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Document type or subject

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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 best="" bid="" on="">, <size ask="" best="" on=""> in Table 11 (BBO File)</size></size></best></best>
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 Mon 16 March 2015
		 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	(Effective 04 Nov 2018)
		 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	(Effective 06 Apr 2020)
		 Dividend File (see Table 6) <dividend indicator="" payment="">: possible values</dividend>
		- IntradayTrades File (see Table 9) <trade time=""> field : timestamp granularity</trade>
		- Off-Market Intraday Trades File (see Table 10)

VERSION NO.	DATE	CHANGE DESCRIPTION
NO.		<trade time=""> field: timestamp granularity <trade type=""> field: possible values - BBO File (see BBO file section) File Name: sequence number added to file name <bbo time="">: timestamp granularity</bbo></trade></trade>
2.1.2	01/09/2022	 (Effective 01 Sept 2022) – the following changes will be made Full Order Book (FOB) files will be added to the NextHistory offering OPTIQ MDG binary data (RAW) files (in PCAP format) will be added to the NextHistory offering
2.2	26/01/2023	 (Effective 01 February 2023) File delivery via SFTP - except for the RAW Files - will become available (see section 3.4 – "FTP/SFTP Delivery") File delivery via HTTPS will become available (see section 3.6 – "HTTPS Delivery") (Effective 18 March 2023) File delivery via FTP will stop for all products, except for the RAW Files (see section 3.4 – "FTP/SFTP Delivery)
2.2.1	31/03/2023 (UPDATED DATES)	(Effective 22 April 2023) File delivery via FTP will stop for all products, except for the RAW Files (see section 3.4 – "FTP/SFTP Delivery)
2.2.2	08/04/2024	(Effective 08 April 2024) Added Trade Indicator = 3 for trades from the Dark Midpoint orderbook.
2.2.3	17/03/2025	(Effective 17 March 2025) Changes to the possible values for the field Category in the following files: Instrument Characteristics, Dividend, Adjustments, End of Day and IntradayTrades.

CONTACT INFORMATION

For technical support, please contact the **Euronext Service Operations** at <u>serviceoperations@euronext.com</u>.

FURTHER INFORMATION

For additional product information, please contact us at 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

А	В	С	D	E
END OF DAY	TRADE FILE	BBO FILE	FOB FILE	RAW FILES
FILE	(INCLUDES A)	(INCLUDES A	(INCLUDES A,	
		AND B)	B AND C)	
٧	٧	٧	٧	٧
	END OF DAY FILE	END OF DAY TRADE FILE (INCLUDES A)	END OF DAY TRADE FILE BBO FILE FILE (INCLUDES A) (INCLUDES A AND B)	END OF DAY FILE (INCLUDES A) (INCLUDES A AND B) END OF DAY FOR FILE FOB FILE (INCLUDES A, B AND C)

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

ВВО		X	X		One per location
FOB			X		Several per location
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

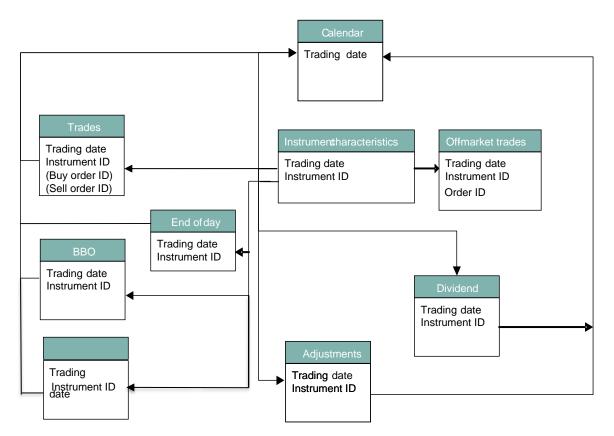
Euronext NextHistory cash data is stored in the following files.

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

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.comEUA: 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	Most Recent File
characteris	/CSH_EU_ENXT_REF/CURRENT
tics	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
Adjustment	Most Recent File
S	/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
IntradayTra	Most Recent File
des	/CSH_EU_ENXT_TRADE_ONEXCH/CURRENT
	Historical Archive
	/CSH_EU_ENXT_TRADE_ONEXCH/CSH_EU_ENXT_TRADE_ONEXCH_YYYY/CSH_EU_ENXT_T RADE_ONEXCH_YYYYMM
Off-market	Most Recent File
trades	/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
ВВО	Most Recent File
	/CSH_EU_ENXT_BBO/CURRENT
	Historical Archive
	/CSH_EU_ENXT_BBO/CSH_EU_ENXT_BBO_YYYY/CSH_EU_ENXT_BBO_YYYYMM
FOB	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

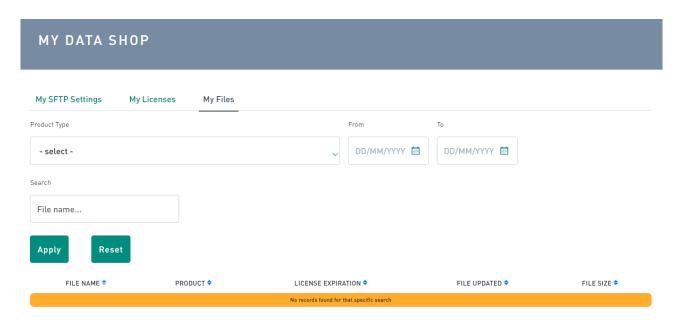
RAW package

FILES	DIRECTORIES
AVAILABLE	
RAW –	Most Recent File
Equities Belgium	/CSH_EU_ENXT_EQY-BE_RAW/CURRENT
J	Historical Archive
	/CSH_EU_ENXT_EQY-BE_RAW/CSH_EU_ENXT_EQY-BE_RAW_yyyy/CSH_EU_ENXT_EQY-BE_RAW_yyyymm
RAW –	Most Recent File
Equities France	/CSH_EU_ENXT_EQY-FR_RAW/CURRENT
Trance	Historical Archive
	/CSH_EU_ENXT_EQY-FR_RAW/CSH_EU_ENXT_EQY-FR_RAW_yyyy/CSH_EU_ENXT_EQY-FR_RAW_yyyymm
RAW –	Most Recent File
Equities Dublin	/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
RAW –	Most Recent File
Equities	/CSH_EU_ENXT_EQY-NL_RAW/CURRENT
Netherlands	Historical Archive

		/CSH_EU_ENXT_EQY-NL_RAW/CSH_EU_ENXT_EQY-NL_RAW_yyyy/CSH_EU_ENXT_EQY-NL_RAW_yyyymm
	RAW –	Most Recent File
	Equities Norway	/CSH_EU_ENXT_EQY-NO_RAW/CURRENT
ľ	VOI Way	Historical Archive
		/CSH_EU_ENXT_EQY-NO_RAW/CSH_EU_ENXT_EQY-NO_RAW_yyyy/CSH_EU_ENXT_EQY-NO_RAW_yyyymm
ı	RAW –	Most Recent File
	Equities Portugal	/CSH_EU_ENXT_EQY-PT_RAW/CURRENT
ľ	Fortugal	Historical Archive
		/CSH_EU_ENXT_EQY-PT_RAW/CSH_EU_ENXT_EQY-PT_RAW_yyyy/CSH_EU_ENXT_EQY-PT_RAW_yyyymm
ı	RAW -	Most Recent File
	Euronext Fixed	/CSH_EU_ENXT_BND_RAW/CURRENT
	ncome	Historical Archive
		/CSH_EU_ENXT_BND_RAW/CSH_EU_ENXT_BND_RAW_yyyy/CSH_EU_ENXT_BND_RAW_yyyymm
ı	RAW -	Most Recent File
	Euronext ETFs &	/CSH_EU_ENXT_FND_RAW/CURRENT
	Funds	Historical Archive
		/CSH_EU_ENXT_FND_RAW/CSH_EU_ENXT_FND_RAW_yyyy/CSH_EU_ENXT_FND_RAW_yyyymm
ı	RAW -	Most Recent File
	Euronext Warrants	/CSH_EU_ENXT_WAR_RAW
	vvairaiits	Historical Archive
		/CSH_EU_ENXT_WAR_RAW/CSH_EU_ENXT_WAR_RAW_yyyy/CSH_EU_ENXT_WAR_RAW_yyyymm
	RAW -	Most Recent File
	Euronext Best Of	/CSH_EU_ENXT_BOB_RAW/CURRENT
	Book	Historical Archive
		/CSH_EU_ENXT_BOB_RAW/CSH_EU_ENXT_BOB_RAW_yyyy/CSH_EU_ENXT_BOB_RAW_yyyymm
	RAW -	Most Recent File
	Euronext APA	/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

3.6 HTTPS DELIVERY

The files are also available on https://live.euronext.com/en/user/datashop/files using the client's credentials.



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

RI	EF.	FIELD NAME		FORMAT	DESCRIPTION
1.	.01	<calendar date=""></calendar>		YYYY-MM-DD	
1.	.02	<trading indicator=""></trading>	day	X	Indicates if the calendar date is a trading day or not.

REF.	FIELD NAME	FORMAT	DESCRIPTION
			Possible values:
			■ '0' - Not a trading day
			1' - Trading day

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=""></effective>	YYYY-MM-DD	Trading day to which the provided data relates.
2.02	<internal code=""></internal>	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=""></isin>	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=""></instrument>	X	Brief description of a security.
2.05	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: Amsterdam Brussels Dublin Lisbon Oslo Paris
2.06	<category> (Possible values changed on 17 March 2025)</category>	X	Type of instrument Possible values: Gov. Bonds Other Bonds

REF.	FIELD NAME	FORMAT	DESCRIPTION
			■ ETCs
			■ ETFs
			■ ETNs
			■ Inv. Funds
			Shares
			Structured Products
2.07	<instrument code="" group=""></instrument>	X	Designates the group of instruments to which an instrument belongs.
			All the instruments of a same instrument group are governed by the same rules such as the trading timetable and authorized price fluctuation.
			Possible values:
			See the Appendix to the Euronext Cash market trading manual
2.08	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></segment>	X	This field is no longer used.
2.10	<trading code="" currency=""></trading>	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 type="" unit=""></trading>	X	Unit used to express the price and quantity of an instrument for orders and trades.
			Possible values:
			 '1' - Price per share expressed as a currency; quantity expressed as a number of shares
			 '2' - Price expressed as a percentage of the nominal value; quantity expressed as a number of bonds
2.12	MIC of listing place 1	X	Identifies the market to which the instrument is listed
	(Field added on 14 Jan 2009)		and traded (= the Market of Reference; MoR), according to ISO norm 10383.
2.13	MIC of listing place 2 (Field added on 14 Jan 2009)	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 (Field added on 14 Jan 2009)	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 (Field added on 14 Jan 2009)	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 (Field added on 14 Jan 2009)	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 (Field added on 14 Jan 2009)	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.	FIELD NAME	FORMAT	DESCRIPTION
3.01	<effective date=""></effective>	YYYY-MM-DD	Trading day to which the provided data relates.
3.02	<internal code=""></internal>	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=""></isin>	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=""></instrument>	X	Brief description of a security.
3.05	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: Amsterdam Brussels Dublin Lisbon

REF.	FIELD NAME	FORMAT	DESCRIPTION
			Oslo
			Paris
3.06	<category></category>	X	Type of instrument
	(Possible values changed on 17 March 2025)		Possible values:
			Gov. Bonds
			Other Bonds
			■ ETCs
			■ ETFs
			■ ETNs
			Inv. Funds
			Shares
			Structured Products
3.07	<segment></segment>	X	This field is no longer used.
3.08	<net dividend=""></net>	D	Net amount of dividend, expressed in Euros.
3.09	<gross dividend=""></gross>	D	Gross amount of dividend, expressed in Euros.
3.10	<type dividend<="" of="" td=""><td>X</td><td>Indicates the type of dividend distributed.</td></type>	X	Indicates the type of dividend distributed.
	payment>		Possible values:
			■ '0' - Share payback
			1'1' - Ordinary
			• '2' - Extraordinary
			■ '3' - Bonus
			■ '4' - Capital gain
			• '5' - Liquidation distribution
			• '6' - Indemnity
			• '7' - Sale of equities
			• '8' - Interest proportion
			• '9' - Loyalty bonus
			Space Not available
3.11	<dividend payment<="" th=""><th>X</th><th>Indicator providing further information on dividend</th></dividend>	X	Indicator providing further information on dividend
	indicator>		As of 06 April 2020
	(Possible values changed on 06 April 2020)		Possible values:
			■ 'A' – Advance

REF.	FIELD NAME	FORMAT	DESCRIPTION
			■ 'T' – Final
			■ 'S' — Balance
			• 'E' - Estimate
			Prior to 06 April 2020
			Possible values:
			'A' - Interim dividend
			"D' - Miscellaneous
			• 'E' - Estimated interim dividend
			• 'F' - Estimated balance
			■ 'G' - Estimated global dividend
			■ 'S' - Balance of global dividend
			'T' - Global dividend
			■ Space Not available

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=""></effective>	YYYY-MM-DD	Trading day to which the provided data relates.
4.02	<internal code=""></internal>	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=""></isin>	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=""></instrument>	X	Brief description of a security.
4.05	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR).

REF.	FIELD NAME	FORMAT	DESCRIPTION
			Possible values:
			Amsterdam
			Brussels
			Dublin
			Lisbon
			Oslo
			Paris
4.06	<category></category>	X	Type of instrument
	(Possible values changed on 17 March 2025)		Possible values:
	,		Gov. Bonds
			Other Bonds
			ETCs
			ETFs
			ETNs
			■ Inv. Funds
			Shares
			Structured Products
4.07	<segment></segment>	Х	This field is no longer used.
4.08	<adjustment coefficient=""></adjustment>	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 x 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=""></effective>	YYYY-MM-DD	Trading day to which the provided data relates.
5.02	<internal code=""></internal>	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=""></isin>	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=""></instrument>	X	Brief description of a security.
5.05	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR).
			Possible values:
			Amsterdam
			Brussels
			Dublin
			Lisbon
			Oslo
			Paris
5.06	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></category>	X	Type of instrument
	(Possible values changed on 17 March 2025)		Possible values:
			Gov. Bonds
			Other Bonds
			ETCs
			■ ETFs
			■ ETNs
			■ Inv. Funds
			Shares
			Structured Products

REF.	FIELD NAME	FORMAT	DESCRIPTION
5.08	<trading code="" currency=""></trading>	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></segment>	X	This field is no longer used.
5.10	<first price=""></first>	D	Price at which the first trade of the day was executed, expressed in the trading currency.
5.11	<highest price=""></highest>	D	Highest traded price of the day, expressed in the trading currency.
5.12	<lowest price=""></lowest>	D	Lowest traded price of the day, expressed in the trading currency.
5.13	<last price=""></last>	D	Last traded price of the day, expressed in the trading currency.
5.14	<turnover euros="" in=""></turnover>	D	Cumulative turnover for the day.
5.15	<volume></volume>	N	Total number of units traded during the day.
5.16	<number of="" trades=""></number>	N	Total number of trades for the day.
5.17	<best bid="" price=""> (Field added on 04 Feb 2019)</best>	D	ATTENTION - All data presented in this column refers to <best ask="" price="">.</best>
5.18	<size best="" bid="" on=""> (Field added on 04 Feb 2019)</size>	N	ATTENTION - All data presented in this column refers to <size ask="" best="" on=""></size>
5.19	<best ask="" price=""> (Field added on 04 Feb 2019)</best>	D	ATTENTION - All data presented in this column refers to <best bid="" price="">.</best>
5.20	<size best<br="" on="">ask> (Field added on 04 Feb 2019)</size>	N	ATTENTION - All data presented in this column refers to <size best="" bid="" on=""></size>

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=""></internal>	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=""></isin>	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=""></instrument>	Х	Brief description of a security.
6.04	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: Amsterdam Brussels Dublin Lisbon Oslo Paris
6.05	<category> (Possible values changed on 17 March 2025)</category>	X	Type of instrument Possible values: Gov. Bonds Other Bonds ETCs ETFs Inv. Funds Shares Structured Products

REF.	FIELD NAME	FORMAT	DESCRIPTION
6.06	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></segment>	Х	This field is no longer used.
6.08	<trading code="" currency=""></trading>	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 type="" unit=""></trading>	Х	Unit used to express the price and quantity of an instrument for orders and trades.
			Possible values:
			 '1' - Price per share expressed as a currency; quantity expressed as a number of shares
			 '2' - Price expressed as a percentage of the nominal value; quantity expressed as a number of bonds
6.10	<registered date=""></registered>	YYYY-MM-DD	Date when the trade was executed, modified or cancelled.
6.11	<registered number=""></registered>	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=""></trade>	X	Indicates whether the record concerns a trade or a trade cancellation.
			Possible values:
			• '1' - Trade
			• '2' - Trade cancellation
			• '3' – Dark Trade
6.13	<trade date=""></trade>	YYYY-MM-DD	Date when the trade took place.
6.14	<trade time=""></trade>	As of 06 April 2020	Time when the trade took place.
	(Timestamp granularity changed on 06 April 2020)	HH:MM:SS:mmmμμμ nnn	
		Prior to 06 April 2020	
		HH:MM:SS:mmmμμμ	
6.15	<cross-trade indicator=""></cross-trade>	Х	Indicates whether the trade originates from a cross order type. That is a buy-sell order.

REF.	FIELD NAME	FORMAT	DESCRIPTION
			Possible values:
			■ '0' - Not a cross trade
			■ '1' - Classic cross trade
			■ '3' - Basket cross trade
			■ '4' - Valuation trade
6.16	<trade price=""></trade>	D	Price at which the instrument was traded (may take the value 0).
6.17	<trade size=""></trade>	N	Number of units traded (per trade).
6.18	<turnover euros="" in=""></turnover>	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=""></internal>	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=""></isin>	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=""></instrument>	Х	Brief description of a security.
7.04	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: Amsterdam Brussels Dublin Lisbon

REF.	FIELD NAME	FORMAT	DESCRIPTION
			■ Oslo
			Paris
7.05	<registered date=""></registered>	YYYY-MM-DD	Date when the trade was executed, modified or cancelled.
7.06	<registered number=""></registered>	N	Trade ID. Unique identifier of the trade, when combined with the ISIN code and the Registered date.
7.07	<trade indicator></trade 	X	Indicates whether the record concerns a trade or a trade cancellation. Possible values: '1' - Trade '2' - Trade cancellation
7.08	<publication date=""></publication>	YYYY-MM-DD	Date when the report of the trade was published.
7.09	<trade date=""></trade>	YYYY-MM-DD	Date when the trade took place.
7.10	<trade time=""> (Timestamp granularity changed on 06 April 2020)</trade>	As of 06 April 2020 HH:MM:SS:mmmμμμnnn Prior to 06 April 2020 HH:MM:SS:mmmμμμ	Time when the trade took place.
7.11	<trade size=""></trade>	N	Number of units traded.
7.12	<trade price=""></trade>	D	Price at which the instrument was traded (may take the value 0).
7.13	<turnover euros="" in=""></turnover>	D	Total value traded, expressed in Euros.
7.14	<trade type=""></trade>	Х	As of 06 April 2020
7.14	(Possible values changed on 06 April 2020)	***************************************	 '1' - Conventional Trade '5' - Guaranteed Cross Trade '20' - BoB Trade '25' - Out of Market Trade '26' - Delta Neutral Trade - Underlying Cash Leg '27' - Market VWAP Operation Trade '28' - Euronext Fund Service Trade '29' - Secondary Listing Trade

REF.	FIELD NAME	FORMAT	DESCRIPTION
			• '33' – Dark Trade
			■ '41' – LIS Trade
			Prior to 06 April 2020
			'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.
			'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).
			'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.
			 'H' - Trades executed outside the central order book outside trading hours, or block trades.
			• 'I' - Investment funds market trade
			 'L' - Exercising of options traded outside the central order book (no price check)
			'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.
			 'R' - Trades reported on listing place other than Market of Reference for multi listed instruments

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=""></internal>	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=""></isin>	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=""></instrument>	X	Brief description of a security.
08.04	<trading place=""></trading>	X	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values: Amsterdam Brussels Dublin Lisbon Oslo Paris
08.05	<bbo date=""></bbo>	YYYY-MM-DD	Date when the BBO was available.
08.06	<bbo time=""></bbo>	As of 06 April 2020	Time when the BBO was available.
	changed on 06 April 2020)	HH:MM:SS:mmmμμμnnn Prior to 06 April 2020 HH:MM:SS:mmmμμμ	
08.07	<bbo id=""></bbo>	N	Unique ID for BBO.

REF.	FIELD NAME	FORMAT	DESCRIPTION
08.08	<best bid="" price=""></best>	D	Price of best bid 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 ask="" price="">, but it should read <best bid="" price="">. All data presented in this column / position in the file refers to <best bid="" price="">.</best></best></best>
08.09	<best ask="" price=""></best>	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="">.</best></best></best>
08.10	<size best<="" on="" td=""><td>N</td><td>Total order size at best bid.</td></size>	N	Total order size at best bid.
	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 ask="" best="" on="">, but it should read <size best="" bid="" on="">. All data presented in this column / position in the file refers to <size best="" bid="" on="">.</size></size></size>
08.11	<size best<="" on="" td=""><td>N</td><td>Total order size at best ask.</td></size>	N	Total order size at best ask.
	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 best="" bid="" on="">, but it should read <size ask="" best="" on="">. All data presented in this column / position in the file refers to <size ask="" best="" on="">.</size></size></size>
08.12	<number of<="" td=""><td>N</td><td>Total number of orders at best bid.</td></number>	N	Total number of orders at best bid.
	orders with best bid>		
08.13	<number best<="" of="" orders="" td="" with=""><td>N</td><td>Total number of orders at best ask.</td></number>	N	Total number of orders at best ask.
	ask>		
08.14	<lp at="" indicator="" presence="" td="" the<=""><td>Х</td><td>Indicates if a Liquidity Provider is present at the sell limit</td></lp>	Х	Indicates if a Liquidity Provider is present at the sell limit
	sell limit>		Possible values:
	(Field added on 23 Mar 2009)		■ L – LP present
			■ Blank – no LP present
08.15	<lp at="" indicator="" presence="" td="" the<=""><td>Х</td><td>Indicates if a Liquidity Provider is present at the buy limit</td></lp>	Х	Indicates if a Liquidity Provider is present at the buy limit
	buy limit>		Possible values:
	(Field added on 23 Mar 2009)		■ L – LP present
			■ Blank – no LP present

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></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></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></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

Ref.	Field name	Format	Description
			XMLI = Access Paris – to be added later
09.04	<cidgrc></cidgrc>	Х	Trading group.
09.05	<event_date></event_date>	DD/MM/YYYY	Date of the event.
09.06	<event_time_utc></event_time_utc>	HH:MM:SS:mmmµµµnnn	Time of the event in UTC time.
09.07	<event_time_cet></event_time_cet>	HH:MM:SS:mmmμμμnnn	Time of the event in CET.
09.08	<sequence_number></sequence_number>	N	Unique sequence number of the event.
09.09	<event_id></event_id>	N	Unique event id.
09.10	<order_id></order_id>	N	Unique order id.
09.11	<order_event_type></order_event_type>	Х	Possible values: - Cancel
			- Fill
			- Modify
			- New
			- Reload
09.12	<order_side></order_side>	X	Possible values:
			- Buy
			- Sell
09.13	<order_price></order_price>	D	Price of the order.
09.14	<order_size></order_size>	D	Total order size.
09.15	<order_type></order_type>	X	Possible values:
			- Limit
			- Market
09.16	<time_in_force></time_in_force>	X	Possible values:
			- Blank
			- Valid for Closing
			- Valid for Uncrossing
09.17	<execution_id></execution_id>	N	The execution id of a trade related to the order.
09.18	<trade_size></trade_size>	D	The size of a trade related to the order.
09.19	<trade_price></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.