

# **Equity and Commodity Derivatives**

## **End of Day Data Service - User Manual**

2 August 2007



## Table of Contents

<b>1. References .....</b>	<b>3</b>
<b>2. Version Control.....</b>	<b>3</b>
<b>3. Introduction.....</b>	<b>4</b>
<b>4. EOD PRODUCT LIST.....</b>	<b>5</b>
<b>5. Contracts vs. Instruments.....</b>	<b>6</b>
<b>6. Field Formats .....</b>	<b>8</b>
<b>7. Equity Derivatives Market .....</b>	<b>9</b>
7.1 Leading Record Layout	9
7.2 Daily Traded Statistics	11
7.3 Daily Traded Type Totals	13
7.4 Daily Traded Overall Totals	14
7.5 Daily Full Market Statistics	15
7.6 Daily Full Market Type Totals	17
7.7 Daily Full Market Overall Totals	18
7.8 Mark to Market	19
7.9 Interest Rates	21
<b>8. Commodity Derivatives Market.....</b>	<b>23</b>
8.1 Leading Record Layout	23
8.2 Daily Traded Statistics	25
8.3 Daily Traded Type Totals	27
8.4 Daily Traded Overall Totals	28
8.5 Daily Full Market Statistics	29
8.6 Daily Full Market Type Totals	31
8.7 Daily Full Market Overall Totals	32
8.8 Mark to Market	33
8.9 Interest Rates	35
8.10 Daily Physical Deliveries	36

## 1. REFERENCES

Document	Author	Version	Issue Date
MITS 2.2 Detailed Functional Design – Appendix K – MITS API Specifications	STT	V0.1 rev 0.6	14/09/2006
Infomax User Manual	IPS	V 1.8	18/10/2006

## 2. VERSION CONTROL

Version	Author	Date	Reason for Changes
1.0	Neil Vendeiro	28 February 2007	Document creation.
1.1	Alex Comninos	26 July 2007	<ul style="list-style-type: none"> <li>- Changes to the sizes and formats of numeric fields and to the size of the fillers in the detail part of all record types.</li> <li>- Removed Rand/Dollar Rate from Interest Rate records</li> <li>- Field changes to record types MED 01, MAP 01, DED 01, DAP 01, DED 02 and DAP 02</li> <li>- Options now denoted by ‘Y’ throughout the document</li> <li>- Split out Spot/Volatility field into separate fields and eliminated unnecessary fields</li> </ul>
1.2	Alex Comninos	2 August 2007	<ul style="list-style-type: none"> <li>- Reworded explanation of record header and detail in 7.1 &amp; 8.1</li> <li>- Corrected description of Spot Price field in DED 01 &amp; DAP 01.</li> </ul>

### 3. INTRODUCTION

The aim of the Infomax End of Day Dissemination system is to provide users with relevant and useful reference and statistical data on the days trading activity via a standardised and stable platform. All information offered for dissemination is extracted from the relevant JSE systems, and held in a central database.

Data is provided in the form of data records which are made available via the JSE File Transfer Protocol (FTP) server which requires a direct network connection..

User can specify the type of records they require from the standard layouts available. To allow for full flexibility, each market has its own set of data records and each set of records will be made available in separate physical data files.

The filename standards will be as follows:

Equity Derivatives : ddap.sprd.*alphacode*.ED.zip  
 Commodity Derivatives : ddap.sprd.*alphacode*.AD.zip

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

Prospective subscribers must contact the Information Products Sales Division in writing via [infoclients@jse.co.za](mailto:infoclients@jse.co.za) if they are interested in subscribing to any of the record types.

#### 4. EOD PRODUCT LIST

Product Name	Market	Dissemination Frequency	Delivery channel	Associated Records
Daily Traded Statistics	Equity Derivatives	Daily	FTP	DED – Subtype 1
Daily Full Market Statistics	Equity Derivatives	Daily	FTP	DED – Subtype 2
Daily Traded Type Totals	Equity Derivatives	Daily	FTP	SED – Subtype 1
Daily Full Market Type Totals	Equity Derivatives	Daily	FTP	SED – Subtype 2
Daily Traded Overall Totals	Equity Derivatives	Daily	FTP	OED – Subtype 1
Daily Full Market Overall Totals	Equity Derivatives	Daily	FTP	OED – Subtype 2
Mark to Market	Equity Derivatives	Daily	FTP	MED – Subtype 1
Interest Rates	Equity Derivatives	Daily	FTP	RED – Subtype 1
			FTP	
Daily Traded Statistics	Commodity Derivatives	Daily	FTP	DAP – Subtype 1
Daily Full Market Statistics	Commodity Derivatives	Daily	FTP	DAP – Subtype 2
Daily Traded Type Totals	Commodity Derivatives	Daily	FTP	SAP – Subtype 1
Daily Full Market Type Totals	Commodity Derivatives	Daily	FTP	SAP – Subtype 2
Daily Traded Overall Totals	Commodity Derivatives	Daily	FTP	OAP – Subtype 1
Daily Full Market Overall Totals	Commodity Derivatives	Daily	FTP	OAP – Subtype 2
Mark to Market	Commodity Derivatives	Daily	FTP	MAP – Subtype 1
Interest Rates	Commodity Derivatives	Daily	FTP	RAP – Subtype 1
Physical Deliveries	Commodity Derivatives	Daily	FTP	PAP – Subtype 1

## 5. CONTRACTS VS. INSTRUMENTS

A contract is defined as a tradable item on a market. A contract name can be made up of the following:

- Type of contract e.g. Future or Option.
- Instrument
- An expiry or valuation date (2009-06-21)
- A strike price
- And Option Type i.e. whether it is a Call or a Put.

**Each set/combination of the above elements makes up an individual contract name.**

- The **Contract Type** refers to the type of derivative that the contract represents and could comprise one of the following:

CHARACTER	CONTRACT
F	Future
Y	Option

- **Instrument** refers to the underlying commodity/asset/financial instrument on which a derivative is based.
- The **Date** refers to the expiry date or valuation date of the individual contract. This is the date essentially when the contract matures.
- The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying For Futures, the Strike Price will zero whereas for Options, the strike price will be the strike value of the option.
- An **Option Type**, which could be :

A **Call** – which gives the buyer of the option the right, but not the obligation, to buy the underlying asset at a specified price (strike price) on or before a certain date. The seller of a call option is obliged to deliver the underlying asset at the strike price, regardless of the current market value of the asset at the time of option exercise.

or;

A **Put** - which gives the buyer of the option the right, but not the obligation, to sell the underlying asset at a specified price on or before a certain date. The seller of a put option is obliged to take delivery of the underlying security at the put strike price, regardless of the current market value of the asset at the time of option exercise.

## 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.

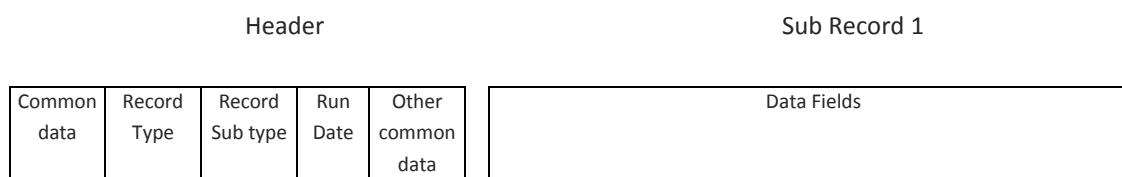
Some amount of space has been left, both in the record headers and the record bodies for future expansion. This space is marked as “filler” and will be populated with the specified number of space (ASCII value 32) characters to fill the field until such time as that space is needed for other pertinent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



FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Market Number	1	1	N (I)	1	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

The different Derivatives markets are identified by a unique identifier and number, as per the below table:

Market Number	Market Identifier	Full Market Name
1	EDM	Equity Derivatives Market
2	APM	Agricultural Product Market

##### CONTRACT TYPE

This indicates the type of the contract

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

##### INSTRUMENT TYPE

This indicates the type of the instrument underlying the contract e.g.

Agricultural Derivatives

Agricultural Future (AGRIF)

RECORD TYPE	The code indicating the type of information that is being disseminated e.g.:  DAP – Daily record type for Agricultural Derivatives DAPE – Daily early record type for Agricultural Derivatives.
RECORD SUB TYPE	The Sub Type related to a particular record sub type - e.g. Sub Type 01.
RUN DATE	The date of the dissemination runs, in the format CCYYMMDD.
FILLER	To cater for future expansion
DATA (LAYOUTS BELOW)	The fields that make up each relevant record type(s) are provided further down under the record sub-types.

## 7.2 Daily Traded Statistics

The Daily Equity Derivatives Traded Statistics records are calculated at the close of each trading day. All daily Equity Derivatives statistics fall within record type **DED - Daily Equities Derivatives**.

The statistics are grouped into various sub types, which allows you to select the type of data that you require. The different sub types and the relevant field layouts are listed below.

### 7.2.1 Record Type DED Sub Type 01 - Daily Traded Statistics

The Daily Traded Statistics record only contains the contracts that were traded on the day for the Equity Derivatives Market.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Instrument	49	4	A		52
Date	53	8	DATE		60
Strike Price	61	17	N	10.6	77
Option Type	78	1	A		78
Spot Price	79	17	N	10.6	95
Closing Bid	96	17	N	10.6	112
Closing Offer	113	17	N	10.6	129
MTM	130	17	N	10.6	146
First Price	147	17	N	10.6	163
Last Price	164	17	N	10.6	180
High Price	181	17	N	10.6	197
Low Price	198	17	N	10.6	214
Number of deals	215	14	N (I)	14	228
Volume	229	14	N (I)	14	242
Value Traded	243	21	N	14.6	263
Open Interest	264	14	N (I)	14	277
Volatility	278	11	N	4.6	288
Filler	289	51	A		339

#### FIELD DESCRIPTIONS:

INSTRUMENT

**Instrument** refers to the underlying instrument that the contract is written on.

DATE

The **Date** refers to the expiry date or valuation date of the individual contract.

STRIKE PRICE

The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying future.

OPTION TYPE	For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option An option can be a Put or a Call. For futures this field will contain a space
SPOT PRICE	The closing price of the underlying instrument.
CLOSING BID	The closing price at which a market participant is willing to buy.
CLOSING OFFER	The closing price at which a market participant is willing to sell.
MTM	The official closing price as determined by the Exchange
FIRST PRICE	The first execution price of a trade the specified day.
LAST PRICE	The last execution price of a trade the specified day.
HIGH PRICE	The highest execution price of a trade on the specified day.
LOW PRICE	The lowest execution price of a trade on the specified day.
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.
FILLER	To cater for future expansion

### 7.3 Daily Traded Type Totals

All contracts traded on the market are grouped according to the type of contract (e.g. Future or Option) and the underlying instrument type they represent e.g. Indices, Single Stock Futures etc.

The totals for each grouping are calculated at the close of trading each day.

All the daily type totals fall within record type **SED**. The statistics are grouped into various sub types, which allows you to select the type of information you require. The different sub types and the relevant field layouts are listed.

#### 7.3.1 Record Type SED Sub Type 01 - Daily Traded Type Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Total number of contracts per Contract and Instrument Type	49	14	N (I)	14	62
Total number of Deals per Contract and Instrument Type	63	14	N (I)	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 (I)	14	111
Filler	112	51	A		162

#### 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.
FILLER	To cater for future expansion

## 7.4 Daily Traded Overall Totals

The daily overall market totals are calculated at the close of each trading day. The record contains the key market statistics for the day's trade. It provides a view of the day's trade at a glance.

All the daily overall market totals fall within record type **OED**, and the relevant field layouts are listed below

### 7.4.1 Record Type OED Sub Type 01 - Daily Traded Overall Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Total number of contracts for day	49	14	N (I)	14	62
Total number of Deals for day	63	14	N (I)	14	76
Total Value of contracts for day	77	21	N	14.6	97
Total Open Interest for day	98	14	N (I)	14	111
Filler	112	51	A		162

#### FIELD DESCRIPTIONS:

TOTAL NUMBER OF CONTRACTS FOR DAY	The overall 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 for the specified day.
FILLER	To cater for future expansion

## 7.5 Daily Full Market Statistics

### 7.5.1 Record Type DED Sub Type 02 - Daily Full Market Statistics

The Daily Full Market Statistics record contains all the contracts for the Equity Derivatives market, irrespective of whether they were traded or not.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Instrument	49	4	A		52
Date	53	8	DATE		60
Strike Price	61	17	N	10.6	77
Option Type	78	1	A		78
Traded Indicator	79	1	B		79
Spot Price	80	17	N	10.6	96
Closing Bid	97	17	N	10.6	113
Closing Offer	114	17	N	10.6	130
MTM	131	17	N	10.6	147
First Price	148	17	N	10.6	164
Last Price	165	17	N	10.6	181
High Price	182	17	N	10.6	198
Low Price	199	17	N	10.6	215
Number of Deals	216	14	N (I)	14	229
Volume	230	14	N (I)	14	243
Value Traded	244	21	N	14.6	264
Open Interest	265	14	N (I)	14	278
Volatility	279	11	N	4.6	289
Filler	290	51	A		340

#### FIELD DESCRIPTIONS:

INSTRUMENT

**Instrument** refers to the underlying instrument that the contract is written on.

DATE

The **Date** refers to the expiry date or valuation date of the individual contract.

STRIKE PRICE

The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying future.

For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option

OPTION TYPE	An option can be a Put or a Call.
TRADED INDICATOR	This indicates if the contract was traded on the specified day.
SPOT PRICE	The closing price of the underlying instrument
CLOSING BID	The closing price at which a market participant is willing to buy.
CLOSING OFFER	The closing price at which a market participant is willing to sell.
MTM	The official closing price as determined by the Exchange
FIRST PRICE	The first execution price of a trade the specified day.
LAST PRICE	The last execution price of a trade the specified day.
HIGH PRICE	The highest execution price of a trade on the specified day.
LOW PRICE	The lowest execution price of a trade on the specified day.
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.
FILLER	To cater for future expansion



## 7.6 Daily Full Market Type Totals

All contracts traded on the market are grouped according to the type of contract (e.g. Future or Option) and the underlying instrument type they represent e.g. Indices, Single Stock Futures etc.

The totals for each grouping are calculated at the close of trading each day.

All the daily type totals fall within record type **SED**. The statistics are grouped into various sub types, which allows you to select the type of information you require. The different sub types and the relevant field layouts are listed.

### 7.6.1 Record Type SED Sub Type 02 - Daily Full Market Type Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Total number of contracts per Contract and Instrument Type	49	14	N (I)	14	62
Total number of Deals per Contract and Instrument Type	63	14	N (I)	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 (I)	14	111
Filler	112	51	A		162

#### 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.
FILLER	To cater for future expansion

## 7.7 Daily Full Market Overall Totals

The daily overall market totals are calculated at the close of each trading day. The record contains the key market statistics for the day's trade. It provides a view of the day's trade at a glance.

All the daily overall market totals fall within record type **OED**, and the relevant field layouts are listed below

### 7.7.1 Record Type OED Sub Type 02 - Daily Full Market Overall Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Total number of contracts for day	49	14	N (I)	14	62
Total number of Deals for day	63	14	N (I)	14	76
Total Value of contracts for day	77	21	N	14.6	97
Total Open Interest for day	98	14	N (I)	14	111
Total Margin on Deposit	112	21	N	14.6	132
Filler	133	51	A		183

#### FIELD DESCRIPTIONS:

TOTAL NUMBER OF CONTRACTS FOR DAY	The overall 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 for the specified day.
TOTAL MARGIN ON DEPOSIT	The total amount of margin of deposit for the specified day.
FILLER	To cater for future expansion

## 7.8 Mark to Market

The closing Mark-to-Market value is calculated at the end of the day by the exchange.

### 7.8.1 Record Type MED Sub Type 01

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMAT	END POS
Instrument	49	4	A		52
Date	53	8	DATE		60
Strike Price	61	17	N	10.6	77
Option Type	78	1	A		78
Spot Price	79	17	N	10.6	95
Closing Bid	96	17	N	10.6	112
Closing Offer	113	17	N	10.6	129
MTM	130	17	N	10.6	146
High Price	147	17	N	10.6	163
Low Price	164	17	N	10.6	180
Volume	181	14	N (I)	14	194
Open Interest	195	14	N (I)	14	208
Volatility	209	11	N	4.6	219
Filler	220	51	A		270

#### FIELD DESCRIPTIONS:

INSTRUMENT

**Instrument** refers to the underlying instrument that the contract is written on.

DATE

The **Date** refers to the expiry date or valuation date of the individual contract.

STRIKE PRICE

The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying future.

For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option

OPTION TYPE

An option can be a Put or a Call. For futures this field will contain a space

SPOT PRICE

The latest trading price of the underlying share or index

CLOSING BID	The closing price at which a market participant is willing to buy.
CLOSING OFFER	The closing price at which a market participant is willing to sell.
MTM	The official closing price as determined by the Exchange
HIGH PRICE	The highest execution price of a trade on the specified day.
LOW PRICE	The lowest execution price of a trade on the specified day.
VOLUME TRADED	The number of contracts traded on the day
OPEN INTEREST	The total number of futures contracts or option contracts that have not yet been exercised, expired, or fulfilled by delivery
VOLATILITY	The extent to which the return of the underlying asset will fluctuate between now and the option's expiration. Only applicable to Options.
FILLER	To cater for future expansion

## 7.9 Interest Rates

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

### 7.9.1 Record Type RED Sub Type 01 – Interest Rates record

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Interest on Initial Margin	49	11	N	4.6	59
JIBAR One Month Yield	60	11	N	4.6	70
JIBAR Three Month Yield	71	11	N	4.6	81
JIBAR Six Month Yield	82	11	N	4.6	92
JIBAR Nine Month Yield	93	11	N	4.6	103
JIBAR Twelve Month Yield	104	11	N	4.6	114
JIBAR Three Month Discount	115	11	N	4.6	125
Rand Overnight Deposit Rate	126	11	N	4.6	136
SARB Interbank Call Rate	137	11	N	4.6	147
Call Deposit Index	148	21	N	14.6	168
Three Month Call Deposit Index	169	21	N	14.6	189
Six Month Call Deposit Index	190	21	N	14.6	210
Twelve Month Call Deposit Index	211	21	N	14.6	231
STEFI	232	21	N	14.6	252
Daily Average Prime Rate	253	11	N	4.6	263
Thirty Day Average Prime Rate	264	11	N	4.6	274
90 Day Average Prime Rate	275	11	N	4.6	285
Filler	286	51	A		336

#### FIELD DESCRIPTIONS:

##### INTEREST ON INITIAL MARGIN

The interest 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 of a derivatives member or a client.

##### 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

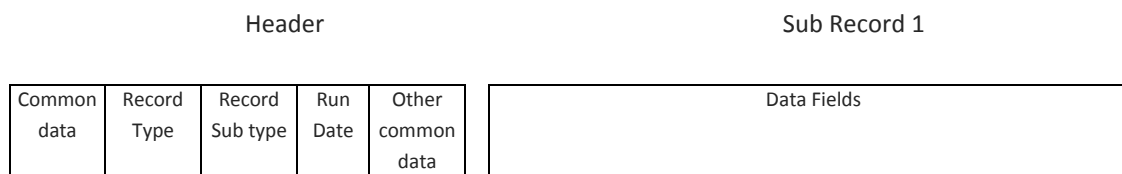
The Six Month Johannesburg Interbank Agreed Rate

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 Three Month discount 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	South African Reserve Bank Interbank Call Rate
CALL DEPOSIT INDEX	Short-term Fixed Interest Call Deposit Index.
THREE MONTH CALL DEPOSIT INDEX	Thirty Day Short-term Fixed Interest Call Deposit Index.
SIX MONTH CALL DEPOSIT INDEX	Sixty Day Short-term Fixed Interest Call Deposit Index.
TWELVE MONTH CALL DEPOSIT INDEX	Ninety Day Short-term Fixed Interest Call Deposit Index.
STEFI	Short Term Fixed Interest Rate
DAILY AVERAGE PRIME RATE	The average prime rate for the day
THIRTY DAY AVERAGE PRIME RATE	The average thirty day prime rate
NINETY DAY AVERAGE PRIME RATE	The average ninety day prime rate
FILLER	To cater for future expansion

## 8. COMMODITY DERIVATIVES MARKET

### 8.1 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.



FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Market Number	1	1	N (I)	1	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

The different Derivatives markets are identified by a unique identifier and number, as per the below table:

Market Number	Market Identifier	Full Market Name
1	EDM	Equity Derivatives Market
2	APM	Agricultural Product Market

##### CONTRACT TYPE

This indicates the type of the contract

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

##### INSTRUMENT TYPE

This indicates the type of the instrument underlying the contract e.g.

Agricultural Derivatives

Agricultural Future (AGRIF)

RECORD TYPE	The code indicating the type of information that is being disseminated e.g.:
	DAP – Daily record type for Agricultural Derivatives DAPE – Daily early record type for Agricultural Derivatives.
RECORD SUB TYPE	The Sub Type related to a particular record sub type - e.g. Sub Type 01.
RUN DATE	The date of the dissemination runs, in the format CCYYMMDD.
FILLER	To cater for future expansion
DATA (LAYOUTS BELOW)	The fields that make up each relevant record type(s) are provided further down under the record sub-types.



## 8.2 Daily Traded Statistics

The Daily Commodity Derivatives Traded Statistics records are calculated at the close of each trading day. All daily Agricultural Derivatives statistics fall within record type **DAP - Daily Commodity Derivatives**.

The statistics are grouped into various sub types, which allows you to select the type of data that you require. The different sub types and the relevant field layouts are listed below.

### 8.2.1 Record Type DAP Sub Type 01 - Daily Traded Statistics

The Daily Traded Statistics record only contains the contracts that were traded on the day on the Commodity Derivatives market.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Instrument	49	4	A		52
Date	53	8	DATE		60
Strike Price	61	17	N	10.6	77
Option Type	78	1	A		78
Spot Price	79	17	N	10.6	95
Closing Bid	96	17	N	10.6	112
Closing Offer	113	17	N	10.6	129
MTM	130	17	N	10.6	146
First Price	147	17	N	10.6	163
Last Price	164	17	N	10.6	180
High Price	181	17	N	10.6	197
Low Price	198	17	N	10.6	214
Number of deals	215	14	N (I)	14	228
Volume	229	14	N (I)	14	242
Value Traded	243	21	N	14.6	263
Open Interest	264	14	N (I)	14	277
Volatility	278	11	N	4.6	288
Filler	289	51	A		339

#### FIELD DESCRIPTIONS:

INSTRUMENT

**Instrument** refers to the underlying instrument that the contract is written on.

DATE

The **Date** refers to the expiry date or valuation date of the individual contract.

STRIKE PRICE

The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying future.

OPTION TYPE	For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option An option can be a Put or a Call.
SPOT PRICE	The closing price of the underlying instrument.
CLOSING BID	The closing price at which a market participant is willing to buy.
CLOSING OFFER	The closing price at which a market participant is willing to sell.
MTM	The official closing price as determined by the Exchange
FIRST PRICE	The first execution price of a trade the specified day.
LAST PRICE	The last execution price of a trade the specified day.
HIGH PRICE	The highest execution price of a trade on the specified day.
LOW PRICE	The lowest execution price of a trade on the specified day.
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.
FILLER	To cater for future expansion

### 8.3 Daily Traded Type Totals

All contracts traded on the market are grouped according to the type of contract (e.g. Future or Option) and the underlying instrument type they represent e.g. Indices, Single Stock Futures etc.

The totals for each grouping are calculated at the close of trading each day.

All the daily type totals fall within record type **SAP**. The statistics are grouped into various sub types, which allows you to select the type of information you require. The different sub types and the relevant field layouts are listed.

#### 8.3.1 Record Type SAP Sub Type 01 - Daily Traded Type Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Total number of contracts per Contract and Instrument Type	49	14	N (I)	14	62
Total number of Deals per Contract and Instrument Type	63	14	N (I)	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 (I)	14	111
Filler	112	51	A		162

#### 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.
FILLER	To cater for future expansion

## 8.4 Daily Traded Overall Totals

The daily overall market totals are calculated at the close of each trading day. The record contains the key market statistics for the day's trade. It provides a view of the day's trade at a glance.

All the daily overall market totals fall within record type **OAP**, and the relevant field layouts are listed below

### 8.4.1 Record Type OAP Sub Type 01 - Daily Traded Overall Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Total number of contracts for day	49	14	N (I)	14	62
Total number of Deals for day	63	14	N (I)	14	76
Total Value of contracts for day	77	21	N	14.6	97
Total Open Interest for day	98	14	N (I)	14	111
Filler	112	51	A		162

#### FIELD DESCRIPTIONS:

TOTAL NUMBER OF CONTRACTS FOR DAY	The overall 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 for the specified day.
FILLER	To cater for future expansion

## 8.5 Daily Full Market Statistics

### 8.5.1 Record Type DAP Sub Type 02 - Daily Full Market Statistics

The Daily Full Market Statistics record contains all the contracts for the Commodity Derivatives Derivatives market, irrespective of whether they were traded or not.

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Instrument	49	4	A		52
Date	53	8	DATE		60
Strike Price	61	17	N	10.6	77
Option Type	78	1	A		78
Traded Indicator	79	1	B		79
Spot Price	80	17	N	10.6	96
Closing Bid	97	17	N	10.6	113
Closing Offer	114	17	N	10.6	130
MTM	131	17	N	10.6	147
First Price	148	17	N	10.6	164
Last Price	165	17	N	10.6	181
High Price	182	17	N	10.6	198
Low Price	199	17	N	10.6	215
Number of deals	216	14	N (I)	14	229
Volume	230	14	N (I)	14	243
Value Traded	244	21	N	14.6	264
Open Interest	265	14	N (I)	14	278
Volatility	279	11	N	4.6	289
Filler	290	51	A		340

#### FIELD DESCRIPTIONS:

INSTRUMENT

**Instrument** refers to the underlying instrument that the contract is written on.

DATE

The **Date** refers to the expiry date or valuation date of the individual contract.

STRIKE PRICE

The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying future.

For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option

OPTION TYPE	An option can be a Put or a Call.
TRADED INDICATOR	This indicates if the contract was traded on the specified day.
SPOT PRICE	The closing price of the underlying instrument.
CLOSING BID	The closing price at which a market participant is willing to buy.
CLOSING OFFER	The closing price at which a market participant is willing to sell.
MTM	The official closing price as determined by the Exchange
FIRST PRICE	The first execution price of a trade the specified day.
LAST PRICE	The last execution price of a trade the specified day.
HIGH PRICE	The highest execution price of a trade on the specified day.
LOW PRICE	The lowest execution price of a trade on the specified day.
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.
FILLER	To cater for future expansion

## 8.6 Daily Full Market Type Totals

All contracts traded on the market are grouped according to the type of contract. The totals for each grouping are calculated at the close of trading each day.

All the daily type totals fall within record type **SAP**. The statistics are grouped into various sub types, which allows you to select the type of information you require. The different sub types and the relevant field layouts are listed.

### 8.6.1 Record Type SAP Sub Type 02 - Daily Full Market Type Totals

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Total number of contracts per Contract and Instrument Type	49	14	N (I)	14	62
Total number of Deals per Contract and Instrument Type	63	14	N (I)	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 (I)	14	111
Filler	112	51	A		162

#### **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.
FILLER	To cater for future expansion

## 8.7 Daily Full Market Overall Totals

The daily overall market totals are calculated at the close of each trading day. The record contains the key market statistics for the day's trade. It provides a view of the day's trade at a glance.

All the daily overall market totals fall within record type **OAP**, and the relevant field layouts are listed below

### 8.7.1 Record Type OAP Sub Type 02 - Daily Full Market Overall Totals

FIELD NAME	START POS	LENGTH	FORMAT	NUMERIC FORMATS	END POS
Total number of contracts for day	49	14	N (I)	14	62
Total number of Deals for day	63	14	N (I)	14	76
Total Value of contracts for day	77	21	N	14.6	97
Total Open Interest for day	98	14	N (I)	14	111
Total Margin on Deposit	112	21	N	14.6	132
Filler	133	51	A		183

#### FIELD DESCRIPTIONS:

TOTAL NUMBER OF CONTRACTS FOR DAY	The overall 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 for the specified day.
TOTAL MARGIN ON DEPOSIT	The total amount of margin of deposit for the specified day.
FILLER	To cater for future expansion



## 8.8 Mark to Market

The closing Mark-to-Market value is calculated at the end of the day by the exchange.

### 8.8.1 Record Type MAP Sub Type 01

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Instrument	49	4	A		52
Date	53	8	DATE		60
Strike Price	61	17	N	10.6	77
Option Type	78	1	A		78
Spot Price	79	17	N	10.6	95
Closing Bid	96	17	N	10.6	112
Closing Offer	113	17	N	10.6	129
MTM	130	17	N	10.6	146
High Price	147	17	N	10.6	163
Low Price	164	17	N	10.6	180
Volume	181	14	N (I)	14	194
Open Interest	195	14	N (I)	14	208
Volatility	209	11	N	4.6	219
Filler	220	51	A		270

#### FIELD DESCRIPTIONS:

#### INSTRUMENT

**Instrument** refers to the underlying instrument that the contract is written on.

#### DATE

The **Date** refers to the expiry date or valuation date of the individual contract.

#### STRIKE PRICE

The **Strike Price** is the price at which the buyer/holder of an option has the right to buy/sell the underlying future.

For Futures, the strike price will zero whereas for Options, the strike price will be the strike value of the option

#### OPTION TYPE

An option can be a Put or a Call.

#### SPOT PRICE

The latest trading price of the underlying share or index

CLOSING BID	The closing price at which a market participant is willing to buy.
CLOSING OFFER	The closing price at which a market participant is willing to sell.
MTM	The official closing price as determined by the Exchange
HIGH PRICE	The highest execution price of a trade on the specified day.
LOW PRICE	The lowest execution price of a trade on the specified day.
VOLUME TRADED	The number of contracts traded on the day
OPEN INTEREST	The total number of futures contracts or option contracts that have not yet been exercised, expired, or fulfilled by delivery
VOLATILITY	The extent to which the return of the underlying asset will fluctuate between now and the option's expiration. Only applicable to Options.
FILLER	To cater for future expansion

## 8.9 Interest Rates

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

### 8.9.1 Record Type RAP Sub Type 01 – Interest Rates record

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Interest on Initial Margin	49	11	N	4.6	59
Filler	60	51	A		110

#### FIELD DESCRIPTIONS:

INTEREST ON INITIAL MARGIN

The interest 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 of a derivatives member or a client.

FILLER

To cater for future expansion

## 8.10 Daily Physical Deliveries

This record specifies the total tonnages per product per location tendered for delivery onto the exchange.

All daily physical delivery statistics fall within record type **PAP** and the relevant field layouts are listed below.

### 8.10.1 Record Type PAP Sub Type 01 – Physical Deliveries

FIELD NAME	START POS	LENGTH	DATA TYPE	NUMERIC FORMATS	END POS
Contract Class	49	4	A		52
Silo Location	53	30	A		82
Silo Owner	83	10	A		92
Quantity Delivered	93	14	N	14	106
Quantity Re-Tendered	107	14	N	14	120
Quantity of Paper	121	14	N	14	134
Quantity of Electronic	135	14	N	14	148
Filler	149	51	A		199

#### **FIELD DESCRIPTIONS:**

Contract Class

This indicates the Class of the contract e.g.:

White Maize (WMAZ)  
 Yellow Maize (YMAZ)  
 Wheat (WEAT)  
 Soya (SOYA)  
 Sunflower Seed (SUNS)

SILO LOCATION

Physical location where the commodity is stored.

SILO OWNER

The silo location's owner (a silo location will always be linked to a silo owner)

QUANTITY DELIVERED

Amount of tons that is delivered

QUANTITY RE-TENDERED

Amount of tons that were delivered before and are now redelivered back for a second time.

QUANTITY OF PAPER	Amount of tons that is delivered on a printed paper Safex Silo Receipt
QUANTITY OF ELECTRONIC	Amount of tons that is delivered via the electronic delivery program ESC (Electronic Silo Certificates)
FILLER	To cater for future expansion