# **Johannesburg Stock Exchange**

## **Trading and Clearing Reference Data Management**

**JSE Specification Document** 

**Volume 09D – JSE Reference Data Management** 

Version	1.11
Release Date	28 August 2018
Number of Pages	76 (Including Cover Page)

## 1 DOCUMENT CONTROL

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## 1.2 Document Information

Drafted By	JSE Trading and Market Services: TMS Trading	
Status	Final	
Version	1.10	
Release Date	26 July 2018	

## 1.3 Revision History

Date	Version	Description
16 November 2016	0.1	Initial Draft version including Derivatives Reference Data
31 January 2017	1.00	Updates after Internal JSE Review: Changed File name for OrderBooks to NormalOrderBooks.csv and OffBookOrderBooks.csv Removed TradeSubType Value field from the Trade Type Entries CSV Added NegativePrice field to the Trade Type Entries CSV Added field length for Expiry Date field in Warrants Detail CSV Updates to Derivative Corporate Actions CSV Removed User Creation Allowed field from the Instruments Inverse Calendar Spread CSV
1 February 2017	1.01	Removed duplicate Expiry Date field from the Instruments Future CSV Removed FirstTradingDate, LastTradingDate and DeletionDate fields from the Instruments Inverse Calendar Spread Removed FirstTradingDate, LastTradingDate and SettlementDate fields from the Instruments Fwd Fwd CSV Removed FirstTradingDate and LastTradingDate fields from the Instruments Call Delta Option CSV

00.14	4.00	
23 May 2017	1.02	Updates after Internal JSE Review:
		Removed the CPI Table Entries file
		Renamed the ATM Volatility file to Surface file
		Added the MembershipType field to the Firms file
		Changed the Volatility and Dividend Yield fields to reserved
		fields in the Instruments Future file
		Removed the User Creation Allowed field in Inverse Calendar Spread file
		Changed the Currency Table field to a reserved field in the Instruments FwdFwd file
		Changed the User Creation Allowed field to a reserved field in the Instruments Call Delta Option and Instruments Put Delta Option files
		•
		Added the Deposit Type field to the Deposit file
		Added the InterestRateConvention and Curve Type fields to the Curve file
		Removed the CurveConstituentID field from the Curve Constituent file
		Replaced the ATM Volatility Term Structure file with the
		Volatility Surface file
		Added Annexure A – Contract Code Convention and Annexure
		B – Corporate Action Type
		Updates made to the names, data types and descriptions of
		various fields to add further clarity
1 August 2017	1.03	3.4 Added Int (X) description
1 August 2017	1.03	5.2.5 Update to BrokerID description
		5.2.7 Added new field 'Exchange'
		5.2.8 Update to OptionsStrikeInterval description
		Update to ContractCode description
		·
		5.2.9 Update to InstrumentType data type 5.2.10 Update to Leg1InstrumentType data type
		5.2.13 Update to SecurityDescription data type
		Update to ContractCode description
		5.2.15 Order Book description updated
		5.2.34 Update to EffectiveDate description
		·
		5.5 Added Annexure C - Exchange Definitions 5.6 Added Annexure D - Order Book Definition
29 September 2017	1.04	5.2.35 Trader Groups Csv File Definition Added
07 November 2017	1.05	5.2.36 Branch Csv File definition added
21.13.3		5.5 Annexure C - ExchangeCode definition updated
5 February 2018	1.06	5.2.35 Removed Trader Groups CSV File.
		5.2.6 Amendment to field name change from 'EMS' to 'BT/OP min Value'
19 April 2018	1.07	5.2.6 Removed 'FCO Trading Cycle ID' field, functionality covered by Order Books
		5.2.36 Introduction of the TraderID.CSV file
		3.4. Updated with Bit Field description
		5.2.8, 5.2.9, 5.2.12, 5.2.13 additional clarity provided for intraday created files.

11 May 2018	1.08	5.1 TraderIDs file added to summary table 5.2.36 TraderIDs file descriptions updated and location updated	
23 July 2018	1.09	5.2.36 Additional fields for names added to the TraderIDs file  Annexure E for Instrument Sub Category convention details added	
26 July 2018	1.10	Updated Annexure E to explain the concept of the JSE Code for Indices in the Instrument Sub Category Updated the CA <auto increment=""> to remove the "auto increment"</auto>	
28 August 2018	1.11	Added an explanation about the Instrument Sub Category for Anydays	

#### 1.4 References

None

#### 1.5 Contact Details

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## 2 OVERVIEW

Static trading reference data for the new JSE Trading and Clearing System will be made available to clients on a daily basis via the JSE Information Delivery Portal (IDP) using the File Transfer Protocol (FTP), or FTPS File Transfer Protocol with SSL security (FTPS). This includes data for the Equity, Currency and Equity Derivative Market as the first part of the Integrated Trading and Clearing Project (ITaC)

Clients are required to download the reference data daily, prior to market start, in order to ready their systems for the trading day.

Reference data will be published as a complete set of data, not an incremental update. Therefore, each day's reference data will be a complete set, and clients are expected to download and process all reference data daily.

The FTP files will be made available via the JSE's current IDP service. Further information related to gaining access to the IDP service is provided within the IDP Connectivity Document at the following link:

Market Data - Technical Documents

# 3 TRADING AND CLEARING REFERENCE DATA SERVICE DESCRIPTION

#### 3.1 System Description

The reference data files are provided via the JSE Information Delivery Portal (IDP) using the File Transfer Protocol (FTP) or FTPS File Transfer Protocol with SSL security (FTPS). To be able to access the IDP service, you will need to have a valid UserID and Password which can be requested via the JSE Client Support Center team.

## 3.2 IDP Service Connectivity

Further information related to gaining access to the IDP service is provided within the IDP Connectivity Document at the following link:

Market Data - Technical Documents

#### 3.3 Timings and Data Retention

Reference data files will be made available by 22h30 SAST on each trading day. Reference data files are thus available in the evening in preparation for the next business day. It is recommended that Clients download and process the trading reference data files prior to 06h00 SAST, which is when all GTC/GTD order expiries are expected to be published via the Market Data Gateways.

The same process for reference data file creation is run in the morning at around 04h00. This will cater for any changes that were not incorporated in the files generated at 22h30 the previous evening. This, however, will not be the norm as all reference data is expected to be available the evening before.

Trading reference data files will be kept on the IDP service for a rolling 30 business day period.

#### 3.4 Formats

Files are provided in CSV format. Certain text, (string/varchar) values in the CSV files may contain the comma (,) character within the actual field value, (e.g. InstrumentsEquity.csv SecurityDescription field) to aid column identification all text, (string/varchar) field values will be encapsulated with double quotes, (e.g. "A E C I 5,5% Cum Pref").

All comma (,) characters within double quotes, ("") should therefore be ignored and treated as a normal text character when importing data from the CSV file.

Additional guidance has been included in this document for clients to consider when processing the Trading Reference data CSV files, as follows:-

- a. The Client Files will NOT contain header rows.
- b. Values will not be padded.
- c. String field examples: (CSV file output) for field of 4 characters in length

Description	String Example	CSV File Output
A value containing a comma:	Abcd, efg	"Abcd, efg"
A value with a quote	A"bcd	"A""bcd"

A value with a quote and a comma	A"b,cd	"A""b,cd"
A value with no special chars	Abcd	"Abdc"

- d. Empty strings will be represented as ",,".
- e. The date will be represented as YYYY/MM/DD. The message sent to the client will contain the '/' in the date. Example of the Date: 2011/08/19.
- f. The time will be represented as HH:MM:SS.fffffff where, fffffff = an optional number of milliseconds, which ranges from "0010000" to "9990000". Example: 14:58:11.1891973
- g. A Full stop will be used to indicate decimal points in numeric values
- h. The client files will not be compressed on the IDP service.
- i. Client Files uploaded to IDP will contain a .csv extension.
- j. Each record will be terminated by an AppendLine which is equal to "\r\n" (ASCII: 0x0D0A
  - Int(X) values can be interpreted as an Integer data type where X equals the maximum number of characters that will be received.
- k. Bit-denoted fields are represented by a single byte used to hold up to eight 1-bit flags. Each bit will represent a Boolean flag. The 0 bit is the lowest significant bit and the 7 bit is the highest significant bit.

#### 3.5 Naming Conventions

Reference data files will follow the current IDP naming convention, namely <filename>.csv Example: InstrumentsEquity.csv

#### 3.6 Clearing EMAPI Reference Data

Refer to the Volume 02 – Post-Trade EMAPI Clearing specification v1.0 for all clearing specific reference data:

## 4 RECOVERY

## 4.1 Server Failures

The JSE IDP service is designed for high availability during peak times and will operate out of the JSE Remote DR site in the event where the JSE invokes its disaster recovery procedure.

## 5 MESSAGE FORMATS AND TEMPLATES

This section provides details on the types of trading reference data which will be available to clients.

## 5.1 The table below summarises the data:

Entity Name	JSE Entity & Alternative Name/s	Filename	Provide to Clients
Calendar Entries	Calendar entries confirming the different trading days per Calendar.	CalendarEntries.csv	Daily
Corporate Action Table Entries	This includes the Ex Markers and Annotations per Instrument with Effective From Date and Effective To Date	CorporateActionIndicatorTable Entries.csv	Daily
Currencies Table	Trading Currency Data	Currencies.csv	Daily
Ex Markers and Annotations Table	This includes all valid Ex- Markers and Annotations for the JSE and NSX Markets	ExMarkers.csv	Daily
Firms	Equity and Derivative Members (Participant/Broker)	Firms.csv	Daily
Index Name	This includes the Index details and descriptions for JSE and NSX Indices.	Indices.csv	Daily
Instrument – Equity	Instrument Reference Data	InstrumentsEquity.csv	Daily
Instrument – Future	Instrument Reference Data	InstrumentsFuture.csv	Daily
Instrument – Option	Instrument Reference Data	InstrumentsOption.csv	Daily
Instrument – Inv Calendar Spread	Instrument Reference Data	InstrumentsInvcalsprd.csv	Daily
Instrument – FwdFwd	Instrument Reference Data	InstrumentsFwdFwd.csv	Daily
Instrument – Call Delta Option	Instrument Reference Data	InstrumentsCalldelta.csv	Daily
Instrument – Put Delta Option	Instrument Reference Data	InstrumentsPutdelta.csv	Daily
Instrument – Underlying	Non-Tradable Instrument Reference Data	InstrumentsUnderlying.csv	Daily
Markets	Exchange defined Markets	Markets.csv	Daily

Entity Name	JSE Entity & Alternative Name/s	Filename	Provide to Clients
Order Book	Order books per instrument and includes the trading cycle applicable for the day per instrument per order book.	NormalOrderBooks.csv OffBookOrderBooks.csv OrderBookPrivateRfq.csv	Daily
Post Trade Parameter Table	This includes the trade types and trade reporting policies per segment.	PostTradeParameters.csv	Daily
Segment	This includes the segment details.	Segments.csv	Daily
Session Parameter Entries	This includes the session parameter entries per session.	SessionParameterEntries.csv	Daily
Session Reason Table Entries	This includes the session reasons codes and descriptions.	SessionReason.csv	Daily
Tick Structure Entries	This includes the tick structure entries per Tick structure.	TickStructureEntries.csv	Daily
Tick Structure Table	This includes the tick structure ID and descriptions.	TickStructures.csv	Daily
Time Zone	This provides the time zone details.	TimeZones.csv	Daily
Trade Type Entries	This includes the trade type details per trade type.	TradeTypeEntries.csv	Daily
Trading Parameters	This includes various trading parameters per segment.	TradingParameters.csv	Daily
Trading Sector	This includes the trading sector details per instrument.	SectorInstrument.csv	Daily
Warrants Detail	This includes salient characteristics for all warrant instruments e.g. strike price, cover ratio etc.	WarrantsDetail.csv	Daily
Pricing Instruments	This includes the Forward Rate Agreement, Deposit, Curve, Curve Constituent, Surface and Interest Rate Swap details	ForwardRateAgreement.csv Deposit.csv IRSwap.csv Curve.csv CurveConstituent.csv Surface	Daily
Derivative Corporate Actions	This includes the Derivative Corporate Actions details	CorporateActions.csv	Daily
Branches	Includes Branches details	Branches.csv	Daily

Entity Name	JSE Entity & Alternative Name/s	Filename	Provide to Clients
TraderIDs_X XX	This file includes all Trader Group_TraderID combinations for a member firm	TraderIDs.csv	Daily

## 5.2 CSV File Layouts

#### 5.2.1 Calendar Entries

The Calendar Entries CSV file will be downloaded with the following layout. Each entry defines a holiday for this calendar.

File name: CalendarEntries.csv

Field Name	DataType	Description
TableID	Varchar(30)	Name of the calendar. E.g. JSE_CAL
CalendarDate	Date(10)	Defines the date for which the public holiday is being specified. E.g. 2011/12/25
Description	Varchar(30)	Human readable description of the public holiday. E.g. Christmas Day
TradingAllowed	Enum(5)	Specifies whether this date is a trading holiday (weekends & public holidays) or not.
		Value Meaning
		0 No
		1 Yes
EarlyClose	Enum(5)	Whether this date is an early close for the market.
		Value Meaning
		0 No
		1 Yes
FuturesCloseOutDay	Enum(5)	Whether the particular date is a Futures Close Out day.
		Value Meaning
		0 No
		1 Yes

## **5.2.2** Corporate Action Indicator Table Entries

The Corporate Action Indicator Table Entries CSV file will be downloaded with the following layout

File name: CorporateActionIndicatorTableEntries.csv

Field Name	DataType	Description
InstrumentCATableID	Varchar (30)	This will be the SYMBOL of the Instrument.

ExMarkerID	Varchar (2)	Each Entry Defines an Ex Marker or Annotation
EffectiveFromDate	Date(10)	Effective from date for the Ex Marker. Format will be YYYY/MM/DD.
EffectiveToDate	Date(10)	Effective to date for the Ex Marker.
		Format will be YYYY/MM/DD.

## 5.2.3 Currencies

The Currencies CSV file will be downloaded with the following layout

File name: Currencies.csv

Field Name	DataType	Description
CurrencyID	Varchar(10)	Unique identifier for the currency. E.g. ZAC
Description	Varchar(100)	Description specified for the currency.

## 5.2.4 Ex Markers

The Ex Markers CSV file will be downloaded with the following layout: -

File name: ExMarkers.csv

Field Name	DataType	Description
ExMarkerID	Varchar (2)	Unique Ex Marker ID
ExMarkerType	Enum (5)	0 - Ex-Marker 1 - Annotation
Description	Varchar (100)	Description relevant to the Ex-Marker or Annotation.

## 5.2.5 Firms

The Firms CSV file will be downloaded with the following layout: -

File name: Firms.csv

Field Name	DataType	Description
BrokerID	Varchar(11)	A unique identifier of the Firm across the system per market. This is the Firm ID.
Description	Varchar(100)	The full legal name of the Firm.
MemberAlphaCode	Varchar(30)	A unique identifier of the Firm across the system. This is the Firm's Alpha Code.
ExchangeCode	Varchar(10)	The exchange to which the firm belongs
InstitutionType	Enum(5)	Indicates whether or not the institution is a Bank.
		Value Meaning

		0	Regular
		1	Bank
MembershipType	Enum(5)	Indicates the Membership Type of the Firm	
		Value Meaning	
		Value	Meaning
		Value 1	Meaning Equities Member

## 5.2.6 Instruments Equity

The Instruments Equity CSV file contains all data attributes relevant to the Equity Instrument Type. The file will be downloaded with the following layout

File name: InstrumentsEquity.csv

Field Name	DataType	Description		
Symbol	Varchar(25)	The unique JSE instrument alpha code of the instrument.		
InstrumentID	Int(9)	The unique JSE numeric identifier of the instrument		
SecurityDescription	Varchar(100)	The human readable security name. Any character may be used.		
MarketID	Varchar(30)	Identifies the market to which the instrument belongs.		
		Value Meaning		
		JSE Johannesburg Stock Exchange		
		NSX Namibian Stock Exchange		
ISIN	Varchar(30)	An International Securities Identification Number (ISIN) uniquely identifies a security. The ISIN code is generally a 12-character alphanumerical code. An ISIN consists of three parts: a two letter country code, a nine character alphanumeric national security identifier, and a single check digit. An ISIN is unique per instrument.		
ReferencePrice	Decimal(15,6)	The reference price of an instrument. It is use to in the calculation of the following:  - Static Reference Price - Dynamic Reference Price		
Trading Currency	Varchar(10)	Trading currency of the instrument expressed as a 3 letter currency code. The recommended values are the ISO4217 currency codes which will be specified through the Currency table. E.g. ZAC, EUR, USD, GBP.		
Segment	Varchar(30)	Identifies the Segment to which the instrument belongs.		
InstrumentStatus	Enum (5)	The trading status of the instrument.		
		Value Meaning		

		0 Active
		1 Suspended
		<u> </u>
		2 Inactive
		3 Halt
TradingParameters	Varchar(30)	Defines the trading parameter table that defines the trading characteristics of the instrument.
PostTradeParameters	Varchar(30)	Defines the post trade parameter table that defines the trade enrichment characteristics of the instrument.
BT/OP min Value	Decimal(20,4)	Defines the minimum Block Trade (BT) and Off Book Principal Trade (OP) value (c) E.g. 10000000000
MinReserveSize	Decimal(20,4)	Defines the minimum quantity for a Hidden Order. E.g 100000
CalendarID	Varchar(30)	Calendar for the instruments that are attached with this trading parameter.
CorporateActionIndicator	Varchar(30)	Defines the Corporate Action Indicator table identifier that contains the Ex- Markers or Annotations for the instrument.
TIDM	Varchar(4)	Tradable Instrument Display Mnemonic
PriceImproveTks	Decimal(2,1)	The number of ticks by which the price is to be improved.
InstrumentType	Varchar (10)	This field will contains the type of a tradeable Instrument . Example: Aord (A Ordinary Share)  Refer to "Instrument Type" column below for the InstrumentType's that will be received on the InstrumentsEquity.csv file.
		Instrument Type (i.e. CSV File Values)  Aord Bord Bord Bord Call Call Options Deb Description  A Ordinary Share Call Debontures
		DepRec Depository Receipts
		ETF Exchange Traded Funds
		FPL Fully Paid letters
		LU Linked Unit
		LSU Loan Stock Units
		Nord N Ordinary
		NilPL Nil Paid Letters

		Options	Options
		Ordinary	Ordinary Share
		PL	Participatory Interest
		PPL	Partially Paid Letters
		PS	Preference Shares
		Securities	Securities
		UT	Unit Trusts
		Vanilla	Vanilla Warrant
		Wave	Wave Warrant
		Comp	Compound Warrant
		Basket	Basket Warrant
		Barrier	Barrier Warrant
		Discount	Discount Warrant
		Index	Index Warrant
		Ediv	Enhanced Dividend Warrant
		Spread	Spread Warrant Protected Warrant
		Protected Variable	
		-	Variable Warrant
		Afutures	Agricultural Futures
		Aopt	Agricultural Options
		Ader	Agricultural Physical Deliveries
		Ffutures	Financial Futures
		Foptions	Options on Futures
		SSFUT	Single Stock Futures
		SSOPT	Options on Single Stock Future
		FOnBonds	Bond Future
		OOnBonds	Options on Bonds
		J-Swaps	J-Swaps
		J-FRAs	J-FRAs
		J-TRIs	J-TRIs
		J-Carries	J-Carries
		J-Rods	J-Rods
		J-Notes	J-Notes
		Pbond	Primary Bond
		Sbond	Secondary Bond
		KR	Kruger Rand
		UL	Unlisted Equities
		BondW	Bond Warrant
		CapW	Capped Warrant
		DivW	Dividend Warrant
		DEBT	Debt Instrument
SharesInIssue	Int (15)	This field will	contain the number of Shares that
	, ,		ssued per Instrument. Example:

## 5.2.7 Instruments Underlying

The Instruments Underlying CSV file contains all the Non-Tradable instruments, that are underlying's to derivative instruments, data attributes, and will be downloaded with the following layout:

File name: InstrumentsUnderlying.csv

Field Name	DataType	Description
Symbol	Varchar(25)	The unique JSE identifier of the instrument

Field Name	DataType	Description
InstrumentID	Int(9)	The unique JSE numeric identifier of the
modulichde	111(0)	instrument, which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any
·	` ,	character may be used.
MarketID	Varchar(30)	Identifies the market to which the instrument
		belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		JSE_FXM Currency Derivatives Market
ISINCode	Varchar(30)	An International Securities Identification Number (ISIN) uniquely identifies a security. The ISIN code is generally a 12-character alpha-numerical code. An ISIN consists of three parts: a two letter country code, a nine character alpha-numeric national security identifier, and a single check digit. An ISIN is unique per instrument. Only applicable for the following Non- Tradable instrument Types: International Equity
TradingCurrency	Varchar(10)	Trading currency of the instrument expressed as a 3 letter currency code. The recommended values are the ISO4217 currency codes which will be specified through the Currency table.  This will be blank for underlying instruments as they are non-tradable.
Segment	Varchar(30)	Identifies the product to which the instrument belongs.
InstrumentStatus	Enum(5)	The trading status of the instrument.
		Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
TradingParameter	Varchar(30)	Defines the trading parameter table that defines the trading characteristics of the instrument.
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that defines the trade enrichment characteristics of the instrument.
CalendarID	Varchar(30)	Calendar for the instruments that are attached with this trading parameter. Default to market calendar and hide.

Field Name	DataType	Description
OptionsStrikeInterval	Decimal(15,8)	Defines the strike interval valid for the options on this instrument. (Only applicable for Options, will be NULL for all Underlying Instruments)
AllowUserDefined	Enum(5)	Defines if it is possible for the trading users to request to create an instrument using this instrument as an underlying (direct or second level).
		Value Meaning
		0 No
		1 Yes
InstrumentCategory	Enum(5)	Defines the instrument category for which the instrument belongs
		Value Meaning
		10 Underlying
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category for which the instrument belongs.
		Not the same as Annexure E. This field is defaulted to "UNDERLYING"
SpotPricePrecision	Int(2)	Level of precision, i.e. number of decimals, required on the instrument price for underlying instruments.
SettlementCycle	Int(5)	Settlement cycle in days The settlement period.
Exchange	Varchar(5)	Indicates the exchange that the underlying instrument is listed on.
		See Annexure C for Exchange definitions

## 5.2.8 Instruments Future (Including CFDs and Structured Products)

The Instruments Future CSV file will contain all data attributes that are relevant to the Future Instrument type, and will be downloaded with the following layout. This file will be updated periodically as intraday-created instruments are made available on the trading system by appending the new instrument at the end of the file.

File name: InstrumentsFuture.csv

Field Name	DataType	Description
Symbol	Varchar(25)	A unique identifier of the instrument, which may be manually specified or generated by the System based on the instrument attributes
InstrumentID	Int(9)	A unique numeric identifier of the instrument, which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any character may be used.
SIN	Varchar(20)	An International Securities Identification Number (ISIN) uniquely identifies a security. The ISIN code is generally a 12-character alpha-numerical code. An ISIN consists of three parts: a two letter country code, a nine character alpha-numeric national security identifier, and a single check digit. An ISIN is unique per instrument.
UnderlyingInstrument	Varchar(25)	Underlying instrument for the derivative. This will be the symbol of the underlying instrument. This maps back to the Symbol in the Instruments Underlying file, where additional information about this underlying instrument is available.
ExpiryDate	Date(10)	Expiry date of the contract. Format will be YYYY/MM/DD
InstrumentStatus	Enum(5)	The trading status of the instrument.  Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
MarketID	Varchar(30)	Identifies the market to which the instrument belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		JSE_FXM Currency Derivatives Market
Segment	Varchar(30)	Identifies the product to which the instrument belongs.
CalendarID	Varchar(30)	Calendar for the instruments that are attached with this trading parameter. Default

Field Name	DataType	Description
		to market calendar and hide.
TradingParameter	Varchar(30)	Defines the trading parameter table that defines the trading characteristics of the instrument.
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that defines the trade enrichment characteristics of the instrument.
ReferencePrice	Decimal(15,6)	Used to specify a base price for a new instrument until a market price is established. It is used as a last option on deriving the price in calculation of the following  - Static Reference Price  - Dynamic Reference Price
ContractMultiplier (ContractSize)	Decimal(15,4)	Defines the multiplier of the instrument. This must be a positive numeric value. It may be a positive integer or a positive decimal value. The size of one traded contract. Equivalent to Contract Size.
SettlementMethod	Enum(5)	Defines the settlement method of the Futures contract  Value Meaning
		0 Cash
		1 Physical
TradingCurrency	Varchar(10)	Trading currency of the instrument. Currencies can be separately defined via Tables
		Value Meaning
		ZAR South African Rand
		ZAC South African Cents

Field Name	DataType	Description
InstrumentCategory	Enum(5)	Defines the instrument category for which the
		instrument belongs.
		Value Meaning
		1 Equity
		2 Warrant
		3 Future
		4 Anyday
		5 Delta_Opt
		6 Option
		7 Structured Product
		8 FwdFwdFX
		9 CFD
		10 Underlying
		11 Strategy
		12 Bond
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category to which the instrument belongs.
		See Annexure E for Instrument Sub Category convention.
OptionsStrikeInterval	Decimal(15,8)	Defines the strike interval valid for the options on this instrument. This also indicates that a naked option or a delta option can be created on this future. If this field is empty, no options can be created on this instrument.
OptionsExpiry1	Date(10)	Defines the first expiry valid for the options on this instrument.
OptionsExpiry2	Date(10)	Defines the Second expiry valid for the options on this instrument.
OptionsExpiry3	Date(10)	Defines the Third expiry valid for the options on this instrument.
OptionsExpiry4	Date(10)	Defines the forth expiry valid for the options on this instrument.
ExpiryGroup	Varchar(30)	Contract Series of the future
Reserved 1	Int	Linked to functionality that will be introduced in a future release.
Reserved 2	Int	Linked to functionality that will be introduced in a future release.
ContractCode	Varchar(100)	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. Refer to Annexure A for Contract Code Convention.
InwardListed	Enum(5)	Indicates if the instrument is designated as

Field Name	DataType	Description
		Inward listed by the South African Reserve Bank.
		Value Meaning
		0 False
		1 True
BaseRateInstrument	Int(9)	Master ID of the base rate instrument (Only applicable to CFD Instruments)
BaseRateName	Varchar(256)	User friendly name of the Base Rate (Only applicable to CFD Instruments)
YieldCurveID (DiscountCurve)	Int(9)	ID of curve instrument used for valuation.
InstrumentType	Varchar(128)	Indicates the type of the instrument
ExpiryPrecision	Int(2)	Level of precision, i.e. number of decimals, required on the instrument price
User Creation Allowed	Enum(5)	Defines if it is possible for the trading users to create a future instrument
		Value Meaning
		0 None
		1 Anyday Future Only
		2 Naked Option Only
		3 Anyday Future and Naked Option

## 5.2.9 Instruments Options

The Instruments Option CSV file will contain all data attributes that are relevant to the Option Instrument type. The file will be downloaded with the following layout. This file will be updated periodically as intraday-created instruments are made available on the trading system by appending the new instrument at the end of the file.

File name: InstrumentsOption.csv

Field Name	DataType	Description
Symbol	Varchar(25)	A unique identifier of the instrument, which may be manually specified or generated by the System based on the instrument attributes
InstrumentID	Int(9)	A unique numeric identifier of the instrument, which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any character may be used.
SIN	Varchar(20)	An International Securities Identification Number (ISIN) uniquely identifies a security. The ISIN code is generally a 12-character alpha-numerical code. An ISIN consists of three parts: a two letter country code, a nine character alpha-numeric national security identifier, and a single check digit. An ISIN is unique per instrument

Field Name	DataType	Description
UnderlyingInstrument	Varchar(25)	Underlying instrument for the derivative. This will be the Symbol of the underlying future instrument. This maps back to the Symbol in the Instruments Underlying file, where additional information about this underlying instrument is available.
ExpiryDate	Date(10)	Expiry date of the contract. Date Format: YYYY/MM/DD
InstrumentStatus	Enum(5)	The trading status of the instrument.
		Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
MarketID	Varchar(30)	Identifies the market to which the instrument belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		JSE_FXM Currency Derivatives Market
Segment	Varchar(30)	Identifies the product to which the instrument belongs.
CalendarID	Varchar(30)	Calendar for the instruments that are attached with this trading parameter.
TradingParameter	Varchar(30)	Defines the trading parameter table that defines the trading characteristics of the instrument.
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that defines the trade enrichment characteristics of the instrument.
ReferencePrice	Decimal(15,6)	Used to specify a base price for a new instrument until a market price is established.
ExerciseStyle	Enum(5)	Exercise style of the option Value Meaning
		Value Meaning
		0 European
		1 American
ContractMultiplier	Decimal(15,4)	Defines the multiplier of the instrument. This must be a positive numeric value. It may be a positive integer or a positive decimal value
PricingModel	Enum(5)	This parameter determines the pricing model that will be used for Theoretical Price for the option instrument and will enable a solution to customize the pricing model according to the requirements. The pricing model is dependent on the early exercise option of the option instrument.

Field Name	DataType	Description
		Value Meaning
- " o	1 (40)	1 BSM
TradingCurrency	Varchar(10)	Trading currency of the instrument. Currencies can be separately defined via Tables
		Value Meaning
		ZAR South African Rand
		ZAC South African Cents
OptionType	Enum(5)	Defines whether the option is a call option or a put option
		Value Meaning
		0 Put
		1 Call
StrikePrice	Decimal(15,6)	Defines the strike price of the Option
InstrumentCategory	Enum(5)	Defines the instrument category for which the instrument belongs.
		Value Meaning
		1 Equity
		2 Warrant
		3 Future
		4 Anyday
		5 Delta_Opt
		6 Option
		7 Structured Product
		8 FwdFwdFX
		9 CFD
		10 Underlying
		11 Strategy
		12 Bond
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category for which the instrument belongs.
		See Annexure E for Instrument Sub Category convention.
SettlementMethod	Enum(5)	Defines the settlement method of the Futures contract
		Value Meaning
		0 Cash

Field Name	DataType	Description
		1 Physical
ContractCode	Varchar(100)	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. Refer to Annexure A for Contract Code Convention
InwardListed	Enum(5)	Indicates if the instrument is designated as Inward listed by the South African Reserve Bank.
		Value Meaning
		0 False
		1 True
InstrumentType	Varchar(128)	Indicates the type of the instrument
ExpiryPrecision	Int (2)	Level of precision, i.e. number of decimals, required on the instrument price
User Creation Allowed	Enum(5)	Defines if it is possible for the trading users to create a Delta Option instrument
		Value Meaning
		0 Allowed
		1 Not Allowed

## 5.2.10 Instruments Inverse Calendar Spread

The Instruments Inv Calendar Spread CSV file will contain all data attribute that are relevant to the Inverse Calendar Spread Instrument type. The file will be downloaded with the following layout

File name: InstrumentsInvcalsprd.csv

Field Name	Data Type	Description
Symbol	Varchar(25)	A unique identifier of the instrument, which
		may be manually specified or generated by the System based on the instrument
		attributes
InstrumentID	Int(9)	A unique numeric identifier of the instrument,
	(0)	which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any
,	, ,	character may be used.
SIN	Varchar(20)	An International Securities Identification
		Number (ISIN) uniquely identifies a security.
		The ISIN code is generally a 12-character
		alpha-numerical code. An ISIN consists of three parts: a two letter country code, a nine
		character alpha-numeric national security
		identifier, and a single check digit. An ISIN is
		unique per instrument.
ExpiryDate	Date(10)	Expiry date of the contract. Date Format:
_		YYYY/MM/DD
InstrumentStatus	Enum(5)	The trading status of the instrument.
		Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
MarketID	Varchar(30)	Identifies the market to which the instrument
		belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		Currency Derivatives
		JSE_FXM Guilency Benvatives Market
Segment	Varchar(30)	Identifies the product to which the instrument belongs.
CalendarID	Varchar(30)	Calendar for the instruments that are
		attached with this trading parameter. Default
		to market calendar and hide.
TradingParameter	Varchar(30)	Defines the trading parameter table that
		defines the trading characteristics of the instrument.
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that
. comado aramotor		defines the trade enrichment characteristics
		of the instrument.
ReferencePrice	Decimal(15,6)	Used to specify a base price for a new
		instrument until a market price is established.
		It is used as a last option on deriving the price

Field Name	Data Type	Description
Tiola Name	Bata Typo	in calculation of the following
		Ctatia Deference Drice
		<ul><li>Static Reference Price</li><li>Dynamic Reference Price</li></ul>
ContractMultiplier	Decimal(15,4)	Defines the multiplier of the instrument. This
		must be a positive numeric value. It may be a
LegInstrument1	Varchar(30)	positive integer or a positive decimal value  This will be the Symbol of the first leg
Loginorament	varonar(00)	instrument. i.e. the near-dated contract
LegInstrument2	Varchar(30)	This will be the Symbol of the second leg instrument. i.e. the far-dated contract
TradingCurrency	Varchar(10)	Trading currency of the instrument.
Jan 3		Currencies can be separately defined via Tables
		Value Meaning
		ZAR South African Rand
		ZAC South African Cents
InstrumentCategory	Enum(5)	Defines the instrument category for which the instrument belongs.
		Value Meaning
		1 Equity
		2 Warrant
		3 Future
		4 Anyday
		5 Delta_Opt
		6 Option
		7 Structured Product
		8 FwdFwdFX
		9 CFD
		10 Underlying
		11 Strategy
		12 Bond
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category for which the instrument belongs.
		See Annexure E for Instrument Sub Category convention.
ContractCode	Varchar(100)	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. Refer to Annexure A for Contract Code Convention
InwardListed	Enum(5)	Indicates if the instrument is designated as Inward listed by the South African Reserve Bank.

Field Name	Data Type	Description
		Value Meaning
		0 False
		1 True
Leg 1 InstrumentType	Varchar(128)	Indicates the type of the instrument of Leg 1 of the Inverse Calendar Spread

## 5.2.11 Instruments FwdFwd

The Instruments FwdFwd CSV file will be downloaded with the following layout

File name: InstrumentsFwdFwd.csv

Field Name	DataType	Description
Symbol	Varchar(25)	A unique identifier of the instrument, which
		may be manually specified or generated by
		the System based on the instrument
	(2)	attributes
InstrumentID	Int(9)	A unique numeric identifier of the instrument,
On the Department	\/\(400\)	which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any
SIN	Varchar(20)	character may be used.  An International Securities Identification
SIN	vaicilai(20)	Number (ISIN) uniquely identifies a security.
		The ISIN code is generally a 12-character
		alpha-numerical code. An ISIN consists of
		three parts: a two letter country code, a nine
		character alpha-numeric national security
		identifier, and a single check digit. An ISIN is
		unique per instrument.
InstrumentStatus	Enum(5)	The trading status of the instrument.
		Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
MarketID	Varchar(30)	Identifies the market to which the instrument
		belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		JSE_FXM Currency Derivatives Market
Segment	Varchar(30)	Identifies the product to which the instrument
_	, ,	belongs.
CalendarID	Varchar(30)	Calendar for the instruments that are
		attached with this trading parameter. Default
		to market calendar and hide.
TradingParameter	Varchar(30)	Defines the trading parameter table that
		defines the trading characteristics of the
		instrument.

Field Name	DataType	Description
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that
		defines the trade enrichment characteristics of the instrument.
ReferencePrice	Decimal(15,6)	Used to specify a base price for a new
		instrument until a market price is established.  It is used as a last option on deriving the price
		in calculation of the following
		<ul><li>Static Reference Price</li><li>Dynamic Reference Price</li></ul>
ContractMultiplier	Decimal(15,4)	Defines the multiplier of the instrument. This
		must be a positive numeric value. It may be a positive integer or a positive decimal value.
		The size of one traded contract. Equivalent to
TradingCurrency	Varchar(10)	Contract Size.  Trading currency of the instrument.
TradingCurrency	varchar(10)	Currencies can be separately defined via Tables
		Value Meaning
		ZAR South African Rand
		ZAC South African Cents
InstrumentCategory	Enum(5)	Defines the instrument category for which the instrument belongs.
		Value Meaning
		1 Equity
		2 Warrant
		3 Future
		4 Anyday
		5 Delta_Opt
		6 Option
		7 Structured Product
		8 FwdFwdFX
		9 CFD
		10 Underlying
		11 Strategy
		12 Bond
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category for which the instrument belongs.
		See Annexure E for Instrument Sub Category convention.
ReferenceInstrument	Varchar(25)	Contains the Symbol of the Reference instrument for the FwdFwd instrument. If
		FwdFwd instrument is the Reference
	<b>D</b> ((2)	instrument, attribute will be blank
NearMonthMaturity	Date(10)	Near Month Maturity Date of the Forward Forward instrument in YYYY/MM/DD

Field Name	DataType	Description
FarMonthMaturity	Date(10)	Far Month Maturity Date of the Forward Forward instrument in YYYY/MM/DD
TimeDifference	Enum(5)	Time interval (days) corresponding to the Near Month Type and Far Month type
		Value
		90
		180
FarMonthType	Int(5)	Near Month type of the Forward Forward instrument
NearMonthType	Int(5)	Far Month type of the Forward Forward instrument
Reserved 1	Int	Linked to functionality that will be introduced in a future release.
ContractCode	Varchar(100)	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. Refer to Annexure A for Contract Code Convention
InwardListed	Enum(5)	Indicates if the instrument is designated as Inward listed by the South African Reserve Bank.
		Value Meaning
		0 False
		1 True
InstrumentType	Varchar(128)	Indicates the type of the instrument
User Creation Allowed	Enum(5)	Defines if it is possible for the trading users to create a fwdfwd instrument
		Value Meaning
		0 Allowed
		1 Not Allowed

## 5.2.12 Instruments Call Delta Option

The Instruments Call Delta Option CSV file will be downloaded with the following layout. This file will be updated periodically as intraday-created instruments are made available on the trading system by appending the new instrument at the end of the file.

File name: InstrumentsCalldelta.csv

Field Name	DataType	Description
Symbol	Varchar(25)	A unique identifier of the instrument, which
Symbol	vaicilai(23)	may be manually specified or generated by
		the System based on the instrument
		attributes
InstrumentID	Int(9)	A unique numeric identifier of the instrument,
Instrumentib	iii(3)	which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any
JecumyDescription	varchar(100)	character may be used.
SIN	Varchar(20)	An International Securities Identification
3114	varchar(20)	Number (ISIN) uniquely identifies a security.
		The ISIN code is generally a 12-character
		alpha-numerical code. An ISIN consists of
		three parts: a two letter country code, a nine
		character alpha-numeric national security
		identifier, and a single check digit. An ISIN is
		unique per instrument.
ExpiryDate	Date(10)	Expiry date of the contract. Date Format:
		YYYY/MM/DD
InstrumentStatus	Enum(5)	The trading status of the instrument.
		Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
MarketID	Varchar(30)	Identifies the market to which the instrument
		belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		JSE_FXM Currency Derivatives
		Market
Segment	Varchar(30)	Identifies the product to which the instrument
CalendarID	Varchar(30)	belongs.  Calendar for the instruments that are
Calondani	varonar(00)	attached with this trading parameter. Default
		to market calendar and hide.
TradingParameter	Varchar(30)	Defines the trading parameter table that
	1 3.1 5.1 (00)	defines the trading characteristics of the
		instrument.
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that
	2. 2(2.2)	defines the trade enrichment characteristics
		of the instrument.
ReferencePrice	Decimal(15,6)	Used to specify a base price for a new
	, ,	instrument until a market price is established.

Field Name	DataType	Description
		It is used as a last option on deriving the price
		in calculation of the following
		- Static Reference Price
O a natura at Maraltina li a n	Danima (45.4)	- Dynamic Reference Price
ContractMultiplier (ContractSize)	Decimal(15,4)	Defines the multiplier of the instrument. This must be a positive numeric value. It may be a
,		positive integer or a positive decimal value
LegInstrument1	Varchar(30)	The first leg of the instrument will contain the Symbol of the Future.
LegInstrument2	Varchar(30)	The second let of the instrument will contain
		the Symbol of the Option.
TradingCurrency	Varchar(10)	Trading currency of the instrument.
		Currencies can be separately defined via
		Tables
		Value Meaning
		ZAR South African Rand
		ZAC South African
	- (=)	Cents
InstrumentCategory	Enum(5)	Defines the instrument category for which the instrument belongs.
		monument belongs.
		Value Meaning
		1 Equity
		2 Warrant
		3 Future
		4 Anyday
		5 Delta_Opt
		6 Option
		7 Structured Product
		8 FwdFwdFX
		9 CFD
		10 Underlying
		11 Strategy
		12 Bond
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category for which the instrument belongs.
		See Annexure E for Instrument Sub Category convention.
Leg 1 InstrumentType	Varchar(128)	Indicates the type of the instrument for leg 1
ContractCode	Varchar(100)	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. Refer to Annexure A for

Field Name	DataType	Description
		Contract Code Convention
InwardListed	Enum(5)	Indicates if the instrument is designated as Inward listed by the South African Reserve Bank.  Value Meaning
		0 False
		1 True
Reserved 1	Int	Linked to functionality that will be introduced in a future release.

## 5.2.13 Instruments Put Delta Option

The Instruments Put Delta Option CSV file will be downloaded with the following layout. This file will be updated periodically as intraday-created instruments are made available on the trading system by appending the new instrument at the end of the file.

File name: InstrumentsPutdelta.csv

Field Name	DataType	Description
Symbol	Varchar(25)	A unique identifier of the instrument, which may be manually specified or generated by the System based on the instrument attributes
InstrumentID	Int(9)	A unique numeric identifier of the instrument, which may be specified manually.
SecurityDescription	Varchar(100)	The human readable security name. Any character may be used.
SIN	Varchar(20)	An International Securities Identification Number (ISIN) uniquely identifies a security. The ISIN code is generally a 12-character alpha-numerical code. An ISIN consists of three parts: a two letter country code, a nine character alpha-numeric national security identifier, and a single check digit. An ISIN is unique per instrument.
ExpiryDate	Date(10)	Expiry date of the contract. Date Format: YYYY/MM/DD
InstrumentStatus	Enum(5)	The trading status of the instrument.  Value Meaning
		0 Active
		1 Suspended
		2 Inactive
		3 Halted
MarketID	Varchar(30)	Identifies the market to which the instrument belongs.
		Value Meaning
		JSE_EDM Equity Derivatives Market
		JSE_FXM Currency Derivatives Market

Field Name	DataType	Description
Segment	Varchar(30)	Identifies the product to which the instrument belongs.
CalendarID	Varchar(30)	Calendar for the instruments that are attached with this trading parameter. Default to market calendar and hide.
TradingParameter	Varchar(30)	Defines the trading parameter table that defines the trading characteristics of the instrument.
PostTradeParameter	Varchar(30)	Defines the post trade parameter table that defines the trade enrichment characteristics of the instrument.
ReferencePrice	Decimal(15,6)	Used to specify a base price for a new instrument until a market price is established. It is used as a last option on deriving the price in calculation of the following  - Static Reference Price - Dynamic Reference Price
ContractMultiplier	Decimal(15,4)	Defines the multiplier of the instrument. This must be a positive numeric value. It may be a positive integer or a positive decimal value
LegInstrument1	Varchar(30)	The first leg of the instrument will contain the Symbol of the Future.
LegInstrument2	Varchar(30)	The second leg of the instrument will contain the Symbol of the Option.
TradingCurrency	Varchar(10)	Trading currency of the instrument. Currencies can be separately defined via Tables  Value  ZAR
InstrumentCategory	Enum(5)	Defines the instrument category for which the instrument belongs.
		Value Meaning  1 Equity
		2 Warrant
		3 Future
		4 Anyday
		5 Delta_Opt
		6 Option
		7 Structured Product
		8 FwdFwdFX
		9 CFD
		10 Underlying
		11 Strategy
		12 Bond
InstrumentSubCategory	Varchar(30)	Defines the instrument sub category for which the instrument belongs.

Field Name	DataType	Description
		See Annexure E for Instrument Sub Category convention.
Leg 1 InstrumentType	Varchar(128)	Indicates the type of the instrument for leg 1
ContractCode	Varchar(100)	The Contract Code describes the major aspects of the instrument. It assists greatly in providing context. Refer to Annexure A for Contract Code Convention
InwardListed	Enum(5)	Indicates if the instrument is designated as Inward listed by the South African Reserve Bank.
		Value Meaning
		0 False
		1 True
Reserved 1	Int	Linked to functionality that will be introduced in a future release.

#### 5.2.14 Markets

The Markets CSV file will contain all details relevant to the different markets the instruments will be traded on. The file will be downloaded with the following layout

File name: Markets.csv

Field Name	DataType	Description	
MarketID	Varchar(30)		e identifying the market instance E.g. JSE Equity, NSX
		Value	Meaning
		JSE	Johannesburg Stock Exchange
		NSX	Namibian Stock Exchange
		JSE_EDM	Equity Derivatives Market
		JSE_FXM	Currency Derivatives Market
TimeZoneID	Varchar(30)		which this market is present. ST for both JSE and NSX
StartTime	Time30)		e market specified in SA Time.
	45.5	E.g.: 06:55:00	
EndTime	Time(30)	End time of the E.g.: 18:00:00	e market specified in SA Time.
Status	Enum(5)	Status of the m	narket.
		Value Mear	ning
		0 Activ	e
		1 Susp	pended
CalendarID	Varchar(30)	Calendar ID fo	r the market.
AutoStart	Enum(5)		market will both start and end at the specified times.
		Value Mear	ning
		0 No	
		1 Yes	
HaltReasonTable	Varchar(30)		able with the list of pre-defined halt the market is halted.
EarlyEndTime	Varchar(30)	Specifies the n	narket end time on early close

#### 5.2.15 Order Books

Each instrument can have a Normal Order Book, Off-book Order Book or Private RFQ Order Book (as applicable). Please refer to **Annexure D – Order Book Definition** for further details.

File name: NormalOrderBooks.csv

Field Name	DataType	Description	
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InstrumentID	Int(9)	Unique identifier of the instrument.
StandardTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on a standard day.
EarlyCloseTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on an early closing day.
FuturesCloseOut	Varchar(30)	Defines the trading cycle to be used for the instrument on a futures closeout day. Will only be populated when instrument is set to partake in FCO.

File name: OffBookOrderBooks.csv

Field Name	DataType	Description
InstrumentID	Int(9)	Unique identifier of the instrument.
StandardTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on a standard day.
EarlyCloseTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on an early closing day.

File name: OrderBookPrivateRfq.csv

Field Name	DataType	Description
InstrumentID	Int(9)	Unique identifier of the instrument.
StandardTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on a standard day.
EarlyCloseTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on an early closing day.
FCOTradingCycleID	Varchar(30)	Defines the trading cycle to be used for the instrument on a futures closeout day. Will only be populated when instrument is set to partake in FCO.

#### 5.2.16 Post Trade Parameters

The Post Trade Parameters CSV file will be downloaded with the following layout

File name: PostTradeParameters.csv

Field Name	DataType	Description
ObjectID	varchar(30)	Name of the post trade parameter. This should be the Segment ID for which the table is created. E.g. ZA01, ZA02, ZA03, ZA04, ZA05, ZA06, ZA11, ZA12.
OffBookMaxQty	Int(10)	An optional parameter which limits the quantity (volume of the trade) of Off Book trades accepted by the System. There is no limit to the quantity (volume of the trade) of an Off Book trade if a value is not specified for this parameter.
TradeTypes	varchar(30)	Defines the Trade Types supported by the instrument as per the JSE Trade Type Table.  A Trade Type table will be associated to the Post Trade Parameter Table.
TradeReportingPolicy	Enum(5)	Defines how trades are reported to back office/clearing Systems.

		The JSE always use Binary Trade Reporting model.
		Value Meaning
		0 Binary
		1 Non-Binary
OffBookMinQty	Int(10)	Defines the minimum quantity of an Off Book trade.
OffBookMinValue	Decimal(16,12)	Defines the minimum value of an Off Book trade.
NumberofDecimals	Int(1)	Defines the number of decimals the off book trade price should be restricted to.
BackdatingDays	Int(1)	The number of trading days up to which backdating is allowed
OffBookPBPolicy	Enum(5)	Defines the policy of handling Off Book trades which breach a price band.
		Value Meaning
		1 Reject
		2 Flag
OffBookPBRefPricePolicy	Enum(5)	Defines whether price banding is enabled for off- book trades submitted for trade registration and if enabled, the reference price policy for price banding.
		Value Meaning
		0 None
		1 Last Traded Price
		2 Previous Close
OffBookPBLimit	Decimal(7,4)	The maximum allowable price deviation percentage from the price band reference price for off-book price banding. (Eg. 5.0000)
OptConvertedPrecision	Int(8)	When calculating the converted of either volatility or Price of an option /delta option instrument, the calculated value should be rounded to this number of decimal places.

## 5.2.17 Segments

The Segments CSV file will be downloaded with the following layout.

File name: Segments.csv

Field Name	DataType	Description
ObjectID	Varchar(30)	Unique identifier of the Segment.
Description	Varchar(30)	The human readable Segment name.
Status	Enum(5)	Status of the Segment
		Value Meaning
		0 Active

1 Suspended
-------------

#### 5.2.18 Session Parameter Entries

The Session Parameter Entries CSV file will be downloaded with the following layout

File name: SessionParameterEntries.csv

Field Name	DataType	Description
TableID	Varchar(30)	Name of the session parameter. E.g. ZA01
TradingSessionID	Enum (5)	Trading Session ID for which the parameters are set.  Value Meaning
		0 Start of Trading
		1 Opening Auction Call
		2 Continuous Trading
		3 Closing Auction Call
		4 Post Close
		5 Re-Opening Auction Call
		6 Halt
		7 Halt and Close
		8 Pause
		9 Continuous Trading 1
		10 Continuous Trading 2
		11 Intraday Auction Call
		12 Volatility Auction Call
		13 FCO Auction Call
		14 Closing Price Publication
		15 Closing Price Cross
		16 EOD Volume Auction
StaticCircuitBreaker	Decimal(8,4)	Static Circuit Breaker percentage. E.g. 30
DynamicCircuitBreaker	Decimal(8,4)	Dynamic Circuit Breaker percentage. E.g. 10
StaticCB	Int(10)	The difference, in terms of the number of ticks, between the price or potential price of a trade and the Static Reference Price at which the outer circuit breaker should be triggered. E.g. 10
DynamicCB	int(10)	The difference, in terms of the number of ticks, between the price or potential price of a trade and the Dynamic Reference Price at which the outer circuit breaker should be triggered.
MarketOrderExt	int(10)	Number of market order extensions. E.g. 2
MarketOrderExtDuration	int(10)	Duration of a market order extension specified in seconds. E.g. 600
PriceMonitoringExtentions	int(10)	Number of price monitoring extensions. E.g. 2

PriceMonitoringExtDuration	int(10)	Duration of a price monitoring extension
		specified in seconds. E.g. 600

#### 5.2.19 Session Reason

The Session Reason CSV file will be downloaded with the following layout

File name: SessionReason.csv

Field Name	DataType	Description
TableID	Varchar(30)	Table ID of the Session Change Reason table.
ReasonCode	Int(10)	Numeric identifier for Reason Code. Any integer value.
Reason	Varchar(60)	User defined reason.

#### 5.2.20 Tick Structures

The Tick Structures CSV file will be downloaded with the following layout

File name: TickStructures.csv

Field Name	DataType	Description
TableID	Varchar(30)	Name of the tick structure.
Description	Varchar(30)	Human readable description of the tick structure.
Decimals	Int(10)	This gives the ability to specify an irregular tick. Prices will be accepted if a multiple of the Tick size or a value with equal number of decimal places as specified in this field is entered by the User.

#### 5.2.21 Tick Structure Entries

The Tick Structure Entries CSV file will be downloaded with the following layout

File name: TickStructureEntries.csv

Field Name	DataType	Description
TableID	Varchar(30)	Name of the tick structure
MinValue	Decimal(18,8)	Minimum value of the range for which this entry is applicable.
MaxValue	Decimal(12,4)	Maximum value of the range for which this entry is applicable.
TickValue	Decimal(18,8)	Tick size to be used within the specified min/max ranges.

#### 5.2.22 Time Zones

The Time Zones CSV file will be downloaded with the following layout

File name: TimeZones.csv

Field Name	DataType	Description
TimeZoneID	Varchar(30)	Unique identifier of the zone
ZoneName	Varchar(200)	Time Zone Name specified to identify the particular Time Zone. E.g. SAST
OffSet	Int(10)	Time Off set in minutes E.g. 120
Custom	Enum (5)	This is used to define a custom time zone with a custom Off Set Value.
		Value Meaning
		0 No
		1 Yes

## 5.2.23 Trade Type Entries

The Trade Type Entries CSV file will be downloaded with the following layout

File name: TradeTypeEntries.csv

Field Name	DataType	Description
TableID	Varchar(30)	Unique identifier to the table instance
ShortCode	Varchar(30)	Trade Types are defined as per JSE requirements. Refer to JSE Trade Type table. E.g. BT, PF
Description	Varchar(100)	Description of the Trade Type. Refer JSE Trade Type table. E.g. Block Trade
UpdateStatistics	Enum(5)	Specifies whether Trade Type updates Market Data Statistics.
		Value Meaning
		0 No
		1 Yes
CapacityA_A	Enum (5)	Specifies whether the Capacity combination Buyer Agency – Seller Agency is allowed for the Trade Type.  Value Meaning
		0 No
		1 Yes
CapacityP_P	Enum (5)	Specifies whether the Capacity combination Buyer Principal – Seller Principal is allowed for the Trade Type.  Value Meaning
		0 No
		1 Yes
CapacityA_P	Enum (5)	Specifies whether the Capacity combination Buyer Agency – Seller Principal is allowed for the Trade Type.

		Value Meaning
		0 No
		1 Yes
CapacityP_A	Enum (5)	Specifies whether the Capacity combination Buyer Principal – Seller Agency is allowed for the Trade Type.
		Value Meaning
		0 No
		1 Yes
TradeReportingModel	Enum (5)	Defines the type of trade reporting allowed for
		the instrument associated with the parameter.  Value Meaning
		1 Both
		2 Single
	(=)	3 Dual
PublishIndicator	Enum (5)	Specifies whether the mode of publishing the Trade to the market via market data.
		Value Meaning
		0 Do Not Publish
		1 Immediate
TradeSubTypeValue	varchar(20)	Trade Sub Type numeric value
NegativePrice	Enum(5)	Specifies whether negative values can be submitted in the price field when reporting off book trades.
		Value Meaning
		0 No
		1 Yes

## 5.2.24 Trading Parameters

The Trading Parameters CSV file will contain all the required Trading Parameter data needed for Trading and can be downloaded with the following layout:

File name: TradingParameters.csv

Field Name	DataType	Description
ObjectID	Varchar(30)	ID of the trading parameter table This will be the Segment ID for which the table is created. E.g. ZA01
TickStructureID	Varchar(30)	Tick Structure Table ID
StopOrders	Enum (5)	Defines whether Stop and Stop Limits

		orders are enabled for the instruments.
		Value Meaning
		0 Disabled
		1 Enabled
SessionParameter	Varchar(30)	Defines the Session Parameter table to be used with this trading parameter.
MaxOrderDuration	Int(8)	Defines the maximum number of days a GTD or GTC order is retained in the System. The duration will be specified in calendar days. E.g. 90
IAPPolicy	Enum (5)	Frequency in which indicative auction information is published.
		Value Meaning
		0 Periodic
		1 Each Update
		2 None
FirstIAPFrequency	Int(10)	Defines the frequency of computing the IAP during the Auction call sessions in seconds.
		Only applicable if IAP Policy is Periodic.
SecondIAPStartTime	Int(10)	The duration (in minutes) prior to the uncrossing when the IAP computation frequency is changed.
		Only applicable if IAP Policy is Periodic.
SecondIAPFrequency	Int(10)	The frequency in seconds in which the IAP is computed after the second IAP start time.
		Only applicable if IAP Policy is Periodic.
OpeningPriceConvention	Enum (5)	Defines the preferred method of determining the Opening price for an instrument.
		Value Meaning
		0 First Trade
		1 Opening Auction
		2 Mid Point
		3 None
PrimaryClosingPriceConvention	Enum (5)	A mandatory parameter which defines the preferred method of determining the closing price for an instrument.
		Value Meaning
		0 None
		1 Closing Auction
		2 VWAP (Fixed Window)
		3 VWAP (Variable Window)
		4 Last Trade
		5 Mid Point
SecondaryClosingPriceConvention	Enum (5)	Defines the method of determining the closing price for an instrument if CLOSING

		PRICE CONVENTION is "Closing Auction" and if a closing auction is not available in the System.  Value Meaning  0 None  1 VWAP (Fixed Window)  2 VWAP (Variable Window)  3 Last Trade  4 Mid Point
ClosingPriceDuration	Int (5)	Determines the duration (in minutes) of trades considered for the VWAP closing price calculation.
MaximumRandomDuration	Int(10)	The uncrossing will occur at a random time after the scheduled end time of the session within the duration specified by the MAXIMUM RANDOM DURATION. Durations involving fractions of a second (e.g. 30, 0.5, 1.5, etc.) will be supported.
MinimumAuctionVolume	Int(10)	Defines the minimum quantity which needs to be uncrosses during an auction. This will be zero for the JSE.
CBRemainderPolicy	Enum (5)	Determines whether the remainder of an order is added to the order book or expired if a circuit breaker is triggered.  For JSE implementation, the remainder is added to the order book; Hence this parameter is defaulted to 'Add to Order Book' and hidden.  0 – Add to Order Book 1 - Expire
CBTriggerSession	Enum (5)	Determines the trading session to which the regular order book should be automatically moved to if a circuit breaker is triggered  For JSE implementation, if a circuit breaker is triggered the order book will be moved onto Volatility Auction session, The system requires to set this parameter to 'Volatility Auction Call' in order to move the instrument into Volatility Auction session.  0 - Halt 1 - Volatility Auction Call
AutoResumeDuration	Int(3)	Determines the duration (in minutes) for which the regular order book will remain in the Volatility Auction Call session once a circuit breaker is triggered. If a duration is not specified, the order book should remain in the specified session until it is manually moved to another session.  The ability to not specify a value for this field will be provided (i.e. it is "nullable").

HaltResumePolicy	Enum (5)	Defines the method of moving an instrument onto the scheduled session upon changing the instrument status from Suspended to Active.
		<b>Manual</b> – The Market Ops have to manually move the instrument to the scheduled session
		<b>Auto</b> – The System will automatically move the instrument to the scheduled session.
		Value Meaning
		0 Manual
		1 Auto
HaltResumeSession	Enum (5)	Determines the Trading session that the instrument moves on, upon moving an instrument status from Suspended to Active.  0 – Regular Trading 1 – Re-Opening Auction Call
HaltResumeDuration	Int(10)	Defines the duration of the Re-Opening Auction triggered on moving an instrument from Suspended to Active.
		If this field is set to zero, it denotes that the instrument will stay in the session up until a Market Operations user manually changes the session.
EarlyCloseThreshold	Int(3)	An optional duration (in minutes) that determines whether the regular order book will move to the Closing Auction Call session early (i.e. instead of the Volatility Auction Call session) if a circuit breaker is triggered. If the time between when a circuit breaker is triggered and the start of the Closing Auction Call is within this duration, the order book should be moved to the Closing Auction Call session early (i.e. not the Volatility Auction Call session). E.g. 2  The ability to not specify a value for this
1.40	Davis (45.7)	field should be provided (i.e. it is "nullable").
LotSize	Decimal(15,7)	Defines the instrument's unit of trade.  Decimal sizes can be specified. The quantity of all orders must be a multiple of the instrument's Lot Size.
MaxQty	Decimal(30,10)	Defines the Maximum allowed quantity of an order.
		This is defaulted to '999,000'. If '0' is specified the System will not allow the entry of orders.
MinimumSize	Decimal(15,5)	Defines the Minimum allowed quantity of an order. Decimal sizes can be specified.
GFAPolicy	Enum (5)	Whether a GFA order may participate in multiple auctions.
		Value Meaning

		O Multiple Austions
		0 Multiple Auctions
		1 Single Auction
		2 None
StaticRefPricePolicy	Enum (5)	Whether the static reference price is always the previous close or whether it is to be updated by an auction  This will be defaulted to "Last Auction".  Value Meaning
	- 1 1/2 0	1 Last Auction
CBAlertPercentage	Decimal(8,4)	The percentage difference between the price or potential price of a trade and the Static Reference Price at which an alert should be generated.
CBAlert	Int(10)	The difference, in terms of the number of ticks, between the price or potential price of a trade and the Static Reference Price at which an alert should be generated.
StaticCBPercentage	Decimal(8,4)	The percentage difference between the price or potential price of a trade and the Static Reference Price at which the circuit breaker should be triggered. Used if session parameter is not used.
DynamicCBPercentage	Decimal(8,4)	The percentage difference between the price or potential price of a trade and the Dynamic Reference Price at which the circuit breaker should be triggered. Used if session parameter is not used.
StaticCB	Int(10)	The difference, in terms of the number of ticks, between the price or potential price of a trade and the Static Reference Price at which the outer circuit breaker should be triggered. Used if session parameter is not used.
DynamicCB	Int(10)	The difference, in terms of the number of ticks, between the price or potential price of a trade and the Dynamic Reference Price at which the outer circuit breaker should be triggered. Used if session parameter is not used.
IOCOrders	Enum(5)	Defines whether IOC TIF orders are
		enabled for the instruments.
		Value Meaning
		0 Disabled
		1 Enabled (Default)
GTDOrders	Enum(5)	Defines whether IOC TIF orders are
	(-)	enabled for the instruments.
		Value Meaning
		0 Disabled
		1 Enabled (Default)
		i Lilableu (Delault)

Enum(5)	Defines whether GTC TIF orders are
	enabled for the instruments.
	Value Meaning
	0 Disabled
	1 Enabled (Default)
Enum(5)	Defines whether GTT TIF orders are
	enabled for the instruments.
	Value Meaning
	0 Disabled
	1 Enabled (Default)
Enum(5)	Defines whether FOK TIF orders are
	enabled for the instruments.
	Value Meaning
	0 Disabled
	1 Enabled (Default)
Enum(5)	Defines whether OPG TIF orders are
	enabled for the instruments.
	Value Meaning
	0 Disabled
	1 Enabled (Default)
Enum(5)	Defines whether ATC TIF orders are
	enabled for the instruments.
	Value Meaning
	0 Disabled
	1 Enabled (Default)
Enum(5)	Defines whether CPX TIF orders are
	enabled for the instruments.
	Value Meaning
	0 Disabled
	1 Enabled (Default)
Enum(5)	Specifies whether trade cancels and
	corrects will update all statistics mentioned
	above or only the currently published
	statistics.
	Value Meaning
	2 All
1	1
	1 Limited (Default)
	Limited (Default)  Specifies whether the instrument accepts or
	Enum(5)  Enum(5)  Enum(5)

		Value Meaning
		0 Disabled (Default)
		1 Enabled
EHL Orders	Enum(5)	Defines whether EHL orders are enabled for the instruments. 0 - Disabled 1 - Enabled
EHL Expiry Time	Int(10)	Defines the duration (in seconds) an EHL order will sit in the order book after which it will automatically be expired by the System if unexecuted. e.g. 2
GDX Orders	Enum (5)	Defines whether GDX orders are enabled for the instruments.  Value
		0 – Disabled
		1 – Enabled
CPP Duration	Int(2)	Specifies the duration of the CPP session.  Defined in minutes
CPX Duration	Int(2)	Defines the maximum duration of the CPX session. Defined in minutes
Market Orders in Auction	Enum (5)	Determines whether market orders may participate in an auction.  Value
		0-Disabled
		1-Enabled
Cross Orders	Enum (5)	Defines whether cross orders can be submitted or not.  Value
		0 – Disabled
		1 – Enabled
CB Cross Policy	Enum (5)	Defines whether a cross order which breaches a Circuit Breaker should be accepted or rejected Value
		0 – Accept
		1 – Reject
EOD Vol Auc Duration	Int(2)	Duration of the Volume Auction Call session in minutes. If the value is 0 or null the session will not be triggered.
Pegged Orders	Enum (5)	Defines if pegged orders are enabled or disabled for the instrument Value
		0 – Disabled
		1 – Enabled
GFX Policy	Enum (5)	Whether a GFX order may participate in multiple auctions. The field should support three values; None, Single Auction and Multiple Auctions.

		Value
		0 – Multiple Auctions
		1 – Single Auction
		2 – None
Market Orders	Enum(5)	Defines if Market/Stop orders are enabled for Instruments attached with this Trading Parameter.  Value  0 – Disabled
		1 – Enabled
Ref Price Allowance (%)	Decimal (15,2)	Defines the allowance to be applied to the reference price (which is DRP/Previous Close/Reference Price of instrument) to validate cross orders.
MITOrders	Enum(5)	This field defines whether MIT orders are available or not for the instrument the trading parameter table is attached to.
		Value Meaning
		0 Disabled
		1 Enabled
MarketToLimitOrders	Enum(5)	Defines if the Market To Limit orders are enabled for Instruments attached with this Trading Parameter
		Value Meaning
		0 Disabled
		1 Enabled
NamedOrders	Enum(5)	Defines if the Named orders are enabled for
		Instruments attached with this Trading Parameter
		Parameter
		Parameter
		Parameter  Value Meaning
MinFillOrders	Enum(5)	Parameter  Value Meaning  0 Disabled
MinFillOrders	Enum(5)	Parameter  Value Meaning  0 Disabled  1 Enabled  Defines if the MinFill orders are enabled for Instruments attached with this Trading
MinFillOrders	Enum(5)	Parameter  Value Meaning  0 Disabled  1 Enabled  Defines if the MinFill orders are enabled for Instruments attached with this Trading Parameter
MinFillOrders	Enum(5)	Value Meaning  0 Disabled  1 Enabled  Defines if the MinFill orders are enabled for Instruments attached with this Trading Parameter  Value Meaning
MinFillOrders  IcebergOrders	Enum(5)	Value Meaning  0 Disabled  1 Enabled  Defines if the MinFill orders are enabled for Instruments attached with this Trading Parameter  Value Meaning  0 Disabled
		Value Meaning  0 Disabled  1 Enabled  Defines if the MinFill orders are enabled for Instruments attached with this Trading Parameter  Value Meaning  0 Disabled  1 Enabled  Defines if the Iceberg orders are enabled for Instruments attached with this Trading

		1 Enabled		
ShortSales	Enum(5)	Defines if the ShortSale orders are enabled for Instruments attached with this Trading Parameter		
		Value Meaning		
		0 Disabled		
		1 Enabled		
Quotes	Enum(5)	Defines whether Quotes enabled for the instruments.		
		Value Meaning		
		0 Disabled		
		1 Enabled		
HiddenOrdersinAuction	Enum(5)	Determines whether hidden orders may participate in an auction.		
		Value Meaning		
		0 Disable		
		1 Enable		
		2 Exiting Only		
MaximumQuoteSpread	Decimal(15,5)	Defines the maximum spread permitted between the bid and offer price of a quote.		
TrailingStopOrders	Enum(5)	Defines whether Trailing Stop/ Stop limit orders are available or not for the instrument the trading parameter table is attached to.		
		Value Meaning		
		0 Disable		
		1 Enable		
PvtRFQAnonymity	Enum(5)	Whether or not the parties to the quote negotiation process will be known to each other until a trade happens.		
		Value Meaning		
		0 Named		
		1 Anonymous		
PvtRFQDuration	Int(10,0)	This field defines whether or not the parties to the quote negotiation process will be known to each other		
RFQType	Enum(5)	This field defines whether instruments with this trading parameter allows submission of public RFQs, private (i.e. directed) RFQs, both public and private RFQs or no RFQs.		
		Value Meaning		
		0 None		
		1 Public		

		2 Private 3 Public & Private
TradeMethod	Enum(5)	Defines the trade method for attached instruments
		Value Meaning
		1 On Price
		2 On Yield
		4 On Discount Rate
		5 On Percent of Par
		6 On Volatility
RestasLimit	Enum(5)	Defines if any remaining order quantities of stop, trailing stop and MIT orders should rest on the order book with a limit price at the end of the aggression
		Value Meaning
		0 Disable
		1 Enable
RiskFreeInterestRate	Decimal(11,8)	Defines the risk free interest rate of the instrument.

#### 5.2.25 Sector Instrument

The Sector Instrument CSV file will be downloaded with the following layout

File name: SectorInstrument.csv

Field Name	DataType	Description
InstrumentID	Int(9)	The unique JSE numeric identifier of the instrument.
Symbol	Varchar(25)	The unique JSE instrument alpha code of the instrument.
TradingSectorCode	Varchar(10)	The Trading Sector to which an instrument is allocated.
TradingSectorName	Varchar(30)	The human readable Sector Name.

#### **5.2.26 Indices**

The Indices CSV file will be downloaded with the following layout

File name: Indices.csv

Field Name	DataType	Description
IndexCode	Varchar(12)	The unique JSE identifier of the index.
IndexShortName	Varchar(50)	The human readable short name of the Index.

#### 5.2.27 Warrants Detail

The Warrants Detail CSV file will be downloaded with the following layout

File name: WarrantsDetail.csv

Field Name	Data Type	Description		
InstrumentID	Int(9)	The unique JSE numeric identifier of the instrument.		
Symbol	Varchar(25)	The unique JSE instrument alpha code of the instrument.		
StrikePrice	Decimal(18,9)	This field is the price pay	able by the warrant holder in	
		respect of each warrant on e	xercise of the warrant.	
ExpiryDate	Date(10)	Date on which the warrant e	expires and the last day that the	
		holder can exercise his right.	Format will be YYYY/MM/DD.	
CoverRatio	Varchar(30)	The ratio, which determines t	the number of warrants required	
		to be exercised in relation to	the underlying securities.	
		e.g. 160:1, 40:1, 1:1		
WarrantStyleCode	Varchar(10)	The Warrant Style code for	the Warrant Style that indicates	
		when the rights of the applica	able warrant can be exercised.	
		Warrant Style Code	Warrant Style Name	
		AC	American Call	
		AP	American Put	
		EC	European Call	
		EP	European Put	
		AX	American Combined	
		EX	European Combined	
		OT Other		
UnderlyingTypeCode	Varchar(10)	The underlying type code for the underlying type. Example		
		Index, Instrument or other.		
		Underlying Type Code	Underlying Type Name	
		Instr	Instrument	
		Index	Index	
		Other	Other	
StopLoss	Decimal (18,9)	A Stop loss is the level of the	ne underlying that, if reached, a	
		portion can be redeemable o	n termination of the warrant.	
		e.g. 20000, 40000, 0, etc.		
BarrierLevel	Decimal (18,9)	The Barrier Level is the level of the underlying that, if		
			arrant automatically terminating	
		with a zero value.		
		e.g. 20000, 40000, 0 etc.		
UnderlyingSecurity	Varchar(25)	'	alpha code for the instrument,	
			nmodity, over which the warrant	
		is issued.		

## 5.2.28 Forward Rate Agreement (FRA)

The Forward Rate Agreement CSV file will be downloaded with the following layout:

File name: ForwardRateAgreement.csv

Field Name	Data Type	Description		
ExternalForwardRate	Varchar	The unique Identifier for the Forward Rate Agreement		
AgreementID				
ForwardRateAgreem	Varchar(128)	User Friendly Name for the Forward Rate Agreement		
entName				
DayCountConventio	Varchar(100)	Definition to be Dete	ermined:	
n				
		Value	Meaning	
		ACTUAL_360	Actual 360	
		ACTUAL_365	Actual 365	
CompoundingConve	Varchar(100)	Definition to be Dete	ermined:	
ntion				
		Value	_	
		NACC	_	
		NACQ	_	
		NACA	_	
		NACS	_	
D. C. C.	) (   (400)	SIMPLE		
BusinessDayConven	Varchar(100)	Definition to be Defin	nea:	
tion		Value	Meaning	
		NONE	None	
		FOLL_GOOD	Following Good	
		MOD_FOLL	Modified Following	
RollsOnConvention	Varchar(100)	Definition to be Defin		
		Value		
		DAY	<del></del>	
		START_OF_MO	NTH	
		END_OF_MON	ITH	
		IMM_DAY		
TenorPeriodType	Varchar(100)	Definition to be define	ned:	
		Value		
	l	L		

Field Name	Data Type	Description	
		DAY	
		MONTHS	
		YEARS	
TenorPeriod	Int	Period in months of the Tenor	
ResetLagPeriodType	Varchar(100)	Definition to be defined:	
		Value	
		DAY	
		MONTHS	
		YEARS	
ResetLagPeriod	Int	Period in months of the Reset Lag	

## 5.2.29 **Deposit**

The Deposit CSV file will be downloaded with the following layout:

File name: Deposit.csv

Field Name	Data Type	Description		
DepositID	Int	The Unique Identifier for the Deposit		
DepositName	Varchar(128)	User Friendly Name of the Deposit		
DayCountConventio	Varchar(100)	Definition to be Determined:		
n				
		Value	Meaning	
		ACTUAL_360	Actual 360	
		ACTUAL_365	Actual 365	
BusinessDayconvent	Varchar(100)	Definition to be Defin	ned:	
ion				
		Value	Meaning	
		NONE	None	
		FOLL_GOOD	Following Good	
		MOD_FOLL	Modified Following	
TenorPeriodType	Varchar(100)	Definition to be defin	ed:	
		Value		
		DAY		
		MONTHS		
		YEARS		
TenorPeriod	Int	Period in months of t	the Tenor	

Field Name	Data Type	Description		
RollsOnConvention	Varchar(100)	Definition to be Defined:		
		Value		
		DAY		
		START_OF_MO	NTH	
		END_OF_MON	TH	
		IMM_DAY		
CompoundingConve	Varchar(100)	Definition to be Dete	rmined:	
ntion				
		Value		
		NACC	_	
		NACQ	_	
		NACA	<del>-</del>	
		NACS	_	
		SIMPLE	_	
DepositType	Enum(5)	Indicates the Type of	f the Deposit	
		Value	Meaning	
		1	Local Rate	
		2	Foreign Rate	
		3	Forward Exchange	
			Rate	

## 5.2.30 Interest Rate Swap (IRS)

The Interest Rate Swap CSV file will be downloaded with the following layout:

File name: IRSwap.csv

Field Name	Data Type	Description
InterestRateSwapID	Int	The unique Identifier for the Interest Rate Swap
InterestRateSwapNa	Varchar(128)	User Friendly Name for the Interest Rate Swap
me		
RollsOnConvention	Varchar(100)	Definition to be Defined:
		Value
		DAY
		START_OF_MONTH
		END_OF_MONTH

Field Name	Data Type	Description	
		IMM_DAY	-
DayCountConventio	Varchar(100)	Definition to be Dete	ermined:
n			
		Value	Meaning
		ACTUAL_360	Actual 360
		ACTUAL_365	Actual 365
BusinessDayConven	Varchar(100)	Definition to be Defin	ned:
tion		Value	Meaning
		NONE	None
		FOLL_GOOD	Following Good
		MOD_FOLL	Modified Following
TenorPeriodType	Varchar(100)	Definition to be defin	ned:
		l	
		Value DAY	
		MONTHS	<u></u>
		YEARS	<u></u>
TenorPeriod	Int		ys/years of the Tenor
ResetLagPeriodType	Varchar(100)	Definition to be defin	
ag. cca.ypc			
		Value	
		DAY	
		MONTHS	
		YEARS	
ResetLagPeriod	Int	Period in months/da	ys/years of the Reset Lag
CompoundingConve	Varchar(100)	Definition to be Dete	ermined:
ntion			
		Value	_
		NACC	_
		NACQ	_
		NACA NACS	_
		SIMPLE	_
		JIIVIF LE	

## 5.2.31 Curve

The Curve CSV file will be downloaded with the following layout:

File name: Curve.csv

CurveID     Int     The unique identifier for the Curve       CurveName     Varchar     User friendly name of the Curve       PriceFormat     Int     Number of Decimals used       BootStrappingMetho d     Varchar(100)     Definition to be defined:          Value         Swap           Bond         Inflation Linked Bond           DayCountConvention         Varchar(100)         Definition to be Determined:           Value         Meaning           ACTUAL_360         Actual 360           ACTUAL_365         Actual 365           Interpolation method         Value           LINEAR         FLAT_FORWARD           NATURAL_CUBIC_SPLINE         MONOTONE_CONVEX           ExtrapolationMethod         Varchar(100)         Extrapolation method.           Value         LINEAR         FLAT           FLAT         FLAT         FLAT           FLAT         FLAT         FLAT           FLAT_FORWARD         Axis Unit of the Curve           Value         ABSOLUTE_DATE         FRACTION_OF_YEAR	Field Name	Data Type	Description
PriceFormat Int Number of Decimals used  BootStrappingMetho d  Varchar(100)  Definition to be defined:  Value Swap Bond Inflation Linked Bond  DayCountConventio n  Varchar(100)  Definition to be Determined:  Value  Weaning ACTUAL_360 Actual 360 ACTUAL_365 Actual 365  InterpolationMethod  Varchar(100)  Interpolation method  Value  LINEAR FLAT_FORWARD NATURAL_CUBIC_SPLINE MONOTONE_PRESERVING MONOTONE_CONVEX  ExtrapolationMethod  Varchar(100)  Extrapolation method.  Value  LINEAR FLAT FLAT FLAT FLAT FLAT FLAT FLAT FLAT	CurveID	Int	The unique identifier for the Curve
Definition to be defined:   Value	CurveName	Varchar	User friendly name of the Curve
Value   Swap   Bond   Inflation Linked Bond	PriceFormat	Int	Number of Decimals used
Value   Swap   Bond   Inflation Linked Bond     DayCountConventio   Varchar(100)   Definition to be Determined:   Value   Meaning   ACTUAL_360   Actual 360   ACTUAL_365   Actual 365     InterpolationMethod   Varchar(100)   Interpolation method   Value   LINEAR   FLAT_FORWARD   NATURAL_CUBIC_SPLINE   MONOTONE_PRESERVING   MONOTONE_PRESERVING   MONOTONE_CONVEX     ExtrapolationMethod   Varchar(100)   Extrapolation method.   Value   LINEAR   FLAT   FLAT	BootStrappingMetho	Varchar(100)	Definition to be defined:
Swap   Bond   Inflation Linked Bond     DayCountConventio   Varchar(100)   Definition to be Determined:	d		
Bond			
Inflation Linked Bond			<u> </u>
DayCountConventio n  Varchar(100)  Definition to be Determined:  Value  Meaning  ACTUAL_360 Actual 360  ACTUAL_365 Actual 365  InterpolationMethod  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  ExtrapolationMethod  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_CONVEX  Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT  FLAT  FLAT  FLAT  AXISUNITX  Varchar(100)  X Axis Unit of the Curve  Value  ABSOLUTE_DATE			
Nation   N	Dov Count Conventio	\/arabar(400\)	
Value   Meaning		varchar(100)	Definition to be Determined:
ACTUAL_360 Actual 360 ACTUAL_365 Actual 365  InterpolationMethod Varchar(100)  Value  LINEAR FLAT_FORWARD NATURAL_CUBIC_SPLINE MONOTONE_PRESERVING MONOTONE_CONVEX  ExtrapolationMethod Varchar(100)  Extrapolation method.  Value  LINEAR FLAT FLAT FLAT FLAT FLAT FLAT FLAT FLAT	11		Value Meaning
InterpolationMethod Varchar(100)  Interpolation method  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  ExtrapolationMethod Varchar(100)  Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT  FLAT  FLAT  FLAT  FLAT  FLAT_FORWARD  AxisUnitX  Varchar(100)  X Axis Unit of the Curve  Value  ABSOLUTE_DATE			l
ExtrapolationMethod Varchar(100)  AxisUnitX  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT  FLAT_FORWARD  X Axis Unit of the Curve  Value  ABSOLUTE_DATE			
ExtrapolationMethod Varchar(100)  AxisUnitX  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT  FLAT_FORWARD  X Axis Unit of the Curve  Value  ABSOLUTE_DATE	InterpolationMethod	Varchar(100)	Interpolation method
ExtrapolationMethod Varchar(100) Extrapolation method.  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT_FORWARD  AxisUnitX Varchar(100) X Axis Unit of the Curve  Value  ABSOLUTE_DATE		, ,	
FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT  FLAT_FORWARD  AxisUnitX  Varchar(100)  X Axis Unit of the Curve  ABSOLUTE_DATE			Value
ExtrapolationMethod Varchar(100) Extrapolation method.  Value  LINEAR  FLAT  FLAT  FLAT_FORWARD  AxisUnitX Varchar(100) X Axis Unit of the Curve  ABSOLUTE_DATE			
ExtrapolationMethod Varchar(100)  Extrapolation method.  Value  LINEAR  FLAT  FLAT_FORWARD  AxisUnitX  Varchar(100)  X Axis Unit of the Curve  ABSOLUTE_DATE			
ExtrapolationMethod Varchar(100) Extrapolation method.  Value  LINEAR  FLAT  FLAT_FORWARD  AxisUnitX Varchar(100) X Axis Unit of the Curve  Value  ABSOLUTE_DATE			l
ExtrapolationMethod Varchar(100)    Value			l
Value   LINEAR   FLAT   FLAT_FORWARD   AxisUnitX  Varchar(100)  X Axis Unit of the Curve  Value  ABSOLUTE_DATE			MONOTONE_CONVEX
AxisUnitX  Varchar(100)  Value  ABSOLUTE_DATE	ExtrapolationMethod	Varchar(100)	Extrapolation method.
AxisUnitX  Varchar(100)  Value  ABSOLUTE_DATE			Value
AxisUnitX Varchar(100) X Axis Unit of the Curve  Value  ABSOLUTE_DATE			l
AxisUnitX Varchar(100) X Axis Unit of the Curve  Value ABSOLUTE_DATE			
AxisUnitX Varchar(100) X Axis Unit of the Curve  Value  ABSOLUTE_DATE			l
Value  ABSOLUTE_DATE	AxisUnitX	Varchar(100)	
ABSOLUTE_DATE		, ,	
			Value
FRACTION_OF_YEAR			ABSOLUTE_DATE
· · · · · · · · · · · · · · · · · · ·			FRACTION_OF_YEAR
AxisUnitY Varchar(100) Y Axis Unit of the Curve	AxisUnitY	Varchar(100)	Y Axis Unit of the Curve

Field Name	Data Type	Description	
		Value	
		YIELD_PER	CENTAGE
		STRI	KE
		MONEY	NESS
InterestRateConventi	Varchar(100)	Interest rate conv	vention for the interest rate produced.
on			
		Value	
		NACC	
CurveType	Enum(5)	Indicated the Typ	pe of the Curve
		Value	Meaning
		1	ZAR Swap Curve
			Foreign Swap
		2	Curve
		3	Real Curve
		4	Bond Curve
			Forward Exchange
		5	Rate

#### 5.2.32 Curve Constituent

The Curve Constituent CSV file will be downloaded with the following layout:

File name: CurveConstituent.csv

Field Name	Data Type	Description
CurveID	Int	Specifies the Curve that this Curve Constituent belongs to.
ExternalInstrumentID	Varchar	Unique Instrument ID for the External Instrument (Deposit, FRA or Swap)

## 5.2.33 Volatility Surface

The Volatility Surface CSV file will be downloaded with the following layout:

File name: Surface.csv

Field Name	Data Type	Description
SurfaceId	Int	The external surface Id received from Master reference data system.
surfaceName	Varchar(128)	User friendly name of the surface
DayCountConvention	Varchar(100)	Indicates the Day Count Convention of the Surface
		Value Meaning

InterpolationMethod Varchar(100) Indicates the Interpolation Method of the Surface  Value  LINEAR FLAT_FORWARD NATURAL_CUBIC_SPLINE MONOTONE_PRESERVING MONOTONE_CONVEX  ExtrapolationMethod Varchar(100) Indicates the Extrapolation Method of the Surface  Value  LINEAR FLAT FLAT FLAT FLAT FLAT FLAT FLAT_FORWARD  axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  Yalue  Yalue  Yalue  Yalue  Yalue  Yalue  Yalue  Yield_Percentage STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value  Yield_Percentage STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value  Volatility		1	ACTUAL 360 Actual 360
InterpolationMethod  Varchar(100)  Indicates the Interpolation Method of the Surface  Value  LINEAR  FLAT_FORWARD  NATURAL_CUBIC_SPLINE  MONOTONE_PRESERVING  MONOTONE_CONVEX  ExtrapolationMethod  Varchar(100)  Indicates the Extrapolation Method of the Surface  Value  LINEAR  FLAT  FLAT  FLAT  FLAT_FORWARD   axisUnitX  Varchar(100)  Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE  FRACTION_OF_YEAR  axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS  Indicates the Z Axis Unit of the Surface  Value  Value  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS			_
Value   LINEAR   FLAT_FORWARD   NATURAL_CUBIC_SPLINE   MONOTONE_PRESERVING   MONOTONE_CONVEX			ACTUAL_365 Actual 365
LINEAR FLAT_FORWARD NATURAL_CUBIC_SPLINE MONOTONE_PRESERVING MONOTONE_CONVEX  ExtrapolationMethod Varchar(100) Indicates the Extrapolation Method of the Surface  Value LINEAR FLAT FLAT FLAT FLAT_FORWARD  axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface Value	InterpolationMethod	Varchar(100)	Indicates the Interpolation Method of the Surface
FLAT_FORWARD NATURAL_CUBIC_SPLINE MONOTONE_PRESERVING MONOTONE_CONVEX  ExtrapolationMethod Varchar(100) Indicates the Extrapolation Method of the Surface  Value  LINEAR FLAT FLAT FLAT_FORWARD  axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface Value  Value  Indicates the Z Axis Unit of the Surface Value  Value  Indicates the Z Axis Unit of the Surface Value			Value
ANATURAL_CUBIC_SPLINE MONOTONE_PRESERVING MONOTONE_CONVEX  ExtrapolationMethod  Varchar(100)  Indicates the Extrapolation Method of the Surface  Value  LINEAR FLAT FLAT FLAT_FORWARD  axisUnitX  Varchar(100)  Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  AxisUnitZ  Indicates the Z Axis Unit of the Surface  Value  Value  Indicates the Z Axis Unit of the Surface  Value			LINEAR
ExtrapolationMethod Varchar(100) Indicates the Extrapolation Method of the Surface  Value  LINEAR  FLAT  FLAT  FLAT_FORWARD   axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE  FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  ABSOLUTE_DATE  FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value			FLAT_FORWARD
ExtrapolationMethod Varchar(100) Indicates the Extrapolation Method of the Surface  Value  LINEAR FLAT FLAT FLAT_FORWARD  axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  YILLD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value  Value  Indicates the Z Axis Unit of the Surface Value			NATURAL_CUBIC_SPLINE
ExtrapolationMethod Varchar(100) Indicates the Extrapolation Method of the Surface  Value  LINEAR  FLAT  FLAT  FLAT_FORWARD  axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE  FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  Yelue  YIELD_PERCENTAGE  STRIKE  MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value  Yalue  Indicates the Z Axis Unit of the Surface  Value  Indicates the Z Axis Unit of the Surface  Value			MONOTONE_PRESERVING
AxisUnitX  Varchar(100)  Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  Yalue  YellD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value  Value			MONOTONE_CONVEX
AxisUnitX  Varchar(100)  Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value  Value	ExtrapolationMethod	Varchar(100)	Indicates the Extrapolation Method of the Surface
axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value  Value  YIELD_PERCENTAGE STRIKE MONEYNESS			Value
axisUnitX Varchar(100) Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY Varchar(100) Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value			LINEAR
axisUnitX  Varchar(100)  Indicates the X Axis Unit of the Surface  Value  ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE STRIKE MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value			FLAT
Value       ABSOLUTE_DATE       FRACTION_OF_YEAR       axisUnitY     Varchar(100)       Indicates the Y Axis Unit of the Surface       Value     YIELD_PERCENTAGE       STRIKE     MONEYNESS       axisUnitZ     Varchar(100)     Indicates the Z Axis Unit of the Surface       Value			FLAT_FORWARD
ABSOLUTE_DATE FRACTION_OF_YEAR  axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value	axisUnitX	Varchar(100)	Indicates the X Axis Unit of the Surface
axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value			Value
axisUnitY  Varchar(100)  Indicates the Y Axis Unit of the Surface  Value  YIELD_PERCENTAGE  STRIKE  MONEYNESS  axisUnitZ  Varchar(100)  Indicates the Z Axis Unit of the Surface  Value			ABSOLUTE_DATE
Value       YIELD_PERCENTAGE       STRIKE       MONEYNESS       axisUnitZ     Varchar(100)       Indicates the Z Axis Unit of the Surface       Value			FRACTION_OF_YEAR
AXISUNITZ  Varchar(100)  YIELD_PERCENTAGE  STRIKE  MONEYNESS  Indicates the Z Axis Unit of the Surface  Value	axisUnitY	Varchar(100)	Indicates the Y Axis Unit of the Surface
axisUnitZ Varchar(100)  STRIKE  MONEYNESS  Indicates the Z Axis Unit of the Surface  Value			Value
axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value			YIELD_PERCENTAGE
axisUnitZ Varchar(100) Indicates the Z Axis Unit of the Surface  Value			STRIKE
Value			MONEYNESS
	axisUnitZ	Varchar(100)	Indicates the Z Axis Unit of the Surface
VOLATILITY			Value
i l			VOLATILITY

## 5.2.34 Derivative Corporate Actions

The Corporate Actions CSV file will be downloaded with the following layout:

File name: CorporateActions.csv

Field Name	Data Type	Description
CorporateActionType	Varchar(5)	The type of Corporate Action performed
		Refer to Annexure B – Corporate Action Type for Type Descriptions
FromInstrument	Int	Master ID of the TI on which the CA is taking place. The positions
		on this TI will be closed.
ToInstrument	Int	Master ID of the new TI for the new position. New positions will be
		created on this TI. If missing, settlement positions will be created
		instead
EffectiveDate	Date(10)	Corporate actions are applied at EOD on the last business day
		before the effective date. Format is YYYY/MM/DD.

#### 5.2.35 Branches

The Branches CSV file will be downloaded with the following layout:

File name: Branches.csv

Field Name	Data Type	Description
BrokerID	Varchar(11)	A unique identifier of the Firm across the system. This Firm ID
		indicates the firm that the branch is associated to
Description	Varchar(100)	The full legal name of the Firm
BranchCode	Varchar(64)	Indicates the Code of the branch for the associated firm

#### 5.2.36 Trader ID

The Trader ID CSV file will be made available to Trading Members only within their private IDP folders and will be downloaded with the following layout:

File name: TraderIDs\_XXX\*.csv

Field Name	Data Type	Descri	otion			
BrokerID	Varchar(11)	A uniqu	A unique identifier of the Firm across the system. This Firm ID			
		indicates	indicates the firm that the branch is associated to			
Description	Varchar(100)	The full	legal name of the Firm			
UserID	Varchar(64)	Indicate	s the UserID of the trader on the	Trading System (e.g.		
		ABCRS	DOWN01_12345)			
Trader Group Code	Varchar(11)	Code ide	entifying the Trader Group			
Trader ID	Varchar(5)	Five-dig	it number identifying the Trader	of the Firm		
Market Identifier	Bit Field	This field	d will identify what Market the Tr	ader ID is enabled for		
		Bit	Name	Meaning		
		0	Reserved	0: No		
				1: Yes		
		1	Equity Derivative Market	0: No		
				1: Yes		
		2	Currency Derivative Market	0: No		
				1: Yes		
		Bit '0' is	the rightmost bit in the array of	bits. This bit can be either		
		set to '0'	or '1'. The '0' or '1' value mean	ings are denoted above.		
		e.g. EDM Only trader — 00000010 (Decimal = 2) FXM only trader — 00000100 (Decimal = 4) Both EDM and FXM — 00000110 (Decimal = 6)				
Trader Full Name	Varchar(100)	This field will identify the User Name on the Trading System based				
		on the User ID (e.g. "Trader Name Back Office Clearing Member",				
		"Trader	Name Back Office Trading Mem	nber", " <i>Trader Name"</i> )		

<sup>\*</sup>This file will appear in the private **IDP folder** for members at the path Members\Member XXX\TraderIDs\TraderIDs\_XXX.csv,

where XXX = Private Member alpha code used on IDP and the Member XXX = Member's private folder on IDP and TraderIDs\_XXX.csv = Member's private Trader ID file

## 5.3 Annexure A – Contract Code Convention

## **5.3.1** Equity Derivatives Contract Code Convention

	CONVENTION - FUTUR			
Components of Contract Code	Values	Example/Accrony	Max Character s	
Expiry Date		'17DEC15	6	
, ,			1	Space
Underlying Alpha Code		AGL ALSI GOOGL GOOGLQ	6	
			1	Space
Settlement type	Cash	CSH	3	
	Physical	PHY		
			1	Space
Anyday Expiry (Note – this is only displayed for Anyday instruments)	Anyday	ANY	3	
	,,		1	Space
	Dividend Neutral	DN		<b>O</b> paco
Datail (Nata this is only	Quanto	QUANTO	1	
Detail (Note – this is only displayed if applicable)	Dividend Neutral Quanto	DN QUA	6	
	CFD	CFD		
	Delta Option	DEL		
			1	Space
Local Deposit JSE Code (Only for CFD)	SAFEY/RODI SABOR	SAFEY/RODI SABOR	5	The max characters is variable and will depend on the length of the JSE Code captured
			1	Space
Contract Size Type /Note	Maxi	MAXI		-
Contract Size Type (Note – if the Contract Size Type	Mini	MINI	1	
is 'Base', nothing is displayed)	Corporate Action Odd Contract Size	CA<#>	4	
	MAX LENGTH		39	

	CONVENTION - OPTION - EG	QUITY DERIVATIVES		
<u> </u>	(e.g. 01DEC15 GOOGL CSH D	N QUA MAXI 23.999C	)	
Components of Contract Code	Values	Example/Accrony m	Max Characters	
Expiry Date		17DEC15	7	
			1	Space

Underlying Alpha Code		AGL ALSI GOOGL GOOGLQ	6	
			1	Space
Settlement type	Cash	CSH	3	
Settlement type	Physical	PHY	3	
			1	Space
Anyday Expiry (Note – this is only displayed for Anyday instruments)	Anyday	ANY	3	
			1	Space
	Dividend Neutral	DN		
Detail (Note – this is only displayed if	Quanto	QUANTO		
applicable)	Dividend Neutral Quanto	DN QUA	6	
,	CFD	CFD		
	Delta Option	DEL		
			1	Space
Contract Size Type	Maxi	MAXI		
(Note – if the Contract	Mini	MINI	4	
Size Type is 'Base', nothing is displayed)	Corporate Action Odd Contract Size	CA<#>		
			1	Space
Strike Price		124.67	13	
Option Type	Call	С	1	
Оршон туре	Put	Р	'	
	MAX LENGTH		49	

## 5.3.2 Currency Derivatives Contract Code Convention

CONVI	CONVENTION - FUTURE - CURRENCY DERIVATIVES				
	(e.g. 17DEC1	AUDZAR QUANTO)			
Components of Contract Code	Values	Example/Accronym	Max Characters		
Expiry Date		'17DEC15	6		
			1	Space	
Underlying Alpha Code		AUDZAR USDZAR CADZAR CADCNH	6		
			1	Space	
Anyday Expiry (Note – this is only displayed for Anyday instruments)	Anyday	ANYDAY	3		
			1	Space	
Detail	Quanto	QUANTO	6		
(Note – this is only displayed if applicable)	Delta Option	DEL	6		

			1	Space
Contract Size Type (Note – if the Contract Size Type is 'Base', nothing is displayed)	Maxi	MAXI	4	
	MAX LENGTH		29	

## **CONVENTION - OPTION - CURRENCY DERIVATIVES**

(6	(e.g. 01DEC15 AUDZAR QUANTO 23.999C)					
Components of Contract Code	Values	Example/Accronym	Max Characters			
Expiry Date		'17DEC15	7			
			1	Space		
Underlying Alpha Code		AUDZAR USDZAR CADZAR CADCNH	6			
			1	Space		
Anyday Expiry (Note – this is only displayed for Anyday instruments)						
	Anyday	ANYDAY	6	1		
Detail			1	Space		
(Note – this is only displayed if	Quanto	QUANTO	6			
applicable)	Delta Option	DEL				
			1	Space		
Contract Size Type (Note – if the Contract Size Type is 'Base', nothing is displayed)	Maxi	MAXI	4			
			1	Space		
Strike Price		124.67	13			
Option Type	Call	С	1			
Option Type	Put	Р	] '			
	MAX LENGTH		48			

## 5.3.3 Structured Product Contract Code Convention

CONVENTION - STRUCTURED PRODUCTS FUTURE  (e.g. 19DEC15 GOOGL EXF_195)					
Components of Contract Code	Values	Example/Accronym	Max Characters		
Expiry Date		'17DEC15	6		
			1	Space	
Underlying Alpha Code		AGL ALSI GOOGL GOOGLQ BSK001 AUDZAR USDZAR CADZAR CADCNH	6		
			1	Space	
Settlement type	Cash	CSH	3		
Oethement type	Physical	PHY	3		
			1	Space	
Detail	Variance Future	VRF			
(Note – this is only displayed	Exotic Option	EXO	3		
if applicable)	Exotic Future	EXF			
			1	Space	
Incremental Number	"_"Incremental Number	_195	4		
	MAX LENGTH		26		

CONVENTION - STRUCTURED PRODUCTS OPTION (e.g. 01DEC15 BSK001 CSH 23.999C)					
Expiry Date		'17DEC15	7		
			1	Space	
Underlying Alpha Code		AGL ALSI GOOGL GOOGLQ BSK001 AUDZAR USDZAR CADZAR CADCNH	6		
			1	Space	
Cattlement tune	Cash	CSH	3		
Settlement type	Physical	PHY	3		
			1	Space	
Detail (Note – this is only displayed if applicable)	Exotic Future	EXF	3		
			1	Space	
Incremental Number	"_"Incremental Number	_195	4		
			1	Space	
Strike Price		124.67	13		
Ontion Type	Call	С			
Option Type	Put	Р	1		
	MAX LENGTH		42		

# 5.4 Annexure B – Corporate Action Type

V-I	Manufact	
Value	Meaning	
11	Rights Issue in Same Stock	
13	Non-renounceable rights issue in same stock	
21	Stock Split	
22	Stock Consolidation	
33	Return of Capital	
43	Non-renounceable scrip issue in same stock	
61	Rescinded Capital Change	
71	Complex Capital Change	
73	Share Convention	
74	Demerger	
80	Stock Dividend Same Stock	
84	Merger	
AS	Additional Instruments - Acquisition	
BS	Specific Share Buyback	
CA	Capitalisation Awards	
СВ	Change Board	
CCS	Cash or Cash and Stock	
CD	Cash Dividend	
CDI	Cash Dividend	
CF		
CI	Conditional Offer Capitalisation Issue	
CM	Full Redemption	
CO	Consolidation of Instruments	
CP	Capital Payment	
CR	Capital Reduction	
CSA	Cash with Stock Alternative	
CV	Conversion of Instruments	
GB	General Share Buybacks	
GI	General Issue of Instruments for Cash	
IC	Change in Authorised Share Capital	
IL	Liquidation Dividend	
IS	Special Dividend	
IT	Interest Payment	
MB	New Listing	
MO	Minority Offer	
MW	Listing of Warrants	
NC	Name Change	
OL	Odd Lot Offer	
PR	Partial Redemption	
PV	Par Value Change	
RE	Electable REIT Distribution	
RI	REIT Distribution	
RL	Reverse Take-Over Listing	
- · · · ·	1. Corondo Failo Over Libring	

RS	Redemption of Instruments	
RT	Rights / Claw Back Offer	
SA	Scheme of Arrangement	
SC	Scrip Dividend	
SCA	Stock with Cash Alternative	
SCS	Stock or Cash and Stock	
SD	SD - Subdivision	
SDI	Stock Dividend	
SE	Scrip Dividend - Additional Share	
SI	Specific Issue of Instruments for Cash	
SL	Suspension Lifted	
SO	Exercise of Options	
SS	Share Incentive Scheme	
ST	Sector Transfer	
SU	Suspension	
TE	Termination	
TU	Take-up Rights Offer	
UB	Unbundling	
UO	Unconditional Offer	
VW	Voluntary Winding -Up	
WD	Withdrawal of Listing	

# 5.5 Annexure C – Exchange Definitions

Value	Meaning
JSE	JSE Limited
LSE	London Stock Exchange
NSX	Namibian Stock Exchange
ASE	Abidjan Stock Exchange
CASE	Alexandria Stock Exchange
AEX	Amsterdam Stock Exchange
ADEX	Athens Stock Exchange
AUSX	Australian Stock Exchange
BSX	Berlin Stock Exchange
BVB	Bolsa de Valores de Bilbao
BESA	Bond Exchange of S.A.
BSE	Borsa de Barcelona
BOSX	Botswana Stock Exchange
BACX	Buenos Aires Stock Exchange
CSX	Cairo Stock Exchange
CASX	Casablanca Stock Exchange
CHX	Chicago Stock Exchange
CSE	Colombo Stock Exchange
CYSE	Cyprus Stock Exchange

DCV	Day on Colores Charle Evaluation
DSX	Dar-es-Salaam Stock Exchange
EBRX	Euronext Brussels Stock Exchange
EPRX	Euronext Paris Societe Anonyme
FSX	Frankfurt Stock Exchange
FWB	German Stock Exchange
GSX	Ghana Stock Exchange
HSE	Helsinki Stock Exchange
SEHK	Hong Kong Stock Exchange
ISE	Istanbul Stock Exchange
ISX	Italian Stock Exchange
KSX	Kampula Stock Exchange
KSE	Korea Stock Exchange
KLSE	Kuala Lumpur Stock Exchange
LJSE	Ljubljana Stock Exchange
LSX	Lusaka Stock Exchange
LUSE	Luxembourg Stock Exchange
MSE	Madrid Stock Exchange
MASE	Malawi Stock Exchange
MSX	Mauritius Stock Exchange
MEX	Mexico Stock Exchange
ME	Montreal Stock Exchange
NSE	Nairobi Stock Exchange
NASX	Nasdaq Stock Market
NYSE	New York Stock Exchange
NZSE	New Zealand Stock Exchange
NISE	Nigerian Stock Exchange
OSLO	Oslo Stock Exchange
PMSE	Port Moresby Stock Exchange Limited
RDJSE	Rio de Janerio Stock Exchange
SCHSE	Schweizer Borse Swiss Exchange
SISE	Stock Exchange of Singapore
STSE	Stockholm Stock Exchange
SWSE	Swaziland Stock Exchange
SET	Thailand Stock Exchange
TSE	Tokyo Stock Exchange
TSX	Toronto Stock Exchange
VSE	Vancouver Stock Exchange
WSE	Warsaw Stock Exchange
ZSE	Zimbabwe Stock Exchange
BXX	Bermuda Stock Exchange
BVB	Bucharest Stock Exchange
DSE	Durban Stock Exchange
SSE	Santiago Stock Exchange
4AX	4 Africa Exchange
IrSE	Irish Stock Exchange
XAMS	Euronext Amsterdam

MCE	MERCADO CONTINUO ESPANOL
EDGX	EDGX Exchange
XTR	Xetra
NYSEA	NYSE Arca
OMX	OMX Nordic Exchange
A2X	A2X

#### 5.6 Annexure D – Order Book Definition

The below section describes, in which Order Book the different Derivative Market Instruments are allowed to be traded on.

## 5.6.1 Equity Derivative Market Order Book Definitions

Instrument Type	Trades On Book	Trades Off Book	Trades Private RFQ
Single Stock Future	YES	YES	YES
Single Stock Option	YES	YES	YES
Delta Option – Single Stock Option	YES	NO	YES
Inverse Calendar Spread – Single Stock Future	YES	NO	YES
Single Stock AnyDay Future	YES	YES	YES
Single Stock AnyDay Option	YES	YES	YES
Delta Option - Single Stock AnyDay Option	YES	NO	YES
Single Stock Dividend Neutral Future	YES	YES	YES
Inverse Calendar Spread - Single Stock Dividend Neutral Future	YES	NO	YES
Single Stock Dividend Neutral AnyDay Future	NO	YES	YES
CFD	NO	YES	YES
Index Future	YES	YES	YES
Index Option	YES	YES	YES
Delta Option – Index Option	YES	NO	YES
Inverse Calendar Spread – Index Future	YES	NO	YES
Index AnyDay Future	YES	YES	YES

Index AnyDay Option	YES	YES	YES
Delta Option - Index AnyDay Option	YES	NO	YES
International Equity Future	YES	YES	YES
Inverse Calendar spread - International Equity Future	YES	NO	YES
International Equity AnyDay Future	NO	YES	YES
International Equity Dividend Neutral Future	YES	YES	YES
Inverse Calendar Spread - International Equity Dividend Neutral Future	YES	NO	YES
International Equity Dividend Neutral AnyDay Future	NO	YES	YES
International Equity Quanto Future	YES	YES	YES
International Equity Quanto Option	YES	YES	YES
Delta Options - International Equity Quanto Option	YES	NO	YES
International Equity Quanto Dividend Neutral Future	NO	YES	YES
International Index Future	YES	YES	YES
International Index Option	YES	YES	YES
Delta Options - International Index Option	YES	NO	YES
Inverse Calendar Spread - International Index Future	YES	NO	YES
International Index AnyDay Future	YES	YES	YES
International Index AnyDay Option	YES	YES	YES
Delta Option - International Index AnyDay Option	YES	NO	YES
International Index Quanto Future	YES	YES	YES
International Index Quanto Option	YES	YES	YES
Delta Option - International Index Quanto Option	YES	NO	YES
Basket Future	YES	YES	YES
Option on Basket Future	YES	YES	YES
		<u>I</u>	

Delta Options - Option on Basket Future	YES	NO	YES
Exotic Future	NO	YES	YES
Exotic Option	NO	YES	YES

## 5.6.2 Currency Derivative Market Order Book Definition

Instrument Type	Trades On Book	Trades Off Book	Trades Private RFQ
FwdFwdFX Future	NO	YES	YES
Forex Future	YES	YES	YES
Forex Option	YES	YES	YES
Inverse Calendar Spread on Forex Future	YES	NO	YES
Delta Option - Forex Option	YES	NO	YES
Forex AnyDay Future	YES	YES	YES
Forex AnyDay Option	YES	YES	YES
Delta Option Forex AnyDay Option	YES	NO	YES
Quanto Forex Future	YES	YES	YES
Quanto Forex Option	YES	YES	YES
Inverse Calendar Spread - Quanto Forex Future	YES	NO	YES
Delta Option - Quanto Forex Option	YES	NO	YES
Quanto Forex AnyDay Future	YES	YES	YES
Quanto Forex AnyDay Option	YES	YES	YES
Delta Option Quanto Forex AnyDay Option	YES	NO	YES
Inverted Currency Future	YES	YES	YES
Inverted Currency Option	YES	YES	YES
Delta Option - Inverted Currency Option	YES	NO	YES
Inverse Calendar Spead – Inverted Currency Future	YES	NO	YES

Forex Index Future	YES	YES	YES
Inverse Calendar Spread – Forex Index Future	YES	NO	YES
Exotic Option	NO	YES	YES

#### 5.7 Annexure E – Instrument Sub Category convention

The Instrument Sub category gives more details for a given Tradable Instrument - Futures, Options, Inverse Calendar Spreads, Delta Options. The Instrument sub category will be the same for all contracts with the same Instrument class type, Underlying type, Contract size type, Settlement type, Expiry Type and Instrument Type

NOTE: This field can be up to 30 characters long. Example: FUTFPGENCSHBASSTDMA1000

		Notes	
(Class Type)			
Future	FUT		
CFD	CFD		
FwdFwdFX	FWD		
Structured Product	STP		
(Underlying Type):			
JSE Equity	JE		
JSE Index	JI		
Int Equity	IE		
Int Index	II .		
Forex Pair	FP		
Forex Index	FI		
Basket	В		
(Structured Product)		Applicable only if it is a Structured Product. This field is incremented every time a new Structured Product instrument type, for the same underlying type, is used.	
Basket Future	BSK <auto increment=""></auto>	There is no set limit for the auto	
Exotic Future	EXF <auto increment=""></auto>	increment number. It will go	
Exotic Option	EXO <auto increment=""></auto>	from 1 up to infinity	
Variance Future	VRF <auto increment=""></auto>		
(Instrument Type):			
General	GEN		
Dividend Neutral	DNL		
Quanto	QUA		

Inverted Currency	INC		
Quanto Dividend Neutral	QDN		
(Settlement type):			
Cash	CSH		
Physical	PHY		
•			
(Contract Size Type):			
Base	BAS		
Mini	MIN		
Maxi	MAX		
Super	SUP		
(Expiry Type):			
Standard & Anyday	STD		
Anyday_	ANY_		* See Note below
Non-standard	NSD		
(Generation method)			
MA	MA		Applicable for all instruments
			that are manually added except
			for Index futures and CFD.
CA	CA		Default is MA.  Applicable for any CA that
CA	CA		results in a new instrument with
			a new nominal e.g. Rights Offer
			3 3 3
(Contract Size)			
Example: 100		100	
(Base Rate):			Only applicable to a CFD
SABOR	SABOR		
RODI	RODI		
(JSE Index)			Only applicable to JSE Index.
			This is the 4 letter short code (contract code) of the
			instrument. For a Total return
			index, the short code will
			normally end with an 'R' e.g.
			DCAR, JCAR, DTOR. However,
			the underlying index will still be
			a DCAP, JCAP or DTOP
Example: ALSH	ALSH		

<sup>\*</sup> Anyday Futures and Options will always have the same Instrument Sub Category as the equivalent

Standard futures and options on the same underlying. This is to enable the trading engine to know which Anyday and Standard instruments are linked to each other, and can be used as reference instruments for the creation of user created instruments.