Document title

EURONEXT NEXTHISTORY® DERIVATIVES CLIENT SPECIFICATION

Document type or subject

CLIENT SPECIFICATION

Revision number	Date
Revision Number: 1.3.2	20 October 2020

PREFACE

DOCUMENT HISTORY

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

VERSION NO.	DATE	CHANGE DESCRIPTION
1.0	01 Mar 2016	Initial distribution
1.1	09 May 2016	**Planned for July 2016:** • "InstrumentISIN" field added to Referential File
1.2	06 July 2016	Inclusion of "InstrumentISIN" in Referential File postponed until further notice
1.3	28 October 2016	Inclusion of "VolatilityForValuation" in EOD Summary Files
1.3.1	29 June 2017	**Effective 01 August 2017** • "InstrumentISIN" field added to Referential File (see page 11)
1.3.1	20 November 2020	**Effective 30 November 2020** Data Coverage change • The data for Oslo Børs derivatives is added to the files

CONTACT INFORMATION

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FURTHER INFORMATION

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CONTENTS

1. INTRODUCTION

The NextHistory Derivatives product provides high-quality historical financial data that allows users to identify price trends and gain new insights into risk management and forecasting among other possible uses.

Table 1 NextHistory Derivatives

	END OF DAY PACKAGE	TRADES PACKAGE	BBO PACKAGE*
Referential Files	√	√	√
EOD Summary Files	√	√	√
Trade Files		√	√
BBO Files			√

* The BBO package is only available for trading sessions **prior to 25 November 2019**

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 large data files (all files are CSV files compressed in ZIP format).

2. DATA OVERVIEW

NextHistory Derivatives product is stored in the following files.

FILE NAME	CONTENTS
Referential Files	Historical referential data for contracts listed/traded on Euronext and Oslo Børs Derivatives markets. Offers one file covering all markets.
End of Day Files	Historical end-of-day summary data for contracts listed/traded on Euronext and Oslo Børs Derivatives markets. Offers one file covering all markets.
Trade Files	Historical trade data for contracts listed/traded on Euronext and Oslo Børs Derivatives markets. Offers one file covering all markets.
BBO Files (available for trading sessions prior to 25 Nov 2019)	Historical best bid and offer (L1) data for contracts listed/traded on Euronext and Oslo Børs Derivatives markets. Offers one file covering all markets.

3. DATA FILES

3.1 FILE FORMAT

- All files are in CSV format (ZIP compressed). The field delimiter is a semicolon.
- All numerical values follow standard international practice (decimal separator is a point).

3.2 FILE AVAILABILITY

There is no fixed availability time for the NextHistory Derivatives 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.

3.3 FILE NAMING CONVENTION

FILE TYPE	FILE NAME
Referential File	DER_EU_ENXT_ALL_REF_yyyymmdd
End of Day Summary File	DER_EU_ENXT_ALL_SUM_yyyymmdd
Trade File	DER_EU_ENXT_ALL_TRADE_yyyymmdd
BBO File (available for trading sessions prior to 25 Nov 2019)	DER_EU_ENXT_ALL_BBO_yyyymmdd

where

- yyyymmdd refers to the creation date of the file

3.4 FILE LOCATION

The files are available on our ftp servers as follows:

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

Directories

FILE TYPE	DIRECTORIES
Referential File	/DER_EU_ENXT_ALL_REF Most Recent File • DER_EU_ENXT_ALL_REF/CURRENT Historical Archive • DER_EU_ENXT_ALL_REF/DER_EU_ENXT_ALL_REF_yyyy/

	DER_EU_ENXT_ALL_REF_yyyymm
End of Day Summary File	/DER_EU_ENXT_ALL_SUM Most Recent File • DER_EU_ENXT_ALL_SUM/CURRENT Historical Archive • DER_EU_ENXT_ALL_SUM/DER_EU_ENXT_ALL_SUM_yyyy/ DER_EU_ENXT_ALL_SUM_yyyymm
Trade File	/DER_EU_ENXT_ALL_TRADE Most Recent File • DER_EU_ENXT_ALL_TRADE/CURRENT Historical Archive • DER_EU_ENXT_ALL_TRADE/DER_EU_ENXT_ALL_TRADE_yyyy/DER_EU_ENXT_ALL_TRADE_yyyymm
BBO File (available for trading sessions prior to 25 Nov 2019)	/DER_EU_ENXT_ALL_BBO Most Recent File • DER_EU_ENXT_ALL_BBO/CURRENT Historical Archive • DER_EU_ENXT_ALL_BBO/DER_EU_ENXT_ALL_BBO_yyyy/DER_EU_ENXT_ALL_BBO_yyyymm

3.5 FILE LAYOUTS

Each NextHistory Derivatives file has the following structure :

- The header record (one per trading day)
  - Record Type ='H';
- The Descriptor Record (one per trading day)
  - Record Type ='D';
- The body record (x per trading day, x > 0)
  - Record Type can take the following values:
    - RO = Referential Outright Data
    - RS = Referential Strategy Data
    - E = EOD Summary Data
    - T = Trade data
    - B = BBO Data;
- The footer record (one per trading day)
  - Record Type ='F'.

All body records have a variable length and each field is separated by a semicolon.

Header & Footer Records

Each of the NextHistory Derivatives files uses the same structure for the Header record and the same structure for the Footer record.

The structure of the Header record is the following:

Header Record

FIELD NAME	FIELD TYPE	DESCRIPTION
RecordType	Alphanumeric	'H' = Header
FileIdentifier	Alphanumeric	File name (please refer to each file description)
GenerationDateTime	Alphanumeric	Date and START time of file generation trigger according to the System Clock [YYYY-MM-DD hh:mm:ss]

The structure of Footer record is the following:

Footer Record

FIELD NAME	FIELD TYPE	DESCRIPTION
RecordType	Alphanumeric	'F' = Footer
Footer	Alphanumeric	File name (please refer to each file description)
CompletionDateTime	Alphanumeric	Date and END time of file generation trigger according to the System Clock

Referential File

There is one descriptor a day in Referential Data file (located after the header record).

Each Referential Data Body record is split up in three consecutive parts :

- First part of Referential Data Record contains contract level information. This data is available for both outright and strategy instruments.

- Second part of Referential Data Record contains instrument level information.
- Third part of Referential Data Record contains only strategy information (i.e. the definition of the strategy).

Referential Data body records are structured as followed :

FIELD NAME	FIELD TYPE	DESCRIPTION
RecordType	Alphanumeric	Identifier indicating the type of record. • RO= Referential Outright Data Record • RS= Referential Strategy Data Record
Market Place	Alphanumeric	Market Place : • AMS = Euronext Amsterdam • BRU = Euronext Brussels • LIS = Euronext Lisbon • OSL = Oslo Børs • PAR = Euronext Paris
Asset Class	Alphanumeric	Asset Class • DRV = Derivatives
Asset Group	Alphanumeric	Asset Group • CUR = Currency • EQU = Equity • IND = Index • COM = Commodity
ExchangeName	Alphanumeric	Long Name of the exchange.
Market Id Code	Alphanumeric	MIC – Place of Trading (Market Place). Empty if not available.
ExchangeCode	Alphanumeric	A code typically indicating the exchange on which a contract trades. • A: Amsterdam - Equity Products • B: Brussels - Equity Products • F: Brussels - Index Products

FIELD NAME	FIELD TYPE	DESCRIPTION
		• J: Paris - Index Products • K: Amsterdam - Index Products • M: Lisbon - Index Products • N - Oslo Index Derivatives • O - Oslo Equity Derivatives • P: Paris - Equity Products • R: Amsterdam - Commodity Products • S: Lisbon - Equity Products • Y: Paris - Commodity Products • Z: Amsterdam - Currency Products
InstrumentType	Alphanumeric	Instrument Type as defined by the exchange. F - Future O - Option
InstrumentTrading Symbol	Alphanumeric	Official Exchange Trading Symbol of Instrument.
InstrumentName	Alphanumeric	Full name of Instrument / Class.
ExerciseType	Alphanumeric	Exercise type of instrument. For Options only. • E - European style • A - American style • Blank, if not applicable.
ContractCurrency	Alphanumeric	Trading currency of the contract (ISO Currency Code)
SettlementMethod	Alphanumeric	Settlement Method: • C – Cash settlement • P – Physical settlement
Notional Tick Value	Decimal/Floating Point	The tick value per point of the instrument Contract level value
UnderlyingISIN	Alphanumeric	ISIN code of underlying instrument,

FIELD NAME	FIELD TYPE	DESCRIPTION
		where applicable.
Underlying Exchange Code	Alphanumeric	A code typically indicating the type of contracts traded on an exchange • C: Euronext Paris - Cash Underlying • D: Euronext Brussels - Cash Underlying • G: Euronext Amsterdam - Cash Underlying • H: Euronext Lisbon - Cash Underlying • L: Oslo Børs - Cash Underlying • S: Lisbon - Equity Products • Y: Euronext Paris - Commodity Derivatives
Underlying Instrument Type	Alphanumeric	Instrument Type of the underlying as defined by the exchange e.g. • F = Future • S = Stock • I = Index • U = Pseudo Underlyings – pricing purposes only • X = Exchange Rate
Underlying Instrument Trading Symbol (field empty as of 25 Nov 2019)	Alphanumeric	Official Exchange Trading Symbol of the underlying instrument
InstrumentID	Alphanumeric	A unique identifier for the derivative instrument
InstrumentISIN (field added on 01 August 2017)	Alphanumeric	ISIN code of the derivative instrument. The ISIN code will be available for outright contracts only.
BDM Instrument Code	Numeric/Integer	BDM Internal Instrument Code (BDM is Euronext's database)
ExpiryDate	Numeric/Integer	Expiry date of instrument. (yyyymmdd)
ExercisePrice	Numeric/Integer	For Options only.

FIELD NAME	FIELD TYPE	DESCRIPTION
(field shows the actual exercise price as of 25 Nov 2019)		The exercise (strike) price of the Option instrument in integer tick representation. Shows '0' for Futures and Strategies
ActualExercisePrice (field empty as of 25 Nov 2019)	Decimal/Floating Point	For Options only. The actual exercise (strike) price of instrument. (calculated using the ExercisePriceDecimalLocator and ExercisePriceDenominator) Shows '0' for Futures and Strategies for trading dates prior to 25 Nov 2019
ExercisePriceDecimal Locator (L) (field empty as of 25 Nov 2019)	Numeric/Integer	For Options only (used in calculating the actual exercise price).
ExercisePrice Denominator (D) (field empty as of 25 Nov 2019)	Numeric/Integer	For Options only (used in calculating the actual exercise price).
OptionCategory	Alphanumeric	Refers to the option category for options : • C – Call • P – Put Refers to the type of instrument for futures and strategies • F – Future • F - Strategy
LotSize	Numeric/Integer	Trading lot
IntradayCreation	Alphanumeric	Intraday Creation : "Y" Not Intraday Creation : Empty
StrategyMarketCode	Alphanumeric	Indicates the type of strategy listed (e.g. Calendar Spread). Please check list of strategies available on Euronext's website.
StrategyLegsNumber	Numeric/Integer	Number of legs of that make up the strategy
Leg1InstrumentID	Alphanumeric	A unique identifier for the outright leg instrument. Corresponds to the Exchange Instrument ID for the future/option/underlying leg

FIELD NAME	FIELD TYPE	DESCRIPTION
		instrument.
Leg1Side	Alphanumeric	Buy (+) or Sell (-)
Leg1Ratio	Numeric/Integer	Ratio of this leg compared to other legs of strategy
Leg1Price	Decimal/Floating Point	Price at which the underlying contingent leg for Delta Neutral and Conversion Reversal strategies must trade
Leg1Number	Numeric/Integer	Leg Number 1
…	…	…
Leg50InstrumentID	Alphanumeric	A unique identifier for the outright leg instrument. Corresponds to the Exchange Instrument ID for the future/option/underlying leg instrument.
Leg50Side	Alphanumeric	Buy (+) or Sell (-)
Leg50Ratio	Numeric/Integer	Ratio of this leg compared to other legs of strategy
Leg50Price	Decimal/Floating Point	Price at which the Underlying contingent leg for Delta Neutral and Conversion Reversal strategies must trade
Leg50Number	Numeric/Integer	Leg Number 50

End of Day Summary File

There is one descriptor a day in EOD Summary file (located after the header record).

Each EOD file detail is structured as followed:

FIELD NAME	FIELD TYPE	DESCRIPTION
RecordType	Alphanumeric	Identifier indicating the type of record. • E = End Of Day Record
Market Place	Alphanumeric	Market Place: • AMS = Euronext Amsterdam • BRU = Euronext Brussels • LIS = Euronext Lisbon

FIELD NAME	FIELD TYPE	DESCRIPTION
		• OSL = Oslo Børs • PAR = Euronext Paris
Asset Class	Alphanumeric	Asset Class • DRV = Derivatives
Asset Group	Alphanumeric	Asset Group • CUR = Currency • EQU = Equity • IND = Index • COM = Commodity
ExchangeCode	Alphanumeric	A code typically indicating the exchange on which a contract trades. • A: Amsterdam - Equity Products • B: Brussels - Equity Products • F: Brussels - Index Products • J: Paris - Index Products • K: Amsterdam - Index Products • M: Lisbon - Index Products • N - Oslo Index Derivatives • O - Oslo Equity Derivatives • P: Paris - Equity Products • R: Amsterdam - Commodity Products • S: Lisbon - Equity Products • Y: Paris - Commodity Products Z: Amsterdam - Currency Products
InstrumentType	Alphanumeric	Instrument Type as defined by the exchange: • F – Future • O – Option
InstrumentTrading Symbol	Alphanumeric	Official Exchange Trading Symbol of instrument.

FIELD NAME	FIELD TYPE	DESCRIPTION
InstrumentID	Alphanumeric	A unique identifier for the derivative instrument.
ExpiryDate	Alphanumeric	Expiry date of instrument. (yyyymmdd)
ExercisePrice (field shows the actual exercise price as of 25 Nov 2019)	Numeric/Integer	For Options only. The exercise (strike) price of the Option instrument in integer tick representation. Shows '0' for Futures and Strategies for trading dates prior to 25 Nov 2019
ActualExercisePrice (field empty as of 25 Nov 2019)	Decimal/Floating Point	For Options only. The actual exercise (strike) price of instrument. (calculated using the ExercisePriceDecimalLocator and ExercisePriceDenominator) Shows '0' for Futures and Strategies
OptionCategory	Alphanumeric	Refers to the option category for options : • C – Call • P – Put Refers to the type of instrument for futures and strategies • F – Future • F - Strategy
Open	Decimal/Floating Point	Opening book trade price for the current day.
High	Decimal/Floating Point	Highest book trade price for the current day.
Low	Decimal/Floating Point	Lowest book trade price for the current day.
Trade Count	Numeric/Integer	Number of executed trades for the current day.
Close	Decimal/Floating Point	Close price for the instrument.
Settlement	Decimal/Floating Point	Settlement price for the instrument.
COB Volume	Numeric/Integer	Total daily volume of trades executed through Central Order

FIELD NAME	FIELD TYPE	DESCRIPTION
		Book.
Off-COB Volume	Numeric/Integer	Total daily volume of trades reported off Central Order Book.
Total Volume	Numeric/Integer	Total daily volume of all trades, both through Central Order Book and off Central Order Book.
Open Interest	Numeric/Integer	Open Interest for the instrument.
Open Interest Date	Alphanumeric	Date to which the Open Interest applies. (yyyymmdd)
End of Day Delta	Numeric/Integer	End of Day Delta (varies between -100 and 100)
Volatility	Numeric/Integer	Volatility (in percentage points e.g. 44 = 44%)
VolatilityForValuation	Decimal/Floating Point	Volatility (in percentage points, with three decimals)

Trade File

There is one descriptor a day in Trade file (located after the header record).

Each Trade file body record is structured as followed:

FIELD NAME	FIELD TYPE	DESCRIPTION
Record Type	Alphanumeric	Identifier indicating the type of record. • T = Trade Data Record.
Market Place	Alphanumeric	Market Place: • AMS = Euronext Amsterdam • BRU = Euronext Brussels • LIS = Euronext Lisbon • OSL = Oslo Børs • PAR = Euronext Paris
Asset Class	Alphanumeric	Asset Class • DRV = Derivatives
Asset Group	Alphanumeric	Asset Group • CUR = Currency

FIELD NAME	FIELD TYPE	DESCRIPTION
		• EQU = Equity • IND = Index • COM = Commodity
Instrument Id	Alphanumeric	The unique identifier for the derivative instrument.
Code Inst BDM	Alphanumeric	BDM Internal Instrument Code (BDM is Euronext's database)
Trading Event Number	Alphanumeric	Trading Event Number Reinitialized every day
Matched Trade Id	Alphanumeric	Trade Identification Code Never reinitialized
Trade For Clearing Id	Alphanumeric	Trade For Clearing Identifier. The last character of this identifier allows to determine the execution venue: • '0': OnExchange trade (Normal Trade) • '9': OnExchangeOffBook Trade (Wholesale Trade) • '8': OffBook Trade (ATOMX Trade)
Cross Trade Type	Alphanumeric	Normal Market: • Blank for Trades (different members) • 'T' for Member Cross (different traders from the same member) • 'S' for Trader Cross (same trader) • Specific values for Ex-pits: • Blank for Prof Trades • '2' for Basis Trade and Asset Allocation • 'S' for Block Trade, Against Actual, Guaranteed Cross and Exchange For Swap

FIELD NAME	FIELD TYPE	DESCRIPTION
Wholesale Trade Type	Alphanumeric	Blank = Normal Trade Wholesale trade type • ‘1’ = Block Trade • ‘2’ = Basis Trade • ‘3’ = Against Actual • ‘4’ = Asset Allocation • ‘5’ = Professional • '6' = Guaranteed Cross • ‘7’ = Exchange For Swap
Trade Price	Decimal/Floating Point	Price of the trade. Always a positive value.
Trade Volume	Numeric/Integer	Volume of the trade
Trade Value Euro	Decimal/Floating Point	= Number of lots * Converted price in Euros
Trade Date	Alphanumeric	Date when the trade occurred (yyyymmdd)
Trade Time	Alphanumeric	Time when the trade occurred (hhmmssmmmµµµ)
Session Id	Alphanumeric	Session in which trade occurred. • ‘2’ = Morning/Afternoon • ‘3’ = Evening
Trading Day	Alphanumeric	Trading Day Date (yyyymmdd)
Trade Cancellation Flag	Alphanumeric	Trade Cancellation Flag • ‘1’: Valid Trade • ‘2’: Cancelled Trade
Trade Cancellation Time	Alphanumeric	Trade Cancellation Time (hh:mm:ss.mmm)

BBO File (available for trading sessions prior to 25 Nov 2019)

There is one descriptor a day in the BBO file (located after the header record).

Each BBO file detail is structured as followed:

FIELD NAME	FIELD TYPE	DESCRIPTION

FIELD NAME	FIELD TYPE	DESCRIPTION
RecordType	Alphanumeric	Identifier indicating the type of record. • B = Best Bid and Offer Record.
Market Place	Alphanumeric	Market Place: • AMS = Euronext Amsterdam • BRU = Euronext Brussels • LIS = Euronext Lisbon • PAR = Euronext Paris
Asset Class	Alphanumeric	Asset Class: • DRV = Derivatives
Asset Group	Alphanumeric	Asset Group: • CUR = Currency • EQU = Equity • IND = Index • COM = Commodity
InstrumentID	Alphanumeric	The unique identifier for the derivative instrument.
BDM Instrument Code	Alphanumeric	BDM Internal Instrument Code (BDM is Euronext's database)
Trading Event Number	Alphanumeric	Trading Event Number Reinitialized every day
BBO Timestamp	Alphanumeric	Timestamp BBO was updated (yyyymmddHHMMSSsss date time)
BBO Type	Alphanumeric	BBO Type • I=Implied • B=BBO
Best Bid	Decimal/Floating Point	Best Bid Price. Can be a positive or a negative value.

FIELD NAME	FIELD TYPE	DESCRIPTION
Best Bid Qty	Numeric/Integer	Best Bid Volume
Best Offer	Decimal/Floating Point	Best Offer Price. Can be a positive or a negative value.
Best Offer Qty	Numeric/Integer	Best Offer Volume

Please note that, due to the amount of data involved, the BBO file generation process pads records with spaces when they are added to the file. This way, for records type B, any spaces present after the last semi-colon delimiter should be ignored.

