

Document title

# **EURONEXT CASH AND DERIVATIVES MARKET – COMMON FILE TRANSFER SYSTEM**

Document type or subject

COMMON FILE TRANSFER SYSTEM MEMBERS – USER GUIDE

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## PREFACE

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### PURPOSE

The purpose of this document is to provide general technical information about Euronext Common File Transfer System Services. Euronext Common File Transfer System (CFTS) provides file distribution services to customers that have either an EMDDA (market data), SPA (Service Provider) or TPA (Trading Platform) agreement to get access to the core trading chain of Euronext.

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### TARGET AUDIENCE

This document should be read by Developers, Exchange Connectivity Managers, Trading Support Teams and anybody involved in the setup and the configuration of Optiq MDG solution in End User Acceptance (EUA) and Production environments.

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### SUPPORT

Please find below the contact details:

- Operational Client Services Desk: [clientsupport@euronext.com](mailto:clientsupport@euronext.com)
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- France +33 1 8514 8585
- Ireland +353 1 617 4289
- Netherlands +31 20 721 9585
- Portugal +351 2 1060 8585
- UK +44 20 7660 8585

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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.

| REVISION NO./<br>VERSION NO. | CHANGE DESCRIPTION                         |
|------------------------------|--|
| 5.19.0                       | Included CFTS Reconciliation Data Service. |

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### 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:

- Euronext Cash and Derivatives Markets – Optiq Files – Interface Specification
- Euronext Cash and Derivatives Markets – Web Secured Communication Standards – Technical Specification

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## 1 OVERVIEW

The Common File Transfer System (CFTS) is designed to centralize access to configuration and data files for customers via Euronext private Colocation/CMC network and the Internet. This new critical service is based on a resilient and secured infrastructure. Separate domain names will exist per environment.

CFTS SFTP services utilizes the SSH key pairs authenticate and encryption. Customers must generate their own SSH keys pairs and register their public key with Euronext to gain access to file locations.

SFTP public keys are used for authentication, instead of using passwords. The public key authentication uses a pair of keys, one private and one public.

Customers covered by this Euronext Common File Transfer System are companies who have signed one of the following agreements:

- Euronext Market Data Distribution Agreement (EMDDA)
- Service Provider Agreement (SPA)
- Trading Platform Agreement (TPA)

Euronext will deliver additional file distribution services and functionality through CFTS in future releases. Additional CFTS services, will offer both standard and customized private files per trading member, thereby becoming the hub for file transfer between Euronext and clients.

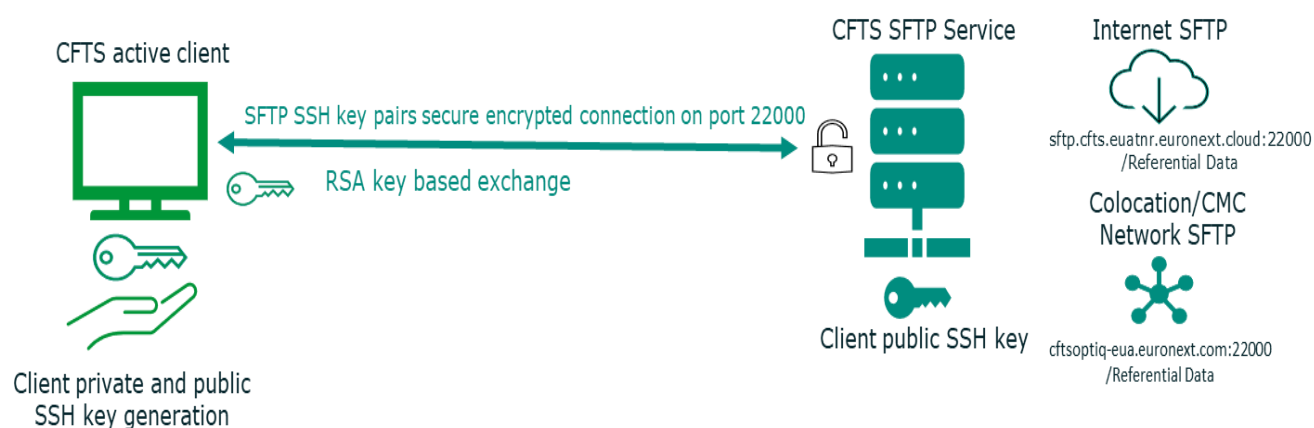
## 2 CFTS SFTP SERVICE ACCESS

To gain access to the CFTS SFTP, members must have generated and submitted their SFTP SSH public key to Euronext through the Market Access membership team, onboarding process (see CFTS trading member and issuer setup template and communication).

Secure Socket Shell (SSH), also called Secure Shell, creates a secure connection when you access a remote server. Secure File Transfer Protocol (SFTP) uses SSH and provides a secure way to transfer files between computers. SSH in SFTP Servers is an encrypted network protocol that uses public key cryptography to create a more secure method to authenticate a client's identity and rights to access a server.

Authorized and authenticated trading members can gain CFTS SFTP access, either through internet and Colocation/CMC networks. SFTP connections will be authenticated using SSH protocol key pairs. Trading members must generate their own public and private keys, with the public key being saved against their Euronext CFTS client user role. The member's private keys must be kept secure and stored locally on their own network. Access to the SFTP folder locations can only be secured by using a combination of the public and private keys (key pairs), and with a registered CFTS user email address.

CFTS services can be accessed using the registered CFTS user email address and SFTP SSH key pairs.



## 3 PRE-REQUISITES

As a pre-requisite, customers are required to have a company agreement signed with Euronext (EDDA, SPA or TPA).

To access the CFTS SFTP data folders in both p-EUA and Production, the customers' Member Connectivity Administrator (MCA) must have completed the CFTS user setup template and ensure that their SSH public key is registered with Euronext.

Only contacts registered CFTS onboarding process can access CFTS data services. For more information about MCAs and their registration, please contact: [euronextmembership@euronext.com](mailto:euronextmembership@euronext.com).

### 3.1 CFTS SERVICE DOMAIN NAMES

The table below provides the domain names used to connect to the CFTS SFTP data service.

| NETWORK                               | ENVIRONMENT                                    | DOMAIN NAME                        |
|---------------------------------------|--|------------------------------------|
| <b>Colocation/<br/>CMC<br/>Access</b> | Next EUA                                       | cftsoptiq-eua.euronext.com         |
|                                       | Next EUA Backup (in case of primary failure)   | cftsoptiq-eua-backup.euronext.com  |
|                                       | Production                                     | cftsoptiq-prod.euronext.com        |
|                                       | Production Backup (in case of primary failure) | cftsoptiq-prod-backup.euronext.com |
| <b>Internet<br/>Access</b>            | Next EUA                                       | sftp.cfts.euatnr.euronext.cloud    |
|                                       | Production                                     | sftp.cfts.prodtmr.euronext.cloud   |

Euronext CFTS SFTP service is on Port 22000. And will authenticate connectivity based on the registered CFTS user email address with both client private and public SSH keys.

### 3.2 UPDATES TO AUTHENTICATION ATTRIBUTES

Changes to the SSH public key or CFTS registered user email address should be submitted to Euronext optiq migration team: **[optiqmigration@euronext.com](mailto:optiqmigration@euronext.com)**

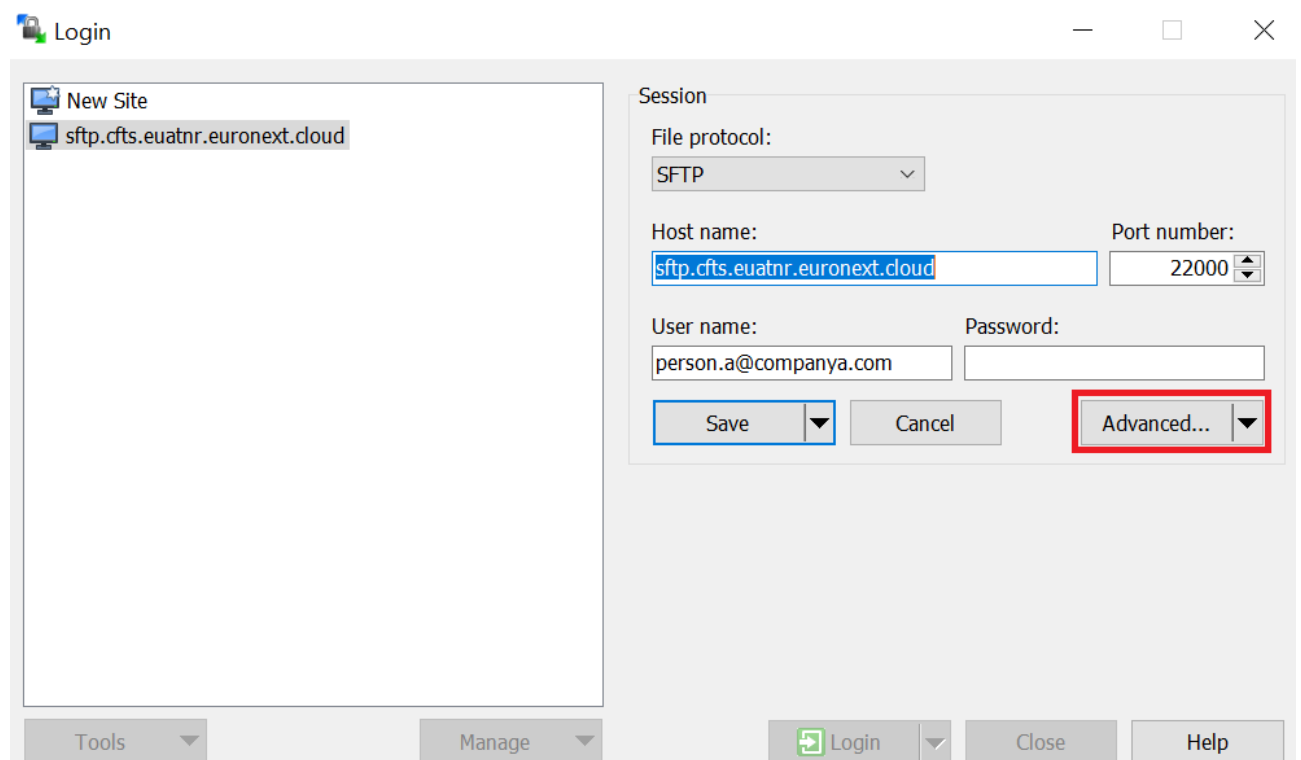
## 4 SFTP SSH KEY GENERATION

SFTP SSH public and private keys can be generated using a number of different proprietary applications and operating systems. For the purposes of illustration, Microsoft WinSCP, was used to provide an example of generating SSH keys.

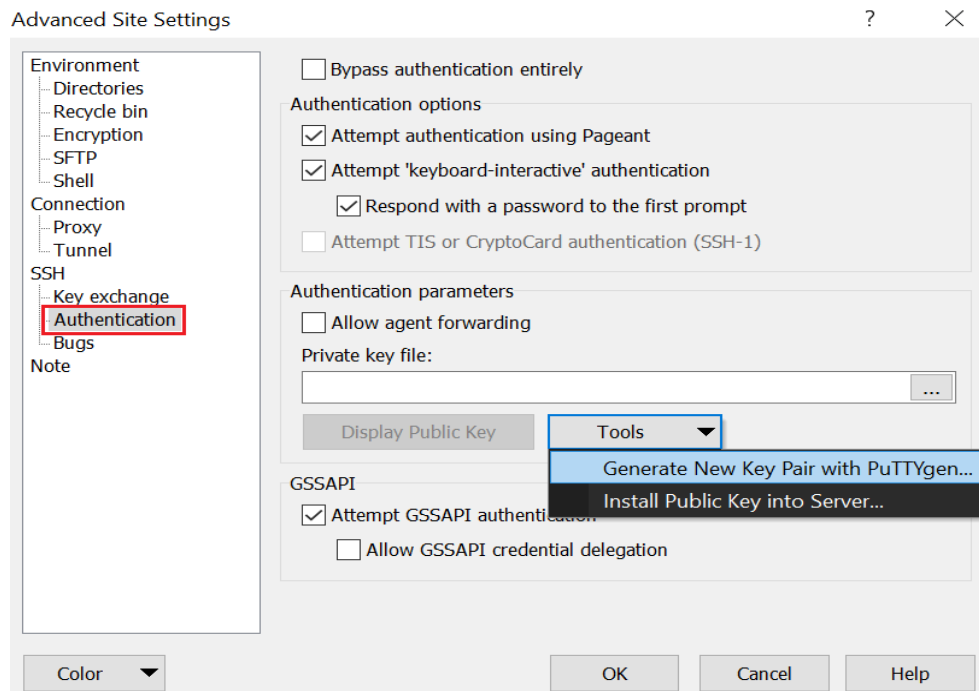
### Steps to generate SSH keys

1. Open WinSCP
2. Select New Site
3. Populate the following field values and select Save

| FIELD         | VALUE  |
|---------------|--|
| File protocol | SFTP   |
| Host name     | sftp.cfts.euatnr.euronext.cloud                  |
| Port number   | 22000  |
| User name     | CFTS user email account registered with Euronext |

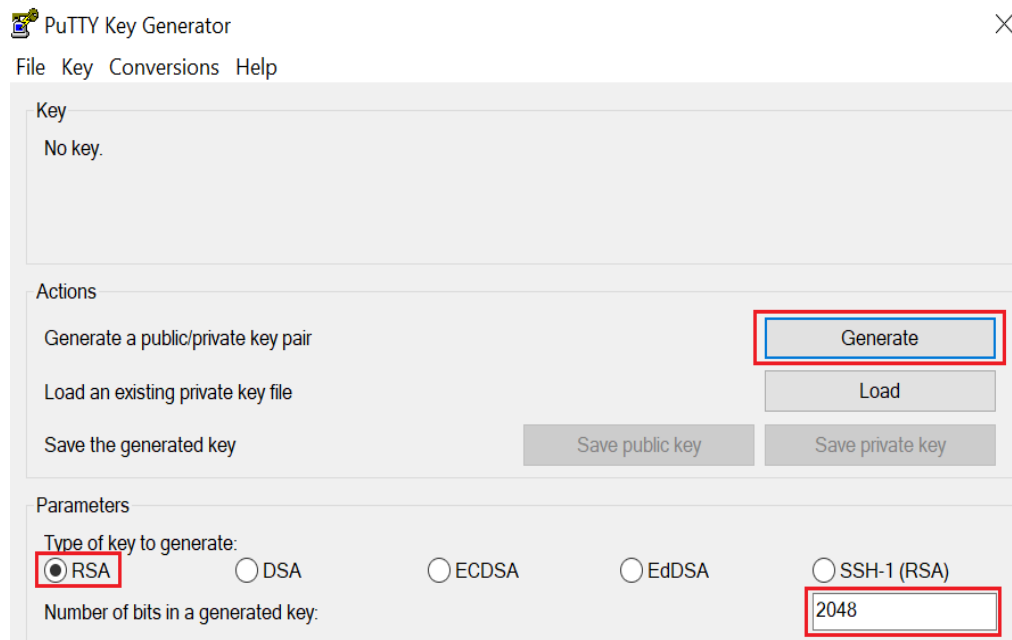


#### 4. Select Advanced, Authentication, Tools, Generate New Key Pair with PuTTYgen.



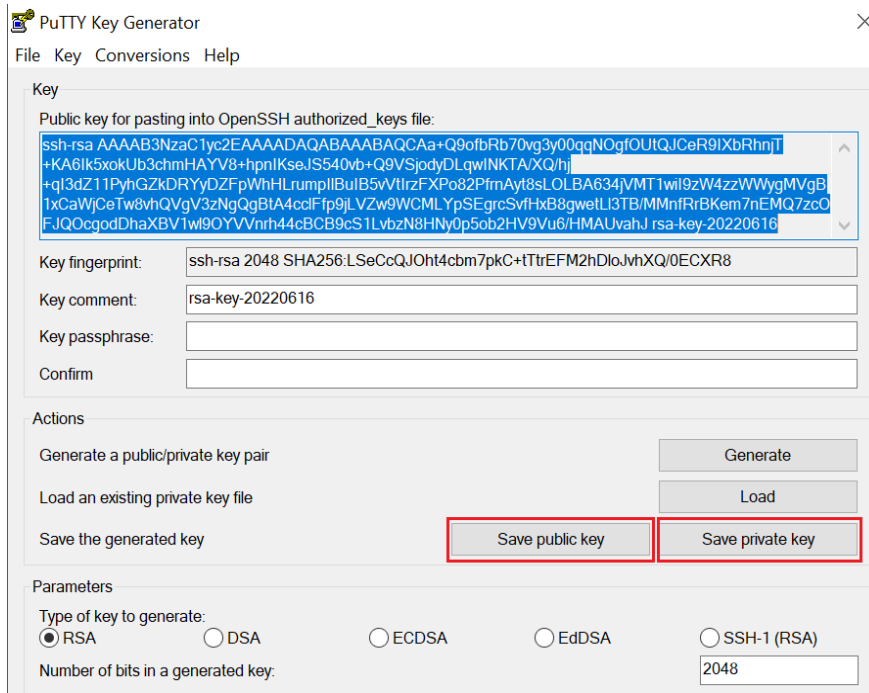
#### 5. Select, Generate.

Ensure the type of key to generate, RSA, is selected and the default number of bits is 2048.

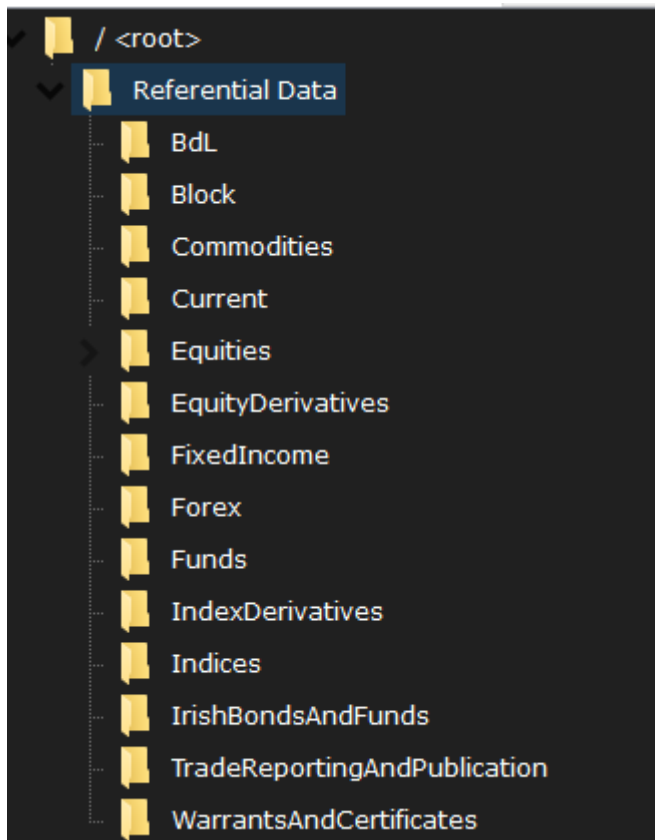




## 6. Select, Save public key.



## 7. Repeat the key generation for the private key. And select save private key.

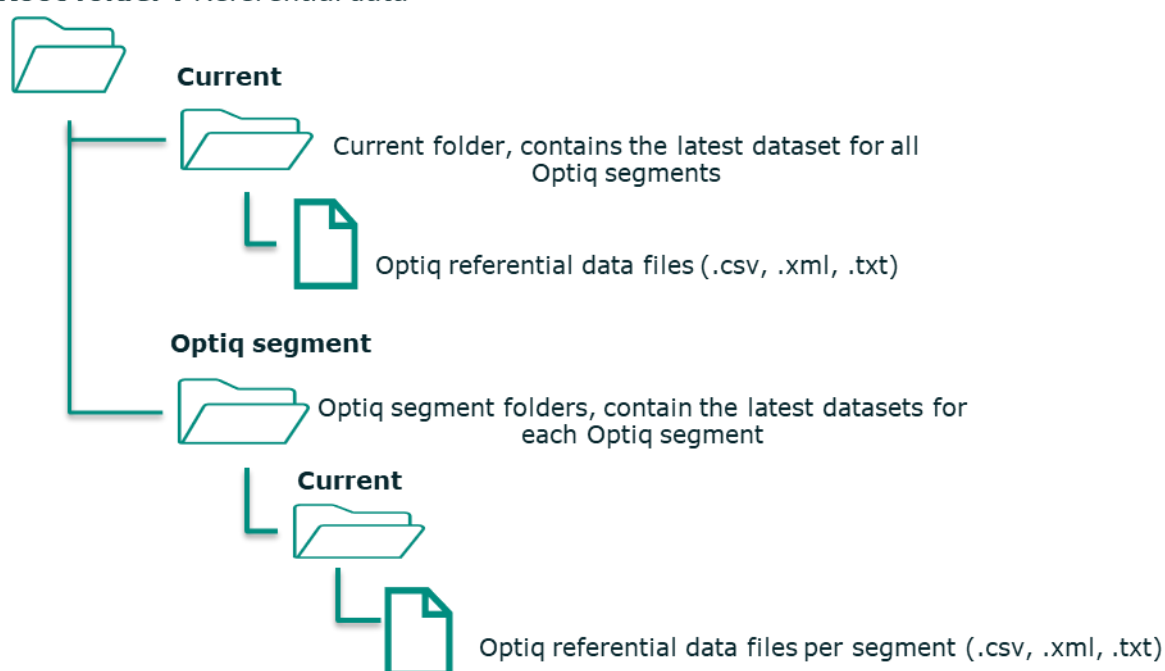
8. Select Login to view `sftp.cfts.euatnr.euronext.cloud` folders and files.

## 5 CFTS REFERENTIAL DATA SERVICE SUMMARY

Euronext CFTS Referential data service provides key Optiq data referential data files. Optiq referential data files will be available for download before the start of each trading day. And will provide an online archive of referential data files for the last five trading days.

The Current folders contain the latest files Optiq referential data files for an environment and per Optiq segment.

**Root folder :** Referential data



### 5.1 REFERENTIAL DATA FILES PER ENVIRONMENT

Separate domain names will exist per environment.

The Current environment folder contains the latest files Optiq referential data files for all Optiq segments.

| REFERENTIAL DATA FILES PER ENVIRONMENT | DESCRIPTION   |
|--|---|
| CashTickSizeReferentialFile_All        | The Tick size file contains different tables defining the variable tick sizes used for trading activity       |
| MembershipMappingFile_All              | Firm ID, Firm name, Instrument group code, LEI code for all members   |
| RepoSettlementPriceFile_All            | Repo Settlement Price File is used to communicate the previous day settlement price for each repo instruments |
| Euronext RLP Universe                  | Euronext RLP (Retail Liquidity Provider) Universe file  |
| MBR_FAMINSTR                           | Instrument families categorization  |

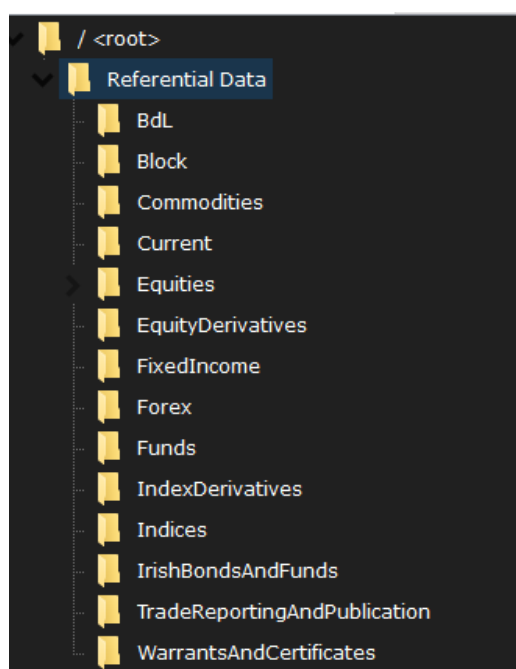
### 5.2 REFERENTIAL DATA FILES PER OPTIQ SEGMENT

Files available per Optiq segment folder are as follows and will be provided in XML format:

| REFERENTIAL DATA FILES<br>PER OPTIQ SEGMENT |  | DESCRIPTION   |
|---|--|---|
| CashStandingData File                       |  | The Cash Standing Data file provides Referential Data for cash markets  |
| CashTickSizeReferential File                |  | The Tick size file contains different tables defining the variable tick sizes used for trading activity   |
| DerivativesStandingData File                |  | The Derivatives Standing Data files provides Referential Data for derivatives markets, containing Contract Standing Data, Outright Standing Data and Strategies Standing Data   |
| DerivativesTickSize File                    |  | The Tick size file contains different tables defining the variable tick sizes used for trading activity   |
| OpenInterest File                           |  | Open Interest file provide open interest information provided by LCH on derivatives instruments   |
| ReferenceSpreads File                       |  | Reference Spreads File provide data to calculate Dynamic Collar Reference Price when Reference Price Origin is set to 'Mid-BBO or Fair Value' and data to calculate Dynamic Collars   |
| PrevDayCapAndVolTrade File                  |  | Previous Day Capital and Volume Traded file provides: Previous Volume Traded and Previous Day Capital Traded information  |
| TimetableFile File                          |  | The Timetable file indicates the scheduled trading patterns, on a given day, associated to a Symbol Index linked by the Pattern ID  |
| RepoSettlementPrice File                    |  | Repo Settlement Price File is used to communicate the previous day settlement price for each repo instruments   |
| TRF Conversion Parameters File              |  | The Total Return Futures (TRF) file provides contract Referential Data: Contract code, Maturity, Number of days to expiry, Daily Settlement Price. Pricing of Funding leg and Dividend leg: Daily accrued funding, daily accrued dividend, Accumulated funding, Accumulated dividend  |
| SBETemplates (for MDG and OEG)              |  | Simple Binary Encoding (SBE) is the open-source binary protocol used as the solution for market data and order entry messaging in Optiq. SBE was designed within the FIX Protocol Limited organization, with a focus on low band width utilization and the goal of producing a binary encoding solution for low-latency financial trading. Templates define structure and content messages. |
| Authorized Price Fluctuation File           |  | 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.  |

### 5.3 REFERENTIAL DATA SERVICE DIRECTORY

The referential data service directory can be found under the folder /Referential Data, on the CFTS SFTP domain.



## 5.4 REFERENTIAL DATA SERVICE FILE LIST

The table below lists the files that will be made available through CFTS SFTP Referential Data Service for download.

| Output folder path   | File naming convention  |
|----------------------|---|
| BdL/Current/         | OptiqOEG_<ENV>_SBETemplate_BdL_<yyyyMMdd>.xml                           |
| BdL/Current/         | OptiqMDG_<ENV>_SBETemplate_BdL_<yyyyMMdd>.xml                           |
| BdL/Current/         | AuthorizedPriceFluctuationFile_Bourse_de_Luxembourg_<yyyyMMdd>.xml      |
| BdL/Current/         | AuthorizedPriceFluctuationFile_Block_<yyyyMMdd>.xml                     |
| BdL/Current/         | AuthorizedPriceFluctuationFile_Equities_<yyyyMMdd>.xml                  |
| BdL/Current/         | AuthorizedPriceFluctuationFile_Fixed_Income_<yyyyMMdd>.xml              |
| Block/Current/       | AuthorizedPriceFluctuationFile_Funds_<yyyyMMdd>.xml                     |
| Block/Current/       | AuthorizedPriceFluctuationFile_Warrants_and_Certificates_<yyyyMMdd>.xml |
| Block/Current/       | AuthorizedPriceFluctuationFile_Block_<yyyyMMdd>.xml                     |
| Block/Current/       | OptiqMDG_<ENV>_CashStandingDataFile_Block_<yyyyMMdd>.xml                |
| Block/Current/       | OptiqMDG_<ENV>_TimeTableFile_Block_<yyyyMMdd>.xml                       |
| Commodities/Current/ | OptiqOEG_<ENV>_SBETemplate_Commodities_<yyyyMMdd>.xml                   |
| Commodities/Current/ | OptiqMDG_<ENV>_SBETemplate_Commodities_<yyyyMMdd>.xml                   |
| Commodities/Current/ | OptiqMDG_<ENV>_OpenInterestFile_Commodities_<yyyyMMdd>.xml              |
| Commodities/Current/ | OptiqMDG_<ENV>_ReferenceSpreadsFile_Commodities_<yyyyMMdd>.xml          |
| Commodities/Current/ | OptiqMDG_<ENV>_CashTickSizeReferentialFile_Commodities_<yyyyMMdd>.xml   |
| Commodities/Current/ | OptiqMDG_<ENV>_TimeTableFile_Commodities_<yyyyMMdd>.xml                 |
| Commodities/Current/ | OptiqMDG_<ENV>_DerivativesStandingDataFile_Commodities_<yyyyMMdd>.xml   |
| Commodities/Current/ | OptiqMDG_<ENV>_DerivativesTickSizeFile_Commodities_<yyyyMMdd>.xml       |
| Current/             | OptiqMDG_<ENV>_RepoSettlementPriceFile_ALL_<yyyyMMdd>.xml               |
| Current/             | OptiqMDG_<ENV>_MemberMappingFile_ALL_<yyyyMMdd>.xml                     |
| Current/             | IDSCash_<ENV>_MBR_FAMINSTR_<yyyyMMdd>.txt                               |

|                            |   |
|----------------------------|---|
| Current/                   | IDSCash_<ENV>_Euronext-RLPUniverse_<yyyyMMdd>.csv   |
| Current/                   | OptiqMDG_<ENV>_CashTickSizeReferentialFile_ALL_<yyyyMMdd>.xml                                   |
| Equities/Current/          | OptiqOEG_<ENV>_SBETemplate_Equities_<yyyyMMdd>.xml  |
| Equities/Current/          | OptiqMDG_<ENV>_SBETemplate_Equities_<yyyyMMdd>.xml  |
| Equities/Current/          | AuthorizedPriceFluctuationFile_Equities_<yyyyMMdd>.xml  |
| Equities/Current/          | OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_Equities_<yyyyMMdd>.xml                                 |
| Equities/Current/          | OptiqMDG_<ENV>_TimeTableFile_Equities_<yyyyMMdd>.xml  |
| Equities/Current/          | OptiqMDG_<ENV>_CashStandingDataFile_Equities_<yyyyMMdd>.xml                                     |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_DerivativesStandingDataFile_EquityDerivatives_<yyyyMMdd>.xml                     |
| EquityDerivatives/Current/ | OptiqOEG_<ENV>_SBETemplate_EquityDerivatives_<yyyyMMdd>.xml                                     |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_SBETemplate_EquityDerivatives_<yyyyMMdd>.xml                                     |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_OpenInterestFile_EquityDerivatives_<yyyyMMdd>.xml                                |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_TimeTableFile_EquityDerivatives_<yyyyMMdd>.xml                                   |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_ReferenceSpreadsFile_EquityDerivatives_<yyyyMMdd>.xml                            |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_CashTickSizeReferentialFile_EquityDerivatives_<yyyyMMdd>.xml                     |
| EquityDerivatives/Current/ | OptiqMDG_<ENV>_DerivativesTickSizeFile_EquityDerivatives_<yyyyMMdd>.xml                         |
| FixedIncome/Current/       | OptiqOEG_<ENV>_SBETemplate_FixedIncome_<yyyyMMdd>.xml   |
| <b>Output folder path</b>  | <b>File naming convention</b>   |
| FixedIncome/Current/       | OptiqMDG_<ENV>_SBETemplate_FixedIncome_<yyyyMMdd>.xml   |
| FixedIncome/Current/       | AuthorizedPriceFluctuationFile_Fixed_Income_<yyyyMMdd>.xml                                      |
| FixedIncome/Current/       | OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_FixedIncome_<yyyyMMdd>.xml                              |
| FixedIncome/Current/       | OptiqMDG_<ENV>_TimeTableFile_FixedIncome_<yyyyMMdd>.xml   |
| FixedIncome/Current/       | OptiqMDG_<ENV>_CashStandingDataFile_FixedIncome_<yyyyMMdd>.xml                                  |
| Forex/Current/             | OptiqMDG_<ENV>_SBETemplate_Forex_<yyyyMMdd>.xml   |
| Forex/Current/             | OptiqMDG_<ENV>_CashStandingDataFile_Forex_<yyyyMMdd>.xml  |
| Funds/Current/             | OptiqMDG_<ENV>_SBETemplate_Funds_<yyyyMMdd>.xml   |
| Funds/Current/             | AuthorizedPriceFluctuationFile_Funds_<yyyyMMdd>.xml   |
| Funds/Current/             | OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_Funds_<yyyyMMdd>.xml                                    |
| Funds/Current/             | OptiqMDG_<ENV>_TimeTableFile_Funds_<yyyyMMdd>.xml   |
| Funds/Current/             | OptiqMDG_<ENV>_CashStandingDataFile_Funds_<yyyyMMdd>.xml  |
| Funds/Current/             | OptiqOEG_<ENV>_SBETemplate_Funds_<yyyyMMdd>.xml   |
| IndexDerivatives/Current/  | UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_<yyyyMMdd>.xml |
| IndexDerivatives/Current/  | UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_SOD_<yyyyMMdd>.csv |
| IndexDerivatives/Current/  | UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_<yyyyMMdd>.xml |
| IndexDerivatives/Current/  | UTPDerivatives_<ENV>_TotalReturnFuturesConversionParameters_IndexDerivatives_EOD_<yyyyMMdd>.csv |
| IndexDerivatives/Current/  | OptiqMDG_<ENV>_SBETemplate_IndexDerivatives_<yyyyMMdd>.xml                                      |
| IndexDerivatives/Current/  | OptiqMDG_<ENV>_OpenInterestFile_IndexDerivatives_<yyyyMMdd>.xml                                 |
| IndexDerivatives/Current/  | OptiqMDG_<ENV>_DerivativesTickSizeFile_IndexDerivatives_<yyyyMMdd>.xml                          |
| IndexDerivatives/Current/  | OptiqMDG_<ENV>_CashTickSizeReferentialFile_IndexDerivatives_<yyyyMMdd>.xml                      |
| IndexDerivatives/Current/  | OptiqMDG_<ENV>_TimeTableFile_IndexDerivatives_<yyyyMMdd>.xml                                    |
| IndexDerivatives/Current/  | OptiqMDG_<ENV>_DerivativesStandingDataFile_IndexDerivatives_<yyyyMMdd>.xml                      |
| IndexDerivatives/Current/  | OptiqOEG_<ENV>_SBETemplate_IndexDerivatives_<yyyyMMdd>.xml                                      |

|                                       |  |
|---------------------------------------|--|
| IndexDerivatives/Current/             | OptiqMDG_<ENV>_ReferenceSpreadsFile_IndexDerivatives_<yyyyMMdd>.xml            |
| Indices/Current/                      | OptiqMDG_<ENV>_SBETemplate_Indices_<yyyyMMdd>.xml                              |
| Indices/Current/                      | OptiqMDG_<ENV>_CashStandingDataFile_Indices_<yyyyMMdd>.xml                     |
| IrishBondsAndFunds/Current/           | OptiqMDG_<ENV>_SBETemplate_IrishBondsAndFunds_<yyyyMMdd>.xml                   |
| TradeReportingAndPublication/Current/ | OptiqMDG_<ENV>_SBETemplate_TradeReportingAndPublication_<yyyyMMdd>.xml         |
| WarrantsAndCertificates/Current/      | OptiqMDG_<ENV>_TimeTableFile_WarrantsAndCertificates_<yyyyMMdd>.xml            |
| WarrantsAndCertificates/Current/      | OptiqMDG_<ENV>_SBETemplate_WarrantsAndCertificates_<yyyyMMdd>.xml              |
| WarrantsAndCertificates/Current/      | AuthorizedPriceFluctuationFile_Warrants_and_Certificates_<yyyyMMdd>.xml        |
| WarrantsAndCertificates/Current/      | OptiqMDG_<ENV>_PrevDayCapAndVolTradFile_WarrantsAndCertificates_<yyyyMMdd>.xml |
| WarrantsAndCertificates/Current/      | OptiqMDG_<ENV>_CashStandingDataFile_WarrantsAndCertificates_<yyyyMMdd>.xml     |
| WarrantsAndCertificates/Current/      | OptiqOEG_<ENV>_SBETemplate_WarrantsAndCertificates_<yyyyMMdd>.xml              |

## 5.5 FILE SPECIFICATIONS

For all details of individual file specifications please reference the latest version of the [Euronext Cash and Derivatives Markets – Optiq Files - Interface Specifications – External](#) on the [Euronext Connect Customer Portal](#).

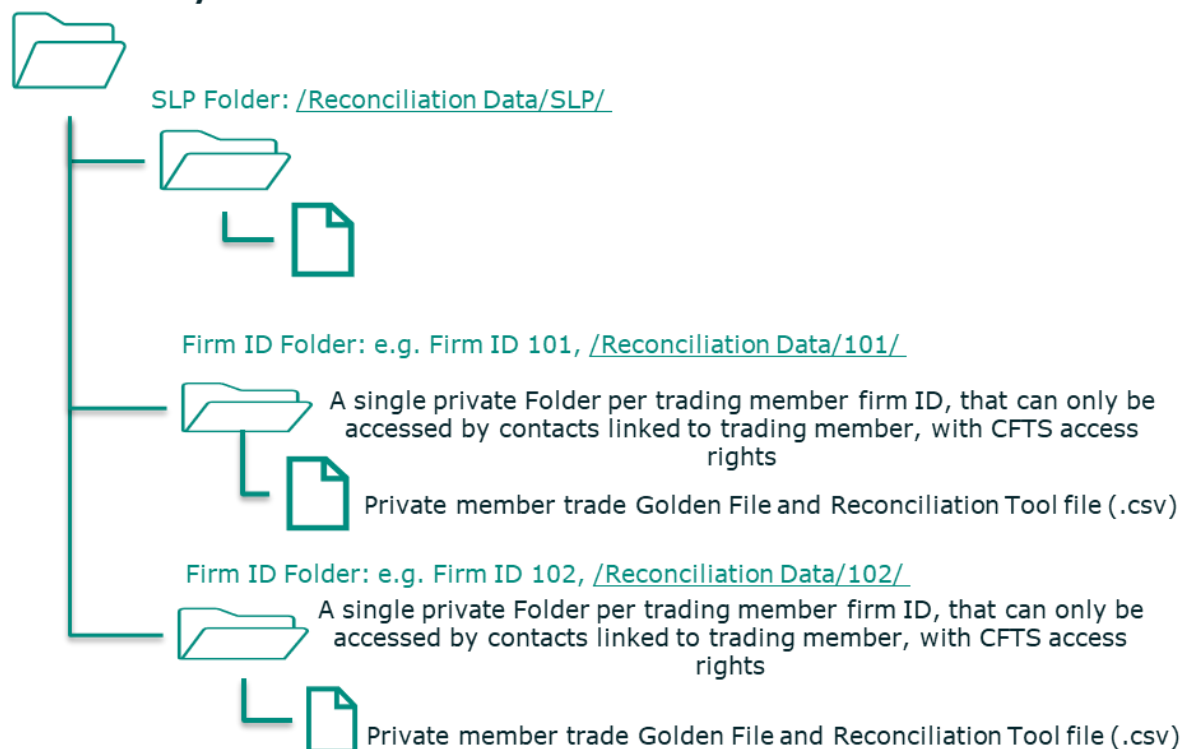
Also see the latest file specifications, [Euronext Markets – Member Mapping File Specification](#).

## 6 CFTS RECONCILIATION DATA SERVICE SUMMARY

Euronext CFTS Reconciliation Data service provides key private Optiq trading reconciliation files, per trading member firm ID, that are generated in the event of an incident on the Optiq trading platform. Private Optiq trading reconciliation files will be available for download, in dedicated folders per trading member, in the event of an incident with the Optiq trading platform.

Trading members identified by Euronext as liquidity providers will have access to a Supplementary Liquidity Providers (SLP) folder, to download the Euronext SLP Universe file.

### Root Directory: Reconciliation data



### 6.1 RECONCILIATION DATA FILES PER ENVIRONMENT

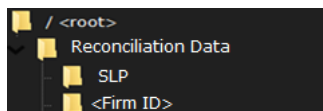
Separate domain names will exist per environment.

The files available per environment, in a private folder, per trading member firm ID, are as follows:

| RECONCILIATION DATA FILES PER ENVIRONMENT          | DESCRIPTION   |
|--|---|
| GF (Golden File) trade reconciliation              | The file will contain all the trades that occurred in a day for a single member by Optiq segment. There will be one file per day, per member and per segment. Files are only generated in the event of Optiq trading platform incident. |
| RF (Reconciliation File) trade reconciliation tool | The file will contain all trades reported by the Reconciliation Tool in a single alert per trading member by Optiq segment. Multiple files maybe generated per day.   |
| SLP\Euronext SLP Universe                          | This file lists all Euronext Supplementary Liquidity Providers (SLP) instruments by instrument code, Mnemonic and basket.   |

## 6.2 RECONCILIATION DATA SERVICE DIRECTORY

The reconciliation data service directory can be found under the folder /Reconciliation Data, on the CFTS SFTP domain.



## 6.3 RECONCILIATION DATA SERVICE FILE LIST

The table below lists the files that will be made available through CFTS SFTP Reconciliation Data Service for download.

| OUTPUT SUB-FOLDER PATH | FILE NAMING CONVENTIONS  |
|------------------------|--|
| /<Firm ID>/            | GF_<yyyy-MM-dd>-<Firm ID>.zip                                  |
| /<Firm ID>/            | RF_<yyyyMMdd>_<hhmmss>_<Firm ID>_<Optiq segment shortname>.ZIP |
| /SLP/                  | EURONEXT_SLPUNIVERSE-<yyyyMMdd>.csv                            |

## 6.4 FILE SPECIFICATIONS

Individual Reconciliation Data Service file specifications are detailed the sections below.

### 6.4.1 Golden File (GF) Specification

The Euronext Golden File is a document listing all clients trades that were effectively sent by Euronext to Central Counterparty Clearing Houses at the time of its generation. It provides a complete overview of compensated operations at a given moment. This file is only created in the exceptional case where the functioning of the transaction integration chain at Euronext is altered.

Its format consists of a flat csv file, delimited by a semi-colon. For a given client, there will be as many files as Optiq segments. All trading member's csv files will be zipped into a single file for download. The file will be available through CFTS Reconciliation Data Service using SFTP with SSH key authentication.

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

The second line of the file contains a header and detail dividing line with dashes.

- File Availability: Internal Euronext trading reconciliation incident.
- Scope of contents: All trades per member.
- Intraday updates: This file will be generated upon an internal Euronext trade reconciliation incident being raised.

File name will follow this template:

GF\_<yyyy-MM-dd>-<Firm ID>.zip

Where <ENV> can take the following values: Production, Current EUA (vEUA), Next EUA (p-EUA).

| Field      | Short Description               | Format | Len | Values   | Presence  |
|------------|---------------------------------|--------|-----|----------|-----------|
| TRADE_DATE | Trade execution date (YYYYMMDD) | Date   | 12  | 20221017 | Mandatory |



| Field           | Short Description  | Format              | Len | Values                      | Presence  |
|-----------------|--|---------------------|-----|-----------------------------|-----------|
| TRADE_TIME      | Trade execution date and time in microseconds  | Unsigned integer 64 | 12  | 2022-10-17T08:07:46.707265Z | Mandatory |
| EXEC_ID         | Trade execution identifier   | Unsigned integer 32 | 10  | 12289                       | Mandatory |
| MNEMONIC        | Instrument mnemonic code   | String              | 5   | ENX                         | Mandatory |
| ISIN            | ISIN Code  | String              | 30  | NL0006294274                | Mandatory |
| SYMBOL_INDEX    | Exchange identification code of the instrument/contract.   | Integer             | 10  | 1143559                     | Mandatory |
| SEGMENT         | Optiq Segment short name. An Optiq segment is a universe of instruments sharing common trading properties. | String              | 3   | EQU                         | Mandatory |
| AXX_TYPE        | Account Type   | String              | 8   | CLIENT                      | Mandatory |
| CCP             | Central counterparty clearing houses (CCPs) short name   | String              | 11  | LCH SA                      | Mandatory |
| *ORDER_ID       | Numerical order identifier assigned by the Post Trade Box (where cleared operations are stored)            | Numeric             | 8   | 4353                        | Mandatory |
| CLIENT_ORDER_ID | Client Order Id  | Numeric             | 8   | -1,16E+10                   | Mandatory |
| SIDE            | Buy / Sell   | String              | 1   | B or S                      | Mandatory |
| PRICE           | Price with decimal   | Float               | 10  | 75.0                        | Mandatory |
| QTY             | Quantity with decimal  | Float               | 10  | 350                         | Mandatory |
| VALUE           | PRICE multiplied by QTY  | Float               | 10  | 236250.00                   | Mandatory |
| CURRENCY        | Currency acronym   | String              | 3   | EUR                         | Mandatory |
| LAST_MARKET     | Market identifier code   | String              | 4   | XPAR                        | Mandatory |
| TVTIC           | Trading Venue Transaction Identification Code  | String              | 52  | 513BMG455841020             | Mandatory |

\* This identifier is not the Optiq Order\_ID, however there is a formula to deduce this one from that Order\_ID provided in the Golden File.

### 6.4.2 Reconciliation File (RF) Specification

The Euronext Reconciliation Tool File is a document listing all trades that were booked into Optiq but not sent by Euronext to Central Clearing Counterparty Houses at the time of its generation. It provides a full overview of all operations still pending (not fully integrated) within Optiq and not yet cleared. This file is only created in the exceptional case where the functioning of the transaction integration chain at Euronext is compromised.

Its format consist of a flat csv file, delimited by a semi-colon. It provides a list of trades per member by Optiq segment. All trading member's csv files will be zipped into a single file for download. The file will be available through CFTS Reconciliation 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: Internal Euronext trading reconciliation incident.
- Scope of contents: Trades booked by clients but not cleared per member.
- Intraday updates: This file will be generated upon an internal Euronext trade reconciliation incident being raised.

File name will follow this template:

RF\_<yyyyMMdd>\_<hhmmss>\_<Firm ID>\_<Optiq segment shortname>.ZIP

Where <ENV> can take the following values: Production, Current EUA (vEUA), Next EUA (p-EUA).

| Field             | Short Description  | Format              | Len | Values                      | Presence  |
|-------------------|--|---------------------|-----|-----------------------------|-----------|
| Trade Date        | Trade execution date (YYYYMMDD)  | Date                | 12  | 20221017                    | Mandatory |
| Trade Time (UTC)  | Trade execution date and time in microseconds  | Unsigned integer 64 | 12  | 2022-10-17T08:07:46.707265Z | Mandatory |
| Exec ID           | Trade execution identifier   | Unsigned integer 32 | 10  | 12289                       | Mandatory |
| Mnemonic          | Instrument mnemonic code   | String              | 5   | ENX                         | Mandatory |
| ISIN              | ISIN Code  | String              | 30  | NL0006294274                | Mandatory |
| Currency          | ISO Currency Code  | String              | 3   | EUR                         | Mandatory |
| Last Market = MIC | Market Identification Code (ISO 10383 standard)  | String              | 4   | XPAR                        | Mandatory |
| Symbol Index      | Exchange identification code of the instrument/contract.   | Integer             | 10  | 1143559                     | Mandatory |
| Optiq segment     | Optiq Segment short name. An Optiq segment is a universe of instruments sharing common trading properties. | String              | 3   | EQU                         | Mandatory |
| ACC_TYPE          | Account T  | String              | 8   |                             | Optional  |
| CCP               | Central counterparty clearing houses (CCPs) short name   | String              | 11  | LCH SA                      | Mandatory |
| Price             | Price with decimal   | Float               | 10  | 75.0                        | Mandatory |
| Quantity          | Quantity with decimal  | Float               | 10  | 350                         | Mandatory |
| Value             | Price multiplied by Quantity   | Float               | 10  | 236250.00                   | Mandatory |
| Order ID          | Numerical order identifier assigned by the matching engine, unique per instrument and EMM                  | Integer             | 8   | 16862000                    | Mandatory |
| Client Order ID   | An identifier of a message assigned by the Client when submitting an order to the Exchange.                | signed integer 64   | 8   |                             | Optional  |
| Side              | Indicates the side of the order.<br>1 = Buy, 2 = Sell, 3 = Cross   | String              | 1   | 1                           | Mandatory |
| Logical Access ID | Trading member's logical access identifier   | unsigned integer 32 | 10  | 101108                      | Mandatory |
| TVTIC             | Trading Venue Transaction Identification Code  | String              | 52  | 513BMG455841020             | Mandatory |

### 6.4.3 EURONEXT SLP Universe FILE

The Euronext SLP (Supplementary 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 Reconciliation Data Service using SFTP with SSH key authentication.

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

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

The last line of the file contains the internal filename and application reference, date and time the file was created, and the number of data rows contained within the file.

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

File name will follow this template:

EURONXT\_SLPUNIVERSE-<yyyyMMdd >.csv

| Field          | Short Description        | Format | Len | Values              | Presence  |
|----------------|--------------------------|--------|-----|---------------------|-----------|
| InstrumentCode | Instrument code          | String | 12  | FR0000130809        | Mandatory |
| TradingCode    | Trading instrument code  | String | 12  | FR0000130809        | Mandatory |
| Mnemonic       | Instrument mnemonic code | String | 5   | GLE                 | Mandatory |
| Name           | Instrument name          | String | 30  | SOCIETE<br>GENERALE | Mandatory |
| Basket         | Basket identifier        | String | 1   | A                   | Mandatory |

## APPENDIX

### A.1 CFTS MEMBERS SETUP TEMPLATE

The below is sample of the CFTS members setup template that should be populated and submitted to Euronext as part of the members onboarding process.

| Entity Attributes   |                     | User Attributes  |             |                       |            |           |                      |                       |                 |
|---------------------|---------------------|--|-------------|-----------------------|------------|-----------|----------------------|-----------------------|-----------------|
| Trading member name | Trading Member code | SFTP SSH Public Key  | Environment | Email address         | First name | Last name | Date of last request | CFTS Service          | Access Required |
| Company A           | 101                 | ssh-rsa<br>AAAAB3NzaC1yc2EAAAABJQ<br>AAAEAwTlId1+GVvOkEtn0yV<br>IYU7GaVRW5FVoBzGuzaoNp<br>bDlTbTEGBJdmL6x4hNswRqPj<br>Oxrp7+bDNIGV+jsy98G<br>GQzJ90CuHkdVEAsceNpxjZ6s<br>Chd94mc9re46ofrWJmpaIGHP<br>WyBxnYMXI0hm47LNUDD1C<br>67x6E1aKJs52B6XNICSQQue<br>o6zA+UIEBeizm8U0Hcl+4Ri4<br>9<br>tGmz6gMidB8PclmehVVZP4A<br>CI35RfByMNAPIFQDmxGFDIP<br>yROFV0y/rkE7e1R80C0L8kuN | BOTH        | Person_A@companya.com | Person A   | A Person  | 16/06/2022           | Referential Data      | Yes             |
|                     |                     |  |             |                       |            |           |                      | Corporate Actions ETF | Yes             |
|                     |                     |  |             |                       |            |           |                      | EOD                   | Yes             |
|                     |                     |  |             |                       |            |           |                      | Regulatory            | Yes             |
|                     |                     |  |             |                       |            |           |                      | Reconciliation        | Yes             |

### A.2 REFERENTIAL DATA SERVICE OPTIQ SEGMENT FOLDER LIST

The below table represents the list of available CFTS Optiq segment folders available at the time of publication.

| OPTIQ SEGMENT                       |
|-------------------------------------|
| BDL (Bourse de Luxembourg)          |
| Commodities (Commodity Derivatives) |
| Equities                            |
| Equity Derivatives                  |
| Block (Euronext Block)              |
| Fixed Income                        |
| Forex                               |
| Funds                               |
| Index Derivatives                   |
| Indices                             |
| Irish Bonds & Funds                 |
| Trade Reporting and Publication     |
| Warrants and Certificates           |

### A.3 DOCUMENT HISTORY TABLE

| REVISION NO | DATE        | AUTHOR                            | CHANGE DESCRIPTION  |
|-------------|-------------|-----------------------------------|---|
| 5.19.0      | 07 Oct 2022 | IT Market Services<br>– COL       | Included Reconciliation and Corporate Action ETFs services  |
| 5.18.0      | 15 Sep 2022 | IT Market Services<br>– COL       | Update to CFTS SPTF Domain names, diagrams and SSH Key generation screen shots. Distribution of file, SBETemplate_ALL, no longer valid. Include CFTS Referential data sub-folder and filenames combined table provided. Financial Derivatives Optiq segment discontinued. |
| 5.17.0      | 1 Aug 2022  | IT Market Services<br>– COL - WMA | Creation of the document.   |