NextHistory®

User manual for cash data

Contents

1 Introduction

NextHistory®
NextHistory provides high-quality historical financial data that allows users to identify price trends and gain new insights into risk management and forecasting. NextHistory's accurate, up-to-date information is a valuable tool for researchers and traders, allowing them to draw reliable conclusions.

NextHistory Cash data products

	A End of Day file	B Trade file Includes A	C BBO file Includes A and B	D Order file Includes A
Euronext group	√	√	√	√

Main features of NextHistory cash data

- Official post-clearing data[1] 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[2]);
- BBO file, including best bid and offer.

Subscriptions

The table below shows the files supplied with each type of subscription.

	Subscription type				
Files available	**End-of-day**	**Trades**	**BBOs**	**Order book**	**Number of files provided**
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
IntradayTrades		X	X		One per location
Off-market trades		X	X		One per location
BBOs			X		One per location
Trades				X	One per location
Orders				X	One per location

Support
If you have any questions, please contact us at DVsupport@euronext.com.

2 Software requirements

As Euronext does not provide software for reading and processing data files, this should be purchased separately. You should make sure that such software is capable of handling very large data files (all files are CSV files compressed in ZIP format).

[1] Includes corrected volumes and final prices
[2] TCS is the system used by Euronext to report OTC-trades executed outside the central order book

3 Background information

In order to understand and process the data, familiarity with Euronext's cash market model is necessary. This is explained in the following documents.

Rule Book I
Rule Book I governs all Euronext locations and covers the following subjects:

- Central order-book trading via the NSC-platform
- Reporting of trades executed outside the central order book via the TCS-platform
- Order characteristics
- Types of orders

A copy of the Rule Book can be downloaded from http://www.euronext.com/editorial/documentation_rules

Rule Book II
Each Euronext location has its own local rule book setting out the rules that apply specifically to that location. Copies can be downloaded from http://www.euronext.com/editorial/documentation_rules

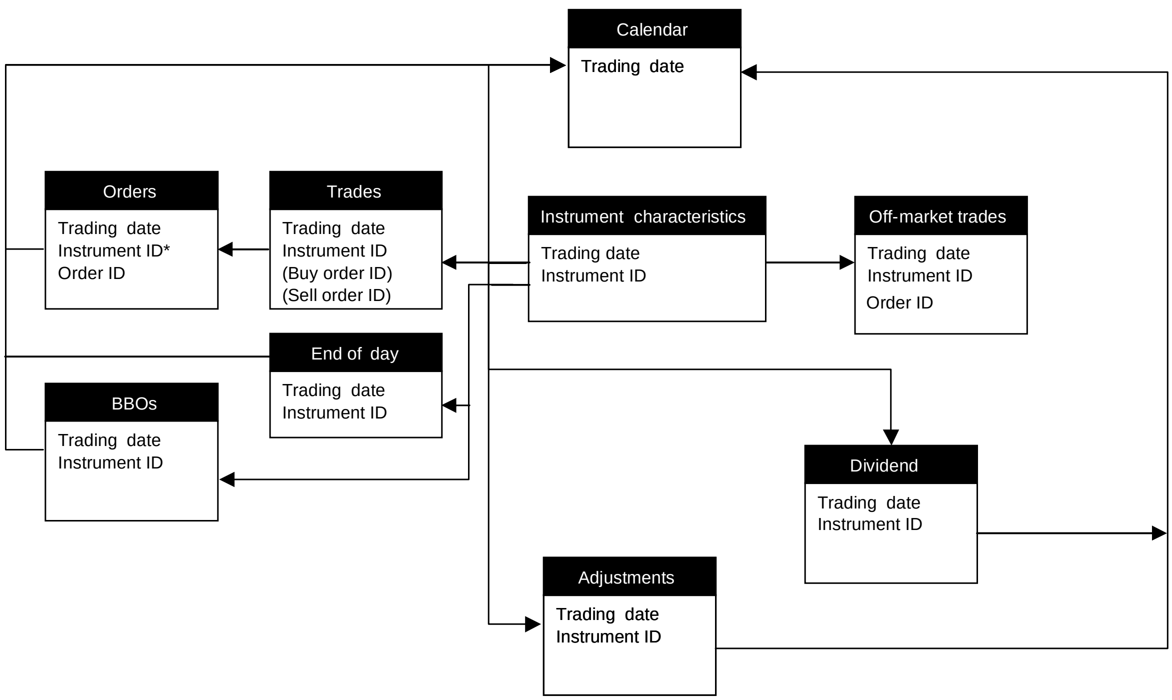
Euronext cash trading manual
This document contains Euronext's trading rules for the cash market and can be downloaded from http://www.euronext.com/editorial/documentation_rules

4 Data overview

NextHistory cash data is stored in the following 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 datafile excluding Order ID's. 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
BBOs	Best bids and offers available in the central order book
TemporaryOrders	All orders entered or modified in the central order book
TemporaryTrades	Trades data file includes cross reference to TemporaryOrders (Order ID's).. Only available in the product Order file. Transactions and cancellations on the central market.

The following flow chart shows how these files are linked.



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

5 Files

5.1 Format

- 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 times have the same format: HH:MM:SS:mmmμμμ (HH = hour, MM = minute, SS = second, mmm = millisecond, μμμ = microsecond). There are two exceptions; 1.) <BBO Time> is expressed as HH:MM:SS:mmm and 2.) <Validity Time> is expressed as HH-MM-SS.
- All file names have the same format (Euronext location = EuronextAmsterdam, EuronextBrussels, EuronextLisbon or EuronextParis; YYYY = year, MM = month).
- All numerical values follow standard international practice (decimal separator is a point).

5.2 File size

The delivered CSV files never exceeds 4GB. If the size of a given file exceeds 4GB, then the file is divided into smaller files to comply with the given size.

5.3 Content

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.

5.3.1 Calendar

- File name: Euronext-CAL-YYYYMM.zip when compressed
  Euronext-CAL-YYYYMM.csv when not compressed

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

Ref.	Field name	Format	Description
1.01	<Calendar date>	YYYY-MM-DD	
1.02	<Trading day indicator>	X	Indicates if the calendar date is a trading day or not Possible values 0 Not a trading day 1 Trading day

5.3.2 Instrument characteristics

- File name: Euronext location-CHR-YYYYMM.zip when compressed
  Euronext location-CHR-YYYYMM.csv when not compressed
- The file contains one record per day and per instrument.

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(6)	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(12)	International securities identification number, which identifies the instrument in accordance with the ISO 6166 standard. Also referred to as instrument ID.
2.04	<Instrument name>	X(18)	Brief description of a security
2.05	<Trading place>	X(10)	The Euronext location at which the instrument is traded (place of the Market of Reference, MoR). Possible values Amsterdam Brussels Lisbon Paris
2.06	<Category>	X(20)	Type of instrument Possible values - Government bond - Other bond - Certificate - Investment fund - Repo - Share - Tracker - Warrant
2.07	<Instrument group code>	X(2)	- 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 appendix to the cash market trading manual http://www.euronext.com/forourclient/mrdoc/general/wide/mrDoc-3477-EN.html
2.08	<Issuing country code>	X(3)	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(11)	This field is no longer used
2.10	<Trading currency code>	X(3)	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(1)	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(4)	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	X(4)	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.
2.14	MIC of listing place 3	X(4)	In case of Euronext multi listed instrument the MIC code of one of the

Ref.	Field name	Format	Description
			Markets where the instrument is listed (other than the MoR), according to ISO norm 10383.
2.15	MIC of listing place 4	X(4)	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	X(4)	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	X(4)	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.

5.3.3 Dividend

- File name: Euronext location-DIV-YYYYMM.zip when compressed
  Euronext location-DIV-YYYYMM.csv when not compressed
- The file contains one or several record per dividend detached during the relevant period.

Ref.	External file name	Format	Description
3.01	<Effective date>		See 2.01
3.02	<Internal code>		See 2.02
3.03	<ISIN code>		See 2.03
3.04	<Instrument name>		See 2.04
3.05	<Trading place>		See 2.05
3.06	<Category>		See 2.06
3.07	<Segment>		See 2.09
3.08	<Net dividend>	9(7).9(6)	Net amount of dividend, expressed in euros
3.09	<Gross dividend>	9(7).9(6)	Gross amount of dividend, expressed in euros
3.10	<Type of dividend payment>	X	Indicates the type of dividend distributed. Possible values 0 Share payback 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 indicator>	X	Indicator providing further information on dividend (eg interim dividend, global dividend) 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

5.3.4 Adjustments

- File name: Euronext location-ADJ-YYYYMM.zip when compressed
  Euronext location-ADJ-YYYYMM.csv when not compressed

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

Ref.	Field name	Format	Description
4.01	<Effective date>		See 2.01
4.02	<Internal code>		See 2.02
4.03	<ISIN code>		See 2.03
4.04	<Instrument name>		See 2.04
4.05	<Trading place>		See 2.05
4.06	<Category>		See 2.06
4.07	<Segment>		See 2.09
4.08	<Adjustment coefficient>	99.9(15)	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. <u>Example</u> 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).

5.3.5 End of day

- File name: Euronext location-EOD-YYYYMM.zip when compressed
  Euronext location-EOD-YYYYMM.csv when not compressed

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

Ref.	Field name	Format	Description
5.01	<Effective date>		See 2.01
5.02	<Internal code>		See 2.02
5.03	<ISIN code>		See 2.03
5.04	<Instrument name>		See 2.04
5.05	<Trading place>		See 2.05
5.06	<Issuing country code>		See 2.08
5.07	<Category>		See 2.06
5.08	<Trading currency code>		See 2.10
5.09	<Segment>		See 2.09
5.10	<First price>	9(7).99	Price at which the first trade of the day was executed, expressed in the trading currency
5.11	<Highest price>	9(7).99	Highest traded price of the day, expressed in the trading currency
5.12	<Lowest price>	9(7).99	Lowest traded price of the day, expressed in the trading currency
5.13	<Last price>	9(7).99	Last traded price of the day, expressed in the trading currency
5.14	<Turnover in euros>		Cumulative turnover for the day
5.15	<Volume>		Total number of units traded during the day
5.16	<Number of trades>		Total number of trades for the day

5.3.6 IntradayTrades

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

- File name:

Euronext location-IntradayTrades-YYYYMM.zip	when compressed
Euronext location-IntradayTrades-YYYYMM.csv	when not compressed

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

Ref.	Field name	Format	Description
6.01	<Internal code>		See 2.02
6.02	<ISIN code>		See 2.03
6.03	<Instrument name>		See 2.04
6.04	<Trading place>		See 2.05
6.05	<Category>		See 2.06
6.06	<Issuing country code>		See 2.08
6.07	<Segment>		See 2.09
6.08	<Trading currency code>		See 2.10
6.09	<Trading unit type>		See 2.11
6.10	<Registered date>	YYYY-MM-DD	Date when the trade was executed, modified or cancelled
6.11	<Registered number>	9(6)	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. <u>Possible values</u> 1 Trade 2 Trade cancellation
6.13	<Trade date>	YYYY-MM-DD	Date when the trade took place
6.14	<Trade time>	HH:MM:SS:mmmµµµ	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. <u>Possible values</u> 0: Not a cross trade 1: Classic cross trade 3: Basket cross trade 4: Valuation trade
6.16	<Trade price>	9(7).99	Price at which the instrument was traded (may take the value 0)
6.17	<Trade size>	9(9)	Number of units traded (per trade)
6.18	<Turnover in euros>	9(13).99	Total value traded (per trade), expressed in euros

5.3.7 Off-market intraday trades

- File name: Euronext location-TCS-YYYYMM.zip when compressed
  Euronext location-TCS-YYYYMM.csv when not compressed

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

Ref.	Field name	Format	Description
7.01	<Internal code>		See 2.02
7.02	<ISIN code>		See 2.03
7.03	<Instrument name>		See 2.04
7.04	<Trading place>		See 2.05
7.05	<Registered date>		See 6.10
7.06	<Registered number>	9(8)	Trade ID.Unique identifier of the trade, when combined with the ISIN code and the Registered date
7.07	<Trade indicator>		See 6.12
7.08	<Publication date>	YYYY-MM-DD	Date when the report of the trade was published
7.09	<Trade date>		See 6.13
7.10	<Trade time>	HH:MM:SS:mmmµµµ	See 6.14
7.11	<Trade size>	9(6)	Number of units traded
7.12	<Trade price>		See 6.16
7.13	<Turnover in euros>	9(13).99	Total value traded, expressed in euros
7.14	<Trade type>	X	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

5.3.8 BBOs (best bids and offers)

- File name: Euronext location-BBO-YYYYMM.zip when compressed
  Euronext location-BBO-YYYYMM.csv when not compressed

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

Ref.	Field name	Format	Description
08.01	<Internal code>		See 2.02
08.02	<ISIN code>		See 2.03
08.03	<Instrument name>		See 2.04
08.04	<Trading place>		See 2.05
08.05	<BBO date>	YYYY-MM-DD	Date when the BBO was available
08.06	<BBO time>	HH:MM:SS:mmmµµµ	Time when the BBO was available
08.07	<BBO ID>	9(6)	Unique ID for BBO
08.08	<Best bid price>	9(7).99	Price of best bid limit
08.09	<Best ask price>	9(7).99	Price of best ask limit
08.10	<Size on best bid>	9(9)	Total order size at best bid
08.11	<Size on best ask>	9(9)	Total order size at best ask
08.12	<Number of orders with best bid>	9(4)	Total number of orders at best bid
08.13	<Number of orders with best ask>	9(4)	Total number of orders at best ask

5.3.9 TemporaryTrades

The TemporaryTrades file is only available in the product Order file. Another subset of the Trades file (IntradayTrades) is available in the products Trade file and BBO file.

The TemporaryTrades file is generated, for a given month, at the beginning of the following month.
In the TemporaryTrades file, some fields involving orders remaining in the order book at the end of the relevant period are not populated.

- File name:
  Temporary file
  Euronext location-TemporaryTrades-YYYYMM.zip when compressed
  Euronext location-TemporaryTrades-YYYYMM.csv when not compressed

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

Ref.	Field name	Format	Description
6.01	<Internal code>		See 2.02
6.02	<ISIN code>		See 2.03
6.03	<Instrument name>		See 2.04
6.04	<Trading place>		See 2.05
6.05	<Category>		See 2.06
6.06	<Issuing country code>		See 2.08
6.07	<Segment>		See 2.09
6.08	<Trading currency code>		See 2.10
6.09	<Trading unit type>		See 2.11
6.10	<Registered date>	YYYY-MM-DD	Date when the trade was executed, modified or cancelled
6.11	<Registered number>	9(6)	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

Ref.	Field name	Format	Description
			1 Trade 2 Trade cancellation
6.13	<Trade date>	YYYY-MM-DD	Date when the trade took place
6.14	<Trade time>	HH:MM:SS:mmmµµµ	Time when the trade took place
6.15	<Buy order ID>	X(6)	Unique order ID when combined with the trade date. NB: Provided in the file only if the order is not remaining in the orderbook any more at the end of the relevant period.
6.16	<Buy order entry date>	YYYY-MM-DD	Date when the buy order was entered in the trading system NB: Provided in the file only if the order is not remaining in the orderbook any more at the end of the relevant period.
6.17	<Sell order ID>	X(6)	Unique order ID when combined with the trade date. NB: Provided in the file only if the order is not remaining in the orderbook any more at the end of the relevant period.
6.18	<Sell order entry date>	YYYY-MM-DD	Date when the sell order was entered in the trading system. NB: Provided in the file only if the order is not remaining in the orderbook any more at the end of the relevant period.
6.19	<Cross-trade indicator>	X	Indicates whether the trade originates from a cross order type. That is a buy-sell order. Possible values 0: Not a cross trade 1: Classic cross trade 3: Basket cross trade 4: Valuation trade
6.20	<Trade price>	9(7)V99	Price at which the instrument was traded (may take the value 0)
6.21	<Trade size>	9(9)	Number of units traded (per trade)
6.22	<Turnover in euros>	9(13)V99	Total value traded, expressed in euros (per trade)

5.3.10 Orders

An Orders file is generated, for a given month, at the beginning of the following month. In the TemporaryOrders file, some fields involving orders remaining in the order book at the end of the relevant period are not populated. Cancelled and deleted orders are not present in the TemporaryOrders file.

- File name:
  Temporary file
  Euronext location-TemporaryOrders-YYYYMM.zip when compressed
  Euronext location-TemporaryOrders-YYYYMM.csv when not compressed

- The file contains one record for each order in the order book during the relevant period or for each order that is entered, modified or cancelled during that period. The file does not contain non-triggered Stop orders.

Ref.	Field name	Format	Description
9.01	<Internal code>		See 2.02
9.02	<ISIN code>		See 2.03
9.03	<Instrument name>		See 2.04
9.04	<Trading place>		See 2.05
9.05	<Order entry date>	YYYY-MM-DD	Date when the order was entered in the trading system
9.06	<Order entry time>	HH:MM:SS:mmmµµµ	Time when the order was entered in the trading system
9.07	<Order ID>	X(6)	Unique identifier for an order
9.08	<Order reference code>	X(6)	Code that remains the same when an order is executed in separate parts
9.09	<Order type>	X	Indicates the type of limit that has been entered for a normal order. Permitted values

Ref.	Field name	Format	Description
			• For instruments traded on UTP: L : Limit order. M : Market-to-limit order. O : At-opening order. X : Market order. Must-be-filled order or market order. • For instruments traded on UTP: 1: Market order 2: Limit order P Pegged order K Market To Limit order
9.10	<Validity type>	X	Defines the validity of an order. This data is used in conjunction with the validity date. <u>Possible values</u> • For instruments traded on NSC: J : Valid for the current day D : Valid until the validity date R : Good till cancelled L : Valid until removed from trading platform (only applicable to the monthly settlement market in Paris until 2000) E : Fill or kill M : Maturity: the order is valid until the instrument's maturity date. • For instruments traded on UTP: 0: Valid for the current day 1: GTC (Good Till Cancel) 2: VFA (Valid for auction) 3: IOC (Immediate or cancel) 4: FOK (Fill or kill) 6: GTD (Good till date) 7: Limit/Market On Close NB : Not provided in the temporary file for orders remaining in the order book at the end of the relevant period.
9.11	<Validity date>	YYYY-MM-DD	Defines the date until which the order is valid. This data is used in conjunction with the validity type. NB : Not provided in the temporary file for orders remaining in the order book at the end of the relevant period.
9.12	<Cross-trade indicator>		See 6.19
9.13	<Order side>	X	Indicates whether the order is to buy or sell <u>Permitted values</u> A: Buy V: Sell
9.14	<Order size>	9(8)	Indicates the number of units in an order. Units can be traded in one or more transactions, depending on the state of the market, until the order is executed in full. In the temporary file, contains the disclosed quantity for orders remaining in the orderbook at the end of the relevant period.
9.15	<Disclosed size>	9(8)	Indicates the number of units that can be seen by traders (displayed quantity). If greatest than 0, then an iceberg order is behind. In the temporary file, is set to 0 for iceberg orders remaining in the orderbook at the end of the relevant period.
9.16	<Limit price>	9(7)V99	Buy order: the maximum price that the person initiating the order is willing to pay. Sell order: the minimum price at which the person initiating the order is willing to sell. The limit price is entered by the trader.
9.17	<Order start date>	YYYY-MM-DD	Date when the order becomes valid
9.18	<Order end date> (date of final status)	YYYY-MM-DD	Date when the order was executed in full, was cancelled or expired.
9.19	<Order end time> (time of final status)	HH:MM:SS:mmmµµµ	Time when the order was executed in full, was cancelled, or completely expired.
9.20	<Order status>	X	Defines the status of the order <u>Possible values</u> • For instruments traded on NSC: Blank: Order in main order book (including partially executed orders)

Ref.	Field name	Format	Description
			A: Order cancelled or deleted M: Order modified by trader O: X: Order executed in full V: Order expired • For instruments traded on UTP: **0** New **1** Partially filled **2** Filled **4** Cancelled 5 Replaced 8 Rejected C Expired S Cancelled by Market Operation **O** Eliminated by Corporate event
9.21	<Date of modification>	YYYY-MM-DD	Date when the order was modified
9.22	<Validity time>	HH:MM:SS	Defines the time until which the order is valid. This data is used in conjunction with the validity type.
9.23	<Order Priority Date>	YYYY-MM-DD	The date that makes it possible to determine the priority for execution of an order in its market sheet, that is, for orders (depending on the type of the order) for the same instrument, same side, and same limit. Corresponds either to the date at which the order was initially entered in the order book, or to the date at which the order, which was already in the order book, lost its priority. (An order can lose its priority either because of manual intervention from Market Control, or automatically when the displayed quantity of a hidden-quantity order is renewed in the market sheet). This field is used in conjunction with the field < Order Priority Time>.
9.24	<Order Priority Time>	HH:MM:SS:mmmµµµ	The time that makes it possible to determine the priority for execution of an order in its market sheet, that is, for orders (depending on the type of the order) for the same instrument, same side, and same limit. Corresponds either to the time at which the order was initially entered in the order book, or to the time at which the order, which was already in the order book, lost its priority. (An order can lose its priority either because of manual intervention from Market Control, or automatically when the displayed quantity of a hidden-quantity order is renewed in the market sheet). This field is used in conjunction with the field < Order Priority Date>.