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Document type or subject

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PREFACE

PURPOSE

The purpose of this document is to describe all the files required for Trading on Optiq platform.

TARGET AUDIENCE

This document should be read by Euronext's clients developing tools for retrieving and processing Market Data files.

SCOPE

The scope of this document is listed below (\checkmark In scope, * Out of scope):

| Optiq Segment | Segment Value | In/Out of Scope | | | | | | | |
|--|------------------|-----------------|--|--|--|--|--|--|--|
| Euronext Cash Market | | | | | | | | | |
| Equities EQ | 1 | 4 | | | | | | | |
| Funds FND | 2 | ✓ | | | | | | | |
| Fixed Income FXI | 3 | ✓ | | | | | | | |
| Warrants and Certificates SP | 4 | ✓ | | | | | | | |
| Block BLK | 14 | ✓ | | | | | | | |
| Forex FOREX | 15 | ✓ | | | | | | | |
| Irish Bonds and Funds BF | 16 | ✓ | | | | | | | |
| Euronext Derivati | ves Market | | | | | | | | |
| Commodity Derivatives CMO | 8 | * | | | | | | | |
| Index Derivatives IDD | 11 | 4 | | | | | | | |
| Equity Derivatives EQD | 12 | ✓ | | | | | | | |
| Euronext In | dices | | | | | | | | |
| Indices Indices | 9 | ✓ | | | | | | | |
| Euronext Approved Publication Arrangement (APA) Facility | | | | | | | | | |
| Trade Reporting and Publication TRP | 10 | ✓ | | | | | | | |
| Other Markets | | | | | | | | | |
| Luxembourg Stock Exchange BDL | 5 | ✓ | | | | | | | |

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WHAT'S NEW?

The following lists only the most recent modification made to this revision/version. For the Document History table, see the Appendix.

| VERSION NO. | CHANGE DESCRIPTION |
|--------------------|--|
| VERSION NO. 5.23.0 | The following changes have been made to this version of the document: ■ In CashStandingDataFile (9007): - Field added: MinimumSettlementAmount ■ In Field Description: - Value added for field DepositaryList: '00012' (Euronext Securities Milan ex-Monte Titoli) - Value added for field MainDepositary: '00012' (Euronext Securities Milan ex-Monte Titoli) - Values added for field MDGSetOfChannelsID: "40" (Fixed Income Italy MOT/ExtraMOT), "41" (Warrants & Certificates Italy SEDEX), "42" (Fixed Income ETLX Bond-X), "43" (Warrants & Certificates ETLX Cert-X), "44" (Equities ETLX) - Value added for field PatternType: "3" (Continuous Late) - Values added for field SettlementSystem: '10' (Other Settlement System), '11' (Euroclear Bank), '12' (Euronext Securities Oslo) - Value added for field MIC: 'SEDX' (ELECTRONIC SECURITISED DERIVATIVES MARKET |
| | (SEDEX)) - Field added: MinimumSettlementAmount Inclusion of LP OBLIGATIONS file in CFTS, Referential Data Service, file description and field definition |

ASSOCIATED DOCUMENTS

The following lists the associated documents, which either should be read in conjunction with this document or which provide other relevant information for the user:

- Optiq OEG SBE Messages Interface Specification Euronext Cash and Derivatives Markets
- Optiq OEG FIX 5.0 Messages Interface Specification Euronext Cash and Derivatives Markets
- Optiq OEG MDG Kinematics Specification Euronext Cash Markets
- Optiq OEG MDG Kinematics Specification Euronext Derivatives Markets
- Optiq OEG TCS Error List Technical Specification Euronext Cash and Derivatives Markets (.csv)
- Optiq MDG Messages Interface Specification Euronext Cash and Derivatives Markets
- Optiq Technical Note SBE
- Optiq OEG Connectivity Specifications Euronext Markets
- Common File Transfer System User Guide Euronext Cash and Derivatives Markets

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1. EURONEXT OPTIQ MARKET DATA GATEWAY SOLUTION

1.1 INTRODUCTION

This document details the Referential Data Service for Euronext, to be used in conjunction with the Optiq MDG and OEG messages specifications.

The service provides full referential data for the Euronext markets, as well as feed configurations, key trading information and MDG and OEG SBE templates. Users of the Euronext market data feed should use the service to:

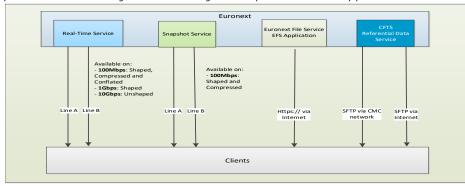
- Configure feed connections,
- Obtain the referential data, configuration and setup parameters, that are published on a daily basis

The APA/ARM sections of this document comply with the UK DRSP regulatory framework governance.

1.2 ACCESS TO SERVICES

Access to Euronext File Services (EFS) in EUA and Production is only available through the Internet using the HTTPS protocol.

Common File Transfer System (CFTS) access for EUA is available through the Euronext Colocation/CMC private network and through the internet using the SFTP protocol with SSH key pair authentication.



Access to EFS and CFTS for EUA and Production environments will only be granted to customers that have at least one of the agreements in place with Euronext as defined in Optiq Euronext File Services User Guide and Euronext Common File Transfer User Guide.

Clients have read only access that allows them to download files, but not to upload or modify them.

The details of the HTTPS connectivity can be found in Euronext File Service User Guide. The Common File Transfer System User Guide provides the details of SFTP connectivity.

Below is the description of the folder structure that contains files provided on EFS for 5 rolling trading days. The Common File Transfer System User Guide provides the description of the CFTS folder structure and files contained within each folder.

| Folder | Description |
|---------------------------|---|
| OptiqMDG | Root folder, which identifies that all the following folders and files are used for Optiq |
| ^L Environment | Defines if this is in "Production", "v-EUA" or "p-EUA" |
| ^L Current | For the current day file. |
| ^L OptiqSegment | Defines the segment on Optiq |
| ^L Current | For the current day file. |

Latest files are stored in the folder "Current" located either within the Environment or individual OptiqSegment folders.

Files available under the Environment folder are:

- CashTickSizeReferentialFile¹
- ♦ Euronext RLP Universe²
- ♦ MBR_FAMINSTR²
- ♦ <u>LP_OBLIGATIONS</u>²

Files available in the individual OptiqSegment folder, as needed, are:

- ♦ SBE Templates (for OEG and MDG)
- CashStandingDataFile
- CashTickSizeReferentialFile
- AuthorizedPriceFluctuationFile
- DerivativesStandingDataFile
- DerivativesTickSizeFile
- ◆ OpenInterestFile
- ReferenceSpreadsFile
- PrevDayCapAndVolTradeFile
- ♦ TimetableFile
- RepoSettlementPriceFile
- ♦ TRF Conversion Parameters File

The files are needed / made available for individual segments as follows:

| Files | | Optiq Segment | | | | | | | | | | |
|--------------------------------|----------|---------------|----------|----------|-----|----------|-------------|-----|----------|-----|-------|----------|
| | EQ | FND | FXI | SP | EQD | IDD | СМО | BLK | Indices | IBF | Forex | TRP |
| SBETemplates (for MDG and OEG) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | √ |
| CashStandingDataFile | ✓ | ✓ | ✓ | ✓ | - | - | - | ✓ | ✓ | - | ~ | - |
| CashTickSizeReferentialFile | ı | - | ı | ı | ✓ | ✓ | > | - | - | - | - | 1 |

 $^{^1}$ The CashTickSizeReferentialFile is currently provided under (1) Environment and (2) individual OptiqSegment folders for Derivatives $\,$

 $^{^2}$ Euronext RLP Universe, and MBR_FAMINSTR and LP Obiligations files will be available through CFTS Referential Data Service only and are sourced from Euronext IDSCash database

| Files | | Optiq Segment | | | | | | | | | | |
|--------------------------------|----|---------------|-----|----|-----|----------|-----|-----|---------|-----|-------|-----|
| | EQ | FND | FXI | SP | EQD | IDD | СМО | BLK | Indices | IBF | Forex | TRP |
| AuthorizedPriceFluctuationFile | ✓ | ✓ | ✓ | ✓ | - | - | - | ✓ | - | - | - | - |
| DerivativesStandingDataFile | - | - | - | - | ✓ | ✓ | ✓ | - | - | - | - | - |
| DerivativesTickSizeFile | - | - | - | - | ✓ | ✓ | ✓ | - | - | - | - | |
| OpenInterestFile | - | - | - | - | ✓ | ✓ | ✓ | - | - | - | - | |
| ReferenceSpreadsFile | - | - | - | - | ✓ | ✓ | ✓ | - | - | - | - | |
| PrevDayCapAndVolTradeFile | ✓ | ✓ | ✓ | ✓ | - | - | - | ✓ | - | - | - | - |
| TimetableFile | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | - | - | - | - |
| RepoSettlementPriceFile | ✓ | - | - | - | - | - | - | - | - | - | - | - |
| TRF Conversion Parameters File | 1 | - | - | - | - | ✓ | - | - | - | - | - | - |

1.3 FILE NAMING CONVENTION

The Optiq referential files are available on EFS and CFTS are populated from the same data sources. Files are provided in different Optiq segment types:

- .1.1.1 Cross Optiq Segment Files, i.e. a single file generated for multiple Optiq Segments.
- .1.1.2 Individual Optiq Segment specific files generated / provided for each individual Optiq Segment on a daily basis

As a result, the file naming convention varies according to the type of file.

Cross Optiq Segment Files

These files are unique referential files, valid for all Optiq Segments. It is therefore not required to generate the same file for each Optiq Segment.

Cross Optiq Segment files have the following naming convention:

<OptiqGateway>_<Environment>_<FileName>_<ALL>_<Date>.xml

Where:

- .1.1.1 OptiqGateway is 'OptiqMDG', for MDG files or 'OptiqOEG', for OEG files
- .1.1.2 Environment and FileName are the same as defined in folder structure
- .1.1.3 OptiqSegment is always `ALL'
- .1.1.4 Date is the trading date for which the file is provided with format 'YYYYMMDD'

The files provided in this manner are:

- .1.1.5 CashTickSizeReferentialFile
- .1.1.6 Euronext RLP Universe²
- .1.1.7 MBR_FAMINSTR²

.1.1.7.1.1.8 LP_OBLIGATIONS²

Example of the Cash Tick Size Referential File generated in Production on the 1st of June 2022: OptiqMDG_Production_CashTickSizeReferentialFile_ALL_20220601.xml.

And it will be located in:

OptiqMDG

^L Production

^L Current

^L CashTickSizeReferentialFile

Files generated / provided for individual Optiq Segment

Files generated / provided for individual Optiq Segment on a daily basis have the following naming convention:

- $.1.1.1 \ \ \ OptiqGateway \ is \ \ \ \ \ \ \ \ MDG', for \ \ MDG \ files \ or \ \ \ \ \ \ OptiqOEG', for \ \ OEG \ files$
- .1.1.2 Environment and FileName are the same as defined in folder structure
- .1.1.3 OptiqSegment is one of the values of the available segments available on EFS
- .1.1.4 Date is the current trading date with format 'YYYYMMDD'

The files provided in this manner are:

- .1.1.5 SBETemplates (for MDG and OEG)
- .1.1.6 CashStandingDataFile
- .1.1.7 CashTickSizeReferentialFile
- .1.1.8 AuthorizedPriceFluctuationFile
- .1.1.9 DerivativesStandingDataFile
- .1.1.10 DerivativesTickSizeFile
- .1.1.11 OpenInterestFile
- .1.1.12 ReferenceSpreadsFile
- $. 1.1.13\, PrevDay Cap And Vol Trade File$
- .1.1.14 TimetableFile
- .1.1.15 RepoSettlementPriceFile
- .1.1.16 TRF Conversion Parameters File

Example of the Open Interest File generated in Production on $1^{\rm st}$ of June 2022, on the 'Commodities' Optiq Segment:

 $Optiq MDG_Production_OpenInterest_Commodities_20220601.xml$

1.4 SERVER AVAILABILITY

The server is available 24 hours a day, seven days a week.

1.5 FILE VERSION AVAILABILITY

The OEG and MDG SBE Template files are Backward and Forward compatible. The latest supported versions for each Optiq segment are available on the server. For more information on Backward and Forward compatibility of SBE, please refer to the OEG and MDG specifications documents, as well as the technical notes on SBE compatibility and the chosen approach for individual migration / projects.

For all other file types, in case of a new version of the file, customers will have to migrate to the new version of the file on the go-live date. Only the latest version of the file, applicable for the environment, is provided for the current trading day.

1.6 FUTURE USE

In preparation for various functionalities expected to be implemented in the future on Optiq a number of fields were added and flagged "For Future Use".

Details of functionalities flagged in the specifications as for 'Future Use' are provided for information purposes only, and may change significantly until such time as the finalised specifications for the relevant service are communicated to clients.

The effective use of fields will not be technically supported until the announced date for implementation of these functionalities.

Note: Fields and Values for future in the files structures are represented in *italic and in grey*.

2. FILE OVERVIEW

The aim of this section is to describe the fields types used in the reference data files. For full details of file format, values and use, please review to the OEG and MDG specifications documents.

2.1 FUNCTIONAL FORMAT FIELDS

| Functional Format | Description | | |
|---|--|--|--|
| Alphanumerical ID | String type identifying an element. | | |
| Amount | Signed numerical field representing an amount. | | |
| Bitmap | Array of bits, each bit specifying whether an optional value is present (set to "1") or not (set to "0") (in Little-Endian). | | |
| Boolean | Indicator having two possible values, either 'true - 1' or 'false - 0'. This value is set on the first bit of the byte (in Little-Endian). | | |
| Date | Date of an event. | | |
| Decimal Places | Number of decimals associated to a numerical field. | | |
| Enumerated Information having a delimited set of possible values. | | | |
| Epoch Time in Nanoseconds | UTC time in nanoseconds since 1970 January the 1st. | | |
| Integer Time in hhmmss | Time in an integer on 2 bytes expressed as hhmmss | | |
| Intraday Time in Seconds | UTC time in seconds since the beginning of the day. | | |
| Numerical | Generic numerical field. | | |
| Numerical ID | Numerical field identifying an element. | | |
| Price | Numerical field representing a price (either signed or not signed). | | |
| Quantity | Unsigned numerical field representing a quantity of elements (for example a number of shares). | | |
| Text | Text in UTF-8. | | |
| Timestamp | Time of an event. | | |

2.2 TECHNICAL FORMAT FIELDS

The following technical types are used:

- .1.1.17 All integers are numeric (signed/ unsigned specified in each field format description) using two's complement method.
- .1.1.18 Binary data are in Intel byte order (Little-Endian).
- .1.1.19 All "Alphanumerical ID" and "Text" fields are alphanumeric based on UTF-8.

| Technical Format | Description | | | | |
|-------------------------|--|--|--|--|--|
| character | Alphanumerical field containing only 1 character | | | | |
| signed integer 64 | 8 bytes signed numerical field | | | | |
| unsigned integer 8 | 1 byte unsigned numerical field | | | | |
| unsigned integer 16 | 2 bytes unsigned numerical field | | | | |
| unsigned integer 32 | 4 bytes unsigned numerical field | | | | |
| unsigned integer 64 | 8 bytes unsigned numerical field | | | | |
| XML date | Date displayed in YYYMMDD format | | | | |
| XML timeSec | Text formatted according to ISO 8601: hh:mm:ssZ where Z = UTC | | | | |
| XML timeNano | Text formatted according to ISO 8601: hh:mm:ss:mmm $\mu\mu\mu$ nnnZ where "mmm" indicate the milliseconds " $\mu\mu\mu$ " indicate the microseconds "nnn" indicate the nanoseconds $Z = UTC$ | | | | |
| XML text50 | Alphanumerical field which length is 50 characters | | | | |
| Decimals | Numerical field with "." as a separator | | | | |

2.3 DATE CONVENTION

Dates are defined in number of days since 1970 January the $1^{\rm st}$ (01/01/1970 is the day "0"). The file structure provides them in human readable format YYYYMMDD where

- .1.1.20 "YYYY" is the year
- .1.1.21 $^{\mbox{\scriptsize MM}''}$ is the month
- .1.1.22 "DD" is the day

2.4 TIME CONVENTION

In XML files, timestamps are provided in two (2) formats, based on ISO 8601: Time in seconds and time in nanoseconds.

- 18. Times in seconds: hh:mm:ssZ
 - Where:
- .0.0.0 hh is the hours
- .0.0.1 mm the minutes
- .0.0.2 $\,$ ss the seconds
- .0.0.3 Z stands for UTC time
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19. Times in nanoseconds: hh:mm:ss:mmmμμμnnnZ

Where:

.0.0.0 hh is the hours

.0.0.1 mm the minutes

.0.0.2 ss the seconds

.0.0.3 $\,$ mmm the milliseconds $\,$

.0.0.4 $\mu\mu\mu$ the microseconds

.0.0.5 nnn the nanoseconds

.0.0.6 Z stands for UTC time

2.5 FEED CONFIGURATION

The **CashStandingDataFile** (9007) and **DerivativesStandingDataFile** (9013) are provided on a daily basis per Optiq Segment. Every Instrument in the file has a repeating section called MDGSetOfChannels and this repeating section provides the *MDGSetOfChannelsID* and the *MDGSetOfChannelsName*. The ID is a unique number for the combination of Asset Class and Country Split.

| MDGSetC | OfChannels | | | | |
|-------------------|--------------------------|---------------------------------------|------------------------|-----|-------------------------|
| | MDGSetOfChannelsI D | Identifier of an MDG Set Of Channels. | unsigned integer 16 | 2 | From 0 to 65534 |
| | MDGSetOfChannelsN ame | Name of the MDG Set Of Channels. | string | 100 | (See field description) |
| /MDGSetOfChannels | | | | | |

Most instruments have only one repeating section, but instruments belonging to the Equities Optiq Segment for instance can have more than one repeating section :

- 1. ID=5 Equities France
- 2. ID=11 Best of Book (Retail Matching Facility)

At the end of the Standing Data file, two connectivity configuration sections are provided: SetOfChannels and LogicalAccessConnectivity.

For more information on the section LogicalAccessConnectivity please refer to the *Euronext Cash and Derivatives Markets – Optiq OEG Connectivity Aruba Datacentre – Technical Specification* document.

SetOfChannels provides the full feed configuration details for the Optiq Segment are made available. For each SetOfChannels, the ChannelType is provided for Real-Time and Snapshot channels, together with the available ChannelID's and ChannelSpeed.

| Set0 | fChannels | | | | |
|------|----------------------|---------------------------------------|------------------------|-----|-------------------------|
| | MDGSetOfChannelsID | Identifier of an MDG Set Of Channels. | unsigned integer 16 | 2 | From 0 to 65534 |
| | MDGSetOfChannelsName | Name of the MDG Set Of Channels. | string | 100 | (See field description) |
| | Channels | | | | |

| CF | nannelType | Defines the channel. | string | 4 | (See field |
|-----------|-------------------------|--|------------------------|----|---|
| <u>UI</u> | іаппен уре | Defines the chamiler. | string | 4 | description) |
| M in | ulticastDataRealT ne | | | | |
| | ChannelID | Identifies the channel. | unsigned integer 16 | 2 | From 0 to 65534 |
| | ChannelSpeed | Defines the Channel bandwidth. | string | 4 | 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel |
| | <u>PartitionID</u> | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | From 0 to 2^16-2 |
| | MulticastA | | | | |
| | SourceIPRange | Defines the primary and secondary IP range (IP v4). | string | 20 | (See field description) (See field description) |
| | DRSourceIPRa nge | Defines the Disaster Recovery IP address /25 range number (IP v4). | string | 20 | (See field description) |
| | MulticastGroup IP | Defines the IP number (IP v4). | string | 15 | (See field description) |
| | <u>PortNumber</u> | Defines the port number. | unsigned integer 16 | 2 | From 0 to 65534 |
| | /MulticastA | | | | |
| | MulticastB | | | | |
| | SourceIPRange | Defines the primary and secondary IP range (IP v4). | string | 20 | (See field description) |
| | DRSourceIPRa nge | Defines the Disaster Recovery IP address /25 range number (IP v4). | string | 20 | (See field description) |
| | MulticastGroup IP | Defines the IP number (IP v4). | string | 15 | (See field description) |
| | <u>PortNumber</u> | Defines the port number. | unsigned integer 16 | 2 | From 0 to 65534 |
| | /MulticastB | | | | |
| | MulticastDataReal me | | | | |
| | ulticastDataSnap iot | | | | |
| | ChannelID | Identifies the channel. | unsigned integer 16 | 2 | From 0 to 65534 |
| | ChannelSpeed | Defines the Channel bandwidth. | string | 4 | 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel |

| Pa | <u>rtitionID</u> | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | From 0 to 2^16-2 |
|------------|----------------------|--|------------------------|----|--|
| MulticastA | | | | | |
| | SourceIPRange | Defines the primary and secondary IP range (IP v4). | string | 20 | (See field description) |
| • | DRSourceIPRa nge | Defines the Disaster Recovery IP address /25 range number (IP v4). | string | 20 | (See field description) |
| | MulticastGroup IP | Defines the IP number (IP v4). | string | 15 | (See field description) |
| | PortNumber | Defines the port number. | unsigned integer 16 | 2 | From 0 to 65534 |
| /١ | 1ulticastA | | | | |
| М | ulticastB | | | | |
| | SourceIPRange | Defines the primary and secondary IP range (IP v4). | string | 20 | (See field description) (See field description) |
| | DRSourceIPRa nge | Defines the Disaster Recovery IP address /25 range number (IP v4). | string | 20 | (See field description) (See field description) |
| | MulticastGroup IP | Defines the IP number (IP v4). | string | 15 | (See field description) (See field description) |
| | PortNumber | Defines the port number. | unsigned integer 16 | 2 | From 0 to 65534 |
| /١ | 1ulticastB | | | | |
| Muli | ticastDataSna t | | | | |
| nne | els | | | | |
| nne | le | | | | |

2.6 DERIVATIVES PARAMETERS

DerivativesStandingDataFile (9013) are provided on a daily basis per Optiq Segment. Every contract in the file comes with a set of trading parameters that are provided in a dedicated substructure.

The trading parameters are provided to clients as non-mandatory referential data than can be used to build finer trading algorithms across Exchange Market Mechanisms. The Derivatives parameters, for each contract, are provided as follows:

| DerivativesParameters | | | | 0254 | Optional |
|-----------------------|---|------------|-----|----------------------------|----------|
| <u>EMM</u> | Defines the Exchange Market Mechanism applied on each platform. | Enumerated | 1 | (See field description) | Optional |
| <u>Param Name</u> | Name of a Contract parameter. | Enumerated | 1 | (See field description) | Optional |
| <u>Param Value</u> | Value of a Contract Parameter. | Text | 255 | | Optional |

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/Cl

| | Param Type Of Expression | Parameter Type Of Expression of Contract Parameter Name. | Enumerated | 1 | (See field description) | Optional |
|---|-----------------------------|--|------------|---|-------------------------|----------|
| ı | /DerivativesParameters | | | | | Optional |

- The Param Name field is an enumerated field. Repeated for each parameter for each EMM. It
 identifies for each record the parameter provided. Details of the parameter (description, use, unit)
 are provided in the field description.
 - .1 Example (for EMM RFC): 4 RFCMinimumQuantityForReactor: Quantity (Minimum quantity to submit for RFC as a reactor)
- The Param Type of expression is an enumerated field that provides the technical format of the parameter being given its unit provided in the description
 - .1 Example (for EMM RFC, and Param Name 4 above): 3 Absolute Value
 - Absolute Value indicates that the value is provided based on its unit according to Optiq standards. For this parameter, it is a Quantity, it will be thus expressed as a non-decimalized integer.
- The Param Type field is a string allowing to provide the value as indicated by the combination of the parameter unit provided in the parameter description and the Param type of expression. Providing the field in a string allows client to format it on their side according to their needs.

This method allows Euronext to provide all parameters, whether they are prices, quantities, bitmaps, Booleans, or time in a single framework, to be systematically interpreted by clients willing to use them in order to build flexible trading algorithms able to adapt to each contract through calibration via the Derivatives parameters.

2.7 PRICE, QUANTITY, RATIO AND AMOUNT DECIMALS

Some numerical fields are processed using another field for decimalization. Client have to link each field to the associated decimal field.

Name of the associated decimal field is always defined in the field description.

The decimalized value must be calculated according to the following formula:

Decimalized Value = $\frac{Integer}{10^{"Value in decimal field"}}$

<u>For example</u>, a Tick Factor Max Period as defined in the field description is to be calculated with Ratio / Multiplier Decimals. Value provided in the **DerivativesTickSizeFile** (9021) file is integer of 300, and the field *Ratio Decimals* is equal to 2.

Using these values the calculation is = $\frac{300 \, (\textit{Tick Factor Max Period field in the file})}{10^2 \, (\textit{Value in the Ratio Decimals field})}$

As a result, the value of Tick Factor Max Period has the value of 3 (meaning 3 months).

The same mechanism is used for:

- All quantities with "Quantity Decimals"
- All prices with "<u>Price Decimals</u>" (Where the field name is Price / Index Level Decimals)
- All amounts with "<u>Amount Decimals</u>"

3. FILE DESCRIPTION

3.1 SBE TEMPLATE FILES

SBE Template files aim to help decode SBE messages using an SBE decoder.

 Two (2) SBE Template files are available: one for OEG and one for MDG. These files are stored in each individual <OptiqSegment> folder.

SBE tools and documentation that can be used to generate (encode and decode) SBE messages are available on:

https://github.com/real-logic/simple-binary-encoding (refer to SBE Disclaimer in appendix)

This file structure is defined by SBE protocol and contains:

- .1 The list of all technical fields
- .2 SBE Headers structure
- .3 The list of all possible values for each Enumerated field
- .4 The list of all possible values for each Bitmap field
- .5 The structure of each message with the expected order of each fields

Clients must check the file every day to determine whether a new Schema Version is available.

Full and detailed message structures are specified in the **Euronext Cash and Derivatives Markets – Optiq MDG Message – Interface Specification**.

- File Availability: Available 24/7.
- Scope of contents: All Euronext segments and all SBE messages for Market Data and Order Entry.
 One file per Optiq Segment.

3.2 CASHSTANDINGDATAFILE (9007)

The CashStandingDataFile (9007) provides referential data for cash markets.

The file provides three structures per instrument breakdown, as per the following tree:

- CashStandingDataFile
 - StandingDataUnitary
 - Common Standing Data
 - MDGSetOfChannels
 - ETFDataFromMarketOfReference
 - FeedConfigurationFile
 - SetOfChannels
 - Channels
 - MulticastDataRealTime
 - MulticastA
 - MulticastA
 MulticastB
 - MulticastDataSnapshot
 - MulticastA
 - MulticastA
 - LogicalAccessConnectivity
 - Partition
- Repeated sections in the tree structure are displayed with a green border below, including their header.

Version Number: 5.23.0

XML Headers and Footers are displayed in a different colour than fields

- The first structure provides the standing data functionally needed for trading purpose.
 - .1 All operational referential data broadcasted on the feed at start of day via Optiq MDG Standing Data 1007 message is also available in this section.
 - .2 As an example, Timestamps on the feed are provided in number of ns since 1970 January the 1st. The file structure provides them in human readable format (YYYYMMDD).
- The second structure is dedicated to MD connectivity. It provides the physical addresses of channels on which data is disseminated for the given instrument, access to which depends on client authorization.
- The third structure provides connectivity information for all Cash Order Entry Gateways (OEG) of the concerned Optiq Segment and the associated Drop Copy (DC) gateways.
- File Availability: Available 24/7.
- Scope of contents: Cash instruments.
 - Note: For Forex segment, fields are by default filled-in (as they are mandatory) but no snapshot is provided through MDG. Standing Data is only available via EFS.
- Intraday updates: This file will be updated overnight.

| Field | Short Description | Format | Le | Values | Presence |
|--|---|----------------------|---------|-------------------------|-----------|
| | | | n | | |
| CashStandingDataFile | | | | | |
| StandingDataUnitary | | | | | |
| <u>Symbol Index</u> | Exchange identification code of the instrument/contract. | Numerical ID | 4 | 02^32-2 | Mandatory |
| <u>Optiq Segment</u> | An Optiq segment is a universe of instruments sharing common trading properties. | Enumerated | 1 | (See field description) | Mandatory |
| <u>Partition ID</u> | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |
| <u>Full Instrument</u> <u>Name</u> | Full Instrument Name. | Text | 10 2 | (See field description) | Optional |
| <u>Instrument Name</u> | Instrument Name | Text | 18 | (See field description) | Mandatory |
| Instrument Trading Code | Cash: Trading code is a 12- character string, the only instrument identifier that is unique in the feed in addition to the symbol index. | Alphanumerical ID | 15 | (See field description) | Optional |
| <u>Instrument Group</u> <u>Code</u> | Instrument Group / Class Identifier. | Alphanumerical ID | 2 | (See field description) | Mandatory |
| <u>ISIN Code</u> | Instrument ISIN following ISO 6166. | Alphanumerical ID | 12 | (See field description) | Mandatory |
| Price Decimals | Indicates the number of decimals for each Price / Index Level related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Mandatory |
| Quantity Decimals | Indicates the number of decimals for each Quantity related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |
| Amount Decimals | Indicates the number of decimals for each Amount related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|--|--|----------------------|---------|-------------------------|-----------|
| <u>Ratio Decimals</u> | Indicates the number of decimals for each Ratio / Multiplier related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Mandatory |
| <u>CFI</u> | Classification code of a financial instrument defined by the ISO-10962:2015 standard. | Text | 6 | (See field description) | Mandatory |
| <u>Instrument Event</u> <u>Date</u> | Date of the last instrument characteristic modification(s) except for some exceptions. | Date | 2 | 02^16-2 | Mandatory |
| Strike Price | The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant. | Price | 8 | From -2^63+1 to 2^63-1 | Optional |
| Dark Eligibility | Indicates the Eligibility to dark. 0 is not eligible, 1 is eligible. | Boolean | 1 | 02^8-2 | Optional |
| Dark LIS Threshold | Defines the minimum amount of an order to benefit from the LIS (Large In Scale) pre-transparency waiver (to be calculated with the Amount Decimals). | Amount | 8 | 02^64-2 | Optional |
| Dark Min Quantity | Defines the minimum quantity required for an order to be filled in the Dark liquidity. 0 indicates that no minimum amount is required. | Quantity | 4 | 02^32-2 | Optional |
| Date Of Last Trade | Date of the Last Price for the Instrument | Date | 2 | 02^16-2 | Optional |
| Depositary List | Identifies the possible main depository organizations (maximum four) for shares or fixed income. | Text | 20 | (See field description) | Optional |
| Main Depositary | Identifies the default (or main) depository organization of the instrument (between the possible 4 depositaries registered) used by priority for the settlement (for example: multi-listed instruments which have several depositories). | Alphanumerical ID | 5 | (See field description) | Optional |
| First Settlement Date | Represents the first possible settlement date for a given instrument. | Date | 2 | 02^16-2 | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|---|---|----------------------|---------|---|-----------|
| Guarantee Indicator | Indicates if the trade is guaranteed or not (for clearing purpose) | Enumerated | 1 | O This instrument is not guaranteed This instrument is guaranteed This instrument is not clearable This instrument is part of Cleared Borrowing and Lending Service (CBLM) and is guaranteed | Optional |
| <u>ICB</u> | Not relevant | Alphanumerical ID | 16 | (See field description) | Optional |
| Issuing Country | Issuing country. | Alphanumerical ID | 3 | (See field description) | Optional |
| Last Adjusted Closing Price | Last traded price of the previous trading day after application of the adjustment coefficient (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Optional |
| Lot Size | Not Used | Quantity | 8 | Not Used | Optional |
| <u>Maturity Date</u> | Maturity Date of the instrument (text formatted as YYYYMMDD). | Text | 8 | (See field description) | Optional |
| <u>Maximum Decimals</u> <u>In Quantity</u> | Maximum Decimals In Quantity was introduced for Euronext Fund Services Paris and indicates the maximum of relevant decimal number for trading. | Numerical | 1 | 02^8-2 | Optional |
| MIC | Identifies the market to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383. | Alphanumerical ID | 4 | (See field description) | Mandatory |
| MIC List | Identifies the Euronext markets on which an instrument is listed by its MIC (Market Identification Code). | Alphanumerical ID | 20 | (See field description) | Optional |
| Country Of Exchange | Country of exchange is the Country associated to the MIC following ISO 3166 Alpha-3. | Alphanumerical ID | 3 | (See field description) | Optional |
| <u>Mnemonic</u> | Mnemonic code of the instrument. This field is not populated for every instrument. | Alphanumerical ID | 5 | (See field description) | Optional |
| Underlying MIC | Identifies the market to which an instrument' underlying belongs by its MIC (Market Identification Code), according to ISO 10383. Refer to MIC field to have all the authorized values. | Alphanumerical ID | 4 | (See field description) | Optional |
| <u>Underlying ISIN</u> <u>Code</u> | Underlying ISIN. | Alphanumerical ID | 12 | (See field description) | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|----------------------------------|---|----------------------|---------|---|----------|
| Trading Currency | Code of the currency (ISO 4217-3A). | Alphanumerical ID | 3 | (See field description) | Optional |
| Currency Coefficient | When an actual price is displayed in a different 'price expression' than the official instrument trading currency, the Currency Coefficient represents the ratio 'price expression' divided by 'official currency' (To be calculated with Ratio / Multiplier Decimals). | Numerical ID | 4 | 02^32-2 | Optional |
| Trading Currency Indicator | Indicates whether the 'price expression' is in the Currency or in a ratio of this Currency. Use Currency Coefficient field to identify the ratio to apply. | Enumerated | 1 | O Change rate not applied to the traded price Change rate applied to the traded price | Optional |
| Strike Currency Indicator | Indicates whether the 'price expression' is in the Currency or in a ratio of this Currency. Use Currency Coefficient field to identify the ratio to apply. | Enumerated | 1 | O Change rate not applied to the strike price Change rate applied to the strike price | Optional |
| Number Instrument Circulating | For stocks: this is the total number of shares issued by the company. For Fix Income: this is the number of Fix Income still to be repaid. | Quantity | 8 | 02^64-2 | Optional |
| Par Value | Par Value (also called Nominal value) for Instrument. For Fixed Income it represents the par amount to be repaid at maturity (not including interest revenue) (to be calculated with the Amount Decimals). | Amount | 8 | 02^64-2 | Optional |
| Quantity Notation | Indication of the type of measurement (e.g. number of units, nominal, monetary value, etc.) in which the transaction is expressed. | Text | 3 | (See field description) | Optional |
| Inst Unit Exp | Not Used | Text | 3 | Not Used | Optional |
| Settlement Delay | Gives the number of trading days that represents the period between the trade date and the settlement date (delivery and payment) for an instrument to be cleared and settled. | Alphanumerical ID | 2 | (See field description) | Optional |
| Strike Currency | Code of the strike currency (ISO 4217-3A). | Alphanumerical ID | 3 | (See field description) | Optional |
| Tax Code | Tax deduction code to which the instrument belongs. | Enumerated | 1 | 0 Not eligible to PEA 3 Eligible to PEA 9 Not Applicable | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|--|---|----------------------|---------|-------------------------|----------|
| Type Of Corporate Event | Indicates the last type of corporate event that has occurred on an instrument, such as detachment of rights, or of coupons. The data item is automatically calculated by the adjustment application but in case of problem or error, the data item value could be modified manually, particularly for purging the order book in case of absence of corporate event. | Alphanumerical ID | 2 | (See field description) | Optional |
| Type Of Market Admission | Indicates the type of market to which an instrument has been listed. | Enumerated | 1 | (See field description) | Optional |
| Repo Indicator | Indicates whether the instrument listed underlies any loan contracts, meaning it has been admitted to the Deferred Settlement system and/or to the lending market. | Enumerated | 1 | (See field description) | Optional |
| <u>Issue Price</u> | Issuing price of the instrument | Price | 8 | From -2^63+1 to 2^63-1 | Optional |
| Nominal Currency | Code of the nominal currency (ISO 4217-3A). | Alphanumerical ID | 3 | (See field description) | Optional |
| <u>Issue Price Decimals</u> | Indicates the number of decimals for Issue Price related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |
| Strike Price Decimals | Indicates the number of decimals for Strike Price related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |
| <u>Liquid Instrument</u> <u>Indicator</u> | Indicates whether the instrument is liquid or not, as defined per MiFID II. (0 = Illiquid; 1 = Liquid) | Boolean | 1 | 02^8-2 | Optional |
| Market Of Reference MIC | Indicates the instrument Exchange of Reference by its MIC (Market Identification Code according to ISO 10383) (For Future Use). | Alphanumerical ID | 4 | (See field description) | Optional |
| <u>ICB Code</u> | Not relevant. | Alphanumerical ID | 8 | (See field description) | Optional |
| Threshold LIS Post Trade 60mn | Defines the amount of an order to benefit from the LIS Trade Deferred publication to 60 min (to be calculated with the Amount Decimals). | Amount | 8 | 02^64-2 | Optional |
| Threshold LIS Post Trade 120mn | Defines the amount of an order to benefit from the LIS Trade Deferred publication to 120 min (to be calculated with the Amount Decimals). | Amount | 8 | 02^64-2 | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|--|---|----------------------|---------|---|-----------|
| Threshold LIS Post Trade EOD | Defines the amount of an order to benefit from the LIS Trade Deferred publication to EOD (to be calculated with the Amount Decimals). | Amount | 8 | 02^64-2 | Optional |
| Long Mnemonic | Mnemonic code of the instrument. This field is not populated for every instrument. | Alphanumerical ID | 6 | (See field description) | Optional |
| Max Order Amount Call | Maximum order amount allowed during a call phase, adjusted by the Pool Factor. | Amount | 8 | 02^64-2 | Optional |
| Max Order Amount Continuous | Maximum order amount allowed during a continuous phase, adjusted by the Pool Factor. | Amount | 8 | 02^64-2 | Optional |
| Max Order Quantity Call | Maximum order quantity allowed during a call phase, adjusted by the Pool Factor | Quantity | 8 | 02^64-2 | Optional |
| <u>Max Order Quantity</u> <u>Continuous</u> | Maximum order quantity allowed during a continuous phase, adjusted by the Pool Factor | Quantity | 8 | 02^64-2 | Optional |
| Pool Factor | Allows to calculate how much of the original loans have yet to be repaid. | Numerical ID | 8 | 02^32-2 | Optional |
| Asset Class | Defines the Asset Class for a group of products. | Enumerated | 3 | (See field description) | Optional |
| Instrument Category | Indicates to which category the instrument belongs. | Enumerated | 1 | (See field description) | Optional |
| Instrument Type | Instrument Type. | Enumerated | 4 | (See field description) | Optional |
| Closing Price Type | Closing Price Type. Indicates the type of closing Price configured for the instrument. If none, then Last Adjusted Closing Price is used. | Enumerated | 1 | 1 Last Traded Price (LTP) 2 Volume Weighted Average Price (VWAP) 3 Volume Weighted Average Price (VWAP X Trades) 4 Closing Uncrossing Price – VWAP 5 Closing Uncrossing Price – BBO 6 VWAP – BBO 7 Not Applicable 8 VWAP - Closing Price of Reference Market 9 Last Adjusted Closing Price (LACP) | Mandatory |
| VWAP Period | Indicates the number of seconds that should be considered to select the trades which will be used to compute the closing price for a given instrument, when the closing price type is VWAP. | Time | 8 | 02^64-2 | Optional |
| Official Segment | Official market segment. | Text | 70 | (See field description) | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|--------------------------------------|---|----------------------|---------|--|----------|
| Settlement System | Indicates the System where the instrument is settled | Enumerated | 2 | 60 Target 2 Securities 51 Euroclear/Clearstre am Lux Null value: 2^8-1 | Optional |
| <u>Pattern Type</u> | Indicates whether the instrument is tradeable in continuous mode (Continuous), in auction mode (Fixing) or it is not tradable (Not tradable). | Enumerated | 1 | 0 Fixing 1 Continuous 2 Not tradable 3 Continuous Late Null value: 2^8-1 | Optional |
| Professional Trading | Indicates if the instrument can be traded by Professional Member only (1) or not (0). | Boolean | 1 | (See field description) | Optional |
| Exercise Style | Type of exercise of an instrument. | Enumerated | 1 | (See field description) | Optional |
| <u>Underlying</u> <u>Mnemonic</u> | Mnemonic code of the Instrument' underlying. This field is not populated for every instrument. | Alphanumerical ID | 6 | (See field description) | Optional |
| <u>Underlying Name</u> | Indicates the full name of the instrument's underlying. | Text | 10 2 | (See field description) | Optional |
| <u>Underlying Type</u> | Defines the instrument type of the underlying. | Enumerated | 1 | (See field description) | Optional |
| Settlement Currency | Code of the settlement currency (ISO 4217-3A) | Alphanumerical ID | 3 | (See field description) | Optional |
| Tech Leaders segment indicator | It indicates if the instrument belongs to the Euronext Tech Leader segment | Boolean | 1 | (See field description) | Optional |
| Settlement Date | Settlement Date is the actual day on which transfer of cash or assets is completed and is usually a few days after the trade was done. The number of days between the Trade Date and the Settlement Date depends on the security and the convention in the market on which it was traded. | Date | 2 | (See field description) | Optional |
| End Validity Date | For guaranteed instrument , the End Validity Date is the date when the Clearing House triggers the buy-in procedure because of the seller delivery failure. For non-guaranteed instrument, the End Validity Date corresponds to the date when the trade is cancelled by the CSD and cash settlement/compensation is performed according to Euronext Securities rules. | Date | 2 | (See field description) | Optional |

| Field | Short Description | Format | Le n | Values | Presence |
|---|--|---------------|---------|---|-----------------|
| Purge Book Type | Indicates whether Good Till Day and Good Till Cancel orders have been deleted, specifying in such scenario whether on both sides, only in buy or sell side | Enumerated | 1 | 1 No Purge 2 Purge Both Sides 3 Purge Only Buy Side 4 Purge Only Sell Side Null value: 2^8-1 | Optional |
| Operation Start Date | The first day of an Issuing or Tender Offer operation. | Date | 2 | Format YYYYMMDD | Optional |
| Operation End Date | The last day of an Issuing or Tender Offer operation. | Date | 2 | Format YYYYMMDD | Optional |
| Max Nbr Securities Offered Or Tendered | Total quantity of securities offered (for Issuing) or tendered (for Tender Offer) in the operation. | Quantity | 8 | 02^64-2 | Optional |
| Minimum Settlement Amount | Indicates the Minimum Trading size for the bond | <u>Amount</u> | 10 | 02^64-2 | <u>Optional</u> |
| EMMPattern | | | | | |
| ЕММ | Defines the Exchange Market Mechanism applied on each platform. | Enumerated | 1 | (See field description) | Mandatory |
| Pattern ID | Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message. Cash Markets only. | Numerical ID | 2 | 02^16-2 | Optional |
| <u>Tick Size Index ID</u> | ID of the tick size table available in the Tick Table file. | Numerical ID | 2 | 02^16-2 | Optional |
| <u>Market Model</u> | Market Model identifier. | Enumerated | 1 | (See field description) | Optional |
| <u>Lot Size</u> | For Cash and Derivatives, it defines a multiple of the tradable quantity. | Quantity | 8 | 02^64-2 | Optional |
| <u>Inst Unit Exp</u> | Unit in which the instrument is quoted. | Enumerated | 1 | (See field description) | Optional |
| Bps Low Collar | Indicates the low collar applied on the NAV order book of ETF MTF. It is derived from the redemption fees of the primary market. Information expressed in basis points (bps) (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |

| Field | Short Description | Format | Le n | Values | Presence |
|---------------------------------------|---|----------------------|---------|---------------------------|-----------|
| Bps High Collar | Indicates the High collar applied on the NAV order book of ETF MTF. It is derived from the creation fees of the primary market. Information expressed in basis points (bps) (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| Block Price Control ID | ID of the Block Price Table. | Numerical ID | 2 | (See field description) | Optional |
| Declaration Duration | Declaration Duration (in minutes). | Time | 8 | (See field description) | Optional |
| Eligible For Margin | Indicates if the instrument is eligible for margin or not. | Enumerated | 1 | 0 No 1 Yes | Optional |
| Anonymous | Indicates if the Market Data notifications on the instrument are anonymous or not. (0: Non Anonymous – Member Firm ID published; 1: Anonymous – Member Firm ID not published). | Boolean | 1 | 02^8-2 | Optional |
| <u>Dynamic APF Table</u> <u>ID</u> | ID of the Allowed Price Fluctuation table used for the Dynamic Collar | Numerical ID | 2 | 02^16-2 | Optional |
| Static APF Table ID | ID of the Allowed Price Fluctuation table used for the Static Collar | Numerical ID | 2 | 02^16-2 | Optional |
| Order Price Control APF Table ID | ID of the Allowed Price Fluctuation table used for Order Price Control Collar | Numerical ID | 2 | 02^16-2 | Optional |
| /EMMPattern | | | | | |
| MDGSetOfChannels | | | | | |
| MDG Set Of Channels ID | Identifier of an MDG Set Of Channels. | Enumerated | 1 | (See field description) | Mandatory |
| MDG Set Of Channels Name | Name of the MDG Set Of Channels. | Text | 10 0 | (See field description) | Mandatory |
| /MDGSetOfChannels | | | | | |
| ETFDataFromMarketOf Reference | | | | | |
| Six Months ADV Exchange Of Ref | Indicates the 6 months average daily volume (number of shares) traded on the exchange of reference (to be calculated with Quantity Decimals). | Quantity | 8 | 02^64-2 | Mandatory |
| AUM | Stands for Asset Under Management. Indicates the fund's total market value (to be calculated with the Amount Decimals). | Amount | 8 | 02^64-2 | Mandatory |
| BIC Main Depositary | Identifies the BIC of the default depository organization. | Alphanumerical ID | 11 | (See field description) | Mandatory |

| Field | Short Description | Format | Le n | Values | Presence |
|---|---|---------------------------|---------|---|-----------|
| <u>Cut Off Time</u> | Indicates the point reached in the day from which the order will not be processed for the current business day. Time in an integer on 4 bytes expressed as hhmmss | Integer Time in hhmmss | 4 | 02^32-2 | Mandatory |
| <u>Date Next Tradable</u> <u>NAV</u> | Date of the next tradable NAV. Date in an integer on 4 bytes expressed as YYYYMMDD | Date | 4 | 02^32-2 | Mandatory |
| Publication Date Next Tradable NAV | Publication Date of the next tradable NAV. Date in an integer on 4 bytes expressed as YYYYMMDD | Date | 4 | 02^32-2 | Mandatory |
| <u>Dividend Frequency</u> | Indicates how often a dividend is paid by an individual instrument. | Enumerated | 1 | 1 Capitalization 2 Monthly 3 Yearly | Mandatory |
| MIC Exchange Of Reference | Indicates the instrument's Exchange of Reference by its MIC (Market Identification Code according to ISO 10383). | Alphanumerical ID | 4 | (See field description) | Mandatory |
| Name Exchange Of Reference | Indicates the instrument's Exchange of Reference by its Name. | Text | 50 | (See field description) | Mandatory |
| Exposition Type | Indicates the ETF replication method. | Enumerated | 1 | 1 Physical2 Synthetic3 Sampling | Mandatory |
| <u>ICSD</u> | Indicates if the settlement can be processed through an International CSD (1) or not (0). | Boolean | 1 | 02^8-2 | Mandatory |
| <u>Index Leverage</u> | Indicates the multiplier coefficient of an leveraged fund. (To be calculated with RatioDecimal) | Numerical | 4 | 02^32-2 | Mandatory |
| <u>Issuer Name</u> | Indicates the name of the Legal Issuing Entity. | Text | 80 | (See field description) | Mandatory |
| <u>LEI Code</u> | LEI (Legal Entity Identifier) Code | Alphanumerical ID | 20 | (See field description) | Mandatory |
| <u>Listing Date</u> | Indicates the listing date of the fund on the Exchange of Reference. Date in an integer on 4 bytes expressed as YYYYMMDD | Date | 4 | 02^32-2 | Mandatory |
| NAV Currency | Code of the NAV currency (ISO 4217-3A). | Alphanumerical ID | 3 | (See field description) | Mandatory |
| Previous NAV | Indicates the previous official Net Asset Value (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| Reuters RIC Code | Indicates the Reuters RIC Code. | Alphanumerical ID | 24 | (See field description) | Mandatory |
| Total Expense Ratio | Total Expense Ratio (TER): total costs associated with managing and operating a fund. | Numerical | 4 | 02^32-2 | Mandatory |

| Field | Short Description | Format | Le n | Values | Presence |
|--|--|------------------------|---------|--|-----------|
| <u>Bloomberg Ticker</u> <u>Code</u> | Indicates the Bloomberg Ticker Code. | Alphanumerical ID | 13 | (See field description) | Mandatory |
| NAV Publication Time | Indicates the official NAV publication time. Time in an integer on 4 bytes expressed as hhmmss | Integer Time in hhmmss | 4 | 02^32-2 | Mandatory |
| <u>UMTF</u> | Indicates the instrument code based on 'Uniform MTF' symbology. | Alphanumerical ID | 6 | (See field description) | Mandatory |
| <u>Underlying Name</u> | Indicates the full name of the ETF underlying. | Text | 10 2 | (See field description) | Mandatory |
| <u>Underlying Return</u> <u>Type</u> | Indicates the dividend treatment applied. | Enumerated | 1 | Net Total Return Price Return Total Return | Mandatory |
| <u>Underlying</u> <u>Segmentation</u> | Indicates the underlying asset segmentation. | Enumerated | 1 | (See field description) | Mandatory |
| Bps Low Collar | Indicates the low collar applied on the NAV order book of ETF MTF. It is derived from the redemption fees of the primary market. Information expressed in basis points (bps) (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| Bps High Collar | Indicates the High collar applied on the NAV order book of ETF MTF. It is derived from the creation fees of the primary market. Information expressed in basis points (bps) (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| /ETFDataFromMarketO fReference | | | | | |
| /StandingDataUnitary | | | | | |
| SetOfChannels | | | | | |
| MDG Set Of Channels ID | Identifier of an MDG Set Of Channels. | Enumerated | 1 | (See field description) | Mandatory |
| MDG Set Of Channels Name | Name of the MDG Set Of Channels. | Text | 10 0 | (See field description) | Mandatory |
| Channels | | | | 1254 | Mandatory |
| Channel Type | Defines the channel. | Enumerated | 4 | (See field description) | Mandatory |
| MulticastDataRealTi me | | | | | |
| <u>Channel ID</u> | Identifies the channel. | Numerical | 2 | 02^16-2 | Mandatory |
| <u>Channel Speed</u> | Defines the Channel bandwidth. | Enumerated | 4 | 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel | Mandatory |

| Field | Short Description | Format | Le n | Values | Presence |
|-------------------------------------|--|--------------|---------|--|-----------|
| Partition ID | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |
| MulticastA | | | | | |
| Source IP Range | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>DR Source IP</u> <u>Range</u> | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>Multicast Group</u> <u>IP</u> | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |
| Port Number | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastA | | | | | |
| MulticastB | | | | | |
| Source IP Range | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| DR Source IP Range | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>Multicast Group</u> <u>IP</u> | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |
| Port Number | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastB | | | | | |
| /MulticastDataRealT ime | | | | | |
| MulticastDataSnaps hot | | | | | |
| Channel ID | Identifies the channel. | Numerical | 2 | 02^16-2 | Mandatory |
| <u>Channel Speed</u> | Defines the Channel bandwidth. | Enumerated | 4 | 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel | Mandatory |
| <u>Partition ID</u> | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |
| MulticastA | | | | | |
| Source IP Range | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>DR Source IP</u> <u>Range</u> | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>Multicast Group</u> <u>IP</u> | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |
| Port Number | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastA | | | | | |
| MulticastB | | | | | |
| Source IP Range | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>DR Source IP</u> <u>Range</u> | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>Multicast Group</u> IP | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |

| Field | Short Description | Format | Le n | Values | Presence |
|-------------------------------|--|--------------|---------|--------------------------------|-----------|
| Port Number | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastB | | | | | |
| /MulticastDataSnap shot | | | | | |
| /Channels | | | | | |
| /SetOfChannels | | | | | |
| LogicalAccessConnectivi ty | | | | | |
| Partition | | | | | |
| <u>Partition ID</u> | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |
| IP Address Primary | IP Address of the Primary and Secondary (backup) access to the gateway. Provided for all environments (IP v4). | Text | 15 | Valid IP v4 address | Mandatory |
| IP Address DR | IP Address of the Disaster Recovery access to the gateway. Populated only for the Disaster Recovery environment, in the file generated for the Production environment. Blank for all other environments (IP v4). | Text | 15 | Valid IP v4 address | Optional |
| Partition Type | Indicates the type of Partition, either Order Entry or Drop Copy. Use of Order Entry and Drop Copy gateways require separate and individual setup of the Logical access to each service. | Enumerated | 2 | OE Order Entry DC Drop Copy | Mandatory |
| /Partition | | | | | |
| /LogicalAccessConnectiv | | | | | |
| /CashStandingDataFile | | | | | |

3.3 CASHTICKSIZEREFERENTIALFILE (9020)

- The Ticksize file contains different tables defining the variable ticksizes used for trading activity. A tick size table is composed of an index (identifying a table instance) with a list of price ranges that have corresponding ticksizes.
- Fixed ticksizes are also included in the ticksize file, they correspond to indexes for which only one entry range [0,MaxValue[is defined.
- Point of attention: certain TCS products do not have ticksizes (and this is the expected behaviour).
 Ticksizes depend of the EMM and certain EMMs do not support ticksizes.
- File availability: This file is available at the start of day and is needed by the Customers for the trading day. Customers must be able to download and process this file on a daily basis.
- Scope of contents: The file scope includes a tick size table for Cash markets, and the variable (price range-dependent) ticks and fixed price ticks.

Intraday updates: No intraday update will be performed on the Tick Size table. Should the need arise, updates will be done in the referential tool and will be applied on the following business day (i.e. D+1). Meaning, the file will only be updated on a daily basis.

The file provides three structures per instrument breakdown, as per the following:

- CashTickSizes Tick Size Index ID
 - Cash Tick Size

| Field | Short Description | Format | Len | Values | Presence |
|-------------------------------------|---|--------------|-----|-------------------------|-----------|
| CashTickSizes | | | | | |
| <u>Tick Size Index</u> <u>ID</u> | ID of the tick size table available in the Tick Table file. | Numerical ID | 2 | 02^16-2 | Mandatory |
| CashTickSize | | | | | |
| Minimum Price | Minimum Price of the order. | Price | 8 | (See field description) | Mandatory |
| Tick Size | Tick Size applied in the price range | Price | 8 | (See field description) | Mandatory |
| /CashTickSize | | | | | |
| /CashTickSizes | | | | | |

DERIVATIVESSTANDINGDATAFILE (9013)

The DerivativesStandingDataFile (9013) provides all referential data for derivatives markets.

On the derivatives market, three (3) different messages will broadcast standing data on the feed: Contract Standing Data, Outright Standing Data and Strategies Standing Data.

This file provides the following structure breakdown as per the following:

- DerivativesStandingDataFile
 - ContractStandingDataUnitary
 - ContractEMMProperties
 - Derivatives Parameters Rep
 - OutrightStandingDataUnitary
 - Common Outright Standing Data
 - OutrightStandingDatarep
 - StrategyStandingDataUnitary
 - StrategyStandingDatarep
 - MDGSetOfChannels
 - FeedConfigurationFile
 - SetOfChannels Channels
 - MulticastDataRealTime
 - MulticastA
 - MulticastB
 - Multicast Data Snapshot
 - MulticastA
 - MulticastB
 - LogicalAccessConnectivity
 - Partition
- On a contract-based breakdown, data is provided with a file with one nested structure. Following that, at a contract level, two sections are added to deal respectively with MD connectivity and in the OE connectivity.

- File Availability: Available 24/7.
- Scope of contents: Derivative instruments.
- Intraday updates: This file will be updated overnight.

Note on values in the field Dynamic Collar Logic for Derivatives markets. Values have the following meaning:

- Dynamic Collar Logic "0" (Not Active): Trade Price Validation is not activated.
- Dynamic Collar Logic "3" (Reservation with Acceptation): Indicates that Trade Price Validation is activated.
 - The fields Collar Max Unhalt Nb and Collar Unhalt Delay provide the parameters for management of Trade Price Validation when it is activated.
- Value "2" (No Halt with Reject) is not currently in use.

| Field | Short Description | Format | Len | Values | Presence |
|---------------------------------|---|----------------|-----|--|-----------|
| ContractStandingDataUnitar y | | | | 1254 | Mandatory |
| <u>Symbol Index</u> | Exchange identification code of the instrument/contract. | Numerical ID | 4 | 02^32-2 | Mandatory |
| <u>Optiq Segment</u> | An Optiq segment is a universe of instruments sharing common trading properties. | Enumerated | 1 | (See field description) | Mandatory |
| <u>Partition ID</u> | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |
| Contract Event Date | Date of the last contract characteristics modification(s) except for some exceptions. | Date | 2 | 02^16-2 | Optional |
| Exchange Code | Indicates the Market Place. | Enumerated | 1 | (See field description) | Mandatory |
| Exer Style | Type of exercise of a derivatives instrument | Enumerated | 1 | 0 European1 American2 Asian3 Bermudan4 Other | Optional |
| Contract Name | Contract Name | Text | 60 | | Mandatory |
| <u>Contract Type</u> | Generic Contract Type. | Enumerated | 1 | F Future O Option U Underlying | Optional |
| Underlying Type | Defines the instrument type of the underlying. | Enumerated | 1 | C Commodity F Future I Index S Stock X Exchange Rate | Mandatory |
| <u>Price Decimals</u> | Indicates the number of decimals for each Price / Index Level related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |
| Quantity Decimals | Indicates the number of decimals for each Quantity related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |
| Amount Decimals | Indicates the number of decimals for each Amount related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |

| Field | Short Description | Format | Len | Values | Presence |
|--------------------------------|--|----------------------|-----|-------------------------|-----------|
| <u>Ratio Decimals</u> | Indicates the number of decimals for each Ratio / Multiplier related to this Symbol Index | Decimal Places | 1 | 02^8-2 | Optional |
| <u>Main Depositary</u> | Identifies the default (or main) depository organization of the instrument (between the possible 4 depositaries registered) used by priority for the settlement (for example: multi-listed instruments which have several depositories). | Alphanumerical ID | 5 | (See field description) | Optional |
| MIC | Identifies the market to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383. | Alphanumerical ID | 4 | (See field description) | Mandatory |
| Country Of Exchange | Country of exchange is the Country associated to the MIC following ISO 3166 Alpha-3. | Alphanumerical ID | 3 | (See field description) | Mandatory |
| Product Code | Physical alphanumerical product code. | Alphanumerical ID | 4 | (See field description) | Mandatory |
| Underlying MIC | Identifies the market to which an instrument' underlying belongs by its MIC (Market Identification Code), according to ISO 10383. Refer to MIC field to have all the authorized values. | Alphanumerical ID | 4 | (See field description) | Optional |
| Underlying ISIN Code | Underlying ISIN. | Alphanumerical ID | 12 | (See field description) | Optional |
| Underlying Expiry | Expiry Date of the underlying (in number of days since the 1st of January 1970). | Date | 4 | 02^32-2 | Optional |
| Order Type Rules | Order types supported by the matching engine. | Bitmap | 2 | (See field description) | Mandatory |
| Settlement Method | Settlement method | Alphanumerical ID | 1 | (See field description) | Optional |
| Trading Currency | Code of the currency (ISO 4217-3A). | Alphanumerical ID | 3 | (See field description) | Mandatory |
| Strike Price Decimals Ratio | Value used , only for the AMR code, to determine the number of decimals present in the Option contract strike price, as the strike price is disseminated in format of an integer. | Numerical | 1 | 02^8-2 | Optional |
| MM Protections | Indicates allowed MM Protection type on the contract.(0: Disabled ; 1: Enabled) | Bitmap | 1 | 0 Delta 1 Volume | Mandatory |

| Field | Short Description | Format | Len | Values | Presence |
|------------------------------|--|--------------|-----|--|-----------|
| Contract Trading Type | Contract Trading Type. | Enumerated | 1 | Traded as an outright Not traded, but listed in contract data. Traders may subscribe to it Traded as a simple inter-commodity spread Traded as an inter-commodity spread | Mandatory |
| <u>Inst Unit Exp</u> | Unit in which the instrument is quoted. | Enumerated | 1 | (See field description) | Optional |
| <u>Underlying Subtype</u> | Defined the underlying sub-type associated to the underlying type. | Enumerated | 1 | (See field description) | Optional |
| Mother Stock ISIN | ISIN Code of the index underlying of the TRF contract. | Text | 12 | (See field description) | Optional |
| Settlement Tick Size | Default Tick Size value applicable for all Settlement Prices. It's calculated using the PriceDecimals. | Price | 8 | 02^64-2 | Optional |
| EDSP Tick Size | Specific Tick Size value applicable for EDSP. It's calculated using the PriceDecimals. | Price | 8 | 02^64-2 | Optional |
| Underlying Symbol Index | Identifies the Symbol Index of the underlying of the instrument. | Numerical ID | 4 | 02^32-2 | Optional |
| Trading Policy | Trading Policy enabling to allocate a given incoming volume to orders. | Enumerated | 1 | 1 Price Explicit Time2 Price Pro Rata | Optional |
| Reference Spread Table ID | ID of the Reference Spread Table. | Numerical ID | 2 | 02^16-2 | Optional |
| Derivatives Market Model | Type of synthetic quote applied to the contract | Enumerated | 1 | No Synthetic Quote Spontaneous Implied Matching Event Driven Implied Matching | Optional |
| Trading Unit | Amount of underlying instrument per unit of a derivative contract (to be calculated with the Quantity Decimals). Due to corporate actions, the value may be different between value provided within this field in Contract Standing Data and Outright Standing Data reflects the adjustment due to the corporate action and should be used for that Outright instrument. | Quantity | 8 | 02^64-2 | Optional |

| Field | Short Description | Format | Len | Values | Presence |
|---|--|--------------|-----|--|-----------|
| Reference Price Origin in Opening Call | For Derivatives, it is the rules to obtain the DCRP. Derivatives authorized values are: 4,5,6,7. | Enumerated | 1 | (See field description) | Optional |
| Reference Price Origin in Continuous | For Derivatives, it is the rules to obtain the DCRP. Derivatives authorized values are: 4,5,6,7. | Enumerated | 1 | (See field description) | Optional |
| Reference Price Origin in Trading Interruption | For Derivatives, it is the rules to obtain the DCRP. Derivatives authorized values are: 4,5,6,7. | Enumerated | 1 | (See field description) | Optional |
| Collar Expansion Factor | Numerical coefficient applied in collar calculation. | Numerical ID | 1 | 02^8-2 | Optional |
| MIFID II Liquid Flag | Defines if a contract is to be considered as liquid under MIFID II Regulation. | Boolean | 1 | From 0 to 2^8- 2 | Mandatory |
| Pricing Algorithm | This field provides the defined pricing algorithm value for a given contract. It is used to identify Total Return Future (TRF) contracts and Market On Close (MOC) contracts. For other contract types the value is set to Standard. | Enumerated | 1 | 0 = Standard 1 = Total Return Future 2 = Market On Close | Mandatory |
| <u>PRA ID</u> | Identifier of the Pricer Reporting Agency for a Cash Settled contract | Numerical | 2 | 02^32-2 | Optional |
| ContractEMMProperties | | | | | Optional |
| <u>EMM</u> | Defines the Exchange Market Mechanism applied on each platform. | Enumerated | 1 | (See field description) | Optional |
| Tick Size Index ID | ID of the tick size table available in the Tick Table file. | Numerical ID | 2 | 02^16-2 | Optional |
| Pattern ID | Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message. | Numerical ID | 2 | 02^16-2 | Optional |
| Lot Size | For Cash and Derivatives, it defines a multiple of the tradable quantity. | Quantity | 8 | 02^64-2 | Optional |
| Strategy Authorized | Provides strategy types authorized for contract. | Bitmap | 8 | (See field description) | Optional |
| Dynamic Collar Logic | For Derivatives, Dynamic Collar Logic is a field used to identify the method of handling orders in case of Trade Price Validation (TPV) being triggered. For Cash, Dynamic Collar Logic is used internally. | Enumerated | 1 | 0 Not Active 2 No Halt with Reject 3 Halt with Acceptation | Optional |
| Collar Max Unhalt Nb | Maximum number of automatic unhalts if collar logic enables unhalting. | Quantity | 1 | 02^8-2 | Optional |
| Collar Unhalt Delay | Delay (in seconds) of automatic unhalt if collar logic enables unhalting. | Time | 4 | 02^32-2 | Optional |
| Max Order Quantity Call | Maximum order quantity during an uncrossing phase | Quantity | 8 | 02^64-2 | Optional |
| Max Order Quantity Continuous | Maximum order quantity during a continuous phase | Quantity | 8 | 02^64-2 | Optional |
| /ContractEMMProperties | | | | | Optional |

| Field | Short Description | Format | Len | Values | Presence |
|---|--|----------------------|-----|--|-----------|
| DerivativesParameters | | | | 0254 | Optional |
| <u>EMM</u> | Defines the Exchange Market Mechanism applied on each platform. | Enumerated | 1 | (See field description) | Optional |
| <u>Param Name</u> | Name of a Contract parameter. | Enumerated | 1 | (See field description) | Optional |
| <u>Param Value</u> | Value of a Contract Parameter. | Text | 255 | | Optional |
| <u>Param Type Of</u> <u>Expression</u> | Parameter Type Of Expression of Contract Parameter Name. | Enumerated | 1 | 1 Percentage 2 Tick | Optional |
| /DerivativesParameters | | | | | Optional |
| OutrightStandingDataUnita ry | | | | 0254 | Optional |
| <u>Symbol Index</u> | Exchange identification code of the instrument/contract. | Numerical ID | 4 | 02^32-2 | Mandatory |
| Contract Symbol Index | Identifies the contract of this instrument by its Symbol Index. | Numerical ID | 4 | 02^32-2 | Mandatory |
| <u>Instrument Event Date</u> | Date of the last instrument characteristic modification(s) except for some exceptions. | Date | 2 | 02^16-2 | Mandatory |
| <u>ISIN Code</u> | Instrument ISIN following ISO 6166. | Alphanumerical ID | 12 | (See field description) | Mandatory |
| <u>CFI</u> | Classification code of a financial instrument defined by the ISO-10962:2015 standard. | Text | 6 | (See field description) | Optional |
| <u>Maturity Date</u> | Maturity Date of the instrument (text formatted as YYYYMMDD). | Text | 8 | (See field description) | Mandatory |
| <u>Lot Size</u> | Not Used | Quantity | 8 | Not Used | Mandatory |
| Strike Price | The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant. | Price | 8 | From -2^63+1 to 2^63-1 | Optional |
| <u>Last Trading Date</u> | Last available trading date for the instrument | Date | 2 | 02^16-2 | Optional |
| <u>Days To Expiry</u> | Number of Calendar days until the Last Trading Day of the Expiry. | Numerical | 2 | 02^16-2 | Optional |
| Derivatives Instrument Trading Code | Derivatives Instrument Trading Code (formerly AMR) is composed of Exchange Code, Contract Type, Product Code, Expiry. For Options, Strike and Option Type (Put or Call) is added. | Alphanumerical ID | 18 | (See field description) | Optional |
| <u>Derivatives Instrument</u> Type | Indicates the type of derivative instrument | Enumerated | 1 | 0 Call Option 1 Put Option 2 Strategy 3 Individual Future 4 Underlying | Optional |

| Field | Short Description | Format | Len | Values | Presence |
|---|--|----------------------|-----|----------------------------------|-----------|
| Expiry Cycle Type | Defines the expiry cycle type | Enumerated | 1 | 1 Daily 2 Weekly 3 Monthly | Optional |
| <u>Underlying Derivatives</u> <u>Instrument Trading</u> <u>Code</u> | Is the underlying of the Derivatives Instrument Trading Code. | Alphanumerical ID | 18 | (See field description) | Optional |
| <u>Underlying Symbol</u> <u>Index</u> | Identifies the Symbol Index of the underlying of the instrument. | Numerical ID | 4 | 02^32-2 | Optional |
| Trading Unit | Amount of underlying instrument per unit of a derivative contract (to be calculated with the Quantity Decimals). Due to corporate actions, the value may be different between value provided within this field in Contract Standing Data and Outright Standing Data reflects the adjustment due to the corporate action and should be used for that Outright instrument. | Quantity | 8 | 02^64-2 | Optional |
| Observation Period | Period expressed in a number of business days during which prices from Price Reporting Agency are used to compute the EDSP. | Numerical | 2 | 02^16-2 | Optional |
| <u>Observation Period</u> <u>Elapsed</u> | Number of business days elapsed during the observation period (e.g: '2' means it is the second day of the observation period). | Numerical | 2 | 02^16-2 | Optional |
| OutrightStandingDatarep | | | | | Optional |
| <u>EMM</u> | Defines the Exchange Market Mechanism applied on each platform. | Enumerated | 1 | (See field description) | Mandatory |
| /OutrightStandingDatare p | | | | | Optional |
| /OutrightStandingDataUnit ary | | | | | Optional |
| StrategyStandingDataUnit ary | | | | 0254 | Optional |
| Symbol Index | Exchange identification code of the instrument/contract. | Numerical ID | 4 | 02^32-2 | Mandatory |
| <u>Derivatives Instrument</u> <u>Trading Code</u> | Derivatives Instrument Trading Code (formerly AMR) is composed of Exchange Code, Contract Type, Product Code, Expiry. For Options, Strike and Option Type (Put or Call) is added. | Alphanumerical ID | 18 | (See field description) | Mandatory |
| Exchange Code | Indicates the Market Place. | Enumerated | 1 | (See field description) | Mandatory |
| <u>Maturity Date</u> | Maturity Date of the instrument (text formatted as YYYYMMDD). | Text | 8 | | Mandatory |
| Strategy Code | Exchange-recognized strategy code | Alphanumerical ID | 1 | (See field description) | Mandatory |
| Contract Symbol Index | Identifies the contract of this instrument by its Symbol Index. | Numerical ID | 4 | 02^32-2 | Mandatory |

| | | 1 | | | |
|--|---|--|-----------|---|--|
| Field | Short Description | Format | Len | Values | Presence |
| <u>CFI</u> | Classification code of a financial instrument defined by the ISO-10962:2015 standard. | Text | 6 | (See field description) | Optional |
| StrategyStandingDatarep | | | | 0254 | Optional |
| <u>Leg Symbol Index</u> | MDG proprietary identification code of the instrument leg for the strategy. | Numerical ID | 4 | 02^32-2 | Mandatory |
| <u>Leg Price</u> | Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Optional |
| <u>Leg Ratio</u> | Ratio of lots for the leg. For contingent trades, the delta. | Quantity | 4 | 02^32-2 | Mandatory |
| <u>Leg Buy Sell</u> | Leg Side. | Enumerated | 1 | B Buy S Sell | Mandatory |
| /StrategyStandingDatare p | | | | | Optional |
| /StrategyStandingDataUnit ary | | | | | Optional |
| MDGSetOfChannels | | | | 0254 | Optional |
| MDG Set Of Channels ID | Identifier of an MDG Set Of Channels. | Enumerated | 1 | (See field description) | Mandatory |
| MDG Set Of Channels Name | Name of the MDG Set Of Channels. | Text | 100 | (See field description) | Mandatory |
| /MDGSetOfChannels | | | | | Optional |
| /ContractStandingDataUnita ry | | | | | Mandatory |
| SetOfChannels | | | | 1254 | Mandatory |
| MDG Set Of Channels ID | Identifier of an MDG Set Of Channels. | Enumerated | 1 | (See field description) | Mandatory |
| | | | | | |
| MDG Set Of Channels Name | Name of the MDG Set Of Channels. | Text | 100 | (See field description) | Mandatory |
| | | Text | 100 | | Mandatory |
| <u>Name</u> | | Text Enumerated | 100 | | Mandatory Mandatory |
| Name Channels | Channels. | | | description) (See field | · |
| Name Channels Channel Type | Channels. | | | description) (See field | · |
| Name Channels Channel Type MulticastDataRealTime | Channels. Defines the channel. | Enumerated | 4 | (See field description) | Mandatory |
| Name Channels Channel Type MulticastDataRealTime Channel ID | Channels. Defines the channel. Identifies the channel. | Enumerated Numerical | 4 | (See field description) 02^16-2 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps | Mandatory Mandatory |
| Name Channels Channel Type MulticastDataRealTime Channel ID Channel Speed | Defines the channel. Identifies the channel bandwidth. Identifies uniquely an Optiq partition across all the Exchange | Enumerated Numerical Enumerated | 2 4 | (See field description) 02^16-2 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel | Mandatory Mandatory Mandatory |
| Name Channels Channel Type MulticastDataRealTime Channel ID Channel Speed Partition ID | Defines the channel. Identifies the channel bandwidth. Identifies uniquely an Optiq partition across all the Exchange | Enumerated Numerical Enumerated | 2 4 | (See field description) 02^16-2 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel | Mandatory Mandatory Mandatory |
| Name Channels Channel Type MulticastDataRealTime Channel ID Channel Speed Partition ID MulticastA | Channels. Defines the channel. Identifies the channel. Defines the Channel bandwidth. Identifies uniquely an Optiq partition across all the Exchange partitions. Defines the primary and | Enumerated Numerical Enumerated Numerical ID | 2 4 | (See field description) 02^16-2 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel 02^16-2 | Mandatory Mandatory Mandatory Mandatory |
| Name Channels Channel Type MulticastDataRealTime Channel ID Channel Speed Partition ID MulticastA Source IP Range | Defines the channel. Identifies the channel. Defines the Channel bandwidth. Identifies uniquely an Optiq partition across all the Exchange partitions. Defines the primary and secondary IP range (IP v4). Defines the Disaster Recovery IP address /25 range number (IP | Enumerated Numerical Enumerated Numerical ID | 2 4 | (See field description) 02^16-2 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel 02^16-2 (See field description) | Mandatory Mandatory Mandatory Mandatory Mandatory |
| Name Channels Channel Type MulticastDataRealTime Channel ID Channel Speed Partition ID MulticastA Source IP Range DR Source IP Range | Identifies the channel. Identifies the channel. Defines the Channel bandwidth. Identifies uniquely an Optiq partition across all the Exchange partitions. Defines the primary and secondary IP range (IP v4). Defines the Disaster Recovery IP address /25 range number (IP v4). | Numerical Enumerated Numerical ID Text Text | 2 2 20 20 | (See field description) 02^16-2 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel 02^16-2 (See field description) (See field description) (See field | Mandatory Mandatory Mandatory Mandatory Mandatory Mandatory |

| Field | Short Description | Format | Len | Values | Presence |
|---------------------------|--|--------------|-----|---|-----------|
| /MulticastA | | | | | |
| MulticastB | | | | | |
| <u>Source IP Range</u> | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>DR Source IP Range</u> | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>Multicast Group IP</u> | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |
| Port Number | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastB | | | | | |
| /MulticastDataRealTime | | | | | |
| MulticastDataSnapshot | | | | | |
| <u>Channel ID</u> | Identifies the channel. | Numerical | 2 | 02^16-2 | Mandatory |
| Channel Speed | Defines the Channel bandwidth. | Enumerated | 4 | 100M 100Mbps Channel 1G 1Gbps Channel 10G 10Gbps Channel | Mandatory |
| Partition ID | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |
| MulticastA | | | | | |
| Source IP Range | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>DR Source IP Range</u> | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| Multicast Group IP | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |
| Port Number | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastA | | | | | |
| MulticastB | | | | | |
| <u>Source IP Range</u> | Defines the primary and secondary IP range (IP v4). | Text | 20 | (See field description) | Mandatory |
| <u>DR Source IP Range</u> | Defines the Disaster Recovery IP address /25 range number (IP v4). | Text | 20 | (See field description) | Mandatory |
| Multicast Group IP | Defines the IP number (IP v4). | Text | 15 | (See field description) | Mandatory |
| <u>Port Number</u> | Defines the port number. | Numerical | 2 | 02^16-2 | Mandatory |
| /MulticastB | | | | | |
| /MulticastDataSnapshot | | | | | |
| /Channels | | | | | |
| /SetOfChannels | | | | | |
| LogicalAccessConnectivity | | | | | |
| Partition | | | | | |
| Partition ID | Identifies uniquely an Optiq partition across all the Exchange partitions. | Numerical ID | 2 | 02^16-2 | Mandatory |

| Field | Short Description | Format | Len | Values | Presence |
|----------------------------|--|------------|-----|--------------------------------|-----------|
| <u>IP Address Primary</u> | IP Address of the Primary and Secondary (backup) access to the gateway. Provided for all environments (IP v4). | Text | 15 | Valid IP v4 address | Mandatory |
| IP Address DR | IP Address of the Disaster Recovery access to the gateway. Populated only for the Disaster Recovery environment, in the file generated for the Production environment. Blank for all other environments (IP v4). | Text | 15 | Valid IP v4 address | Optional |
| Partition Type | Indicates the type of Partition, either Order Entry or Drop Copy. Use of Order Entry and Drop Copy gateways require separate and individual setup of the Logical access to each service. | Enumerated | 2 | OE Order Entry DC Drop Copy | Mandatory |
| /Partition | | | | | |
| /LogicalAccessConnectivity | | | | | |

3.5 DERIVATIVESTICKSIZEFILE (9021)

- The Ticksize file contains different tables defining the variable ticksizes used for trading activity. A table is composed of an index (identifying a table instance) with a list of price ranges that have corresponding ticksizes. A contract is associated to a table for each EMM it is tradable through.
- Derivatives TickSizetable also include two parameters to be used together with the sizes:
 - .1 Tick Factor
- .2 Tick Factor Max Period
- Use of Tick Factor and Tick Factor Period :

Tick tables are defined on a per contract basis and are applicable to all outrights and strategies within the contract, for both option contract and future contract.

The **Tick Factor** allows to define a reduction of the tick size for a maturity group identified through the **Tick Factor Max Period**.

Tick Factor Max Period is a time to expiry (TTE) expressed in months. For all instruments within the contract having a TTE smaller than the **Tick Factor Max Period**, the **Tick Factor** is applied on top of the tick size determined by the tick table and the price range - i.e. Tick size must be divided by **Tick Factor**.

Note: TTE is calculated the following way: (Last Trading Date – Today). To convert it to months and compare to various thresholds: TTE (months) = TTE(Days)*(12/360).

TTE in days (Last Trading Day – Today) is provided explicitly for each outright in a dedicated field 'Days to Expiry' of **DerivativesStandingDataFile** (9013).

By definition, a strategy expires when one if its leg expires. So TTE of a strategy is the TTE of its nearest leg.

- Tick Sizes for Strategies :
 - Strategies always use the smallest possible tick. Independently from TTE and Tick Factor, strategies will always use the smallest tick of the tick table of the contract.
 - If on top of it, the Strategy has a TTE < Tick Factor Max period, then the Tick Factor also applies.
- File availability
 - This file is available at the start of day and is needed by the Customers for the trading day. Customers must be able to download and process this file on a daily basis.

Version Number: 5.23.0

Scope of contents

Optiq Files – Interface Specification -Euronext Cash and Derivatives Markets

The file scope is the following: a tick size table for Derivatives markets, contains variable (price range-dependent) ticks and fixed price ticks.

Intraday updates

No intraday update will be performed on the Tick Size table. Should the need arise, updates will be done in the referential tool and will be applied on the following business day (i.e. D+1). Meaning, the file will only be updated on a daily basis.

The file provides structure is as per the following tree:

• DerivativesTickSizes

Tick Size Index ID Tick Table Name Tick Factor Max Period Tick Factor

Derivatives Tick Size

| Field | Short Description | Format | Le n | Values | Presence |
|------------------------|---|--------------|---------|-------------------------|-----------|
| DerivativesTickSizes | | | | 1254 | |
| Tick Size Index ID | ID of the tick size table available in the Tick Table file. | Numerical ID | 2 | 02^16-2 | Mandatory |
| <u>Tick Table Name</u> | Name of the tick size table available in the Tick Table file. | Text | 75 | (See field description) | Mandatory |
| Tick Factor Max Period | Indicator expressed in Month. Instrument whose Time To Expiry are lower than the indicator are impacted by the TickFactor (to be calculated with Ratio / Multiplier Decimals) | Numerical | 4 | 02^32-2 | Mandatory |
| Tick Factor | Tick factor applied to update the TickSize for more liquid instruments available in the Tick Table file (to be calculated with Ratio / Multiplier Decimals). | Numerical | 8 | 02^64-2 | Mandatory |
| DerivativesTickSize | | | | | |
| <u>Minimum Price</u> | Minimum Price of the order. | Price | 8 | (See field description) | Mandatory |
| <u>Tick Size</u> | Tick Size applied between the current Minimum Price and the next Minimum Price. | Price | 8 | (See field description) | Mandatory |
| /DerivativesTickSize | | | | | |
| /DerivativesTickSizes | | | | | |

3.6 OPENINTERESTFILE (9014)

Open Interest file provides open interest information calculated by the Clearing system as per the end of the trading day session for Index and Equity Derivatives contracts. For Commodity contracts instead, the Open Interest file is made available around 10:30 of the next day before market opens and contains information calculated by the Clearing system considering also nightly netting activities.

- File Availability: Available 24/7.
- Scope of contents: Derivative instruments.
- Intraday updates: XML file will be created as soon as the open interest file is received from LCH.

| Field | Short Description | Format Lei | | Values | Presence |
|----------------------|---|-------------------|----|-------------------------|-----------|
| OpenInterestFile | | | | | |
| OpenInterestUnitary | | | | | |
| Symbol Index | Exchange identification code of the instrument. | Numerical ID | 4 | From 0 to 2^32-2 | Mandatory |
| ISIN Code | Instrument ISIN following ISO 6166. | Alphanumerical ID | 12 | (See field description) | Mandatory |
| Open Interest Date | Open interest date (Format YYYYMMDD). | Date | 8 | (See field description) | Mandatory |
| Open Interest | Open interest. | Quantity | 8 | From 0 to 2^64-2 | Mandatory |
| /OpenInterestUnitary | | | | | |
| /OpenInterestFile | | | | | |

3.7 REFERENCESPREADSFILE (9045)

Reference Spreads File provides the following referential data used for:

- .1 Market Quality Spread (MQS) for contracts on which Market Making Agreements are defined (Reference Spread or Market Quality Spread as described in How the Market Works). The spread is expressed as on a per maturity group basis and as a relative to the bid value. MQS is not updatable intraday.
- .2 The Actual Quality Spread (AQS) multiplier, allowing to determine the effective Market Quality Spread applicable at start of day. AQS can be updated intraday (via MDG) and is the effective spread used to measure Market Makers performance. AQS is defined through this multiplier relatively to the reference spread MQS and is as such defined relatively to the bid value.
- .3 The Collars multiplier, allowing to determine the collars spread size, defined as a multiplier of the reference spread. The Reference Spread provides values relative to a price level. As such it is applied as compared with the Dynamic Collar Reference Price (instead of the Best Bid Price used for Market Making).

For more details about the use of reference spreads and associated variables please refer to the How the Market Works.

- File Availability: Available 24/7.
- Scope of contents: Derivatives instruments.
- Intraday updates: No intraday updates.

The file provides structure is as per the following tree:

- Reference Spread Unitary
 - Message Core
 - Reference Spread Range

| Field | Short Description | Format | Len | Values | Presence |
|--------------------------------|-------------------------------------|--------------|-----|-------------------------|-----------|
| ReferenceSpreadUnitary | | | | | |
| Message Core | | | | | |
| Reference Spread Table ID | ID of the Reference Spread Table. | Numerical ID | 2 | 02^16-2 | Mandatory |
| Reference Spread Table Name | Name of the Reference Spread Table. | Text | 75 | (See field description) | Mandatory |
| /Message Core | | | | | |
| ReferenceSpreadRange | | | | 1254 | |
| Message Core | | | | | |

| Field | Short Description | Format | Len | Values | Presence |
|--------------------------------|---|--------------|-----|----------------------------|-----------|
| TTE range Lower Limit | Time to Expiry. Expressed as Months (to be calculated with the Ratio / Multiplier Decimals). | Numerical ID | 4 | 02^32-2 | Mandatory |
| Low Price Range | This field is used to define a Price Range. Starting from this Price and until the next 'Low Price Range', the associated parameter should be applied (to be calculated with the Price / Index Level Decimals). | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| Reference Spread | Reference Spread. | Numerical | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| AQS Multiplier | Actual Quality Spread Multiplier. Enable to calculate the Actual Quality Spread to know whether the DCRP is Mid-BBO or Fair Value (to be calculated with the Ratio / Multiplier Decimals). | Numerical | 4 | 02^32-2 | Mandatory |
| Collars Multiplier | Allows to determine the effective Collars by applying this multiplier to the Market Quality spread, which enables clients to determine in real time the collars applied by the system for each individual order book (to be calculated with the Ratio / Multiplier Decimals). | Numerical | 4 | 02^32-2 | Mandatory |
| Reference Spread Expression | Units in which Reference Spread is expressed. | Enumerated | 1 | 1 Percentage 2 Absolute | Mandatory |
| /Message Core | | | | | |
| /ReferenceSpreadRange | | | | | |
| /ReferenceSpreadUnitary | | | | | |

3.8 PREVDAYCAPANDVOLTRADFILE (9015)

Previous Day Capital and Volume Traded file provides Previous Volume Traded and Previous Day Capital Traded information.

- File Availability: Available 24/7.
- Scope of contents: Cash instruments.
- Intraday updates: XML file will be created as soon as this information will be available.

| Field | Short Description | Format | Le n | Values | Presence |
|----------------------------------|--|-------------------|---------|-------------------------|-----------|
| PrevDayCapAndVolTradCo reUnitary | | | | | |
| Symbol Index | Exchange identification code of the instrument/contract. | Numerical ID | 4 | 02^32-2 | Mandatory |
| ISIN Code | Instrument ISIN following ISO 6166. | Alphanumerical ID | 12 | (See field description) | Mandatory |

| Field | Short Description | Format | Le n | Values | Presence |
|-----------------------------------|--|----------|---------|---------|-----------|
| Prev Day Capital Traded | Cumulative capital traded for all trades from previous day on an instrument (to be calculated with the Amount Decimals). Not provided for non-Euronext traded instruments. | Amount | 8 | 02^64-2 | Mandatory |
| Previous Volume Traded | Number of shares traded (to be calculated with the Quantity Decimals) on this instrument during trading day identified by 'DateOfLastTrade'. Not provided for non-Euronext traded instruments. | Quantity | 8 | 02^64-2 | Mandatory |
| /PrevDayCapAndVolTradC oreUnitary | | | | | |

3.9 REPOSETTLEMENTPRICEFILE (9016)

Repo Settlement Price File is used to communicate the previous day settlement price for each repo instruments.

- File Availability: Available 24/7.
- Scope of contents: Cash instruments.
- Intraday updates: XML file will be created as soon as this information will be available in the morning (for previous day value).

| Field | Short Description | Format | Le n | Values | Presence |
|------------------------------|---|--------------|---------|---------------------------|-----------|
| RepoSettlementPriceUnita ry | | | | | |
| Symbol Index | Exchange identification code of the instrument/contract. | Numerical ID | 4 | 02^32-2 | Mandatory |
| Repo Settlement Price | The settlement price (to be calculated with Price / Index Level Decimals) is a standard price used to value the trade that initiates an instrument lending transaction and to calculate the return price. | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| /RepoSettlementPriceUnit ary | | | | | |

3.10 TIMETABLEFILE (9001)

The Timetable file indicates the scheduled trading patterns, on a given day, associated to a Symbol Index linked by the Pattern ID. Please Refer to Optiq MDG Client Specifications for details. The file is provided on a per Segment basis, according to the SBE version it follows.

- File Availability: Available 24/7.
- Scope of contents: All the Exchange segments for Market Data.
- Intraday updates: This file will be updated overnight.

| Field | Short Description | Format | Len | Values | Presence |
|--|---|--------------|-----|--|-----------|
| Pattern | | | | | |
| Pattern ID | Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message. | Numerical ID | 2 | 02^16-2 | Mandatory |
| Phase | | | | | |
| <u>Phase Time</u> | Time of Phase start | String | 9 | hh:mm:ssZ where Z is for UTC | Mandatory |
| <u>Phase Id</u> | Indicates the phase of the instrument. | Enumerated | 1 | (See field description) | Mandatory |
| Phase Qualifier | Indicates the Phase Qualifier . | Bitmap | 2 | (See field description) | Mandatory |
| <u>Trading Period</u> | Provides the current trading period. | Enumerated | 1 | 1 Opening (Cash and Derivatives) 2 Standard (Cash and Derivatives) 3 Closing (Cash and Derivatives) | Mandatory |
| <u>Order Entry</u> <u>Qualifier</u> | Field indicating the state of the Order Entry for the current market state. | Enumerated | 1 | 0 Order Entry/Cancel/ Modify Disabled 1 Order Entry/Cancel/ Modify Enabled 2 Cancel and Modify Only (Derivatives Only) 3 Cancel Only | Optional |
| <u>Session</u> | Current market session. | Enumerated | 1 | (See field description) | Mandatory |
| <u>Scheduled</u> <u>Event</u> | Type of Scheduled Event. | Enumerated | 1 | (See field description) | Optional |
| /Phase | | | | | |
| /Pattern | | | | | |

3.11 AUTHORIZED PRICE FLUCTUATION FILE (9008)

The Authorized Price Fluctuation file details the Authorized Price Fluctuation (APF) tables, on a given day.

The APF tables are used in the context of Static, Dynamic and Order Price Control Collars. Using the instrument price as a key, the APF table allows to deduce the corresponding Allowed Price Fluctuation.

The file is provided on a per Segment basis.

- File Availability: Available 24/7.
- Scope of contents: All the Exchange segments for Market Data.
- Intraday updates: This file will be updated overnight.

| Field | Short Description | Format | Len | Values | Presence |
|---|--|--------------|-----|--|-----------|
| APF Index ID | Identifier of the APF table | Numerical ID | 2 | 02^16-2 | Mandatory |
| APFTableSection | | | | | |
| Minimum Price | Lower Limit of the APF range | Price | 8 | From -2^63+1 to 2^63-1 | Mandatory |
| <u>Authorized Price</u> <u>Fluctuation</u> | APF Value | Price | 8 | From 0 to 2^63-1 | Mandatory |
| Authorized Price Fluctuation Type | Indicates whether the APF is expressed in Percentage or Absolute Value | Enumerated | 1 | Percentage Absolute Value | Mandatory |
| /APFTableSection | | | | | |

Below an example of an APF table:

| APF Index ID | Minimum Price | Authorized Price Fluctuation | Authorized Price Fluctuation Type |
|--------------|---------------|------------------------------|--------------------------------------|
| 12 | 0 | 5 | Percentage |
| 12 | 75 | 10 | Percentage |
| 12 | 150 | 15 | Percentage |

The above APF table example is to be read as follows:

- .1.1.1 If 0 < Instrument Price < 75, then allowed Price Fluctuation is 5%
- .1.1.2 If 75 <= Instrument $\,$ Price < 150, then allowed Price Fluctuation is 10%
- .1.1.3 If 150 <= Instrument Price, then allowed Price Fluctuation is 15%

An APF table will always contain at least one line, with O minimum Price.

3.12 EURONEXT RLP UNIVERSE FILE

The Euronext RLP (Retail Liquidity Providers) File, is flat csv file, delimited by a semi-colon. It provides a list of instruments codes with their associated index. The file will be available through CFTS Referential Data Service using SFTP with SSH key authentication.

The first line of the files contains the filename, internal application reference, date and time the file was created.

The second line of the file contains the field names delimited by a semi-colon.

- File Availability: Available 24/7.
- Scope of contents: All the Exchange segments for Market Data.
- Intraday updates: This file will be updated overnight.

File name will follow this template:

 $IDSCash_{<}ENV{>}Euronext-RLPUNIVERSE_YYYYMMDD.csv$

.1.1.1 Where <ENV> can take the following values: Production, v-EUA, p-EUA

| Field | Short Description | Format | Len | Values | Presence | |
|-----------------------|--------------------------|--------|-----|-------------------------|-----------|--|
| <u>InstrumentCode</u> | Instrument code | String | 12 | (See field description) | Mandatory | |
| <u>TradingCode</u> | Trading instrument code | String | 12 | (See field description) | Mandatory | |

| Field | Short Description | Format | Len | Values | Presence |
|-------------|--------------------------|--------|-----|-------------------------|-----------|
| Mnemonic | Instrument mnemonic code | String | 5 | (See field description) | Mandatory |
| <u>Name</u> | Instrument name | String | 30 | (See field description) | Mandatory |
| Index | Instrument index | String | 30 | (See field description) | Mandatory |

3.13 MEMBERS FAMILY INSTRUMENTS

The Members Family Instruments (MBR_FAMINSTR) file is a flat text file, delimited by field length. It provides a list of instruments codes with their associated internal instrument categories. The file will be available through CFTS Referential Data Service using SFTP with SSH key authentication.

The first line of the file contains the field names delimited by a forward slash.

- File Availability: Available 24/7.
- Scope of contents: All the Exchange segments for Market Data.
- Intraday updates: This file will be updated overnight.

File name will follow this template:

IDSCash_<ENV>_MBR_FAMINSTR_YYYYMMDD.txt

.1.1.1 Where <ENV> can take the following values: Production, v-EUA, p-EUA

| Field | Short Description | Format | Len | Values | Presence |
|------------------|---|--------|-----|-------------------------|-----------|
| <u>DJCALD</u> | Trading date YYYYMMDD | String | 8 | (See field description) | Mandatory |
| CODE_EURONEX T | Internal instrument identification code | String | 12 | (See field description) | Mandatory |
| CISIN | ISIN Code | String | 12 | (See field description) | Mandatory |
| CIDGRC | Trading group code | String | 2 | (See field description) | Mandatory |
| CGDSVAL | Instrument category | String | 1 | (See field description) | Mandatory |
| <u>YVAL</u> | Instrument type/processing category | String | 3 | (See filed description) | Mandatory |
| <u>LFAMINSTR</u> | Instrument category description | String | 30 | (See field description) | Mandatory |

3.14 TOTAL RETURN FUTURES CONVERSION PARAMETERS FILES

The TRF Conversion Parameters files provide the following data on a daily basis:

■ Contract characteristics: Maturity name, Number of days to expiry, Daily Settlement Price...

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 Indices values of the previous day and current day: CAC 40 Funding index, CAC 40 Synthetic index and

the CAC 40 Cumulative Dividend index

Two TRF Conversion Parameters files are produced each day. A Start Of Day (SOD) file is available before opening with limited data around 09:20 CET. And the End Of Day (EOD) file is available after closing with extended data before 20:00 CET. These files are available via the Euronext File Server (EFS), Common File Transfer System (CFTS) using SFTP with SSH key pair authentication, and on the Euronext website.

The TRF Conversion parameter files will be available under the 'IndexDerivatives' segment.

The layout of the file is the same between the Start Of Day (SOD) and the End Of Day (EOD) file.

3.14.1 Total Return Futures Conversion Parameters file SOD CSV

File name will follow this template:

UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_YYYYMMDD.cs

- .1.1.1 Where <ENV> can take the following values: Production, v-EUA, p-EUA
- .1.1.2 Where SOD stands for Start Of Day
- .1.1.3 Field separator: ';'
- .1.1.4 Separator at the end of the line
- .1.1.5 First line contains columns' header
- .1.1.6 Decimals separator: `.'
- .1.1.7 Numeric can be negatively signed: `-'

| Field | Short Description | Format | Len | Values | Presence |
|------------------------|---|-----------|-----|----------------------|-----------|
| <u>PublicationTime</u> | Time when the file is generated | Date | 17 | 20220705 08:26:08 | Mandatory |
| <u>ContractCode</u> | Contract identifier | Text | 6 | 'JFFCT ' | Mandatory |
| <u>ExpiryCode</u> | Maturity identifier with format MMMYY | Text | 5 | JUL22 | Mandatory |
| SymbolIndex | Contract symbol index | Text | 10 | 4184600006 | Mandatory |
| <u>ProdBusDate</u> | Date of current day | Date | 17 | 20220705 00:00:00 | Mandatory |
| AnnualisationFactor | Always equal to 360 | Numerical | 1 | 360 | Not used |
| BusinessDayOffset | Always equal to 2 | Numerical | 1 | | Not used |
| <u>DaySettlDate</u> | Date of current day + 2 business day | Date | 17 | | Not used |
| <u>FundingDays</u> | Today's DaySettlDate - Yesterday's DaySettlDate | Numerical | 1 | | Not used |
| <u>InstBusDate</u> | Date of current day | Date | 17 | | Not used |
| <u>ExpSettlDate</u> | Expiry date + 2 business days | Date | 17 | | Not used |
| <u>DaysToMaturity</u> | The days to maturity for each expiry | Numerical | 1 | 80 | Mandatory |
| <u>SettlSpread</u> | Orderbook settlement price in index points | Numerical | 8 | | Not used |
| <u>SettlBasis</u> | Orderbook settlement price in basis points | Numerical | 8 | | Not used |
| <u>SettlClgPrc</u> | DSP in index points | Numerical | 8 | | Not used |

| Field | Short Description | Format | Len | Values | Presence |
|-----------------------------|---|-----------|-----|-------------|-----------|
| <u>FundingIndex</u> | Funding index of current day (C4FU) | Numerical | 8 | -0.27799613 | Mandatory |
| CumulativeDividendInd ex | Accumulated dividend index of current day (C4CD) | Numerical | 8 | 330.83 | Mandatory |
| <u>PreliminaryIndex</u> | CAC index close of the previous business day | Numerical | 8 | 5491.404354 | Mandatory |
| <u>FinalIndex</u> | CAC index close of the current day | Numerical | 8 | | Not used |
| <u>FundingRate</u> | Recalibrated EONIA[1] index of the previous business day | Numerical | 8 | | Not used |
| <u>DailyFunding</u> | Today's Funding Index Close - Yesterday's Funding Index Close | Numerical | 8 | | Not used |
| <u>DailyDistribution</u> | Today's Accumulated dividend Index Close - Yesterday's Accumulated dividend Index Close | Numerical | 8 | | Not used |
| SyntheticDividendIndex | CAC synthetic dividend index (C4SD) close of the current day | Numerical | 8 | | Not Used |

3.14.2 Total Return Futures Conversion Parameters file SOD XML

File name will follow this template:

UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_YYYYMMDD.x ml

- .1.1.8 Where <ENV> can take the following values: Production, v-EUA, p-EUA
- .1.1.9 Where SOD stands for Start Of Day

| Field | Short Description | Format | Len | Values | Presence |
|------------------------------------|--|-----------|-----|-------------------|-----------|
| TRFConversionParameters File | | | | | |
| ExpiryConversionParamet ersUnitary | | | | | |
| PublicationTime | Time when the file is generated | Date | 17 | 20220705 8:26:08 | Mandatory |
| <u>ContractCode</u> | Contract identifier | Text | 6 | 'JFFCT ' | Mandatory |
| <u>ExpiryCode</u> | Maturity identifier with format MMMYY | Text | 5 | JUL22 | Mandatory |
| SymbolIndex | Contract symbol index | Text | 10 | 4184600006 | Mandatory |
| <u>ProdBusDate</u> | Date of current day | Date | 17 | 20220705 00:00:00 | Mandatory |
| AnnualisationFactor | Always equal to 360 | Numerical | 1 | | Not used |
| BusinessDayOffset | Always equal to 2 | Numerical | 1 | | Not used |
| <u>DaySettlDate</u> | Date of current day + 2 business day | Date | 17 | | Not used |
| <u>FundingDays</u> | Today's DaySettlDate - Yesterday's DaySettlDate | Numerical | 1 | | Not used |
| <u>InstBusDate</u> | Date of current day | Date | 17 | | Not used |
| <u>ExpSettlDate</u> | Expiry date + 2 business days | Date | 17 | | Not used |

| Field | Short Description | Format | Len | Values | Presence |
|---|--|-----------|-----|-------------|-----------|
| <u>DaysToMaturity</u> | The days to maturity for each expiry | Numerical | 1 | 80 | Mandatory |
| <u>SettlSpread</u> | Orderbook settlement price in index points | Numerical | 8 | | Not used |
| <u>SettlBasis</u> | Orderbook settlement price in basis points | Numerical | 8 | | Not used |
| <u>SettlClgPrc</u> | DSP in index points | Numerical | 8 | | Not used |
| <u>FundingIndex</u> | Funding index of current day (C4FU) | Numerical | 8 | -0.27799613 | Mandatory |
| <u>CumulativeDividendInde</u> <u>x</u> | Accumulated dividend index of current day (C4CD) | Numerical | 8 | 330.83 | Mandatory |
| <u>PreliminaryIndex</u> | CAC index close of the previous business day | Numerical | 8 | 5491.404354 | Mandatory |
| FinalIndex | CAC index close of the current day | Numerical | 8 | | Not used |
| <u>FundingRate</u> | Recalibrated EONIA[1] index of the previous business day | Numerical | 8 | | Not used |
| DailyFunding | Today's Funding Index Close - Yesterday's Funding Index Close | Numerical | 8 | | Not used |
| DailyDistribution | Today's Accumulated dividend Index Close - Yesterday's Accumulated dividend Index Close | Numerical | 8 | | Not used |
| SyntheticDividendIndex | CAC synthetic dividend index (C4SD) close of the current day | Numerical | 8 | | Not Used |
| /ExpiryConversionParamet ersUnitary | | | | | |
| /TRFConversionParameter sFile | | | | | |

3.14.3 Total Return Futures Conversion Parameters file EOD CSV

File name will follow this template:

 $\label{lem:conversionParameters_IndexDerivatives_EOD_YYYYMMDD.cs v} \begin{tabular}{ll} UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_YYYYMMDD.cs v \end{tabular}$

- .1.1.10 Where <ENV> can take the following values: Production, v-EUA, p-EUA
- $.1.1.11\,\mbox{Where EOD}$ stands for End Of Day
- .1.1.12 Field separator: ';'
- $.1.1.13\,\mbox{Separator}$ at the end of the line
- $. 1.1.14 \, \text{First line contains columns' header} \\$
- .1.1.15 Decimals separator: `.'
- $.1.1.16\,\mathrm{Numeric}$ can be negatively signed: '-'

| Field | Short Description | Format | Len | Values Presence | |
|------------------------|---------------------------------|--------|-----|-------------------|-----------|
| <u>PublicationTime</u> | Time when the file is generated | Date | 17 | 20220705 18:02:08 | Mandatory |
| ContractCode | Contract identifier | Text | 6 | 'JFFCT ' | Mandatory |

| Field | Short Description | Format | Len | Values | Presence |
|---|--|-----------|-----|----------------------|-----------|
| <u>ExpiryCode</u> | Maturity identifier with format MMMYY | Text | 5 | JUL22 | Mandatory |
| SymbolIndex | Contract symbol index | Text | 10 | 4184600006 | Mandatory |
| <u>ProdBusDate</u> | Date of current day | Date | 17 | 20220705 00:00:00 | Mandatory |
| AnnualisationFact or | Always equal to 360 | Numerical | 1 | 360 | Mandatory |
| BusinessDayOffs et | Always equal to 2 | Numerical | 1 | 2 | Mandatory |
| <u>DaySettlDate</u> | Date of current day + 2 business day | Date | 17 | 20220705 00:00:00 | Mandatory |
| <u>FundingDays</u> | Today's DaySettlDate - Yesterday's DaySettlDate | Numerical | 1 | 3 | Mandatory |
| <u>InstBusDate</u> | Date of current day | Date | 17 | 20220705 00:00:00 | Mandatory |
| <u>ExpSettlDate</u> | Expiry date + 2 business days | Date | 17 | 20220707 00:00:00 | Mandatory |
| DaysToMaturity | The days to maturity for each expiry | Numerical | 1 | 80 | Mandatory |
| SettlSpread | Orderbook settlement price in index points | Numerical | 8 | 0.59369 | Mandatory |
| <u>SettlBasis</u> | Orderbook settlement price in basis points | Numerical | 8 | 5 | Mandatory |
| <u>SettlClgPrc</u> | DSP in index points | Numerical | 8 | 5822.81 | Mandatory |
| <u>FundingIndex</u> | Funding index of current day (C4FU) | Numerical | 8 | -0.27799613 | Mandatory |
| <u>CumulativeDivide</u> <u>ndIndex</u> | Accumulated dividend index of current day (C4CD) | Numerical | 8 | 330.83 | Mandatory |
| <u>PreliminaryIndex</u> | CAC index close of the previous business day | Numerical | 8 | 5491.404354 | Mandatory |
| <u>FinalIndex</u> | CAC index close of the current day | Numerical | 8 | 5410.846096 | Mandatory |
| <u>FundingRate</u> | Recalibrated EONIA[1] index of the previous business day | Numerical | 8 | -0.00365 | Mandatory |
| DailyFunding | Today's Funding Index Close - Yesterday's Funding Index Close | Numerical | 8 | -0.1670311 | Mandatory |
| <u>DailyDistribution</u> | Today's Accumulated dividend Index Close - Yesterday's Accumulated dividend Index Close | Numerical | 8 | 0 | Mandatory |
| <u>SyntheticDividen</u> <u>dIndex</u> | CAC synthetic dividend index (C4SD) close of the current day | Numerical | 8 | 5741.402004 | Mandatory |

3.14.4 Total Return Futures Conversion Parameters file EOD XML

File name will follow this template:

 $\label{thm:conversionParameters_IndexDerivatives_EOD_YYYYMMDD.x ml} \begin{tabular}{ll} UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_YYYYMMDD.x ml \end{tabular}$

- .1.1.17 Where <ENV> can take the following values: Production, v-EUA, p-EUA
- .1.1.18 Where EOD stands for EOD for End Of Day.

| Field | Short Description | Format | Len | Values | Presence |
|-------------------------------------|--|-----------|-----|----------------------|-----------|
| TRFConversionParametersF ile | | | | | |
| ExpiryConversionParamete rsUnitary | | | | | |
| <u>PublicationTime</u> | Time when the file is generated | Date | 17 | 20220705 18:02:08 | Mandatory |
| ContractCode | Contract identifier | Text | 6 | 'JFFCT ' | Mandatory |
| <u>ExpiryCode</u> | Maturity identifier with format MMMYY | Text | 5 | JUL22 | Mandatory |
| SymbolIndex | Contract symbol index | Text | 10 | 4184600006 | Mandatory |
| <u>ProdBusDate</u> | Date of current day | Date | 17 | 20220705 00:00:00 | Mandatory |
| AnnualisationFactor | Always equal to 360 | Numerical | 1 | 360 | Mandatory |
| <u>BusinessDayOffset</u> | Always equal to 2 | Numerical | 1 | 2 | Mandatory |
| <u>DaySettlDate</u> | Date of current day + 2 business day | Date | 17 | 20220705 00:00:00 | Mandatory |
| <u>FundingDays</u> | Today's DaySettlDate - Yesterday's DaySettlDate | Numerical | 1 | 3 | Mandatory |
| <u>InstBusDate</u> | Date of current day | Date | 17 | 20220705 00:00:00 | Mandatory |
| <u>ExpSettlDate</u> | Expiry date + 2 business days | Date | 17 | 20220705 00:00:00 | Mandatory |
| <u>DaysToMaturity</u> | The days to maturity for each expiry | Numerical | 1 | 80 | Mandatory |
| SettlSpread | Orderbook settlement price in index points | Numerical | 8 | 0.59369 | Mandatory |
| <u>SettlBasis</u> | Orderbook settlement price in basis points | Numerical | 8 | 5 | Mandatory |
| SettlClgPrc | DSP in index points | Numerical | 8 | 5822.81 | Mandatory |
| FundingIndex | Funding index of current day (C4FU) | Numerical | 8 | -0.27799613 | Mandatory |
| CumulativeDividendIndex | Accumulated dividend index of current day (C4CD) | Numerical | 8 | 330.83 | Mandatory |
| <u>PreliminaryIndex</u> | CAC index close of the previous business day | Numerical | 8 | 5491.404354 | Mandatory |
| <u>FinalIndex</u> | CAC index close of the current day | Numerical | 8 | 5410.846096 | Mandatory |
| <u>FundingRate</u> | Recalibrated EONIA[1] index of the previous business day | Numerical | 8 | -0.00365 | Mandatory |
| DailyFunding | Today's Funding Index Close - Yesterday's Funding Index Close | Numerical | 8 | -0.1670311 | Mandatory |
| <u>DailyDistribution</u> | Today's Accumulated dividend Index Close - Yesterday's Accumulated dividend Index Close | Numerical | 8 | 0 | Mandatory |
| SyntheticDividendIndex | CAC synthetic dividend index (C4SD) close of the current day | Numerical | 8 | 5741.402004 | Mandatory |
| /ExpiryConversionParamet ersUnitary | | | | | |
| /TRFConversionParameters File | | | | | |

3.15 LP OBLIGATIONS FILE

The Euronext LP (Liquidity Providers) Obligations File, is a zipped (,gz) file containing a flat csv file, delimited by a semi-colon. It provides a list of LP Obligations per trading member FirmID and MIC code and instrument. The file will be available through CFTS Referential Data Service using SFTP with SSH key authentication.

The first line of the file contains the field names delimited by a semi-colon.

File Availability: Available 24/7.

 $\underline{\textbf{Scope of contents: Exchange Cash segments, equities, fixed income, structured products for the following} \underline{\textbf{Markets}}$

MIC Description

ETLX EUROTLX

MOTX ELECTRONIC BOND MARKET

XMOT EXTRAMOT

Intraday updates: This file will be updated overnight.

File name will follow this template:

IDSCash <ENV> LP OBLIGATIONS <CountryCode XX> <yyyyMMdd> <versionNo>.csv.gz

.1.1.19 Where <ENV> can take the following values: Production, v-EUA, p-EUA

.1.1.20 Where <CountryCode XX> is a two character ISO country code

| Field | Short Description | <u>Format</u> | <u>Len</u> | <u>Values</u> | <u>Presence</u> |
|------------------------------|--|--------------------------|-------------|-------------------------|-----------------|
| <u>FirmID</u> | Trading member's Euronext Firm ID unique identifier | Alphanumerical <u>ID</u> | <u>8</u> | (See field description) | Mandatory |
| <u>FirmName</u> | Trading member's firm name | <u>Text</u> | <u>30</u> | (See field description) | Mandatory |
| MIC | MIC (Market Identification Code according to ISO 10383 | Alphanumerical ID | <u>4</u> | (See field description) | Mandatory |
| ISIN | Instrument ISIN following ISO 6166 | Alphanumerical ID | <u>12</u> | (See field description) | Mandatory |
| Currency | Currency code (ISO 4217- 3A) | Alphanumerical ID | <u>3</u> | (See field description) | Mandatory |
| Role | Euronext Liquidity Providers Obligation Role | Alphanumerical ID | <u>3</u> | (See field description) | Mandatory |
| <u>LPObligationSide</u> | Presence obligation side type | <u>Enumerated</u> | 1 | (See field description) | Mandatory |
| <u>VolumeObligType</u> | Type of volume obligation | Enumerated | 1 | (See field description) | Mandatory |
| MinimumAmountLP | Minimum value to maintain the obligation | <u>Numerical</u> | <u>15,2</u> | (See field description) | Mandatory |
| MinimumVolumeLP | Minimum volume to maintain the obligation | <u>Numerical</u> | 8 | (See field description) | Mandatory |
| <u>SpreadObligType</u> | Unit used for the spread obligations | Enumerated | 1 | (See field description) | Mandatory |
| <u>MaximumValueSpreadObl</u> | Maximum value (in Euro) of spread obligation | Numerical | <u>8,2</u> | (See field description) | Mandatory |
| MaximumPercentageSprea dObl | Maximum percentage spread of the obligation (to be divided by 100) | <u>Numerical</u> | <u>5,2</u> | (See field description) | Mandatory |

Optiq Files – Interface Specification -Euronext Cash and Derivatives Markets

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4. FIELD DESCRIPTION



Amount Decimals

| FIELD NAME | AMOUNT DECIMALS | |
|-----------------|---|--|
| Description | Indicates the number of decimals for each Amount related to this Symbol Index | |
| Format | Decimal Places (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 02^8-2 | |
| | Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| | DerivativesStandingDataFile (9013) | |
| User For | Cash and Derivatives | |

Annualisation Factor

| FIELD NAME | ANNUALISATIONFACTOR |
|--------------------|--|
| Description | Always equal to 360 |
| Format | Numerical |
| Length | 1 |
| Possible Values | 360 |
| Used In | Total Return Futures Conversion Parameters files |

Anonymous

| FIELD NAME | ANONYMOUS |
|--------------------|---|
| Description | Indicates if the Member identifier (Firm ID) that placed the order is to be published in market data order notifications. |
| Format | Boolean |
| Length | 1 |
| Possible Values | 0 = Anonymous 1 = Non Anonymous |
| Used In | CashStandingDataFile (9007) |

APF Index ID

| FIELD NAME | ANONYMOUS |
|--------------------|--|
| Description | Identifier of the APF table |
| Format | Numerical ID |
| Length | 2 |
| Possible Values | 02^16-2 |
| Used In | Authorized Price Fluctuation File (9008) |

AQS Multiplier

| FIELD NAME | AQS MULTIPLIER |
|-----------------|--|
| Description | Actual Quality Spread Multiplier. Enable to calculate the Actual Quality Spread to know whether the DCRP is Mid-BBO or Fair Value (to be calculated with the Ratio / Multiplier Decimals). |
| Format | Numerical (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | ReferenceSpreadsFile (9045) |
| User For | Derivatives |

Asset Class

| FIELD NAME | ASSET CLASS | |
|-----------------|--|--|
| Description | Defines the Asset Class for a group of products. | |
| Format | Enumerated | |
| Length | 3 | |
| Possible Values | EQT = Equities BoB = Best of Book (BoB) TRP = Trade Reporting and Publication SIS = Société Générale Systematic Internalizer (SI) ETF = ETFS FIX = Fixed Income WAC = Warrants and Certificates BDL = Luxembourg Stock Exchange EQO = Equity Options IDO = Index Options CCO = Currency Options ATO = AtomX (for Flex Contracts) EIF = Equity and Index Futures CCF = Currency Futures COD = Commodity Derivatives EXI = Euronext Indices | |
| | INA = Euronext indices TPI = Third Party Indices | |
| | APA = Approved Publication Arrangement | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

AUM

| FIELD NAME | AUM | |
|-----------------|---|--|
| Description | Stands for Asset Under Management. Indicates the fund's total market value (to be calculated with the Amount Decimals). | |
| Format | Amount (unsigned integer 64) | |
| Length | 8 | |
| Possible Values | 02^64-2 Null value: 2^64-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Authorized Price Fluctuation

| FIELD NAME | AUTHORIZED PRICE FLUCTUATION | |
|--------------------|---|--|
| Description | Lower Limit of the APF range. | |
| | Price with `.' as a separator followed by 7 decimals. | |
| Format | Price | |
| Length | 8 | |
| Possible Values | From -2^63+1 to 2^63-1 | |
| Used In | Authorized Price Fluctuation File (9008) | |

Authorized Price Fluctuation Type

| FIELD NAME | AUTHORIZED PRICE FLUCTUATION TYPE |
|--------------------|--|
| Description | Indicates whether the APF is expressed in Percentage or Absolute Value |
| Format | Enumarated |
| Length | 1 |
| Possible Values | 1 Percentage 2 Absolute Value |
| Used In | Authorized Price Fluctuation File (9008) |



BIC Main Depositary

| FIELD NAME | BIC MAIN DEPOSITARY |
|---------------|--|
| Description | Identifies the BIC of the default depository organization. |
| Format | Alphanumerical ID (character) |
| Length | 11 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Block Price Control ID

| FIELD NAME | BLOCK PRICE CONTROL ID |
|-----------------|---|
| Description | ID of the Block Price Table. |
| Format | Numerical ID (unsigned integer 16) XML: unsigned integer 16 |
| Length | 2 |
| Possible Values | 02^16-2 Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Bloomberg Ticker Code

| FIELD NAME | BLOOMBERG TICKER CODE |
|---------------|--------------------------------------|
| Description | Indicates the Bloomberg Ticker Code. |
| Format | Alphanumerical ID (character) |
| Length | 13 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Bps High Collar

| FIELD NAME | BPS HIGH COLLAR |
|-----------------|---|
| Description | Indicates the High collar applied on the NAV order book of ETF MTF. It is derived from the creation fees of the primary market. Information expressed in basis points (bps) (to be calculated with the Price/Index Level Decimals). |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 Null value: -2^63 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Bps Low Collar

| FIELD NAME | BPS LOW COLLAR |
|-----------------|--|
| Description | Indicates the low collar applied on the NAV order book of ETF MTF. It is derived from the redemption fees of the primary market. Information expressed in basis points (bps) (to be calculated with the Price/Index Level Decimals). |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 Null value: -2^63 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Business Day Offset

| FIELD NAME | BUSINESSDAYOFFSET |
|-----------------|--|
| Description | Always equal to 2 |
| Format | Numerical |
| Length | 1 |
| Possible Values | 2 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |



CFI

| FIELD NAME | CFI |
|---------------|---|
| Description | Classification code of a financial instrument defined by the ISO-10962:2015 standard. |
| Format | Text (character) |
| Length | 6 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

CGDSVAL

| FIELD NAME | CGDSVAL |
|-----------------|---|
| Description | Instrument category |
| Format | Text |
| Length | 1 |
| Possible Values | A - Equity type securities (including shares) O - Bonds and equity linked bonds (i.e. convertible bonds and exchangeable bonds) I - Indexes T - Trackers W - Warrants and certificates D - Other. |
| Used In | MBR_FAMINSTR |
| User For | Cash |

Channel ID

| FIELD NAME | CHANNEL ID |
|-----------------|--|
| Description | Identifies the channel. |
| | First figure defines if it is Real-Time feed (1 Production, 3 v-EUA or 5 p-EUA) or Snapshot feed (2 Production, 4 v-EUA or 6 p-EUA). |
| | Second figure identifies the MDG partition (partition 1 will start with 0 as second figure). |
| | Last 3 figures are channel identifier and it is unique and the same across the different platforms we have (v-EUA/p-EUA/Production). |
| Format | Numerical (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Channel Speed

| FIELD NAME | CHANNEL SPEED | |
|-------------|--------------------------------|--|
| Description | Defines the Channel bandwidth. | |
| Format | Enumerated (character) | |
| Length | 4 | |

| FIELD NAME | CHANNEL SPEED |
|-----------------|------------------------------------|
| Possible Values | 100M 100Mbps Channel |
| | 1G 1Gbps Channel |
| | 10G 10Gbps Channel |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Channel Type

| FIELD NAME | CHANNEL TYPE |
|-----------------|---|
| Description | Defines the channel. |
| Format | Enumerated (character) |
| Length | 4 |
| Possible Values | FBOU Full Order Book – Order Update message FBMU Full Order Book – Market Update message REFI Indices and referential channel REFT Trades and referential channel BBBO Best Bid and Best Offer channel APSI APA SI Quotes channel APTR APA Trade Publication channel SNPS Synapse Trades channel EBLK Block channel |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

CISIN

| FIELD NAME | CISIN |
|-----------------|-----------------------|
| Description | Instrument ISIN code |
| Format | Text |
| Length | 12 |
| Possible Values | Instrument ISIN codes |
| Used In | MBR_FAMINSTR |
| User For | Cash |

CIDGRC

| FIELD NAME | CIDGRC |
|-----------------|---------------------------------------|
| Description | Trading group code |
| Format | Text |
| Length | 2 |
| Possible Values | Internal Euronext trading group codes |
| Used In | MBR FAMINSTR |
| User For | Cash |

Closing Price Type

| FIELD NAME | CLOSING PRICE TYPE |
|-----------------|---|
| Description | Closing Price Type. Indicates the type of closing Price configured for the instrument. If none, Last Adjusted Closing Price is used. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Last Traded Price (LTP) 2 Volume Weighted Average Price (VWAP) 3 Volume Weighted Average Price (VWAP X Trades) 4 Closing Uncrossing Price – VWAP 5 Closing Uncrossing Price – BBO 6 VWAP – BBO 7 Not Applicable 8 VWAP - Closing Price of Reference Market 9 Last Adjusted Closing Price (LACP) Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Code_Euronext

| FIELD NAME | CODE_EURONEXT | |
|-----------------|---|--|
| Description | Internal Euronext instrument identify code / ISIN | |
| Format | Text | |
| Length | 12 | |
| Possible Values | Instrument ISIN codes | |
| Used In | MBR_FAMINSTR | |
| User For | Cash | |

Collar Expansion Factor

| FIELD NAME | COLLAR EXPANSION FACTOR |
|-----------------|--|
| Description | Numerical coefficient applied in collar calculation. |
| Format | Numerical ID (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |

Collar Max Unhalt Nb

| FIELD NAME | COLLAR MAX UNHALT NB |
|-----------------|---|
| Description | Maximum number of automatic attempts to unhalt system. Applies only if Dynamic Collar Logic enables unhalting. Used for Trade Price Validation (TPV). |
| Format | Quantity (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |

Collar Unhalt Delay

| COLLAR UNHALT DELAY | |
|--|--|
| Delay (in seconds) of automatic unhalt If Dynamic Collar Logic enables unhalting. Used for Trade Price Validation (TPV). | |
| Time (unsigned integer 32) | |
| 4 | |
| 02^32-2 Null value: 2^32-1 | |
| | |
| | Delay (in seconds) of automatic unhalt If Dynamic Collar Logic enables unhalting. Used for Trade Price Validation (TPV). Time (unsigned integer 32) |

Collars Multiplier

| FIELD NAME | COLLARS MULTIPLIER |
|-----------------|---|
| Description | Allows to determine the effective Collars by applying this multiplier to the Market Quality spread, which enables clients to determine in real time the collars applied by the system for each individual order book (to be calculated with the Ratio / Multiplier Decimals). |
| Format | Numerical (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | ReferenceSpreadsFile (9045) |
| User For | Derivatives |

Contract Code

| FIELD NAME | CONTRACTCODE |
|---------------|--|
| Description | Contract code |
| Format | Text (character) |
| Length | 6 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Contract Event Date

| FIELD NAME | CONTRACT EVENT DATE |
|-----------------|--|
| Description | XML additional information: (Format YYYYMMDD). |
| Format | Date (unsigned integer 16) XML: XML date |
| Length | 2 |
| Possible Values | 02^16-2 Null value: 2^16-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Contract Name

| FIELD NAME | CONTRACT NAME |
|---------------|------------------------------------|
| Description | Contract Name |
| Format | Text (character) |
| Length | 60 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Contract Symbol Index

| FIELD NAME | CONTRACT SYMBOL INDEX |
|-----------------|---|
| Description | Identifies the contract of this instrument by its Symbol Index. |
| Format | Numerical ID (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Contract Trading Type

| FIELD NAME | CONTRACT TRADING TYPE |
|-----------------|--|
| Description | Contract Trading Type. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Traded as an outright 2 Not traded, but listed in contract data. Traders may subscribe to it 3 Traded as a simple inter-commodity spread 4 Traded as an inter-commodity spread Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Contract Type

| FIELD NAME | CONTRACT TYPE |
|-----------------|--|
| Description | Generic Contract Type. |
| Format | Enumerated (character) |
| Length | 1 |
| Possible Values | F Future |
| | O Option |
| | U Underlying |
| Conditions | Value U (Underlying) is for internal Exchange use only |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Country Of Exchange

| FIELD NAME | COUNTRY OF EXCHANGE |
|---------------|--|
| Description | Country of exchange is the Country associated to the MIC following ISO 3166 Alpha-3. |
| Format | Alphanumerical ID (character) |
| Length | 3 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Cumulative Dividend Index

| FIELD NAME | CUMULATIVEDIVIDENDINDEX |
|-------------|--|
| Description | Accumulated dividend index of current day (C4CD) |
| Format | Numerical |
| Length | 1 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Currency

| FIELD NAME | CURRENCY | |
|----------------|-------------------------------|--|
| Description | Currency code (ISO 4217-3A). | |
| <u>Format</u> | Alphanumerical ID (character) | |
| <u>Length</u> | 3 | |
| <u>Used In</u> | LP_OBLIGATIONS File | |
| User For | Cash | |

Currency Coefficient

| FIELD NAME | CURRENCY COEFFICIENT | |
|-----------------|--|-----|
| Description | When an actual price is displayed in a different 'price expression' than the official instrument trading currency, the Currency Coefficient represents the ratio 'price expression' divided by 'official currency' (To b calculated with Ratio / Multiplier Decimals). | е |
| | For example a UK-listed instrument with its trading currency GBP having a price expressed in Pence, the Currency Coefficient will be 0.01 expressed with Currency Coefficient set to 1 and Ratio / Multiplier Decima set to 2. | als |
| | The Currency Coefficient may be used for the Instrument Trading Price (the Referential field Trading Currency Indicator is then set to 1), and/or for the Derivatives and Warrants Instrument Strike Price (the Referential field Strike Currency Indicator is then set to 1). | |
| Format | Numerical ID (unsigned integer 32) | |
| Length | 4 | |
| Possible Values | 02^32-2 | |
| | Null value: 2^32-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Cut Off Time

| FIELD NAME | CUT OFF TIME |
|-------------|---|
| Description | Indicates the point reached in the day from which the order will not be processed for the current business day. Time in an integer on 4 bytes expressed as hhmmss |

| FIELD NAME | CUT OFF TIME |
|-----------------|--|
| Format | Integer Time in hhmmss (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |



Daily Distribution

| FIELD NAME | DAILYDISTRIBUTION |
|-------------|---|
| Description | Today's Accumulated dividend Index Close - Yesterday's Accumulated dividend Index Close |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Daily Funding

| FIELD NAME | DAILYFUNDING |
|-------------|---|
| Description | Today's Funding Index Close - Yesterday's Funding Index Close |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Dark Eligibility

| FIELD NAME | DARK ELIGIBILITY |
|-----------------|--|
| Description | Indicates the Eligibility to dark. 0 is not eligible, 1 is eligible. |
| Format | Boolean (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Dark LIS Threshold

| FIELD NAME | DARK LIS THRESHOLD |
|-----------------|--|
| Description | Defines the minimum amount of an order to benefit from the LIS (Large In Scale) pre-transparency waiver (to be calculated with the Amount Decimals). |
| Format | Amount (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Dark Min Quantity

| FIELD NAME | DARK MINIMUM QUANTITY |
|-----------------|--|
| Description | Defines the minimum quantity required for an order to be filled in the Dark liquidity. 0 indicates that no minimum amount is required. |
| Format | Quantity (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Date Next Tradable NAV

| FIELD NAME | DATE NEXT TRADABLE NAV |
|-----------------|--|
| Description | Date of the next tradable NAV. Date in an integer on 4 bytes expressed as YYYYMMDD |
| Format | Date (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Date Of Last Trade

| FIELD NAME | DATE OF LAST TRADE |
|-----------------|--|
| Description | XML additional information: (Format YYYYMMDD). |
| Format | Date (unsigned integer 16) XML: XML date |
| Length | 2 |
| Possible Values | 02^16-2 Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Day Settle Date

| FIELD NAME | DAYSETTLDATE |
|-------------|---|
| Description | Date of current day plus 2 business days |
| Format | Date |
| Length | 17 |
| Used In | Total Return Future Conversion Parameters files |

Days To Expiry

| FIELD NAME | DAYS TO EXPIRY |
|-------------|---|
| Description | Number of Calendar days until the Last Trading Day of the Expiry. |

| FIELD NAME | DAYS TO EXPIRY |
|-----------------|---|
| Format | Numerical (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | <u>DerivativesStandingDataFile (9013)</u> |

Days To Maturity

| FIELD NAME | DAYSTOMATURITY | |
|-------------|---|--|
| Description | Number of Calendar days to maturity for each expiry | |
| Format | Numerical | |
| Length | 1 | |
| Used In | Total Return Futures Conversion Parameters files | |

Declaration Duration

| FIELD NAME | DECLARATION DURATION |
|-----------------|---|
| Description | Declaration Duration (in minutes). |
| Format | Time (unsigned integer 64) XML: unsigned integer 64 |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |

Depositary List

| FIELD NAME | DEPOSITARY LIST |
|---------------|--|
| Description | Identifies the possible main depository organizations (maximum four) for shares or fixed income. |
| | Use the clearing house to determine the relevant system for settling trades. |
| | Valid values are: |
| | - '00001' - Euroclear France |
| | - '00002' - Euroclear Belgium (ex-CIK-(Belgium) |
| | - '00003' – <u>Euroclear Nederland (ex-</u> NECIGEF -(the Netherlands) |
| | - '00004' – X/N (BoB service) |
| | - '00005' – VIF (non-fungible Belgian instruments) |
| | - '00006' – Euroclear Bank |
| | - '00007' – NIEC |
| | - '00008' – Physical |
| | - '00009' – Euronext Paris non Euroclear France |
| | - '00010' - Euronext Securities Porto (ex-Interbolsa) |
| | - '00012' - Euronext Securities Milan (ex-Monte Titoli) |
| | - '00000' – No depository organization |
| | - 'Nulls' - Not significant |
| Format | Text (character) |
| Length | 20 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

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Derivatives Instrument Trading Code

| FIELD NAME | DERIVATIVES INSTRUMENT TRADING CODE |
|---------------|---|
| Description | Derivatives Instrument Trading Code (formerly AMR) is composed of Exchange Code, Contract Type, Product Code, Expiry. For Options, Strike and Option Type (Put or Call) is added. |
| Format | Alphanumerical ID (character) |
| Length | 18 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Derivatives Instrument Type

| FIELD NAME | DERIVATIVES INSTRUMENT TYPE |
|-----------------|--|
| Description | Indicates the type of derivative instrument |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Call Option 1 Put Option 2 Strategy 3 Individual Future 4 Underlying Null value: 2^8-1 |
| Conditions | Value U (Underlying) is for internal Exchange use only |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Derivatives Market Model

| FIELD NAME | DERIVATIVES MARKET MODEL |
|-----------------|---|
| Description | Type of synthetic quote applied to the contract |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 No Synthetic Quote 1 Spontaneous Implied Matching 2 Event Driven Implied Matching Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Dividend Frequency

| FIELD NAME | DIVIDEND FREQUENCY |
|-----------------|---|
| Description | Indicates how often a dividend is paid by an individual instrument. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Capitalization 2 Monthly 3 Yearly Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |

| FIELD NAME | DIVIDEND FREQUENCY | |
|------------|--------------------|---|
| User For | Cash | 1 |

DJCALD

| FIELD NAME | DJCALD |
|---------------|------------------------------------|
| Description | Instrument trading date (YYYYMMDD) |
| Format | Text (character) |
| Length | 8 |
| Used In | MBR_FAMINSTR |
| User For | Cash |

DR Source IP Range

| FIELD NAME | DR SOURCE IP RANGE | |
|---------------|--|--|
| Description | Defines the Disaster Recovery IP address /25 range number (IP v4). | |
| Format | Text (character) | |
| Length | 20 | |
| Used In | CashStandingDataFile (9007) | |
| | <u>DerivativesStandingDataFile (9013)</u> | |
| User For | Cash and Derivatives | |

Dynamic Collar Logic

| FIELD NAME | DYNAMIC COLLAR LOGIC |
|-----------------|---|
| Description | For Derivatives, Dynamic Collar Logic is a field used to identify the method of handling orders in case of Trade Price Validation (TPV) being triggered. For Cash, Dynamic Collar Logic is used internally. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Not Active |
| | 2 No Halt with Reject (not in use) |
| | 3 Halt with Acceptation |
| | Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |



EDSP Tick Size

| FIELD NAME | EDSP TICK SIZE |
|-----------------|--|
| Description | Specific Tick Size value applicable for EDSP. It's calculated using the PriceDecimals. |
| Format | Price (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Eligible For Margin

| FIELD NAME | ELIGIBLE FOR MARGIN |
|-----------------|--|
| Description | Indicates if the instrument is eligible for margin or not. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Yes |
| | 0 No |
| | Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |

EMM

| FIELD NAME | ЕММ |
|-----------------|---|
| Description | Defines the Exchange Market Mechanism applied on each platform. In the Reject (07) message: Populated only if provided as a valid value in the corresponding Inbound request AND the corresponding Inbound request was technically correctly formatted; otherwise it is provided at the Null value. Not populated for rejection of strategy creation on derivative markets. In the Mass Cancel (13) message, it is mandatory when Symbol Index is provided and optional when Instrument Group Code is provided. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Cash and Derivative Central Order Book (COB) 2 NAV Trading Facility 4 Derivative Wholesales 5 Cash On Exchange Off book 6 Euronext off-exchange trade reports 7 Derivative On Exchange Off book 8 ETF MTF - NAV Central Order Book 9 Listed-not traded 15 Delta Neutral Contingency leg 99 Not Applicable (For indices and iNAV) Null value: 2^8-1 |
| Conditions | In TCS messages only possible values are '2' = NAV Trading Facility and '5' = Cash On Exchange Off book. Field not populated in Reject (07) messages for rejection of strategy creation on derivatives markets. |
| Used In | CashStandingDataFile (9007) CashTickSizeReferentialFile (9020) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

End Validity Date

| FIELD NAME | END VALIDITY DATE |
|-------------|---|
| Description | For guaranteed instrument, the End Validity Date is the date when the Clearing House triggers the buy-in procedure because of the seller delivery failure. |
| | For non-guaranteed instrument, the End Validity Date corresponds to the date when the trade is cancelled by the CSD and cash settlement/compensation is performed according to Euronext Securities rules. |
| Format | Text(character) |
| Length | 8 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Exchange Code

| FIELD NAME | EXCHANGE CODE |
|-----------------|---|
| Description | Indicates the Market Place. |
| Format | Enumerated (character) |
| Length | 1 |
| Possible Values | A Amsterdam Equity Derivatives B Brussels Equity Derivatives C Paris Equity Underlyings D Brussels Cash Underlyings F Brussels Index Derivatives G Amsterdam Cash Underlyings H Lisbon Cash Underlyings J Paris Index Derivatives K Amsterdam Index Derivatives L Oslo Cash Underlying Lisbon Index Derivatives N Oslo Index Derivatives O Oslo Equity Derivatives P Paris Equity Derivatives |
| | R Amsterdam Commodities Derivatives S Lisbon Equity Derivatives Y Paris Commodities Derivatives |
| | Z Amsterdam Currency Derivatives |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Exercise Style

| FIELD NAME | EXERCISE STYLE |
|-----------------|------------------------------------|
| Description | Type of exercise of an instrument |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 European |
| | 1 American |
| | 2 Asian |
| | 3 Bermudan |
| | 4 Other |
| | 5 Periodic |
| | Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Expiry Code

| FIELD NAME | EXPIRYCODE | |
|-------------|---------------------------------------|--|
| Description | Maturity identifier with format MMMYY | |
| Format | Text | |
| Length | 6 | |
| Used In | Total Return Futures Parameter files | |
| User For | Derivatives | |

Expiry Cycle Type

| FIELD NAME | EXPIRY CYCLE TYPE |
|-----------------|--|
| Description | Defines the expiry cycle type |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Daily 2 Weekly 3 Monthly Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Expiry Settlement Date

| FIELD NAME | EXPSETTLDATE |
|-------------|--|
| Description | Expiry settlement date (expiry date plus 2 business days) |
| Format | Date |
| Length | 17 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Exposition Type

| FIELD NAME | EXPOSITION TYPE |
|-----------------|---|
| Description | Indicates the ETF replication method. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Physical 2 Synthetic 3 Sampling Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |



Final Index

| FIELD NAME | FINALINDEX |
|-------------|--|
| Description | CAC index close of the current day |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

<u>FirmID</u>

| FIELD NAME | <u>FIRMID</u> |
|-----------------|--|
| Description | Internal Euronext trading member's unique identifier |
| <u>Format</u> | Alphanumeric ID |
| <u>Length</u> | 8 |
| Possible Values | 99999999 |
| <u>Used In</u> | LP OBLIGATIONS File |
| User For | Cash |

<u>FirmName</u>

| FIELD NAME | <u>FIRMNAME</u> | |
|--------------------|--|--|
| <u>Description</u> | Internal Euronext trading member's unique identifier | |
| <u>Format</u> | <u>Text</u> | |
| <u>Length</u> | <u>30</u> | |
| Possible Values | <u>X(30)</u> | |
| Used In | LP OBLIGATIONS File | |
| <u>User For</u> | Cash | |

First Settlement Date

| FIELD NAME | FIRST SETTLEMENT DATE |
|-----------------|-----------------------------|
| Description | XML additional information: |
| | (Format YYYYMMDD). |
| Format | Date (unsigned integer 16) |
| | XML: XML date |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Full Instrument Name

| FIELD NAME | FULL INSTRUMENT NAME |
|---------------|-----------------------------|
| Description | Full Instrument Name. |
| Format | Text (character) |
| Length | 102 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Funding Days

| FIELD NAME | FUNDINGDAYS |
|---------------|---|
| Description | Today's DaySettlDate minus yesterday's DaySettlDate |
| Format | Numerical |

| FIELD NAME | FUNDINGDAYS |
|---------------|--|
| Length | 1 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Funding Index

| FIELD NAME | FUNDINGINDEX |
|-------------|--|
| Description | Funding index of current day (C4FU) |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Funding Rate

| FIELD NAME | FUNDINGRATE |
|-------------|--|
| Description | Recalibrated EONIA[1] index of the previous business day |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |



Guarantee Indicator

| FIELD NAME | GUARANTEE INDICATOR |
|-----------------|--|
| Description | Indicates if the trade is guaranteed or not (for clearing purpose) |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 This instrument is not guaranteed 1 This instrument is guaranteed 2 This instrument is not clearable 8 This instrument is part of Cleared Borrowing and Lending Service (CBLM) and is guaranteed Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |



ICB

| FIELD NAME | ICB |
|---------------|--|
| Description | Identifies for a listed instrument, the economic subsector of the issuing company in the ICB (Industry Classification Benchmark) classification. |

| FIELD NAME | ICB |
|---------------|--|
| | This field is not relevant and is currently filled with '0000000000000'. |
| Format | Alphanumerical ID (character) |
| Length | 16 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

ICB Code

| FIELD NAME | ICB CODE |
|---------------|--|
| Description | Identifies for a listed instrument, the economic subsector of the issuing company in the ICB (Industry Classification Benchmark) classification. |
| | This field is not relevant and is currently filled with '00000000'. |
| Format | Alphanumerical ID (character) |
| Length | 8 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

ICSD

| FIELD NAME | ICSD | |
|-----------------|---|--|
| Description | Indicates if the settlement can be processed through an International CSD (1) or not (0). | |
| Format | Boolean (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 02^8-2 | |
| | Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Index

| FIELD NAME | INDEX |
|---------------|-----------------------|
| Description | Index name |
| Format | Text (character) |
| Length | 30 |
| Used In | Euronext RLP Universe |
| User For | Cash |

Index Leverage

| FIELD NAME | INDEX LEVERAGE |
|-----------------|---|
| Description | Indicates the multiplier coefficient of an leveraged fund. (To be calculated with RatioDecimal) |
| Format | Numerical (unsigned integer 32) |
| Length | 4 |
| Possible Values | 0.2^32-2 Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
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| FIELD NAME | INDEX LEVERAGE | |
|------------|----------------|--|
| User For | Cash | |

Instrument Business Date

| FIELD NAME | INSTBUSDATE | |
|-------------|--|--|
| Description | Date of current day | |
| Format | Date | |
| Length | 17 | |
| Used In | Total Return Futures Conversion Parameters files | |
| User For | Derivatives | |

Instrument Category

| FIELD NAME | INSTRUMENT CATEGORY |
|-----------------|---|
| Description | Indicates to which category the instrument belongs. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Equities 2 Fixed Income 3 Warrants And Certificates 6 Trackers 7 Futures 10 Options 11 Indices 12 Euronext Funds Services 14 iNAV (Indicative Net Asset Value) 15 Fund 16 Forex 254 Miscellaneous Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Instrument Code

| FIELD NAME | INSTRUMENT TRADING CODE |
|---------------|---|
| Description | Cash: Trading code is a 12-character string, the only instrument identifier that is unique in the feed in addition to the symbol index. |
| Format | Alphanumerical ID (character) |
| Length | 12 |
| Used In | Euronext RLP Universe |
| User For | Cash |

Instrument Event Date

| FIELD NAME | INSTRUMENT EVENT DATE |
|-------------|-----------------------------|
| Description | XML additional information: |
| | (Format YYYYMMDD). |
| Format | Date (unsigned integer 16) |

| FIELD NAME | INSTRUMENT EVENT DATE |
|-----------------|------------------------------------|
| | XML: XML date |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Instrument Group Code

| FIELD NAME | INSTRUMENT GROUP CODE |
|---------------|--------------------------------------|
| Description | Instrument Group / Class Identifier. |
| Format | Alphanumerical ID (character) |
| Length | 2 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Instrument Name

| FIELD NAME | INSTRUMENT NAME |
|---------------|-----------------------------|
| Description | Instrument Name |
| Format | Text (character) |
| Length | 18 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Instrument Trading Code

| FIELD NAME | INSTRUMENT TRADING CODE |
|---------------|---|
| Description | Cash: Trading code is a 12-character string, the only instrument identifier that is unique in the feed in addition to the symbol index. |
| Format | Alphanumerical ID (character) |
| Length | 15 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Instrument Type

| FIELD NAME | INSTRUMENT TYPE |
|-----------------|--|
| Description | Instrument Type. |
| | Represents a group of instruments that are subject to the same issue procedures, general processing. and that give shareholders the same rights with regard to voting, dividends and rights. |
| Format | Enumerated (character) |
| Length | 4 |
| Possible Values | 1 Equities |
| | SHRS Shares |
| | SBRT Subscription Right |

| FIELD NAME | INSTRUMENT TYPE |
|------------|-----------------------------|
| | DPRP Depository Receipts |
| | WNTS Warrant |
| | FLXB Flexi Bonds |
| | ETFT Exchange Traded Funds |
| | MTFU Mutual Funds |
| | OTHR Other |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Inst Unit Exp

| FIELD NAME | INSTRUMENT UNIT EXPRESSION |
|-----------------|---|
| Description | Unit in which the instrument is quoted. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Units 2 Percentage of Nominal Excluding Accrued Interest (Clean) 3 Basis Points 5 Percentage of Nominal Including Accrued Interest (Dirty) 7 Yield 8 Kilograms 9 Ounces |
| Used In | Null value: 2^8-1 CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

IP Address DR

| FIELD NAME | IP ADDRESS DR | |
|-----------------|---|------|
| Description | IP Address of the Disaster Recovery access to the gateway. Populated only for the Disaster Recovery environment, in the file generated for the Production environment. Blank for all other environments (IP v | /4). |
| Format | Text (character) | |
| | XML: character | |
| Length | XML: 15 | |
| Possible Values | XML: Valid IP v4 address | |
| Used In | CashStandingDataFile (9007) | |
| | DerivativesStandingDataFile (9013) | |

IP Address Primary

| FIELD NAME | IP ADDRESS PRIMARY |
|-----------------|--|
| Description | IP Address of the Primary and Secondary (backup) access to the gateway. Provided for all environments (IP v4). |
| Format | Text (character) |
| | XML: character |
| Length | XML: 15 |
| Possible Values | XML: Valid IP v4 address |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |

ISIN Code

| FIELD NAME | ISIN CODE |
|---------------|--|
| Description | Instrument ISIN following ISO 6166. Identifier of a product. Combined with MIC and Currency, identifies an instrument traded on a given market using a given currency. |
| Format | Alphanumerical ID (character) |
| Length | 12 |
| Conditions | For MiFID Declaration Trade Entry (40) message, the Symbol Index or MIC - ISIN - Currency must be specified. If both Symbol Index and MIC - ISIN - Currency are populated, MIC - ISIN - Currency will be ignored and only the Symbol Index will be taken into consideration. |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) PrevDayCapAndVolTradFile (9015) LP_OBLIGATIONS File |
| User For | Cash and Derivatives |

Issue Price

| FIELD NAME | ISSUE PRICE |
|-----------------|---------------------------------|
| Description | Issuing price of the instrument |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 |
| | Null value: -2^63 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Issue Price Decimals

| FIELD NAME | ISSUE PRICE DECIMALS |
|-----------------|---|
| Description | Indicates the number of decimals for Issue Price related to this Symbol Index |
| Format | Decimal Places (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Issuer Name

| FIELD NAME | ISSUER NAME |
|---------------|---|
| Description | Indicates the name of the Legal Issuing Entity. |
| Format | Text (character) |
| Length | 80 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Issuing Country

| FIELD NAME | ISSUING COUNTRY | |
|---------------|---|--|
| Description | Issuing country. | |
| | Provides the ISO 3166 (Alpha 3) code for the country of headquarter company that issued the instrument. | |
| Format | Alphanumerical ID (character) | |
| Length | 3 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |



Last Adjusted Closing Price

| FIELD NAME | LAST ADJUSTED CLOSING PRICE |
|-----------------|---|
| Description | Last traded price of the previous trading day after application of the adjustment coefficient (to be calculated with the Price/Index Level Decimals). Not provided for European instruments. |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 Null value: -2^63 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Last Trading Date

| FIELD NAME | LAST TRADING DATE |
|-----------------|---|
| Description | XML additional information: |
| | (Format YYYYMMDD). |
| Format | Date (unsigned integer 16) |
| | XML: XML date |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | <u>DerivativesStandingDataFile (9013)</u> |
| User For | Cash and Derivatives |

Leg Buy Sell

| FIELD NAME | LEG BUY OR SELL |
|-----------------|------------------------------------|
| Description | Leg Side. |
| Format | Enumerated (character) |
| Length | 1 |
| Possible Values | B Buy S Sell |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Leg Price

| FIELD NAME | LEG PRICE |
|-----------------|---|
| Description | Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals). |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 |
| | Null value: -2^63 |
| Conditions | This field is not populated in message Security Definition Request (60) only for the submission of a Deltaneutral strategy. |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Leg Ratio

| FIELD NAME | LEG RATIO |
|-----------------|--|
| Description | Ratio of lots for the leg. For contingent trades, the delta. |
| | For Contracts (Future or Option), it is the leg ratio, with the maximum value being 99999. If the value submitted by a customer is higher, it will be changed by the system to the maximum value (99999). |
| | ■ For Underlyings (Cash or Future), the delta is used with special rules: For the Underlying leg of volatility strategies, this should be the delta represented directly as an integer value of the percentage, without division or decimals (e.g.: a delta of 65% should be represented by 65), with the maximum value being 9999 (9999%). If the value submitted by a customer is higher, it will be changed by the system to the maximum value (9999). For Conversion Reversal Strategies (Type = 'R'), the delta is always set to 100. |
| Format | Quantity (unsigned integer 32) |
| Length | 4 |
| Possible Values | 099999 |
| Condition | For New Wholesale Order (64) only populated for strategies |
| Used In | <u>DerivativesStandingDataFile (9013)</u> |
| User For | Derivatives |

Leg Symbol Index

| FIELD NAME | LEG SYMBOL INDEX |
|-----------------|---|
| Description | MDG proprietary identification code of the instrument leg for the strategy. This identifier is unique per triplet: MIC, ISIN and currency. Once the instrument is expired its number can be used for a new instrument. |
| Format | Numerical ID (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

LEI Code

| FIELD NAME | LEI CODE |
|---------------|------------------------------------|
| Description | LEI (Legal Entity Identifier) Code |
| Format | Alphanumerical ID (character) |

| FIELD | LEI CODE |
|----------|-----------------------------|
| NAME | |
| Length | 20 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

LFAMINSTR

| FIELD NAME | LFAMINSTR |
|-------------|---------------------------------|
| Description | Instrument category description |
| Format | Text |
| Length | 30 |
| Used In | MBR_FAMINSTR |
| User For | Cash |

Liquid Instrument Indicator

| FIELD NAME | LIQUID INSTRUMENT INDICATOR | |
|-----------------|--|--|
| Description | Indicates whether the instrument is liquid or not, as defined per MiFID II. (0 = Illiquid; 1 = Liquid) | |
| Format | Boolean (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 02^8-2 | |
| | Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |

Listing Date

| FIELD NAME | LISTING DATE |
|-----------------|--|
| Description | Indicates the listing date of the fund on the Exchange of Reference. Date in an integer on 4 bytes expressed as YYYYMMDD |
| Format | Date (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Long Mnemonic

| FIELD NAME | LONG MNEMONIC |
|---------------|--|
| Description | Mnemonic code of the instrument. This field is not populated for every instrument. |
| Format | Alphanumerical ID (character) |
| Length | 6 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Lot Size

| FIELD NAME | LOT SIZE |
|-----------------|---|
| Description | For Cash and Derivatives, it defines a multiple of the tradable quantity. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Low Price Range

| FIELD NAME | LOW PRICE RANGE | |
|-----------------|---|----|
| Description | This field is used to define a Price Range. Starting from this Price and until the next 'Low Price Range', the associated parameter should be applied (to be calculated with the Price / Index Level Decimals). | ne |
| Format | Price (signed integer 64) | |
| Length | 8 | |
| Possible Values | -2^63+12^63-1 | |
| | Null value: -2^63 | |
| Used In | ReferenceSpreadsFile (9045) | |
| User For | Derivatives | |

Lp obligation side

| FIELD NAME | LP OBLIGATION SIDE | |
|------------------------|---|--|
| <u>Description</u> | Internal Euronext Presence obligation side type | |
| <u>Format</u> | <u>Enumerated</u> | |
| <u>Length</u> | 1 | |
| <u>Possible Values</u> | 0 - Bid+Ask 1 - Bid only 2 - Ask only | |
| <u>Used In</u> | LP_OBLIGATIONS File | |
| <u>User For</u> | Cash | |



Main Depositary

| FIELD NAME | MAIN DEPOSITARY | |
|---------------|--|---|
| Description | Identifies the default (or main) depository organization of the instrument (between the possible 4 depositaries registered) used by priority for the settlement (for example: multi-listed instruments which have several depositories). | 5 |
| | For Cash Markets this data has to be treated in consideration of the data Depositary List used by the clearing house to determine the relevant system for settling trades. Valid values are the same as for "Depositary List". | |
| | Valid values are: | |
| | <u>- '00001' – Euroclear France</u> | |
| | - '00002' - Euroclear Belgium (ex-CIKBelgium) | |
| | - '00003' - Euroclear Nederland (ex-NECIGEF) | |

| FIELD NAME | MAIN DEPOSITARY |
|---------------|---|
| | - '00004' - X/N (BoB service) |
| | - '00005' - VIF (non-fungible Belgian instruments) |
| | <u>- '00006' – Euroclear Bank</u> |
| | <u>- '00008' – Physical</u> |
| | - '00010' - Euronext Securities Porto (ex-Interbolsa) |
| | - '00012' - Euronext Securities Milan (ex-Monte Titoli) |
| | - '00000' - No depository organization |
| | - 'Nulls' - Not significant- '00001' - Euroclear France |
| | - '00002' - Euroclear Belgium |
| | - '00003' - Euroclear Nederland |
| | -'00004' - X/N National Bank of Belgium |
| | - '00005' - VIF (non-fungible Belgian instruments) |
| | - '00006' - Euroclear Bank |
| | - '00008' - Physical |
| | '00010' - Interbolsa |
| | - '00000' - No depository organization |
| | - 'Nulls' - Not significant |
| Format | Alphanumerical ID (character) |
| Length | 5 |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Market Model

| FIELD NAME | MARKET MODEL |
|-----------------|---|
| Description | Market Model identifier. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Order Driven 2 Quote Driven 3 IPO 4 Primary Market 5 RFQ 6 Conditional Uncrossing Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Market Of Reference MIC

| FIELD NAME | MARKET OF REFERENCE MIC |
|---------------|---|
| Description | Indicates the instrument Exchange of Reference by its MIC (Market Identification Code according to ISO 10383) (For Future Use). |
| Format | Alphanumerical ID (character) |
| Length | 4 |
| Conditions | For Declaration Entry (40) message, it is mandatory when Operation Type = '4' or '6'. |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Maturity Date

| FIELD NAME | MATURITY DATE |
|---------------|---|
| Description | Maturity Date of the instrument (text formatted as YYYYMMDD). For Derivative instruments populated with the Calendar day of expiry (text formatted as YYYYMMDD). Calendar day may not be an active trading date, the actual last date of trading is indicated in the field Last Trading Date. For repo (repurchase agreement) it represents the inclusive date until which a lending/borrowing contract can be traded. |
| Format | Text (character) |
| Length | 8 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Maximum Decimals In Quantity

| FIELD NAME | MAXIMUM DECIMALS IN QUANTITY | |
|-----------------|---|--|
| Description | Maximum Decimals In Quantity was introduced for Euronext Fund Services Paris and indicates the maxi of relevant decimal number for trading. | |
| Format | Numerical (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 02^8-2 | |
| | Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Maximum_percentage_spread_obl

| FIELD NAME | MAXIMUM PERCENTAGE _SPREAD_OBL | |
|-----------------|--|--|
| Description | Maximum percentage spread of the obligation (to be divided by 100) | |
| <u>Format</u> | Numeric 8,2 | |
| <u>Length</u> | 8 | |
| Used In | LP_OBLIGATIONS File | |
| <u>User For</u> | Cash | |

Maximum value spread obl

| FIELD NAME | MAXIMUM VALUE SPREAD OBL |
|-----------------|--|
| Description | Maximum value (in Euro) of spread obligation. Value with:\'\' as a separator followed by x decimals. |
| <u>Format</u> | Numeric 5,2 |
| <u>Length</u> | 5 |
| <u>Used In</u> | LP OBLIGATIONS File |
| <u>User For</u> | Cash |

Max Nbr Securities Offered Or Tendered

| FIELD NAME | MAX NBR SECURITIES OFFERED OR TENDERED |
|-----------------|---|
| Description | Total quantity of securities offered (for issuing) or tendered (for tender offer) in the operation. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Max Order Amount Call

| FIELD NAME | MAX ORDER AMOUNT CALL |
|-----------------|--|
| Description | Maximum order amount allowed at order entry during a call phase. |
| Format | Amount (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Max Order Amount Continuous

| FIELD NAME | MAX ORDER AMOUNT CONTINUOUS |
|-----------------|--|
| Description | Maximum order amount allowed at order entry during a continuous phase. |
| Format | Amount (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

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Max Order Quantity Call

| FIELD NAME | MAX ORDER QUANTITY CALL |
|-----------------|--|
| Description | Maximum order quantity allowed at order entry during a call phase. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | DerivativesStandingDataFile (9013) CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Max Order Quantity Continuous

| 1 | FIELD NAME | MAX ORDER Q | UANTITY CONTINUOUS |
|------------------|-------------|---|---------------------------|
| | Description | Maximum order quantity allowed at order entry d | uring a continuous phase. |
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| FIELD NAME | MAX ORDER QUANTITY CONTINUOUS |
|-----------------|------------------------------------|
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | DerivativesStandingDataFile (9013) |
| | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

MDG Set Of Channels ID

| FIELD NAME | MDG SET OF CHANNELS ID |
|-----------------|--|
| Description | Identifier of an MDG Set Of Channels. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Funds |
| rossible values | 2 Fixed Income |
| | 3 Luxembourg Stock Exchange |
| | 4 Warrants and Certificates |
| | 5 Equities France |
| | 6 Equities Netherlands |
| | 7 Equities Belgium |
| | 8 Equities Portugal |
| | 9 Equities Dublin |
| | 10 Equities Norway |
| | 11 Best of Book |
| | 12 Fixed Income Nordic ABM |
| | 13 Euronext Indices |
| | 14 Euronext iNAVs |
| | 15 Euronext Dublin Indices |
| | 16 Commodity Derivatives |
| | 17 Currency Derivatives |
| | 18 Equities Italy |
| | 19 Trading After Hours Italy |
| | 20 Equity Derivatives France |
| | 21 Equity Derivatives Netherlands |
| | 22 Equity Derivatives Other 23 Index Options France |
| | 23 Index Options Prance 24 Index Options Netherlands |
| | 25 Index Derivatives Other |
| | 26 Index Futures France |
| | 27 Index Futures Netherlands |
| | 29 APA SI Quotes |
| | 30 APA Trade Publication |
| | 31 Best of Book (BoB) Funds |
| | 32 ETF Access |
| | 33 Block |
| | 34 Forex |
| | 39 Funds ETF Italy |
| | 40 Fixed Income Italy (MOT/ExtraMOT) |
| | 41 Warrants & Certificates Italy (SEDEX) |
| | 42 Fixed Income ETLX (Bond-X) |
| | 43 Warrants & Certificates ETLX (Cert-X) |
| | 44 Equities ETLX |
| | 45 Global Equity Market |

| FIELD NAME | MDG SET OF CHANNELS ID | |
|------------|------------------------------------|--|
| | Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| | DerivativesStandingDataFile (9013) | |

MDG Set Of Channels Name

| FIELD NAME | MDG SET OF CHANNELS NAME | |
|---------------|--|--|
| Description | Name of the MDG Set Of Channels. | |
| Format | Text (character) | |
| Length | 100 | |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) | |

MIC

| FIELD NAME | MIC |
|---------------|--|
| | Identifies the market to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383. Euronext owns the following MICs: - 'ALXA' - ALTERNEXT AMSTERDAM - 'ALXP' - EURONEXT GROWTH BRUSSELS - 'ALXL' - EURONEXT GROWTH BRUSSELS - 'ALXL' - EURONEXT GROWTH PARIS - 'ALXP' - EURONEXT GROWTH PARIS - 'ATEY: - ATEVIN MTF - 'BGEM' - BORSA ITALIANA GLOBAL EQUITY MARKET - 'EMXB' - EURONEXT - EASY NEXT - 'ENXE' - EURONEXT - EASY NEXT - 'ENXL' - EURONEXT - EASY NEXT - 'ENXL' - EURONEXT ACCESS LISBON - 'ETFP' - ELECTRONIC ETF, ETC/ETN AND OPEN-END FUNDS MARKET - 'ETLX' - EURONEXT GROWTH MILAN - 'MERK' - MERKUR MARKET - 'MFOX' - EURONEXT GROWTH MILAN - 'MICKY' - EURONEXT - MERCADO DE FUTUROS E OPÇÕES - 'MIXY' - EURONEXT MIV MILAN - 'MIXB' - EURONEXT ACCESS BRUSSELS - 'MOTY' - ELECTRONIC BOND MARKET - 'MTAA' - EURONEXT MILAN - 'MTAH' - TRADING AFTER HOURS - 'TNILA' - EURONEXT TRADING FACILITY BRUSSELS - 'SEDX' - ELECTRONIC SECURITISED DERIVATIVES MARKET (SEDEX) - 'VPXB' - EURONEXT - VENTES PUBLIQUES BRUSSELS - 'SEDX' - EURONEXT - WENTES PUBLIQUES BRUSSELS - 'YWQXL' - EURONEXT - WARKET WITHOUT QUOTATIONS LISBON - 'XAMS' - EURONEXT - EURONEXT BRUSSELS - DERIVATIVES - 'XEXG' - EURONEXT - EURONEXT BRUSSELS - DERIVATIVES - 'XEXG' - EURONEXT - EURONEXT BRUSSELS - DERIVATIVES - 'XERU' - EURONEXT - EURONEXT BRUSSELS - DERIVATIVES - 'XERU' - EURONEXT - EURONEXT BRUSSELS - 'XEUC' - EURONEXT COM, COMMODITIES FUTURES AND OPTIONS - 'XEUC' - EURONEXT EURONEXT BRUSSELS - SERIVATIVES - 'XEUC' - EURONEXT - EURONEXT BRUSSELS - SERIVATIVES - 'XEUC' - EURONEXT EURONEXT EURONEXT EURONEXT EURONEXT EU |
| | - 'XLIS' - EURONEXT - EURONEXT LISBON - 'XLUX' - LUXEMBOURG STOCK EXCHANGE - 'XMAT' - EURONEXT PARIS MATIF |

| FIELD NAME | MIC |
|---------------|---|
| | - 'XMLI' - EURONEXT ACCESS PARIS - 'XMON' - EURONEXT PARIS MONEP - 'XMOT' - EXTRAMOT - 'XOAM' - NORDIC ALTERNATIVE BOND MARKET - 'XOAS' - OSLO AXESS - 'XOSL' - OSLO BORS ASA - 'XOTH' - Others - This MIC is not registered. It is use for testing purpose in both p-EUA and Production 'XPAR' - EURONEXT - EURONEXT PARIS - 'XSPM' - EURONEXT STRUCTURED PRODUCTS MTF |
| Format | Alphanumerical ID (character) |
| Length | 4 |
| Conditions | For MiFID Declaration Trade Entry (40) message, the Symbol Index or MIC - ISIN - Currency must be specified. If both Symbol Index and MIC - ISIN - Currency are populated, MIC - ISIN - Currency will be ignored and only the Symbol Index will be taken into consideration. |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

MIC Exchange Of Reference

| FIELD NAME | MIC EXCHANGE OF REFERENCE | |
|---------------|--|--|
| Description | Indicates the instrument's Exchange of Reference by its MIC (Market Identification Code according to ISO 10383). | |
| Format | Alphanumerical ID (character) | |
| Length | 4 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

MIC List

| FIELD NAME | MIC LIST |
|---------------|---|
| Description | Identifies the Euronext markets on which an instrument is listed by its MIC (Market Identification Code). For an instrument listed on a single Euronext market, the listing MIC code is the same than "Market Identification Code (MIC) of the listed instrument" For an instrument listed on several Euronext Markets: - The first MIC is the same than the "Market Identification Code (MIC) of the listed instrument - The others MIC indicate the other listing places |
| Format | Alphanumerical ID (character) |
| Length | 20 |
| Used In | CashStandingDataFile (9007) |

MIFID II Liquid Flag

| FIELD NAME | MIFID II LIQUID FLAG |
|-----------------|--|
| Description | Defines if a contract is to be considered as liquid under MIFID II Regulation. |
| Format | Boolean (unsigned integer 8) |
| Length | 1 |
| Possible Values | From 0 to 2^8-2 |
| Used In | DerivativesStandingDataFile (9013) |

| FIELD NAME | MIFID II LIQUID FLAG |
|------------|----------------------|
| User For | Derivatives |

Minimum Price

| FIELD NAME | MINIMUM PRICE |
|-----------------|--|
| Description | In CashTickSizeReferentialFile (9020) and DerivativesTickSizeFile (9021): Price with `.' as a separator followed by x decimals. In AuthorizedPriceFluctuationFile (9008): Price with `.' as a separator followed by 7 decimals. |
| Format | Decimals |
| Length | 8 |
| Possible Values | -2^63+12^63-1 Null value: -2^63 |
| Used In | CashTickSizeReferentialFile (9020) DerivativesTickSizeFile (9021) AuthorizedPriceFluctuationFile (9008) |
| User For | Cash and Derivatives |

Minimum amount lp

| FIELD NAME | MINIMUM AMOUNT LP | |
|-----------------|---|--|
| Description | Minimum value a liquidity provider must maintain to meet the obligation.— | |
| <u>Format</u> | Numerical 15,2 | |
| <u>Length</u> | <u>15</u> | |
| Possible Values | | |
| <u>Used In</u> | LP_OBLIGATIONS File | |
| User For | Cash | |

Minimum volume lp

| FIELD NAME | MINIMUM VOLUME LP |
|--------------------|--|
| <u>Description</u> | Minimum volume a liquidity provider must maintain to meet the obligation |
| <u>Format</u> | Numerical 15,2 |
| <u>Length</u> | <u>15</u> |
| Possible Values | |
| <u>Used In</u> | LP OBLIGATIONS File |
| <u>User For</u> | Cash |

Minimum Settlement Amount

| FIELD NAME | MINIMUM SETTLEMENT AMOUNT | |
|-----------------|--|--|
| Description | <u>Indicates the Minimum Trading size for the bond</u> | |
| | To be interpreted in conjunction with Amount Decimals. | |
| <u>Format</u> | Amount (unsigned integer 64) | |
| <u>Length</u> | 10 | |
| Possible Values | 02^64-2 | |
| <u>Used In</u> | CashStandingDataFile (9007) | |
| <u>User For</u> | Cash | |

MM Protections

| FIELD NAME | MM PROTECTIONS |
|-----------------|---|
| Description | Indicates allowed MM Protection type on the contract.(0: Disabled ; 1: Enabled) |
| Format | Bitmap (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Delta |
| | 1 Volume |
| | Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Mnemonic

| FIELD NAME | MNEMONIC |
|---------------|--|
| Description | Mnemonic code of the instrument. This field is not populated for every instrument. |
| Format | Alphanumerical ID (character) |
| Length | 5 |
| Used In | CashStandingDataFile (9007) Euronext RLP Universe |
| User For | Cash |

Mother Stock ISIN

| FIELD NAME | MOTHER STOCK ISIN |
|---------------|--|
| Description | ISIN Code of the index underlying of the TRF contract. |
| Format | Text (character) |
| Length | 12 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Multicast Group IP

| FIELD NAME | MULTICAST GROUP IP |
|---------------|--|
| Description | Defines the IP number (IP v4). |
| Format | Text (character) |
| Length | 15 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |



Name

| FIELD NAME | INSTRUMENT NAME |
|---------------|-----------------------|
| Description | Instrument Name |
| Format | Text (character) |
| Length | 30 |
| Used In | Euronext RLP Universe |
| User For | Cash |

Name Exchange Of Reference

| FIELD NAME | NAME EXCHANGE OF REFERENCE |
|---------------|---|
| Description | Indicates the instrument's Exchange of Reference by its Name. |
| Format | Text (character) |
| Length | 50 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

NAV Currency

| FIELD NAME | NAV CURRENCY |
|---------------|---|
| Description | Code of the NAV currency (ISO 4217-3A). |
| Format | Alphanumerical ID (character) |
| Length | 3 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

NAV Publication Time

| FIELD NAME | NAV PUBLICATION TIME |
|-----------------|--|
| Description | Indicates the official NAV publication time. Time in an integer on 4 bytes expressed as hhmmss |
| Format | Integer Time in hhmmss (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Nominal Currency

| FIELD NAME | NOMINAL CURRENCY | |
|---------------|---|--|
| Description | Code of the nominal currency (ISO 4217-3A). | |
| Format | Alphanumerical ID (character) | |

| FIELD NAME | NOMINAL CURRENCY |
|---------------|-----------------------------|
| Length | 3 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Number Instrument Circulating

| FIELD NAME | NUMBER INSTRUMENT CIRCULATING |
|-----------------|--|
| Description | For stocks: this is the total number of shares issued by the company. For Fix Income: this is the number of Fix Income still to be repaid. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |



Observation Period

| FIELD NAME | OBSERVATION PERIOD |
|-----------------|---|
| Description | Period expressed in a number of business days during which prices from Price Reporting Agency are used to compute the EDSP. |
| Format | Numerical ID (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 Null value: 2^16-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Observation Period Elapsed

| FIELD NAME | OBSERVATION PERIOD ELAPSED |
|-----------------|--|
| Description | Number of business days elapsed during the observation period (e.g: '2' means it is the second day of the observation period). |
| Format | Numerical ID (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Official Segment

| FIELD NAME | OFFICIAL SEGMENT |
|---------------|-------------------------|
| Description | Official market segment |
| Format | Text (character) |

| Length | 70 |
|----------|-----------------------------|
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Open Interest

| FIELD NAME | OPEN INTEREST |
|-----------------|--------------------------------|
| Description | Open interest. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | OpenInterestFile (9014) |
| User For | Cash |

Open Interest Date

| FIELD NAME | OPEN INTEREST DATE |
|-----------------|--|
| Description | XML additional information: (Format YYYYMMDD). |
| Format | Date (unsigned integer 16) XML: XML date |
| Length | 2 |
| Possible Values | 02^16-2 Null value: 2^16-1 |
| Used In | OpenInterestFile (9014) |
| User For | Derivatives |

Operation End Date

| FIELD NAME | OPERATION END DATE |
|-----------------|---|
| Description | The last day of an Issuing or Tender Offer operation. |
| Format | XML date – Format YYYYMMDD |
| Length | 2 |
| Possible Values | 02^16-2 Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Operation Start Date

| FIELD NAME | OPERATION START DATE | |
|-----------------|--|--|
| Description | The first day of an Issuing or Tender Offer operation. | |
| Format | XML date – Format YYYYMMDD | |
| Length | 2 | |
| Possible Values | 02^16-2 | |
| | Null value: 2^16-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Optiq Segment

| FIELD NAME | OPTIQ SEGMENT |
|-----------------|--|
| Description | An Optiq segment is a universe of instruments sharing common trading properties. Instruments have the flexibility to be moved from one partition to another within an Optiq segment. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Equities 2 Funds 3 Fixed Income 4 Warrants and Certificates 5 Bourse de Luxembourg 6 Financial Options 7 Financial Futures 8 Commodity Derivatives 9 Indices 10 Trade Reporting and Publication 14 Block 11 Index Derivatives 12 Equity Derivatives 15 Forex 16 ISE Bonds and Funds Feed Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Order Entry Qualifier

| FIELD NAME | ORDER ENTRY QUALIFIER |
|-----------------|--|
| Description | Field indicating the state of the Order Entry for the current market state. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Order Entry/Cancel/Modify Disabled 1 Order Entry/Cancel/Modify Enabled 2 Cancel and Modify Only (Derivatives Only) 3 Cancel Only Null value: 2^8-1 |
| Used In | TimetableFile (9001) |
| User For | Cash and Derivatives |

Order Type Rules

| FIELD NAME | ORDER TYPE RULES |
|-------------|---|
| Description | Order types supported by the matching engine. |
| | ■ Bit in position 0 – Market: Market orders are available for this instrument (0: No; 1: Yes) |
| | ■ Bit in position 1 – Limit: Limit orders are available for this instrument (0: No ; 1: Yes) |
| | Bit in position 2 - Stop / Stop Loss: Stop and stop loss orders are available for this instrument (0: No; 1: Yes) - Only for OEG |
| | ■ Bit in position 3 - Stop Limit: Stop limit orders are available for this instrument (0: No ; 1: Yes) - Only for OEG |
| | ■ Bit in position 4 - Market on Open (MOO): Market on open orders are available for this instrument (0: No ; 1: Yes) |
| | Bit in position 5 - Trade at Settlement: Trade at settlement are available for this instrument (0: No; 1: |

| FIELD NAME | ORDER TYPE RULES |
|-----------------|--|
| | Yes) |
| Format | Bitmap (unsigned integer 16) |
| Length | 2 |
| Possible Values | 0 Market 1 Limit 2 Stop / Stop Loss 3 Stop Limit 4 Market on Open (MOO) 5 Trade at Settlement Null value: 2^16-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |



Par Value

| FIELD NAME | PAR VALUE |
|-----------------|--|
| Description | Par Value (also called Nominal value) for Instrument. For Fixed Income it represents the par amount to be repaid at maturity (not including interest revenue) (to be calculated with the Amount Decimals). |
| Format | Amount (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Param Name

| FIELD NAME | PARAM NAME |
|---------------|--|
| Description | Name of a contract parameter. This field provides the type of parameter. The value of the parameter is displayed in field Param Value. Details on parameters are provided below: |
| | 1 - RFCPublication: Boolean (If 0 then RFC is considered as illiquid; If 1 then RFC is considered as liquid) |
| | 2 – RFCAlgorithm: Value (Is the RFC Algorithm: 1 – Standard RFC ; 2 – Client Best Execution RFC) |
| | 3 - RFCMinimumQuantityForInitiator: Quantity (Minimum quantity to submit for RFC as an initiator) |
| | 4 - RFCMinimumQuantityForReactor: Quantity (Minimum quantity to submit for RFC as a reactor) |
| | 5 - RFCMaxPickUpPercentageForReactor: Percentage (Maximum percentage of the remaining quantity after price improvement reserved for reactors) |
| | 6 - RFCValidityPeriod: Milliseconds (Period during which RFC Responses are submitted) |
| | 7 - AvailableWholesaleTradeType: Bitmap (Bit 0: Large in Scale); (Bit 1: Against Actual); (Bit 2: Exchange for Swaps) |
| | 8 - ContractLISTradeThreshold: Amount |
| | 9 – RFCCOBInclusion: Boolean (If 0 then orders from Central Order Book are not part of RFC; If 1 then orders from Central Order Book are part of RFC |
| | 12 - IntradayInstrumentCreationDelay: Number of minutes |
| | 14 - FSP Cool Down Period: Number of seconds |
| | 15 - FSP Period: Number of seconds |
| | 16 - LISPriceChecks: Bitmap (Bit 0: Dynamic Collars); (Bit 1: Daily High/Low); (Bit 2: Lifetime High/Low) |
| | 17 - AAPriceChecks: Bitmap (Bit 0: Dynamic Collars); (Bit 1: Daily High/Low); (Bit 2: Lifetime High/Low) |
| | 18 - EFSPriceChecks: Bitmap (Bit 0: Dynamic Collars); (Bit 1: Daily High/Low); (Bit 2: Lifetime High/Low) |
| | 19 - Wholesale Validity Period: Number of minutes |
| | 20 - DN Underlying Price Limit Deviation: Absolute Value (Price Variation) 21 - CVF: Absolute Value (This field represents the monetary value of a decimal price of 1.0 points) |
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| FIELD NAME | PARAM NAME | |
|-----------------|--|--|
| | 22 - ProRataThreshold: Volume (Minimal volume threshold for the pro rata trading policy) | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 1 RFCPublication 3 RFCMinimumQuantityForInitiator 4 RFCMinimumQuantityForReactor 5 RFCPickUpPerc 6 RFCImprovementPeriod 7 AvailableWholesaleTradeType 8 ContractLISTradeThreshold 9 RFCCOBInclusion 12 IntradayInstrumentCreationDelay 13 FSP Spread 14 FSP Cool Down Period 15 FSP Period 16 LISPriceChecks 17 AAPriceChecks 18 EFSPriceChecks 19 WholesaleValidityPeriod 20 DN Underlying Price Limit Deviation 21 CVF 22 ProRataThreshold Null value: 2^8-1 | |
| Used In | DerivativesStandingDataFile (9013) | |
| User For | Derivatives | |

Param Type Of Expression

| FIELD NAME | PARAM TYPE OF EXPRESSION | |
|-----------------|---|--|
| Description | Parameter Type Of Expression of Contract Parameter Name. | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 1 Percentage 2 Tick 3 Absolute Value 4 Bps 5 Bitmap Null value: 2^8-1 | |
| Used In | DerivativesStandingDataFile (9013) | |
| User For | Derivatives | |

Param Value

| FIELD NAME | CONTRACT PARAMETER VALUE | |
|---------------|------------------------------------|--|
| Description | Value of a Contract Parameter. | |
| Format | Text (character) | |
| Length | 255 | |
| Used In | DerivativesStandingDataFile (9013) | |
| User For | Derivatives | |

Partition ID

| FIELD NAME | PARTITION ID | |
|-----------------|--|--|
| Description | Identifies uniquely an Optiq partition across all the Exchange partitions. | |
| Format | Numerical ID (unsigned integer 16) | |
| Length | 2 | |
| Possible Values | 02^16-2 | |
| | Null value: 2^16-1 | |
| Used In | CashStandingDataFile (9007) | |
| | DerivativesStandingDataFile (9013) | |
| User For | Cash and Derivatives | |

Partition Type

| FIELD NAME | PARTITION TYPE |
|-----------------|--|
| Description | Indicates the type of Partition, either Order Entry or Drop Copy. Use of Order Entry and Drop Copy gateways require separate and individual setup of the Logical access to each service. |
| Format | Enumerated (character) |
| Length | 2 |
| Possible Values | OE Order Entry |
| | DC Drop Copy |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Pattern ID

| FIELD NAME | PATTERN ID |
|-----------------|---|
| Description | Numerical Pattern identifier available as a characteristic of an instrument in Standing Data file and message, and used in the MDG timetable message. |
| Format | Numerical ID (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) TimetableFile (9001) |
| User or | Cash |

Pattern Type

| FIELD NAME | PATTERN TYPE | |
|-------------|--|--|
| Description | Indicates whether the instrument is tradeable in continuous mode (Continuous), in auction mode (Fixing), in Continuous Late (Continuous Late) or it is not tradable (Not tradable) | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible | 0 Fixing | |
| Values | 1 Continuous | |
| | 2 Not tradable | |
| | 3 Continuous Late | |
| | Null value: 2^8-1 | |

| Used In | CashStand | ingDataFile (9007) |
|----------|-----------|--------------------|
| User For | Cash | |

Phase Id

| FIELD NAME | PHASE ID | |
|-----------------|---|--|
| Description | Indicates the phase of the instrument. | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 1 Inaccessible 2 Closed 3 Call 4 Uncrossing 5 Continuous 7 Continuous Uncrossing (Warrants and Certificates Only) Null value: 2^8-1 | |
| Used In | TimetableFile (9001) | |
| User For | Cash and Derivatives | |

Phase Qualifier

| FIELD NAME | PHASE QUALIFIER | |
|-----------------|---|--|
| Description | Indicates the Phase Qualifier | |
| | ■ Bit in position 0 – No Qualifier: indicates that no phase qualifier are applicable (0: No ; 1: Yes) - Deprecated | |
| | ■ Bit in position 1 – Call BBO Only (Cash Only): indicates a call on BBO only phase (0: No; 1: Yes) | |
| | ■ Bit in position 2 – Trading At Last (Cash Only): indicates a trading at last phase (TaL) phase (0: No; 1: Yes) | |
| | ■ Bit in position 3 – Random Uncrossing: indicates a random uncrossing phase (0: No; 1: Yes) | |
| | ■ Bit in position 94 – indicates a Call Phase during which only a specific Trading Firm can send its order(s) to the Trading System (0: No; 1: Yes) | |
| Format | Bitmap (unsigned integer 16) | |
| Length | 2 | |
| Possible Values | 0 No Qualifier | |
| | 1 Call BBO Only (Cash Only) | |
| | 2 Trading At Last (Cash Only) | |
| | 3 Random Uncrossing | |
| | 9 Quoting Period | |
| | Null value: 2^16-1 | |
| Used In | TimetableFile (9001) | |
| User For | Cash and Derivatives | |

Phase Time

| FIELD NAME | PHASE TIME | |
|-----------------|--|--|
| Description | Time of Phase start. | |
| Format | String (text formatted following ISO 8601: hh:mm:ssZ where Z is for UTC) | |
| Length | 9 | |
| Possible Values | hh:mm:ssZ | |
| Used In | TimetableFile (9001) | |
| User For | Cash and Derivatives | |

Pool Factor

| FIELD NAME | POOL FACTOR |
|-----------------|---|
| Description | Allows to calculate how much of the original loans have yet to be repaid. |
| Format | Numerical ID |
| Length | 8 |
| Possible Values | 02^32-2 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Port Number

| FIELD NAME | PORT NUMBER |
|-----------------|------------------------------------|
| Description | Defines the port number. |
| Format | Numerical (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | CashStandingDataFile (9007) |
| | DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

PRA ID

| FIELD NAME | PRA ID |
|-----------------|---|
| Description | Identifier of the Price Reporting Agency for a Cash Settled contract. |
| Format | Numerical ID (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Preliminary Index

| FIELD NAME | PRELIMINARYINDEX |
|-------------|--|
| Description | CAC index close of the previous business day |
| Format | Numerical |
| Length | 1 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Prev Day Capital Traded

| FIELD NAME | PREV DAY CAPITAL TRADED | |
|-------------|--|--|
| Description | Cumulative capital traded for all trades from previous day on an instrument (to be calculated with the Amount Decimals). Not provided for non-Euronext traded instruments. | |
| Format | Amount (unsigned integer 64) | |
| Length | 8 | |

| FIELD NAME | PREV DAY CAPITAL TRADED |
|-----------------|---------------------------------|
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | PrevDayCapAndVolTradFile (9015) |
| User For | Cash |

Previous NAV

| FIELD NAME | PREVIOUS NAV | |
|-----------------|---|--|
| Description | Indicates the previous official Net Asset Value (to be calculated with the Price/Index Level Decimals). | |
| Format | Price (signed integer 64) | |
| Length | 8 | |
| Possible Values | -2^63+12^63-1 | |
| | Null value: -2^63 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Previous Volume Traded

| FIELD NAME | PREVIOUS VOLUME TRADED |
|-----------------|--|
| Description | Number of shares traded (to be calculated with the Quantity Decimals) on this instrument during trading day identified by 'DateOfLastTrade'. Not provided for non-Euronext traded instruments. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | PrevDayCapAndVolTradFile (9015) |
| User For | Cash |

Price Decimals

| FIELD NAME | PRICE / INDEX LEVEL DECIMALS |
|-----------------|--|
| Description | Indicates the number of decimals for each Price / Index Level related to this Symbol Index |
| Format | Decimal Places (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Price Multiplier

| FIELD NAME | PRICE MULTIPLIER |
|-----------------|--|
| Description | Number of units of the financial instrument that are contained in a trading lot. Price multiplier coefficient for instrument unit price. |
| Format | Numerical (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
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| FIELD NAME | PRICE MULTIPLIER | |
|------------|------------------|--|
| User For | Cash | |

Price Multiplier Decimals

| FIELD NAME | PRICE MULTIPLIER DECIMALS | |
|-----------------|--|--|
| Description | Number of decimals for the field Price Multiplier. | |
| Format | Numerical (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 02^8-2 | |
| | Null value: 2^8-1 | |
| Conditions | For Declaration Entry (40) message, it is mandatory when Price Multiplier is provided. | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Pricing Algorithm

| FIELD NAME | PRICING ALGORITHM |
|-----------------|--|
| Description | This field provides the defined pricing algorithm value for a given contract. It is used to identify Total Return Future (TRF) contracts and Market On Close (MOC) contracts. For other contract types the value is set to Standard. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 = Standard |
| | 1 = Total Return Future |
| | 2 = Market On Close |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Product Business Date

| FIELD NAME | PRODBUSDATE |
|---------------|---|
| Description | Date and time when the item was created in the production environment Date and time in the following format: YYYYMMDD hh:mm:ss. Where: - 'YYYY' is the year 'MM' is the month 'DD' is the day 'hh' is the hour 'mm' is the minute 'ss is the seconds. |
| Format | Date |
| Length | 17 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Product Code

| FIELD NAME | PRODUCT CODE | |
|---------------|---------------------------------------|--|
| Description | Physical alphanumerical product code. | |

| FIELD | PRODUCT CODE |
|----------|------------------------------------|
| NAME | |
| Format | Alphanumerical ID (character) |
| Length | 4 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Professional Trading

| FIELD NAME | PROFESSIONAL TRADING |
|--------------------|---|
| Description | Indicates if the instrument can be traded by Professional Member only (1) or not (0). |
| Format | Boolean (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Publication Date Next Tradable NAV

| FIELD NAME | PUBLICATION DATE NEXT TRADABLE NAV |
|-----------------|---|
| Description | Publication Date of the next tradable NAV. Date in an integer on 4 bytes expressed as YYYYMMDD. |
| Format | Date (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Publication Date Time

| FIELD NAME | PUBLICATION DATE TIME |
|---------------|---|
| Description | Date and time when the transaction was published by a trading venue or Approved Publication Arrangement (APA). Date and time in the following format: YYYY-MM-DDThh:mm:ss.ddddddZ. Where: - 'YYYY' is the year 'MM' is the month 'DD' is the day 'T' constant 'T' letter used as separator between YYYY-MM-DD and hh:mm:ss.ddddddZ 'hh' is the hour 'mm' is the minute 'ss.dddddd' is the second and its fraction of a second 'Z' constant 'Z' letter that stands for UTC time. |
| Format | Text (character) |
| Length | 27 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Publication Time

| FIELD NAME | PUBLICATION DATE TIME | |
|---------------|---|--|
| Description | Date and time when the file was published | |
| | Date and time in the following format: YYYYMMDD hh:mm:ss. | |
| | Where: | |
| | - 'YYYY' is the year. | |
| | - 'MM' is the month. | |
| | - 'DD' is the day. | |
| | - 'hh' is the hour. | |
| | - 'mm' is the minute. | |
| | - 'ss is the seconds. | |
| Format | Date | |
| Length | 17 | |
| Used In | Total Return Futures Conversion Parameters files | |
| User For | Derivatives | |

Purge Book Type

| FIELD NAME | PURGE BOOK TYPE |
|--------------------|---|
| Description | Indicates whether Good Till Day and Good Till Cancel orders have been deleted, specifying in such scenario whether on both sides, only in buy or sell side. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 No Purge 2 Purge Both Sides 3 Purge Only Buy Side 4 Purge Only Sell Side |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |



Quantity Decimals

| FIELD NAME | QUANTITY DECIMALS |
|-----------------|---|
| Description | Indicates the number of decimals for each Quantity related to this Symbol Index |
| Format | Decimal Places (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Quantity Notation

| FIELD NAME | QUANTITY NOTATION | |
|---------------|--|--|
| Description | Indication of the type of measurement (e.g. number of units, nominal, monetary value, etc.) in which the transaction is expressed. Possible values: "UNT" - Units "FMT" - Facial Amount "-" - Not Applicable | |
| Format | Text (character) | |
| Length | 3 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |



Ratio Decimals

| FIELD NAME | RATIO / MULTIPLIER DECIMALS |
|-----------------|---|
| Description | Indicates the number of decimals for each Ratio / Multiplier related to this Symbol Index |
| Format | Decimal Places (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Reference Price Origin In Continuous

| FIELD NAME | REFERENCE PRICE ORIGIN |
|-----------------|--|
| Description | For Derivatives, it is the rules to obtain the DCRP. Derivatives authorized values are : 4,5,6,7. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Internal 2 External 3 External BBO 4 Opening Call Price 5 Mid-BBO or Fair Value 6 Fair Value 7 Future Market Price Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |

Reference Price Origin In Opening Call

| FIELD NAME | REFERENCE PRICE ORIGIN |
|-------------|---|
| Description | For Derivatives, it is the rules to obtain the DCRP. Derivatives authorized values are : 4,5,6,7. |
| Format | Enumerated (unsigned integer 8) |

| FIELD NAME | REFERENCE PRICE ORIGIN |
|-----------------|--|
| Length | 1 |
| Possible Values | 1 Internal 2 External 3 External BBO 4 Opening Call Price 5 Mid-BBO or Fair Value 6 Fair Value 7 Future Market Price Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |

Reference Price Origin In Trading Interruption

| FIELD NAME | REFERENCE PRICE ORIGIN |
|-----------------|--|
| Description | For Derivatives, it is the rules to obtain the DCRP. Derivatives authorized values are: 4,5,6,7. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Internal 2 External 3 External BBO 4 Opening Call Price 5 Mid-BBO or Fair Value 6 Fair Value 7 Future Market Price Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |

Reference Spread

| FIELD NAME | REFERENCE SPREAD |
|-----------------|-------------------------------|
| Description | Reference Spread. |
| Format | Numerical (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 |
| | Null value: -2^63 |
| Used In | ReferenceSpreadsFile (9045) |
| User For | Derivatives |

Reference Spread Expression

| FIELD NAME | REFERENCE SPREAD EXPRESSION | |
|-----------------|---|--|
| Description | Units in which Reference Spread is expressed. | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 1 Percentage | |
| | 2 Absolute | |
| | Null value: 2^8-1 | |
| Used In | ReferenceSpreadsFile (9045) | |
| User For | Derivatives | |

Reference Spread Table ID

| FIELD NAME | REFERENCE SPREAD TABLE ID |
|-----------------|------------------------------------|
| Description | ID of the Reference Spread Table. |
| Format | Numerical ID (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | DerivativesStandingDataFile (9013) |
| | ReferenceSpreadsFile (9045) |
| User For | Derivatives |

Reference Spread Table Name

| FIELD NAME | REFERENCE SPREAD TABLE NAME |
|---------------|-------------------------------------|
| Description | Name of the Reference Spread Table. |
| Format | Text (character) |
| Length | 75 |
| Used In | ReferenceSpreadsFile (9045) |
| User For | Derivatives |

Repo Indicator

| FIELD NAME | REPO INDICATOR |
|-----------------|--|
| Description | Indicates whether the instrument listed underlies any loan contracts, meaning it has been admitted to the Deferred Settlement system and/or to the lending market. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Instrument neither eligible for the SRD, nor eligible for the Loan and Lending Market 1 Instrument eligible for the SRD and for the Loan and Lending Market 2 Instrument eligible for the SRD long only 3 Instrument eligible for the Loan and Lending Market and for the SRD long only 4 Easy-to-borrow Instrument eligible for the SRD and the for Loan and Lending Market 5 Instrument eligible for the Loan and Lending Market 8 Non significant Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Repo Settlement Price

| FIELD NAME | REPO SETTLEMENT PRICE |
|-----------------|---|
| Description | The settlement price (to be calculated with Price / Index Level Decimals) is a standard price used to value the trade that initiates an instrument lending transaction and to calculate the return price. |
| | - If the instrument was listed on day D-1, its settlement price, calculated on day D, will be given by the closing price on D-1, with no adjustment for OST effective as of day D |
| | - If the instrument was not listed on day D-1, its settlement price, calculated on day D, will be given by the latest price, adjusted and super-adjusted for Corporate Action effective as of day D-1, but not as of day D. |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 |
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| FIELD NAME | REPO SETTLEMENT PRICE | |
|------------|--------------------------------|--|
| | Null value: -2^63 | |
| Used In | RepoSettlementPriceFile (9016) | |
| User For | Cash | |

Reuters RIC Code

| FIELD NAME | REUTERS RIC CODE |
|---------------|---------------------------------|
| Description | Indicates the Reuters RIC Code. |
| Format | Alphanumerical ID (character) |
| Length | 24 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

<u>Role</u>

| FIELD NAME | <u>ROLE</u> |
|--------------------|---|
| <u>Description</u> | Euronext Liquidity Provider Obligation role |
| <u>Format</u> | Alphanumerical ID (character) |
| <u>Length</u> | 3 |
| Possible Values | SPE: Specialist LPS: Secondary Liquidity Provider MMX: EuroTLX Market Maker SLM: Secondary Liquidity Provider and Market Maker MMA: Market Maker Agreement LPU: Liquidity Provider ABS: Assigned Broker |
| Used In | LP OBLIGATIONS File |
| User For | Cash |

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Scheduled Event

| FIELD NAME | SCHEDULED EVENT |
|-----------------|--|
| Description | Type of Scheduled Event. Notifies an event that will occur at the Scheduled Event Time. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Cancel Previously Scheduled Event(Cash and Derivatives) 1 Reopening (Cash Only) 3 Resumption of trading (Cash Only) 4 Closed (Derivatives Only) 5 Expiry (Derivatives Only) 6 Wholesale Large in Scale (LiS) trades open extension (Derivatives Only) 7 Wholesale Basis trades open extension (Derivatives Only) 8 Wholesale Against Actuals trades open extension (Derivatives Only) 9 Wholesale Large in Scale (LiS) Package trades open extension (Derivatives Only) 10 Wholesale Exchange For Swaps trades open extension (Derivatives Only) 11 Wholesale Trades Open Extension (Derivatives Only) |

| FIELD NAME | SCHEDULED EVENT |
|------------|------------------------------|
| | 12 Suspension (Cash Only) |
| | 13 Collars Normal |
| | 14 Collars Wide |
| | 15 Pre-Expiry |
| | 16 Closing Price (Cash Only) |
| | Null value: 2^8-1 |
| Used In | TimetableFile (9001) |
| User For | Cash and Derivatives |

Session

| FIELD NAME | SESSION |
|-----------------|---------------------------------|
| Description | Current market session. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Session 0 |
| | 1 Session 1 |
| | 2 Session 2 |
| | 3 Session 3 |
| | 4 Session 4 |
| | 5 Session 5 |
| | 6 Session 6 |
| | 7 Session 7 |
| | 8 Session 8 |
| | 9 Session 9 |
| | Null value: 2^8-1 |
| Used In | TimetableFile (9001) |
| User For | Cash and Derivatives |

Settlement Basis

| FIELD NAME | SETTLBASIS |
|-------------|--|
| Description | Orderbook settlement price in basis points |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Settlement Clearing Price

| FIELD NAME | SETTLCLGPRC |
|-------------|--|
| Description | Orderbook settlement price in basis points |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Settlement Currency

| FIELD NAME | SETTLEMENT CURRENCY | |
|---------------|-------------------------------------|--|
| Description | Code of the currency (ISO 4217-3A). | |
| Format | Alphanumerical ID (character) | |
| Length | 3 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Settlement Date

| FIELD NAME | SETTLEMENT DATE |
|---------------|---|
| Description | Settlement Date is the actual day on which transfer of cash or assets is completed and is usually a few days after the trade was done. The number of days between the Trade Date and the Settlement Date depends on the security and the convention in the market on which it was traded. |
| Format | Text (character) |
| Length | 8 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Settlement Delay

| FIELD NAME | SETTLEMENT DELAY |
|---------------|--|
| Description | Gives the number of trading days that represents the period between the trade date and the settlement date (delivery and payment) for an instrument to be cleared and settled. This is generally a standard period for Euronext Cash markets. Permitted Values - From 0 to 30 (Standard values) - X: This value is assigned for a lot of products and internal management rules shared by Euronext and LCH-Clearnet (D+2). - Z: This value is assigned for Lending/Borrowing instruments. This value is especially interpreted to manage the associated management rules (D+3). |
| Format | Alphanumerical ID (character) |
| Length | 2 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Settlement Method

| FIELD NAME | SETTLEMENT METHOD |
|---------------|--|
| Description | Settlement method 'C' = Cash Settlement 'P' = Physical Settlement 'O' = Optional Blank/null for exchanges 'C', 'G', 'D', 'H' containing Underlying instruments |
| Format | Alphanumerical ID (character) |
| Length | 1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Settlement Spread

| FIELD NAME | SETTLEMENT SPREAD |
|-------------|--|
| Description | Orderbook settlement price in index points |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |

Settlement System

| FIELD NAME | SETTLEMENT SYSTEM |
|--------------------|--|
| Description | Indicates the System where the instrument is settled |
| Format | Enumerated |
| Length | 2 |
| Possible Values | 10 Other Settlement System 11 Euroclear Bank 12 Euronext Securities Oslo 51 Euroclear/Clearstream Lux 60 Target 2 Securities Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Settlement Tick Size

| FIELD NAME | SETTLEMENT TICK SIZE |
|-----------------|--|
| Description | Default Tick Size value applicable for all Settlement Prices. It's calculated using the PriceDecimals. |
| Format | Price (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Six Months ADV Exchange Of Ref

| FIELD NAME | 6 MONTHS ADV EXCHANGE OF REFERENCE |
|-----------------|---|
| Description | Indicates the 6 months average daily volume (number of shares) traded on the exchange of reference (to be calculated with Quantity Decimals). |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Source IP Range

| FIELD NAME | SOURCE IP RANGE |
|-------------|--|
| Description | Defines the primary and secondary IP range (IP v4). This IP Range is given to clients to allow these IP in client firewall. It will be the same for a line (A or B) on primary and secondary feed. A range from IP 123.123.123.0 to 25 will be set like this: 123.123.123.0/25. |
| Format | Text (character) |
| Length | 20 |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) |
| User For | Cash and Derivatives |

Spread oblig type

| FIELD NAME | SPREAD OBLIG TYPE |
|-----------------|---|
| Description | Unit used for the spread obligations Possible values: |
| | |
| <u>Format</u> | <u>Enumerated</u> |
| <u>Length</u> | 1 |
| Possible Values | 1 – Absolute value (Eur) |
| | 2 - Percentage |
| | 3 - Combined (1 + 2) |
| | 4 - Percentage depending on Ref. Price |
| | <u>5 – Combined (1 + 4)</u> |
| <u>Used In</u> | LP OBLIGATIONS File |
| User For | Cash |

Formatted: Glossary Entry

Start Time Vwap

| FIELD NAME | START TIME VWAP |
|-----------------|--|
| Description | XML additional information: (Text formatted following ISO 8601: hh:mm:ssZ where Z stands for UTC). |
| Format | Intraday Time in Seconds (unsigned integer 32) XML: XML timeSec |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 Default value: 2^32-1 |
| Conditions | For Declaration Entry (40) message, it is mandatory for declarations when Operation Type = '5'. |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Strategy Authorized

| FIELD NAME | STRATEGY AUTHORIZED |
|-----------------|--|
| Description | Provides strategy types authorized for contract. Bit 2, Bit 23, Bit 42 are not used and will always be set to 0. |
| Format | Bitmap (unsigned integer 64) |
| Length | 8 |
| Possible Values | 0 Jelly Roll |

| FIELD NAME | STRATEGY AUTHORIZED | |
|------------|--|--|
| | 1 Butterfly | |
| | 2 Call or Put Cabinet | |
| | 3 Spread | |
| | 4 Calendar Spread | |
| | 5 Diagonal Calendar Spread | |
| | 6 Guts | |
| | 7 Two by One Ratio Spread | |
| | 8 Iron Butterfly | |
| | 9 Combo | |
| | 10 Strangle | |
| | 11 Ladder | |
| | 12 Strip | |
| | 13 Straddle Calendar Spread | |
| | 14 Pack | |
| | 15 Diagonal Straddle Calendar Spread | |
| | 16 Simple Inter Commodity Spread | |
| | 17 Conversion / Reversal | |
| | 18 Straddle | |
| | 19 Volatility Trade | |
| | 20 Condor | |
| | 21 Box | |
| | 22 Bundle | |
| | 23 Reduced Tick Spread | |
| | 24 Ladder versus Underlying | |
| | 25 Butterfly versus Underlying | |
| | 26 Call Spread versus Put versus Underlying | |
| | 27 Call or Put Spread versus Underlying | |
| | 28 Call or Put Calendar Spread versus Underlying | |
| | 29 Call/Put Diagonal Calendar Spread versus Underlying | |
| | 30 Guts versus Underlying | |
| | 31 Two by One Call or Put Ratio Spread versus Underlying | |
| | 32 Iron Butterfly versus Underlying | |
| | 33 Combo versus Underlying | |
| | 34 Strangle versus Underlying | |
| | 35 Exchange for Physical | |
| | 36 Straddle Calendar Spread versus Underlying | |
| | 37 Put Spread versus Call versus Underlying | |
| | 38 Diagonal Straddle Calendar Spread versus Underlying | |
| | 39 Synthetic | |
| | 40 Straddle versus Underlying | |
| | 41 Condor versus Underlying | |
| | 42 Buy Write | |
| | 43 Iron Condor versus Underlying | |
| | 44 Iron Condor | |
| | 45 Call Spread versus Sell a Put | |
| | 46 Put Spread versus Sell a Call | |
| | 47 Put Straddle versus Sell a Call or a Put | |
| | Null value: 2^64-1 | |
| Used In | DerivativesStandingDataFile (9013) | |

Strategy Code

| FIELD NAME | STRATEGY CODE |
|-------------|-----------------------------------|
| Description | Exchange-recognized strategy code |
| Format | Alphanumerical ID (character) |
| Length | 1 |

| FIELD NAME | STRATEGY CODE |
|-----------------|---|
| Possible Values | A Jelly Roll |
| Toosisie Values | B Butterfly |
| | C Call or Put Cabinet – Deprecated |
| | D Spread |
| | E Calendar Spread |
| | F Diagonal Calendar Spread |
| | G Guts |
| | H Two by One Ratio Spread |
| | I Iron Butterfly |
| | J Combo |
| | K Strangle |
| | L Ladder |
| | M Strip |
| | N Straddle Calendar Spread |
| | O Pack |
| | P Diagonal Straddle Calendar Spread |
| | Q Simple Inter Commodity Spread |
| | R Conversion / Reversal |
| | S Straddle |
| | V Volatility Trade |
| | W Condor |
| | X Box |
| | Y Bundle |
| | Z Reduced Tick Spread - Deprecated |
| | a Ladder versus Underlying |
| | b Butterfly versus Underlying |
| | c Call Spread versus Put versus Underlying |
| | d Call or Put Spread versus Underlying |
| | e Call or Put Calendar Spread versus Underlying |
| | f Call/Put Diagonal Calendar Spread versus Underlying |
| | g Guts versus Underlying |
| | h Two by One Call or Put Ratio Spread versus Underlying |
| | i Iron Butterfly versus Underlying |
| | j Combo versus Underlying |
| | k Strangle versus Underlying |
| | m Exchange for Physical |
| | n Straddle Calendar Spread versus Underlying |
| | p Put Spread versus Call versus Underlying |
| | q Diagonal Straddle Calendar Spread versus Underlying |
| | r Synthetic |
| | s Straddle versus Underlying |
| | t Condor versus Underlying |
| | u Buy Write - Deprecated |
| | v Iron Condor versus Underlying |
| | w Iron Condor |
| | x Call Spread versus Sell a Put |
| | y Put Spread versus Sell a Call |
| | z Put Straddle versus Sell a Call or a Put |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Strike Currency

| FIELD NAME | STRIKE CURRENCY | |
|---------------|--|--|
| Description | Code of the strike currency (ISO 4217-3A). | |

| FIELD NAME | STRIKE CURRENCY |
|---------------|-------------------------------|
| Format | Alphanumerical ID (character) |
| Length | 3 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Strike Currency Indicator

| FIELD NAME | STRIKE CURRENCY INDICATOR |
|-----------------|--|
| Description | Indicates whether the 'price expression' is in the Currency or in a ratio of this Currency. Use Currency Coefficient field to identify the ratio to apply. |
| | This is the case for strike instruments in pennies. The currency will be 'GBP', Strike Currency Indicator sets to '1' and Currency Coefficient set to '0.001'. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Change rate not applied to the strike price |
| | 1 Change rate applied to the strike price |
| | Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Strike Price

| FIELD NAME | STRIKE PRICE |
|-----------------|---|
| Description | The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant. Only provided for warrants or other derivatives instruments. To be calculated with Strike Price Decimals for Cash instruments and Price/Index Level Decimals for Derivatives instruments. |
| Format | Price (signed integer 64) |
| Length | 8 |
| Possible Values | -2^63+12^63-1 Null value: -2^63 |
| Used In | DerivativesStandingDataFile (9013) CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Strike Price Decimals

| FIELD NAME | STRIKE PRICE DECIMALS |
|-----------------|--|
| Description | Indicates the number of decimals for Strike Price related to this Symbol Index |
| Format | Decimal Places (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Strike Price Decimals Ratio

| FIELD NAME | STRIKE PRICE DECIMALS RATIO |
|-----------------|--|
| Description | Value used , only for the AMR code, to determine the number of decimals present in the Option contract strike price, as the strike price is disseminated in format of an integer. For example, for AMR code POTO1250404300C, you need to use the AMR Strike Price Decimals Ratio for the Exercise (Strike) Price part of the AMR code as defined in Chapter 4.6.2. In this case it's 04300 and if the AMR Strike Price Decimals Ratio=2, it will result in Strike Price 43. |
| Format | Numerical (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 |
| | Null value: 2^8-1 |
| Used In | <u>DerivativesStandingDataFile (9013)</u> |
| User For | Derivatives |

Symbol Index

| FIELD NAME | SYMBOL INDEX |
|-----------------|--|
| Description | Exchange identification code of the instrument/contract. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence of the Symbol Index and with the instrument characteristics is provided in the standing data messages and associated files. Symbol Index is valid for the life of the instrument. |
| Format | Numerical ID (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Conditions | For inbound messages, the Symbol Index must be specified. For second listing place trade, the Symbol Index and the MIC of secondary listing must be specified. If provided in the User Notification (39) message, it specifies the scope of the action specified in User Status. In the Reject (07) message, it is populated only if provided as a valid value in the corresponding Inbound request AND the corresponding Inbound request was technically correctly formatted; otherwise it is provided at the Null value. Field not populated in Reject (07) messages for rejection of strategy creation on derivatives markets. For all messages, with exception of MM sign-in and MM protection, this field represent the Symbol Index of the Instrument. For the MM sign-in and MM protection this field represents the Symbol Index of the Contract. For wholesale order this represents numerical leg instrument identifier (Security ID). |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) OpenInterestFile (9014) PrevDayCapAndVoITradFile (9015) RepoSettlementPriceFile (9016) Total Return Futures Parameter files |
| User For | Cash and Derivatives |

Synthetic Dividend Index

| FIELD NAME | SYNTHETICDIVIDENDINDEX |
|-------------|--|
| Description | CAC synthetic dividend index (C4SD) close of the current day |
| Format | Numerical |
| Length | 8 |
| Used In | Total Return Futures Conversion Parameters files |
| User For | Derivatives |



Tax Code

| FIELD NAME | TAX CODE |
|-----------------|--|
| Description | Tax deduction code to which the instrument belongs. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Not eligible to PEA 3 Eligible to PEA 9 Not Applicable Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Tech Leaders segment indicator

| FIELD NAME | TECH LEADERS SEGMENT INDICATOR |
|--------------------|--|
| Description | It indicates if the instrument belongs to the Euronext Tech Leader segment (1) or not (0). |
| Format | Boolean (unsigned integer 8) |
| Length | 1 |
| Possible Values | 02^8-2 Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Threshold LIS Post Trade 120mn

| FIELD NAME | THRESHOLD LIS POST TRADE 120MN | |
|-----------------|---|--|
| Description | Defines the amount of an order to benefit from the LIS Trade Deferred publication to 120 min (to be calculated with the Amount Decimals). | |
| Format | Amount (unsigned integer 64) | |
| Length | 8 | |
| Possible Values | 02^64-2 | |
| | Null value: 2^64-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Threshold LIS Post Trade 60mn

| FIELD NAME | THRESHOLD LIS POST TRADE 60MN |
|-----------------|--|
| Description | Defines the amount of an order to benefit from the LIS Trade Deferred publication to 60 min (to be calculated with the Amount Decimals). |
| Format | Amount (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Threshold LIS Post Trade EOD

| FIELD NAME | THRESHOLD LIS POST TRADE EOD |
|-----------------|---|
| Description | Defines the amount of an order to benefit from the LIS Trade Deferred publication to EOD (to be calculated with the Amount Decimals). |
| Format | Amount (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Tick Factor

| FIELD NAME | TICK FACTOR |
|-----------------|--|
| Description | Tick factor applied to update the TickSize for more liquid instruments available in the Tick Table file (to be calculated with Ratio / Multiplier Decimals). |
| Format | Numerical (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 |
| | Null value: 2^64-1 |
| Used In | DerivativesTickSizeFile (9021) |
| User For | Derivatives |

Tick Factor Max Period

| FIELD NAME | TICK FACTOR MAX PERIOD |
|-----------------|---|
| Description | Indicator expressed in Month. Instrument whose Time To Expiry are lower than the indicator are impacted by the TickFactor (to be calculated with Ratio / Multiplier Decimals) |
| Format | Numerical (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Used In | DerivativesTickSizeFile (9021) |
| User For | Derivatives |

Tick Size

| FIELD NAME | TICK SIZE |
|-----------------|--|
| Description | XML additional information: Tick size on x characters, with . as a separator |
| Format | Price (signed integer 64) XML: Decimals |
| Length | 8 |
| Possible Values | -2^63+12^63-1 Null value: -2^63 |
| Used In | CashTickSizeReferentialFile (9020) DerivativesTickSizeFile (9021) |
| User For | Cash and Derivatives |

Tick Size Index ID

| FIELD NAME | TICK SIZE INDEX ID |
|-----------------|---|
| Description | ID of the tick size table available in the Tick Table file. |
| Format | Numerical ID (unsigned integer 16) |
| Length | 2 |
| Possible Values | 02^16-2 |
| | Null value: 2^16-1 |
| Used In | CashTickSizeReferentialFile (9020) |
| | DerivativesStandingDataFile (9013) |
| | DerivativesTickSizeFile (9021) |
| | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Tick Table Name

| FIELD NAME | TICK TABLE NAME |
|---------------|---|
| Description | Name of the tick size table available in the Tick Table file. |
| Format | Text (character) |
| Length | 75 |
| Used In | DerivativesTickSizeFile (9021) |
| User For | Derivatives |

TTE range Lower Limit

| FIELD NAME | TIME TO EXPIRY |
|-----------------|--|
| Description | Time to Expiry. Expressed as Months (to be calculated with the Ratio / Multiplier Decimals). |
| Format | Numerical ID (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 Null value: 2^32-1 |
| Used In | Reference Spreads File (9045) |
| User For | Derivatives |

Total Expense Ratio

| FIELD NAME | TOTAL EXPENSE RATIO | |
|-----------------|---|--|
| Description | Total Expense Ratio (TER): total costs associated with managing and operating a fund. | |
| Format | Numerical (unsigned integer 32) | |
| Length | 4 | |
| Possible Values | 02^32-2 | |
| | Null value: 2^32-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Trade Reference

| FIELD NAME | TRADE REFERENCE |
|---------------|--|
| Description | Reference of the trade reported to the Exchange. |
| Format | Alphanumerical ID (character) |
| Length | 30 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Trading Code

| FIELD NAME | TRADING CODE | |
|---------------|---|--|
| Description | Cash: Trading code is a 12-character string, the only instrument identifier that is unique in the feed in addition to the symbol index. | |
| Format | Alphanumerical ID (character) | |
| Length | 12 | |
| Used In | Euronext RLP Universe | |
| User For | Cash | |

Trading Currency

| FIELD NAME | TRADING CURRENCY | |
|---------------|--|--|
| Description | Code of the currency (ISO 4217-3A). | |
| Format | Alphanumerical ID (character) | |
| Length | 3 | |
| Used In | DerivativesStandingDataFile (9013) CashStandingDataFile (9007) | |
| User For | Cash and Derivatives | |

Trading Currency Indicator

| FIELD NAME | TRADING CURRENCY INDICATOR | |
|-----------------|---|--|
| Description | Indicates whether the 'price expression' is in the Currency or in a ratio of this Currency. Use Currency Coefficient field to identify the ratio to apply. | |
| | This is the case for instruments traded in pennies. The currency will be 'GBP', Trading Currency Indicator sets to '1' and Currency Coefficient set to '0.001'. | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 0 Change rate not applied to the traded price 1 Change rate applied to the traded price Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Trading Date Time

| FIELD NAME | TRADING DATE TIME | |
|---------------|--|--|
| Description | Date and time when the transaction was executed. | |
| | Date and time in the following format: YYYY-MM-DDThh:mm:ss.ddddddZ. | |
| | Where: | |
| | - 'YYYY' is the year. | |
| | - 'MM' is the month. | |
| | - 'DD' is the day. | |
| | - 'T' constant 'T' letter used as separator between YYYY-MM-DD and hh:mm:ss.ddddddZ. | |
| | - 'hh' is the hour. | |
| | - 'mm' is the minute. | |
| | - 'ss.dddddd' is the second and its fraction of a second. | |
| | - 'Z' constant 'Z' letter that stands for UTC time. | |
| Format | Text (character) | |
| Length | 27 | |
| Conditions | It indicates the original execution date for a reporting/publication entered. | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash and Derivatives | |

Trading Period

| FIELD NAME | TRADING PERIOD |
|-----------------|---|
| Description | Provides the current trading period. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Opening (Cash and Derivatives) 2 Standard (Cash and Derivatives) 3 Closing (Cash and Derivatives) Null value: 2^8-1 |
| Used In | TimetableFile (9001) |
| User For | Cash and Derivatives |

Trading Policy

| FIELD NAME | TRADING POLICY |
|-----------------|--|
| Description | Trading Policy enabling to allocate a given incoming volume to orders. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Price Explicit Time 2 Price Pro Rata Null value: 2^8-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Trading Unit

| FIELD NAME | TRADING UNIT | |
|-------------|---|--|
| Description | Amount of underlying instrument per unit of a derivative contract (to be calculated with the Quantity | |
| | Decimals). Due to corporate actions, the value may be different between value provided within this field in | |
| | Contract Standing Data and Outright Standing Data. Value in Outright Standing Data reflects the adjustment | |

| FIELD NAME | TRADING UNIT |
|-----------------|--|
| | due to the corporate action and should be used for that Outright instrument. |
| Format | Quantity (unsigned integer 64) |
| Length | 8 |
| Possible Values | 02^64-2 Null value: 2^64-1 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Transaction Type

| FIELD NAME | TRANSACTION TYPE | |
|-----------------|---|--|
| Description | Transaction type or publication type. | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 1 Plain Vanilla Trade 2 Dark Trade 3 Benchmark Trade 4 Technical Trade 5 Give-up/Give-in Trade 6 Ex/Cum dividend Trade 7 Trade With Condition 15 Summary Report Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Transparency Indicator

| FIELD NAME | TRANSPARENCY INDICATOR | |
|-----------------|--|--|
| Description | Used to define the transparency of the trade. | |
| Format | Enumerated (unsigned integer 8) | |
| Length | 1 | |
| Possible Values | 0 Lit/Regular Trade 1 Dark Trade and Immediate Publication 2 Dark Trade and Deferred Publication Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Type Of Corporate Event

| FIELD NAME | TYPE OF CORPORATE EVENT | |
|--|--|---|
| Description | Indicates the last type of corporate event that has occurred on an of coupons. The data item is automatically calculated by the adjus error, the data item value could be modified manually, particularly absence of corporate event. This data has to be treated in consideration of the date of the eve Valid values are: "00" – No specific event "01" – Dividend payment in cash or in stocks | etment application but in case of problem or of for purging the order book in case of nt included into the header of the message. |
| | "02" – Interest payment (Fix Income for which the price is not expressed in% of the nominal, only) | |
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| FIELD NAME | TYPE OF CORPORATE EVENT | |
|---------------|---|--|
| | "04" – Split | |
| | "05" – Bonus (i.e. attribution) | |
| | "06" – Subscription | |
| | "07" – Share allocation | |
| | "08" – Share swap | |
| | "09" – Reverse split | |
| | "10" – Merger | |
| | "11" – Final Fix Income redemption | |
| | "12" – Capital amortization | |
| | "13" – Draw announcement (Belgian Fix Income only) | |
| | "14" - Block trade of controlling interest | |
| | "15" – Optional corporate events(dividend option) | |
| | "16" – Complex corporate event | |
| | "17" – Purge of the order book (purge is initiated manually in the absence of a corporate event, for example, following the modification of the variable tick of the listed instrument) | |
| | "22" - Luxembourg Stock Exchange corporate event | |
| Format | Alphanumerical ID (character) | |
| Length | 2 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Type Of Market Admission

| FIELD NAME | TYPE OF MARKET ADMISSION |
|-----------------|---|
| Description | Indicates the type of market to which an instrument has been listed. |
| Format | Enumerated (character) |
| Length | 1 |
| Possible Values | A Instruments traded on the primary market |
| | B Instruments traded on the secondary market |
| | C Instruments traded on the New Market |
| | D Non-regulated market / instruments traded on the free market ('Marche Libre') |
| | E Non-regulated market / Alternext |
| | F Non listed |
| | G Regulated Market / Non equities |
| | H Regulated Market / Equities / Segment A |
| | I Regulated Market / Equities / Segment B |
| | J Regulated Market / Equities / Segment C |
| | K Regulated Market / All securities / Special Segment |
| | L Regulated Market / Equities / Other instruments |
| | S OPCVM, SICOMI non listed (French Investment Funds) |
| | 6 Off Market |
| | 7 Gold, Currencies, and Indices |
| | 9 Foreign |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |



UMTE

| FIELD NAME | UMTF |
|---------------|---|
| Description | Indicates the instrument code based on 'Uniform MTF' symbology. |
| Format | Alphanumerical ID (character) |
| Length | 6 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Underlying Derivatives Instrument Trading Code

| FIELD NAME | UNDERLYING DERIVATIVES INSTRUMENT TRADING CODE |
|---------------|---|
| Description | Is the underlying of the Derivatives Instrument Trading Code. |
| Format | Alphanumerical ID (character) |
| Length | 18 |
| Used In | DerivativesStandingDataFile (9013) |
| User For | Derivatives |

Underlying Expiry

| FIELD NAME | UNDERLYING EXPIRY |
|-----------------|--|
| Description | Expiry Date of the underlying (in number of days since the 1st of January 1970). |
| Format | Date (unsigned integer 32) |
| Length | 4 |
| Possible Values | 02^32-2 |
| | Null value: 2^32-1 |
| Used In | <u>DerivativesStandingDataFile (9013)</u> |
| User For | Derivatives |

Underlying ISIN Code

| FIELD NAME | UNDERLYING ISIN CODE |
|---------------|---|
| Description | Underlying ISIN. For Repo: Underlying instrument (instrument used in the loan quotation system) for loan contracts on centralized lending market. For Warrant: Gives the trading code of the underlying listed instrument of a warrant. |
| Format | Alphanumerical ID (character) |
| Length | 12 |
| Used In | DerivativesStandingDataFile (9013) CashStandingDataFile (9007) |
| User For | Cash and Derivatives |

Underlying MIC

| FIELD NAME | UNDERLYING MIC | |
|---------------|---|--|
| Description | Identifies the market to which an instrument' underlying belongs by its MIC (Market Identification Code), according to ISO 10383. Refer to MIC field to have all the authorized values. | |
| Format | Alphanumerical ID (character) | |
| Length | 4 | |
| Used In | DerivativesStandingDataFile (9013) CashStandingDataFile (9007) | |

Underlying Mnemonic

| FIELD NAME | UNDERLYING MNEMONIC |
|---------------|--|
| Description | Mnemonic code of the Instrument' underlying. This field is not populated for every instrument. |
| Format | Alphanumerical ID (character) |
| Length | 6 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Underlying Name

| FIELD NAME | UNDERLYING NAME |
|---------------|---|
| Description | Indicates the full name of the instrument's underlying. |
| Format | Text (character) |
| Length | 102 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Underlying Return Type

| FIELD NAME | UNDERLYING RETURN TYPE |
|-----------------|--|
| Description | Indicates the dividend treatment applied. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 1 Net Total Return 2 Price Return 3 Total Return Null value: 2^8-1 |
| Used In | CashStandingDataFile (9007) |
| User For | Cash |

Underlying Segmentation

| FIELD NAME | UNDERLYING SEGMENTATION |
|-------------|--|
| Description | Indicates the underlying asset segmentation. |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |

| FIELD NAME | UNDERLYING SEGMENTATION | |
|-----------------|-----------------------------|--|
| Possible Values | 1 Equity | |
| | 2 Fixed Income | |
| | 3 Mixed | |
| | 4 Alternative | |
| | 5 Currency | |
| | 6 Commodities | |
| | Null value: 2^8-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |

Underlying Subtype

| FIELD NAME | UNDERLYING SUBTYPE |
|-----------------|---|
| Description | Defined the underlying sub-type associated to the underlying type. |
| | ■ Underlying Type "Stock" accepts following Underlying Subtypes: |
| | Basket, Dividend, ETF and Share |
| | ■ Underlying Type "Index" accepts: |
| | Dividend Index, Equity Index, TRF Index and Volatility Index |
| | Underlying Type "Future" accepts: |
| | Future on Commodities |
| | ■ Underlying Type "Exchange rate" accepts: |
| | FX Cross Rates (FXCR), FX Emerging Markets (FXEM) and FX Majors (FXMJ) |
| | ■ Underlying Type "Commodity" accepts: |
| | Agricultural (AGRI), Environmental (ENVR), Freight (FRGT), Fertilizer (FRTL), Industrial products (INDP), Inflation (INFL), Multi Commodity Exotic (MCEX), Metals (METL), Energy (NRGY), Official economic statistics (OEST), Other C10 (OTHC), Other (OTHR), Paper (PAPR) and Polypropylene (POLY) |
| Format | Enumerated (unsigned integer 8) |
| Length | 1 |
| Possible Values | 0 Basket |
| | 1 Dividend |
| | 2 ETF |
| | 3 Share |
| | 4 Dividend Index |
| | 5 Equity Index |
| | 6 TRF Index |
| | 7 Volatility Index |
| | 8 Future On Commodities |
| | 9 FXCR - FX Cross Rates |
| | 10 FXEM - FX Emerging Markets |
| | 11 FXMJ - FX Majors |
| | 12 AGRI - Agricultural 13 ENVR - Environmental |
| | 14 FRGT - Freight |
| | 15 FRTL - Fertilizer |
| | 16 INDP - Industrial products |
| | 17 INFL - Inflation |
| | 18 MCEX - Multi Commodity Exotic |
| | 19 METL - Metals |
| | 20 NRGY - Energy |
| | 21 OEST - Official economic statistics |
| | 22 OTHC - Other C10 |
| | 23 OTHR - Other |
| | 24 PAPR - Paper |
| | 25 POLY - Polypropylene |
| | Null value: 2^8-1 |

| FIELD NAME | UNDERLYING SUBTYPE | | |
|------------|------------------------------------|--|--|
| Used In | DerivativesStandingDataFile (9013) | | |
| User For | Derivatives | | |

Underlying Symbol Index

| FIELD NAME | UNDERLYING SYMBOL INDEX | | |
|-----------------|--|--|--|
| Description | Identifies the Symbol Index of the underlying of the instrument. | | |
| Format | Numerical ID (unsigned integer 32) | | |
| Length | | | |
| Possible Values | 02^32-2 | | |
| | Null value: 2^32-1 | | |
| Used In | DerivativesStandingDataFile (9013) | | |
| User For | Derivatives | | |

Underlying Type

| FIELD NAME | UNDERLYING TYPE | | |
|-----------------|---|--|--|
| Description | Defines the instrument type of the underlying. | | |
| Format | Enumerated (character) | | |
| Length | 1 | | |
| Possible Values | A Basket with Commodity B Basket C Commodity D Depositary Receipt F Future G Currency Leveraged Index H Other I Index J Bonds K Stock Dividend L Leveraged Index N Interest Rate O Other Derivative P Commodity Index Q Commodity Leveraged Index R Right S Stock T Credit U Fund V Currency W Stock Warrant X Exchange Rate Z Security Leveraged Index | | |
| Used In | CashStandingDataFile (9007) DerivativesStandingDataFile (9013) | | |
| User For | Cash and Derivatives | | |



Venue

| FIELD NAME | VENUE |
|---------------|--|
| Description | Identification of the venue where the transaction was executed using the ISO 10383 segment MIC for transactions executed on a trading venue. Otherwise the BIC is sent following ISO 9362. For Approved Publication Arrangement (APA), possible values are: - SINT - Systematic INTernalizer (This is not a tag in ISO) - XOFF - OFF-EXCHANGE TRANSACTIONS - LISTED INSTRUMENTS. |
| Format | Alphanumerical ID (character) |
| Length | 11 |
| Used In | CashStandingDataFile (9007) |

Volume oblig type

| FIELD NAME | VOLUME OBLIG TYPE | | |
|--------------------|---|--|--|
| Description | Type of volume obligation | | |
| <u>Format</u> | Alphanumerical ID (character)Enumerated | | |
| <u>Length</u> | 1 | | |
| Possible Values | T - Volume (Nb of shares) C - Value (value of shares in EUR) B - Combined (C + T) | | |
| <u>Used In</u> | LP_OBLIGATIONS File | | |
| Used For | Cash | | |

Vwap Period

| FIELD NAME | VWAP PERIOD | |
|-----------------|---|--|
| Description | Indicates the number of seconds that should be considered to select the trades which will be used to compute the closing price for a given instrument, when the closing price type is VWAP. | |
| Format | Time (unsigned integer 64) | |
| Length | 8 | |
| Possible Values | 02^64-2 Null value: 2^64-1 | |
| Used In | CashStandingDataFile (9007) | |
| User For | Cash | |



YVAL

| FIELD NAME | YVAL | | | |
|-----------------|---|--|--|--|
| Description | Instrument type/processing category | | | |
| Format | Text | | | |
| Length | 3 | | | |
| Possible Values | O19 Fungible treasury bonds O21 convertible bonds O26 serial bonds O33 bonds with EX warrants O41 ordinary shares O48 allocation rights O49 subscription rights O50 preferred shares O68 Index O69 units O80 founder shares 111 convertible subordinated securities 162 debt investment fund units 248 Warrants on Shares 255 Euro Medium Term Notes 257 Certificates 161 Indexed Euro Medium Term Notes 266 Medium Term Notes 261 Indexed Euro Medium Term Notes 262 Medium Term Notes 263 warrants with knock-out barrier O40 ETV | | | |
| Used In | MBR_FAMINSTR | | | |
| User For | Cash | | | |

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APPENDIX A: DOCUMENT HISTORY TABLE

| Version No | Date | Author | Change Description |
|------------|--------------|-----------------------------|---|
| 1.1.0 | 29 Sep 2016 | IT Solutions | First Version for Optiq (Phase 1) |
| 1.2.0 | 4 Jan 2017 | IT Solutions | First update for Phase 1 |
| 1.3.0 | 27 Jan 2017 | IT Solutions | Second update for Phase 1 |
| 1.4.0 | 15 Mar 2017 | IT Solutions | Third update for Phase 1 |
| 1.4.1 | 15 May 2017 | IT Solutions | Minor Update for Phase 1 |
| 2.0.0 | 11 Oct 2017 | IT Solutions | Major update for go live of Cash markets on Optiq (Phase 2) |
| 2.0.1 | 13 July 2018 | IT Solutions | Minor update with clarifications and update for ICB |
| 2.0.2 | 13 Sep 2018 | IT Solutions | Update for Equities Dublin |
| 2.0.3 | 8 Oct 2018 | IT Solutions | Update with clarifications |
| 2.3.0 | 29 Nov 2018 | IT Solutions | Minor update for Euronext Block |
| 2.3.0 | 29 Nov 2018 | IT Solutions | Update for ETF Access |
| 2.3.1 | 14 Dec 2018 | IT Solutions | Update with clarifications |
| 2.5.0 | 21 Jan 2019 | IT Solutions | Minor update |
| 2.6.0 | 21 Jan 2019 | IT Solutions | Minor update for Euronext Block |
| 3.0.0 | 29 Apr 2019 | IT Solutions | Major update for the migration of the Derivatives Market to Optiq (Phase 3) |
| 3.0.1 | 13 May 2019 | IT Solutions | Minor update for Phase 3 |
| 3.1.0 | 6 Sep 2019 | IT Solutions - WMA | Second update for migration of Derivatives markets to Optiq (Phase 3) |
| 3.1.2 | 28 Feb 2020 | IT Solutions - IZE | Add new exchange codes to be used for Oslo Market Place and new channels and add the new optiq segment IS Bonds and Funds Feed |
| 3.1.3 | 16 Mar 2020 | IT Solutions - IZE | Add Oslo MICs, update the file list to segment IBF and add document improvements. |
| 4.0.0 | 30 Mar 2020 | IT Solutions - IZE | Remove Financial Derivatives Optiq segment from the document and perform general document improvements. |
| 4.0.1 | 13 May 2020 | IT Solutions - WMA | Minor update to remove SBE Version in the documentation |
| 4.2.0 | 13 May 2020 | IT Solutions – FBO | Integration of Oslo Fixed Incomes: New value for Instrument Unit Exp: 7 = Yield New field Non Anonymous in CashStandingData (9007). |
| 4.2.1 | 30 Jun 2020 | IT Solutions – WMA | Minor update on Non-Anonymous field. |
| 4.3.0 | 25 Sep 2020 | IT Market Services – WMA | Minor update for field Phase Time |
| 4.4.0 | 2 Nov 2020 | IT Market Services – WMA | Introduction of SBE 304 – no impacts |
| 4.5.0 | 4 Jan 2021 | IT Market Services – FNS | Introduction of SBE 305 – no impacts |
| 4.6.0 | 8 Feb 2021 | IT Market Services – WMA | Introduction of SBE 306 – no impacts |
| 4.6.1 | 12 May 2021 | IT Market Services – WMA | New fields for Cash Settled contracts |

| Version No | Date | Author | Change Description |
|-------------------|--------------|---|---|
| 4.7.0 | 15 July 2021 | IT Market Services – SNM / KZ | Inclusion of SBE 307 – no impacts The following changes have been made to this version of the document: Add a new MDG Set of Channels ID to be used for Fastmatch (Forex:34) Param Name field update for RFCValidityPeriod in milliseconds instead of seconds |
| 4.10.0 | 6 Oct 2021 | IT Market Services – SNM / KZ / FBO | Introduction of SBE 310. The following changes have been made to this version of the document: Addition of two new fields Max Order Quantity Call and Max Order Quantity Continuousa to ContractEMMProperties repeating section of DerivativesStandingDataFile (9013) Adding a new value 16 Forex on the instrument category field In 1.1 Introduction: Added a reference on UK DRSP regulatory framework governing. n 3.2 Cash Standing Data File (9007): add a note regarding the scope of contents: For Forex segment, fields are by default filled-in (as they are mandatory) but no snapshot is provided through MDG. Standing Data is only available via EFS. |
| 4.11.0 | 24 Nov 2021 | IT Market Services – WMA | Introduction of SBE 311 – no impacts |
| 4.12.0 | 24 Dec 2021 | IT Market Services – WMA | Introduction of SBE 312 – no impacts |
| 4.13.0 | 21 Jan 2022 | IT Market Services – FNS | Introduction of SBE 313 The following changes have been made to this version of the document: • Addition of a new section 1.6 Future Use • Addition of new values to the Closing Price Type and Scheduled Event fields • Addition of a new field(VWAP Period) to the CashStandingDataFile |

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| Version No | Date | Author | Change Description |
|------------|------------|--|---|
| 5.16.0 | 1 Jun 2022 | IT Market Services – WMA | Introduction of SBE 316 The following changes have been made to this version of the document: In Feed Configuration: MDG Set of Channels 18, 19, 39, 45 added In CashStandingDataFile (9007): Fields added in StandingDataUnitary section: Long Mnemonic, Official Segment, Settlement System, Pattern Type, Professional Trading, Exercise Style, Underlying Mnemonic, Underlying Name, Underlying Type, Settlement Currency, Tech Leaders segment indicator Fields added in EMMPattern section: Dynamic APF Table ID, Static APF Table ID, Order Price Control APF Table ID, Static APF Table ID, Order Price Control APF Table ID In Timetable (9001): Description updated Section AuthorizedPriceFluctuationFile (9008) added In Field Description: Fields added: APF Index ID, Authorized Price Fluctuation, Authorized Price Fluctuation Type, Long Mnemonic, Minimum Price, Official Segment, Pattern Type, Professional Trading, Settlement Currency, Settlement System, Tech Leaders segment indicator, Underlying Mnemonic Value added in field Exercise Style: "5" (Periodic); Values added in field Exercise Style: "5" (Periodic); Values added in field Underlying Type: "A" (Basket with Commodity), "4" (Equities TAH Italy), "39" (Funds ETFplus Italy), "19" (Equities TAH Italy), "39" (Funds ETFplus Italy), "4" (Currency Leveraged Index), "H" (Other), "3" (Bonds), "K" (Stock Dividend), "L" (Leverage Index), "N" (Interest Rate), "0" (Other Derivative), "P" (Commodity Index), "0" (Commodity Levaraged Index), "R" (Right), "T" (Credit), "U" (Fund), "V" (Currency), "W" (Stock Warrant), "2" (Security Leveraged Index), "A" |
| 5.17.0 | 1 Aug 2022 | IT Market Services – LNA – COL - WMA | Introduction of SBE 317 and new Common File Transfer System (CFTS) platform, Optiq referential files can be assessed through the CFTS Referential Data Service using SFTP with SSH key authentication. The following changes have been made to this version of the document: In CashStandingDataFile (9007): Fields added in StandingDataUnitary section:Settlement Date End Validity Date Section added: Euronext RLP Universe File as part of CFTS Section added: Members Family Instruments as part of CFTS Section added: Total Return Futures Conversion Parameters (was in a dedicated specification – no changes in contents) In Field Description: Fields added: Settlement Date, End Validity Date |

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| Version No | Date | Author | Change Description |
|------------|-------------|--|--|
| 5.18.0 | 15 Sep 2022 | IT Market Services – LME – FSE – COL - WMA | The following changes have been made to this version of the document: In CashStandingDataFile (9007): Fields added in StandingDataUnitary section: Max Order Amount Call, Max Order Amount Continuous, Max Order Quantity Call, Max Order Quantity Continuous, Pool Factor, Purge Book Type In CashTickSizeReferentialFile (9020): Description updated to clarify the current behaviour (no changes) In Euronext RLP Universe File: Filename prefix changed from "OptiqMDG" to "IDSCash" In Members Family Instruments: Filename prefix changed from "OptiqMDG" to "IDSCash" In Field Description: Fields added: Max Order Amount Call, Max Order Amount Continuous, Pool Factor, Purge Book Type Value added for field Closing Price Type: "9" (Last Adjusted Closing Price) Description updated for fields Max Order Quantity Call and Max Order Quantity Continuous: are also used for Cash Field MDG Set of Channels ID: adjustment of naming for values "19", "39", "45" |
| 5.18.1 | 30 Sep 2022 | IT Market Services – WMA - FSE | The following changes have been made to this version of the document: In Field Description: Description updated for fields: Authorized Price Fluctuation, Minimum Price |
| 5.19.0 | 24 Oct 2022 | IT Market Services – IMI – WMA | The following changes have been made to this version of the document: In CashStandingDataFile (9007): Fields added: OperationStartDate, OperationEndDate and MaxNbrSecuritiesOfferedOrTendered In OpenInterestFile (9014): description updated In Field Description: Value added for field Closing Price Type: '8' (VWAP – Closing Price of Reference Market) Value added for field MIC: 'MTAH' (TRADING AFTER HOURS) Value added for field Phase Qualifier: Bit '9' (Quoting Period) Fields added: Max Nbr Securities Offered Or Tendered, Operation End Date and Operation Start Date. |
| 5.20.0 | 14 Nov 2022 | WMA | The following changes have been made to this version of the document: In Field Description: Value added for field MIC: `ATFX' (ATFUND MTF) - |
| 5.21.0 | 20 Dec 2022 | FLO | The following changes have been made to this version of the document: In Field Description: Values added for field MIC: - 'ETFP' (ELECTRONIC ETF, ETC/ETN AND OPEN-END FUNDS MARKET) 'ETLX' (EUROTLX) 'MOTX' (ELECTRONIC BOND MARKET) - 'XMOT' (EXTRAMOT) Sort per alphabetic order |

| Version No | Date | Author | Change Description |
|------------|------------|--------------------|--|
| 5.23.0 | 7 Mar 2023 | CLO - NPE - WMA | The following changes have been made to this version of the document: In CashStandingDataFile (9007): Field added: MinimumSettlementAmount In Field Description: Value added for field DepositaryList: '00012' (Euronext Securities Milan ex-Monte Titoli) Value added for field MainDepositary: '00012' (Euronext Securities Milan ex-Monte Titoli) Values added for field MDGSetOfChannelsID: "40" (Fixed Income Italy MOT/ExtraMOT), "41" (Warrants & Certificates Italy SEDEX), "42" (Fixed Income ETLX Bond-X), "43" (Warrants & Certificates ETLX Cert-X), "44" (Equities ETLX) Value added for field PatternType: "3" (Continuous Late) Values added for field SettlementSystem: '10' (Other Settlement System), '11' (Euroclear Bank), '12' (Euronext Securities Oslo) Value added for field MIC: 'SEDX' (ELECTRONIC SECURITISED DERIVATIVES MARKET (SEDEX)) Field added: MinimumSettlementAmount Inclusion of LP OBLIGATIONS file in CFTS, Referential Data Service, file description and field definition |

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