



Integrated Trading and Clearing (ITaC)

End-To-End (ETE) Testing

27 July 2018

Agenda

- ITaC Key Dates
- ITaC End-To-End (ETE) Testing update
 - ETE Cycle 3 – scope, approach and participation requirements
- Questions?

ITaC Key Dates



Date	Milestone
11 Jun – 22 Jun 2018	Clearing Member & Software Provider Testing in ETE environment
26 Jun 2018	Start of End to End Testing in ETE environment
26 Jun – 5 Jul 2018	ETE Testing – Cycle 1 Structured
9 Jul – 13 Jul 2018	Prep for MMDR; data clean up and full position take on
14 Jul 2018	Mandatory Market Dress Rehearsal (MMDR)
16 Jul – 26 Jul 2018	ETE Testing – Cycle 2 Structured
30 Jul – 10 Aug 2018	ETE Testing – Cycle 3 Scripted
13 Aug – 17 Aug 2018	Prep for Dress Rehearsal; data clean up and full position take on
18 Aug 2018	ETE Dress Rehearsal – mandatory for all clients
20 Aug – 4 Sep 2018	ETE Testing – Cycle 4 Scripted
8 Sep 2018 (TBC)	JSE deploys RTC/VIS/CIS into production
15 Sep 2018	Go-Live Ready Dress Rehearsal – mandatory for all clients
8 Oct 2018	Targeted Go-Live Date
12 Nov 2018	Contingency Go-Live Date

PLEASE NOTE:
Mandatory for CMs and those TMs & live Information subscribers that have not passed two dress rehearsals

We are here

PLEASE NOTE:
Mandatory for all clients

PLEASE NOTE:
Mandatory for all clients

DATE
RATE

ITaC Agreements – cutoff dates



- **JSE Services Agreement (JSA)**
 - Signed JSA is required to access ***all production and test services*** including the End-To-End environment
 - **JSA must be signed by Friday, 27 July 2018** which is prior to the start of Scripted End-To-End testing on Monday, 30 July 2018 whether participating in ETE or not
- **JSE Data Agreement (JDA)**
 - Signed JDA is required to access all market data (live, intra day or EOD)
 - **JDA must be signed by Friday, 27 July 2018 for clients wishing to participate in Scripted End-To-End** testing which starts on Monday, 30 July 2018
 - JDA must be signed by 31 August 2018 for all other clients not participating in ETE testing

Agenda

- ITaC Key Dates
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- Questions?

End-To-End (ETE) Documentation



- **ETE testing documentation**

- All documentation required for ETE testing is available on the JSE website under the section “**End-To-End Testing**”
- <https://www.jse.co.za/services/itac#EndToEndTestingDocumentation>
- [ITaC End-To-End Testing Overview](#)
- Clients to submit their weekly test feedback at the end of each week to their JSE buddy for:
 - [E2E Cycle 2 Runplan Scenarios](#) – Submit Friday, 20 and 27 July 2018
 - [E2E Cycle 3 Runplan Scenarios](#) – Submit Friday, 3 and 10 August 2018
 - [Nutron Decommissioning Cycle 3 Runplan](#) – Submit Friday, 3 and 10 August 2018
 - [ITaC Non-Live Information Subscriber End-To-End Test Plan](#) – Submit 20 and 27 July as well as 3 and 10 August 2018
- [ITaC Guidance Note on ETE testing](#) ***New**
- [JSE ETE Trading and RTC Schedule](#) ***New**
- [IDP Connectivity Document for ITaC NLMD ETE](#)



Weekly testing feedback is required from all participants – please flag relevant scenarios in the E2E Run Plan Scenarios with related test results and feedback and send this through to your JSE buddy at the end of each week of ETE testing

End-To-End (ETE) Testing – High Level Plan



- **Structured ETE testing** - test specific identified scenarios and events on specific days
 - Any additional scenarios or trades that are required to be included in Cycle 3 should be submitted by no later than 12h00 Wed, 25 July 2018

Structured ETE

Cycle 1 Complete

26 June – 6 July 2018

Cycle 2 Complete

16 – 27 July 2018

Cycle 3 WIP

Cycle 3 – Week 1 & 2

30 Jul – 10 Aug 2018

Cycle 4 Coming Up

Cycle 4 – Week 1 & 2

20 Aug – 4 Sept 2018

High level plan

By 09h00

Standard JSE trade pack processed by JSE

07h15 – 13h30

Execute On Book trading.
Report Off Book trades.
Generate user created instruments and trade on these.
Process live market data.

07h30 – 13h30

Perform deal management activities

13h35 – 16h00

End of day procedures and balancing with Clearing Members

To Note:

Trading Members to perform an Own Order Book and / or Own Trade Book Download to synchronise JSE generated trades in their system.

Live market data subscribers to verify multicast data.

Perform deal management and your own internal downstream integration testing

NLMD files available from ~20h00
(check next business day)

End-To-End (ETE) Testing - Cycle 3



Start Date: 30 July 2018
 End Date: 10 August 2018

Basic Events Scope	Specific Events Scope
Order Management	EDM Multiple FCOs – 2 Aug 2018, 7 Aug 2018
Trade Execution - On Book & Off Book	FXM Multiple Expiries – 1 Aug 2018, 8 Aug 2018
Options Exercised & Abandoned	Month End – 31 July 2018
Deal Management	Public Holiday – 9 Aug 2018
	Corporate Actions - Basic - 6 Aug 2018 (LDT), 7 Aug 2018 (Ex-Date) - Complex - 8 Aug 2018 (LDT), 10 Aug (Ex-Date)
	FXM market making obligations
	Market Operations - 3 Aug 2018 - 10:00 - Market Halt & Reopening - 10:10 - Market Pause - 10:15 - Market Announcement
	Decommissioning impact on remaining markets (daily)
	Member and client transfers (on request to JSE ClearOps team)
	Clearing EOD rerun – 1 Aug and 6 Aug 2018

ETE
DATE

End-To-End (ETE) Testing – Cycle 3

- **Cycle 3 Scripted ETE testing** – ring fenced with specific data and functionality on specific days with specific expected outcomes as well as other testing along side

Trading Members who do not have physical environments to participate and signoff reports



Function	Full Direct participation	Partial Direct participation	Indirect participation
TRADING	<p><i>Trading Members:</i> Connect and execute</p> <p><i>Clearing Members:</i> Connect and execute OBOs</p>	Trade packs submitted by JSE	Trade packs submitted by JSE
DEAL MANAGEMENT	<p><i>Trading Members:</i> Connect and execute</p> <p><i>Clearing Members:</i> Connect and execute and perform OBOs</p>	<p><i>Trading Members:</i> Connect and execute</p> <p><i>Clearing Members:</i> Connect and execute and perform OBOs</p>	<p><i>Clearing Members:</i> Connect and execute and perform OBOs</p>
CLEARING	<p><i>Trading Members:</i> Verify EOD reports</p> <p><i>Clearing Members:</i> Connect and execute Clearing functions</p>	<p><i>Trading Members:</i> Verify EOD reports</p> <p><i>Clearing Members:</i> Connect and execute Clearing functions</p>	<p><i>Trading Members:</i> Verify EOD reports</p> <p><i>Clearing Members:</i> Connect and execute Clearing functions</p>
MARKET DATA	<p>Information Subscribers: Verify live market data Verify NLMD files</p>	N/A	<p>Information Subscribers: Verify NLMD files</p>

End-To-End (ETE) Testing – Cycle 3



- **JSE Run Plan issued Friday, 27 July 2018**
 - Please note all the specific event dates and monitor communication page
- **Trading Members**
 - Mandatory Indirect Participation required for Cycle 3 & 4
 - JSE Trade pack will cover a few trades for each trading member
 - Please ensure you get your reports from your clearing members on a daily basis and verify accuracy and completeness and notify your JSE buddy if you are not receiving these
 - Log any problems with your reports directly with you Clearing Member
 - Attend conceptual training
 - Engage your software provider on any issues logged and ensure issues are closed out to your satisfaction
- **Information Subscribers**
 - Receive files on a daily basis and verify accuracy and completeness and notify MDProjects@jse.co.za if you have any issues or defects to raise

End-To-End (ETE) Testing



- **ETE Communication**
 - Monitor ETE testing status and progress via the ITaC communication webpage here:
 - <https://www.jse.co.za/services/itac-communications-page>
- **Helpline for support of all enablement or issues experienced during ETE testing?**
 - Contact Client Service Centre (CSC) on CustomerSupport@jse.co.za
or +27 11 520 7777



**Submit your feedback to the JSE
at the end of each week!**

End-To-End (ETE) Testing - Cycle 4



Start Date: 20 August 2018
 End Date: 4 September 2018

Basic Events Scope	Specific Events Scope
Order Management	Users to create intra day instruments
Trade Execution - On Book & Off Book	Month End – 31 August 2018
Options Exercised & Abandoned	EDM Multiple FCOs – 22 Aug 2018, 27 Aug 2018
Deal Management	FXM Multiple Expiries – 23 Aug 2018, 30 Aug 2018
	Corporate Actions - Basic - Complex
	FXM market making obligations
	Decommissioning impact on remaining markets
	Member and client transfers
	Intraday margin call

End-To-End (ETE) Testing



- **What should be tested?**
 - All front end software and functionality
 - All downstream, back office integration and other impacted systems
 - Market Making and automated trading applications
 - DMA applications
 - Reports to Clients
 - System set up and configuration especially client account parameters (e.g. commission %), trader permissions, tripartite arrangements
 - NOT A VOLUME TEST – keep volumes low to ensure verification and checking of data is simplified
- **Examples of scenarios**
 - Client Management
 - E.g. Add, Amend, Delete client
 - Instrument Management
 - E.g. Add tradeable instrument and execute trades
 - Order Management
 - Trade Management
 - Deal Management
 - Position Management.....ETC

End-To-End (ETE) Testing – How to get access?



- **Members and Live Information subscribers** to contact CustomerSupport@jse.co.za via email to request enablement IP address information and to schedule required connectivity tests
 - Provide the CompIDs for Trading and RTC that you will connect with
 - Request the target IP address details for Native Trading, Post Trade and Drop Copy Gateway and ensure you configure these in your test environment
 - Production enablements as used during dress rehearsals have been copied to ETE environment - no new enablements will be created and JSE will update existing enablements to include the IP addresses that you will connect from
 - CSC will arrange for NW enablement of the nominated CompIDs
 - Participants can only join ETE testing at the start of a week and/or cycle and **the cut off is 12h00 on the Wednesday (Thursday/Friday for enablement and LCON)**
 - Test connectivity (LCON) to the ETE environment prior to the start of a week and/or cycle
 - Template of information required:

Software Provider	XXX			
Member Firm	Native CompID	Trading	Post Trade CompID	Drop Copy CompID
ABC				

- **Non-Live Information subscribers** to contact MDProjects@jse.co.za via email to request access to the Non Live Market Data products

Questions?



Please refer all queries to the
JSE Client Service Centre (CSC)



CustomerSupport@jse.co.za



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