Equity Derivatives

Non-Live Market Data Products Specifications

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Table of Contents

1. VERSION CONTROL 3

2. DISCLAIMER 6

3. INTRODUCTION 6

3.1 CONFIRMATION OF IDP USER ID AND PASSWORD 6

4. DATA PRODUCT LIST 7

5. INSTRUMENTS IDENTIFIERS 8

5.1 CONTRACT CODE 8
5.2 ISIN 8
5.3 INSTRUMENT ID 8

6. FIELD FORMATS 9

7. EQUITY DERIVATIVES MARKET 10

7.1 LEADING RECORD LAYOUT 10
7.2 DAILY TRADED STATISTICS - DED SUB TYPE 01 11
7.3 DAILY MARKET STATISTICS - DED SUB TYPE 02 14
7.4 WEEKLY MARKET STATISTICS - DED SUB TYPE 03 16
7.5 MONTHLY MARKET STATISTICS - DED SUB TYPE 04 18
7.6 ALL CONTRACTS OPEN INTEREST - DED SUB TYPE 05 20
7.7 DAILY FULL MARKET TYPE TOTALS - SED SUB TYPE 02 21
7.8 DAILY FULL MARKET OVERALL TOTALS - OED SUB TYPE 02 22
7.9 EARLY MTM - MED SUB TYPE 01 23
7.10 INDICATIVE MTM - MED SUB TYPE 03 25
7.11 MTM ALL - MED SUB TYPE 02 28
7.12 SOUTH AFRICAN RATES (10:00) - RED SUB TYPE 01 31
7.13 SOUTH AFRICAN RATES (11:30) - RED SUB TYPE 02 33
7.14 SOUTH AFRICAN RATES (END OF DAY) - RED SUB TYPE 03 35
7.15 CLOSE OUT PRICES – MONTHLY - CED SUB TYPE 01 37
7.16 MARGIN REQUIREMENTS - IED SUB TYPE 01 38
7.17 DIVIDENDS - IED SUB TYPE 02 39
7.18 OPTIONS DAILY TRADED - PED SUB TYPE 01 40
7.19 VOLATILITY SURFACES - LED SUB TYPE 01 42
7.20 ALL CONTRACT DETAILS - AED SUB TYPE 01 43
7.21 RISK PARAMETERS - ADD SUB TYPE 01 45
7.22 DETAILED INSTRUMENTS - XED SUB TYPE 01 50

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1. Version Control

Version	Author	Date	Reason for Changes
0.1	Tshepo Modise	30 January 2017	Document creation for the Integrated Trading and Clearing (ITaC) Project 1b – Equity Derivatives. This service will become effective from the go-live date of the ITaC Project 1b. .
0.2	Tshepo Modise	11 March 2017	additional annotation in section 7.20
0.3	Tshepo Modise	18 May 2017	• Changed SLA times in section 4 • Updates of section 5 • Removal of the Repo Rate in the South African rates records
0.4	Tshepo Modise	06 June 2017	• Enriched some business meanings in various data records • Renamed Instrument Type to Derivatives Instrument Type in records DED 02, DED 03, DED 04, MED 01 and MED 02 • MED 02 updated numeric formats and lengths of Delta, MTM Price and MTM Yield Fields • CED 01 updated data type to AN • IED 01 updated numeric format and length of VSR field • IED 02 updated data type of Contract code to AN • AED 01 updated data type of Contract code to AN • ADD 01 updated numeric format sand lengths of Delta and VSR fields • MED 01 updated the data type for ISIN field
0.5	Tshepo Modise	12 July 2017	• Corrected the market number in the leading record field description • Updated field lengths, data types and numeric formats for records DED 01, DED 02, DED 03, DED 04, MED 01, MED 02, RED 01, RED 02, RED 03, CED 01, IED 01, PED 01, IED 02, LED, 01, LED 02, AED 01 and ADD 01 • Updated various business descriptions
0.6	Tshepo Modise	16 November 2017	• Increased Instrument field length for record DED 01 • Updated field description for MTM Price and Delta fields • Added new data record XED 01 • Updated dissemination times for some records • Removed 1 LED 01 record

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Version	Author	Date	Reason for Changes
0.7	Tshepo Modise	19 March 2018	• Update context note for records DED 02, DED 03 and DED 04 • Removed Daily Average Prime Rate, Thirty Day Average Prime Rate and Ninety Day Average Prime Rate fields and business descriptions for records RED 01, RED 02 and RED 04 • Updated context note for record XED 01 • Updated dissemination frequency in section 4 for record CED 01 and added context in the actual record structure page
0.8	Tshepo Modise	22 June 2018	• Update of dissemination SLA times for some of the records: Refer to section 4 for impacted records • Updated ISIN field description in various records • Increased Equity Code field length from 4 to 7 characters in record CED 01 • Updated Data record criterion for Records DED 01, MED 02 and ADD 01 • Added Inverse Calendar Spreads contract convention • Updated Volatility Adjustment field description for record LED 01 • Added new field “Delta Value Sign” in data records DED 02, DED 03 and DED 04
0.9	Tshepo Modise	16 August 2018	• Correct field lengths for data record DED 04 • Addition of Indicative MTM MED 03 data record • Added Data type for Contract ID field in data record ADD 01
0.10	Sandra Borrageiro	17 October 2018	• Updated Section 5 Instrument Identifiers to link to the Instrument Reference Data Guidance Note document
0.11	Tshepo Modise	28 January 2019	• Updated SLA Times for EOD data records in section 4 • Updated data records’ headings and subheadings • Updated context note for record LED 01 • Add Volatility Surface Code field in Data Record XED 01
0.12	Tshepo Modise	11 February 2019	• Addition of the All Contracts Open Interest - DED05 data record

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Version	Author	Date	Reason for Changes
0.13	Tshepo Modise	25 March 2019	• Made cosmetic changes • Updated Dissemination file name for data record CCD 03 in section 4
1.0	Tshepo Modise	01 May 2019	• Accept all track changes
1.1	Tshepo Modise	30 May 2019	• Updated dissemination time for RED 02 • Updated context notes for MED 01 • Updated field description for "Total Open Interest For Day" in OED 02 and SED 02 data records • Updated record headings of all data records

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2. DISCLAIMER

This specification is being provided to you strictly for informational purposes solely for the purpose of developing or operating systems for your use that interact with market data systems of JSE Limited. JSE reserves the right to withdraw, modify, or replace the specification (or any part thereof) at any time.

To the extent allowed by law, JSE does not (expressly, tacitly or impliedly) guarantee or warrant the availability, sequence, accuracy, completeness, reliability or any other aspect of any of the information contained in, linked to or distributed through this specification, or that the information contained therein is up to date.

3. Introduction

The aim of this document is to provide users with relevant information on the reference and statistical data provided on the day's trading activity via a standardised format.
Data is provided in the form of fixed width data records which are made available via the JSE Information Delivery Portal (IDP) FTP server which does not require a direct network connection.

Users can select which data records are required from the standard layouts available. To allow for full flexibility, each market has its own set of data records. Due to the data records being produced at different times and frequencies, the subscribed set of data records will be made available be made available in one or more separate data files.

The filename standards will be as follows:

Equity Derivatives Products: DDAP.SPRD.alphacode.ED.zip

Where *alphacode* is the unique code assigned to each separate data subscriber company

Prospective subscribers must contact the Market Data Department in writing via MDSalesTeam@jse.co.za if they are interested in subscribing to any of the records.

3.1 CONFIRMATION OF IDP USER ID AND PASSWORD

1. A representative from the Client Service Centre will provide you with your sign-on and dataset name before the day you go live.

2. For security purposes, a representative from the JSE will provide you with your Password.

3. A Market Data Account Manager from the Information Services Division will contact you to confirm receipt of the Dataset, User ID and Password.

4. The onus is on you to test as soon as you have received the above mentioned information to ensure that you successfully access to the system.

Should you experience any problems relating to the information communicated to you or the actual testing of this information, please contact the under-mentioned persons for assistance:

1.	Client Service Centre	011 520 7777 / 7799
2.	Market Data Department	011 520 7000

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4. DATA Product List

Product Name	Market	Dissemination Frequency	Dissemination Time	Delivery channel	Associated Record(s)	Dissemination File Name
Daily Traded Statistics	Equity Derivatives	Daily by	20:30	FTP	DED – Subtype 1	ED.ZIP
Daily Market Statistics	Equity Derivatives	Daily by	20:30	FTP	DED – Subtype 2	ED.ZIP
Weekly Market Statistics	Equity Derivatives	Weekly by	20:30	FTP	DED – Subtype 3	ED.ZIP
Monthly Market Statistics	Equity Derivatives	Monthly by	20:30	FTP	DED – Subtype 4	ED.ZIP
All Contracts Open Interest	Equity Derivatives	Daily by	20:30	FTP	DED – Subtype 5	ED.ZIP
Daily Full Market Type Totals	Equity Derivatives	Daily by	20:30	FTP	SED – Subtype 2	ED.ZIP
Daily Full Market Overall Totals	Equity Derivatives	Daily by	20:30	FTP	OED – Subtype 2	ED.ZIP
Early Mark to Market	Equity Derivatives	Daily from	16:00	FTP	MED – Subtype 1	ED15.ZIP
Mark to Market All	Equity Derivatives	Daily by	20:30	FTP	MED – Subtype 2	ED.ZIP
Indicative Mark to Market	Equity Derivatives	Daily by	19:00	FTP	MED – Subtype 3	ED19.ZIP
South African Rates (10:00)	Equity Derivatives	Daily from	10:15	FTP	RED – Subtype 1	ED10.ZIP
South African Rates (11:30~~00~~)	Equity Derivatives	Daily from	11:30~~15~~	FTP	RED – Subtype 2	ED11.ZIP
South African Rates (End of Day)	Equity Derivatives	Daily by	20:30	FTP	RED – Subtype 3	ED.ZIP
Close Out Prices	Equity Derivatives	Monthly from	12:45	FTP	CED – Subtype 1	ED12.ZIP
Margin Requirements	Equity Derivatives	Fortnightly	20:30	FTP	IED – Subtype 1	ED.ZIP
Options Daily Traded	Equity Derivatives	Daily by	20:30	FTP	PED – Subtype 1	ED.ZIP
Dividends	Equity Derivatives	Daily from	20:30	FTP	IED – Subtype 2	ED.ZIP
Volatility Surface	Equity Derivatives	Daily By	19:00	FTP	LED – Subtype 1	ED19.ZIP
All Contract Details	Equity Derivatives	Daily by	20:30	FTP	AED – Subtype 1	ED.ZIP
Risk Parameters	Equity Derivatives	Daily by	20:30	FTP	ADD – Subtype 1	ED.ZIP
Detailed Instruments	Equity Derivatives	Daily by	20:30	FTP	XED – Subtype 1	ED.ZIP

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5. Instruments Identifiers

There are three unique instrument identifiers for derivative instruments

- Contract Code
- ISIN
- Instrument ID

Please refer to the Instrument Reference Data Guidance Note document which explains the Instrument reference data standards and changes being introduced as part of the ITaC project.

5.1 Contract Code

The Contract Code is an alphanumeric field which is derived based on certain attributes of the system. The purpose of this field is to provide a clear and user friendly description of the instrument. Examples of a contract code are:

- 01DEC15 AGL PHY ANY DN
- 01DEC15 AGL PHY ANY 23.99C
- 17DEC15 GOOGL CSH
- 01DEC15 GOOGL CSH QUANTO 23.99C
- 17DEC15 ALSI MINI

Please refer to the Instrument Reference Data Guidance Note document for a detailed explanation for all instruments.

5.2 ISIN

This is the International Security Identification Number that is assigned to each tradable instrument. This is an ISO standard for the unique identification of instruments worldwide. The following convention is applied for derivative instruments in the Equity Derivatives market:

- Futures: ZAD…
- Options: ZAD<*>…

* The fourth character for options will start with 'A' and when all the numbers are used up, will increment to 'B', then 'C' etc. This is to cater for the large number of options that are created over time.

Please refer to the Instrument Reference Data Guidance Note document for a detailed explanation for all instruments.

5.3 Instrument ID

Each instrument also has a unique number assigned to it. This number is unique across all the instruments in all the markets at the JSE.

Please refer to the Instrument Reference Data Guidance Note document for a detailed explanation for all instruments.

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6. Field Formats

A field descriptor will also be given that describes the contents:

- A: Alpha only
- N: Numeric only - fields which are definitely whole numbers (integers) will show N (I)
- AN: Alpha numeric
- DATE: 8 byte date field formatted as CCYYMMDD
- B: Boolean – Formatted ‘T’ for True; ‘F’ for False

Alphabetic fields where the data is shorter than the specified number of bytes will have the space character (ASCII value 32) appended to the data to fill the field to its fixed width.

Numeric fields may be either integral or decimal depending on the nature of the data that is stored. For values that are decimal in nature, the decimal point will be present and in a fixed position, which will be indicated in the record type specifications. The decimal point will consume 1 byte of space.

Some amount of space has been left, both in the record headers and the record bodies for future expansion. This space is marked as “filler” and will be populated with the specified number of space (ASCII value 32) characters to fill the field until such time as that space is needed for other pertinent information.

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7. Equity Derivatives Market

7.1 Leading Record Layout

Each record will begin with a header that contains fields common to all records. The data fields that make up each different record will be contained in the data sub-records.

Header | Sub Record 1

Common data	Record Type	Record Sub type	Run Date	Other common data	Data Fields

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Market Number	1	1	N		1
Contract Type	2	1	A		2
Instrument Type	3	10	A		12
Record Type	13	4	A		16
Record Sub-Type	17	4	AN		20
Run Date	21	8	DATE		28
Filler	29	20	A		48

FIELD DESCRIPTIONS:

MARKET NUMBER — Unique identifier for the specific market:

Market Number	Market Identifier	Full Market Name
3	EDM	Equity Derivatives Market

CONTRACT TYPE — This indicates the type of the contract

F = Future or **Y** = Option.

INSTRUMENT TYPE — Indicates the type of the instrument underlying the contract

RECORD TYPE — The code indicating the type of information that is being disseminated e.g.: DED – Daily Equity Derivatives

RECORD SUB TYPE — The Sub Type related to a particular record sub type - e.g. DED 01

RUN DATE — The date of the dissemination runs, in the format CCYYMMDD.

FILLER — The filler allows for space between the body of the record type and the universal header for future expansion.

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7.2 Daily Traded Statistics - DED Sub Type 01

The Daily Equity Derivatives Traded Statistics records are calculated at the close of each trading day.
This record only contains the contracts that were traded on the day. It provides a consolidated view of the MTM and Value Traded for the day as well as the different prices (high, low, opening and closing).

~~7.2.1 Record Type DED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Instrument	49	7	A		55
Date	56	8	DATE		63
Strike Price	64	17	N	10.6	80
Option Type	81	1	A		81
Spot Price	82	17	N	10.6	98
Closing Bid	99	17	N	10.6	115
Closing offer	116	17	N	10.6	132
MTM	133	17	N	10.6	149
First Price	150	17	N	10.6	166
Last Price	167	17	N	10.6	183
High Price	184	17	N	10.6	200
Low Price	201	17	N	10.6	217
Number of deals	218	14	N	14	231
Volume Traded	232	14	N	14	245
Value Traded	246	21	N	14.6	266
Open Interest	267	14	N	14	280
Volatility	281	11	N	4.6	291
ISIN	292	13	AN		304
Instrument ID	305	17	N	17	321

FIELD DESCRIPTIONS:

INSTRUMENT	Underlying instrument that the contract is written on.
DATE	Refers to the expiry date of the individual contract.
STRIKE PRICE	The price at which the buyer/holder of an option has the right to buy/sell the underlying future.
OPTION TYPE	Indicates whether this is a put or a call
SPOT PRICE	Closing price of the underlying instrument.

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CLOSING BID	Closing price at which a market participant is willing to buy. **This field will be populated for on book traded instruments, however will be blank for instruments traded off book only**
CLOSING OFFER	Closing price at which a market participant is willing to sell. **This field will be populated for on book traded instruments, however will be blank for instruments traded off book only.**
MTM	Official closing price as determined by the Exchange
FIRST PRICE	First execution price of a trade the specified day. **This field will be blank for instruments traded off book traded only.**
LAST PRICE	Last execution price of a trade the specified day. **This field will be blank for instruments traded off book traded only.**
HIGH PRICE	Highest execution price of a trade on the specified day **This field will be blank for instruments traded off book traded only.**
LOW PRICE	The lowest execution price of a trade on the specified day **This field will be blank for instruments traded off book traded only.**
NUMBER OF DEALS	The total number of deals traded on the specified day.
VOLUME TRADED	The total number of contracts traded on the specified day.
VALUE TRADED	The total value of the contracts traded on the specified day.
OPEN INTEREST	The amount of open interest on the specified contract

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VOLATILITY	The extent to which the return of the underlying asset will fluctuate between now and the option's expiration. Only applicable to Options.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.3 Daily Market Statistics - DED Sub Type 02

~~7.3.1 Record Type DED Sub Type 02~~

This record contains market statistics for all the contracts that were traded for the Equity Derivatives market.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Derivatives Instrument Type	49	60	A		108
Contract Code	109	50	AN		158
Call/Put/Future	159	6	A		164
Deals	165	14	N	14	178
Contracts Traded	179	14	N	14	192
Nominal Value	193	21	N	14.6	213
Delta Value	214	21	N	14.6	234
Delta Value Sign	235	1	A		235
Premium Value	236	21	N	14.6	256
Open Interest	257	14	N	14	270
Contracts/Deals	271	14	N	14	284
ISIN	285	13	AN		297
Instrument ID	298	17	N	17	314

FIELD DESCRIPTIONS:

DERIVATIVES INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc.
CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type
CALL/ PUT/ FUTURE	This field indicates the Contract Type (Call, Put, or Future)
DEALS	Number of deals transacted
CONTRACTS TRADED	The total number of contracts traded on the specified day.
NOMINAL VALUE	The nominal value of a trade
DELTA VALUE	The delta value of a trade
DELTA VALUE SIGN	Sign indicating the Delta value e.g. 'N' for negative value and 'P' for positive value

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PREMIUM VALUE	The premium value of a trade
OPEN INTEREST	The amount of open interest on the specified contract.
CONTRACTS/DEALS	Total Contracts divided by Deals
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.4 Weekly Market Statistics - DED Sub Type 03

~~7.4.1 Record Type DED Sub Type 03~~

This record contains market statistics for the trading day for all the contracts that were traded for the Equity Derivatives market.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Derivatives Instrument Type	49	60	A		108
Contract Code	109	50	AN		158
Call/Put/Future	159	6	B		164
Deals	165	14	N	14	178
Contracts Traded	179	14	N	14	192
Nominal Value	193	21	N	14.6	213
Delta Value	214	21	N	14.6	234
Delta Value Sign	235	1	A		235
Premium Value	236	21	N	14.6	256
Open Interest	257	14	N	14	270
Contracts/Deals	271	14	N	14	284
ISIN	285	13	AN		297
Instrument ID	298	17	N	17	314

FIELD DESCRIPTIONS:

DERIVATIVES INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc.
CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type.
CALL/ PUT/ FUTURE	This field indicates the Contract Type (Call, Put, or Future)
DEALS	Number of deals transacted
CONTRACTS TRADED	The total number of contracts traded on the specified day.
NOMINAL VALUE	The nominal value of a trade
DELTA VALUE	The delta value of a trade
DELTA VALUE SIGN	Sign indicating the Delta value e.g. 'N' for negative value and 'P' for positive value

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PREMIUM VALUE	The premium value of a trade
OPEN INTEREST	The amount of open interest on the specified contract.
CONTRACTS/DEALS	Total Contracts divided by Deals
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.5 Monthly Market Statistics - DED Sub Type 04

~~7.5.1 Record Type DED Sub Type 04~~

This record contains market statistics for the month for all the contracts that were traded for the Equity Derivatives market.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Derivatives Instrument Type	49	60	A		108
Contract Code	109	50	AN		158
Call/Put/Future	159	6	B		164
Deals	165	14	N	14	178
Contracts Traded	179	14	N	14	192
Nominal Value	193	21	N	14.6	213
Delta Value	214	21	N	14.6	234
Delta Value Sign	235	1	A		235
Premium Value	236	21	N	14.6	256
Open Interest	257	14	N	14	270
Contracts/Deals	271	14	N	14	284
ISIN	285	13	AN		297
Instrument ID	298	17	N	17	314

FIELD DESCRIPTIONS:

DERIVATIVES INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc.
CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type.
CALL/ PUT/ FUTURE	This field indicates the Contract Type (Call, Put, or Future)
DEALS	Number of deals transacted
CONTRACTS TRADED	The total number of contracts traded on the specified day.
NOMINAL VALUE	The nominal value of a trade
DELTA VALUE	The delta value of a trade
DELTA VALUE SIGN	Sign indicating the Delta value e.g. 'N' for negative value and 'P' for positive value

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PREMIUM VALUE	The premium value of a trade
OPEN INTEREST	The amount of open interest on the specified contract.
CONTRACTS/DEALS	Total Contracts divided by Deals
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.6 All Contracts Open Interest - DED Sub Type 05

This record type contains all active instruments, their open interest and number of contracts traded for the current day.

~~7.6.1 Record Type DED Sub Type 05~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN	50	98
Open Interest	99	14	N	14	112
Contract Traded	113	14	N	14	126
ISIN	127	13	AN	13	139
Instrument ID	140	17	N	17	156

FIELD DESCRIPTIONS:

CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type
OPEN INTEREST	The amount of open interest on the specified contract.
CONTRACT TRADED	The total number of contracts traded on the specified day.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.7 Daily Full Market Type Totals - SED Sub Type 02

This product displays the end of day total contracts traded grouped by the type of contract (e.g. Future or Option) and the underlying instrument type they represent e.g. Indices, Single Stock Futures etc. This provides a consolidated view of the MTM and Value Traded for the day.

~~7.7.1 Record Type SED Sub Type 02~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Total number of contracts per Contract and Instrument Type	49	14	N	14	62
Total number of Deals per Contract and Instrument Type	63	14	N	14	76
Total Value of contracts per Contract and Instrument Type	77	21	N	14.6	97
Total Open Interest per Contract and Instrument Type	98	14	N	14	111

FIELD DESCRIPTIONS:

TOTAL NUMBER OF CONTRACTS PER CONTRACT AND INSTRUMENT TYPE	The total number of Contracts that fall within the Contract and Instrument type for the specified day.
TOTAL NUMBER OF DEALS PER CONTRACT AND INSTRUMENT TYPE	The total number of Deals that fall within the Contract and Instrument type for the specified day.
TOTAL VALUE OF CONTRACTS PER CONTRACT AND INSTRUMENT TYPE	The total value of the Contracts that fall within the Contract and Instrument Type for the specified day.
TOTAL OPEN INTEREST PER CONTRACT AND INSTRUMENT TYPE	The total amount of Open Interest that fall within the Contract and Instrument Type for the specified day. ~~This value must be for all contracts regardless of whether they were traded or not~~

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7.8 Daily Full Market Overall Totals - OED Sub Type 02

The record contains the key market statistics for the day's trade. It provides a view of the day's trade at a glance. It provides a daily snapshot view of overall volume, value and deals for the entire market.

~~7.8.1 Record Type OED Sub Type 02~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Total number of contracts for day	49	14	N	14	62
Total number of Deals for day	63	14	N	14	76
Total Value of contracts for day	77	21	N	14.6	97
Total Open Interest for day	98	14	N	14	111
Total Margin on Deposit	112	21	N	14.6	132

FIELD DESCRIPTIONS:

TOTAL NUMBER OF CONTRACTS FOR DAY	Total number of contracts for the specified day.
TOTAL NUMBER OF DEALS FOR DAY	The overall total number of Deals for the specified day.
TOTAL VALUE OF CONTRACTS FOR DAY	The total value of the Contracts for the specified day.
TOTAL OPEN INTEREST FOR DAY	The total amount of Open Interest that fall within the Contract and Instrument Type for the specified day. ~~The total amount of Open Interest for the specified day regardless of whether the instrument traded or not.~~
TOTAL MARGIN ON DEPOSIT	The total amount of margin on deposit for the specified day. N.B This field will always be populated with zeros

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7.9 Early MTM - MED Sub Type 01

This product provides all members, traders, clients and general public with the updated MTM information and closing prices, for instruments that meet one or more of the below criteria:

- All future contracts
- All option contracts with open interest (open interest > 0) as at 18:40. The 18h40 open interest may/may not include system exercise, abandon and close-outs trades.
- All option contracts that traded for the day on-book or off-book (traded volume on-book or off-book > 0).

~~7.9.1 Record Type MED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN		98
Derivatives Instrument Type	99	60	A		158
Strike Price	159	17	N	10.6	175
Call/Put/Future	176	6	A		181
Future Expiry Date	182	8	D		189
Option Expiry Date	190	8	D		197
MTM Price	198	17	N	10.6	214
MTM Yield	215	17	N	10.6	231
MTM Volatility	232	17	N	10.6	248
Spot	249	17	N	10.6	265
ISIN	266	13	AN		278
Instrument ID	279	17	N	17	295

FIELD DESCRIPTIONS:

DERIVATIVES CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type
INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc.
STRIKE PRICE	The price at which the buyer/holder of an option has the right to buy/sell the underlying future. Must display only for Options
CALL/ PUT/ FUTURE	This field indicates the Contract Type (Call, Put, or Future)
FUTURE EXPIRY DATE	The Contract Expiry Date for the Future.
OPTION EXPIRY DATE	The Contract Expiry Date for the Option

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MTM PRICE	Official Intraday closing price as determined by the Exchange
MTM YIELD	Closing yield on the contract. **N.B. Equity Derivatives Markets do not have yield traded instruments. Therefore the MTM Yield field will always be blank**
MTM VOLATILITY	Changes in volatility
SPOT	Closing price of the underlying instrument.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.10 Indicative MTM - MED Sub Type 03

Displays the closing price as at 18:40 for the day, for instruments that meet one or more of the below criteria:

- All future contracts
- All option contracts with open interest (open interest > 0) as at 18:40. The 18h40 open interest may/may not include system exercise, abandon and close-outs trades.
- All option contracts that traded for the day on-book or off-book (traded volume on-book or off-book > 0).

~~7.10.1 Record Type MED Sub Type 03~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN		98
Derivatives Instrument Type	99	60	A		158
Strike Price	159	17	N	10.6	175
Call/ Put/ Future	176	6	A		181
Future Expiry Date	182	8	D		189
Option Expiry Date	190	8	D		197
MTM Price	198	17	N	10.6	214
MTM Yield	215	17	N	10.6	231
MTM Volatility	232	17	N	10.6	248
Previous MTM Price	249	17	N	10.6	265
Previous MTM Yield	266	17	N	10.6	282
Previous MTM Volatility	283	17	N	10.6	299
Delta	300	21	N	10.10	320
First Price	321	17	N	10.6	337
Last Price	338	17	N	10.6	354
High Price	355	17	N	10.6	371
Low Price	372	17	N	10.6	388
Spot	389	17	N	10.6	405
ISIN	406	13	AN		418
Instrument ID	419	17	N	17	435

FIELD DESCRIPTIONS:

CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type
DERIVATIVES INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc. This is the derivative instrument type.

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STRIKE PRICE	The price at which the buyer/holder of an option has the right to buy/sell the underlying future. Must display only for Options. For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option.
CALL/ PUT/ FUTURE	This field indicates the Contract Type (Call, Put, or Future).
FUTURE EXPIRY DATE	The Contract Expiry Date for the Future.
OPTION EXPIRY DATE	The Contract Expiry Date for the Option.
MTM PRICE	Official closing price as determined by the Exchange.
MTM YIELD	Closing yield on the contract. **N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank**
MTM VOLATILITY	Changes in volatility.
PREVIOUS MTM PRICE	Previous day's closing price on instrument/contract.
PREVIOUS MTM YIELD	Previous day's closing price on instrument/contract. **N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank**
PREVIOUS MTM VOLATILITY	Previous day's end of day Volatility.
DELTA	The delta of the option. N.B the values can have a negative of ppositive values, • Positive values can be identified by a space at the beginning of the field. • Negative values can be identified by a negative sign (-) at the beginning of the field.
FIRST PRICE	First execution price of a trade the specified day.

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	This field will be blank for instruments traded off book only.
LAST PRICE	Last execution price of a trade the specified day. **This field will be blank for instruments traded off book only.**
HIGH PRICE	Highest execution price of a trade on the specified day **This field will be blank for instruments traded off book traded only.**
LOW PRICE	The lowest execution price of a trade on the specified day **This field will be blank for instruments traded off book traded only.**
SPOT	Closing price of the underlying instrument.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.11 MTM All - MED Sub Type 02

Displays the closing price for the day, for instruments that meet one or more of the below criteria:

- All future contracts
- All option contracts with open interest (open interest > 0).
- All option contracts that traded for the day on-book or off-book (traded volume on-book or off-book > 0).

~~7.11.1 Record Type MED Sub Type 02~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN		98
Derivatives Instrument Type	99	60	A		158
Strike Price	159	17	N	10.6	175
Call/ Put/ Future	176	6	A		181
Future Expiry Date	182	8	D		189
Option Expiry Date	190	8	D		197
MTM Price	198	17	N	10.6	214
MTM Yield	215	17	N	10.6	231
MTM Volatility	232	17	N	10.6	248
Previous MTM Price	249	17	N	10.6	265
Previous MTM Yield	266	17	N	10.6	282
Previous MTM Volatility	283	17	N	10.6	299
Delta	300	21	N	10.10	320
First Price	321	17	N	10.6	337
Last Price	338	17	N	10.6	354
High Price	355	17	N	10.6	371
Low Price	372	17	N	10.6	388
Spot	389	17	N	10.6	405
ISIN	406	13	AN		418
Instrument ID	419	17	N	17	435

FIELD DESCRIPTIONS:

CONTRACT CODE	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. The field describes the following aspects of the instrument: Expiry Date, Underlying and Settlement Type
DERIVATIVES INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc. This is the derivative instrument type.
STRIKE PRICE	The price at which the buyer/holder of an option has the right to buy/sell the underlying future.

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	Must display only for Options. For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option.
CALL/ PUT/ FUTURE	This field indicates the Contract Type (Call, Put, or Future).
FUTURE EXPIRY DATE	The Contract Expiry Date for the Future.
OPTION EXPIRY DATE	The Contract Expiry Date for the Option.
MTM PRICE	Official closing price as determined by the Exchange.
MTM YIELD	Closing yield on the contract. **N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank**
MTM VOLATILITY	Changes in volatility.
PREVIOUS MTM PRICE	Previous day's closing price on instrument/contract.
PREVIOUS MTM YIELD	Previous day's closing price on instrument/contract. **N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank**
PREVIOUS MTM VOLATILITY	Previous day's end of day Volatility.
DELTA	The delta of the option. N.B the values can have a negative of ppositive values, • Positive values can be identified by a space at the beginning of the field. • Negative values can be identified by a negative sign (-) at the beginning of the field.
FIRST PRICE	First execution price of a trade the specified day. **This field will be blank for instruments traded off book only.**

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LAST PRICE	Last execution price of a trade the specified day. **This field will be blank for instruments traded off book only.**
HIGH PRICE	Highest execution price of a trade on the specified day **This field will be blank for instruments traded off book traded only.**
LOW PRICE	The lowest execution price of a trade on the specified day **This field will be blank for instruments traded off book traded only.**
SPOT	Closing price of the underlying instrument.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.12 South African Rates (10:00) - RED Sub Type 01

This record presents the various rates that are relevant to the market.

N.B. Fields highlighted will not be populated in this record

7.12.1 ~~Record Type RED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Interest on Initial Margin EDM	49	11	N	5.5	59
JIBAR One Month Yield	60	11	N	5.5	70
JIBAR Three Month Yield	71	11	N	5.5	81
JIBAR Six Month Yield	82	11	N	5.5	92
JIBAR Nine Month Yield	93	11	N	5.5	103
JIBAR Twelve Month Yield	104	11	N	5.5	114
JIBAR Three Month Discount	115	11	N	5.5	125
Rand Overnight Deposit Rate	126	11	N	5.5	136
SARB Interbank Call Rate	137	11	N	5.5	147
Call Deposit Index	148	11	N	5.5	158
Three Month Call Deposit Index	159	11	N	5.5	169
Six Month Call Deposit Index	170	11	N	5.5	180
Twelve Month Call Deposit Index	181	11	N	5.5	191
STEFI	192	11	N	5.5	202
Prime Rate	203	11	N	5.5	213
CPI	214	11	N	5.5	224

FIELD DESCRIPTIONS:

INTEREST ON INITIAL MARGIN -EDM	The interest rate earned on the amount of money determined by the clearing house on the basis specified by the JSE and held in respect of the aggregate position for the Equity Derivatives market.
JIBAR ONE MONTH YIELD	The one month Johannesburg Interbank Agreed Rate which is a daily updated South African money market rate as indicated by a number of local and international banks.
JIBAR THREE MONTH YIELD	The Three Month Johannesburg Interbank Agreed Rate.
JIBAR SIX MONTH YIELD	The Six Month Johannesburg Interbank Agreed Rate.

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JIBAR NINE MONTH YIELD	The Nine Month Johannesburg Interbank Agreed Rate.
JIBAR TWELVE MONTH YIELD	The Twelve Month Johannesburg Interbank Agreed Rate.
JIBAR THREE MONTH DISCOUNT	The discount on the Three Month Johannesburg Interbank Agreed Rate.
RAND OVERNIGHT DEPOSIT RATE	Also referred to as RODI – This is the benchmark average Interest rate on overnight deposits.
SARB INTERBANK CALL RATE	The Interbank Call rate.
CALL DEPOSIT INDEX	The interest on deposit.
THREE MONTH CALL DEPOSIT INDEX	The 3 month call deposit index.
SIX MONTH CALL DEPOSIT INDEX	The 6 month call deposit index.
TWELVE MONTH CALL DEPOSIT INDEX	The 12 month call deposit index.
STEFI	This is a performance benchmark against which money market fund managers can compare their various funds' returns used for short term money market portfolios.
PRIME RATE	This is the reference interest rate banks use when issuing variable interest rate loans to their customers.
CPI	This measures changes in the price level of a market basket of consumer goods and services purchased by households.

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7.13 South African Rates (11:30~~00~~) - RED Sub Type 02

This record presents the various rates that are relevant to the market.

~~7.13.1 Record Type RED Sub Type 02~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Interest on Initial Margin EDM	49	11	N	5.5	59
JIBAR One Month Yield	60	11	N	5.5	70
JIBAR Three Month Yield	71	11	N	5.5	81
JIBAR Six Month Yield	82	11	N	5.5	92
JIBAR Nine Month Yield	93	11	N	5.5	103
JIBAR Twelve Month Yield	104	11	N	5.5	114
JIBAR Three Month Discount	115	11	N	5.5	125
Rand Overnight Deposit Rate	126	11	N	5.5	136
SARB Interbank Call Rate	137	11	N	5.5	147
Call Deposit Index	148	11	N	5.5	158
Three Month Call Deposit Index	159	11	N	5.5	169
Six Month Call Deposit Index	170	11	N	5.5	180
Twelve Month Call Deposit Index	181	11	N	5.5	191
STEFI	192	11	N	5.5	202
Prime Rate	203	11	N	5.5	213
CPI	214	11	N	5.5	224

FIELD DESCRIPTIONS:

INTEREST ON INITIAL MARGIN -EDM	The interest rate earned on the amount of money determined by the clearing house on the basis specified by the JSE and held in respect of the aggregate position for the Equity Derivatives market.
JIBAR ONE MONTH YIELD	The one month Johannesburg Interbank Agreed Rate which is a daily updated South African money market rate as indicated by a number of local and international banks.
JIBAR THREE MONTH YIELD	The Three Month Johannesburg Interbank Agreed Rate.
JIBAR SIX MONTH YIELD	The Six Month Johannesburg Interbank Agreed Rate.
JIBAR NINE MONTH YIELD	The Nine Month Johannesburg Interbank Agreed Rate.

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JIBAR TWELVE MONTH YIELD	The Twelve Month Johannesburg Interbank Agreed Rate.
JIBAR THREE MONTH DISCOUNT	The discount on the Three Month Johannesburg Interbank Agreed Rate.
RAND OVERNIGHT DEPOSIT RATE	Also referred to as RODI – This is the benchmark average Interest rate on overnight deposits.
SARB INTERBANK CALL RATE	The Interbank Call rate.
CALL DEPOSIT INDEX	The interest on deposit.
THREE MONTH CALL DEPOSIT INDEX	The 3 month call deposit index.
SIX MONTH CALL DEPOSIT INDEX	The 6 month call deposit index.
TWELVE MONTH CALL DEPOSIT INDEX	The 12 month call deposit index.
STEFI	This is a performance benchmark against which money market fund managers can compare their various funds' returns used for short term money market portfolios.
PRIME RATE	This is the reference interest rate banks use when issuing variable interest rate loans to their customers.
CPI	This measures changes in the price level of a market basket of consumer goods and services purchased by households.

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7.14 South African Rates (End of Day) - RED Sub Type 03

This record presents the various rates that are relevant to the market.

~~7.14.1 Record Type RED Sub Type 03~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Interest on Initial Margin EDM	49	11	N	5.5	59
JIBAR One Month Yield	60	11	N	5.5	70
JIBAR Three Month Yield	71	11	N	5.5	81
JIBAR Six Month Yield	82	11	N	5.5	92
JIBAR Nine Month Yield	93	11	N	5.5	103
JIBAR Twelve Month Yield	104	11	N	5.5	114
JIBAR Three Month Discount	115	11	N	5.5	125
Rand Overnight Deposit Rate	126	11	N	5.5	136
SARB Interbank Call Rate	137	11	N	5.5	147
Call Deposit Index	148	11	N	5.5	158
Three Month Call Deposit Index	159	11	N	5.5	169
Six Month Call Deposit Index	170	11	N	5.5	180
Twelve Month Call Deposit Index	181	11	N	5.5	191
STEFI	192	11	N	5.5	202
Prime Rate	203	11	N	5.5	213
CPI	214	11	N	5.5	224

FIELD DESCRIPTIONS:

INTEREST ON INITIAL MARGIN -EDM	The interest rate earned on the amount of money determined by the clearing house on the basis specified by the JSE and held in respect of the aggregate position for the Equity Derivatives market.
JIBAR ONE MONTH YIELD	The one month Johannesburg Interbank Agreed Rate which is a daily updated South African money market rate as indicated by a number of local and international banks.
JIBAR THREE MONTH YIELD	The Three Month Johannesburg Interbank Agreed Rate.
JIBAR SIX MONTH YIELD	The Six Month Johannesburg Interbank Agreed Rate.
JIBAR NINE MONTH YIELD	The Nine Month Johannesburg Interbank Agreed Rate.

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JIBAR TWELVE MONTH YIELD	The Twelve Month Johannesburg Interbank Agreed Rate.
JIBAR THREE MONTH DISCOUNT	The discount on the Three Month Johannesburg Interbank Agreed Rate.
RAND OVERNIGHT DEPOSIT RATE	Also referred to as RODI – This is the benchmark average Interest rate on overnight deposits.
SARB INTERBANK CALL RATE	The Interbank Call rate.
CALL DEPOSIT INDEX	The interest on deposit.
THREE MONTH CALL DEPOSIT INDEX	The 3 month call deposit index.
SIX MONTH CALL DEPOSIT INDEX	The 6 month call deposit index.
TWELVE MONTH CALL DEPOSIT INDEX	The 12 month call deposit index.
STEFI	This is a performance benchmark against which money market fund managers can compare their various funds' returns used for short term money market portfolios.
PRIME RATE	This is the reference interest rate banks use when issuing variable interest rate loans to their customers.
CPI	This measures changes in the price level of a market basket of consumer goods and services purchased by households.

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7.15 Close Out Prices – Monthly - CED Sub Type 01

This data record contains the official closing prices per contract code.

N.B. The frequency of this record will be monthly to accommodate both the monthly expiries and quarterly futures closeout.

~~7.15.1 Record Type CED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN		98
Equity Code	99	7	AN		105
Price	106	17	N	10.6	122
ISIN	123	13	AN		135
Instrument ID	136	17	N	17	152

FIELD DESCRIPTIONS:

CONTRACT CODE	The code of the underlying instrument that the contract is written on.
EQUITY CODE	The code that uniquely identifies an index or instrument.
PRICE	The closing price is in ZAR.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.16 Margin Requirements - IED Sub Type 01

The clearing members need this report to recalculate initial market margin and for end of day balancing purposes.

~~7.16.1 Record Type IED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code/Short Name	49	50	A		98
Expiry Date	99	8	D		106
Fixed Margin	107	11	N	11	117
Spread Margin	118	11	N	11	128
VSR	129	17	N	10.6	145
Series Spread Margin	146	11	N	11	156
ISIN	157	13	AN		169
Instrument ID	170	17	N	17	186

FIELD DESCRIPTIONS:

CONTRACT CODE/SHORT NAME	The code of the underlying instrument that the contract is written on.
EXPIRY DATE	The date the contract expires.
FIXED MARGIN	This is the fixed amount of margin per contract
SPREAD MARGIN	This is the offset margin that you will receive if two contracts are traded in the same offset group.
VSR	This is the volatility scanning range used to calculate margin for options.
SERIES SPREAD MARGIN	This is the offset margin that you will receive if two contracts are traded in the same offset group.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument. .
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.17 Dividends - IED Sub Type 02

This record contains dividend assumptions and declared dividends for the market to recreate JSE's MTM valuations for the Single Stock Futures. It is important component in calculating the dividend value.

~~7.17.1 Record Type IED Sub Type 02~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN		98
Expiry Date	99	8	D		106
EX Date	107	8	D		114
Discounted Dividend	115	22	N	10.11	136
Actual Dividend	137	22	N	10.11	158
ISIN	159	13	AN		171
Instrument ID	172	17	N	17	188

FIELD DESCRIPTIONS:

CONTRACT CODE	The code of the underlying instrument that the contract is written on.
EXPIRY DATE	The expiry date of the contract.
EX DATE	The date from which the dividend is no longer applicable.
DISCOUNTED DIVIDEND	The discounted dividend.
ACTUAL DIVIDEND	The actual dividend.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.18 Options Daily Traded - PED Sub Type 01

Contains all the Option trades and volatilities done on the day.

~~7.18.1 Record Type PED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Trade Date	49	8	DATE		56
Contract Code	57	50	AN		106
Expiry	107	8	DATE		114
Quantity	115	17	N	17	131
Strike Price	132	17	N	10.6	148
Call/Put	149	6	A		154
Spot Price	155	17	N	10.6	171
Price	172	17	N	10.6	188
Rate	189	17	N	10.6	205
Origin	206	11	A		216
ISIN	217	13	AN		229
Instrument ID	230	17	N	17	246

FIELD DESCRIPTIONS:

TRADE DATE	The code of the underlying instrument that the contract is written on.
CONTRACT CODE	The code of the contract name.
EXPIRY	The date the contract expires.
QUANTITY	The number of contracts traded.
STRIKE PRICE	The price at which the buyer/holder of an option has the right to buy/sell the underlying future.
CALL/PUT	Indicates whether the trade is a Put option or a call option.
SPOT PRICE	The closing price of the underlying share or index.
PRICE	The closing price of the day.
RATE	The settlement price (or rate).
ORIGIN	The trade origin of the trade leg (which book the trade was executed on or the type of deal management performed on a trade) Flag to

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	indicate whether the deal was onscreen or off-screen.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.19 Volatility Surfaces - LED Sub Type 01

The data in this data record is used to determine the volatility skew (adjustment) that needs to be applied to the At-the-money volatility of an option during the daily valuation of index and single stock option contract. N.B the volatility surfaces will be disseminated daily but the inputs will be updated on an ad-hoc basis approximately every fortnight.

N.B. This data record contains both EDM and FXM Volatility Surfaces data.

~~7.19.1 Record Type LED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Volatility Surface code	49	50	A		98
Term to Expiry	99	17	N	10.6	115
Moneyness	116	17	N	10.6	132
Volatility Adjustment	133	17	N	10.6	149

FIELD DESCRIPTIONS:

VOLATILITY SURFACE CODE	The Volatility surface code
TERM TO EXPIRY	Term to expiry is the number of days until expiry divided by 365.
MONEYNESS	This is the relative position of the current price (or future price) of an underlying asset (e.g., a stock) with respect to the strike price of a derivative, most commonly a call option or a put option.
VOLATILITY ADJUSTMENT	This is the adjustment that is applied to the “at-the-money volatility” to establish the MTM Volatility.

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7.20 All Contract Details - AED Sub Type 01

Contains all tradable instruments including the margins and the clearing fees.

~~7.20.1 Record Type AED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Contract Code	49	50	AN		98
Contract Description	99	50	AN		148
Underlying Code	149	50	A		198
Category	199	50	A		248
Physical/Cash	249	10	A		258
Expiry Date	259	8	D		266
Contract Specification	267	130	AN		396
Nominal per Contract	397	11	N	11	407
Fixed Margin	408	11	N	11	418
Calendar Spread Margin	419	11	N	11	429
Series Spread Margin	430	17	N	10.6	446
Volatility Scanning Range	447	17	N	10.6	463
SAFEX Clearing Fees – Futures	464	130	AN		593
SAFEX Clearing Fees – Options	594	130	AN		723
ISIN Number	724	13	AN		736
Inward Listed	737	6	A		742
Instrument ID	743	17	N	17	759

FIELD DESCRIPTIONS:

CONTRACT CODE	The code of the underlying instrument that the contract is written on.
CONTRACT DESCRIPTION	The description of the contract.
UNDERLYING CODE	The underlying instrument code.
CATEGORY	Defines the instrument category for which the instrument belongs.
PHYSICAL/CASH	The Physical/Cash field distinguishes between what is physically settled and what is traded in profit and loss (i.e. Cash) Inward Listed.
EXPIRY DATE	The contract expiry date.
CONTRACT SPECIFICATION	Link to the specific contract on the JSE website.
NOMINAL PER CONTRACT	Index change from base value.

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FIXED MARGIN	This is the fixed amount of margin per contract. N.B. The value of this field is the same value as IMR field value in the record ADD 01
CALENDAR SPREAD MARGIN	This is the offset margin that you will receive if two contracts are traded in the same offset group.
SERIES SPREAD MARGIN	This is the offset margin that you will receive if two contracts are traded in the same offset group.
VOLATILITY SCANNING RANGE	This is the volatility scanning range used to calculate margin for options.
SAFEX CLEARING FEES – FUTURES	The Clearing fee charged on Futures.
SAFEX CLEARING FEES – OPTIONS	The Clearing fee charged on Options.
ISIN NUMBER	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INWARD LISTED	Indicates what is a foreign security where Yes indicates Foreign Security and No represents Local Security.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.21 Risk Parameters - ADD Sub Type 01

This record contains the risk arrays on the options and used to recalculate option margin requirement. This record contains all contracts irrespective of whether they were traded or not.

- The Risk Parameters data record will be published with 18 scenarios populated; the last 2 scenarios (19 & 20) will not be populated with data until JSE notifies.

~~7.21.1 Record Type ADD Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Business Date	49	8	D		56
Pricing Tag	57	50	A		106
Contract ID	107	11	N		117
Contract Code	118	50	AN		167
Alpha Code	168	20	A		187
Expiry Date	188	8	D		195
Instrument Class	196	10	A		205
Call/Put	206	6	A		211
Strike	212	17	N	10.6	228
Contract Size	229	8	N	8	236
Contract Size Type	237	10	A		246
JSE Instrument Type	247	50	A		296
Delta	297	21	N	10.10	317
MtM Price	318	17	N	10.6	334
ATM Volatility %	335	17	N	10.6	351
MtM Volatility %	352	17	AN	10.6	368
IMR	369	17	N	10.6	385
CSG	386	10	A		395
CSMR	396	17	N	10.6	412
SSG	413	50	A		462
SSMR	463	17	N	10.6	479
VSR	480	17	N	10.6	496
SMR	497	17	N	10.6	513
1-Day VaR %	514	17	N	10.6	530
Liquidation Period	531	17	N	17	547
Average Daily Value Traded	548	17	N	10.6	564
Risk Scenario 1	565	17	N	10.6	581
Risk Scenario 2	582	17	N	10.6	598
Risk Scenario 3	599	17	N	10.6	615
Risk Scenario 4	616	17	N	10.6	632
Risk Scenario 5	633	17	N	10.6	649
Risk Scenario 6	650	17	N	10.6	666
Risk Scenario 7	667	17	N	10.6	683
Risk Scenario 8	684	17	N	10.6	700
Risk Scenario 9	701	17	N	10.6	717
Risk Scenario 10	718	17	N	10.6	734
Risk Scenario 11	735	17	N	10.6	751
Risk Scenario 12	752	17	N	10.6	768
Risk Scenario 13	769	17	N	10.6	785
Risk Scenario 14	786	17	N	10.6	802

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Risk Scenario 15	803	17	N	10.6	819
Risk Scenario 16	820	17	N	10.6	836
Risk Scenario 17	837	17	N	10.6	853
Risk Scenario 18	854	17	N	10.6	870
Risk Scenario 19	871	17	N	10.6	887
Risk Scenario 20	888	17	N	10.6	904
ISIN	905	13	AN		917
Instrument ID	918	17	N	17	934

FIELD DESCRIPTIONS:

BUSINESS DATE	The business date on which the risk calculation is triggered.
PRICING TAG	The pricing tag which is used for the risk calculation.
CONTRACT ID	This is the instrument ID which is a unique identifier that is assigned to all instruments.
CONTRACT CODE	This is a field that uniquely identifies a contract. It is a combination of contract expiry, forex pair, settlement type or contract size, strike price and option type.
ALPHA CODE	The code of the underlying instrument that the contract is written on.
EXPIRY DATE	Refers to the expiry date of the individual contract.
INSTRUMENT CLASS	This indicates the instrument class of the contract (Spot, Future, Option, CFD, Bond).
CALL/PUT	This indicates the Option type which can either be Call or Put.
STRIKE	The price at which the buyer/holder of an option has the right to buy/sell the underlying future.
CONTRACT SIZE	The amount of underlying asset represented by each contract.
CONTRACT SIZE TYPE	This indicates if the Contract is base/mini/maxi/super.
JSE INSTRUMENT TYPE	This indicates the type of the instrument underlying the contract. This is a finer grouping than the instrument class.
DELTA	The delta of the contract for the business date and price tag.

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	N.B the values can have a negative of ppositive values, • Positive values can be identified by a space at the beginning of the field. • Negative values can be identified by a negative sign (-) at the beginning of the field.
MTM PRICE	Official closing price as determined by the Exchange.
ATM VOLATILITY %	This is the degree of variation of the trading price of the underlying instrument.
MTM VOLATILITY %	The extent to which the return of the underlying asset will fluctuate between now and the option's expiration. Only applicable to Options.
IMR	This is the fixed amount of margin per contract. N.B. The value of this field is the same value as Fixed Margin field value in the record AED 01
CSG	This is the class spread group (series) the contract belongs to.
CSMR	This is the offset margin that you will receive if two contracts are traded in the same offset group.
SSG	This is the series spread group the CSG belongs to.
SSMR	This is the offset margin that you will receive if two contracts are traded in the same offset group.
VSR	This is the volatility scanning range used to calculate margin for options.
SMR	The official IMR of the contract, in case it's a future or CFD.
1-DAY VAR %	The 1 day VaR Official value for the instrument. This attribute is stored per underlying.
LIQUIDATION PERIOD	The liquidation period for the instrument. This attribute is stored on the underlying.
AVERAGE DAILY VALUE TRADED	The ADVT value for the instrument. This attribute is stored on the underlying spot contract.

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RISK SCENARIO 1	The Risk array (contract scenario exposure) in scenario 1.
RISK SCENARIO 2	The Risk array (contract scenario exposure) in scenario 2.
RISK SCENARIO 3	The Risk array (contract scenario exposure) in scenario 3.
RISK SCENARIO 4	The Risk array (contract scenario exposure) in scenario 4.
RISK SCENARIO 5	The Risk array (contract scenario exposure) in scenario 5.
RISK SCENARIO 6	The Risk array (contract scenario exposure) in scenario 6.
RISK SCENARIO 7	The Risk array (contract scenario exposure) in scenario 7.
RISK SCENARIO 8	The Risk array (contract scenario exposure) in scenario 8.
RISK SCENARIO 9	The Risk array (contract scenario exposure) in scenario 9.
RISK SCENARIO 10	The Risk array (contract scenario exposure) in scenario 10.
RISK SCENARIO 11	The Risk array (contract scenario exposure) in scenario 11.
RISK SCENARIO 12	The Risk array (contract scenario exposure) in scenario 12.
RISK SCENARIO 13	The Risk array (contract scenario exposure) in scenario 13.
RISK SCENARIO 14	The Risk array (contract scenario exposure) in scenario 14.
RISK SCENARIO 15	The Risk array (contract scenario exposure) in scenario 15.
RISK SCENARIO 16	The Risk array (contract scenario exposure) in scenario 16.

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RISK SCENARIO 17	The Risk array (contract scenario exposure) in scenario 17.
RISK SCENARIO 18	The Risk array (contract scenario exposure) in scenario 18.
RISK SCENARIO 19	The Risk array (contract scenario exposure) in scenario 19.
RISK SCENARIO 20	The Risk array (contract scenario exposure) in scenario 20.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument.
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.

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7.22 Detailed Instruments - XED Sub Type 01

This record contains all active instruments on the day irrespective of whether they were traded or not with additional reference data fields.

~~7.22.1 Record Type XED Sub Type 01~~

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Derivative Instrument Name	49	70	AN		118
Derivative Instrument Type	119	60	A		178
Contract Code	179	50	AN		228
ISIN	229	13	AN		241
Instrument ID	242	17	N	17	258
Volatility Surface Code	259	50	A		308

FIELD DESCRIPTIONS:

DERIVATIVE INSTRUMENT NAME	This is the Contract level name of the instrument, which provides basic information about the type of instrument. This name will appear on several different tradable instruments with different expiry dates and strike prices.
DERIVATIVE INSTRUMENT TYPE	The type of instrument that the contract represents e.g. Single Stock Future, Forex Any day Option, etc.
CONTRACT CODE	The code of the underlying instrument that the contract is written on.
ISIN	An International Securities Identification Number (ISIN) uniquely identifies a security. An ISIN consists of three parts: a country code, an alpha-numeric national security identifier, and a check digit. An ISIN is unique per instrument. .
INSTRUMENT ID	This is a unique identifier that is assigned to all instruments, across all markets at the JSE. This is the universal instrument master ID.
VOLATILITY SURFACE CODE	The Volatility surface code

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