



Integrated Trading and Clearing (ITaC)

Client Forum

1 August 2018

Agenda

- ITaC Key Dates
- ITaC End-To-End (ETE) Testing update
 - Observations
- Commissions
- Balancing thresholds in the daily EoD process
- 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
17 Sep – 30 Sep 2018	ETE Testing – Cycle 5 Scripted
8 Oct 2018	Targeted Go-Live Date
12 Nov 2018	Contingency Go-Live Date

We are here

PLEASE NOTE:
Mandatory for all clients

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Mandatory for all clients

ITaC Agreements – Now DUE!



- **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



JSA and JDA are now due.

Your prompt attention is kindly requested.

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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 required for **Cycle 4** should be submitted by no later than 12h00 Wed, 8 August 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.

12h30 Daily Checkpoint

Trd Members, Info Subscr. SWPs

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 - Simple: 31 July 2018 (LDT) with ex-date on 1 Aug 2018 - Simple: 6 Aug 2018 (LDT) with ex-date on 7 Aug 2018 - Complex: 8 Aug 2018 (LDT) with ex-date on 10 Aug 2018
	FXM market making obligations (daily)
	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 (IMR) and 6 Aug 2018 (Price)

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End-To-End (ETE) Testing – Cycle 3

MANDATORY
 Trading Members who do not have physical environments must signoff reports with Clearing Member



- **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

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



End-To-End (ETE) Testing – Participation



- **Trading Members – Mandatory Participation** for Cycle 3, 4 & 5
 - **Direct Participation:**
 - Member firm captures own trading activity (orders, trade reporting)
 - *Verify accuracy and completeness of trading activity*
 - Execute run plan scenarios
 - Inform your Clearing Member that you are participating and request daily reports for signoff
 - *Notify your JSE buddy if you are not receiving these*
 - Ensure you verify accuracy and completeness of daily reports:
 - Engage your software provider on any issues logged and ensure issues are closed out to your satisfaction
 - **Indirect Participation:**
 - JSE Trade packs captured will cover a few trades for each trading member
 - Inform your Clearing Member that you are participating and request daily reports for signoff
 - *Notify your JSE buddy if you are not receiving these*
 - Ensure you verify accuracy and completeness of daily reports:
 - *Report any problems with your clearing member reports directly with your Clearing Member*
 - *Test the downstream processing of the reports into your systems (if required) to ensure these have not changed or impact you*

End-To-End (ETE) Testing – Participation



- **Non-Live Market Data Subscribers**

- Receive files on a daily basis and verify accuracy and completeness and notify MDSupport@jse.co.za if you have any issues or defects to raise
- Non-Live Market Data files generated in the ETE environment contain test data records based on the test data generated in the ETE environment only
- The JSE **cannot produce** the new ITaC data records based on the current production Derivatives systems / legacy services due to the material differences between the two services, data and environments
- Subscribers that also have the benefit of accessing the ETE live market data can use the live data as a form of control to check against the data produced in the NLMD data records as they should align
- NOT TOO LATE to participate in the Non-Live Market Data testing – this is the last opportunity to test new data records via IDP prior to go live – Contact MDProjects@jse.co.za

- **Live Market Data Subscribers**

- Receive real time market data and verify accuracy and completeness against EOD files and notify MDSupport@jse.co.za if you have any issues or defects to raise

End-To-End (ETE) Testing – Participation



- **Clearing Members – Mandatory Direct Participation**
 - Execute scenarios in run plan
 - Provision of daily reports to trading members
- **All End-To-End participants**
 - A data refresh is scheduled for the End-To-End environment post Cycle 3:
 - during week of 13-17 Aug 2018

Clients need to finalise market data record subscriptions as these are required for the JDA

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>

Your feedback is IMPORTANT to us!



- **Weekly testing feedback is required** from all participants
- Please flag relevant scenarios in the run plan with your results and send this through to your JSE buddy at the end of each week of ETE testing

End-To-End (ETE) Testing



- **Attend conceptual training**
 - Training will commence week of 27 Aug with two sessions per day
- **BDA is NOT IN SCOPE for testing in ETE**
 - JSE will test processing of files into BDA
- **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

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 <ul style="list-style-type: none"> - Basic - Complex
	Market Operations
	FXM market making obligations (daily)
	Decommissioning impact on remaining markets (daily)
	Member and client transfers (on request to JSE ClearOps team)
	Clearing EOD re run at CM1 balancing and at CM2 balancing
	Clearing EOD re run on FCO
	Clearing EOD re run on T+1

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End-To-End (ETE) Testing - Cycle 5



Start Date: 17 September 2018

End Date: 30 September 2018

Basic Events Scope	Specific Events Scope
Order Management	Users to create intra day instruments
Trade Execution - On Book & Off Book	Month End – 30 September 2018
Options Exercised & Abandoned	EDM Multiple FCOs
Deal Management	FXM Multiple Expiries
	Corporate Actions <ul style="list-style-type: none"> - Basic - Complex
	Public Holiday 24 September 2018
	FXM market making obligations (daily)
	Decommissioning impact on remaining markets (daily)
	Member and client transfers (on request to JSE ClearOps team)
	Clearing EOD re run at CM1 balancing and at CM2 balancing
	Clearing EOD re run on FCO
	Clearing EOD re run on T+1

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- **Agenda**

- ITaC Key Dates
- ITaC End-To-End (ETE) Testing update
 - Observations

- **Commissions**

- **Recap of Key Aspects**
 - **FAQs**
 - **Status of Front-end Functionality and Testing**
- Balancing Thresholds in the EOD process
 - Questions?

Commissions

Recap of Key Aspects



- Trading Members required to charge commissions when concluding **agency** transactions
- Front-ends to cater for commission fee structures per member requirements
 - E.g. Basis point of trade value, flat fee per contract, flat fee per trade
 - Fee structures to be set up once-off and updated from time to time
 - Front ends to apply the fee structures and submit a ZAR amount (incl. VAT) to the JSE Clearing System
- Commissions may be submitted when a trade is
 - Executed directly on the client account via an On book trade
 - Executed directly on the client account via an Off book trade
 - Allocated to own client
 - Assigned to another TM/Branch
 - Allocated to a tripartite client
- Commissions will in most cases be associated with a specific deal but a deal reference is not always required
 - Bulk commissions and commission adjustments entered on T+1 are examples of commissions which do not require a deal reference

Commissions

Recap of Key Aspects (cont.)



- Process steps for give-up transactions (Off book trade/Assign/Tripartite allocation) involving commissions
 - Initiating TM (I_TM) initiates give-up
 - Receiving TM (R_TM) accepts give-up trade
 - On acceptance by R_TM, the I_TM submits the associated commission
 - I_TM may cancel a submitted commission
 - R_TM receives the commission
 - The associated deal in the R_TM's deals view should be updated with the commission amount
 - R_TM may reject the commission
 - **If a commission is rejected the trade is not rejected/cancelled**
 - **Unless a commission is rejected, it will be processed and incorporated into net payments at EOD i.e. commissions are by default confirmed**

Commissions

Recap of Key Aspects (cont.)



- JSE Clear will facilitate
 - Settlement of net commission amounts **across Clearing Members** on T+1
- Clearing Member to facilitate
 - Payment of commissions **between their Trading Members**
- Trading Member (or Clearing Member on TM's behalf) to facilitate
 - Collection of commissions charged to TM's **own clients**
- Commissions are subject to VAT, therefore Members to ensure VAT invoicing and tax reporting obligations are met

Commissions

FAQs



- Will trades be cleared if CMs haven't been able to verify the commission amounts
 - CMs will not be verifying the correct application of fee structures by TMs who have executed trades on behalf of the CM's clients at EOD
 - CM systems to have threshold checks to identify materially erroneous commissions and these can be resolved at EOD
 - Once any materially erroneous commissions have been addressed, CMs will process commission payments (and clear the associated trades) as part of T+1 net settlements
 - Any erroneous commissions identified through recons done post trade day T can be adjusted for through the capture of commission adjustments
- How will I know when I accept a trade whether there is an associated commission
 - This should have been pre-agreed with the executing TM, either based on pre-agreed terms or when placing the order
 - In the case of a tripartite trade the TM may not know whether a commission applies when accepting the trade
 - Following acceptance of the trade, the commission can be displayed on the trade in the receiving TM's Front-end views
 - If a commission should not have been charged it can be rejected

Commissions

Status of Front-end Functionality and Testing



- Commissions during the 14 July MDR
 - Population of commission reference fields is much better, some issues still to be ironed out
 - Some software providers had issues on the day which impacted overall commissions functionality
- Post the 14 July MDR JSE conducted a mini survey of software providers to assess status of commissions functionality
 - While largely complete some software providers are still finalising the full commissions functionality and reporting
- Co-ordinated testing of commissions being planned in ETE
 - Involving CMs, TMs and Clients
 - Testing of the commissions process from start to finish including the provision of EOD reports and processing of these into client and downstream systems
 - Earmarked for Cycle 4

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- **Balancing thresholds in the daily EoD process**
- Questions?

Context



- As part of the EOD process Clearing Members (CM) confirm whether they align (“balance”) with the numbers published by the JSE which are used for settlement
- This process provides comfort that there are no errors and also allows CMs to provide detailed reporting to their clients
- Discrepancies are investigated and only once resolved does EOD continue
- During the ITaC testing with Clearing Members it has become apparent that the different systems calculate slightly different numbers from time to time - the discrepancies under consideration are minute and occur randomly on only a handful of accounts with negligible financial impact
- These tiny discrepancies do not put the integrity of the calculations into question as they occur even after all data inputs and logical rules (including rounding rules at the various steps of the calculation) have been aligned
- It is inevitable given the nature and magnitude of the calculations that if done by different infrastructure platforms tiny differences in the final values may result

Balancing Threshold Approach



- An approach was agreed with the CMs whereby reconciliation will be subject to a threshold i.e. if the discrepancy is within the threshold amount it will be deemed that JSE and CM reconcile
- The Clearing software will then send an 'auto-balance' confirmation to the JSE Clearing System
- A “Reconciling Item” will be included in Clearing Member reports which indicates the difference between the value calculated the by Clearing Member and the JSE
- The final amount that the Clearing software writes to the accounting/ledger module will include the reconciling item with the result that the values calculated by the JSE will be the ones that are settled.
- As is the case today, CMs can ask the JSE to investigate any discrepancies with which they are not comfortable (even if within the thresholds)

Threshold Framework



- Thresholds will be applied at the principal i.e. TM house and client level

Category	Recalculated by GCMS	Threshold Applied	Threshold* (ZAR)
VM	Y	Y	2
IM	Y	Y	100
JSPAN Initial Margin	Y		
Large Exposure Add-on Initial Margin	Y		
Liquidation Period Add-on Initial Margin	Y		
Settlement Margin	Y		
Additional Margin	Y		
Other Cash Flows	Y		
Funding Interest	Y	Y	2
Dividend Payments	Y	Y	2
Commissions	Y	Y	2
Interest on margin	Y	Y	2
Booking Fees**	Y	Y	2

*Above thresholds have been agreed based on testing to date and JSE and CMs may agree to revise these prior to go-live

**The Booking Fees threshold is applied at the TM (aggregated) level

Application of Thresholds



- If the discrepancy is greater than the relevant threshold, CMs will indicate that they do not balance and EOD will be halted to resolve the discrepancy

Clients	VM		IM		Funding Interest		Dividend Payments		Commissions		Interest on margin	
	Value	Balancing Item	Value	Balancing Item	Value	Balancing Item	Value	Balancing Item	Value	Balancing Item	Value	Balancing Item
Client 1	1 000	-	2 350	1	0	-	0	-	77	-	65	-
Client 2	2 300	-	5 405	-	0	-	0	-	177	0.02	150	-
Client 3	200	-	470	-	233	-	0	-	15	-	13	-
Client 4	4 300	0.35	10 105	-	0	-	0	-	331	-	280	-
Client 5	234	-	550	-	0	-	0	-	18	-	15	-
Client 6	5 678	-	13 343	-211	55	-	100	-	437	0.01	369	-
Client 7	3 445	3.67	8 096	-	0	-	150	0.11	265	-	224	0.11
Threshold		2		100		2		2		2		2

- The application of thresholds at the CM (aggregated) level are also being considered by the Clearing software provider

Questions?



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



CustomerSupport@jse.co.za



+27 11 520 7777