

Document title

# EURONEXT NEXTHISTORY® CASH CLIENT SPECIFICATION

Document type or subject

CLIENT SPECIFICATION

Revision number

Revision Number: 2.2.2

Date

08 April 2024

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## PREFACE

### DOCUMENT HISTORY

The following table provides a description of all changes to this document.

VERSION NO.	DATE	CHANGE DESCRIPTION
2.0.1a	04/06/2010	Formatted into new template
2.0.2	15/10/2012	Removed Order Book data set Rebranded with new NYSE Technologies template
2.0.3	27/06/2014	Rebranded with new Euronext Template Inserted sections 4.3 and 4.4. Clarified possible field formats in section 4.5.
2.0.4	19/08/2014	Clarification to <Best bid price>, <Best ask price>, <Size on best bid>, <Size on best ask> in Table 11 (BBO File)
2.0.5	12/09/2014	Updated Euronext Service Operations email address
2.0.6	05/12/2014	Changes resulting from migration to new Euronext data delivery infrastructure – Planned for <b>Mon 16 March 2015</b> - Added section 1 – NEW DATA DELIVERY INFRASTRUCTURE - Edited section 4 – DATA FILES
2.0.7	16/03/2015	Updated Euronext Service Operations telephone number Updated dates in section 1.2 Transition Period
2.0.8	14/05/2015	Updated Euronext Service Operations email address
2.0.9	09/11/2018	Removed section 1 – NEW DATA DELIVERY INFRASTRUCTURE Updated Table 5 (changed REFs 2.12, 2.13, 2.14, 2.15, 2.16, 2.17) Updated Table 11 (added REFs 08.14 and 08.15)
2.1.0	30/11/2018	<b>(Effective 04 Nov 2018)</b> - Euronext Dublin (former Irish Stock Exchange) Equity data will be included in the NextHistory Files - Changes to the EOD File layout will be introduced (see Table 8)
2.1.1	20/03/2020	<b>(Effective 06 Apr 2020)</b> - Dividend File (see Table 6) <Dividend payment indicator>: possible values - IntradayTrades File (see Table 9) <Trade time> field : timestamp granularity - Off-Market Intraday Trades File (see Table 10)

VERSION NO.	DATE	CHANGE DESCRIPTION
		<p>&lt;Trade time&gt; field: timestamp granularity &lt;Trade type&gt; field: possible values</p> <ul style="list-style-type: none"> <li>- BBO File (see BBO file section) File Name: sequence number added to file name &lt;BBO time&gt;: timestamp granularity</li> </ul>
<b>2.1.2</b>	01/09/2022	<p><b>(Effective 01 Sept 2022) – the following changes will be made</b></p> <ul style="list-style-type: none"> <li>- Full Order Book (FOB) files will be added to the NextHistory offering</li> <li>- OPTIQ MDG binary data (RAW) files (in PCAP format) will be added to the NextHistory offering</li> </ul>
<b>2.2</b>	26/01/2023	<p><b>(Effective 01 February 2023)</b></p> <ul style="list-style-type: none"> <li>- File delivery via <b>SFTP</b> - except for the RAW Files - will become available (see section 3.4 – “FTP/SFTP Delivery”)</li> <li>- File delivery via <b>HTTPS</b> will become available (see section 3.6 – “HTTPS Delivery”)</li> </ul>
		<p><b>(Effective 18 March 2023)</b></p> <ul style="list-style-type: none"> <li>- File delivery via <b>FTP</b> will stop for all products, except for the RAW Files (see section 3.4 – “FTP/SFTP Delivery”)</li> </ul>
<b>2.2.1</b>	31/03/2023 (UPDATED DATES)	<p><b>(Effective 22 April 2023)</b></p> <p>File delivery via <b>FTP</b> will stop for all products, <b>except for the RAW Files</b> (see section 3.4 – “FTP/SFTP Delivery”)</p>
<b>2.2.2</b>	08/04/2024	<p><b>(Effective 08 April 2024)</b></p> <p>Added Trade Indicator = 3 for trades from the Dark Midpoint orderbook.</p>

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## CONTACT INFORMATION

For technical support, please contact the **Euronext Service Operations**:

- Email: [serviceoperations@euronext.com](mailto:serviceoperations@euronext.com)
- Telephone: +44 (0) 2890 822485

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## FURTHER INFORMATION

For additional product information, please contact us at [datasolutions@euronext.com](mailto:datasolutions@euronext.com).

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## 1. INTRODUCTION

Euronext NextHistory provides high-quality historical financial data that allows users to identify price trends and gain new insights into risk management and forecasting.

**Table 1 Euronext NextHistory Cash Data Products**

	A END OF DAY FILE	B TRADE FILE (INCLUDES A)	C BBO FILE (INCLUDES A AND B)	D FOB FILE (INCLUDES A, B AND C)	E RAW FILES
Euronext Group (except Borsa Italiana)	√	√	√	√	√

The main features of Euronext NextHistory cash data are as follows:

### Products A, B, C and D

- Official post-clearing data direct from the source
- End of Day file, including detailed dividend information and adjustment coefficients
- Trade file, including trade cancellations, trade IDs and off-market data (reported through TCS)
- BBO file, including best bid and offer
- Full Order Book (FOB) file, including incremental order updates

### Product E

- OPTIQ MDG binary data (RAW) files, include the content of OPTIQ MDG feed messages broadcasted over the different feed channels

The **Table 2** below shows the files supplied with each package.

FILES AVAILABLE	PACKAGES					NUMBER OF FILES PROVIDED
	END-OF- DAY	TRADES	BBO	FOB	RAW	
Calendar	X	X	X	X		One covering all locations
Instrument characteristics	X	X	X	X		One per location
Dividend	X	X	X	X		One per location
Adjustments	X	X	X	X		One per location
End of Day	X	X	X	X		One per location
Intraday Trades		X	X	X		One per location
Off-market trades		X	X	X		One per location

BBO			X	X		One per location
FOB				X		Several location per
RAW					X	One or several per channel

**Euronext Markets Covered**

- Euronext Amsterdam
- Euronext Brussels
- Euronext Dublin (as from 04 February 2019)
- Euronext Lisbon
- Euronext Paris
- Oslo Børs (as from 30 November 2020)

**1.1 SOFTWARE REQUIREMENTS**

Software for reading and processing data files should be purchased from a third-party supplier. Clients need to make sure that this software is capable of handling very large data files

END-OF-DAY, TRADES, BBO, FOB packages: ZIP compressed CSV files are provided.

RAW package: GZ compressed PCAP files are provided. Euronext does not provide a file decoder.

## 2. DATA OVERVIEW

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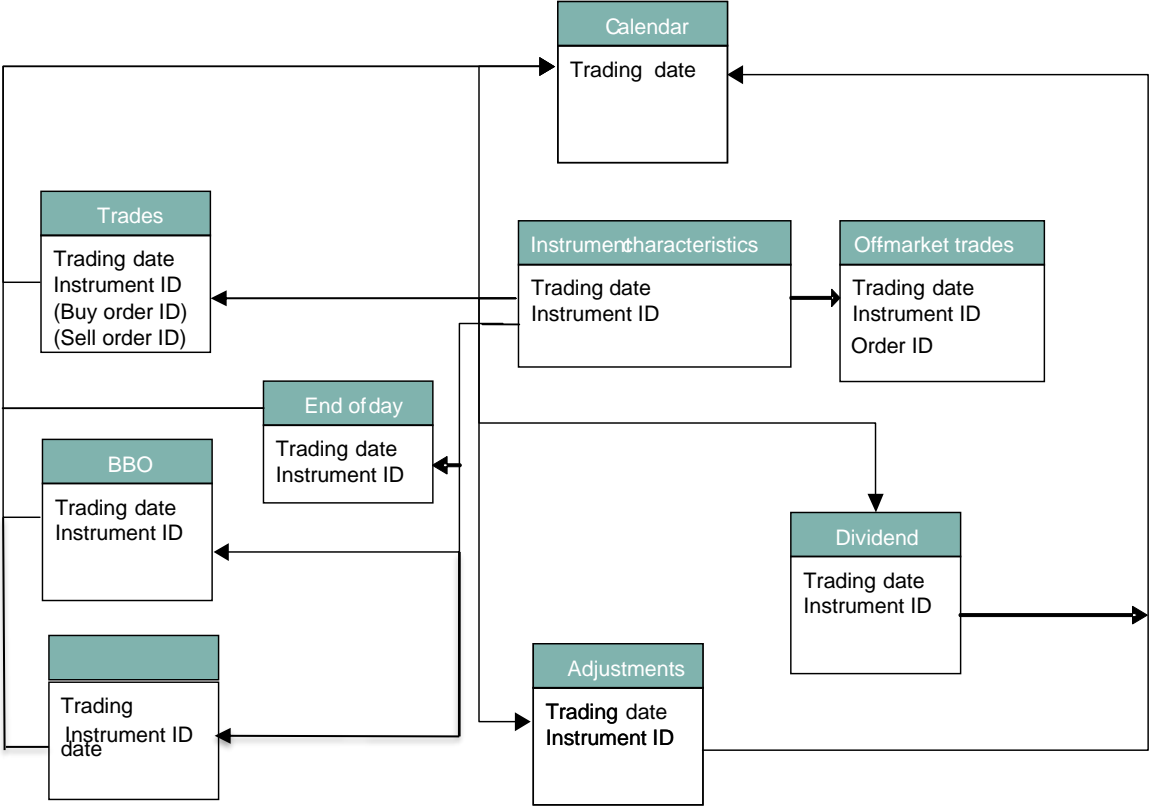
Euronext NextHistory cash data is stored in the following files.

**Table 3 Euronext NextHistory Cash Data Files**

FILE NAME	CONTENTS
Calendar	Overview of trading days for the corresponding calendar month
Instrument characteristics	All the characteristics of a particular instrument on a given date
Dividend	Dividend payments
Adjustments	Adjustment coefficients
End of day	Daily market summary: first, last, highest and lowest prices, volumes and turnover
IntradayTrades	Trades data file excluding Order IDs. Only available in the products Trade file and BBO file. Transactions and cancellations on the central market
Off-market trades	Trades reported via the TCS system
BBO	Best bid and offer available in the central order book
FOB	Incremental order updates
RAW	As detailed in the OPTIQ MDG Client Specification and OPTIQ MDDG Connectivity documentation available on Euronext's website

The following flow chart shows how these files (except the files included in the RAW package) are linked.

Figure 1 File Links



\* Instrument ID: also referred to as ISIN code and internal code



### 3. DATA FILES

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#### 3.1 FORMAT

##### END-OF-DAY, TRADES, BBO, FOB packages

- All files are in CSV format. The delimiter is a semicolon, so this character is never used in the fields.
- The first record of each file contains a header, which contains the name of each field.
- All dates have the same format: YYYY-MM-DD (YYYY = year, MM = month, DD = day).
- All file names have the same format (Euronext location = EuronextAmsterdam, EuronextBrussels, EuronextDublin, EuronextLisbon, EuronextOslo or EuronextParis; YYYY = year, MM = month).
- All numerical values follow standard international practice (decimal separator is a point).

##### RAW package

- All files are in PCAP format.

#### 3.2 VOID

#### 3.3 FILE AVAILABILITY

There is no fixed availability time for Euronext NextHistory Cash files. The files are made available on the ftp servers as soon as they are ready and the availability of the files varies per day depending on previous day's trading activity.

#### 3.4 FTP/SFTP DELIVERY

Until 22 April 2023\*, the files are available via FTP:

- Production: <ftp.data.euronext.com>
- EUA: <ftp.eua-data.euronext.com>

**NOTE:** The delivery of files (**except for the RAW files**) via ftp will stop effective 22 April 2023.

Effective 01 February 2023\*, the files are available via SFTP:

- Host: data.prodnr.euronext.cloud
- Port: 22000

Please refer to the Data Shop SFTP Guide (available [here](#)) for instructions on how to set up your sftp account.

\* Information regarding the NDM to DataShop migration is available [here](#).

### 3.5 FTP/SFTP FILE LOCATION

#### END-OF-DAY, TRADES, BBO, FOB packages

FILES AVAILABLE	DIRECTORIES
Calendar	Most Recent File /CSH_EU_ENXT_CAL/CURRENT Historical Archive /CSH_EU_ENXT_CAL/CSH_EU_ENXT_CAL_YYYY/CSH_EU_ENXT_CAL_YYYYMM
Instrument characteristics	Most Recent File /CSH_EU_ENXT_REF/CURRENT Historical Archive /CSH_EU_ENXT_REF/CSH_EU_ENXT_REF_YYYY/CSH_EU_ENXT_REF_YYYYMM
Dividend	Most Recent File /CSH_EU_ENXT_DIV/CURRENT Historical Archive /CSH_EU_ENXT_DIV/CSH_EU_ENXT_DIV_YYYY/CSH_EU_ENXT_DIV_YYYYMM
Adjustments	Most Recent File /CSH_EU_ENXT_ADJ/CURRENT Historical Archive /CSH_EU_ENXT_ADJ/CSH_EU_ENXT_ADJ_YYYY/CSH_EU_ENXT_ADJ_YYYYMM
End of Day	Most Recent File /CSH_EU_ENXT_SUM/CURRENT Historical Archive /CSH_EU_ENXT_SUM/CSH_EU_ENXT_SUM_YYYY/CSH_EU_ENXT_SUM_YYYYMM
Intraday Trades	Most Recent File /CSH_EU_ENXT_TRADE_ONEXCH/CURRENT Historical Archive /CSH_EU_ENXT_TRADE_ONEXCH/CSH_EU_ENXT_TRADE_ONEXCH_YYYY/CSH_EU_ENXT_TRADE_ONEXCH_YYYYMM
Off-market trades	Most Recent File /CSH_EU_ENXT_TRADE_TCS/CURRENT Historical Archive

	/CSH_EU_ENXT_TRADE_TCS/CSH_EU_ENXT_TRADE_TCS_YYYY/CSH_EU_ENXT_TRADE_TCS_YYYYMM
<b>BBO</b>	Most Recent File /CSH_EU_ENXT_BBO/CURRENT Historical Archive /CSH_EU_ENXT_BBO/CSH_EU_ENXT_BBO_YYYY/CSH_EU_ENXT_BBO_YYYYMM
<b>FOB</b>	Most Recent File / Historical Archive /CSH_EU_ENXT_MARKET_PLACE*_ASSET_CLASS**_FOB/CSH_EU_ENXT_MARKET_PLACE*_ASSET_CLASS**_FOB_YYYY/CSH_EU_ENXT_MARKET_PLACE*_ASSET_CLASS**_FOB_YYYYMM

Possible values for \*MARKET\_PLACE = AMS, BRU, DUB, LIS, OSL, PAR

Possible values for \*\*ASSET\_CLASS = CERTIFICATES, ETF, GOVERNMENT\_BONDS, INVESTMENT\_FUNDS, OTHER\_BONDS, RIGHTS, SHARES, WARRANTS

RAW package

FILES AVAILABLE	DIRECTORIES
<b>RAW – Equities Belgium</b>	Most Recent File /CSH_EU_ENXT_EQY-BE_RAW/CURRENT Historical Archive /CSH_EU_ENXT_EQY-BE_RAW/CSH_EU_ENXT_EQY-BE_RAW_YYYY/CSH_EU_ENXT_EQY-BE_RAW_YYYYMM
<b>RAW – Equities France</b>	Most Recent File /CSH_EU_ENXT_EQY-FR_RAW/CURRENT Historical Archive /CSH_EU_ENXT_EQY-FR_RAW/CSH_EU_ENXT_EQY-FR_RAW_YYYY/CSH_EU_ENXT_EQY-FR_RAW_YYYYMM
<b>RAW – Equities Dublin</b>	Most Recent File /CSH_EU_ENXT_EQY-IR_RAW/CURRENT Historical Archive /CSH_EU_ENXT_EQY-IR_RAW/CSH_EU_ENXT_EQY-IR_RAW_YYYY/CSH_EU_ENXT_EQY-IR_RAW_YYYYMM
<b>RAW – Equities Netherlands</b>	Most Recent File /CSH_EU_ENXT_EQY-NL_RAW/CURRENT Historical Archive

RAW – Equities Norway	/CSH_EU_ENXT_EQY-NL_RAW/CSH_EU_ENXT_EQY-NL_RAW_yyyy/CSH_EU_ENXT_EQY-NL_RAW_yyyymm
	Most Recent File /CSH_EU_ENXT_EQY-NO_RAW/CURRENT
	Historical Archive /CSH_EU_ENXT_EQY-NO_RAW/CSH_EU_ENXT_EQY-NO_RAW_yyyy/CSH_EU_ENXT_EQY-NO_RAW_yyyymm
RAW – Equities Portugal	Most Recent File /CSH_EU_ENXT_EQY-PT_RAW/CURRENT
	Historical Archive /CSH_EU_ENXT_EQY-PT_RAW/CSH_EU_ENXT_EQY-PT_RAW_yyyy/CSH_EU_ENXT_EQY-PT_RAW_yyyymm
	Most Recent File /CSH_EU_ENXT_BND_RAW/CURRENT
RAW - Euronext Fixed Income	Historical Archive /CSH_EU_ENXT_BND_RAW/CSH_EU_ENXT_BND_RAW_yyyy/CSH_EU_ENXT_BND_RAW_yyyymm
	Most Recent File /CSH_EU_ENXT_FND_RAW/CURRENT
	Historical Archive /CSH_EU_ENXT_FND_RAW/CSH_EU_ENXT_FND_RAW_yyyy/CSH_EU_ENXT_FND_RAW_yyyymm
RAW - Euronext ETFs & Funds	Most Recent File /CSH_EU_ENXT_WAR_RAW
	Historical Archive /CSH_EU_ENXT_WAR_RAW/CSH_EU_ENXT_WAR_RAW_yyyy/CSH_EU_ENXT_WAR_RAW_yyyymm
	Most Recent File /CSH_EU_ENXT_BOB_RAW/CURRENT
RAW - Euronext Best Of Book	Historical Archive /CSH_EU_ENXT_BOB_RAW/CSH_EU_ENXT_BOB_RAW_yyyy/CSH_EU_ENXT_BOB_RAW_yyyymm
	Most Recent File /CSH_EU_ENXT_OTC_RAW/CURRENT
	Historical Archive /CSH_EU_ENXT_OTC_RAW/CSH_EU_ENXT_OTC_RAW_yyyy/CSH_EU_ENXT_OTC_RAW_yyyymm
RAW - Euronext APA	

### 3.6 HTTPS DELIVERY

Effective 01 February 2023, the files are also available on <https://live.euronext.com/en/user/datashop/files> using the client’s credentials.

MY DATA SHOP

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My SFTP Settings
My Licenses
My Files

Product Type From To

- select -

DD/MM/YYYY

DD/MM/YYYY

Search

File name...

Apply

Reset

FILE NAME
PRODUCT
LICENSE EXPIRATION
FILE UPDATED
FILE SIZE

No records found for that specific search

### 3.7 FILE CONTENT

#### END-OF-DAY, TRADES, BBO, FOB packages

Possible Field Format:

- “X”: Alphanumeric
- “D”: Decimal/Floating Point
- “N”: Numeric/Integer

Some fields in the ‘Instrument characteristics’ file are also part of the other files. The data provided in these fields for a particular instrument is the same, irrespective of which file they appear in.

#### 3.7.1 Calendar

File name: Euronext-CAL-YYYYMMDD.csv.zip (compressed)

Euronext-CAL-YYYYMMDD.csv (uncompressed)

The file contains one record per day for the relevant period.

**Table 4 Calendar File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
1.01	<Calendar date>	YYYY-MM-DD	
1.02	<Trading indicator>	day X	Indicates if the calendar date is a trading day or not.

REF.	FIELD NAME	FORMAT	DESCRIPTION
			Possible values: <ul style="list-style-type: none"> <li>■ '0' - Not a trading day</li> <li>■ '1' - Trading day</li> </ul>

### 3.7.2 Instrument Characteristics

File name: Euronext location-CHR-YYYYMMDD.csv.zip (compressed)

Euronext location-CHR-YYYYMMDD.csv (uncompressed)

The file contains one record per day and per instrument.

**Table 5 Instrument Characteristic File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
2.01	<Effective date>	YYYY-MM-DD	Trading day to which the provided data relates.
2.02	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
2.03	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
2.04	<Instrument name>	X	Brief description of a security.
2.05	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> <li>■ Lisbon</li> <li>■ Oslo</li> <li>■ Paris</li> </ul>
2.06	<Category>	X	Type of instrument. Possible values: <ul style="list-style-type: none"> <li>■ Government bond</li> <li>■ Other bond</li> </ul>

REF.	FIELD NAME	FORMAT	DESCRIPTION
			<ul style="list-style-type: none"> <li>■ Certificate</li> <li>■ Investment fund</li> <li>■ Repo</li> <li>■ Share</li> <li>■ Tracker</li> <li>■ Warrant</li> </ul>
2.07	<Instrument group code>	X	<p>Designates the group of instruments to which an instrument belongs.</p> <p>All the instruments of a same instrument group are governed by the same rules such as the trading timetable and authorized price fluctuation.</p> <p>Possible values:</p> <p>See the Appendix to the Euronext Cash market trading manual</p>
2.08	<Issuing country code>	X	This code is designated in accordance with the ISO 3166-1 alpha 3 coding system and represents the country in which the corporate headquarters of the issuing company are located.
2.09	<Segment>	X	This field is no longer used.
2.10	<Trading currency code>	X	Code for the currency in which an instrument is traded as defined in ISO 4217alpha 3. When the price of a cash instrument is expressed as a percentage of the nominal value, the currency in which the nominal value is expressed must be placed in this field.
2.11	<Trading unit type>	X	<p>Unit used to express the price and quantity of an instrument for orders and trades.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>■ '1' - Price per share expressed as a currency; quantity expressed as a number of shares</li> <li>■ '2' - Price expressed as a percentage of the nominal value; quantity expressed as a number of bonds</li> </ul>
2.12	MIC of listing place 1 <small>(Field added on 14 Jan 2009)</small>	X	Identifies the market to which the instrument is listed and traded (= the Market of Reference; MoR), according to ISO norm 10383.
2.13	MIC of listing place 2 <small>(Field added on 14 Jan 2009)</small>	X	In case of Euronext multi listed instrument the MIC code of one of the Markets where the instrument is listed (other than the MoR), according to ISO norm 10383.

REF.	FIELD NAME	FORMAT	DESCRIPTION
2.14	MIC of listing place 3 <small>(Field added on 14 Jan 2009)</small>	X	In case of Euronext multi listed instrument the MIC code of one of the Markets where the instrument is listed (other than the MoR), according to ISO norm 10383.
2.15	MIC of listing place 4 <small>(Field added on 14 Jan 2009)</small>	X	In case of Euronext multi listed instrument the MIC code of one of the Markets where the instrument is listed (other than the MoR), according to ISO norm 10383.
2.16	MIC of listing place 5 <small>(Field added on 14 Jan 2009)</small>	X	In case of Euronext multi listed instrument the MIC code of one of the Markets where the instrument is listed (other than the MoR), according to ISO norm 10383.
2.17	MIC of listing place 6 <small>(Field added on 14 Jan 2009)</small>	X	In case of Euronext multi listed instrument the MIC code of one of the Markets where the instrument is listed (other than the MoR), according to ISO norm 10383.

### 3.7.3 Dividend

File name: Euronext location-DIV-YYYYMMDD.csv.zip (compressed)

Euronext location-DIV-YYYYMMDD.csv (uncompressed)

The file contains one or several record per dividend detached during the relevant period.

**Table 6 Dividend File**

REF.	EXTERNAL FILE NAME	FORMAT	DESCRIPTION
3.01	<Effective date>	YYYY-MM-DD	Trading day to which the provided data relates.
3.02	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
3.03	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
3.04	<Instrument name>	X	Brief description of a security.
3.05	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR).  Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> </ul>



REF.	EXTERNAL FILE NAME	FORMAT	DESCRIPTION
			<ul style="list-style-type: none"> <li>■ Lisbon</li> <li>■ Oslo</li> <li>■ Paris</li> </ul>
3.06	<Category>	X	Type of instrument Possible values: <ul style="list-style-type: none"> <li>■ Government bond</li> <li>■ Other bond</li> <li>■ Certificate</li> <li>■ Investment fund</li> <li>■ Repo</li> <li>■ Share</li> <li>■ Tracker</li> <li>■ Warrant</li> </ul>
3.07	<Segment>	X	This field is no longer used.
3.08	<Net dividend>	D	Net amount of dividend, expressed in Euros.
3.09	<Gross dividend>	D	Gross amount of dividend, expressed in Euros.
3.10	<Type of dividend payment>	X	Indicates the type of dividend distributed. Possible values: <ul style="list-style-type: none"> <li>■ '0' - Share payback</li> <li>■ '1' - Ordinary</li> <li>■ '2' - Extraordinary</li> <li>■ '3' - Bonus</li> <li>■ '4' - Capital gain</li> <li>■ '5' - Liquidation distribution</li> <li>■ '6' - Indemnity</li> <li>■ '7' - Sale of equities</li> <li>■ '8' - Interest proportion</li> <li>■ '9' - Loyalty bonus</li> <li>■ Space Not available</li> </ul>
3.11	<Dividend payment indicator>  <small>(Possible values changed on 06 April 2020)</small>	X	Indicator providing further information on dividend  <b>As of 06 April 2020</b>  Possible values:

REF.	EXTERNAL FILE NAME	FORMAT	DESCRIPTION
			<ul style="list-style-type: none"> <li>■ 'A' – Advance</li> <li>■ 'T' – Final</li> <li>■ 'S' – Balance</li> <li>■ 'E' - Estimate</li> </ul> <p><b>Prior to 06 April 2020</b></p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>■ 'A' - Interim dividend</li> <li>■ 'D' - Miscellaneous</li> <li>■ 'E' - Estimated interim dividend</li> <li>■ 'F' - Estimated balance</li> <li>■ 'G' - Estimated global dividend</li> <li>■ 'S' - Balance of global dividend</li> <li>■ 'T' - Global dividend</li> <li>■ Space Not available</li> </ul>

### 3.7.4 Adjustments

File name: Euronext location-ADJ-YYYYMMDD.csv.zip (compressed)

Euronext location-ADJ-YYYYMMDD.csv (uncompressed)

The file contains one record per adjustment and per traded instrument during the relevant period.

**Table 7 Adjustments File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
4.01	<Effective date>	YYYY-MM-DD	Trading day to which the provided data relates.
4.02	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
4.03	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
4.04	<Instrument name>	X	Brief description of a security.

REF.	FIELD NAME	FORMAT	DESCRIPTION
4.05	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> <li>■ Lisbon</li> <li>■ Oslo</li> <li>■ Paris</li> </ul>
4.06	<Category>	X	Type of instrument. Possible values: <ul style="list-style-type: none"> <li>■ Government bond</li> <li>■ Other bond</li> <li>■ Certificate</li> <li>■ Investment fund</li> <li>■ Repo</li> <li>■ Share</li> <li>■ Tracker</li> <li>■ Warrant</li> </ul>
4.07	<Segment>	X	This field is no longer used.
4.08	<Adjustment coefficient>	D	Coefficient used to calculate the theoretical price of an instrument which was the subject, on a particular date, of a simple or complex corporate event that led to a modification of the price of the instrument or the number of shares issued. The method of calculation depends on the type of corporate event. Example: A 10:1 split occurred on 10 October 2002 in an instrument which last traded price on 9 October 2002 was €550. Based on a price adjustment coefficient of $k = 0.1$ , the adjusted price on 9 October 2002 was 55 ( $550 \times k$ ).

### 3.7.5 End of Day

File name: Euronext location-EOD-YYYYMM.csv.zip (compressed)

Euronext location-EOD-YYYYMM.csv (uncompressed)

The file contains one record per instrument (including untraded instruments) and per day

**Table 8 End of Day File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
5.01	<Effective date>	YYYY-MM-DD	Trading day to which the provided data relates.
5.02	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
5.03	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
5.04	<Instrument name>	X	Brief description of a security.
5.05	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR).  Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> <li>■ Lisbon</li> <li>■ Oslo</li> <li>■ Paris</li> </ul>
5.06	<Issuing country code>	X	This code is designated in accordance with the ISO 3166-1 alpha 3 coding system and represents the country in which the corporate headquarters of the issuing company are located.
5.07	<Category>	X	Type of instrument.  Possible values: <ul style="list-style-type: none"> <li>■ Government bond</li> <li>■ Other bond</li> <li>■ Certificate</li> <li>■ Investment fund</li> <li>■ Repo</li> <li>■ Share</li> <li>■ Tracker</li> </ul>

REF.	FIELD NAME	FORMAT	DESCRIPTION
			■ Warrant
5.08	<Trading currency code>	X	Code for the currency in which an instrument is traded as defined in ISO 4217alpha 3. When the price of a cash instrument is expressed as a percentage of the nominal value, the currency in which the nominal value is expressed must be placed in this field.
5.09	<Segment>	X	This field is no longer used.
5.10	<First price>	D	Price at which the first trade of the day was executed, expressed in the trading currency.
5.11	<Highest price>	D	Highest traded price of the day, expressed in the trading currency.
5.12	<Lowest price>	D	Lowest traded price of the day, expressed in the trading currency.
5.13	<Last price>	D	Last traded price of the day, expressed in the trading currency.
5.14	<Turnover in Euros>	D	Cumulative turnover for the day.
5.15	<Volume>	N	Total number of units traded during the day.
5.16	<Number of trades>	N	Total number of trades for the day.
5.17	<Best bid price> <small>(Field added on 04 Feb 2019)</small>	D	<b>ATTENTION</b> - All data presented in this column refers to <Best ask price>.
5.18	<Size on best bid> <small>(Field added on 04 Feb 2019)</small>	N	<b>ATTENTION</b> - All data presented in this column refers to <Size on best ask>
5.19	<Best ask price> <small>(Field added on 04 Feb 2019)</small>	D	<b>ATTENTION</b> - All data presented in this column refers to <Best bid price>.
5.20	<Size on best ask> <small>(Field added on 04 Feb 2019)</small>	N	<b>ATTENTION</b> - All data presented in this column refers to <Size on best bid>

### 3.7.6 Intraday Trades

This data file is only available in the products Trade file and BBO file.

File name:

Euronext location-IntradayTrades-YYYYMMDD.csv.zip (compressed)

Euronext location-IntradayTrades-YYYYMMDD.csv (uncompressed)

This file contains one record per trade occurring during the relevant period and one record per trade cancelled during that period.

**Table 9 IntradayTrades File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
6.01	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
6.02	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
6.03	<Instrument name>	X	Brief description of a security.
6.04	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR).  Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> <li>■ Lisbon</li> <li>■ Oslo</li> <li>■ Paris</li> </ul>
6.05	<Category>	X	Type of instrument.  Possible values: <ul style="list-style-type: none"> <li>■ Government bond</li> <li>■ Other bond</li> <li>■ Certificate</li> <li>■ Investment fund</li> <li>■ Repo</li> <li>■ Share</li> <li>■ Tracker</li> <li>■ Warrant</li> </ul>

REF.	FIELD NAME	FORMAT	DESCRIPTION
6.06	<Issuing country code>	X	This code is designated in accordance with the ISO 3166-1 alpha 3 coding system and represents the country in which the corporate headquarters of the issuing company are located.
6.07	<Segment>	X	This field is no longer used.
6.08	<Trading currency code>	X	Code for the currency in which an instrument is traded as defined in ISO 4217alpha 3. When the price of a cash instrument is expressed as a percentage of the nominal value, the currency in which the nominal value is expressed must be placed in this field.
6.09	<Trading unit type>	X	Unit used to express the price and quantity of an instrument for orders and trades.  Possible values: <ul style="list-style-type: none"> <li>■ '1' - Price per share expressed as a currency; quantity expressed as a number of shares</li> <li>■ '2' - Price expressed as a percentage of the nominal value; quantity expressed as a number of bonds</li> </ul>
6.10	<Registered date>	YYYY-MM-DD	Date when the trade was executed, modified or cancelled.
6.11	<Registered number>	N	Unique trade ID when combined with the registered date, internal code and quotation place. When a trade is cancelled or modified, a new ID is provided.
6.12	<Trade indicator>	X	Indicates whether the record concerns a trade or a trade cancellation.  Possible values: <ul style="list-style-type: none"> <li>■ '1' - Trade</li> <li>■ '2' - Trade cancellation</li> <li>■ '3' - Dark Trade</li> </ul>
6.13	<Trade date>	YYYY-MM-DD	Date when the trade took place.
6.14	<Trade time>  <small>(Timestamp granularity changed on 06 April 2020)</small>	<b>As of 06 April 2020</b> HH:MM:SS:mmmmμμμ nnn  <b>Prior to 06 April 2020</b> HH:MM:SS:mmmmμμμ	Time when the trade took place.
6.15	<Cross-trade indicator>	X	Indicates whether the trade originates from a cross order type. That is a buy-sell order.

REF.	FIELD NAME	FORMAT	DESCRIPTION
			Possible values: <ul style="list-style-type: none"> <li>■ '0' - Not a cross trade</li> <li>■ '1' - Classic cross trade</li> <li>■ '3' - Basket cross trade</li> <li>■ '4' - Valuation trade</li> </ul>
6.16	<Trade price>	D	Price at which the instrument was traded (may take the value 0).
6.17	<Trade size>	N	Number of units traded (per trade).
6.18	<Turnover in Euros>	D	Total value traded (per trade), expressed in Euros.

### 3.7.7 Off-Market Intraday Trades

File name: Euronext location-TCS-YYYYMMDD.csv.zip (compressed)

Euronext location-TCS-YYYYMMDD.csv (uncompressed)

The file contains one record per off-market trade or off-market trade cancellation.

**Table 10 Off-Market Intraday Trades File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
7.01	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
7.02	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
7.03	<Instrument name>	X	Brief description of a security.
7.04	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> <li>■ Lisbon</li> </ul>



REF.	FIELD NAME	FORMAT	DESCRIPTION
			<ul style="list-style-type: none"> <li>Oslo</li> <li>Paris</li> </ul>
7.05	<Registered date>	YYYY-MM-DD	Date when the trade was executed, modified or cancelled.
7.06	<Registered number>	N	Trade ID. Unique identifier of the trade, when combined with the ISIN code and the Registered date.
7.07	<Trade indicator>	X	<p>Indicates whether the record concerns a trade or a trade cancellation.</p> <p>Possible values:</p> <ul style="list-style-type: none"> <li>'1' - Trade</li> <li>'2' - Trade cancellation</li> </ul>
7.08	<Publication date>	YYYY-MM-DD	Date when the report of the trade was published.
7.09	<Trade date>	YYYY-MM-DD	Date when the trade took place.
7.10	<Trade time> <small>(Timestamp granularity changed on 06 April 2020)</small>	<p><b>As of 06 April 2020</b></p> <p>HH:MM:SS:mmmmμμμnnn</p> <p><b>Prior to 06 April 2020</b></p> <p>HH:MM:SS:mmmmμμμ</p>	Time when the trade took place.
7.11	<Trade size>	N	Number of units traded.
7.12	<Trade price>	D	Price at which the instrument was traded (may take the value 0).
7.13	<Turnover in Euros>	D	Total value traded, expressed in Euros.
7.14	<Trade type> <small>(Possible values changed on 06 April 2020)</small>	X	<p><b>As of 06 April 2020</b></p> <ul style="list-style-type: none"> <li>'1' – Conventional Trade</li> <li>'5' – Guaranteed Cross Trade</li> <li>'20' – BoB Trade</li> <li>'25' – Out of Market Trade</li> <li>'26' – Delta Neutral Trade – Underlying Cash Leg</li> <li>'27' – Market VWAP Operation Trade</li> <li>'28' – Euronext Fund Service Trade</li> <li>'29' – Secondary Listing Trade</li> </ul>

REF.	FIELD NAME	FORMAT	DESCRIPTION
			<ul style="list-style-type: none"> <li>■ '33' – Dark Trade</li> <li>■ '41' – LIS Trade</li> </ul> <p><b>Prior to 06 April 2020</b></p> <ul style="list-style-type: none"> <li>■ 'D' - LIFFE CONNECT® delta neutral trades (trades in a cash instrument listed on Euronext that correspond to the cash leg of trades based on a delta neutral-type strategy executed in the LIFFE CONNECT system), or delta neutral trades entered in TCS by the market control department.</li> <li>■ 'E' - Market VWAP trades (trades executed outside the central order book whose prices are based on the average price of the trades executed in the relevant listed instrument via the central order book during a specific period).</li> <li>■ 'G' -Block trades reported to the regulator and executed outside the regulated markets. These trades are not subject to the rules governing regulated markets due to their nature but they are subject to Euronext's rules and must be reported to the regulators.</li> <li>■ 'H' - Trades executed outside the central order book outside trading hours, or block trades.</li> <li>■ 'I' - Investment funds market trade</li> <li>■ 'L' - Exercising of options traded outside the central order book (no price check)</li> <li>■ 'O' - Other trades reported to the regulator. These trades are not subject to the rules governing regulated markets due to their nature but they must be reported to Euronext and the regulator. They do not have to meet any quality or minimum market capitalization requirements.</li> <li>■ 'R' - Trades reported on listing place other than Market of Reference for multi listed instruments</li> </ul>

### 3.7.8 BBO (Best Bid and Offer)

File name:

Euronext location-BBO-YYYYMMDD.csv.zip (compressed)

Euronext location-BBO-YYYYMMDD.csv (uncompressed)

The file contains one record per instrument per day and per BBO.

**Table 11 BBO File**

REF.	FIELD NAME	FORMAT	DESCRIPTION
08.01	<Internal code>	X	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
08.02	<ISIN code>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
08.03	<Instrument name>	X	Brief description of a security.
08.04	<Trading place>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR).  Possible values: <ul style="list-style-type: none"> <li>■ Amsterdam</li> <li>■ Brussels</li> <li>■ Dublin</li> <li>■ Lisbon</li> <li>■ Oslo</li> <li>■ Paris</li> </ul>
08.05	<BBO date>	YYYY-MM-DD	Date when the BBO was available.
08.06	<BBO time> <small>(Timestamp granularity changed on 06 April 2020)</small>	<b>As of 06 April 2020</b> HH:MM:SS:mmmmμμμnnn <b>Prior to 06 April 2020</b> HH:MM:SS:mmmmμμμ	Time when the BBO was available.
08.07	<BBO ID>	N	Unique ID for BBO.
08.08	<Best bid price>	D	Price of best bid limit.  <small>For trading sessions prior to 25 Jun 2018, the label for this field in the header record in the actual data files is &lt;Best ask price&gt;, but it should read &lt;Best bid</small>

REF.	FIELD NAME	FORMAT	DESCRIPTION
			price>. All data presented in this column / position in the file refers to <Best bid price>.
08.09	<Best ask price>	D	Price of best ask limit.  For trading sessions prior to 25 Jun 2018, the label for this field in the header record in the actual data files is <Best bid price>, but it should read <Best ask price>. All data presented in this column / position in the file refers to <Best ask price>.
08.10	<Size on best bid>	N	Total order size at best bid.  For trading sessions prior to 25 Jun 2018, the label for this field in the header record in the actual data files is <Size on best ask>, but it should read <Size on best bid>. All data presented in this column / position in the file refers to <Size on best bid>.
08.11	<Size on best ask>	N	Total order size at best ask.  For trading sessions prior to 25 Jun 2018, the label for this field in the header record in the actual data files is <Size on best bid>, but it should read <Size on best ask>. All data presented in this column / position in the file refers to <Size on best ask>.
08.12	<Number of orders with best bid>	N	Total number of orders at best bid.
08.13	<Number of orders with best ask>	N	Total number of orders at best ask.
08.14	<LP presence indicator at the sell limit>  (Field added on 23 Mar 2009)	X	Indicates if a Liquidity Provider is present at the sell limit  Possible values: <ul style="list-style-type: none"> <li>■ L – LP present</li> <li>■ Blank – no LP present</li> </ul>
08.15	<LP presence indicator at the buy limit>  (Field added on 23 Mar 2009)	X	Indicates if a Liquidity Provider is present at the buy limit  Possible values: <ul style="list-style-type: none"> <li>■ L – LP present</li> <li>■ Blank – no LP present</li> </ul>

### 3.7.9 Full Order Book (FOB)

File name: MIC\_AssetClass\_TradingGroup\_YYYYMMDD.csv.zip (compressed)

MIC\_AssetClass\_TradingGroup\_YYYYMMDD.csv (uncompressed)

The files contain one record per order update.

**Table 12 Full Order Book Cash File**

Ref.	Field name	Format	Description
09.01	<cvalbdm>	N	Internal code for the instrument also referred to as instrument ID. If the ISIN is changed, this code is not modified as a result, trading prices can be compared using an adjustment coefficient before and after the change takes place. The code enables the old ISINs to be linked to the new ones.
09.02	<ISIN>	X	International Securities Identification Number (ISIN) which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
09.03	<mic>	X	The Euronext location at which the instrument is traded.  XAMS = Amsterdam XBRU = Brussels ALXB = Growth Brussels MLXB = Access Brussels TNLB = Trading Facility Brussels VPXB = Ventes Publiques Brussels XMSM = Dublin XESM = Growth Dublin XLIS = Lisbon ALXL = Growth Lisbon ENXL = Access Lisbon XOSL = Oslo XOAS = Expand Oslo MERK = Growth Oslo XPAR = Paris ALXP = Growth Paris XMLI = Access Paris – to be added later
09.04	<cidgrc>	X	Trading group.
09.05	<event_date>	DD/MM/YYYY	Date of the event.
09.06	<event_time_utc>	HH:MM:SS:mmmmμμμnnn	Time of the event in UTC time.

Ref.	Field name	Format	Description
09.07	<event_time_cet>	HH:MM:SS:mmmmµµµnnn	Time of the event in CET.
09.08	<sequence_number>	N	Unique sequence number of the event.
09.09	<event_id>	N	Unique event id.
09.10	<order_id>	N	Unique order id.
09.11	<order_event_type>	X	Possible values: <ul style="list-style-type: none"> <li>- Cancel</li> <li>- Fill</li> <li>- Modify</li> <li>- New</li> <li>- Reload</li> </ul>
09.12	<order_side>	X	Possible values: <ul style="list-style-type: none"> <li>- Buy</li> <li>- Sell</li> </ul>
09.13	<order_price>	D	Price of the order.
09.14	<order_size>	D	Total order size.
09.15	<order_type>	X	Possible values: <ul style="list-style-type: none"> <li>- Limit</li> <li>- Market</li> </ul>
09.16	<time_in_force>	X	Possible values: <ul style="list-style-type: none"> <li>- Blank</li> <li>- Valid for Closing</li> <li>- Valid for Uncrossing</li> </ul>
09.17	<execution_id>	N	The execution id of a trade related to the order.
09.18	<trade_size>	D	The size of a trade related to the order.
09.19	<trade_price>	D	The price of a trade related to the order.

RAW package

File name: mdg.<ip address>.yyyymmdd

Content as detailed in the OPTIQ MDG Client Specification and OPTIQ MDG Connectivity documentation available on Euronext's website

