

A nighttime cityscape featuring a prominent cable-stayed bridge with light trails from traffic. The background is filled with illuminated skyscrapers and buildings, creating a vibrant urban scene.

# JSE @ Your Service 5

Instruments, Structured Products, & user  
created instruments

28 May 2026

## MEET THE **TEAM**



**Martin Koch**  
Head: Trading Operations  
Martink@jse.co.za

**Tshephang Tsheoga**  
Senior Specialist: Trading Operations  
Tshephangt@jse.co.za



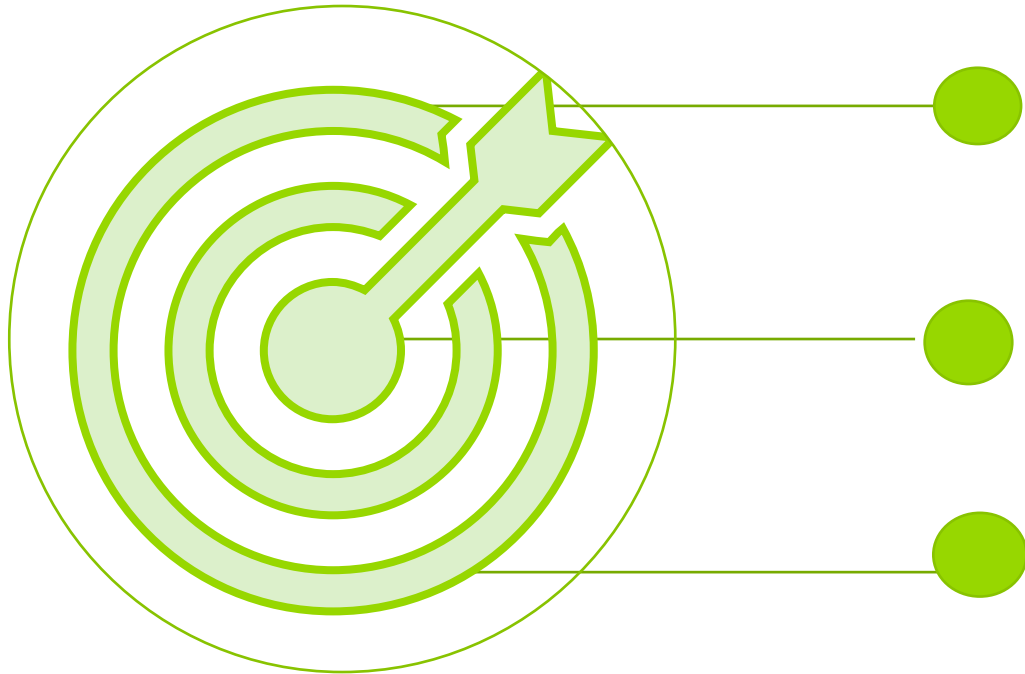
**As Trading Operations**, we are committed to making a meaningful impact in the financial markets by:

- Ensuring fairness, transparency and integrity across all markets
- Driving innovation and fostering growth through education and engagements

**Our core responsibilities include:**

- Managing day to day trading and market operations across all asset classes
- Overseeing new product releases from concept to production, including design, testing, delivery and handover for ongoing support
- Providing second level support to address client queries and issues
- **Client Service Centre (CSC)** serves as our **first-level support** and can be contacted on 011 520 7777 or [customersupport@jse.co.za](mailto:customersupport@jse.co.za)

# Objectives



**Create a collaborative space** for all market participants.

**Bridge the gap** between traders, their frontends and functionality

**Educate the market** on standard JSE functionality

**Address trader pain-points** and align on basic market operations.

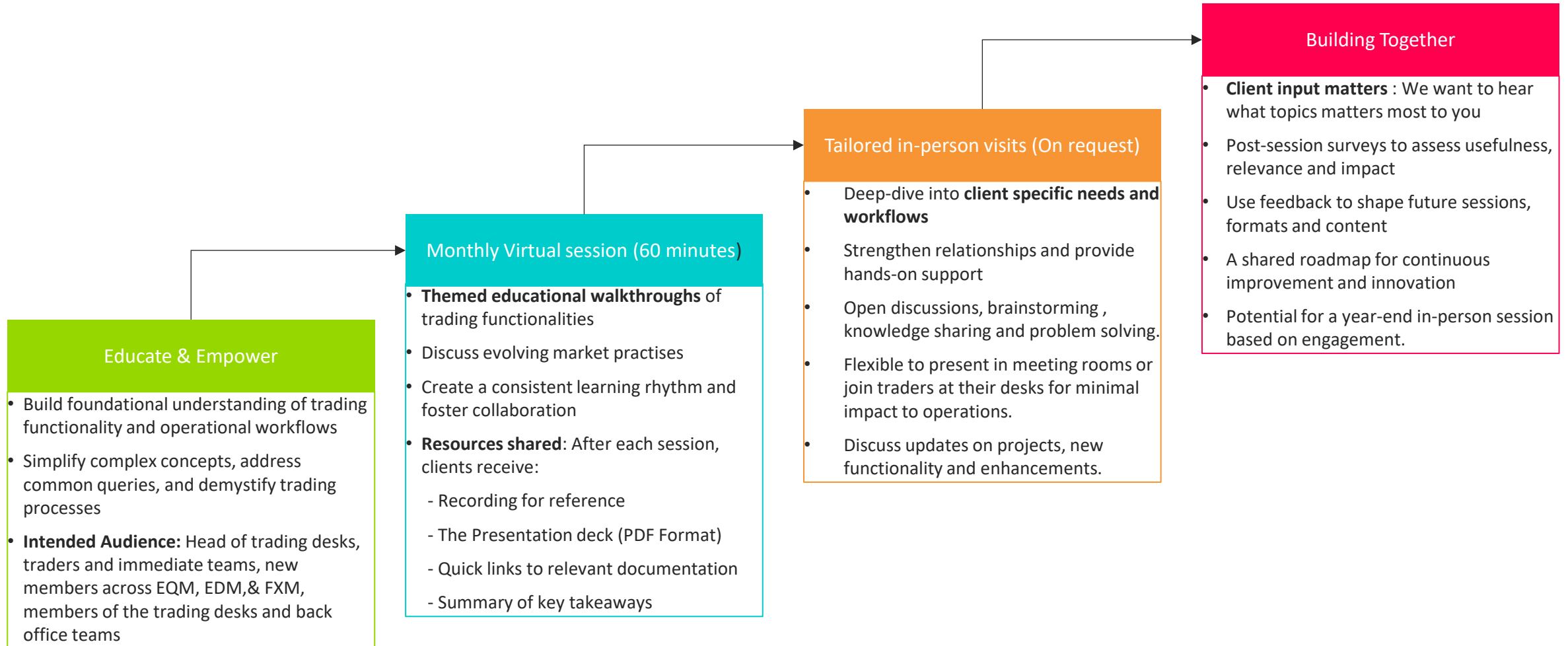
**Enhance fairness and transparency** across all members

**Encourage co-creation**, approachability and stronger relationships

Foster more frequent **face-to-face engagement** with each member

# Vision for JSE @ Your Service

Empowering our clients through education, collaboration, and tailored support to unlock the full potential of JSE's trading ecosystem.



# Recap from Previous Session

1

## Closing Price Fundamentals

The closing price represents the **official end-of -day market value**  
Used for valuation, settlement, and performance measurement

2

## Closing Price Methodologies

Sequential fallback logic ensures a price is always determined  
Three core methodologies are applied:  
**Auction-based** ( Method 1), **Mid-point based** (Method 2) and  
**Continuous trading/BBO** (Method 3)

3

## Liquidity & Market Structure Drivers

**Auctions** used where liquidity is strong  
**Mid-point pricing** used in less liquid segments  
**Market makers** support pricing where auctions are absent  
**Ensures balance between price integrity, Liquidity, & Market efficiency.**

4

## Market Data Dissemination

Distributed via:

- **MITCH** (Statistics message)
  - **FIX/FAST**(Incremental Refresh)
- Key fields clearly indicate how the price was derived
- Mid BBO, VWAP, Last AT/UT, Previous Close

5

## Trading at the Close (CPX & Auctions )

**CPX Orders** allows trading at the closing price post determination  
Valid for the trading day and executed in the **closing price cross session**  
**Iceberg orders** contribute full volume (visible + hidden) during auction uncrossing, enhancing liquidity

6

## Key Distinctions: Equity vs Derivatives

**EQM:** Closing prices are auction/order book driven  
**EDM & FXM :** Closing prices are model-based  
Driven by curves, volatility surfaces, underlying prices, rates ,dividends

The recording and presentation from Session 4 can be access [here](#), at the bottom of the page under “JSE @ Your Service Webinars”

## 2026 Monthly Training Plan

Month	Theme	Expected Outcomes
29 January 2026	The Daily Trading Lifecycle and JSE Trading model 	Introduce the initiative, set expectations, and members gain understanding of the full day structure, including key sessions and how the JSE trading model supports price discovery and execution
26 February 2026	Type of Orders, Order Attributes & Order Management 	Improve order handling accuracy, reduce rejections and optimize execution strategies using the correct order types and qualifiers
26 March 2026	Auction sessions, Matching Algorithm & Priority Rules 	Understand auction logic, optimize participation and reduce execution risk, including FCO's
7 May 2026	Closing Price Methodology 	Members understand how closing prices are calculated, the role of the closing auction, and how it impacts valuations and settlement
<b>28 May 2026</b>	<b>Instruments, structured products and user created instruments</b>	<b>Members understand the instrument types available in all three markets and the creation of user created instruments, including bespoke structured products.</b>
25 June 2026	Circuit breakers and Price bands, order rates, cancel on disconnect, IOC examples	Members understand safe trading practices and how circuit breakers and price bands protect market integrity active monitoring of volatility auctions, duration and manual intervention for market quality
30 July 2026	Trade types: Onbook and Reported including Trade Cancellations; Strategy Trades	Members understand single and dual trade reporting, trade cancellation and modification, including next day cancellations
27 August 2026	Exchange Traded Products & Market making	Improved trading strategies and product utilization
30 September 2026	Market data Dissemination and Technical gateways, including SENS and Indices	Members understand the structure and flow of JSE market data, how to access it, and how to use it effectively in trading decisions.
29 October 2026	Corporate actions	Detailed workflow of corporate actions, how they are captured in the trading engine and information made available via market data gateways.
26 November 2026	Year –End Wrap up & vision for the following year including Market Trends & Insights	Share key market developments, trading volumes, and behavioral insights. Celebrate progress and member contribution, build excitement for the next phase of engagement

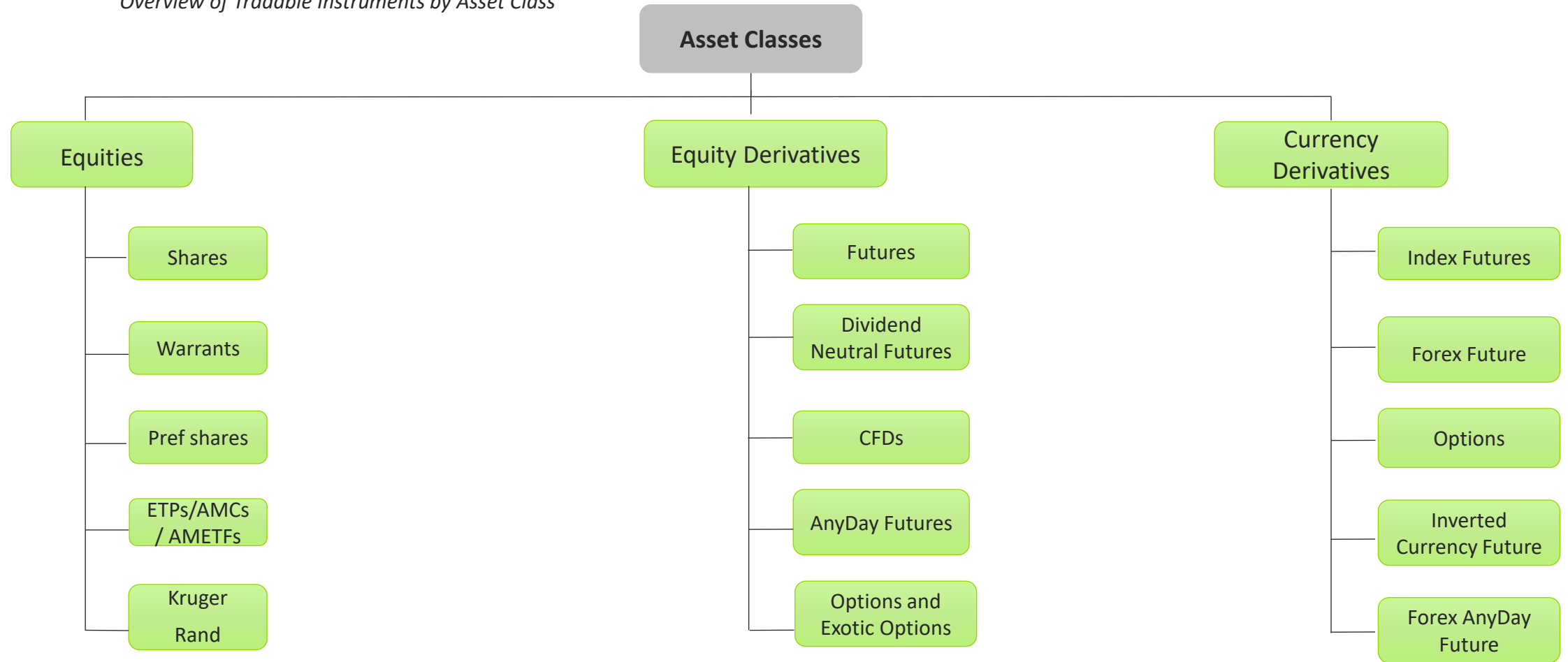
# Agenda

---

- Review HelloHow the JSE model is organized
- Equity market instrument landscape
- Derivative market instrument landscape
- Futures, options, and strategy instruments
- User-created instruments in Volume 00D
- Validation rules and operating windows

# JSE Instruments Overview

Overview of Tradable Instruments by Asset Class



Equity instrument types in `instrumentsequity.csv` and `WarrantsDetail.csv` (IDP)

EDM & FXM instrument types available in the `Instrumentsfutures.csv` and `Instrumentsoptions.csv` (IDP)

# Instrument Details – Reference Data

Reference Data is provided via the JSE IDP site

All static reference data is provided the night before the next day for downloads (details provided in [Introductory Session](#))

[Volume 09](#) – JSE Reference Data Management explains the details of all reference data including the layout of the files.

This information is presented in header-less csv file format

Clients should use live market data channels for real-time instrument availability and IDP csv files for enriched static attributes, eligibility flags and creation rules

Instruments are grouped by type

‘Instruments Underlying’ are non-tradeable instruments, that are underlying’s derivative instruments, and data attributes.

They appear on the trading system with a status of inactive

<b>MESSAGE FORMATS AND TEMPLATES</b> .....	<b>12</b>
5.1 The table below summarises the data:.....	12
5.2 CSV File Layouts.....	14
5.2.1 Calendar Entries .....	14
5.2.2 Corporate Action Indicator Table Entries.....	15
5.2.3 Currencies.....	15
5.2.4 Ex Markers.....	15
5.2.5 Firms .....	15
5.2.6 Instruments Equity .....	16
5.2.7 Instruments Underlying.....	19
5.2.8 Instruments Future (Including CFDs and Structured Products) .....	21
5.2.9 Instruments Options.....	24
5.2.10 Instruments Inverse Calendar Spread .....	28
5.2.11 Instruments FwdFwd .....	30
5.2.12 Instruments Call Delta Option.....	33
5.2.13 Instruments Put Delta Option.....	35
5.2.27 Warrants Detail .....	54

# Reference Data - Derivatives

## Instrument Sub Category

- Defines the type of derivative instrument ( Future, Option, Delta Option, etc)
- Used to classify instruments in reference data
- Drives how instruments are validated, processed and grouped in the trading system.

### Example:

FUTFPGENCSHBASSTDMA1000

InstrumentSubCategory

Varchar(30)

Defines the instrument sub category for which the instrument belongs.

See [Annexure E](#) for Instrument Sub Category convention

# Instrument Types – Derivatives

## Futures

- A binding agreement to buy or sell an asset at a fixed price on a future date
- Both buyer and seller are obligated to fulfil the contract at expiry
- Used to lock in prices and manage price risk
- No upfront cost (but subject to margin requirements)
- Can be used on equities, currencies, commodities, or other assets.
- Typically have standard expiry dates (but can also be customised)

## Options

- Gives the right, but not the obligation to buy or sell an asset
- Buyer chooses whether to exercise the option
- Seller(writer) has the obligation if the option is exercised
- Requires payment of an upfront premium
- Strike price = price at which the asset can be bought/sold
- Can be exercised before or at expiry (American vs European)

# JSE Instruments Overview – On-Screen Strategies

**Delta Options** let participants quote and trade an option using its implied futures delta rather than a direct premium. Once matched, the system converts the delta-based trade into the corresponding option price for execution, helping traders express directional views and align option activity with futures-based hedging.

**Inverse Calendar Spreads** allow participants to trade the price relationship between two contract months in the reverse direction of a standard calendar spread, giving traders a flexible way to manage roll positioning, express relative value views across expiries, and respond to short-term market structure opportunities. Execution results in buying the far expiry and selling the near expiry.

## Delta Options

Quoted by implied futures delta  
System converts to option price  
Useful for directional hedging

## Inverse Calendar Spreads

Reverse month-price relationship  
Supports roll and relative-value views  
Targets short-term structure moves

Each strategy creates positions in the underlying instruments:

- Near and next-dated future for inverse calendar spreads
- Future and option for delta options

# JSE-Created Structured Products / Candos

## Definition

- Structures, strategies or instruments outside standard listings are considered **Structured products/Candos**
- These are created in consultation with the JSE
- Enables tailored trading and hedging solutions
- Designed to meet specific, non-standard client requirements
- **Benefits include** Flexibility, transparency, independent valuation, and full exchange-listed advantages with seamless clearing integration.

## Listing Process

- Client submits a request to the JSE
- JSE reviews and **risk evaluates** the structure
- Once approved, instrument is listed intra-day for trading.
- JSE performs independent **daily valuations** using in-house models aligned to market best practice
- Instrument details distributed real-time via csv files.
- A market notice is issued providing details of the instrument.
- Any instruments created intra-day will be communicated to the market via the MITCH Market Data Gateways.
- Refer to the [Volume 05 – Market Data Gateway \(MITCH - UDP\)](#)

## Product Types

The product types includes, but not limited to:

- **Any-Day Equity Derivatives** – Non-Standard expiry futures and options.
- **Basket Derivatives** – Exposure to multiple shares
- **Quanto Derivatives** - Offshore exposure with no currency conversion
- **Exotic Options** – A Future whose underlying profile is a non-standard option such as, but not limited to, a Barrier Option, Digital and Asian Option

*Can-do Products are also available in the Interest-Rate, Currency and Commodity Markets.*

# Examples of Structured Products / Candos

**SPY FUTURE – OUT OF CURRENCY OUTRIGHT PUT OPTION – XV44**

**MARKET** Equity Derivatives Market  
**ENVIRONMENT** Production  
**REFERENCE NUMBER** 192/2026  
**DATE** 21 May 2026

Dear Client,

The following **Put Option - Out of Currency** has been listed with immediate effect and is available for trading. Insofar as any contractual provision set out below is inconsistent with the rules and regulations (“Rules”) of the JSE Limited (“JSE”), the Rules will prevail unless the JSE expressly permits the Parties to give effect to their contractual provisions.

**Summary Contract Specifications:**

GENERAL TERMS	
Description	Exotic Option: Out of Currency – Put Option
DIN Code	SPYI Exotic Option Cash Base 1 XV44
Underlying	21 SEP 26 SPYQ CSH QUANTO CA2
Primary Exchange	JSE Ltd.
Contract Size (Multiplier)	1
Expiration Date	21 September 2026 (Further expiration dates may be added upon request)
Settlement Method	Cash Settled
Minimum Price Movement	ZAR 0.01
Quotations	0.00 (Two decimal places)

**IDX FUTURE (12JUN26 MRVLI CSH) AND IDX DIVIDEND NEUTRAL FUTURE (12JUN26 MRVLI CSH DN)**

**MARKET** Equity Derivatives Market  
**ENVIRONMENT** Production  
**REFERENCE NUMBER** 193/2026  
**DATE** 22 May 2026

Dear Client,

The following **IDX** has been added to the list with immediate effect and will be available for trading as from today. Insofar as any contractual provision set out below is inconsistent with the rules and regulations (“Rules”) of the JSE Limited (“JSE”), the Rules will prevail unless the JSE expressly permits the Parties to give effect to their contractual provisions.

**Summary Contract Specifications**

GENERAL TERMS	
Description	International Derivative Future
IDX Future Code	12JUN26 MRVLI CSH
IDX Future (DIN)	MRVLI International Equity Cash Base 1
IDX Dividend Neutral Code	12JUN26 MRVLI CSH DN
IDX Dividend Neutral (DIN)	MRVLI International Equity Dividend Neutral Cash Base 1
IDX Currency	South African Rand
Underlying	Marvell Technology Inc Bloomberg Code: MRVL US EQUITY
Underlying ISIN	US5738741041
Underlying Currency	USD
Contract Size (Multiplier)	1
Quotations	Price per future to two decimal places (i.e. 0.01)
Minimum Price Movement	R 0.01 (0.01 in the share price)
JSE Trading Fees	<a href="#">JSE Price List 2026</a> - as set by the exchange from time-to-time

Should you have any queries regarding this Market Notice, please contact [edm@jse.co.za](mailto:edm@jse.co.za)

Full details of the Market Notice are available on the following link:  
[Market Notice 193/2026 IDX Future \(12JUN26 MRVLI CSH\) and IDX Dividend Neutral Future \(12JUN26 MRVLI CSH DN\)](#)

Contract Specifications are available on the JSE website: [JSE Market Notice](#)

# JSE-created auto-generated Options\*

---

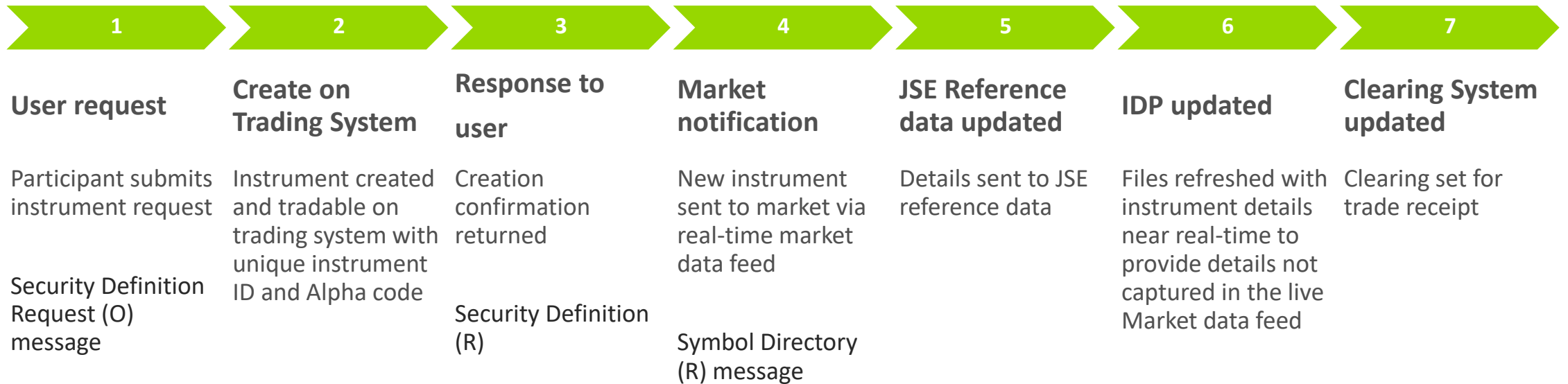
## AUTO –GENERATED OPTIONS

- Options are automatically created intra-day by the JSE, ensuring a consistent range of strike prices is always available.
- Options are created to ensure that there are at least one **in-the-money** contract, **out-the-money** contracts, as well as an **at-the-money contract**, at all time
- As the underlying price moves, the JSE trading system dynamically generates new options where required, ensuring continuous availability of relevant contracts.

\*This functionality is currently disabled in the system.

# User-created Instruments

*Process for creating and distributing user-defined instruments, with downstream clearing system updates.*



Seamless integration from instrument creation through market distribution and system updates

# User-created instruments: validation rules and operating windows

*The JSE provides Trading Members with the capability to create customised instruments based on existing listed instruments.*

## Operating window

Create user-defined instruments from 08:00 to 18:30 each day.

During futures close-out events, the cut-off extends to 19:00.

Instrument details distributed real-time via csv files.

## Eligible instruments

Clients may create the following:

**AnyDay Futures** - Non-standard date expiry futures

**AnyDay (Naked) Options** - Options with non-standard expiry dates

**Delta Options** - Delta neutral structures based on listed options and underlying futures.

## Validation scope

**Requests must sit between the current business date and the date of the last expiry already listed for that market.**

**This keeps validation, market distribution, and clearing within the existing framework.**

*Firms can identify eligible instruments for user creation in the Reference Data files (see Volume 09D – JSE Reference Data Management).*

# User-created instruments: eligibility identification

The ability to be able to use an instrument to create new user-created instruments depends on the field *User Creation Allowed*. This field exists in *InstrumentsFuture.csv*; *InstrumentsOption.csv* in [Volume 09](#).

User Creation Allowed	Enum(5)	required on the instrument price Defines if it is possible for the trading users to create a future instrument
		<b>Value</b> <b>Meaning</b>
		0 None
		1 Anyday Future Only
		2 Naked Option Only
		3 Anyday Future and Naked Option

Detail provided on technical check of user-created eligibility programmatically

# Creation Requirements by Instrument Type

*Mandatory key fields to be populated when submitting a Security Definition Request Message*

Field	AnyDay Futures	AnyDay Options	Delta Options
Reference Instrument	Existing <b>future</b> which will be the underlying instrument	Existing <b>future</b> which will be the underlying instrument	Existing <b>option instrument</b> (forms part of multi-leg structure)
Maturity Date	Must be <b>before the last standard contract</b> in the series	Must align to <b>underlying instrument</b> rules	Derived from underlying option structure
Reference Price	User-defined reference price	User-defined reference price	Not Applicable
Strike Price	Not applicable	Must align to strike interval of underlying	Driven by underlying option legs
Security Type	Set to Future	Set to Call or Put Option	Set to Delta Option

*Creation requirements differ by instrument type to ensure alignment with underlying market structures and system rules.*

## High-level validation principles that apply across all user-created instruments

- **Eligibility** - Structure validated across trading, market data, downstream systems
- **Consistency** - Requests aligned to contract rules; unsupported formats rejected.
- **Operating Window** - Validation occurs within defined creation and activation timeframes
- **Conflict Prevention** - Duplicate or contradictory instruments prevented
- **Operational Readiness** - Instruments must meet all criteria before trading and publication
- **Failed Validation** – A reject code will be sent back to the initiator with details of the reason for rejection

Guidance provided on request timing, permitted structures, and rejection criteria

# Validations by Instrument Type

Once the JSE receives the Security Definition Request Message, the JSE Trading System will perform a set of validations.

AnyDay Futures	AnyDay Options	Delta Options
<p>Validate <b>no duplicate</b> (underlying, category, expiry)</p> <p>Validate expiry is <b>before last standard contract</b></p> <p>Validate <b>expiry is a trading day</b></p> <p>Validate <b>reference instrument and expiry group</b></p>	<p>Validate <b>no duplicate</b>(underlying, expiry, strike, type )</p> <p>Validate strike aligns to <b>strike interval</b></p> <p>Validate expiry aligns to <b>underlying instrument</b></p>	<p>Validate options <b>strike interval of the 'Leg 1 Futures instrument'</b>- linked to the Delta Option – is not null or zero.</p> <p>Validate no existing instruments with <b>identical legs</b></p>

*Failed validations result in rejection; requests must be corrected and resubmitted*

# Thank you

Kindly scan the QR code to share your feedback, or use the survey link provided in the chat



---

*let's connect*

JS