continuous Trading' mode. 			

#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p><u>Client</u> Enters 1 order Buy 10@1.90 for 10 contracts for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40=2].</p> <p><u>Client</u>: Enters a Sell market any price for 25 contracts for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40=V].</p>	<p>Order is accepted and booked A [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=20].</p> <p>2 Trades 12@2.00 and 10@1.90 A [MsgType 35=8] message is sent with [OrdStatus 39=1], [LastShares 32=12 and 32=10], [LastPx 31=2.00 and 1.9], [LeavesQty 151=13 and 3]. Remaining 3@1.9 is booked.</p>	<p>Quote or Market Depth sent. An F/FF or H/HF message is sent.</p> <p>Trade is sent. A C/CF message is sent.</p>

ID #: ORD-17	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a Cross New Order Cross that is accepted and executed.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [100@2.00 – 100@3.00]; no other orders must be in the Book. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p><u>Client</u>: Enter a New Cross Order for 20 contracts @ 2.50 for instrument INST1. Sends a [MsgType 35=c] message with [price 44=2.50], NoSides 552 = 2,</p> <p>and repeating block 2 times:</p> <p>Side 54 COrdID 11 Account 1 Account Profile 8001 OpenClose 77 Text 58 Rule 80A</p>	<p>Order is accepted. Trade 20@2.00. A [MsgType 35=8] message is sent with [OrdStatus 39=2], [OrderQty 38=20], [LastShares 32=20], [LastPx 31=2.50], [LeavesQty 151=0]. [NoSides 552 = 2], [SpecialTradeInd 9459 =D]</p> <p>and repeating block 2 times:</p> <p>Side 54 COrdID 11 Account 1 Account Profile 8001 OpenClose 77</p>	<p>Quote or Market Depth sent. None.</p> <p>Trade is sent. A C/CF message is sent.</p>

		Text 58 Rule 80A	
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ID #: ORD-18	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a Cross New Order Cross that is rejected.			
Comments: A way to obtain the rejection is to have the cross order price outside the bid ask spread.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [100@2.00 – 100@3.00]; no other orders must be in the Book. 2. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enter a New Cross Order for 20 contracts @ 3.50 for instrument INST1.</p> <p>Sends a [MsgType 35=c] message with [price 44=3.50], NoSides 552 = 2],</p> <p>and repeating block 2 times:</p> <p>Side 54 ClOrdID 11 Account 1 Account Profile 8001 OpenClose 77 Text 58 Rule 80A</p>	<p>Order is Rejected. Trade 20@2.00. A [MsgType 35=8] message is sent with [ExexType 150=8], [Text 58 = Cross order is outside bid/ask price spread],</p>	None.

ID #: ORD-19	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering New Committed Orders that are accepted and then executed.			
Comments: A Committed Order must have a counterpart firm with an equal but opposite committed order in the book to trade against, for validation purposes the same firm will enter both sides of the committed transaction.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [100@2.00 – 100@3.00]; no other orders must be in the Book. 2. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Enter a New Buy Order for 20 contracts</p>	<p>Order is accepted. A [MsgType 35=8]</p>	Quote or Market Depth sent.

	@ 2.50 for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40 = C], [price 44=2.50], [Contra Trader 337 =TBD*]	message is sent with [OrdStatus 39=0], [ExexType 150=0], [OrderQty 38=20] [Contra Trader 337 = TBD*]	None.
2	<u>Client:</u> Enter a New Sell Order for 20 contracts @ 2.50 for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40 = C], [price 44=2.50], [Contra Trader 337 =same as step 1*]	Order is accepted. A [MsgType 35=8] message is sent with [OrdStatus 39=2], [ExexType 150=2], [OrderQty 38=20] [Contra Trader 337 = same as step 1*]	Quote or Market Depth sent. None. Trade is sent. A C/CF message is sent.

ID #: ORD-20	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: Entering a New Committed Order that is rejected			
Comments: A Committed Order must have a counterpart firm with an equal but opposite committed order in the book to trade against, for creating a rejection, none should be provided.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [100@2.00 – 100@3.00]; no other orders must be in the Book. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enter a New Buy Order for 20 contracts @ 2.50 for instrument INST1. Sends a [MsgType 35=D] message with [OrdType 40 = C], [price 44=2.50], [Contra Trader 337 =] (leave tag 337 empty or do not provide it)	Order is rejected. A [MsgType 35=8] message is sent with [ExexType 150=8], [Text 58 = Opposite firm must be filled for committed order]	Quote or Market Depth sent. None.

ID #: ORD-21	Type: Order Creation	Class: Optional	Co-ordinated Test: N
Description: <ol style="list-style-type: none"> Group for instrument INST1 and instrument INST2 must be in 'Continuous Trading' mode Instrument Book must be clear 			
Comments: None.			

Prerequisites			
1. The market for instrument INST1 must be set to [100@2.00 – 100@3.00]; no other orders must be in the Book. 2. Group for instrument INST1 must be in 'Continuous Trading' mode.			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters two regular Buy/Sell orders in order to create a spread for instrument INST1.	Orders are accepted and booked and spread is created.	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent</i>
2	<u>Client:</u> Enters two regular Buy/Sell orders in order to create a spread for instrument INST2	Orders are accepted and booked and spread is created.	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent</i>
3	<u>Client:</u> Send a message using instrument INST1 and INST2 for creating a strategy STRAT1		
4	<u>Client:</u> Enters a committed order within the spread specifying as counter party BIT	Order is accepted and traded.	Trade message is sent. <i>C<> message is sent with Price Indicator Marker = "T"</i>

5.3 Order Cancellation Test Cases

ID #: CXL-01	Type: Order Cancellation	Class: Mandatory	Co-ordinated Test: N
Description: Cancelling an order.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Sell Order 10@2.20 for instrument INST1. <i>Sends a [MsgType 35=D] message.</i>	Order is accepted and booked. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
2	<u>Client:</u> Cancels the previous order. <i>Sends a [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: CXL-02	Type: Order Cancellation	Class: Mandatory	Co-ordinated Test: N
Description: Cancelling a partially filled order.			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Buy Order 60@2.50 for instrument INST1. <i>Sends a [MsgType 35=D] message.</i>	Order is accepted and booked. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0].</i> Trade 10@2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=1] and [LeavesQty 151=50].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	<u>Client:</u> Cancels the previous order. <i>Sends a [MsgType 35=F] message.</i>	The remainder of the order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4], [OrderQty 38=30] and [LeavesQty 151=0].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: CXL-03	Type: Order Cancellation	Class: Mandatory	Co-ordinated Test: Y
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Description: Order cancellation by the Market Operation Center (MOC).			
Comments: None.			
Prerequisites			
The market for instrument INST1 must be set to [10@2.00 – 10@2.50].			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Buy Order 1@2.45 for instruments INST1. <i>Sends a [MsgType 35=D] message.</i>	Order is accepted and booked. The market for instrument INST1 is now [1@2.45 – 10@2.50]. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
2	<u>Client:</u> Enters a regular Sell Order 100@2.50 for instruments INST1. <i>Sends a [MsgType 35=D] message.</i>	Order is accepted and booked. The market for instrument INST1 is now [1@2.45 – 110@2.50]. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	<u>BIT:</u> Cancels all orders for instrument INST1 for the participant.	All orders are cancelled. <i>Two (2) [MsgType 35=8] messages are sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

5.4 Order Modification Test Cases

ID #: MOD-01	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
Description: Modifying the price of an order.			
Comments: None.			
Prerequisites			
1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50] 2. Fix Participant configured or not with OriginalQuantityManagement			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Sell Order 2000@2.25. <i>Sends a [MsgType 35=D] message [Price 44=2.25].</i>	Order is accepted and booked at 2.25. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [Price 44=2.25].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
2	<u>Client:</u> Modifies the previous order 2000@2.20. <i>Sends a [MsgType 35=G] message [Price 44=2.20].</i>	Modification is accepted and the price of the order is now 2.20. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [Price 44=2.20].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	<u>Client:</u> Cancels the order. <i>Sends a [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: MOD-02	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
Description: Modifying the quantity of an order.			
Comments: None.			
Prerequisites			
1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50] 2. Fix Participant non configured with OriginalQuantityManagement			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Sell Order 1@2.25. <i>Sends a [MsgType 35=D] message [OrderQty 38=1].</i>	Order is accepted and booked at 1@2.25. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0] and [OrderQty 38=1].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
2	<u>Client:</u> Modifies the previous order 20@2.25. <i>Sends a [MsgType 35=G] message [OrderQty 38=20].</i>	Modification is accepted and the quantity is now 20. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5],</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

		<i>[OrderQty 38=20].</i>	
3	<u>Client:</u> Cancels the order. <i>Sends a [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: MOD-03	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
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Description: Modifying the quantity and the price (decreasing) of a partially filled order.

Comments: None.

Prerequisites

1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50]
2. Fix Participant non configured with OriginalQuantityManagement

#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Buy Order 21@2.50. <i>Sends a [MsgType 35=D] message [OrderQty 38=21], [Price 44=2.50].</i>	Order is accepted and booked at 21@2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21].</i> Trade 10@2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=1] and [LeavesQty 151=11].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	<u>Client:</u> Modifies the previous order 15@2.25. <i>Sends a [MsgType 35=G] message [OrderQty 38=15], [Price 44=2.25].</i>	Modification is accepted and the order is now booked 15@2.25. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=15], [Price 44=2.25].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	<u>Client:</u> Cancels the order. <i>Sends a [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An /FFF or H/HF message is sent.</i>

ID #: MOD-04	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
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Description: Modifying the quantity and the price (increasing) of a partially filled order.

Comments: None.

Prerequisites

1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50]
2. Fix Participant non configured with OriginalQuantityManagement

#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Buy Order 21@2.50.	Order is accepted and booked at 21@2.50.	Quote or Market Depth sent.

	<i>Sends a [MsgType 35=D] message [OrderQty 38=21], [Price 44=2.50].</i>	<i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21]. Trade 10@2.50. One [MsgType 35=8] message is sent.</i>	<i>An F or H message is sent. Trade sent. A C/CF message is sent.</i>
2	Client: Modifies the previous order 25@2.60. <i>Sends a [MsgType 35=G] message [OrderQty 38=25], [Price 44=2.60].</i>	Modification is accepted and the order is now booked 25@2.60. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=25], [Price 44=2.60].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	Client: Cancels the order <i>Sends a [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

ID #: MOD-05	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
Description: Modifying an order that has been previously modified and partially filled.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [10@2.00 – 10@2.50] Fix Participant configured or not with OriginalQuantityManagement 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	Client: Enters a regular Buy Order 21@2.50. <i>Sends a [MsgType 35=D] message [OrderQty 38=21], [Price 44=2.50].</i>	Order is accepted and booked at 21@2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21]. Trade 10@2.50. One [MsgType 35=8] message is sent.</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	Client: Modifies the previous order 21@2.25. <i>Sends a [MsgType 35=G] message [OrderQty 38=21], [Price 44=2.25].</i>	Modification is accepted and the order is now booked 21@2.25. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=21], [Price 44=2.25].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	Client: Modifies the previous order 21@2.40. <i>Sends a [MsgType 35=G] message [OrderQty 38=21], [Price 44=2.40].</i>	Modification is accepted and the order is now booked 21@2.40. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0],</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

Type: Order Modification	ID #: MOD-06	Class: Optional	Co-ordinated Test: N
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		<i>[OrderQty 38=21], [Price 44=2.40].</i>	
4	<u>Client:</u> Cancels the order. <i>Sends one [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

Description: Modifying a Market order that has been assigned a limit price.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [10@2.00 – 12@2.50]; no other orders must be in the book. 2. The market for instrument INST1 must be set to [10@2.00 – 10@2.50] 3. Fix Participant non configured with OriginalQuantityManagement 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Buy Market order for 20 contracts <i>Sends a [MsgType 35=D] message with [OrdType 40=1].</i>	Order is accepted. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=20].</i> Trade 12@2.50 and the remaining 8@2.50 is booked. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=1], [LastShares 32=12], [LastPx 31=2.50], [LeavesQty 151=8].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	<u>Client:</u> Modifies the previous order to 9 @2.40. <i>Sends a [MsgType 35=G] message [OrderQty 38=9], [Price 44=2.40].</i>	Modification is accepted and the order is now booked 9@2.40. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=9], [Price 44=2.40].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	<u>Client:</u> Cancels the order. <i>Sends one [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
ID #: MOD-07	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
Description: Modifying the quantity and the price (decreasing) of a partially filled order.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50] 2. Fix Participant is configured with OriginalQuantityManagement 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF

1	<u>Client:</u> Enters a regular Buy Order 21 @2.50. <i>Sends a [MsgType 35=D] message [OrderQty 38=21], [Price 44=2.50].</i>	Order is accepted and booked at 21 @2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21].</i> Trade 10@2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=1] and [LeavesQty 151=11].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	<u>Client:</u> Modifies the previous order 15@2.25. <i>Sends a [MsgType 35=G] message [OrderQty 38=15], [Price 44=2.25].</i>	Modification is accepted and the order is now booked 15@2.25. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=15], [Price 44=2.25] and [LeavesQty 151=5].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	<u>Client:</u> Cancels the order. <i>Sends a [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An /FFF or H/HF message is sent.</i>

ID #: MOD-08	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
Description: Modifying the quantity and the price (increasing) of a partially filled order.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50] 2. Fix Participant is configured with OriginalQuantityManagement 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Buy Order 21 @2.50. <i>Sends a [MsgType 35=D] message [OrderQty 38=21], [Price 44=2.50].</i>	Order is accepted and booked at 21 @2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21].</i> Trade 10@2.50. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=1] and [LeavesQty 151=11].</i>	Quote or Market Depth sent. <i>An F or H message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	<u>Client:</u> Modifies the previous order 25@2.60 <i>Sends a [MsgType 35=G] message [OrderQty 38=25], [Price 44=2.60].</i>	Modification is accepted and the order is now booked 25@2.60. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=25], [Price</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

		44=2.60] and [LeavesQty 151=15].	
3	<u>Client:</u> Cancels the order Sends a [MsgType 35=F] message.	Order is cancelled. One [MsgType 35=8] message is sent with [OrdStatus 39=4].	Quote or Market Depth sent. An F/FF or H/HF message is sent.

ID #: MOD-09	Type: Order Modification	Class: Mandatory	Co-ordinated Test: N
Description: Modifying an order that has been previously modified and partially filled.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [10@2.00 – 10@2.50] 2. Fix Participant is configured with OriginalQuantityManagement 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a regular Buy Order 21@2.50. Sends a [MsgType 35=D] message [OrderQty 38=21], [Price 44=2.50].	Order is accepted and booked at 21@2.50. One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21]. Trade 10@2.50. One [MsgType 35=8] message is sent with [OrdStatus 39=1] and [LeavesQty 151=11].	Quote or Market Depth sent. An F/FF or H/HF message is sent. Trade sent. A C/CF message is sent.
2	<u>Client:</u> Modifies the previous order 21@2.25. Sends a [MsgType 35=G] message [OrderQty 38=21], [Price 44=2.25].	Modification is accepted and the order is now booked 21@2.25. One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=21], [Price 44=2.25] and [LeavesQty 151=11].	Quote or Market Depth sent. An F/FF or H/HF message is sent.
3	<u>Client:</u> Modifies the previous order 21@2.40. Sends a [MsgType 35=G] message [OrderQty 38=21], [Price 44=2.40].	Modification is accepted and the order is now booked 21@2.40. One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=21], [Price 44=2.40] and [LeavesQty 151=11].	Quote or Market Depth sent. An F/FF or H/HF message is sent.
4	<u>Client:</u> Cancels the order. Sends one [MsgType 35=F] message.	Order is cancelled. One [MsgType 35=8] message is sent with [OrdStatus 39=4].	Quote or Market Depth sent. An F/FF or H/HF message is sent.

ID #: MOD-10	Type: Order Modification	Class: Optional	Co-ordinated Test: N
Description: Modifying a Market Top order that has been assigned a limit price.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. The market for instrument INST1 must be set to [10@2.00 – 12@2.50]; no other orders must be in the book. 2. Fix Participant is configured with OriginalQuantityManagement 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Buy Market order for 20 contracts <i>Sends a [MsgType 35=D] message with [OrdType 40=1].</i>	Order is accepted. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=0], [OrderQty 38=20].</i> Trade 12@2.50 and the remaining 8@2.50 is booked. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=1], [LastShares 32=12], [LastPx 31=2.50], [LeavesQty 151=8].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i> Trade sent. <i>A C/CF message is sent.</i>
2	<u>Client:</u> Modifies the previous order to 15 @2.40. <i>Sends a [MsgType 35=G] message [OrderQty 38=9], [Price 44=2.40].</i>	Modification is accepted and the order is now booked 9@2.40. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=5], [OrderQty 38=15], [Price 44=2.40] and [LeavesQty 151=3].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
3	<u>Client:</u> Cancels the order. <i>Sends one [MsgType 35=F] message.</i>	Order is cancelled. <i>One [MsgType 35=8] message is sent with [OrdStatus 39=4].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>

5.5 Request For Quote Test Cases

ID #: RFQ-01	Type: Request for Quote	Class: Mandatory	Co-ordinated Test: N
Description: Sending a Quote Request message.			
Comments: None.			
Prerequisites			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters a Quote Request for the instrument INST1 for any quantity. <i>Sends a [MsgType 35=R] message.</i>	Quote Request message is received and dispatched to external participants. <i>A [MsgType 35=b] message is sent to client.</i>	Request for Quote sent. <i>A D/DF message is sent.</i>

5.6 Trade Management Test Cases

ID #: TRD-01	Type: Trade Management	Class: Mandatory	Co-ordinated Test: Y
Description: Handling many fills for the same order.			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> The market for instrument INST1 must be set to [12@2.00 – 10@2.50]. Group for instrument INST1 must be in 'Continuous Trading' mode. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>Client:</u> Enters an order on instrument INST1 to Sell 75@2.40. <i>Sends a [MsgType 35=D] message.</i>	Order is accepted. <i>A [MsgType 35=8] is sent with [OrdStatus 39=0].</i>	Quote or Market Depth sent. <i>An F/FF or H/HF message is sent.</i>
2	<u>BIT:</u> With MBO Watch, enters 10 Buy orders for instrument INST1 2@MKT , 3@MKT, 4@MKT, 5@MKT 6@MKT , 7@MKT, 8@MKT, 9@MKT 10@MKT, 11@MKT.	10 Trades: 2@2.40, 3@2.40, 4@2.40, 5@2.40, 6@2.40, 7@2.40, 8@2.40, 9@2.40, 10@2.40, 11@2.40. <i>Ten (10) [MsgType 35=8] messages are sent. The last one with [LeavesQty 151=10].</i> Market for instrument INST1 is now [12@2.00 – 10@2.40].	Trade sent. <i>A C/CF message is sent for each trade.</i>

ID #: TRD-02	Type: Trade Management	Class: Optional	Co-ordinated Test: Y
Description: Handling Trade cancellation from Market Operation Center (MOC).			
Comments: None.			
Prerequisites			
Execution of Test Case TRD-01.			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<u>BIT:</u> Cancelling the first and the last Trades from Test Case TRD-01 (2@2.40 and 11@2.40).	The 2 trades are cancelled. <i>Two (2) [MsgType 35=8] messages are sent with [ExecTransType 20=1], [OrdStatus 39=4], [ExecType 150=4].</i>	Trade Cancellation and Summary. <i>Two (2) I/IF an N/NF messages are sent.</i>

ID #: TRD-03	Type: Order Creation	Class: Optional	Co-ordinated Test: Y
Description: Handling a Trade Cancellation on a Strategy from Market Operation Center (MOC).			

Comments: None.

Prerequisites

The market for instrument INST22 must be set to [10@2.00 – 10@2.50].
Strategy is a spread (2 legs)

#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p><u>Client:</u> Enters a limit Order Sell 20@2.55 for instrument INST22. Sends a [MsgType 35=D] message, with [SecurityType 167=STR].</p>	<p>Order is accepted and booked. A [MsgType 35=8] message is sent with [OrdStatus 39=0].</p>	<p>Quote or Market Depth sent. An FS or HS message is sent.</p>
2	<p><u>Client:</u> Enters a limit Order Buy 20@2.55 for instrument INST22. Sends a [MsgType 35=D] message, with [SecurityType 167=STR], [CIOrdID 11=abc].</p>	<p>Order is accepted and booked. A [MsgType 35=8] message is sent with [OrdStatus 39=0], [CIOrdID 11=abc].</p> <p>An execution report for the Strategy trade is sent. A [MsgType 35=8] message is sent with [OrdStatus 39=2], [CIOrdID 11=abc] MultipleReportingType 442=3</p> <p>An Execution report for each Leg Trade is sent: A [MsgType 35=8] message is sent with [OrdStatus 39=2], [CIOrdID 11=abc] MultipleReportingType 442=2</p>	<p>Quote or Market Depth sent. An FS or HS message is sent.</p> <p>Strategy Trade sent. A CS message is sent.</p>
3	<p><u>BIT:</u> Cancelling the previous Trade from Step2 (by cancelling trade on Legs).</p>	<p>The trades are cancelled. An Execution report for each Leg Trade cancellation is sent: A [MsgType 35=8] message is sent with [OrdStatus 39=4], [CIOrdID 11=abc] MultipleReportingType 442=2</p> <p>An execution report for the Strategy Trade cancellation is sent. A [MsgType 35=8] message is sent with [OrdStatus 39=4], [CIOrdID 11=abc] MultipleReportingType 442=3</p>	<p>Trade Cancellation and Summary. Two (2) I/IF an N/NF messages are sent.</p>

5.7 User Flexible Combination (FLEXCO) Creation Request Test Cases

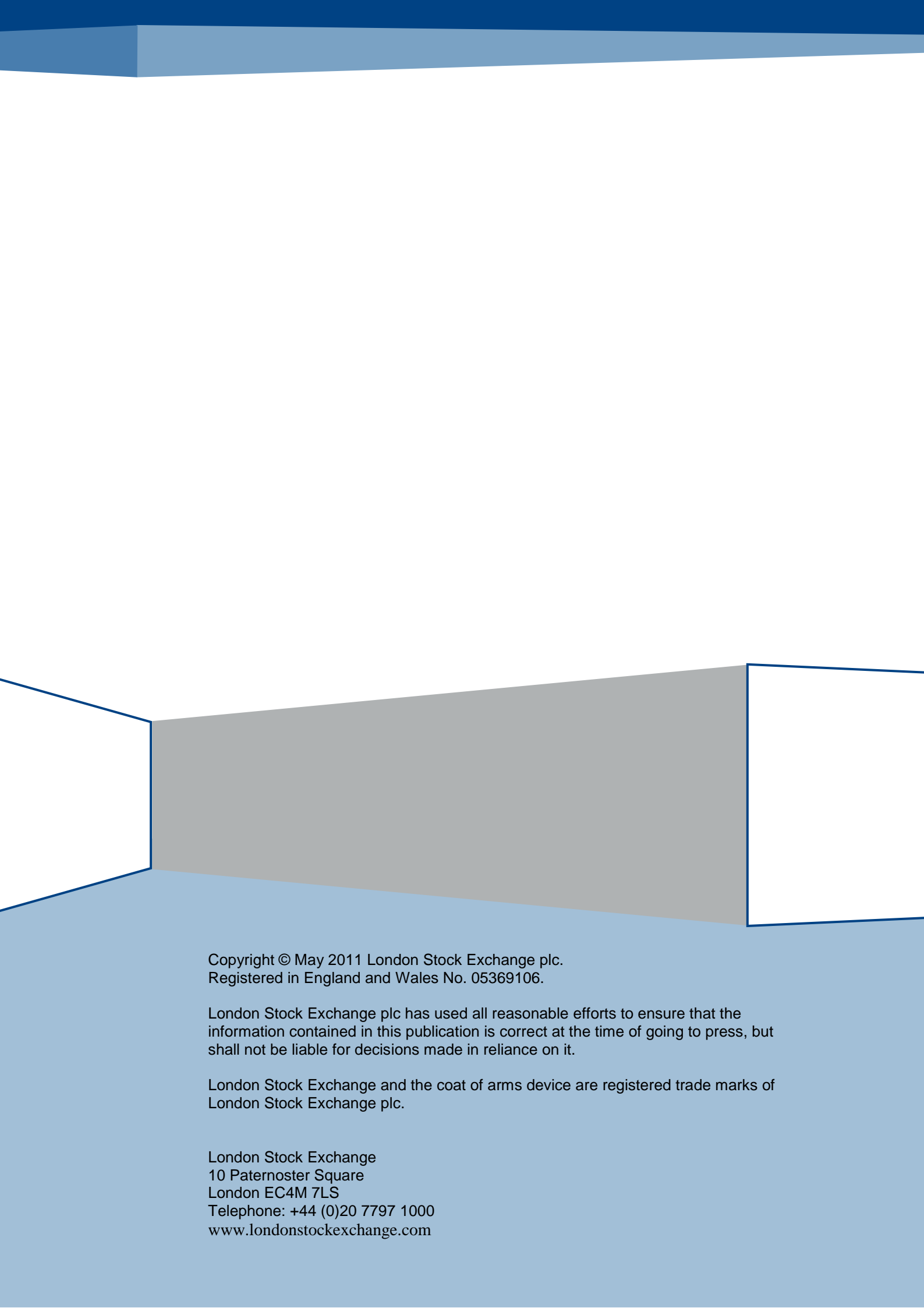
ID #: FLX-01	Type: FLEXCO Creation	Class: Optional	Co-ordinated Test: N
Description: New FLEXCO Strategy Creation Request Accepted			
Comments: None.			
Prerequisites			
<ol style="list-style-type: none"> 1. Strategy format (example Price Spread) is configured as a permitted FLEXCO at the exchange. 2. Strategy Group and Leg group are both in a group state of Continuous Trading. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Sends ON message specifying the number of legs (must be 2), group, instrument IDs, verb and ratio for each individual leg.</p> <p><i>Sends a [Msg Type 35=c], with [security Type 167= "STR", Security Request Type 321 ="1", NoRelatedSym 146 ="2"]</i></p> <p><i>and repeating block:</i></p> <p><i>Strategy Leg Symbol 311</i> <i>Strategy leg Security Type 310</i> <i>Strategy leg Maturity date 313</i> <i>Strategy leg Maturity Day 314</i> <i>Strategy leg Put or Call 315</i> <i>Strategy leg Strike Price 316</i> <i>Strategy leg Ratio 319</i> <i>Side 54]</i></p>	<p>Strategy Creation Request is accepted.</p> <p><i>Sends a [Msg Type 35=d], with [security Response Type = "1", external Symbol 55</i></p> <p><i>and repeating block:</i></p> <p><i>Strategy Leg Symbol 311</i> <i>Strategy leg Security Type 310</i> <i>Strategy leg Maturity date 313</i> <i>Strategy leg Maturity Day 314</i> <i>Strategy leg Put or Call 315</i> <i>Strategy leg Strike Price 316</i> <i>Strategy leg Ratio 319</i> <i>Side 54]</i></p>	<p><i>JS/NS/HS are all broadcasted in consecutive order with the status marker in the HS message = "T".</i></p>

ID #: FLX-02	Type: FLEXCO Creation	Class: Optional	Co-ordinated Test: N
Description: FLEXCO Strategy Creation Request Accepted with Modification			
Comments: A way to obtain 'accept with modification' is to double the ratio size for each leg so each ratio value can be divided by 2. Example: if a 1/1 Ratio Price Spread is requested, enter in "2" as the ratio size for each individual leg.			
Prerequisites			
<ol style="list-style-type: none"> 1. Strategy format (example Price Spread) is configured as a permitted FLEXCO at the exchange. 2. Strategy Group and Leg group are both in a group state of Continuous Trading. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF

1	<p>Client: Send ON message specifying the number of legs (must be 2), group, instrument IDs, verb and ratio for each individual leg.</p> <p><i>Sends a [Msg Type 35=c], with [security Type 167= "STR", Security Request Type 321 ="1", NoRelatedSym 146 ="2"</i></p> <p><i>and repeating block:</i></p> <p><i>Strategy Leg Symbol 311 Strategy leg Security Type 310 Strategy leg Maturity date 313 Strategy leg Maturity Day 314 Strategy leg Put or Call 315 Strategy leg Strike Price 316 Strategy leg Ratio 319 (see above comments) Side 54]</i></p>	<p>Strategy Creation Request is accepted.</p> <p><i>Sends a [Msg Type 35=d], with [security Response Type = "2", external Symbol 55</i></p> <p><i>and repeating block:</i></p> <p><i>Strategy Leg Symbol 311 Strategy leg Security Type 310 Strategy leg Maturity date 313 Strategy leg Maturity Day 314 Strategy leg Put or Call 315 Strategy leg Strike Price 316 Strategy leg Ratio 319 Side 54]</i></p>	<p><i>JS/NS/HS are all broadcasted in consecutive order with the status marker in the HS message = "T".</i></p>
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ID #: FLX-03	Type: FLEXCO Creation	Class: Optional	Co-ordinated Test: N
Description: New FLEXCO Strategy Creation Request Rejection			
Comments: A way to obtain the rejection is to define the same leg twice in the repeating block.			
Prerequisites			
<ol style="list-style-type: none"> Strategy format (example Price Spread) is configured as a permitted FLEXCO at the exchange. Strategy Group and Leg group are both in a group state of Continuous Trading. 			
#	Test Steps	Expected Results	
		Order Entry – FIX	Market Information - HSVF
1	<p>Client: Send ON message specifying the number of legs (must be 2), group, instrument IDs, verb and ratio for each individual leg.</p> <p><i>Sends a [Msg Type 35=c], with [security Type 167= "STR", Security Request Type 321 ="1", NoRelatedSym 146 ="2"</i></p> <p><i>and repeating block: (see comments above) Strategy Leg Symbol 311 Strategy leg Security Type 310 Strategy leg Maturity date</i></p>	<p>Strategy Creation Request is accepted.</p> <p><i>Sends a [Msg Type 35=j], with [Business Reject Reason 380 = "2", and Text 58 = "Invalid Leg Information"</i></p>	<i>none</i>

	<i>313</i> <i>Strategy leg Maturity Day</i> <i>314</i> <i>Strategy leg Put or Call 315</i> <i>Strategy leg Strike Price 316</i> <i>Strategy leg Ratio 319</i> <i>Side 54]</i>		
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