



Integrated Trading and Clearing (ITaC)

Client Forum

23 January 2019

- **ITaC High Level Timeline and Key Dates**
- 9 February Mandatory Market Dress Rehearsal
- Decommissioning Testing
- Conceptual Training
- Client Forum Focus Sessions
- Questions

Project ITaC Count Down

As at 23 Jan 2019

52 business days

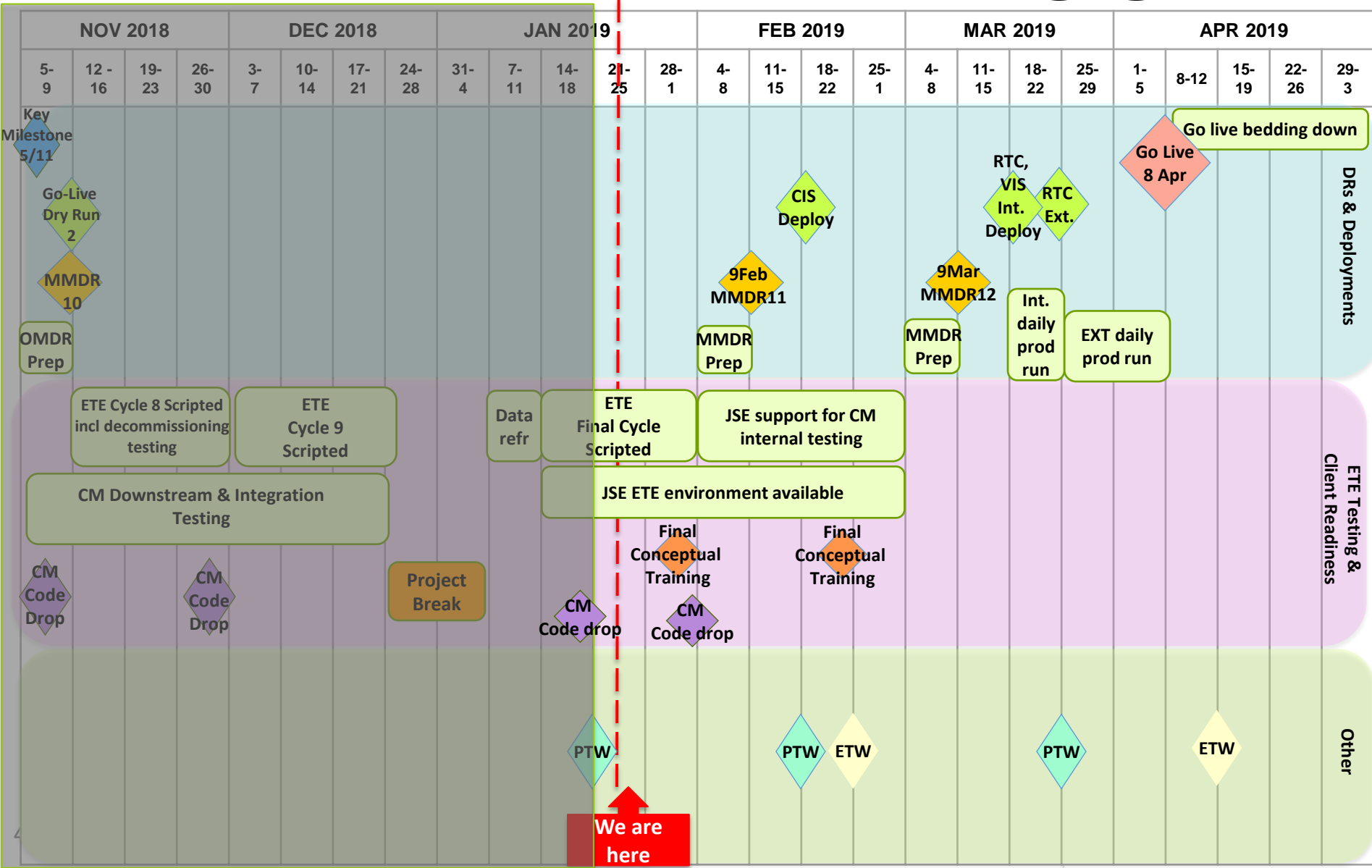
to Go Live

on 8 April 2019



JS III

High Level ITaC Timeline



ITaC Key Dates



| Date | Milestone |
|---------------------|--|
| 14 Jan – 1 Feb 2019 | ETE Final Testing Cycle - Scripted |
| 4 – 8 Feb 2019 | Dress Rehearsal Prep (ETE not available) |
| 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 by 29 Jan 2019) |
| 11 Feb – 1 Mar 2019 | JSE ETE environment available (except where indicated otherwise below) JSE Support of CM internal testing |
| 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 clients) |
| 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 |

ITaC Key Dates (cont.)



Enablement Freeze Period

- All enablement requests must be submitted to the JSE by COB **29 Jan 2019** and CEIFs signed off by **1 Feb 2019**

This therefore means that firms cannot change software providers or enablements post 29 Jan 2019

- Any new/changed enablements between now and go-live must pass 2 dress rehearsals (9 Feb & 9 Mar 2019)
- 9 Feb 2019 - Enablement change freeze start
- 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 they will be notified via email by 25 Jan 2019
- 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

ITaC Key Dates (cont.)



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

Agenda



- ITaC High Level Timeline and Key Dates

- **9 February Mandatory Market Dress Rehearsal**

- Decommissioning Testing
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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)
 - 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

Market Dress Rehearsal – 9 February 2019



- 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
- The **9 February and 9 March 2019** dress rehearsals are for **clients** 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!

The JSE will not produce results reports.

Amended Enablements – 9 February 2019



- The JSE is aware of a few clients who are testing amended enablements - can only do so subject to them meeting the 29 Jan 2019 cut-off for requests (order forms) and signed CEIFs being received by the JSE no later than 1 Feb 2019
- These changed enablements will need to meet the minimum dress rehearsal pass criteria and their activity during the dress rehearsal will be evaluated and a pass/fail result produced by the JSE

Market Dress Rehearsal – 9 February 2019



- **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 **not** 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:**
 - <https://www.jse.co.za/services/technologies/market-communications>

Market Dress Rehearsal – 9 February 2019



- Equity Derivatives and Currency Derivatives High Level Test Schedule

| Date | Time | Description | To Action |
|---|--------------------|---|--|
| Go live Dry Run - Preparation, Batch Runs and Data Take-on | | | |
| 04 – 08 Feb 2018 | All day | JSE Go live dry run preparation activities | JSE |
| 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 | 09:30 – 12:00 | Clearing Member data verification activities | CMs to verify data take-on data |
| 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 data |
| 09 Feb 2019 | 12:00 | Dress Rehearsal testing to commence as per Test Schedule for: <ul style="list-style-type: none"> - Mandated for Trading and Clearing Members - Optional testing for Info Subscribers | CMs, TMs & IS |

Market Dress Rehearsal – 9 February 2019



- Equity Derivatives and Currency Derivatives High Level Test Schedule

| Date | Time | Description | To Action |
|-----------------------------------|---------------|---|--|
| Dress Rehearsal Activities | | | |
| 09 Feb 2019 | 12:00 – 14:00 | Off Book Trade Reporting Period (EDM, FXM) | CMs, TMs to commence trade reporting and Deal Mgmt Information subscribers to receive and process Market Data |
| | 12:20 – 12:30 | Equity Derivatives Opening Auction | |
| | 12:30 – 14:15 | Equity Derivatives and Currency Derivatives Continuous Trading Period | Orders, Trades, Deal Mgmt, Clearing and Market Data published |
| | 13:30 – 14:15 | Trading Gateway Failover (TBC on day) | |
| | 14:15 | 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)

Market Dress Rehearsal – 9 February 2019



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

Market Dress Rehearsal – 9 February 2019



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**
- **EOD balancing will be run at the end of the test and Clearing Members will produce reports**

Market Dress Rehearsal – 9 Feb 2019



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 Nuclear 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

Agenda



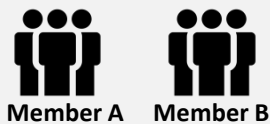
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ITaC EDM & FXM Decommissioning



CURRENT

Equity Market



Equity, Interest Rate Markets, Currency & Commodity Derivatives Markets

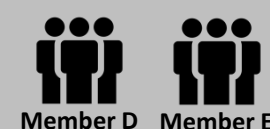


From 8 Apr 2019

Equity Market, Equity Derivatives, Currency Derivatives



Interest Rate Markets & Commodity Derivatives Market



Trading & Live Market Data System

NUTRON/Nuclears

Trading & Live Market Data System

Real Time Clearing System for Derivatives

NUTRON/Nuclears

Key Changes for EDM/FXM:

- **NUTRON/Nuclears decommissioned** – Member to choose own software provider
- **Non-Live Market Data**
 - Subscription to data records for Equity & Currency Derivatives received via IDP service
 - Data Products for Interest Rate Derivatives will exclude Currency Derivatives
- **Reports on JSE website** – Only available in PDF mostly after midnight at a new location
- **Ditch Feed** – Equity Derivatives no longer published on this service. Replaced by new real-time MITCH data feed
- **Clearing Member reports** – One combined for Equity & Currency Derivatives, one report for Commodity Derivatives and one for Interest Rate Markets

Decommissioning Testing – Overview



- **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
- In order 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 [run plan](#) (covering basic day-to-day trading/business activities) which can be used as a guideline of what could be tested when performing the decommissioning testing. 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

Clients wishing to participate in the Decommissioning to contact JSE Client Service Centre (CSC) on
+27 11 520 7777 or CustomerSupport@jse.co.za

Decommissioning Testing – Trading Members



| | |
|---|--|
| Decommissioning Test Dates for trading members and information subscribers | Final End to End Testing Cycle: 28 January 2019 to 1 February 2019 |
| Is this testing optional or mandatory? | All trading members and information subscribers 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. Download the Nutron Decommissioning run plan by clicking this link: Nutron Decommissioning Run Plan |
| How often should I test? | Clients do not need to test every day during this period. Conduct your testing during the defined test period reflected above as and when it suits you |
| What time will testing take place? | 10h00 – 17h00 daily |
| 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: <ol style="list-style-type: none">1) Connect to the JSE's ITaC decommissioning environment from your office - connectivity specifications are listed in subsequent slides2) Use the Nutron terminals on site at the JSE – Contact JSE CSC to reserve a booking |

Decommissioning Testing – Trading Members (cont.)



Connectivity Details

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 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



| | |
|---|--|
| Decommissioning environment prep | JSE will be restoring production data as at End of Day on 22 January 2019 between 23 and 24 January 2019 |
| 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 production data as at end of day 22 January 2019 |
| Decommissioning Test Dates | 25 – 30 January 2019 JSE will be simulating an Equity and Currency Derivatives Market decommissioning on the weekend of 26 January 2019 |
| Is this testing optional or mandatory? | All Clearing members are required to participate in this testing |
| What should be tested? | <ul style="list-style-type: none"> • End of day on 25 January pre decommissioning for 23, 24 and 25 January • End of day on 28, 29 and 30 January 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 28, 29 and 30 January 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: <ul style="list-style-type: none"> • 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**
 - 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**
 - 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

Agenda



- ITaC High Level Timeline and Key Dates
- 9 February Mandatory Market Dress Rehearsal
- Decommissioning Testing
- **Conceptual Training**
- Client Forum Focus Sessions
- Questions

Final Conceptual Training Sessions



- As part of the Market Readiness for the implementation of ITaC, the JSE will facilitate a **final round** of conceptual training sessions
- These will be a **repeat** of the sessions conducted in September 2018
- Training will be open to **all clients** that wish to gain a better understanding of the key changes being introduced to the Equity Derivative and Currency Derivative Markets
- Training will be **conducted at the JSE in Johannesburg** for group sessions of a minimum of 10 participants per group
- Cape Town based clients or other remote clients will be provided with a **Webinar facility**
- **Registration Process:**
 - Log onto the ITaC page <https://www.jse.co.za/services/itac>
 - Click on the session date and time you wish to attend. This will send a confirmation email to the JSE to reserve your spot. Should the link not work, please just send an email to ITaC@jse.co.za with the details of the session you wish to attend.
 - Once your booking is confirmed, you will receive a calendar invite from the ITaC mailbox

| Date | Session 1 | Session 2 | Venue |
|-----------------------|---------------|---------------|--------------|
| Wed, 30 January 2019 | 07h30 – 09h00 | 11h00 – 12h30 | JSE, Sandton |
| Thu, 21 February 2019 | 07h30 – 09h00 | 11h00 – 12h30 | JSE, Sandton |

Agenda



- ITaC High Level Timeline and Key Dates
- 9 February Mandatory Market Dress Rehearsal
- Decommissioning Testing
- Conceptual Training
- **Client Forum Sessions – Draft Agendas**
- Questions

Client Forum Sessions – Draft Agendas



| Date | Session Topics for Discussion |
|------------------|---|
| 6 February 2019 | <ul style="list-style-type: none">• ITaC – Reminder of Key Changes• 9 Feb Dress Rehearsal update• ETE environment availability 11 Feb – 1 Mar 2019 |
| 20 February 2019 | <ul style="list-style-type: none">• 9 March Dress Rehearsal briefing |
| 6 March 2019 | <ul style="list-style-type: none">• 9 March Dress Rehearsal update• Go-Live briefing and early deployment support model• Preparation for early deployment |
| 20 March 2019 | <ul style="list-style-type: none">• Post early deployment support model update• Go-Live cutover and deployment preparation• Go-Live update• Go-Live support briefing |
| 3 April 2019 | <ul style="list-style-type: none">• Final Go-Live Briefing |

Questions?



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



CustomerSupport@jse.co.za



+27 11 520 7777