Integrated Trading and Clearing (ITaC)

Conceptual Training

January / February 2019

Agenda

#	TOPIC	PRESENTER
1	Trading	Trading Team
2	General Topics	Capital Markets
3	Clearing	Alex Comninos
4	Things to Note	Capital Markets
5	Instrument Reference Data	Capital Markets
6	Client Reference Data	Capital Markets
7	Nutron Decommissioning Testing	Capital Markets
8	Questions	

Daily Trading Lifecycle

	START OF TRADING	OPENING AUCTION CALL	CONTINUOUS TRADING	POST CLOSE	TRADE REPORTING
Equity Derivatives Market	07:00 - 08:15	**08:15** - 08:30	08:30 - 17:30	17:30 - 18:30	08:00 - 18:30
Currency Derivatives Market	07:00 - 09:00		09:00 - 17:00	17:00 - 18:00	08:00 - 18:30
FUNCTIONALITY ALLOWED	• View open orders • View expired orders • Manage Off Book trades	• Order entry • Amend orders • Order deletion • Manage Off Book trades	• Order entry • Order modification • Order deletion • Manage Off Book trades • Automatic matching	• Order deletion • GTT orders are expired • Manage Off Book trades	• Manage Off Book trades

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> *These orders are applicable for **all trading sessions**.*

Order Types	Definition
Limit Order (LO)	Limit Orders stipulate both Volume and Limit Price. A Limit Order may execute at prices equal to or better than its Limit Price.
Stop Limit Order (SL)	A Stop Limit Order is a Limit Order that will remain unelected, that is, without entering the Order Book, until the Stop Price is reached.

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Trading
Time In Force (TIF)

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This is a special instruction that is used when placing an order to indicate how long an order will remain active before it is executed, expired, or deleted

Some of the above actions may not be applicable to your firm. Check with your software provider what is applicable to your firm

Time in Force (TIF)	Definition
OPG	**At the Opening** - direct orders to the Opening Auction
GFA	**Good for Auction** - direct orders to the next Auction
DAY	**Day** - orders are valid for the trading day, they expire at Market End
IOC	**Immediate or Cancel** - rejected during Auction Call (excl. Stop/Stop Limit orders)
GTD	**Good till Date** - orders remain for a specified duration, or remain till filled, cancelled or expired
FOK	**Fill or Kill** - orders either fully executed on recipe or expire immediately (excl. Stop/Stop Limit orders)
GTC	**Good till Cancel** - orders with a maximum life of 90 calendar days will remain till filled, cancelled or expired
GTT	**Good till Time** - orders valid till a specified time for the current trading day, format: YYYYMMDD-HH:MM:SS

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On and Off Book Trade Types
EDM & FXM

Trade Type	Trade Name	Dealing Capacity	Reporting Model (Single or Dual)	Market	Published to Market Y/N	Include In Cumulative Statistics for Current Trading Day
AT	Automated Trade	A-A, A-P, P-A, P-P	N/A	JSE_EDM JSE_FX	Y	Y
UT	Uncrossing Trade	A-A, A-P, P-A, P-P	N/A	JSE_EDM	Y	Y
NT	Negotiated Trade	A-A, A-P, P-A, P-P	Both	JSE_EDM JSE_FX	Y	Y
RT	Roll Trades	A-A, A-P, P-A, P-P	Both	JSE_EDM JSE_FX	Y	Y
CD	CFD Reported Trade	A-A, A-P, P-A, P-P	Both	JSE_EDM	Y	Y
SR	Strategy Trade	A-A, A-P, P-A, P-P	Both	JSE_EDM JSE_FX	Y	Y

Circuit Breakers and Price Bands

Circuit Breakers

- Applicable for **EDM**

- This is the tolerance defined as a **percentage in relation to the Static Reference Price and Dynamic Reference Price**

- If the Circuit Breaker is breached this will trigger a Volatility Auction

	Index Futures	
Trading Session	**Static Circuit Breaker %**	**Dynamic Circuit Breaker %**
Continuous Trading	5%	1%
Opening Auction Call	5%	1%
Volatility Auction Call	5%	1%
Re-Opening Auction Call	5%	1%

	Single Stock Futures	
Trading Session	**Static Circuit Breaker %**	**Dynamic Circuit Breaker %**
Continuous Trading	8%	4%
Opening Auction Call	8%	4%
Volatility Auction Call	8%	4%
Re-Opening Auction Call	8%	4%

Circuit Breakers and Price Bands

Price Bands

- Applicable for **FXM**

- This is the tolerance defined as a **percentage in relation to the Static Reference Price**

- The price bands **limit entry** of an **order** that may **breach the thresholds** set

- The price bands do not limit orders that are entered far away from the current market price, only should they aggress the order book and breach the price band

Currency Derivatives Market	
Price Band Inner Limit %	4%
Price Band Outer Limit %	8%

Please note that price band percentages are being reviewed

Circuit Breakers and Price Bands

Off Book Price Bands

- Applicable for **EDM** and **FXM**

- The price bands do not limit the matching of Off Book trades that may breach the thresholds set

- Trading Members and Clearing Members involved will be notified via a flag on the trade message if the price band has been breached.

	Equity Derivatives Market	Currency Derivatives Market
Off Book Price Band %	4%	4%

Trade Reporting

1. Single-sided versus Dual-sided trades

Single-sided	Trades concluded by the same Member
Dual-sided	Member-to-Member

2. Branches

- If your counterparty is trading within a Branch, please ensure you capture the following information on the trade report:

  - Secondary Trade Report ID (Branch code)
  - Your account/client code, e.g. ABC123

3. Selection of Trade Type, e.g. Negotiated Trade, Roll Trade, etc.

4. Cannot **amend details** of any trade report details, instead the member capturing the trade report would need to **withdraw** the trade before it is accepted or the receiving member will need to **reject** the trade should it contain incorrect information.

Please liaise with your Software Provider on how you are setup to trade with a branch

Trade Cancellations

On Book Trades

- JSE Surveillance may instruct a member(s) to cancel a matched trade should the criteria be met to effect such

Parameters:

1. Request for cancellation must be submitted to Market regulation within 20 minutes of erroneous trade execution

2. Minimum loss potential R50 000

Trade Cancellations

1. Equity Derivatives Market - No Cancellation Range:

Instrument	Futures - % of reference price	Options – volatility %
Index Futures	3%	3%
Single Stock Futures / CFDs	5%	6%
IDX	5%	6%
Foreign Commodity Derivatives	4%	4%
Can Do	10%	10%

2. Currency Derivatives Market - No Cancellation Range:

Instrument	Futures - % of reference price	Options – volatility %
Currency Derivatives	1.5%	1.5%

Trade Cancellations

Off Book Trades

- Off Book trades can be cancelled at the mutual agreement of members

- Only Same Day cancellations are permitted

- Next Day cancellations are done through an Equal Opposite reported trade

Deal management and cancelled trades

- If a trade was deal managed before it was cancelled, the equal and opposite trade created by the cancellation can be deal managed to 'undo' the effects of the original trade

- A same day trade cancellation performed on the Trading System will result in a system generated equal and opposite trade in the Clearing System - It is this equal and opposite trade that can be deal managed to reverse the effects of the original trade

- For example if the initial trade was allocated to a client account, the equal and opposite trade resulting from the trade cancellation should be allocated to the same client account to ensure a net zero effect on the client's position

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Products
Can-Do Products

Contract Attributes	Basket Future	Exotic Future	Exotic Option
Underlying	JSE Equities	JSE Equities	JSE Equities
		JSE Index	JSE Index
		International Equity	International Equity
		International Index/ETFs	International Index/ETFs
		Forex Pair	Forex Pair
		Basket of Derivatives	Basket of Derivatives
Long & Short Constituents	No	No	Certain types of strategies involving an exotic option are allowed
Mixed Constituents: JSE & International	No	No	Yes
Negative Price	No	Yes	Yes
Expiry Date	FCO, Any Day	Any Day	FCO, Any Day
Barrier Properties	No	No	Yes
Vanilla & Delta Options Allowed	Yes	N/A	No
Inverse Calendar Spread	N/A	N/A	N/A
JSE Created	Yes	Yes	Yes

Products
Changes to Dividend Neutral Futures

JSE

Current system (Nutron)

- Dividend Neutral is a virtual contract.

- Dividend Neutral (N contract) = SSF(Q) and Dividend Future (F).

- At Ex Div, the JSE process a Journal transaction on the Dividend Future.

New system (ITaC)

- Dividend Future will no longer exist.

- Dividend Neutral contract will now be "single" contract.

- No Journal transaction will be processed on this contract.

Reason for removing the virtual Dividend Future: when Members roll over their SSF contracts to the next expiry, they do not always roll the Dividend Future.

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Live and Non-Live Market Data

- **Website based files/reports** and **market data products** available via the JSE FTP server.

- JSE website reports in PDF format – Public information and in some cases later than the market data products

- JSE will be providing a historical **MTM All report** in Excel format on the JSE website for **Currency Derivatives**. This was done due to representations made to JSE to assist with marketing to prospective clients

- JSE has been providing the new data for quite a while to Information Subscribers during the various test phases and doing right now in end to end testing

- **If you have not yet gained access to your required data, discuss this with your TSP and/or your IT division or contact the JSE**

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New & Changed Services and Functions

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Account validation on trades
- Non-validation of accounts on trading system
- Trades with invalid accounts moved to house error account

Deal Management & Commissions
- Ability to "Take-a-Turn" in deal management no longer possible
- New commissions functionality

Pre-Trade Risk
- Changes to pre-trade controls

**Securities and FX Collateral **
- New service that allows trading members and clients to pledge securities and FX cash as collateral

Key ITaC changes
Post-trade

Intra-day Risk Monitoring
- New real-time service for monitoring risk
- Setting of exposure thresholds

Margining Methodology
- Minor changes to current JSPAN methodology
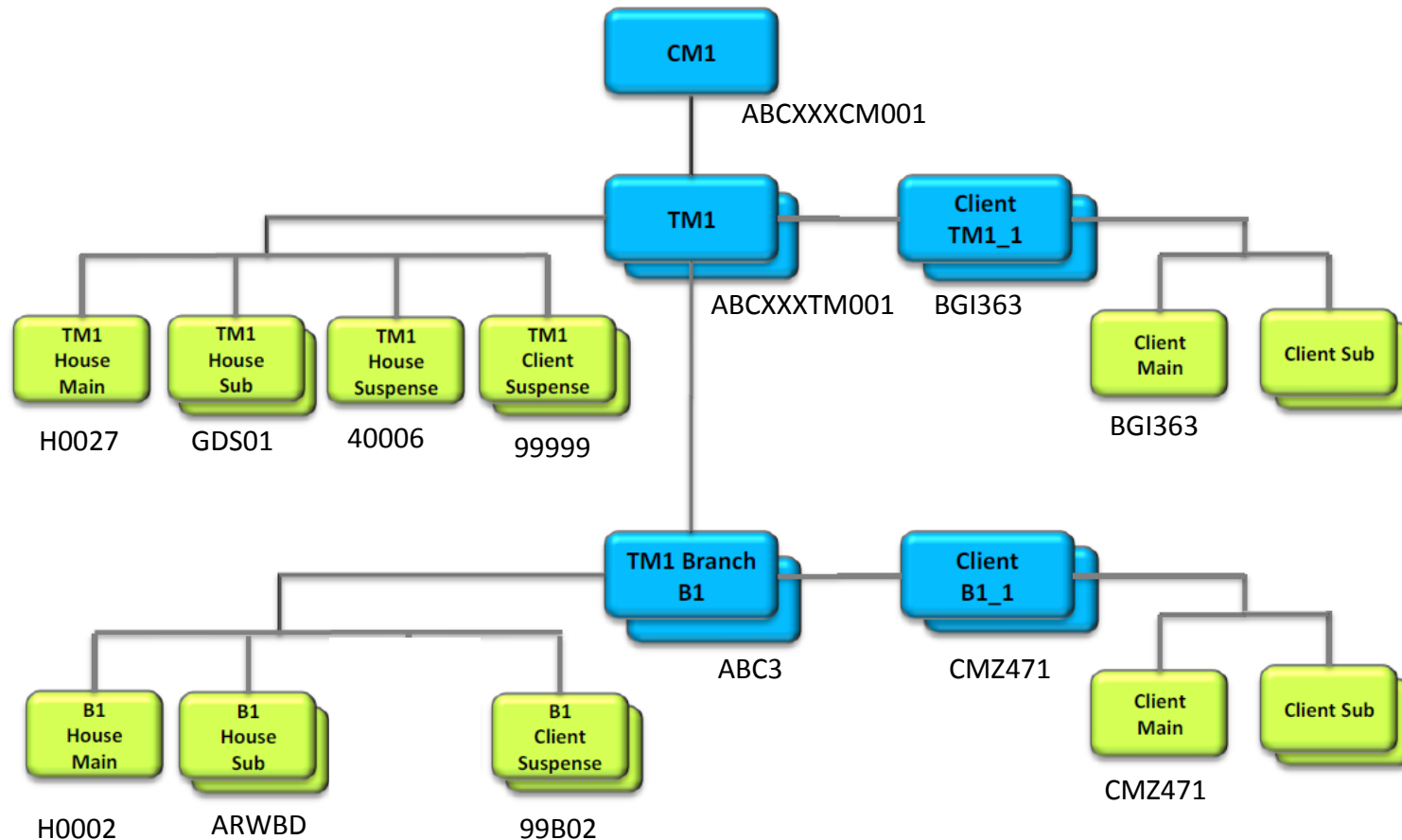- Intentions to move to VaR methodology in future

EoD Process
- Single EoD run across all ITaC markets with consolidated Daily Account Summary reports produced by JSE
- Balancing thresholds

New

Modified

** Implement post bedding down period after 1bc go live. FX cash pending regulatory approval

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Account Structure

Note: To add a new foreign client Trading Member must capture client details and add a ZAR cash account. A ZAR cash account must also exist for the Trading Member. Thereafter request JSE to enable foreign client.

Deal Management

Capacity	State of Deal* in RTC	Action allowed

Principal	-	• Accumulate
		• Deal sub account modification
		• Position sub account modification
		
		• **Exception basis only**
		    • Assign
		    • Allocate
		    • Allocation error correction
		    • Principal correction

Agency	Deal on client suspense account	• Accumulate • Allocate • Assign • Tripartite allocate • Deal sub account modification
	Deal on client account	• Accumulate (if traded directly on client account) • Allocation correction • Principal correction

*** A deal is one side of a trade i.e. either the buy leg or sell leg of the trade**

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Deal Management
Tripartite

- Currently members are able to select their tripartite client as a counterparty directly on the Report only trade capture screen

- Members will no longer be able to **book a report only** (Off Book) trade **directly** to a tripartite client

- Post ITaC, the **executing member** will capture an **Off Book Trade Request** to the tripartite client's member firm, specifying the tripartite client in the Reference field.

- The tripartite client will still need to **notify** their **nominated member** of the transaction, thereby authorising the trade to be accepted and allocated to their account.

Commissions

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- **C**ommissions applicable to **agency** transactions only

- Front-ends to cater for commission fee structures per member requirements

    - Examples include Bps of trade value, flat fee per contract, flat fee per trade

    - Fee structures set up once-off and updated from time to time

    - Front ends to apply the fee structures at time of transaction* and submit a ZAR amount (incl. VAT) to the JSE Clearing System

- Commissions **may be charged to a client** when

    - Executing directly on the client account via an On Book trade

    - Executing directly on the client account via an Off Book trade

    - Allocating a trade to a client

- Commissions **may be charged to another member/branch** when

    - Performing a give-up by assigning a trade to a TM/Branch

    - Performing a give-up by booking an Off Book trade and charging the counterparty

- Commissions **may be charged to a tripartite client** when

    - Performing a tripartite allocation

Commissions currently applied at EOD by Clearing Member will still be available

Commissions

- 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

- If deals are further deal managed member's front-end to manage commissions as appropriate, for example:

  - If an allocation correction is performed commission to be cancelled and new commission submitted on correct client

  - If principal correction is performed commission to be cancelled

Commissions

Recap of Key Aspects

- Process for give-up transactions (i.e. Off Book trades, assigns, tripartite allocations)

    1) Initiating TM (I_TM) initiates give-up

    2) Receiving TM (R_TM) accepts give-up

    3) On acceptance I_TM submits the associated commission

    4) R_TM receives the commission - deal in the R_TM's deals view should be updated with the commission amount

        a) R_TM may reject the commission*

        b) I_TM may cancel the submitted commission (if not rejected)

*If a commission is rejected the deal is not rejected or cancelled.

Unless a commission is rejected, it will be processed and incorporated into net payments at EOD i.e. commissions are by default confirmed.

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Commissions

Recap of Key Aspects

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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
VAT on Commissions	Commissions are subject to VAT, therefore Members to ensure VAT invoicing and tax reporting obligations are met

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Commissions

- **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
  - CM systems may have threshold checks to identify materially erroneous commissions which 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 should 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

Focussed Testing in End-to-End

JSE

- Testing of commissions in ETE
  - CMs, TMs and Clients encouraged to test
  - Testing of the commissions process from start to finish including EOD reports and processing of these into client and downstream systems
  - Testing across different software providers
  - The few remaining issues with software provider's population of commission reference fields are being resolved

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JSE Clear Risk Management Fee

- JSE Clear currently charges a risk management fee as a haircut on margin interest

- The risk fee is to compensate the Clearing House for the role it plays in

  - Managing day-to day risk processes in the derivatives markets including exposure monitoring and management, contract lifecyle management, margin calculation, stress testing and regulatory compliance
    - JSE Clear has been recognised by ESMA as equivalent to CCPs in the EU and has been granted QCCP status under CPSS-IOSCO

- Per market notice **49/2018** (Feb 2018) JSE Clear has reviewed its pricing and this will be introduced when the ITaC project is implemented

  - A 17bps risk fee for EDM and FXD (currently 20bps and 12.5bps respectively)

  - CDM will reduce from a 20 to 17bps haircut

  - IRD will remain on a 12.5bps haircut; to be reviewed when it migrates onto the ITaC platform

- JSE Clear will not charge differently for cash or securities collateral when introduced
  - The risk fee will be a basis point charge on the **IM obligation**
  - Example: If a participant's IM obligation is R1m on each day of a 1-year period the participant will pay R1,700 in that year

- JSE will **invoice** the risk fee to clearing members on **monthly basis**

On Behalf Of

The capability for a Clearing Member to perform certain **trading** and **deal management** activities on behalf of their members

Activities **allowed** for CM On Behalf Of :	Activities **not allowed** for CM On Behalf Of:
1. Trade Reporting 2. Post Trade Activities (Deal management)	1. Central order book activities

- To enable a Clearing Member to manage reported trades on behalf of a Trading Member each Clearing Member user will be provided with a Trader ID under the Trading Member

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Things to note

1. Statistics – Trade vs. Deal Management

2. JSE Support Model

3. Option calculator and Margin calculator

4. Monthly Expiries for EDM will be introduced post ITaC go live

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Instrument Reference Data

New naming standards

Three Instrument Identifiers

- **Contract Code** (replacing the existing four character code)
- International Securities Identification Number (ISIN)
- Unique ID (Numeric)

New Contract Code standard

- Concatenation of fields

  e.g. <EXPIRY DATE> <ALPHA CODE> <SETTLEMENT TYPE> <CALL/PUT> <STRIKE>

- Conventions are available in the **Instrument Reference Data Quick Reference Guide**

  Examples:

Nutron	ITaC
AGLF	20JUN19 AGL PHY DN
AGLX	16JUL18 AGL CSH ANY
GOOG	17DEC15 GOOGI CSH
YJNQ	25SEP18 SPYQ CSH QUANTO 277.37C
DAUS	13FEB19 USDZAR ANYDAY
EUUS	17SEP18 EURUSD QUANTO

*Please check with your Software Provider how the instruments will be displayed on their system

Instrument Reference Data
Mapping of Contract Codes and Instrument Types

A mapping between the existing instrument types and how these instruments will be classified in the ITaC systems is available in the **Instrument Reference Data Quick Reference Guide**, which is available on the JSE website

- **Mapping**

  - Existing four character Contract Code (e.g. AGLQ) will be mapped to each contract that exists at go-live. We will call this the **Nutron Contract Code**

  - A mapping spreadsheet will be provided to the market to facilitate the mapping between the old instruments and new instruments.

- **Go-live Preparation**

  - Leading up to go-live the new production data will be made available to clients, with incremental changes as new data is continuously loaded into Nutron.

  - The final instruments will be added on the last day before go-live, after the market closes. Therefore the final, ***full file will only be available on go-live weekend***

Instrument Reference Data
Instrument Creation

Instruments created intra-day will be disseminated real time

JSE Created Instruments	Client Created Instruments

1. Structured Products
 	
2. Standard Futures Expiries
 	
3. Auto-Generated Options: At least one -
    • In The Money contract
    • At The Money contract
    • Out The Money contract
	1. Any Day Future*
	
	2. Any Day Options
	
	3. Delta Options
	
	4. Standard Options

* The first Anyday futures contract for any instrument has to be created by the JSE

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Market Participant Structure
Production Identifier Code

- New trading and clearing members **Production Identifier Code** (PIC) is 11 alpha-numeric characters for the Derivatives market

- The Production Identifier Code is also known as the **Business Identifier Code (BIC)** for the Equity Market

- The code is used to identify the participant on the Production System and the Test System

- The code is formatted as follows: **ABCXXXCC001**

  - First 3 characters (ABC) – this refers to the Trading member or Clearing member 3 character standardized alpha code (A-Z caps only)

  - Next 3 characters (XXX) – default characters of XXX

  - Next 2 characters (CC) – this refers to TM for trading member, CM for clearing member or IS for information subscriber

  - Last 3 characters (001) – system generated 3 digit number, incremented if there is another PIC with the same prefix

Market Participant Structure

Users

- **Trader IDs** are assigned to all registered Traders , so that they can perform On Book and Reported trading functionality

  *Note: **Each Trader** must be registered with the JSE per Market. Upon registration, each Trader is assigned a unique Trader ID 5 **numeric** digits (0-9), submitted on all orders, quotes and trade messages by a Firm to the JSE Trading System*

- Where traders have multiple Nutron Logon IDs in the same market today either for the Equity Derivatives Market or Currency Derivatives Market - **only one unique Trader ID** will be allowed for ITaC

Clearing Member User IDs are allocated to Clearing Member Users

- Clearing Member Users are able to report Reported trades to the JSE Trading System

- They do not, however, have the ability to submit any Orders onto the Central Order Book

- The JSE Trading System caters for certain Reported trading activity performed by Clearing Member Users On-Behalf-Of Trading Member Firms

Back Officer User IDs are allocated to Back Office Users

- Back Office Users have the ability to report Reported trades to the JSE Trading System

- Back Office Users do not, however, have the ability to submit any Orders onto the Central Order Book

Market Participant Structure

On-Behalf-Of CompID and Trader Groups

- A clearing member will own and login with a **CompID belonging to the trading member firm** dedicated as the on-behalf-of CompID

- This CompID will facilitate the **trade reporting functionality** executed by clearing members or on-behalf-of activity that may be required

- Without this CompID, a clearing member will not be able to perform reported trade activity

- The CompID is also important for any cancellations and default management activities that need to be performed by the clearing member on behalf of the trading member

- Trader Groups are available to segregate firms into logical partitions of either type of activity, geographically location etc.

- A public Trader Group is mandatory for all trading members. This Trader Group will drive how reported trades are initiated.

  - The code for these will be ABCXXXPBL01 where 'ABC' represents the alpha code of the member

  - These are made available every day in the client reference data files

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Nutron Decommissioning

- Part of the Integrated Trading and Clearing (ITaC) project, the 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 <u>no longer</u> be accessible on Nutron post ITaC go live on 8 April 2019

- The following markets remaining on the Nutron platform are unaffected:

  - Interest Rate Derivatives

  - Spot Bonds

  - Commodity Derivatives

Nutron Decommissioning

- <u>Equity Derivatives:</u>

    - Day 1: Clients will still be able to log on but will not be able to perform trading functions i.e. will only be able to access download files applicable for the previous trading day (Print/Transfer)

    - Day 2: Members will no longer be able to log on to Nutron

- For <u>Currency Derivatives markets</u>, 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 <u>Interest Rate Derivatives, Spot Bonds and Commodity Derivatives markets</u>, clients will be able to log into Nutron and should be able to perform ALL daily functionality including the following:

    - Order management

    - Trade management

    - Deal management

    - Intraday and End of day file downloads

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Questions?

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

CustomerSupport@jse.co.za

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