

Integrated Trading and Clearing (ITaC) Client Forum

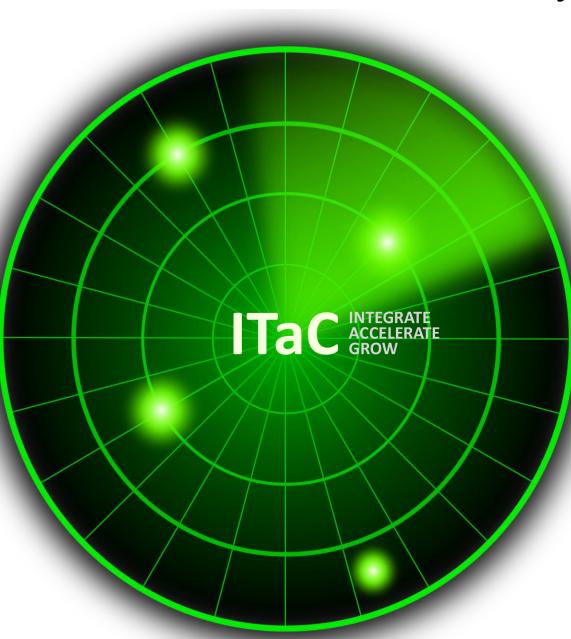
6 February 2019



• ITaC High Level Timeline and Key Dates

- Commissions
- 9 February Mandatory Market Dress Rehearsal
- Final Client Testing Support
- Final Nutron Decommissioning Testing
- Client Forum Topics
- Questions?
- Appendix A: Reminder of Key ITaC Changes



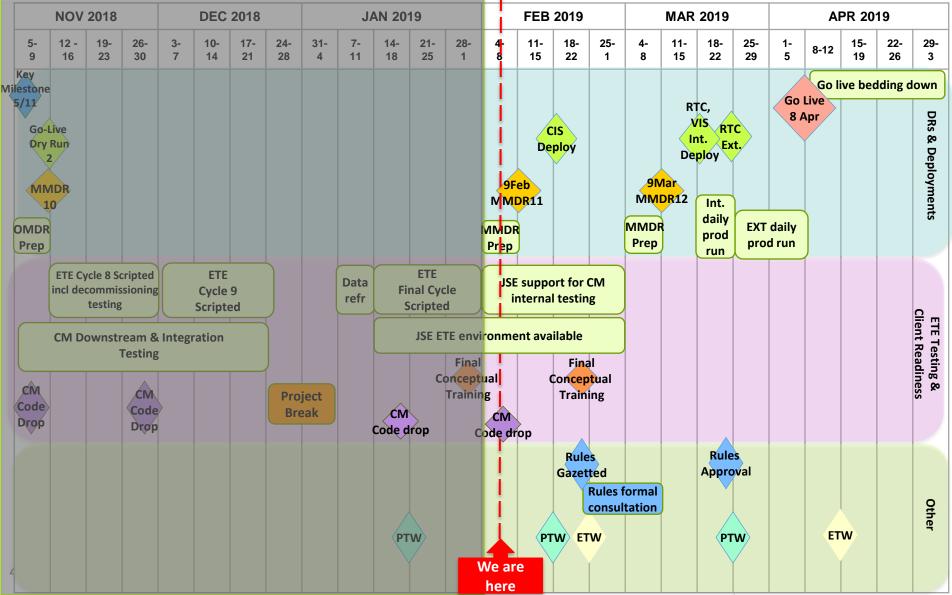


Project ITaC Count Down As at 6 Feb 2019 42 business days

to Go Live on 8 April 2019



High Level ITaC Timeline



That hey bates		FC
		JJE
Date	Milestone	
4 – 8 Feb 2019	Dress Rehearsal Prep (ETE not available)	We are here
9 Feb 2019	Mandatory Market Dress Rehearsal As agreed by the ITaC Market Steering Committee	
9 Feb 2019	Enablement change freeze start (requests for changes to be received	d by 29 Jan 2019)
11 Feb – 1 Mar 2019	JSE ETE environment available (except where indicated otherwise b JSE Support of Client testing	elow)
28 Feb 2019	Conformance Completion	
1 Mar 2019	Trader ID freeze start	
4 – 8 Mar 2019	Dress Rehearsal Prep (ETE not available)	
9 Mar 2019	Mandatory Market Dress Rehearsal	
16 Mar 2019	JSE internal deploy of VIS & RTC into production (not available to cl	ients)
22 Mar 2019	Final approval of rules	
25 Mar – 5 Apr 2019	RTC in production available to clients External Production Daily Run (daily reference data alignment)	
6 – 8 Apr 2019	Go Live Weekend and Final cut-over activities	
8 April 2019	Go-Live Date	
15 Apr 2019	Trader ID freeze end	
6 May 2019	Enablement change freeze end	

Item	Description
"Implied order across" configuration	Implied order will match the current Nutron/Nuclears configuration i.e. Implied in and Implied out. Implied orders across will be switched on after a settling down period post go live.
Market Orders	 Post discussions with the ITaC Market Steering and Advisory Committees, it was requested that Market Orders are disabled for go live. As market orders are being disabled, the following Order Types will also be disabled: Market To Limit orders Market If Touched orders Stop Orders
Thresholds applied when publishing traded volatility on index options (EDM only)	With ITaC these thresholds will not be applicable on Off Book Trades as all trade information, including the volatilities is published via the trading market data gateways.

Enablement Freeze Period

• Enablement cut-off was COB 29 Jan 2019 and CEIFs had to be signed off by 1 Feb 2019

If your firm did not meet the cut-off date, unfortunately it is no longer possible to change software providers or enablements prior to go live

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- Any new/changed enablements that met the 29 Jan cut-off date <u>must pass 2 dress rehearsals</u> (9 Feb & 9 Mar 2019)
- Enablement change freeze is now in effect
- 6 May 2019 Enablement change freeze end (could be earlier if bedding down period smooth)

Conformance

- All software conformance by software providers or own solution developers must be completed by 28 February 2019
- The JSE has determined the conformance requirements for trading, deal management and clearing software providers and has notified all software providers via email
- Own solution developers need to contact JSE CSC as soon as possible so that the conformance requirements can be closed out
- Live Information subscribers do not need to redo conformance



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TraderID Freeze Period

- Any new Trader ID must be tested in at least one dress rehearsal (9 Feb or 9 Mar)
- 1 Mar 2019 TraderID freeze start
- 15 Apr 2019 TraderID freeze end

Go Live Bedding Down Period

• 8 Apr – 3 May 2019



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Commissions

- Additional focused commissions tests were facilitated in January 17, 18, 28 & 29 Jan 2019
 - Good collective coverage of scripted scenarios including ad-hoc commissions
 - Interactions on the open line indicated solutions functioning well with counterparts observing and confirming the commissions as they were being managed
 - Software Providers addressing last remaining functional issues reported by clients
 - JSE meeting with Software Providers to assist in ironing out these remaining issues
- There is still some nervousness in the market about the new commissions process and this is understandable as it is completely new to the market
- Additional testing is planned for 12 & 13 Feb 2019 and clients can use the 9 Feb 2019 MMDR as well
- The biggest concern raised by a few clients relates to adhoc commissions which is defined as any commission not linked to a specific trade or deal
- Adhoc commissions can be used to adjust an incorrect commission on T+1 or subsequent days or for bulk commissions i.e. charging for multiple trades through a single commission entry



Commissions

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Item	Risk	Mitigations and possible preventative measures
Adhoc commissions	As commissions are by	A participant who intentionally uses this functionality to submit a charge that is not
	default in an accepted state	related to trade execution (or any other service) against a counterparty or client would
'Adhoc commissions'	when submitted to the JSE	be acting fraudulently. Nevertheless the potential for abuse exists and as mentioned
are any commissions	Clearing System, unless they	there is also the risk of unintentional errors e.g. finger errors.
not linked to a specific	are rejected they will be	Given that adhoc commissions are expected to be predominantly used to adjust
deal. They are	processed at EOD and	commission errors not picked up on T, it is expected that the volume of these
intended to be used	incorporated in net	commissions will be very low making it practical for participants to specifically monitor
for purposes of	settlements on T+1	them.
adjusting for		
erroneous	The risk is that a participant	The following are preventative measures that can be implemented at the different levels.
commissions	abuses the system and	PREVENTATIVE MEASURES
submitted on a	submits an adhoc commission	Trading Members (TMs)
previous day or for	against a counterparty	The primary responsibility for ensuring that commissions are correct lies with the
bulk commissions – a	member or client and this	executing Trading Member. TMs to ensure they have front end or middle/back office
commission charge for	commission is not picked up	system functionality and business processes in place to prevent intentional abuse and/or
multiple trades	and rejected on T. The	human errors as far as possible.
executed.	erroneous adhoc commission	Business processes (supported by front end or middle/back office system functionality -
	could also be due to human	see below) can be implemented by the TMs to verify any incoming adhoc commissions
	error e.g. finger error.	and reject any that the TM or his client does not recognise or agree with.
	The risk of missing the	
	erroneous commission is	Clearing Members (CMs)
	higher if the submission is late	Although commissions are a service fee agreed between the TM and his client and the
	in the day.	responsibility lies with the TM and the client to ensure these fees are charged in
		accordance with signed agreements, CMs as facilitators of the commissions process may
		elect to have business processes for verifying any adhoc commissions charged to their
		TMs and clients (where they have relationships with clients) and reject any adhoc
		commissions that the TM/client does not recognise or agree with. As an example one
		very large clearing member has confirmed they will verify all adhoc commissions with

their clients.

Item	Risk	Mitigations and possible preventative measures
Adhoc commissions	As commissions are by	PREVENTATIVE MEASURES (continued)
	default in an accepted state	
'Adhoc commissions'	when submitted to the JSE	Clients
are any commissions	Clearing System, unless they	Most asset managers or their fund administrators are implementing reconciliations of
not linked to a specific	are rejected they will be	commissions. Such recons even if performed on T+1 will act as a deterrent against abuse
deal. They are	processed at EOD and	of the system. Errors picked up on T+1 can be rectified with an adhoc commission. It is
intended to be used	incorporated in net	also possible to implement recons intraday on T.
for purposes of	settlements on T+1	
adjusting for		Software Providers
erroneous	The risk is that a participant	- Front end functionality such as alerts/pop-ups/colour to highlight any incoming
commissions	abuses the system and	adhoc commissions to support the identification and verification of these
submitted on a	submits an adhoc commission	commissions.
previous day or for	against a counterparty	
bulk commissions – a	member or client and this	- Front end functionality could also include requiring approval of adhoc commissions
commission charge for	commission is not picked up	by a certain time in the day failing which these comms could be auto-rejected by
multiple trades	and rejected on T. The	the software.
executed.	erroneous adhoc commission	
	could also be due to human	JSE
	error e.g. finger error.	JSE will monitor all adhoc commissions particularly in the settling down period post go
	The risk of missing the	live and will assist CMs and TMs in identifying any large adhoc commissions for further
	erroneous commission is	investigation or verification.
	higher if the submission is late	
	in the day.	Changes in RTC to address residual risks associated with the adhoc commissions process will be considered post go live as the market adjusts to the new process.



Commissions

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Item	Risk	Mitigations and possible preventative measures
Incorrect	An incorrect commission is	PREVENTATIVE MEASURES
commission on	charged for a transaction	
a trade/deal	and the error is not	Trading Members (TMs)
	identified on T.	TMs to ensure they have front end or middle/back office system functionality and business
		processes in place to ensure commissions are correctly applied and prevent intentional abuse
	In our experience most	and/or human errors as far as possible.
	incorrect commissions result	Receiving TMs can monitor incoming commissions. Although commission on give up trades is
	from incorrect fee setups on	only received once the give up is accepted, the TM's front-end displays these commissions as
	the initiator's front-end or in	soon as the trade is accepted and can be checked. Front-ends can also display commissions in
	the case the commission is	terms of bp of trade value or bp per contract to allow for an easier 'sanity check' of the
	manually captured it may be	commission charged when a TM is checking.
	due to human error. There	Front-end alerts and/or highlighting of commissions above configurable thresholds can be
	could be intentional abuse	provided to aid Traders or back office users in detecting erroneous commissions.
	but again that would be	
	fraudulent.	Clients
		Most asset managers or their fund administrators are implementing reconciliations of
		commissions. Such recons even if performed on T+1 will act as a deterrent against abuse of the
		system. Errors picked up on T+1 can be rectified with an adhoc commission. It is also possible to

implement recons intraday on T.

Item Incorrect a trade/deal

Risk An incorrect commission is commission on charged for a transaction and the error is not identified on T.

> In our experience most incorrect commissions result from incorrect fee setups on the initiator's front-end or in the case the commission is manually captured it may be due to human error. There could be intentional abuse but again that would be fraudulent.

Mitigations and possible preventative measures

PREVENTATIVE MEASURES (continued...)

Clearing Members (CMs)

While the primary responsibility for ensuring commissions are correctly applied lies with the TMs, some CMs have indicated that they will verify commissions charged against client's instructions during the process of allocating the trades to underlying client accounts. A large clearing member has confirmed that even though they will not check each and every commission after accepting the trade, they will however verify the total commission against the client's instruction when allocating the trade to underlying accounts.

Exception reports in CM solutions could help to detect material errors e.g. if a commission is more than a certain bp threshold of trade value or more than a certain bp threshold per contract. If material errors are only picked up during the EOD balancing process between JSE and CMs these can still be resolved as the JSE has the ability to manage and correct such issues at EOD (after the Deal Management period).

Software providers

Provide the functionality described above under 'TMs' such as threshold checks and alerting.

JSE

JSE will monitor commissions in the settling down period post go live and will assist CMs and TMs as much as possible in identifying commissions that breach JSE threshold checks.



Risk Item Commission on a A commission is deal when no charged on a trade or deal when no commission should have commission at all been alleged at should have been charged and this is not all picked up on T. An invalid commission may result from human error or intentional abuse.

Mitigations and possible preventative measures

Trading Members are encouraged to implement procedures and processes to avoid as far as possible invalid commissions being intentionally or erroneously alleged to counterparts or clients. Patterns of this behaviour can also be reported to the JSE's Market Regulation team.

Preventative measures that can be implemented by recipients of invalid commissions include:

PREVENTATIVE MEASURES

Trading Members (TMs)

Once a trade is accepted the commission is immediately displayed on the recipient's front-end and can be checked by the trading member. There are deals and commissions views providing an opportunity for the acceptor of the trade to identify and reject the invalid commission.

Clearing Members (CMs)

While the primary responsibility for ensuring commissions are correctly applied lies with the TMs, some CMs have indicated that they will verify commissions charged against client's instructions during the process of allocating the trades to underlying client accounts. In the case of bulk accepts, because commissions are only received once the trades are accepted it will be more difficult for CMs to detect instances where a commission should not have been charged on a single trade. A large clearing member has confirmed that even though they will not check each and every commission after accepting the trade, they will however verify the total commission against the client's instruction when allocating the trade to underlying accounts.

Exception reports in CM solutions could help to detect material errors e.g. if a commission is more than a certain bp threshold of trade value or more than a certain bp threshold per contract. If material errors are only picked up during the EOD balancing process between JSE and CMs these can still be resolved as the JSE has the ability to manage and correct such issues at EOD (after the Deal Management period).



ltem	Risk	Mitigations and possible preventative measures
Commission on	A commission is charged	PREVENTATIVE MEASURES (continued)
a deal when no	on a trade or deal when	
commission	no commission at all	Software providers
should have	should have been	Provide the functionality to allow TMs to check commissions and provide alerting based on
been alleged at	charged and this is not	historical data i.e. first time this client has been charged a commission
all	picked up on T.	
		Clients
	An invalid commission	Most asset managers or their fund administrators are implementing reconciliations of
	may result from human	commissions. Such recons even if performed on T+1 will act as a deterrent against abuse of the
	error or intentional	system. Errors picked up on T+1 can be rectified with an adhoc commission. It is also possible to
	abuse.	implement recons intraday on T.
		JSE
		JSE will monitor commissions in the settling down period post go live and will assist CMs and TMs
		as much as possible.



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Lead Up To Dress Rehearsal

					TCT	
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Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
		Market Dat	nents for Trading, a and RTC Ds and TraderGroups	1 Production Data cut as at COB	2	
4	5	6	7	8	9 Dress rehearsal prep	
Dress rehearsal preparations			Technical connectivity proving from ~midday on Thursday		continues ~8am publish <u>FINAL</u> CSV files and EDM & FXM Friday EOD	
Environment prep and Instrument reference data alignment to production Nutron data		~12h00 <u>draft</u> CSV reference data files and mapping spreadsheet	~22h00 start dress rehearsal data migration activities	Closing Price spreadsheet 09h00 – 12h00 CM Data verification & signoff to JSE		
	ONNECTIVITY A	AVAILABLE	published		11h00 – 12h00 TM Data verification and	
TraderID CS	V files availabl	e daily in prod IDP	member folders		signoff to JSE	
<u>Please NB:</u> Password res	ets applied after	r 1 Feb 2019 will ne	ed to be re-done on Satu	rday	12h00 – 14h30 Dress Rehearsal client testing execution	
			n active over the past 2 y real-time clearing system		14h30 - ~18h00 EOD and CM Balancing & Rpts	

Date	Time	Description	To Action	
	Go li	we are here		
Thu, 07 Feb 2019	JSE to notify time	Trading and Real-Time Clearing connectivity can be confirmed and initial TraderID files issued	CMs, TMs & IS	
Fri, 08 Feb 2019	~ 10:00	Draft Client CSV files and TraderID files issued	CMs, TMs & IS receive and process	
Fri, 08 Feb 2019	18:00 - 00:00	JSE Production Batch runs (all services)	JSE	
Sat, 09 Feb 2019	00:01 - 08:30	JSE ITaC Data Take-on from Nutron and internal verification	JSE	
09 Feb 2019	~ 04:30	JSE issues Final Client CSV files and TraderID files	CMs, TMs & IS receive and process when they are ready to	
09 Feb 2019	09:00 - 12:00	Clearing Member data verification activities*	CMs to verify data take-on & submit date verification signoff	
09 Feb 2019	09:30 – 12:00	Connectivity to Trading, Market Data and Clearing GWs available	CMs, TMs & IS to connect when ready at any time during this period	
09 Feb 2019	11:00 - 12:00	Trading Member data verification activities*	TMs to verify data take-on & submit date verification signoff	
09 Feb 2019	12:00	 Dress Rehearsal testing to commence as per Test Schedule for: Mandated for Trading and Clearing Members Optional testing for Info Subscribers 	CMs, TMs & IS	

¹⁹ * <u>Click here to download the data verification signoff sheet to submit to JSE prior to end of the dress rehearsal</u>

Date	Time	Description	To Action	
		Dress Rehearsal Activ	vities	
	12:00 – 14:15	EDM & FXM Off Book Trade Reporting Period	CMs, TMs to commence trade reporting and Deal Mgmt Information subscribers to receive and process Market Data	
	12:20 - 12:30	EDM Opening Auction		
09 Feb 2019	12:30 – 14:15	EDM & FXM Continuous Trading Period	Orders, Trades, Deal Mgmt, Clearing and Market	
	13:30 - 14:15	Trading Gateway Failover (TBC on day depending on client request)	Data published	
	14:15 – 14:30	EDM & FXM Post Close Period	Order deletion, GTT orders are expired, manage Off Book trades. No order matching and Closing Prices published	
	14:15 - 14:30	EDM & FXD – EOD Deal & Position Management period	CMs, TMs to perform Deal Mgmt activities	
	14:30 onwards	Conduct EOD Dress Rehearsal	JSE, CMs	
	Post EOD	Test ends and clients commence data clean-up	REMINDER: Roll back to as at Post EOD 8 Feb 2019	

All times are approx and quoted in South African Standard Time (SAST = GMT+2)



Reminder Dress Rehearsal Participation Requirements

• 9 February 2019 Dress Rehearsal - Equity Derivative and Currency Derivatives markets

- Mandatory for:
 - Trading Members All Traders (testing should not be conducted by the IT teams or software providers)

JSE

- Clearing Members include operations staff (testing should not be conducted by the IT teams or software providers)
- Shared Infrastructure Providers
- Software Providers
- **Optional** for:
 - Live Information subscribers
- 9 March 2019 Final Client Go Live Dress Rehearsal Equity Derivative and Currency Derivatives markets
 - Mandatory for:
 - Trading Members All Traders (testing should not be conducted by the IT teams or software providers)
 - Clearing Members include operations staff (testing should not be conducted by the IT teams or software providers)
 - Live Information subscribers
 - Shared Infrastructure Providers
 - Software Providers

- Updated User Readiness checklists for Trading Members, Clearing Members and Information Subscribers must please be submitted to the JSE on Monday, 11 Feb 2019 post the dress rehearsal
- Only submit checklists, if any responses on previous submissions have:
 - "NO" on any of the questions
 - And /or where the response was "**N/A**" but the reason for this was not explained
- JSE has requested feedback on certain items so please revert soonest with your feedback and should you require assistance please contact your JSE Buddy

Member Data Verification Sign-off NB!!

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- Trading and Clearing Members are required to sign off on the account, opening positions and collateral (margin) balances take on performed by the JSE as part of the final ITaC go live weekend activities on 6 April 2019
- In order to ensure that members are familiar with the go live data migration process signoff of data take on will also be **required on the dress rehearsals (09 February and 09 March 2019)**
- This form needs to be signed and submitted to the JSE by the appropriate responsible representative(s) within the Trading or Clearing Member firm prior to the end of the dress rehearsal(s)
- A guidance note is available detailing the signoff process of the transactional and reference data

ITaC Guidance Note on Data take-on for EDM and FXM.pdf

Take on data to be signed off includes:

- 1. Sub Accounts
- 2. Client Accounts and Tripartites
- 3. Positions
- 4. Cash accounts (Member cash accounts and foreign clients)
- 5. Additional margin setups
- 6. Cash collateral balances (Clearing Members only)



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Trading and Clearing Member Sign-off

NAME OF TRADI	NG / CLEARING				
NAME OF AUTHORISED REPRESENTATIVE:					
	F REPRESENTATIVE:				
DATE: SIGNATURE:		/ / 2019			Click here
DATA TO BE VERIFIED	VERIFICATION BY	DESCRIPTION	VERIFIED	COMMENTS (IF NECESSARY)	to download Signoff shee
Cash Collateral Balances	Clearing Members Only	Verify cash collateral balances at a member and client level			0
Positions	Trading and Clearing Members	Verify position take-on at member and client level			Return
Position Accounts	Trading and Clearing Members	Verify take-on of position accounts including member and client sub accounts			signoff Sheet to ITaC@jse
Clients	Trading and Clearing Members	Verify member client take-on			
Tripartite Agreements	Trading and Clearing Members	Verify tripartite take-on			
Cash Accounts (Member and Foreign Clients)	Trading and Clearing Members	Verify cash accounts loaded for members and member clients			
Additional Margin Setup	Trading and Clearing Members	Verify any additional margin requirements			

Real-Time Clearing Password Policy

- Real-time Clearing Password policy enforcement
 - As we are nearing go-live, RTC password policy enforcement will be implemented in the ETE and CTS environments from Monday, 11 February 2019

- Please note that there is a change to RTC password length from a minimum of 4 to a minimum of 8 characters
- The default password for Real Time Clearing (RTC) is set to the name of the Comp-ID E.g. Comp-ID = ABCRT01, Password = ABCRT01.
- Policy requirements are:
 - Password must contain at least one letter and one number
 - Password must be at least 8 characters in length
 - Password change is forced upon first login and the 8 character minimum is enforced at this point
 - Password is only valid for 30 calendar days
 - After 3 failed attempts, RTC will lock out the account; clients will need to contact JSE CSC to unlock the account
- The change will be effective when the system starts up on Monday, 11 February 2019. Clients are requested to reset their passwords as per the ITAC guidance Note on password policy.
- This will be carried through to production deployments for RTC early deployment on 25 March 2019

For new/changed Enablements ONLY!

- Dress rehearsal results will be generated only for all new/changed ENABLEMENTS based on transaction data in JSE systems – retain your system logs
- Checklist link <u>https://www.jse.co.za/services/itac#OtherDocumentation</u>

Trading Business Functional Test Guide	Post-trade Checklist			
DO NOT need to be completed & returned to the JSE	Must be completed and returned to the JSE by Trading and Clearing Members			
All functionality highlighted in Yellow is mandatory	Mandatory functionality identified by column "Part of MMDR Success criteria"			
• Pass mark is 85% for EDM & FXM	• Pass mark is 80%			
Confirm what business functionality is not applicable to your firm				

- Draft dress rehearsal checklists and schedule links for new/changed enablements:
 - Mandatory Market Facing Dress Rehearsal Trading Schedule.pdf
 - Dress Rehearsal Trading Functional Test Guide EDM FXM MMDR_2019
 - Mandatory Market Facing Dress Rehearsal Post-trade Schedule.pdf
 - <u>Post-trade Dress Rehearsal Functional Test Worksheet 2019.xlsx</u>



JSE

• The key objective of the ITaC dress rehearsal is to simulate as closely as possible a live production business day in the production environments of the ITaC solutions

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- The **9 February and 9 March 2019** dress rehearsals are for <u>clients</u> to:
 - Test your final solution and front-end configuration, setup, readiness and robustness
 - Final opportunity for Traders and other operational back office staff to familiarise themselves with their front-ends in a live environment using close to live data – PLEASE USE REALISTIC PRICES AND NUMBER OF CONTRACTS TRADED
 - Conduct final go-live readiness checks and build confidence in your teams to prepare for go live
 - Practice go-live cutover activities as they will happen on the cut-over weekend
 - Practice the sign-off of positions, margin balances and reference data take on as it will be on go live

As the focus of this test is for client's own testing - no JSE test checklists will be published and no test checklists need to be returned to the JSE! (except for new/changed enablements)

The JSE will not produce results reports (except for new/changed enablements)

- Passwords
 - Trading, Market Data and Real-Time Clearing Gateway passwords will be as at close of business 1 Feb 2019
- Trader IDs
 - Compliance Officers are required to ensure that participation by trading members must include all traders (testing should not be conducted by the IT teams or software providers) and for clearing members it needs to include the operations staff (testing should not be conducted by the IT teams or software providers)
- Counterparty Pairing
 - The JSE will <u>not</u> pair clients with counterparties for testing clients to engage with counterparties as they do during a normal trading day
- JSE Buddy
 - Your JSE buddy will engage with you before the dress rehearsal so that you are aware of who to contact should you need to escalate an issue
- Issue logging
 - Ensure you log all dress rehearsal issues experienced with your software provider
 - Log queries for the JSE with first line JSE Client Service Centre (CSC) via email to CustomerSupport@jse.co.za or call us on +27 (11) 520 7777
 - Keep track of all actions in the event of a problem to assist with troubleshooting and to recreate the issue
- Monitor online status via this link:
 - <u>https://www.jse.co.za/services/technologies/market-communications</u>



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Key objectives for Trading Members

- Trading Members to Verify Trading Member and Client Positions in ITaC solutions
 - Verify all Nutron position data (as at close of business on Friday, 8 February 2019) has been correctly converted into ITaC on 9 Feb 2019
 - Verify positions at a principle level per tradable instrument
 - Check positions stored at Trading Member and Trading Member sub account level
 - Check positions at client and client sub account level (if applicable)
- Reference Data Accounts
 - Check all active member and branch sub accounts have been correctly converted into your ITaC solution
 - Check all active member clients and client sub accounts (if applicable) have been correctly converted
 - Check all accounts loaded from 1 January 2019 (even if not active) have been correctly converted
 - Check branches (if applicable) have been correctly converted
- Other Trading Reference Data
 - Verify contract codes and other trading reference data (as at close of business on Friday, 8 February 2019) has been correctly converted into ITaC on 9 Feb 2019
 - Verify all closing prices as provided in the prices file from the JSE as well as published in real-time feed
 - Practice JSE sign off requirements and submit data verification sign off to JSE on 9 Feb 2019 before the end of the Dress Rehearsal



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Key objectives for Clearing Members

- JSE Data Take-on Process
 - Post the production Nutron EOD batch on Friday evening, 8 February 2019 the JSE will commence the data take-on process to convert/carry over all Nutron data (contracts, member and client accounts as well as open positions etc.) to the new ITaC solutions
- Clearing Members to Verify Trading Member Positions in ITaC
 - Verify positions at a principle level per tradable instrument
 - Verify margin balances take on
 - Verify member branches and member clients take on
- Test all On-Behalf-Of Trade Reporting and Deal Management (where this is part of normal business operations)
- Test all Clearing functionality
- Practice JSE sign off requirements and submit data verification sign off to JSE on 9 Feb 2019 before the end of the Dress Rehearsal
- EOD balancing will be run at the end of the test and Clearing Members will produce reports



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Key objectives for Information Subscribers

JSE Data Take-on Process

- Post the production Nutron EOD batch on Friday evening 8 February 2019 the JSE will commence the data take-on process to convert/carry over all Nuclears market data (contracts and closing prices) to the new ITaC services
- Information Subscribers to Verify Reference Data in ITaC
 - Verify reference data (as at close of business on Friday, 8 February 2019) has been correctly converted into ITaC on 9 Feb 2019. This verification should include Contract Codes
 - Verify all closing prices as provided in the prices file from the JSE as well as published in real-time feed
- Non Live Market Data subscribers
 - We will **NOT** produce the JSE NLMD files for Equity Derivatives and Currency Derivatives market as part of this dress rehearsal testing can continue in the End-To-End environment for NLMD



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Final Client Testing Support

- ETE Final test cycle ended successfully on 1 Feb 2019
- 11 Feb 1 Mar 2019 : JSE support for final client testing
 - Unscripted testing clients to complete final testing
 - Environment available for ALL CLIENTS
 - Nutron decommissioning testing! (refer to detailed slide)
 - The JSE will generate a minimum daily trade pack that will generate at *least one transaction per day per member*
 - See summary (on next slide) for specific business events scheduled for this period
 - Clearing Members to provide end of day reporting to their clients daily as this would be in production
 - JSE will facilitate adhoc requests (min 24 hours notice) pertaining to:
 - ✓ Member and client transfers
 - ✓ Position transfers
 - Log all adhoc requests via <u>CustomerSupport@jse.co.za</u>
 - JSE will facilitate adhoc request (min 48 hours notice) pertaining to:
 - ✓ Corporate Action (on 21 February 2019)
 - Log all adhoc requests via <u>CustomerSupport@jse.co.za</u>



Final Client Testing Support - Scope

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Feature	Date	Impacted
FCO / Expiries	14 & 21 Feb – <i>EDM FCO</i> 18 & 25 Feb – <i>FXM Expiry</i>	Clearing Members Trading Members
Trading and Clearing	Daily All trades generated in the trading system will be published via the Real Time Clearing interfaces	Clearing Members Trading Members
Deal and Position Management	Daily All deal and positon management functionality is available to clients via the Post Trade Services RTC interface	Clearing Members Trading Members
Members	Daily Members will be able to create clients via the Post Trade Services RTC interface	Clearing Members
Position Accounts	Daily Members will be able to create additional position accounts via the Post Trade Services RTC interface	Clearing Members
EOD Processes	Daily End of Day processes and balancing to Clearing Members will be run in this environment enabling Clearing Members to produce their client facing reports	Clearing Members
EOD Reporting	Daily Clearing Members to provide end of day reporting to their clients	Clearing Members
Market Making Qualification Monitoring	Daily Market Makers to ensure sufficient daily activity to qualify i.t.o requirements	Trading Members
Month End Reporting and Balancing	11 Feb - Confirm first day Balancing & Reporting 28 Feb - Month End Reporting and Balancing	Clearing Members Trading Members

Feature	Date	Impacted
Client Transfers	13, 20 & 27 Feb Clients may request member and client transfers (24 hour notice required)	Clearing Members
Position Transfers	13, 20 & 27 Feb Clients may request Position Transfers (24 hour notice required)	Clearing Members
Intraday Instruments	12 Feb	Clearing Members
Corporate Action Events	12 Feb Corporate Action Unbundling 21 Feb Clients may request specific Corporate Action Events (48 hours notice required)	Clearing Members
Settlement	12 Feb Settlement - Non Res and External Payments	Clearing Members
Commissions	12 & 13 Feb Commissions Focus Test	Clearing Members
Nutron Decommisioning Testing	18 – 20 Feb Refer to detailed slides further in pack	Clearing Members Trading Members

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Decommissioning Testing – Overview

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- Equity Derivatives and Currency Derivatives markets will be migrated from the Nutron trading platform onto the new Integrated Trading and Clearing (ITaC) technology. These markets will **no longer be** accessible on Nutron post ITaC go live on 8 April 2019
- The JSE will simulate a final decommissioning tests for Trading and Clearing Members is scheduled for 18-20 February 2019
- Clearing Members are required to align their test environments to JSE data as at a certain date to prove the decommissioning activities (prep activities from 12 – 15 Feb see detail on next slides)
- To ensure that the trading functionality operates as expected in the non-impacted markets after ITaC go live, clients who are members of these markets are encouraged to test their business as usual activities including downloading files/reports, the trading functionality and administrative activities
- The JSE has proposed several scenarios to test in the form of a <u>run plan</u> to be used as a guideline of what to test
- During the testing, clients can expect the following:
 - Equity Derivatives' clients will not be able to log onto Nutron
 - For **Currency Derivatives** markets, clients will be **able to log into Nutron** but should **not be able to perform any functionality** for the currency derivative markets instruments
 - For the Interest Rate Derivatives, Spot Bonds and Commodity Derivatives markets, clients will be able to log into Nutron and should be able to perform ALL daily functionality
- A few Nutron terminals are available on site at the JSE for Trading Members to use should they not have the capability to connect to the JSE's decommissioning environment

Members that wish to participate in the Decommissioning to contact JSE Client Service Centre (CSC) on +27 11 520 7777 or <u>CustomerSupport@jse.co.za</u>

Decommissioning Test Dates for trading members and information subscribers	 Final Decommissioning test execution 18 – 20 February 2019 Preparation activities involve: 12 Feb 2019 - JSE production data as at end of day on 12 February 2019 taken 13 – 14 Feb 2019 – Restore to the ETE environment 15 Feb 2019 – Environment available for connectivity tests only
Is this testing optional or mandatory?	All trading and clearing members are strongly encouraged to participate and test all business as usual activity performed in production
What should be tested?	 All trading activity and other business as usual activity performed via Nutron in production. Prove connectivity to environment pre and post decommissioning. Equity and Currency Derivatives Markets should not be accessible post decommissioning activities Download the Nutron Decommissioning run plan by clicking this link: Nutron Decommissioning Run Plan
What time will testing take place?	09h00 – 14h30 daily and then EOD starts to align to RTC EOD
What environment will we test in?	 The JSE's Decommissioned Test environment will be used for testing. There are two options available to trading members: 1) Connect to the JSE's ITaC decommissioning environment from your office - connectivity specifications are listed in subsequent slides 2) Use the Nutron terminals on site at the JSE – Contact JSE CSC to reserve a booking

Decommissioning Testing – Trading Members (cont.) $JS\Xi$

	Connectivity details for the IRC (Interest Rate Derivatives, Currency Derivatives and Spot Bond Markets) in the ITaC decommissioning environment:
	 Trading Members: IP Address & Port: Please request the IP address from JSE CSC The same member code and dealer code used in Production must be used in
Connectivity Details	 the test environment Market Makers: IP Address & Port: Please request the IP address from JSE CSC The same member code and dealer code used in Production must be used in the test environment
	Connectivity details for the Commodity Derivatives Test Environment in the ITaC decommissioning environment:
	 Trading Members: IP Address & Port: Please request the IP address from JSE CSC The same member code and dealer code used in Production must be used in the test environment

Decommissioning Testing – Clearing Members

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Decommissioning lesting – Clearing Wembers		
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Decommissioning environment prep	JSE will be restoring production data as at End of Day on 12 February 2019. Environment prep is 13 – 14 Feb and 15 Feb 2019 environment available for CONNECTIVITY only	
What do Clearing Members need to do ?	Clearing Members to restore their GCMS test environment interfacing to the End to End environment for decommissioning to align to JSE as at 12 Feb 2019. Prove connectivity to environment pre and post decommissioning. EDM and FXM should not be accessible post decommissioning activities	
Decommissioning Test Dates	18 – 20 February 2019 – test execution with Trading and Clearing Members	
Is this testing optional or mandatory?	All Clearing members are required to participate in this testing	
What should be tested?	 End of day to be run retrospectively on 15 Feb 2019 pre decommissioning for 13, 14 and 15 Feb 2019 End of day on 18, 19 and 20 Feb 2019 on decommissioned environment Focus will not be on balancing but ensuring end of days can be run successfully pre and post decommissioning across all participants 	
What time will testing take place?	End of day run on decommissioned environment aligned to RTC end of day in ETE testing on 18, 19 and 20 February 2019	
What environment will we test in?	 Connectivity details for the IRC (Interest Rate Derivatives, Currency Derivatives and Spot Bond Markets) in the ITaC decommissioning environment: Clearing Members: IP Address & Port: Please request the IP address from JSE CSC The same member code and dealer code used in Production must be used in the test environment 	

Decommissioning Testing – Market Data Subscribers

- Live Data Subscribers (Optional participation)
 - Live Interest Rate and Commodities test data feeds are available
 - Data is as per test data being created in test environment so no correlation to production data For live clients
 - Contact JSE Client Service Centre (CSC) if you want to know how to connect to the test environments
- Non-Live Data Subscribers (Optional participation)
 - Test Interest Rate and Commodities Derivatives data records for all current IR and CDM data subscribers are being produced as per production subscriptions and placed in client specific NLMD ETE folders on production IDP serve
 - Test client data files are only made available in the morning of the next business day
 - Data is as per test data being created in ETE test environment so no correlation to production data
 - Important to test that the exclusion of Currency Derivatives data from IR data records can be catered for by your solutions

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Date	Session Topics for Discussion
20 February 2019	9 Feb Dress Rehearsal feedback9 March Dress Rehearsal briefing
6 March 2019	 9 March Dress Rehearsal update Go-Live briefing and early deployment support model Preparation for early deployment
20 March 2019	 Post early deployment support model update Go-Live cutover and deployment preparation Go-Live update Go-Live support briefing
3 April 2019	Final Go-Live Briefing



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Questions?

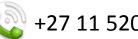
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Please refer all queries to the JSE Client Service Centre (CSC)



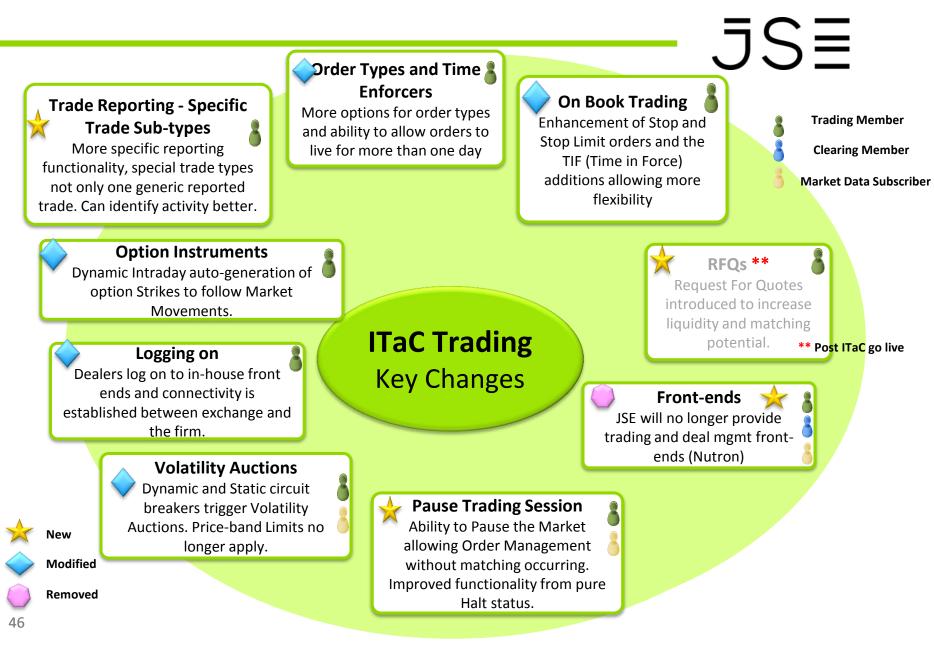
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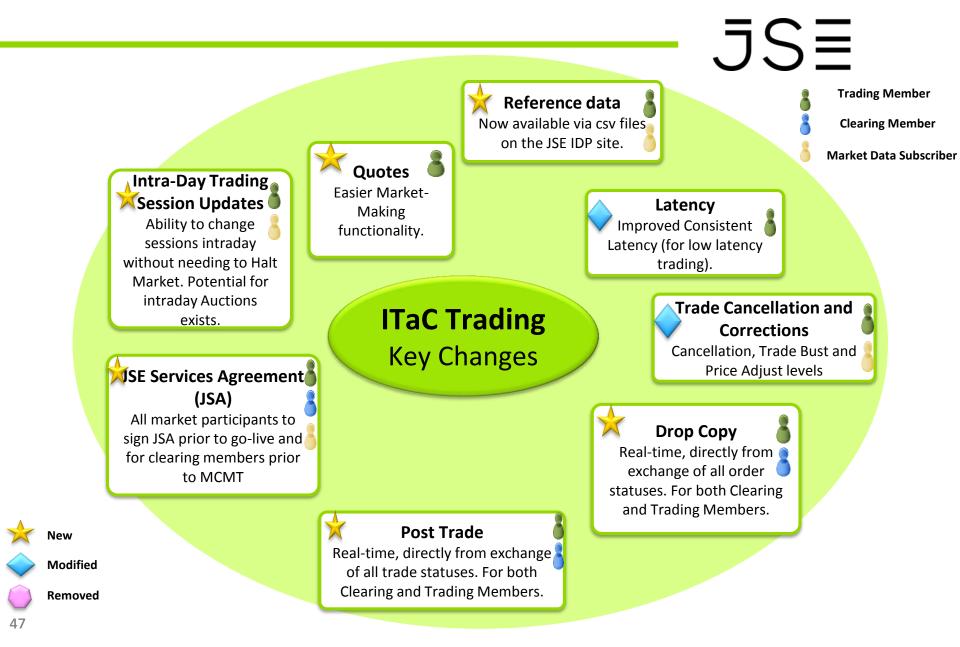
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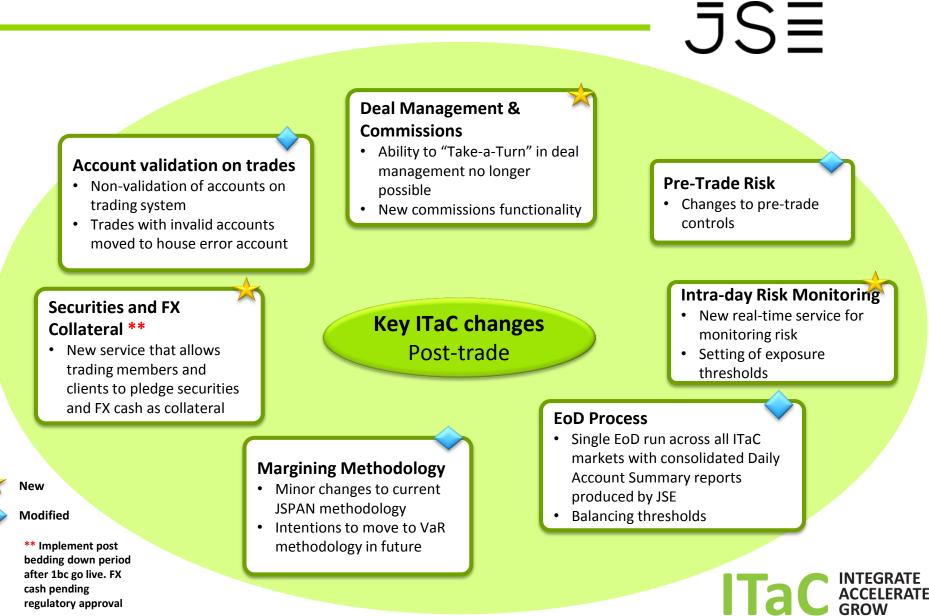
Reminder of Key Changes – Trading



Reminder of Key Changes – Trading

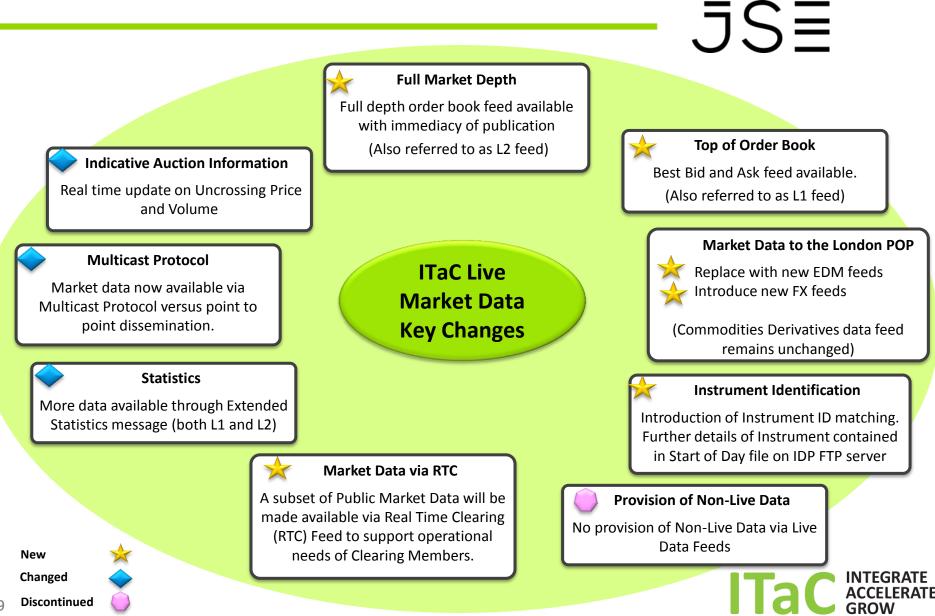


Reminder of Key Changes – Post-trade



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Reminder of Key Changes – Live Data



Reminder of Key Changes – Non- live Data

