

## **T7 Release 5.0**

# **ISE T7 Instrument Reference Data Guide**

Version 1.0

Date 9<sup>th</sup> May 2017

**Abstract**

This document provides an overview about the instrument reference data for ISE T7 members.

**Keywords**

Xetra, T7, Reference Data Interface, Reference Data File, Common Report Engine

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## 1 List of Abbreviations, Acronyms and Definitions

Please find a list of all the abbreviations used in the document.

<b>CRE</b>	Common Report Engine
<b>CSV</b>	Comma-separated-values
<b>ETC</b>	Exchange Traded Commodities
<b>ETF</b>	Exchange Traded Funds
<b>ISE</b>	Irish Stock Exchange plc
<b>ISE T7</b>	The future electronic trading system of the ISE, to be introduced on 17 <sup>th</sup> July 2017
<b>MIC</b>	Market Identifier Code
<b>RDF</b>	Reference Data File
<b>RDI</b>	Reference Data Interface
<b>T7</b>	Trading System developed by Deutsche Börse Group
<b>Xetra (system)</b>	Existing Xetra trading system of Deutsche Börse
<b>Xetra (trading venue)</b>	Trading venue with Market Identifier Code "XETR" (Deutsche Börse)

## 2 Introduction

T7 for Cash Market offers instrument reference data on four different sources:

- **Common Report Engine:** On the Common Report Engine the Reference Data File (T7 RDF) is available containing all tradable instruments for the current business day. It is generated one time per day and its creation is on each Start-Of-Day. For more information, please refer to *T7 Market & Reference Data Interfaces* on the path

*Xetra.com/Technology/T7tradingarchitecture/Systemdocumentation/  
Market and Reference Data Interfaces*

Please find more details about the Common Report Engine in the document *Common Report Engine User Guide* in the following path

*Xetra.com/Technology/T7tradingarchitecture/Systemdocumentation/Reports/  
Common Report Engine User Guide*

- **Reference Data Interface (T7 RDI):** This interface provides products' and instruments' reference data which are available for trading on T7. For more information, please refer to *T7 Market & Reference Data Interfaces* on the path

*Xetra.com/Technology/T7tradingarchitecture/Systemdocumentation/  
Market and Reference Data Interfaces*

- Instrument reference data on public website: Instrument reference data (ascii file) will be available from 9<sup>th</sup> May 2017 on public website [xetra.com](http://xetra.com) on the following path:

Instruments > All tradable instruments

[www.deutsche-boerse.com/ISE-T7](http://www.deutsche-boerse.com/ISE-T7)

and also on the ISE's website, [www.ise.ie](http://www.ise.ie), in the 'Trading System' section on the following page:

[Equity-Trading-Membership](#)

### 3 Further reading

The following documents provide additional information to complement this manual:

- T7 Functional and Interface Overview
- T7 Functional Reference
- T7 Market Data & Reference Data Interfaces – Manual
- Common Report Engine User Guide

## 4 Public website

### 4.1 Formatting of the file

The file is created in accordance with the following specifications:

File extension	CSV
Fields delimiter	; (semicolon)
Decimal symbol	. (point)
Digit grouping symbols (thousands separator)	, (comma)

### 4.2 File Record Layout

All fields listed below are sorted in the same order as shown in the instrument file. All data is provided in string format (Alphanumeric) delimited by semicolon.

Line 1 provides the MIC of the market, e.g. Market: XMSM

Line 2 provides the date of the last update of the file, e.g. Date Last Update: 31.03.2017.

Line 3 provides the column names listed below.

The instrument reference data starts with line 4:

Sequence Number	Field name	Description
1	Market Segment Status	This field indicates whether the instrument is already tradable in T7. Published = Instrument is not tradable on T7 Active = Instrument is tradable on T7
2	Instrument Status	Instrument Status
3	Instrument	Instrument description
4	ISIN	ISIN of the instrument
5	Product ID	Relevant for ETFs which planned to be grouped along to same underlyings.
6	Instrument ID	Former "Isix": Instrument ID, unique identifier across the corresponding back end environment.
7	WKN	Wertpapierkennnummer
8	Mnemonic	Instrument mnemonic
9	MIC Code	MIC Code of the market
10	CCP eligible	Indicator whether instrument is CCP eligible.
11	Trading Model Type	Trading Model Types: Continuous Trading with Auctions for all ISE instruments One Auction Multiple Auction

Sequence Number	Field name	Description
12	Product Assignment Group	Product Assignment Group, e.g. ISE1.
13	Product Assignment Group Description	Description of the Product Assignment Group.
14	Designated Sponsor Member ID	DS Member ID. For more than one DS, Member IDs are separated with "#", the Member ID of the delegating member is separated with "*" at the end of the field.
15	Designated Sponsor	DS Member long name. For more than one DS, members' long names are separated with "#", the members' long name of the delegating member is separated with "*" at the end of the field.
16	Price Range Value	Maximum allowable quote spread (absolute value). Conditionally provided if Price Range Percentage is absent.
17	Price Range Percentage	Maximum allowable quote spread (percentage value). Conditionally provided if Price Range Value is absent.
18	Minimum Quote Size	Market Making Parameter: Minimum Quote Size.
19	Instrument Type	Instrument type, e.g. equity or ETF.
20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58	Tick Size (1-20)	A tick size represents a limit price/range step. Twenty different tick sizes are possible for an instrument.
21	Upper Price Limit Max	Maximum price for that instrument. Upper price limit max represents a limit range for which a tick size applies.
23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59	Upper Price Limit (2-20)	Upper Price Limit represents a limit range for which a tick size applies. There are a total of twenty possible for an instrument.
60	Number of Decimal Digits	Displayed decimals
61	Unit of Quotation	The unit in which an instrument is quoted/stated when buying or selling, e.g. shares (number of items).
62	Market Segment	This field indicates the type of Market Admission, e.g. Open Market, Regulated Market.



Sequence Number	Field name	Description
63	Market Segment Supplement	This field indicates the market segment supplement, e.g. XTF Exchange Traded Funds.
64	Clearing Location	Identifier for the location at which trades are cleared.
65	Primary Market MIC Code	Market Identifier Code (ISO 10383) of the "home market", where the first IPO took place.
66	Reporting Market	Market Identifier Code (ISO 10383) required for reporting to supervisory authority.
67	Settlement Period	This field indicates the number of business days from trade execution after which settlement is to be effected.
68	Settlement Currency	Currency used for settlement.
69	Closed Book Indicator	Indicates whether the Order book is closed during auction trading.
70	Market Imbalance Indicator	Controls if during auction call/volatility interruption/extended volatility interruption phase a surplus (side and volume) at the indicative price (if crossed order book) or the best bid/best ask limit and quantity (if uncrossed order book) is displayed to the market.
71	CUM/EX Indicator	CUM/EX Indicator: 'C' = Cum Capital Adjustment or Dividend: Last trading day before a Capital Adjustment or Dividend. Orders will be deleted for the next trading day. 'E' = Ex Capital Adjustment or Dividend: First trading day after Capital Adjustment or Dividend. Open orders have been deleted before start of day.
72	Minimum Iceberg Total Volume	Minimum Iceberg Total Volume
73	Minimum Iceberg Display Volume	Minimum Iceberg Display Volume (Peak)
74	EMDI Incremental A - Unnetted	Incremental address for EMDI Unnetted multicast stream A.
75	EMDI Incremental A – Unnetted Port	EMDI Port address A for EMDI Unnetted.
76	EMDI Incremental B – Unnetted	Incremental address for EMDI Unnetted multicast stream B.
77	EMDI Incremental B – Unnetted Port	Port address B for EMDI Unnetted.
78	EMDI Snapshot A – Unnetted	Snapshot address for EMDI Unnetted multicast stream A.
79	EMDI Snapshot A – Unnetted Port	EMDI Port address A for EMDI Unnetted.
80	EMDI Snapshot B – Unnetted	Snapshot address for EMDI Unnetted multicast stream B.
81	EMDI Snapshot B – Unnetted Port	EMDI Port address B for EMDI Unnetted.
82	EMDI Market Depth – Unnetted	Market depth for EMDI Unnetted.

Sequence Number	Field name	Description
83	EMDI Snapshot Recovery Time Interval - Unnetted	Recovery interval (duration of one cycle).
84	EMDI Address A - Netted	Incremental address for EMDI Netted multicast stream A.
85	EMDI Port A - Netted	Port address A for EMDI Netted.
86	EMDI Address B - Netted	Incremental address for EMDI Netted multicast stream B.
87	EMDI Port B - Netted	Port address B for EMDI Netted.
88	EMDI Market Depth – Netted	Market depth for EMDI Netted.
89	EMDI Market Depth Time Interval - Netted	Netting interval for low bandwidth feeds (0=no netting).
90	EMDI Recovery Time Interval - Netted	Recovery interval (duration of one cycle).
91	EOBI Incremental A	Address A for EOBI Incremental multicast stream (Order by Order).
92	EOBI Incremental Port A	Port address A for EOBI Incremental.
93	EOBI Incremental B	Address B for EOBI Incremental multicast stream.
94	EOBI Incremental Port B	Port address B for EOBI Incremental.
95	EOBI Snapshot A	Address A for EOBI Snapshot multicast stream.
96	EOBI Snapshot Port A	Port address A for EOBI Snapshot multicast stream.
97	EOBI Snapshot B	Address B for EOBI Snapshot multicast stream.
98	EOBI Snapshot Port B	Port address B for EOBI Snapshot multicast stream.

## 5 Static Files

In order to reduce the data sent via RDI and the size of the files on the CRE and the DB website [deutsche-boerse.com](http://deutsche-boerse.com), reference data that rarely change like order profiles or trading schedules will only be provided via static csv-files on the CRE and the DB website [deutsche-boerse.com](http://deutsche-boerse.com). Members have to process both files.

Major changes of the static files will be communicated in advance with sufficient lead-time. Other than the major changes, the files need to be processed whenever a new instrument is added to ISE T7.

The files contain order profiles (e.g. Limit Order allowed) and trading schedules assigned to each ISE T7 instrument as well as files for the descriptions of the Market Segment Supplement an instrument is assigned to.

Static files for ISE T7 instruments will be available on the DB Website (from 9<sup>th</sup> May) under the following path:

[www.deutsche-boerse.com/ISE-T7](http://www.deutsche-boerse.com/ISE-T7)

Furthermore, the static file will be available on the Common Report Engine as a zip file. The file name will follow the pattern:

<MIC\_EnvironmentNr>\_<Name>\_<ReportID>\_<MemberID>\_<BusinessDay>\_<MIC>.zip with:

MIC\_Environment number, i.e. 55 for production and 52 for simulation

Name: always FIL

ReportID: always RDF02

MemberID: always PUBLI

BusinessDay: format 'YYYYMMDD'

MIC: MIC Code of the market, e.g. XETR

Example:

55FILRDF02PUBLI20170328XETR.zip

### 5.1 Formatting of the Files

Each csv-file will follow basic format rules. Every data record will be in one line; fields separated by a delimiter – “;”.

1. If a field is empty because it is optional and has no value, only the delimiter will be written into the csv-file.
2. The first row in the csv-file contains the column headers.

The file name will follow the pattern <YYYYMMDD>\_<name>.csv.

All files will be provided in one zip file with name pattern:

<YYYYMMDD>\_<MIC\_EnvironmentNr>\_instrumentReferenceDataFiles.zip.

That means for all markets a separate zip file will be created.

Example:

20170317\_XETR\_55\_instrumentReferenceDataFiles.zip for the market ISE T7.

## 5.2 Order Profile

T7 categorizes orders according to Order Profiles. The ISE defines these order profiles and enables or disables them for individual products.

An additional table is provided that gives the assignment of order profiles, per product and instrument type (Order Profile Assignment Table).

The file name will have the pattern <YYYYMMDD>\_orderProfiles.csv.

Example:

20170317\_orderProfiles.csv

For additional information, please see the Order Profiles chapter of the Functional Reference document.

The order profile table includes the following attributes:

Field	Description
OrderProfileId	Id of the Order Profile.
Full Name	Name of the Order Profile, e.g. Limit.
Regular	Indicator, which defines whether the order type is a Regular Order (Limit + Market Order).
Stop	Indicator whether Stop Orders are allowed.
TSO	Indicates whether Trailing Stop Order is allowed.
OCO	Indicator whether One-Cancels-the-Other Order is allowed.
Limit	Indicates whether a limit order can be entered for the order profile.
Market	Indicates whether market order can be entered for the order profile.
OAO	Trading of the order is restricted to Opening Auction only.
AOO	Trading of the order is restricted to Auction only.
CAO	Trading of the order is restricted to Closing Auction only.
BOC	Execution restriction Book-or-cancel is allowed.
IOC	Execution restriction Immediate-or-cancel is allowed.
FOK	Execution restriction Fill-or-kill is allowed.
GFD	Validity of the order is Good-For-Day.
GTD/GTC	Validity of the order is Good-Till-Date.

The layout of the order profile will be as follows (example values):

OrderProfileId	Full Name	Regular	Stop	TSO	OCO	AOO	OAO	CAO	BOC	Limit	Market	IOC	FOK	GFD	GTD/GTC
10	Limit	Y	N	N	N	N	N	N	N	Y	N	Y	Y	Y	Y
11	Market	Y	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y
...	..	...	..	..											
...	..	..	..	..											

### 5.3 Order Profile Assignment

The following table lists the order profiles assigned to each instrument.

For additional information, please refer to the document "T7 Functional Reference"<sup>1</sup>. The file name will have the pattern <YYYYMMDD>\_orderProfileAssignment.csv.

The order profile assignments table includes the following fields:

Field	Description
Mnemonic	Mnemonic of the instrument.
ISIN	ISIN of the instrument.
InstrumentId	InstrumentId of the instrument.
OrderProfileId	Name of the Order Profile.

<sup>1</sup> Please refer to the Xetra website [xetra.com](http://xetra.com) under the following path: Technology / T7 trading architecture / T7 System documentation / Overview and Functionality

The layout of the order profile is as following (example values):

Mnemonic	ISIN	InstrumentID	OrderProfileID
DOY	IE0000020408	35245	10
DOY	IE0000020408	35245	11
.....			
PPB	IE00BWT6H894	45258	10
PPB	IE00BWT6H894	45258	11
.....			

## 5.4 Trading Schedules

This file lists the trading schedules defined for all ISE instruments. The reference to the instruments is possible via the identifier "standardSchedule".

The file name will be <YYYYMMDD>\_tradingSchedule.csv. The trading schedule file includes following fields:

Field	Description
standardSchedule	Name of the trading schedule.
event	Name of the event, e.g. Start Of Day.
time	Time of the event.

Only schedules for current business day (vs trading holiday) will be displayed.

The file for customers look like as follows (example values):

standardSchedule	Event	Time
SCHED_XDUB_CT1_FULL	Pre Trading	07:00:00
SCHED_XDUB_CT1_FULL	Opening Auction	08:50:00
SCHED_XDUB_CT1_FULL	Closing Auction	17:28:00

## 5.5 Trading Schedule Assignment

The file Trading Schedule Assignment lists for all ISE instruments the assigned trading schedule the instrument is following.

The file name has the pattern <YYYYMMDD>\_tradingScheduleAssignment.csv. The file includes the fields as below:

Field	Description
InstrumentId	InstrumentId of an instrument.
standardSchedule	Name of the trading schedule.

The standardSchedule denotes the schedule that is valid for the instrument's current Business day. The layout of the file is as follows:

InstrumentId	standardSchedule
35245	SCHED_XDUB_CT1_FULL
45258	SCHED_XDUB_CT1_FULL
....	
....	

## 5.6 Market Segment and Market Segment Supplement

This file lists the Identifiers for the Market Segments and the Market Segment Supplements in order to provide the descriptions for them. The file contains all Market Segments and Market Segment Supplements of the market XDUB.

The file name has the pattern <YYYYMMDD>\_marketSegment.csv.

The file includes the following fields:

Field	Description
Content type	Market Segment or Market Segment Supplement.
Identifier	Identifier of the Market Segment and Market Segment Supplement.
Description	Name of the Market Segment and Market Segment Supplement.

The layout of the file is as follows:

Content type	Identifier	Description
Market Segment	45	Regulated Market – Prime Standard
Market Segment	46	Regulated Market – General Standard
....	....	....
Market Segment Supplement	IE	Equities
Market Segment Supplement	IEA	Exchange Traded Funds (ETFs)
....	....	....



## 6 Approach during Migration Phase

With Release 5.0, the ISE will migrate the order book to the T7 environment. The Off Order Book trade reporting facility will remain on ISE Xetra for a period of months and will be migrated to a new MiFID II compliant trade reporting system, 'ISE OBOE', on 4<sup>th</sup> December 2017.

Therefore from 17<sup>th</sup> July 2017 order book trading in ISE equities and ETFs will take place on the ISE T7 order book, while Off Order Book trade reporting in those securities will remain on ISE Xetra until migrated to the new trade reporting system.

To enable as smooth a transition as possible, all data necessary to enable order book trading will be migrated from the ISE Xetra system to ISE T7 in advance. ISE instrument reference data will be migrated on 10<sup>th</sup> July 2017. Therefore as of this date, all ISE Xetra instruments will be available in both the reference data of ISE T7 and also the trading system ISE Xetra. On ISE T7 these instruments can be identified in the T7 reference data interfaces RDF, RDI and the ASCII file. For member firms, there will be no change in the trading behaviour of those instruments on the system.

Product Assignment Groups in T7 will replace the concept of instrument groups in the trading system Xetra for the purpose of trader assignment. Each instrument group available at the time of the migration in ISE Xetra will be reflected by one Product Assignment Group with the same name and instrument content.