SEDOL MasterFile

Derivative Feed Technical Specification

Version 5.2

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Version Control

Version	Date	Author	Reason for Change
4.0	02/11/2017	Laura Stanley	First Draft
5.0	18/11/2021	Laura Stanley	Review
5.1	14/01/2022	Taranjit Bhogal	Page 20 – Security type DD = Futures updated to Financial Futures. FF = Inverse Futures & FG = Vanilla Futures security types added. IssuerName and AlternateIssuerName updated to VARCHAR (500). Page 21 - SecurityDescription updated to VARCHAR (500). Page 23 – UnderlyingIssuer updated to VARCHAR (500). Page 28 – UnderlyingIssuer updated to VARCHAR (500). .
5.2	06/04/2023	Taranjit Bhogal	Page 26-27 – Issuer (ISS) table. Field names order and references updated. Previous Issuer, Subsequent Issuer, LEI, CreateDate & EmptyField1. Page 29-30 – Security (SEC) table. Field names order and references updated. FISN, CreateDate, SecurityGroup, SecuritySubGroup, Class, Series, Tranche, LocalCode, FutureUpdate, LEI, CountryOfOpol, EmptyField1, NewISIN, OldISIN & Call/Put. Page 31 – Market (MKT) table. Field names order and references updated. EmptyField1, EmptyField2 & EmptyField3. Page 35 – 36 Call/Put, NewISIN & OldISIN field added to the 11.0 Appendix A – Field Description & Glossary.

Contents

1.0 PREFACE

This document provides complete technical details on receiving the SEDOL Masterfile Derivatives data download. This document is intended for use by direct subscribers of the service (e.g. data vendors, software houses, banks, developers and reference data administrators).

The Exchange may amend this Technical Specification at any time by the provision of at least two months' written notice or on less notice in the event that:

1. changes of a technical nature are to be made; or

2. rights owners' of third party data within the Data make a change that affects the provision of such third party data to the Exchange and/or customers of the Exchange; or

3. matters beyond the reasonable control of the Exchange require that a change be made and the provision of two months' notice is not possible or would be detrimental to the Site, service and/or customers of the Exchange (provided always that as much notice as is reasonably practical in the circumstances is given).

2.0 REFERENCES

2.1 Documentation

The following documents are available on the Exchange's website:

www.lseg.com/sedol
1. SEDOL Masterfile Derivative Feed Technical Specification (latest version)

2.2 Terms

The following terms are used throughout this specification:

Term	Description
Exchange	London Stock Exchange
SMF™	SEDOL Masterfile™

3.0 Background

The SEDOL Masterfile is a central data security master for issuer and instrument data with the SEDOL code contributing to a unique, country level, global instrument identifier. This unique code is intended to improve pricing, clearing and settlement across global markets for subscribing participants.

The current SMF service provides information on over 100 million global multi-asset securities including equities, fixed income and derivatives.

The Exchange provides a 24/7 web based look-up service available to all SEDOL users, as well as allowing permissioned users to request new SEDOL codes in near real-time.

3.1 Document Purpose

This document presents the specification for the Derivative SMF Data Download only. This document should be read in conjunction with the SEDOL Masterfile Service & Technical Guide.

This document should be read by all SMF licence holders.

3.2 Assumptions

It is assumed that readers have a good working knowledge of the following technologies:

- Hypertext Transfer Protocol (HTTP)
- Secure Sockets Layer (SSL)

4.0 Environment Definition

4.1 Host Server Configuration

The SMF system has been built on state of the art hardware using the UnaVista platform to meet the demands of its customers.

4.2 Customer Hardware Requirements

Customers are responsible for ensuring that the hardware they commit to receiving the SMF FTP download services is capable of processing the supplied data. The choice and implementation of the chosen hardware platform is the responsibility of the customer.

4.3 Customer Software Requirements

To facilitate the most effective transfer mechanism for the download services the following minimum software configuration is recommended for customers implementing a PC platform:

- Microsoft Internet Explorer Version 10 or above (The Internet browser will need Cookies and Javascript Enabled)
- Winzip
- Google Chrome version 9 or above

5.0 Processing Details

All files in the data download service are provided in a compressed format to reduce download times for download service users. These can be decompressed at the user site using standard decompression software such as Winzip.

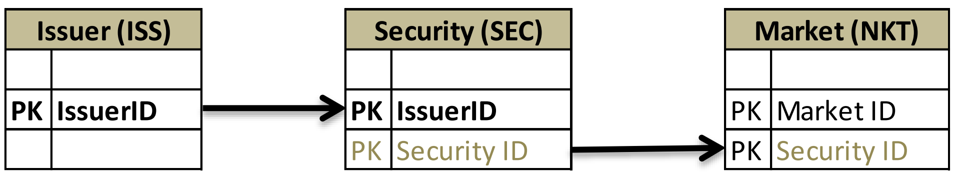
On a quarterly basis, because of the nature of derivative contracts, we expect a large number of new records to be released by the exchanges and added to the database.

Each FTP location contains multiple files, the names of which indicate the service for which the current file was generated. The number of TAB files after decompression is dependent on the service requested. Standard files are available via FTP. Details of the file and folder structure and the times of standard file generation will be released only on subscription to the service.

The SEDOL Masterfile™ functional data model is as follows:

File Linkages

IssuerID, SecurityID and MarketID will be unique and permanent and will never be re-used.



**PK = Primary Key*

5.1 Processing Changes Files

The records in the changes files provide a chronological picture of each item in SMF. Each record in a file has an Action identifier to indicate if the row is an **I**nsert, an **U**pdate or a **D**elete to the database.

Defunct securities are indicated as **U**pdates in the Action Identifier field and the relevant *status* field has a value of 'D'.

Each changes file should be processed in its entirety starting from the first data record in the file. Every file in the changes service must be applied to the database to provide a complete update.

5.2 Processing Full Files

Each file contains every **active** exchange traded derivative for the associated data table. The files also contain data with an Action Identifier of '**F**' indicating the data is a snapshot from the full file. The file will not contain contracts that have expired.

Historical data can be provided on a per request basis and a fee is payable.

5.3 Customer System Failure Recovery and First Day of Service

Two approaches to customer system failure can be used:

- For general processing failures, the previous days changes file and daily files up to seven days previous are available via standard delivery mechanisms. In addition, a weekly changes file is available up to four weeks previous.
- For more serious failures, or on the first day of the new services, the monthly full file should be applied using the following procedure:
    - All SMF information held on the customer's database should be backed up and discarded
    - The full file and a set of subsequent change files covering the time since the full file was generated should be obtained
    - The full file should be applied to the database followed by the changes file.

This procedure will leave the customer synchronised with the main SMF database and ready to receive subsequent changes.

6.0 Download Files Types & Naming Conventions

6.1 Daily Change Files

For standard **start of day** changes the following naming conventions will apply:

Module	Format	File Name
Exchange Traded Derivatives Daily Changes	TAB	<start datetime>_<end datetime>_DDC_1_TAB.zip
The Start of day file is generated at 06.00 **London Local Time** each business day (i.e. excluding weekends but includes Bank Holidays) covering changes since the previous **end of day** change files(Covering 18.00 – 06.00 Local London Time).		

For standard **end of day** changes the following naming conventions will apply:

Module	Format	File Name
Exchange Traded Derivatives Daily Changes	TAB	<start datetime>_<end datetime>_FDC_1_TAB.zip
Times: End of day files is generated at 18.00 **London Local Time** each business day (i.e. excluding weekends but includes Bank Holidays), covering changes since the previous end of day file generation. (Covering 18.00 to 18.00 **Local London Time**.) NB This file will contain the changes published in the intraday change files.		

6.2 Weekly Changes Files

For standard weekly change downloads the following naming conventions will apply:

Module	Format	File Name
Exchange Traded Derivatives Weekly Changes	TAB	<start datetime>_<end datetime>_DWC_1_TAB.zip
Times: Weekly change files is generated at 09:00 London Local Time each Monday covering changes since the last weekly file was generated.		

6.3 Full File Downloads

For standard full file downloads the following naming conventions will apply:

Module	Format	File Name
Exchange Traded Derivatives Full File	TAB	<000000000000>_<end datetime>_DDD_1_TAB.zip
Times: The full file will is generated on the 1st day of each month by 09:00 **London Local Time** providing a snapshot of the current database contents.		

6.4 Consolidated Files

The following naming conventions will be used for files included in the zip where the file format is tab separated.

The entity abbreviation will be inserted between the end date and module abbreviation as in the following example:

<business entity ID>_ <start datetime>_<end datetime>__**ISS**_ dwc_1_txt.

Entity	Abbreviation
Issuer	iss
Security	sec
Market	mkt

The following file extensions will be used for each entity dependent on the file format selected:

File format	File extension
TAB	.TXT

7.0 Service Definition

7.1 SMF License

A Licence is required for companies that are making use of and redistributing the Exchange's SEDOL Masterfile data within their business. Usage by a company includes: Receiving, accessing, extracting, processing, adapting, storing, and/or reproducing the whole or a subset of the Exchange's SEDOL Masterfile database, including SEDOL, whether as a result of access to the database either directly via the Exchange, or indirectly via a third party.

The type of licence required is dependent on the level of SEDOL Masterfile data used within the business. The level of data is determined by the number of SEDOL codes being used by the licensee.

Further information on our pricing and usage policy please see the current SEDOL Masterfile Pricing and Policy Guidelines. http://www.lseg.com/markets-products-and-services/post-trade-services/unavista/unavista-solutions/data-solutions/sedol/documentation

7.2 SMF Services

Any Licensed user wishing to access SMF can register at www.sedol.co.uk and can request access to the system.

All clients with an active SEDOL Licence can have access to the SMF web browser, giving them the ability to:

- search the SMF database
- create SEDOL codes in a provisional status (with the exception of London markets)
- request amendments and information via the Update Request functionality
- submit bulk uploads

7.3 Data

SEDOL and TIDM codes are the intellectual property of the Exchange but all other data unless specified is owned by or subject to rights of third parties.

Customers should be aware that the customer's use of third party data is subject to licencing requirements of third party rights owners which may change from time to time, notice of any such changes will be provided in accordance with section 1 of this document.

7.4 Service Availability

With the exception of unforeseen technical difficulties and emergency maintenance, the SMF website will be a 24/7 operation. It will be necessary to perform some scheduled service outages (e.g. monthly database maintenance) from time to time, which will be communicated to SEDOL subscribers in advance.

Full operational support facilities are available from 02:00 to 17:30 hours, UK time. Contact details are as follows:

SMF Enquiry Line - +44 (0)20 7797 4740

SMF Email Addresses -smfnewissues@lseg.com (new SEDOL requests)

-smfdb@lseg.com (database queries)

The Exchange will make all reasonable efforts to ensure direct subscribers receive timely updates that may affect the SMF service.

7.5 Instrument Maintenance

Changes to instruments due to corporate actions are proactively managed via an external validated corporate actions product. Sufficient data as to the reason for changes to the SMF database will be given, but full corporate action details will not be provided.

7.6 Update Request

If a customer wishes to request a change to a SEDOL on the SMF database an 'Update Request' can be generated through the SMF website. Alternatively, customers can email their query to SMF Database team at smfdb@lseg.com

7.7 Errors/Duplication of an Instrument

Where there is a duplication or a SEDOL has been issued in error, the SEDOL that was issued first will be kept and the duplicate will be made inactive by the SMF team (note that the database will denote these instruments with an Action Identifier D = Inactive).

SMF Operations will check the system for errors on a best endeavours basis and where possible contact persons concerned to minimise the risk of mistakes.

8.0 SEDOL Code Structure

8.1 Overview

– SEDOL codes are a 7 character alphanumeric code.
– Active 7 character numeric SEDOL codes, created prior to March 2004, also remain in circulation.
– SEDOL codes are allocated on the basis of one per country to represent the place of listing or in the absence of listing place of trade. Additional identification data including the Market Identifier Code (MIC) and ISIN codes are used to increase efficiencies in identifying the market an instrument is traded on.

8.2 SEDOL Code Structure

The new SEDOL code will be seven characters alphanumeric with the following structure:

1 Alpha

2 Alphanumeric

3 Alphanumeric

4 Alphanumeric

5 Alphanumeric

6 Alphanumeric

7 Numeric check digit

Notes:

– Alpha characters are B-Z excluding vowels
– Numeric characters are 0-9
– Alphanumeric characters are 0-9, B-Z excluding vowels
– No SEDOL code will be issued without an alpha first character.

The first six numbers therefore form a unique combination with approximately 600 million codes available.

SEDOL codes will be allocated sequentially and with no inherent meaning for each market an instrument is traded on.

There will be no codes issued with 0,3,2,4,5,6,7 and 9 as the lead character, which allows historic series to be maintained as well as dummy codes by customers.

8.3 SEDOL Check Digit Calculation

The seventh digit of the SEDOL code is a check digit. The check digit calculation will use the same method as previously used for the seven digit numeric number with the alpha characters given a numerical value.

Character	Value	Character	Value	Character	Value	Character	Value
B	11	J	19	Q	26	X	33
C	12	K	20	R	27	Y	34
D	13	L	21	S	28	Z	35
F	15	M	22	T	29		
G	16	N	23	V	31		
H	17	P	25	W	32		

To check that a number is reported correctly, each digit is multiplied by a weight and the results are summed. The weight used for each digit is set out as follows:

Digit	Weight
1^{st}(alpha)	1
2^{nd}(alpha/numeric)	3
3^{rd}(alpha/numeric)	1
4^{th}(alpha/numeric)	7
5^{th}(alpha/numeric)	3
6^{th}(alpha/numeric)	9
7^{th}(numeric check digit)	1

If the sum of the results is a multiple of ten, the number is taken to be correct. If the sum of the results is not a multiple of ten, there is an error.

For example:

1) SEDOL Number B1F3M59

Digit	Weight	Product
B (Numerical Value 11)	1	11
1	3	3
F (Numerical Value 15)	1	15
3	7	21
M (Numerical Value 22)	3	66
5	9	45

Sum = 161

As the sum is a multiple of ten, the number has been quoted **correctly.**

2) SEDOL Number is reported as B-1H5-4P6

Digit	Weight	Product
B (Numerical Value 11)	1	11
1	3	3
H (Numerical Value 17	1	17
5	7	35
4	3	12
P (Numerical Value 25	9	225

Sum =309

As the sum is not a multiple of 10, the number has been quoted **incorrectly**.

8.4 Deriving the Check Digit

To derive a check digit for a number, each of the first six digits is multiplied by the corresponding weight. This result is then summed and taken away from the next highest number divisible by 10, as shown in the example below:

For Example:

1) SEDOL Number B-123-45?

Digit	Weight	Product
B = 11	1	11
1	3	3
2	1	2
3	7	21
4	3	12
5	9	45

Sum=94

Therefore 94 taken away from a 100 means a **check digit of 6.**

8.5 SEDOL Code Generation

The new SEDOL codes will be generated sequentially as detailed in the table below.

As per section 8.4 Deriving the Check Digit, the first digit is always an alpha and the last digit is the numeric check digit.

1	2	3	4	5	6	7
B	0	0	0	0	0	X
B	0	0	0	0	1	X
B	0	0	0	0	2	X

…

B	0	0	0	0	9	X
B	0	0	0	0	B	X
B	0	0	0	0	C	X

…

B	0	0	0	0	Z	X
B	0	0	0	1	0	X
B	0	0	0	1	1	X
B	0	0	0	1	2	X

…

B	0	0	0	1	9	X
B	0	0	0	1	B	X
B	0	0	0	1	C	X

…

B	0	0	0	Z	Z	X
B	0	0	1	0	0	X
B	0	0	1	0	1	X

…

B	Z	Z	Z	Z	Z	X
C	0	0	0	0	0	X
C	0	0	0	0	1	X

…

Z	Z	Z	Z	Z	Z	X

Tab Separated File Specification

The following tables define the data output from the system in tab separated file format. The following primary information is disseminated in all services:

- ISSUER
- SECURITY
- MARKET

Exchange Traded Futures and Options Download File Specification

Appendix A provides a table of all Exchanges covered by the Derivatives product.

The ET Futures and Options Downloads files will cover the following security types:

CM = Call Options,
CN = Put Options,
DD = Financial Futures
DM = Commodity Futures
FF = Inverse Futures
FG = Vanilla Futures
CP = Contract For Difference
DE = Swaps

The format will be exactly the same as those for the standard SEDOL Data Downloads outlined in the SEDOL Masterfile Specification. The fields that will commonly be populated for derivatives have been highlighted with an asterix * in the below tables:

**Please see Download File Field Formats for definitions*

Field Name	Pos	Format *	Description
ActionIndicator*	1	CHAR (3)	Identifies the action which the customer intends
ClientReference	2	CHAR (8)	Optional field identifying this data row
IssuerID	3	INT[1]	Unique numerical internal identifier for issuer
IssuerName	4	VARCHAR (500)	The issuing party legal entity name which has to be the exact name as held on SEDOL Masterfile
AlternateIssuerName	5	VARCHAR (500)	An alternate name for the same legal entity
CountryOfIncorporation	6	CHAR (2)	ISO 3166 Country Codes in which the issuer is incorporated
SEDOLCode	7	CHAR (7)	Security Identification Code
SecurityDescription	8	VARCHAR (500)	Unique description of this instrument for this issuer

ShortDescription	9	VARCHAR (18)	Abbreviated description includes our Issuer Short
ISINCode	10	VARCHAR (12)	ISO 6166 (ISIN) International Securities Identification Number
ClosingDate	11	DATE	The expiry/maturity date of the instrument (DD-MM-YYYY)
ClosingDateType	12	CHAR (3)	The type of Closing date – either EXP or MAT
SecurityForm	13	CHAR (1)	Indicates the form a security takes e.g. A = Bearer
SecurityType	14	CHAR (2)	The type of tradable instrument e.g. AA = Ordinary
AmntOfTransfer1	15	DEC (18,5)	Applicable to debt securities. This relates to the face value of the security the specified denomination amount.
AmntOfTransfer2	16	DEC (18,5)	Applicable to debt securities. This relates to the face value of the security the specified denomination amount.
AmntOfTransfer3	17	DEC (18,5)	Applicable to debt securities. This relates to the face value of the security the specified denomination amount.
AmntOfTransfer4	18	DEC (18,5)	Applicable to debt securities. This relates to the face value of the security the specified denomination amount.
CouponInterestRate	19	DEC (11,10)	The interest rate applicable to that instrument when in coupon form (1000000000.00000000)

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ParValue	20	DEC (18,8)	The nominal value of the stock (1000000000.00000000)
ParValueCurrency	21	CHAR (3)	ISO 4217 Currency Code in which the Par Value is shown

**Please see [Download File Field Formats] for definitions*

Field Name	Pos	Format*	Description
UnderlyingIssuer	22	VARCHAR (500)	Name of the underlying Issuer
UnderlyingISIN (Previously UnderlyingInstrument)	23	CHAR (12)	ISIN code of the underlying instrument
Restrictions	24	VARCHAR (10)	Code indicating any special regulations surrounding stock trade.
StrikePrice	25	DEC (18,17)	Price for which an underlying stock can be purchased or sold (1000000000.00000000)
StrikePriceCurrency	26	CHAR (3)	ISO 4217 Currency Code in which the Strike Price is shown
CFICode	27	VARCHAR (6)	ISO 10962:2001 (CFI) Classification of financial instruments, (mandatory for GB, JE, GG & IM ISINs) code used to reflect security characteristics
CountryOfRegister	28	CHAR (2)	ISO 3166 Country Code in which the share register is maintained
Domestic Listing Indicator	29	TRUE or FALSE	Denotes whether an OPOL is the primary listing for a security. (TRUE or FALSE)
SecurityStatus	30	CHAR(1)	Indicates if the instrument is actually trading (T) , prepared for trading (C), Inactive (D)
OfficialPlaceOfListing	31	VARCHAR (4)	ISO 10383 (MIC) Market Identification Code for the market on which the instrument is officially listed, or in the absence of listing place of trade.
UnitOfQuotationCurrency	32	CHAR (3)	ISO 4217 Currency Code in which the Unit of Quotation is shown
MIC	33	VARCHAR (4)	ISO 10383 (MIC) Market Identification Code for the place in which the instrument is officially listed or traded

ActivationDate	36	DATE[2]	The Activation date of the instrument – i.e., the date is will become Tradable (DD-MM-YYYY)
ExchangeSymbol	37	VARCHAR (50)	International ticker/exchange/trading code
LocalCode	38	VARCHAR(50)	Local trading code
CFICode2015	39	VARCHAR (6)	ISO CFI Code (10962: 2015 version)
Tranche	40	VARCHAR(12)	Debt / Equities / Other
Series	41	VARCHAR(12)	Debt / Equities / Other
Class	42	VARCHAR(12)	Debt / Equities / Other
Tenor	43	VARCHAR(12)	Only applicable to Cross Rates
BondSeniority	44	VARCHAR(12)	Senior / Mezzanine / Subordinated / Junior Debt
OptnExSty	45	VARCHAR(12)	Option Exercise Style - American / European / Bermundan / Asian / Other
GreenBondIndicator	46	TRUE or FALSE	
FISN	47	VARCHAR(35)	ISO 18774 Financial Issuer Short Name

Derivative Feed Technical Specification

Column Headings

The headings below will be present in the first row of the template which will be available to download from the website. *DATE - The date format which is accepted within a Bulk Upload template is DD-MM-YYYY or DD/MM/YYYY*

Column Heading	**Pos**
ActionIndicator	1
ClientReference	2
IssuerID	3
IssuerName	4
AlternateIssuerName	5
CountryOfIncorporation	6
SEDOLCode	7
SecurityDescription	8
ShortDescription	9
ISINCode	10
ClosingDate	11
ClosingDateType	12
SecurityForm	13
SecurityType	14
AmntOfTransfer1	15
AmntOfTransfer2	16
AmntOfTransfer3	17
AmntOfTransfer4	18
CouponInterestRate	19
ParValue	20
ParValueCurrency	21
UnderlyingIssuer	22
UnderlyingISIN	23
Restrictions	24
StrikePrice	25
StrikePriceCurrency	26
CFICode	27
CountryOfRegister	28
Domestic Listing Indicator	29
SecurityStatus	30
OfficialPlaceOfListing	31
UnitOfQuotationCurrency	32
MIC	33
ActivationDate	34
ExchangeSymbol	35
LocalCode	36
CFICode2015	37
Tranche	38
Series	39
Class	40
Tenor	41
BondSeniority	42
OptnExSty	43
GreenBondIndicator	44
FISN	45

Mandatory & Optional Fields

There are a number of mandatory fields that must be populated for certain security types, in addition to some optional fields. Once the relevant Security Sub Group and Security type are selected the system will give an indication of which fields are required and if you hover over the field itself it will indicate whether it is mandatory or not. The Long and Short descriptions will, in a number of scenarios, be system generated however, where data is manually entered into these fields it will supersede the standard descriptions.

Further details on mandatory data fields please visit:

http://www.lseg.com/markets-products-and-services/post-trade-services/unavista/unavista-solutions/data-solutions/sedol/documentation

SEDOL Masterfile Reference Data Dictionary

Where possible SEDOL Masterfile supports industry standard ISO formats e.g. MIC Code, CFI Code, Currency Code and Date Information etc, alongside a number of Exchange predefined enumerated values. The user must use these values, where applicable to prevent a validation error.

Further details on our dictionaries please visit:

http://www.lseg.com/markets-products-and-services/post-trade-services/unavista/unavista-solutions/data-solutions/sedol/documentation

Additionally, registered users can access this information once logged into the web interface in the Reference Data folder.

8.6 Download File Formats - Introduction

Disseminated separated tab files are compressed into a single windows compatible, zip format, archive file.

Module 1: Core tables (Issuer, Security, Market)

The following tables define the data output from the system in tab separated file format. The following primary information is disseminated in all services:

– ISSUER
– SECURITY
– MARKET

8.7 Download File Specification

Data field descriptions including those which appear in the TAB separated download files detailed below.

***Please see** *Download File Field Formats* *for definitions*

ISSUER (ISS)		
Field Name	**Format***	**Notes**
ActionIdentifier	CHAR (1)	Exchange Defined Action
LastActionTimestamp	DATETIME	ISO Date Time (8601)
IssuerID	INT	Unique Internal Identifier of the Issuer
IssuerName	VARCHAR (500)	
AlternateIssuerName	VARCHAR (500)	
CountryOfIncorporation	CHAR (2)	ISO Country Code (3166)
ICB Industry	CHAR (4)	FTSE ICB Industry Code
ICB Supersector	CHAR (4)	FTSE ICB Supersector Code
Previous Issuer *(Previously EmptyField1)*	**VARCHAR(500)**	**Previous Issuer Name**
Subsequent Issuer *(Previously EmptyField2)*	**VARCHAR(500)**	**Subsequent Issuer Name following a Corporate Action**
IssuerComment	VARCHAR (300)	
IssuerStatus	CHAR (1)	Exchange Defined Status
IssuerConfirmation	CHAR (1)	Exchange Defined Confirmation
LEI (Previously CorporateActionID)	**CHAR (20)**	**ISO 17442**

CreateDate (Previously CorporateActionType)	**DATETIME**	**ISO Date Time (8601)**
EmptyField1		**Placeholder for Future Enhancements**

SECURITY (SEC)		
Field Name	**Format***	**Notes**
ActionIdentifier	CHAR (1)	Exchange Defined Action
LastActionTimestamp	DATETIME	ISO Date Time (8601)
SecurityID	INT	Unique Internal Identifier of the Security
PrevSEDOLCode	CHAR (7)	
IssuerID	INT	Unique Internal Identifier of the Issuer
SEDOLCode	CHAR (7)	
ISINCode	VARCHAR (12)	ISO ISIN Code (6166)
CountryOfRegister	CHAR (2)	ISO Country Code (3166)
CouponInterestRate	DEC (11,10)	
ParValue	DEC (18,8)	
ParValueCurrency	CHAR (3)	ISO Currency Code (4217)
UnderlyingISIN (Previously UnderlyingInstrument).	CHAR (12)	
UnderlyingIssuer	VARCHAR (500)	
StrikePrice	DEC (18,17)	
StrikePriceCurrency	CHAR (3)	ISO Currency Code (4217)
SecurityForm	CHAR (1)	Exchange Defined Form
SecurityType	CHAR (2)	Exchange Defined Type
AmntOfTransfer1	DEC (18,5)	
AmntOfTransfer2	DEC (18,5)	
AmntOfTransfer3	DEC (18,5)	
AmntOfTransfer4	DEC (18,5)	
UnitOfQuotation	DEC (18,8)	
UnitOfQuotationCurrency	CHAR (3)	ISO Currency Code (4217)
CFICode	CHAR (6)	ISO CFI Code (10962 – 2011 version)
ClosingDate	DATE	

ClosingDateType	VARCHAR (8)	Exchange Defined Type – '**EXP**iry' or '**MAT**urity'
Restrictions	VARCHAR (10)	
OfficialPlaceOfListing	VARCHAR (4)	
Domestic Listing Indicator (Previously named Primary listing)	BIT	'1' or '0'
ActivationDate (Previously Information Source)	DATE	
SecurityDescription	VARCHAR (500)	
ShortDescription	VARCHAR (18)	
SecurityBackground	VARCHAR (100)	
GREEN Bond Indicator (Previously TypeOfAccrual)	TRUE or FALSE	
CFI Code 2015 (Previously Assented Flag)	VARCHAR (6)	ISO CFI Code (10962: 2015 version)
SecurityEvent	CHAR (2)	Exchange Defined Status
SecurityEventTimestamp	DATETIME	ISO Date Time (8601)
SecurityStatus	CHAR (1)	Exchange Defined Status
SecurityConfirmation	CHAR (1)	Exchange Defined Confirmation
FISN (Previously *CorporateActionID)*	**VARCHAR(35)**	**ISO 18774 Financial Issuer Short Name**
CreateDate (Previously CorporateActionType)	**DATETIME**	**ISO Date Time (8601)**
SecurityGroup (Previously AlternativeInstrumentIdentifier)	**CHAR (1)**	
SecuritySubGroup	**VARCHAR (30)**	
Class	**VARCHAR (12)**	
Series	**VARCHAR (12)**	**Equities/Debt/Other**
Tranche	**VARCHAR (12)**	**Equities/Debt/Other**
LocalCode	**VARCHAR(50)**	**Local trading code**
FutureUpdate	**DATETIME**	**ISO Date Time (8601)**
LEI	**CHAR (20)**	**ISO 17442**

CountryOfOPOL	**CHAR (2)**	
NewISIN	**VARCHAR (12)**	**Subsequent ISIN for this instrument**
OldISIN	**VARCHAR (12)**	**Previous ISIN for this instrument**
Call/Put	**CHAR (1)**	**Call or Put Indicator associated with the Security type - C for Call or P for Put**
EmptyField1		**Placeholder for Future Enhancements**

MARKET SECURITY (MKT)		
Field Name	**Format***	**Notes**
ActionIdentifier	CHAR (1)	Exchange Defined Action
LastActionTimestamp	DATETIME	ISO Date Time (8601)
MarketID	INT	Unique Internal Identifier of the Segment
SecurityID	INT	Unique Internal Identifier of the Security
MIC	VARCHAR (4)	ISO Market Information Code (10383)
TIDisplayMnemonic	VARCHAR (4)	
ExchangeSymbol	VARCHAR (50)	
MarketStatus	CHAR (1)	Exchange Defined Status
MarketConfirmation	CHAR (1)	Exchange Defined Confirmation
SecurityEvent	CHAR (2)	Exchange Defined Event Code
SecurityEventTimestamp	DATETIME	ISO Date Time (8601)
SecurityStatus	CHAR (1)	Exchange Defined Status
EmptyField1 (Previously CorporateActionID)		**Placeholder for Future Enhancements**
EmptyField2 (Previously CorporateActionType)		**Placeholder for Future Enhancements**
EmptyField3		**Placeholder for Future Enhancements**

Download File Field Formats

The following table details the field formats that are present in the download files:

Format	Description
INT	Integer. The maximum value that can be held by an integer is (2^32)/2 = 2147483647 (the divide by 2 is because it can be positive or negative and the -1 is because 0 is one of the possible values). This gives 10 digits plus another one for the sign (e.g. -2147483647) which makes 11 characters.
VARCHAR (X)	Values in VARCHAR columns are variable-length strings. In contrast to CHAR, VARCHAR values are stored using only as many characters as are needed. Values are not padded; instead, trailing spaces are removed when values are stored.
DATE	The date format which is accepted within a Bulk Upload template is DD-MM-YYYY – UK Format
DEC (x,y)	Maximum y decimal places with (x-y) preceding digits. Total numeric characters DEC (18,17) = 18, up to 17 can proceed the decimal point.(In database terms field is set to DEC (35,17). Examples: 12345.6789012345678 1.23456789012345678 12345678901234567.8
DATETIME	YYYY-MM-DDTHH:MM:SS.SSSZ
CHAR (X)	The length of a CHAR column is fixed to a specified length (X). When CHAR values are stored, they are right-padded with spaces to the specified length (X).
BIT	Binary digit - Either of the two numbers (1 and 0)

Header and Trailer Records for Tab Delimited Download Files

Each uncompressed tab delimited file will contain 1 header and 1 trailer record to enable recovery, verification and identification.

Header Record

Field	Type	Description	Example
Header record version	char (3)	Identifies the version of the header record	H11
Timestamp	timestamp	start date time and end date time of range of changes covered by the file	YYYYMMDDHHMMSSYYYYMMDDHHMMSS

Entity Abbreviation	char (3)	<filetype> as used in the filename	ISSUER = "ISS"; SECURITY = "SEC"; MARKETSECURITY = "MKT";

Example

```
H11YYYYMMDDHHMMSSYYYYMMDDHHMMSSXXX
H01196901010000002003123000000DIS
```

Trailer Record

Field	Type	Description	Example
Trailer record version	char (3)	Identifies the version of the trailer record	T11
Record count	int	Checksum for the number of data records in file (i.e. excluding header and trailer records) leading zero padded to 10 characters.	0000007865

Example

```
T010000000003
```

9.0 ISO15022MT 564 Corporate Action Messaging via SWIFT

The Exchange disseminates ISO15022 MT564 corporate action messages via the SWIFT Network or via flat file FTP. For more information regarding this service please email Sedol@lseg.com.

10.0 Appendix A – Field Description & Glossary

This table is provided as a reference to fields held within the SEDOL Masterfile™ system.

For details of the fields and the positions in which they appear in the TAB downloads, see the following sections of this document.

TAB SEPERATED FILE DEFINITION (Downloads)

Field Name	Description
ActionIdentifier	Identifies Updates (U), Inserts (I), Deletions (D) = Inactive
ActivationDate	SEDOL Activation Date
AlternateIssuerName	An alternate name for the issuing entity
AmntOfTransfer1	Applicable to debt securities. This relates to the face value of the security the specified denomination amount.
AmntOfTransfer2	As above – second amount
AmntOfTransfer3	As above – third amount
AmntOfTransfer4	As above – fourth amount
Call/Put	Call (C) or Put (P) Indicator associated with the Security type.
CFICode	ISO10962 2011 - Classification of financial instruments, ISO standard code used to reflect characteristics of the security –
CFI Code 2015	ISO10962:2015
ClosingDate	The date of expiry or maturity of the instrument
ClosingDateType	The type of date e.g. expiry or maturity
CountryOfIncorporation	The country in which the issuer is incorporated/legally registered
CountryOfRegister	The country in which the share register is maintained. ISO 3166 - Country Code
CouponInterestRate	The instrument rate applicable to that instrument when in coupon form
Domestic Listing Indicator	Indicates the home (domestic) quote SEDOL.
Exchange Symbol	International ticker/exchange/trading code
FISN	ISO 18774 - Financial Instrument Short Name

Field Name	Description
Green Bond Indicator	Green bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance in part or in full new and/or existing eligible Green Projects and which are aligned with the four core components of the Green Bond Principles. The key feature of green bonds is the use of proceeds, which are described in the bond's legal documentation, separately managed within the company, as well as monitored and reported throughout the life of the instrument.
ICB Industry	ICB "Industry" identifier code
ICB Supersector	ICB "Supersector" identifier code
ISIN	International Securities Identification Number - ISO 6166
IssuerComment	Supplementary Comments
IssuerConfirmation	Indicates if the Issuer details is **C**onfirmed or in **P**rovisional status.
IssuerID	Unique Internal Identifier of the Issuer
IssuerName	The legal entity name of the issuing Entity
IssuerStatus	Indicates if the issuer is active or inactive
LastActionTimestamp	Time of last change on this record
MarketConfirmation	Indicates if the market details is **C**onfirmed or in **P**rovisional status.
MarketID	Unique Internal Identifier at a Segment level
MarketStatus	Indicates if the security is active or inactive
MIC	Segment MIC as per ISO10383: Market Identification Code for the market/venue on which this instrument is traded
NewISIN	Subsequent New ISIN for this instrument
OfficialPlaceOfListing	"OPOL" The market on which the instrument is officially listed. ISO 10383 Market Identification Code (MIC)
OldISIN	Previous ISIN for this instrument.
ParValue	The nominal value of the share e.g. 100 pence or NPV for Nil Par Value
ParValueCurrency	ISO 4217 - currency code for the par value
Restrictions	Code indicating any special regulations surrounding stock trade.
SecurityBackground	Details, if available, on the background of this security

Field Name	Description
SecurityConfirmation	Indicates if the instrument details is **C**onfirmed or in **P**rovisional status.
SecurityDescription	Unique Summary description of the instrument
SecurityEvent	Identifies the last event relevant to the security
SecurityEventTimestamp	Time stamp of the last event
SecurityForm	Indicates the form the security takes - Exchange defined data e.g Registered (A), Bearer (P)
SecurityID	Unique Internal Identifier for a security record
SecurityStatus	Indicates the activity status of the security – Exchange defined data Coded (C), Traded (T) or Defunct (D)
SecurityType	Indicates the type of tradable instrument e.g. Ordinary Equity
SEDOL	"Stock Exchange Daily Official List" - Security Identification Code, unique for an instrument listed in a particular country - Exchange defined data
ShortDescription	Abbreviated Issuer name & description
StrikePrice	The price at which the security can be exercised
StrikePriceCurrency	ISO 4217 - currency code in which the strike price is shown
TIDisplayMnemonic	Display Mnemonic for this security, only applicable to the London Market - Exchange defined data
UnderlyingISIN/ UnderlyingInstrument	ISIN Code of the underlying instrument
UnderlyingIssuer	Name of the underlying issuing party
UnitOfQuotation	Shows the number of shares/stocks that the price represents Value = (Unit of Quotation/100)*Price
UnitOfQuotationCurrency	ISO 4217 - Currency Code in which the Unit of Quotation is shown

11.0 Appendix B – Corporate Action Effects on SEDOLs

A Corporate Action will normally have the following effect on the underlying SEDOL of the affected security:

EVENT	DEFINITION	ACTION
Capital Reorganisation	Any type of reorganisation that increases or decreases the number of shares in issue.	A new SEDOL will be allocated if this results in an increase.
Capital Repayment	Distribution of cash by the company.	The existing SEDOL will be retained.
Change of country domicile	A company changes its country of incorporation.	The existing SEDOL will be retained.
Change of Security Form	Register to Bearer or vice versa.	The existing SEDOL will be retained.
Consolidation or reverse Stock Split	Reduction in the number of outstanding shares in a company.	A new SEDOL will be required as the number of shares in existence will have changed.
Depository Receipts		A new SEDOL will only be allocated if new certificates have been issued.
Interest Rate Change	Fixed interest security changes its interest rate.	The existing SEDOL will be retained.
Merger	Merger by absorption: One of the two companies incorporates the other(s) which legally disappear	SEDOL of shares of former companies must become inactive after a certain period.
	Merger by amalgamation: The two companies merge to form a new legal entity after a certain period.	Where two companies merge to form a new company a new SEDOL will be required.
Name Change	Company changes its name.	If the number of shares in existence remains unchanged the same

EVENT	DEFINITION	ACTION
		SEDOL will be retained.
Par Value Change	Change to the par value of a company where the number of shares in existence remains unchanged.	The existing SEDOL will be retained.
Redemptions, Bankruptcy, Liquidations	Security ceases to exist.	Will all result in the existing SEDOL becoming inactive.
Redenomination	The nominal amount of a security changes from one currency to another.	If a straight redenomination where the number of shares remains unchanged the same SEDOL will be retained.
Renominalisation	The nominal amount of a security changes from one currency to another together with a further corporate action.	Will result in a new SEDOL, as the number of shares in existence will have changed.
Subdivision / Stock Split	An increase in the number of outstanding shares of a company.	A new SEDOL will be required, as the number of shares in existence will have changed.

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