

CloseUp

Member Testing Guide

Competitive Clearing for the London Stock Exchange

January 2008

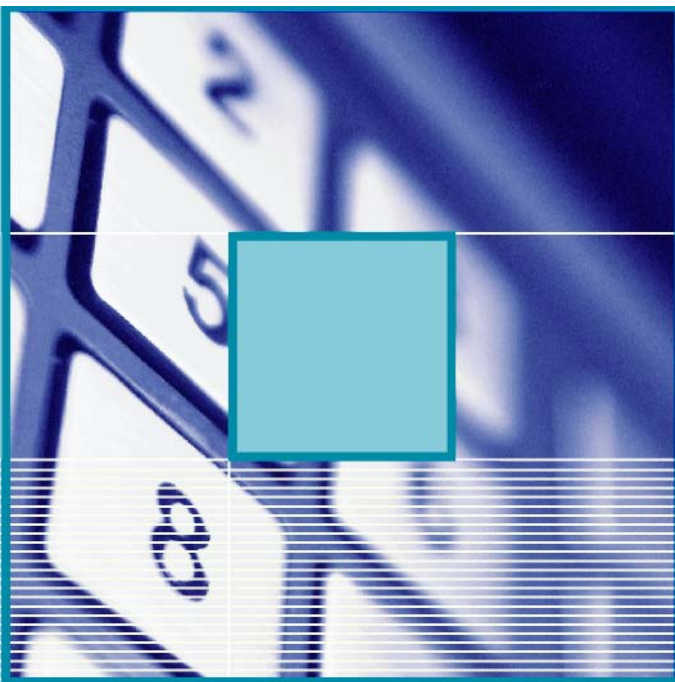


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1.0 Introduction

Competitive Clearing for SETS trades of the London Stock Exchange (the Exchange) is to be introduced jointly by the Exchange, SIS x-clear (x-clear) and Euroclear UK and Ireland Limited (EUI) in February 2008. The new service will function alongside the existing SETS central counterparty (CCP) service operated by LCH.Clearnet (LCH.C), offering the members of the Exchange a choice of CCP service providers for SETS trades.

x-clear currently uses the CCP services of EUI to clear virt-x trades in UK and Irish equities. x-clear will reuse the existing CCP services to extend clearing services to SETS trades.

1.1 Purpose and scope

The purpose of this document is to define and describe the approach to be taken in the member testing phase of the introduction of Competitive Clearing for SETS trades of the Exchange. The document aims to provide members with all relevant information about the member test.

The document describes the following:

- The current clearing model of the Exchange
- The Competitive Clearing model for the Exchange
- The impacts on members due to the Competitive Clearing model
- The scope and objectives of member testing
- The task list/checklist for members
- The member test calendar and timings
- Business streams for testing
- Referential data
- Member test support

1.2 Target readership

The introduction of x-clear as an additional central counterparty service provider for the Exchange is designed such that the members wishing to continue with LCH.C to provide CCP services will be unaffected by the changes. *Hence the intended audience for this document are those clearing members who wish to use x-clear to provide the CCP services for their Exchange trades.* It is

recommended to read the Member Test Guide in conjunction with the reference documents listed in section 1.3.

1.3 Reference documentation

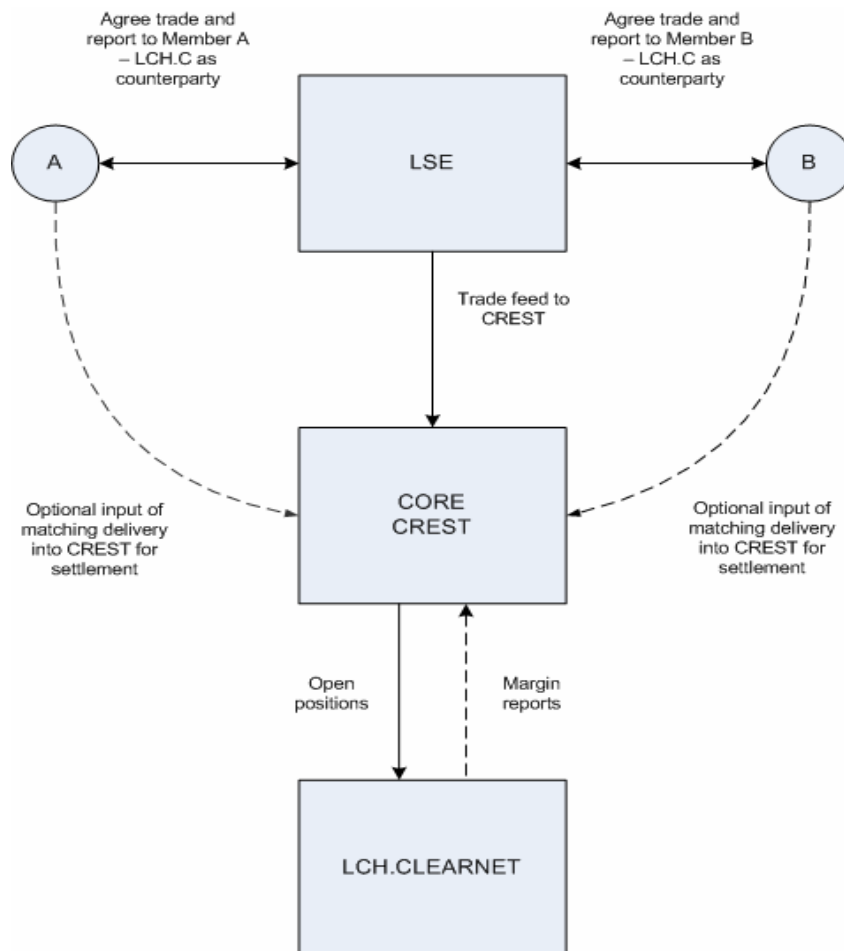
Reference	Document link
LSE Service Description – Competitive Clearing	http://www.londonstockexchange.com/NR/rdonlyres/9339C609-E5E8-4C38-B4F4-A94E0467DAFC/0/CompetitiveClearingServiceDescriptionversion11.pdf
Enhancing CREST: January 2008 Competitive Clearing for the London Stock Exchange in CREST	http://www.euroclear.co.uk/publications/white_books/enhancing-crest-compclear-Jan08.pdf
SIS x-clear Service Description – Central Counterparty for LSE	http://www.ccp.sisclear.com/ccp/pub-prod-projects-servicedescription-x-clear.pdf

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2.0 Service overview

2.1 The current clearing model of the Exchange

The figure¹ below illustrates the current clearing setup available to an exchange member trading on the SETS platform of the Exchange where only LCH.C acts as the clearing service provider.



LCH.C currently acts as the CCP for all SETS trades agreed between the members of the Exchange. Hence each member sees LCH.C as its counterparty providing post-trade anonymity for such trades. The trade details of the CCP-eligible trades are transmitted from the Exchange to CREST² using a proprietary data format. Upon validation and enrichment of the trade feed received, a matched or unmatched settlement transaction will be created between LCH.C and the clearing member based on the direct input and settlement setup of the

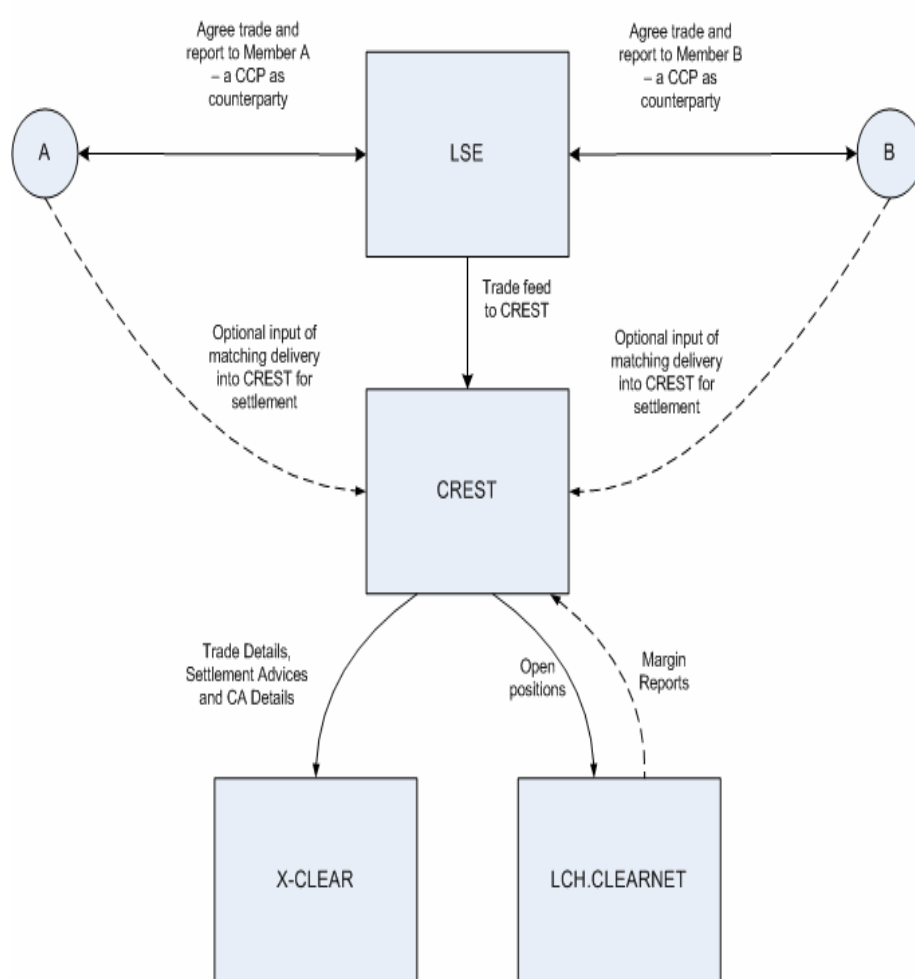
¹ Source: Enhancing CREST: January 2008 Competitive Clearing for the London Stock Exchange in CREST

² CREST is the processing system owned and operated by Euroclear UK and Ireland (the central securities depository for the United Kingdom and Ireland).

settlement participant of the clearing member in CREST. In its role as CCP for SETS, LCH.C currently uses the CREST CCP services provided by EUI to any CCP participant in CREST for the various functionalities.

2.2 The Competitive Clearing model of the Exchange

The figure³ below illustrates the high level transaction information flow between the Exchange, x-clear, LCH.C and EUI with the introduction of x-clear as CCP for the Exchange.



The exchange member will continue to agree trades on the SETS order book and will receive confirmations from the Exchange once the trades are agreed. Depending on the clearing setup of the buyer or seller of the agreed trade, LCH.C or x-clear will act as the CCP. Each member will see a CCP as its trading counterparty, providing post trade anonymity for these trades.

³ Source: Enhancing CREST: January 2008 Competitive Clearing for the London Stock Exchange in CREST

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CREST will determine the clearing setups for the buyer and seller and create the settlement transactions based on which the CCP is involved in the trade.

Where the buyer and seller are clearing through the same CCP, CREST will introduce the CCP (either LCH.C or x-clear). The CCP will become the counterparty to both the buyer and the seller.

Where the buyer and seller are clearing through separate CCPs, CREST will introduce a third party, the cross CCP participant (XCCP participant)⁴. Transactions involving the XCCP participant will not be visible to CREST members other than the two CCPs.

2.3 Impact on members

The table below summarises the functional and technical impact on the members with the introduction of an additional clearing service provider for the Exchange.

Clearing for SETS Trades on London Stock Exchange		
Functionality - Impact Matrix		
Functionality	Member Impact	
	Members of LCH.C	Members of SIS x-clear
Master Data Setup		
At Exchange	No	No
At Euroclear Uk and Ireland	No	Change Clearing Relationship Definition
At Clearing Service Provider	No	No*
Counterparty for Trade	LCH.C	SIS x-clear
Direct Input Option (Gross/Net)	No	No
Settlement Netting	No	No
Settlement	No	No
CCP Open Position for Members	No	From SIS x-clear
Collateral Management at EUI	No	Custody Collateral Management Facility for Members (optional)
Corporate Actions - Disbursement	No	No
Corporate Actions - Voluntary Events	No	No
SDRT and Transaction Reporting	No	No
Technical - Impact Matrix		
Interface	Member Impact	
	Members of LCH.C	Members of SIS x-clear
Interface with Exchange	No	No
Interface with EUI	No	No
Interface with x-clear	Not Applicable	No*

* There will be no change to the existing members of SIS x-clear. For new members the master data set-up to be defined and requires new interface

For details of the impacts mentioned in the above table, please refer to the reference documents listed in section 1.3. The summary below is limited to certain functionalities, which we recommend that the member consider for testing.

⁴ Note that the XCCP participant for SETS will be separate from the XCCP participant operated in CREST for the virt-x exchange.

- The counterparty of the trade will be the clearing service provider of the member. This could be either x-clear or LCH.C based on the clearing services opted for by the member.
- The clearing relationship at EUI has to be changed to support clearing through x-clear.
- For members using the clearing services of x-clear the counterparty during settlement will be x-clear.
- In addition to the collateral management facility that is currently available to members of x-clear through SIS SegInterSettle AG (SIS), the International Central Securities Depository (ICSD), new arrangements are made to allow the clearing members of x-clear to maintain custody collateral for margin and default fund purposes of x-clear through EUI.
- Clearing members of x-clear can obtain the open position and risk management details by interfacing with x-clear instead of CREST.



3.0 Test scope and objectives

Prior to member testing, all relevant organisations will have undertaken considerable rounds of internal and integration testing for the new clearing setups created by the introduction of Competitive Clearing for the London Stock Exchange.

All the organisations will have tested changes made to their own systems internally, both from an IT and a business perspective. Subsequently, the organisations will have tested extensively to ensure that their respective systems integrate with one another satisfactorily.

The member who opts to use x-clear as its CCP will have to make the necessary setup changes and additional processing changes, if required, in their own system. The member test phase gives these members an opportunity to test the changes in their system in integration with all the other systems as in a real-life scenario. Member testing will be unscripted and no test cases will be provided to members.

Hence, the primary goals of member testing are as follows:

- To ensure that any adjustments made to the member's internal applications due to the switchover of clearing service provider function as expected when linked to the system of the Exchange, EUI, x-clear or LCH.C
- To foster member confidence in the overall CCP functionality as provided by all the entities involved in Competitive Clearing for the Exchange
- To enable "End-to-End" testing on the trading and settlement of SETS trades conducted on the Exchange through EUI and x-clear
- To provide a training opportunity and an introduction for members to the functionalities of x-clear and the implementation of Competitive Clearing in SETS trades on the Exchange
- To create confidence among the relevant organisations that the migrating member is technically and operationally capable of switching to another clearing service provider

3.1 Task list/Checklist for members

SI No	Task items	Indicative completion date ⁵
General		
1.	Member opting to use x-clear as CCP confirms its willingness by informing the Exchange, x-clear and EUI.	16.01.2008
2.	Member to decide on internal test approach and scope for member testing	18.01.2008
3.	Submit the static data form (see Annex 3) to the Exchange	16.01.2008
At the Exchange		
4.	Confirm the master data setup	24.01.2008
5.	Check connectivity of test systems with the Exchange	28.01.2008
At EUI		
6.	Confirm the clearing relationship setup at EUI	29.01.2008
7.	Confirm the master data setup	29.01.2008
8.	The PT booking form to be provided to EUI ⁶	16.01.2008
9.	Check connectivity of test systems with EUI	28.01.2008
At x-clear		
10.	Confirm the master data setup	25.01.2008
11.	Check connectivity of test systems with x-clear/SIS	24.01.2008
12.	Complete all internal preparations for member testing	24.01.2008
13.	Member test execution and monitoring plan	28.01.2008
14.	Submit 'Confirmation of Technical and Operational Readiness' form to x-clear (see section 3.5).	11.02.2008

Members are requested to send the static data form to the Exchange and the PT booking form to EUI by at least 5 days prior to the start of the testing activity.

⁵ The dates are indicative for members participating in the member testing phase from 28 January 2008. However, members are advised to consider a period of two weeks for completing the pre-testing activities.

⁶ Contact the EUI Test Support Team for details.



3.2 CCP member test calendar and timings

The member test phase is defined in confluence with the Exchange and EUI. The test phase is scheduled from 28 January 2008 to 08 February 2008.

For all the trading days during the member test phase, the test environments of the Exchange, EUI and x-clear will be available during the hours as mentioned in section 3.3.

Please note that the systems will not be available during the weekends for testing purposes. The table below contains the member test schedule and the systems availability. Any deviation from the below schedule will be intimated well in advance to the member.

Member Test (28.01.2008 - 08.02.2008)	28. 01	29. 01	30. 01	31. 01	01. 02	02. 02	03. 02	04. 02	05. 02	06. 02	07. 02	08. 02
	Day 1	2	3	4	5			6	7	8	9	10
	Connectivity set-up	Trading Day	Trading Day	Trading Day	Trading Day			Trading Day	Trading Day	Trading Day	Trading Day	Trading Day
LSE	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Euroclear UK	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
SIS x-clear	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
LCH.C	*	*	*	*	*			*	*	*	*	*
Member	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓

All Parties Involved are Open
 Trading Holiday

✓ All Involved Parties will be available on the Trading Day
 * LCH.C participation in member testing is limited to test members migration from one CCP to other

3.3 Member test operating hours

The trading hours during member testing will commence at 10:00 BST on each of the trading days. The trading hours will end at 15:25 BST. However, the test system at the Exchange will be available till 16:30 BST. The trades executed after 15:25 BST will be considered for clearing and settlement on the next trading day only.

Trading day operating hours	Time in BST
Trading day starts	10:00
Trading day ends	15:25
Non-availability of x-clear for queries	
End of day processing	18:00 to 19:00

For the details of diary events and the corresponding timings at EUI, please contact the EUI Test Support Team.

3.4 Member test environments

Entity	Test environment
SIS x-clear	SECOM test environment
London Stock Exchange	CDS environment
Euroclear UK & Ireland	Trialing; the mode will be 'T' and CREST GUI Ver 20.52
LCH.Clearnet	Member test environment

3.5 Exit criteria

Clearing members of x-clear having completed the member testing phase must submit the '[Confirmation of technical and operational readiness](#)'.

This form must be submitted at the latest by 11.02.2008, to go live on 15.02.2008.



4.0 Business streams for testing

4.1 Regular test cycle

Member testing is **unscripted** and members can input the trades using the reference data suggested in Annex 1 and 2. Dummy trading members will be created at the exchange if the order book does not find the matching order.

It is recommended that members test the regular trade life cycle for a SETS trade under the new scenario of Competitive Clearing for the London Stock Exchange by considering the existing trading and settlement relationships. If there is any change to the trading and/or settlement relationships, members should take such change into account when defining the test approach and the scope of testing.

The verifications mentioned below are indicative and members can consider performing testing accordingly.

Trading at the London Stock Exchange

- Check for trade cancellations and contra trades
- Check for trades on non-CCP-eligible security types.
- Check the population of 'settlement venue' in the order entry message.

Clearing at SIS x-clear

- Check for open positions
- Margins and risk bucketing
- Margin call pre-info generation
- Margin call executions (UK payment banks/SNB/SIS)
- Daily reporting
- Ad-hoc querying using webMAX
- Collateral management through SIS/SNB (existing)
- Collateral management through CREST (new)

Settlement and corporate actions at Euroclear UK and Ireland

- Gross trade acceptance
- Matching of trades
- Direct input options
- Trade netting
- Settlement of trades – gross/net settlement life cycle
- Automatic splitting of trades
- Corporate action benefit disbursements
- Reconciliation and reporting

Note: The member test is intended for functional testing only, and **not** for volume or performance testing.

4.2 Reference data

A list of securities and details of corporate actions supported during the member test are available in Annex 1 and 2 respectively.

5.0 Member test support

Member assistance will be available during the member testing phase for all technical and functional problems/queries that present themselves to members.

The dedicated support is only available during the member test phase. The support after 08 February 2008 will be assessed as customer requests are received, and will be considered if there is sufficient demand.

Contacts at the London Stock Exchange

Test Support Team	Client Technology Group +44 (0)20 7797 3939 ctgroup@londonstockexchange.com MEllis@londonstockexchange.com
Master Data	Client Implementation Group +44 (0)20 7797 3232 clientimplementation@londonstockexchange.com

Contacts at Euroclear UK & Ireland Limited

Test Support Team	PATSupport@euroclear.com
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Contacts at SIS x-clear AG

Test Support Team	LSE Test Support Team ' lsememtest@sisclear.com ' +41 (0) 44 288 4324
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Contacts at LCH.Clearnet

Test Support Team	Maria Dickson + 44 (0)20 7426 7159 Maria.Dickson@lchclearnet.com
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6.0 Annex 1

Securities master list

The ISINs listed below are to be considered by the members for inputting trades during member testing. Trades on any other ISINs than listed below may be overlooked and would not necessarily be supported for trading/clearing and settlement.

ISIN No	ISIN	ISIN Name
1	GB0033516088	HANSON
2	GB0000386143	ALLIANCE&LEICS
3	GB0033277061	VEDANTA
4	GB0004082847	STAND CHART
5	GB0033195214	KINGFISHER
6	GB0001625572	CABLE & WIRELESS
7	GB0002162385	AVIVA
8	GB0032836487	ROLLS-ROYCE
9	GB0032089863	NEXT
10	GB0031809436	LANDSECS

7.0 Annex 2

Corporate actions

The following corporate actions would be set up on the securities as mentioned in the table below. Members are advised to input trades accordingly to test related impacts:

ISIN	GB0033516088	GB0033277061	GB0033195214	GB0000386143	GB0004082847
ISIN Description	HANSON	VEDANTA	KINGFISHER	ALLIANCE&LEICS	STAND CHART
CA Number	1	2	1	4	1
CA Description	Stock Dividend	Cash Dividend	Rights Issue	Conversion	Subdivision
CA Type	SCD	CHD	RII	CVN	SDV
Generates Claims	Yes	Yes	Yes	No	No
Ex Date	04-Feb-08	04-Feb-08	04-Feb-08	N/A	N/A
Record Date	06-Feb-08	06-Feb-08	06-Feb-08	31-Jan-08	31-Jan-08
Payment Date	07-Feb-08	07-Feb-08	06-Feb-08	04-Feb-08	04-Feb-08
Security Transformed	No	No	No	Yes	Yes
Default Option No	1	1	1	1	1
CA Option	1	1	1	1	1
Ratio	4	1	2	1	3
Percentage	100	0	100	100	100
Benefit Security	GB0004342563	N/A	GB0001367019	GB0006834344	GB0002405495
Benefit Currency Code	N/A	GBP	N/A	N/A	N/A
Benefit Ratio	0.25	0.1	0.5	2	0.33
Debit or Credit	Credit	Credit	Credit	Credit	Credit
CA Option	N/A	N/A	N/A	N/A	N/A
Ratio	N/A	N/A	N/A	N/A	N/A
Percentage	N/A	N/A	N/A	N/A	N/A
Benefit Security	N/A	N/A	N/A	N/A	N/A
Benefit Currency Code	N/A	N/A	N/A	N/A	N/A
Benefit Ratio	N/A	N/A	N/A	N/A	N/A
Debit or Credit	N/A	N/A	N/A	N/A	N/A
Transformation Date	N/A	N/A	N/A	10-Jan-08	10-Jan-08
Mandatory or Voluntary Indicator	Mandatory	Mandatory	Mandatory	Mandatory	Mandatory



8.0 Annex 3

Static Data Form

A template of the Static Data Form to be submitted by the members of the Exchange is available on the x-clear website www.ccp.sisclear.com > Products > Projects under the rubric *London Stock Exchange – Member Test Guide*. The members are advised to submit a completed copy of the form to the Exchange at least 5 days before the commencement of their testing.

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