

# Equity Derivatives

## Non-Live Market Data Products Specifications

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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      | <ul style="list-style-type: none"> <li>Changed SLA times in section 4</li> <li>Updates of section 5</li> <li>Removal of the Repo Rate in the South African rates records</li> </ul>   |
| 0.4     | Tshepo Modise | 06 June 2017     | <ul style="list-style-type: none"> <li>Enriched some business meanings in various data records</li> <li>Renamed Instrument Type to Derivatives Instrument Type in records DED 02, DED 03, DED 04, MED 01 and MED 02</li> <li>MED 02 updated numeric formats and lengths of Delta, MTM Price and MTM Yield Fields</li> <li>CED 01 updated data type to AN</li> <li>IED 01 updated numeric format and length of VSR field</li> <li>IED 02 updated data type of Contract code to AN</li> <li>AED 01 updated data type of Contract code to AN</li> <li>ADD 01 updated numeric format sand lengths of Delta and VSR fields</li> <li>MED 01 updated the data type for ISIN field</li> </ul> |
| 0.5     | Tshepo Modise | 12 July 2017     | <ul style="list-style-type: none"> <li>Corrected the market number in the leading record field description</li> <li>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</li> <li>Updated various business descriptions</li> </ul>  |
| 0.6     | Tshepo Modise | 16 November 2017 | <ul style="list-style-type: none"> <li>Increased Instrument field length for record DED 01</li> <li>Updated field description for MTM Price and Delta fields</li> <li>Added new data record XED 01</li> <li>Updated dissemination times for some records</li> <li>Removed 1 LED 01 record</li> </ul>  |

| Version | Author            | Date             | Reason for Changes  |
|---------|-------------------|------------------|---|
| 0.7     | Tshepo Modise     | 19 March 2018    | <ul style="list-style-type: none"> <li>Update context note for records DED 02, DED 03 and DED 04</li> <li>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</li> <li>Updated context note for record XED 01</li> <li>Updated dissemination frequency in section 4 for record CED 01 and added context in the actual record structure page</li> </ul>   |
| 0.8     | Tshepo Modise     | 22 June 2018     | <ul style="list-style-type: none"> <li>Update of dissemination SLA times for some of the records: Refer to section 4 for impacted records</li> <li>Updated ISIN field description in various records</li> <li>Increased Equity Code field length from 4 to 7 characters in record CED 01</li> <li>Updated Data record criterion for Records DED 01, MED 02 and ADD 01</li> <li>Added Inverse Calendar Spreads contract convention</li> <li>Updated Volatility Adjustment field description for record LED 01</li> <li>Added new field "Delta Value Sign" in data records DED 02, DED 03 and DED 04</li> </ul> |
| 0.9     | Tshepo Modise     | 16 August 2018   | <ul style="list-style-type: none"> <li>Correct field lengths for data record DED 04</li> <li>Addition of Indicative MTM MED 03 data record</li> <li>Added Data type for Contract ID field in data record ADD 01</li> </ul>  |
| 0.10    | Sandra Borrageiro | 17 October 2018  | <ul style="list-style-type: none"> <li>Updated Section 5 Instrument Identifiers to link to the Instrument Reference Data Guidance Note document</li> </ul>  |
| 0.11    | Tshepo Modise     | 28 January 2019  | <ul style="list-style-type: none"> <li>Updated SLA Times for EOD data records in section 4</li> <li>Updated data records' headings and subheadings</li> <li>Updated context note for record LED 01</li> <li>Add Volatility Surface Code field in Data Record XED 01</li> </ul>  |
| 0.12    | Tshepo Modise     | 11 February 2019 | <ul style="list-style-type: none"> <li>Addition of the <u>All</u> Contracts Open Interest - DED05 data record</li> </ul>  |

| Version    | Author               | Date                | Reason for Changes   |
|------------|----------------------|---------------------|--|
| 0.13       | Tshepo Modise        | 25 March 2019       | <ul style="list-style-type: none"> <li>Made cosmetic changes</li> <li>Updated Dissemination file name for data record CCD 03 in section 4</li> </ul>   |
| 1.0        | Tshepo Modise        | 01 May 2019         | <ul style="list-style-type: none"> <li>Accept all track changes</li> </ul>   |
| 1.1        | Tshepo Modise        | 30 May 2019         | <ul style="list-style-type: none"> <li>Updated dissemination time for RED 02</li> <li>Updated context notes for MED 01</li> <li>Updated field description for "Total Open Interest For Day" in OED 02 and SED 02 data records</li> <li>Updated record headings of all data records</li> </ul>      |
| 2.0        | Tshepo Modise        | July 2019           | <ul style="list-style-type: none"> <li>Accepted all track changes from working version 1.1</li> </ul>  |
| 3.0        | Tshepo Modise        | August 2019         | <ul style="list-style-type: none"> <li>Addition of Excel format of Close Out Data product</li> </ul>   |
| 4.0        | Tshepo Modise        | October 2021        | <ul style="list-style-type: none"> <li>Changed Current Monthly Closeout Excel and Fixed Width CED 01 to be Quarterly data product</li> <li>Addition of Fixed Width CED 02 and Excel format of Monthly Close Out Data product</li> </ul>  |
| 5.0        | Tshepo Modise        | April 2022          | <ul style="list-style-type: none"> <li>Update of the addition of Interest on Initial Margin field as one of the fields covered in context note, that will not be populated in record RED 01</li> <li>Addition of a context note for the fields that will not be populated AED 01 record</li> </ul> |
| <u>6.0</u> | <u>Neil Vendeiro</u> | <u>January 2023</u> | <ul style="list-style-type: none"> <li><u>Adjusted name and SLA times for the monthly and quarterly Close Out data products</u></li> </ul>   |

## 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](mailto: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        |

## 4. Data Product List

| Product Name                     | Market             | Dissemination Frequency | Delivery 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)      | Equity Derivatives | Daily from              | 11:30         | 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 | Quarterly from          | 12:45         | FTP              | CED – Subtype 1      | ED12.ZIP                                     |
| Close Out Prices                 | Equity Derivatives | Quarterly from          | 12:45         | FTP              | Excel File           | EDM Close Out PricesYYMMDD42.ZIP             |
| Close Out Prices                 | Equity Derivatives | Monthly from            | 18:0045       | FTP              | CED – Subtype 2      | ED18.ZIP                                     |
| Close Out Prices                 | Equity Derivatives | Monthly from            | 18:0045       | FTP              | Excel File           | ED42.ZIPEDM Monthly Close Out PricesYYYYMMDD |
| 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.

## 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.

## 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.

## 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).

| 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.

|                 |   |
|-----------------|---|
| CLOSING BID     | <p>Closing price at which a market participant is willing to buy.</p> <p><b>This field will be populated for on book traded instruments, however will be blank for instruments traded off book only</b></p>   |
| CLOSING OFFER   | <p>Closing price at which a market participant is willing to sell.</p> <p><b>This field will be populated for on book traded instruments, however will be blank for instruments traded off book only.</b></p> |
| MTM             | Official closing price as determined by the Exchange  |
| FIRST PRICE     | <p>First execution price of a trade the specified day.</p> <p><b>This field will be blank for instruments traded off book traded only.</b></p>  |
| LAST PRICE      | <p>Last execution price of a trade the specified day.</p> <p><b>This field will be blank for instruments traded off book only.</b></p>  |
| HIGH PRICE      | <p>Highest execution price of a trade on the specified day</p> <p><b>This field will be blank for instruments traded off book only.</b></p>   |
| LOW PRICE       | <p>The lowest execution price of a trade on the specified day</p> <p><b>This field will be blank for instruments traded off book only.</b></p>  |
| 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   |
| 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.   |

### 7.3 Daily Market Statistics - 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   |



|                 |   |
|-----------------|---|
| 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.   |



#### 7.4 Weekly Market Statistics - 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  |



|                 |   |
|-----------------|---|
| 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.   |

## 7.5 Monthly Market Statistics - 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  |



|                 |   |
|-----------------|---|
| 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.   |

## 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.

| 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.   |

## 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.

| 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. |

## 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.

| 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. |
| TOTAL MARGIN ON DEPOSIT           | The total amount of margin on deposit for the specified day.   |
|                                   | <b>N.B This field will always be populated with zeros</b>  |

## 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).
- All option contracts that traded for the day on-book or off-book (traded volume on-book or off-book > 0).

| 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  |
| MTM PRICE                 | Official Intraday closing price as determined by the Exchange  |





|                |   |
|----------------|---|
| MTM YIELD      | Closing yield on the contract.<br><br><b>N.B. Equity Derivatives Markets do not have yield traded instruments. Therefore the MTM Yield field will always be blank</b>   |
| 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.   |

## 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).

**N.B. All instruments expiring on Closeout will not be included in this record and the data will be provided in the Closeout Data Record**

| 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. 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.<br><br><b>N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank</b>  |
| 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.<br><br><b>N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank</b>  |
| PREVIOUS MTM VOLATILITY | Previous day's end of day Volatility.   |
| DELTA                   | The delta of the option.<br>N.B the values can have a negative of positive values, <ul style="list-style-type: none"> <li>• Positive values can be identified by a space at the beginning of the field.</li> <li>• Negative values can be identified by a negative sign (-) at the beginning of the field.</li> </ul> |
| FIRST PRICE             | First execution price of a trade the specified day.   |

|               |   |
|---------------|---|
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| LAST PRICE    | Last execution price of a trade the specified day.  |
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| HIGH PRICE    | Highest execution price of a trade on the specified day   |
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| LOW PRICE     | The lowest execution price of a trade on the specified day  |
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| 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.   |

## 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).

**N.B. All instruments expiring on Closeout will not be included in this record and the data will be provided in the Closeout Data Record**

| 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. 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.<br><br><b>N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank</b>  |
| 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.<br><br><b>N.B. Equity Derivatives Markets do not have yield traded instruments, therefore this field will always be blank</b>  |
| PREVIOUS MTM VOLATILITY | Previous day's end of day Volatility.   |
| DELTA                   | The delta of the option.<br>N.B the values can have a negative of positive values, <ul style="list-style-type: none"> <li>• Positive values can be identified by a space at the beginning of the field.</li> <li>• Negative values can be identified by a negative sign (-) at the beginning of the field.</li> </ul> |
| FIRST PRICE             | First execution price of a trade the specified day.   |

|               |   |
|---------------|---|
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| LAST PRICE    | Last execution price of a trade the specified day.  |
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| HIGH PRICE    | Highest execution price of a trade on the specified day   |
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| LOW PRICE     | The lowest execution price of a trade on the specified day  |
|               | <b>This field will be blank for instruments traded off book only.</b>   |
| 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.   |

## 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

| 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.  |



|                                 |  |
|---------------------------------|--|
| 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.  |

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

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

| 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.  |

|                                 |  |
|---------------------------------|--|
| 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.  |

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

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

| 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.  |

|                                 |  |
|---------------------------------|--|
| 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.  |

## 7.15 Close Out Prices – Quarterly - CED Sub Type 01

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

| 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.   |

## 7.16 Close Out Prices – Quarterly – Excel File

This data product contains the official closing prices per contract code.  
This will be published during the standard quarterly futures closeout dates.

This will be published during the standard quarterly futures closeout dates.

|                 |                                     |              |       |
|-----------------|-------------------------------------|--------------|-------|
| Report Name     | EDM Close Out Prices<CCYYMMDD>.xlsx |              |       |
| Sheet Name      | EDM Close Out Prices                |              |       |
| Heading         |                                     |              |       |
|                 | Actual/<Pattern>/(Example)          | Field Type   | Cell  |
| Report Title    | Close Out Prices                    | varchar(100) | A7-C7 |
| Report Date     | <dd mmm yy>                         | datetime     | A5    |
| Column headings |                                     |              | A8-E8 |
| Detail          |                                     |              |       |
| Field Name      |                                     | Field Type   | Cells |
| Contract Code   |                                     | varchar(50)  | >=A9  |
| Equity Code     |                                     | varchar(7)   | >=B9  |
| Price           |                                     | float        | >=C9  |
| ISIN            |                                     | varchar(13)  | >=D9  |
| Instrument ID   |                                     | varchar(17)  | >=E9  |

### **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.   |

## 7.17 Close Out Prices – Monthly - CED Sub Type 02

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

N.B. This will be published during the standard monthly futures closeout dates.

| 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.   |



## 7.18 Close Out Prices – Monthly – Excel File

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

|                 |                                     |              |       |
|-----------------|-------------------------------------|--------------|-------|
| Report Name     | EDM Close Out Prices<CCYYMMDD>.xlsx |              |       |
| Sheet Name      | EDM Close Out Prices                |              |       |
| Heading         |                                     |              |       |
|                 | Actual/<Pattern>/(Example)          | Field Type   | Cell  |
| Report Title    | Close Out Prices                    | varchar(100) | A7-C7 |
| Report Date     | <dd mmm yy>                         | datetime     | A5    |
| Column headings |                                     |              | A8-E8 |
| Detail          |                                     |              |       |
| Field Name      |                                     | Field Type   | Cells |
| Contract Code   |                                     | varchar(50)  | >=A9  |
| Equity Code     |                                     | varchar(7)   | >=B9  |
| Price           |                                     | float        | >=C9  |
| ISIN            |                                     | varchar(13)  | >=D9  |
| Instrument ID   |                                     | varchar(17)  | >=E9  |

### **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.   |



## 7.19 Margin Requirements - IED Sub Type 01

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

| 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.   |

## 7.20 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.

| 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.   |

## 7.21 Options Daily Traded - PED Sub Type 01

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

| 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 |



ISIN

indicate whether the deal was onscreen or off-screen.

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.

## 7.22 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.

| 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     |
| Moneyiness              | 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.   |

## 7.23 All Contract Details - AED Sub Type 01

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

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

| 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 | <a href="#">Link to the specific contract on the JSE website.</a>   |



|                               |   |
|-------------------------------|---|
| NOMINAL PER CONTRACT          | Index change from base value.   |
| FIXED MARGIN                  | This is the fixed amount of margin per contract.<br>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.   |

## 7.24 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.

| 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     |
| 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.<br>N.B the values can have a negative or positive 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.   |

|                  |   |
|------------------|---|
| 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. |

|                  |   |
|------------------|---|
| 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.   |

## 7.25 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.

| 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   |