Euronext Market Summaries

User manual

Version 0.4 / September 2007

Contents

1 Introduction

1.1 NYSE Euronext

NYSE Euronext, the holding company created by the combination of NYSE Group, Inc. and Euronext N.V., was launched on April 4, 2007. NYSE Euronext operates the world's largest and most liquid exchange group and offers the most diverse array of financial products and services. NYSE Euronext, which brings together six cash equities exchanges in five countries and six derivatives exchanges, is a world leader for listings, trading in cash equities, equity and interest rate derivatives, bonds and the distribution of market data. With a leading $28.5 trillion/€21.5 trillion total market capitalization of listed companies and average daily trading value of its combined markets of approximately $102 billion/€77 billion (as of February 28, 2007), NYSE Euronext seeks to provide the highest standards of market quality and integrity, innovative products and services to investors, issuers, and all users of its markets.

1.2 Information Services

Information Services is a strategic business unit of Euronext N.V., a subsidiary of NYSE Euronext. As such it is responsible for the commercial exploitation of data directly and indirectly related to the trading on the Euronext markets.

1.3 Euronext Market Summaries

Euronext Market Summaries is a service that carries basic instrument identifiers and price data for all instruments traded on all Euronext cash and derivatives markets, as well as index level data for all Euronext indices. The data are delivered in files that are delivered via FTP (push and pull) several times each trading day, in CSV and in XML format.

The basic instrument data files (the referential files) contain data such as instrument identifiers and other basic instrument characteristics. These files are provided early in the morning. For indices, no basic instrument data files are provided.

The price data files contain data such as last traded price, opening price, highest price, lowest price, previous closing price etc. These files are provided three or four times on every trading day:

1. a start-of-day: provides the opening prices;
2. after closing: provides the last traded prices;
3. at end-of-day: provides the closing prices.

For cash and derivatives, there is also a fourth price file. This is an end-of-day file that is generated late in the evening when all markets are closed.

2 Packages

Euronext Market Summaries comprises three packages:

1. Cash files;
2. Derivatives files;
3. Indices files.

These three packages will be explained in the following subsections.

2.1 Cash files

The Cash files package carries data for all cash instruments traded on the Euronext cash markets, organised by geographical market place:

- *Euronext Amsterdam* – comprises five files, one basic referential file and four price files, containing data for all cash instruments traded on Euronext Amsterdam;
- *Euronext Brussels* – comprises five files, one basic referential file and four price files, containing data for all cash instruments traded on Euronext Brussels;
- *Euronext Lisbon* – comprises five files, one basic referential file and four price files, containing data for all cash instruments traded on Euronext Lisbon;
- *Euronext Paris* – comprises five files, one basic referential file and four price files, containing data for all cash instruments traded on Euronext Paris;
- *Euronext wide* – comprises twenty files: the set of all the files listed above.

All files can be obtained in XML and in CSV format.

2.2 Derivatives files

The Derivatives files package carries data for all derivatives instruments traded on the Euronext derivatives markets, organised by asset class:

- *Interest rate derivatives* – comprises five files, one basic referential file and four price files, containing data for all instrument rate derivatives traded on Euronext.liffe;
- *Equity derivatives* – comprises five files, one basic referential file and four price files, containing data for all equity derivatives traded on Euronext.liffe;
- *Index derivatives* – comprises five files, one basic referential file and four price files, containing data for all index derivatives traded on Euronext.liffe;
- *Commodities derivatives* – comprises five files, one basic referential file and four price files, containing data for all commodities derivatives traded on Euronext.liffe;
- *All derivatives* – comprises twenty files: the set of all the files listed above.

All files can be obtained in XML and in CSV format.

2.3 Indices files

The Indices files package carries data for all Euronext indices calculated by Indices B.V., a subsidiary of Information Services, organised by geographical market place:

- *Euronext Amsterdam* – comprises three files, containing data for all indices calculated by Indices B.V. for Euronext Amsterdam;
- *Euronext Brussels* – comprises three files, containing data for all indices calculated by Indices B.V. for Euronext Brussels;
- *Euronext Lisbon* – comprises three files, containing data for all indices calculated by Indices B.V. for Euronext Lisbon;
- *Euronext Paris* – comprises three files, containing data for all indices calculated by Indices B.V. for Euronext Paris;
- *Euronext wide* – comprises three files: the set of all Euronext national and transnational Indices calculated by Indices B.V.

All files can be obtained in XML and in CSV format.

3 Generation schedule

What	When	Remark
Basic instrument data	06:30am CET	Not for the Indices files package
Opening	10:10am CET	
Last traded	6:45pm CET	
Closing 1	7:15pm CET	
Closing 2	10:45pm CET	Not for the Indices files package

4 File specifications

4.1 General specifications

Trading calendar
Files are only available on Euronext trading days.

Price formats
All prices have a dot as decimal separator and a comma as thousand separator. Leading zeroes are surpressed.

File names
All file names start with a time stamp in the format *YYYYMMDDhhmm* followed by an underscore. For example: `200610160630_CASH_REF_AMS.xml`.

Compression
All files are delivered in compressed format.

4.2 Cash files

4.2.1 File names and generation times

Time	Type	Market-entry place	Format	File name
6:30am CET	Ref. file	Amsterdam	XML	*YYYYMMDDhhmm*_CASH_REF_AMS.xml
			CSV	*YYYYMMDDhhmm*_CASH_REF_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_CASH_REF_BRU.xml
			CSV	*YYYYMMDDhhmm*_CASH_REF_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_CASH_REF_LIS.xml
			CSV	*YYYYMMDDhhmm*_CASH_REF_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_CASH_REF_PAR.xml
			CSV	*YYYYMMDDhhmm*_CASH_REF_PAR.csv
10:10am CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_CASH_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_CASH_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_CASH_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_CASH_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_PAR.csv
6:45pm CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_CASH_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_CASH_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_CASH_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_CASH_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_PAR.csv
7:15pm CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_CASH_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_CASH_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_CASH_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_CASH_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_PAR.csv
10:45pm CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_CASH_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_CASH_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_CASH_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_CASH_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_CASH_QUO_PAR.csv

4.2.2 Cash referential file

XML file

File name

*YYYYMMDDhhmm*_CASH_REF_*MEP*.xml

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *MEP* is the market entry place (AMS = Amsterdam, BRU = Brussels, LIS = Lisbon, PAR = Paris).

Coverage

All tradeable cash instruments (stocks, funds, trackers, bonds and warrants) listed at the Euronext market entry place *MEP*.

Structure

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<CASH_REF>
   <HEADER>
      <MARKETIDENTIFIER>market entry place</MARKETIDENTIFIER>
      <FILETYPE>type of the file</FILETYPE>
      <DATETIME>date and time of file generation</DATETIME>
   </HEADER>
   <STOCKS>
      <STOCK>  one <STOCK> element per stock
         <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
         <PLACEOFTRADE>trading place</PLACEOFTRADE>
         <SYMBOL>trading symbol of instrument</SYMBOL>
         <ENXTCODE>Euronext code of instrument</ENXTCODE>
         <NAME>name of instrument</NAME>
         <TRADINGGROUP>trading type of instrument</TRADINGGROUP>
         <UNITSIZE>trading lot of instrument</UNITSIZE>
         <PRICEUNITTYPE>price unit type of instrument</PRICEUNITTYPE>
         <AMOUNTOUTSTANDING>number of tradable instruments</AMOUNTOUTSTANDING>
         <ICB_CLASSIFICATION>ICB classification of instrument</ICB_CLASSIFICATION>
      </STOCK>
      … other stocks
   </STOCKS>
   <FUNDS>
      <FUND>  one <FUND> element per fund
         <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
         <PLACEOFTRADE>trading place</PLACEOFTRADE>
         <SYMBOL>trading symbol of instrument</SYMBOL>
         <ENXTCODE>Euronext code of instrument</ENXTCODE>
         <NAME>name of instrument</NAME>
         <TRADINGGROUP>trading type of instrument</TRADINGGROUP>
         <UNITSIZE>trading lot of instrument</UNITSIZE>
         <PRICEUNITTYPE>price unit type of instrument</PRICEUNITTYPE>
         <AMOUNTOUTSTANDING>number of tradable instruments</AMOUNTOUTSTANDING>
         <ICB_CLASSIFICATION>ICB classification of instrument</ICB_CLASSIFICATION>
      </FUND>
      … other funds
   </FUNDS>
   <TRACKERS>
      <TRACKER>  one <TRACKER> element per tracker
         <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
         <PLACEOFTRADE>trading place</PLACEOFTRADE>
         <SYMBOL>trading symbol of instrument</SYMBOL>
         <ENXTCODE>Euronext code of instrument</ENXTCODE>
         <NAME>name of instrument</NAME>
         <TRADINGGROUP>trading type of instrument</TRADINGGROUP>
         <UNITSIZE>trading lot of instrument</UNITSIZE>
         <PRICEUNITTYPE>price unit type of instrument</PRICEUNITTYPE>
         <AMOUNTOUTSTANDING>number of tradable instruments</AMOUNTOUTSTANDING>
         <ICB_CLASSIFICATION>ICB classification of instrument</ICB_CLASSIFICATION>
      </TRACKER>
```

```
        ... other trackers
    </TRACKERS>
    <BONDS>
        <BOND>  one <BOND> element per bond
            <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
            <PLACEOFTRADE>trading place</PLACEOFTRADE>
            <SYMBOL>trading symbol of instrument</SYMBOL>
            <ENXTCODE>Euronext code of instrument</ENXTCODE>
            <NAME>name of instrument</NAME>
            <TRADINGGROUP>trading type of instrument</TRADINGGROUP>
            <UNITSIZE>trading lot of instrument</UNITSIZE>
            <PRICEUNITTYPE>price unit type of instrument</PRICEUNITTYPE>
            <AMOUNTOUTSTANDING>number of tradable instruments</AMOUNTOUTSTANDING>
            <ICB_CLASSIFICATION>ICB classification of instrument</ICB_CLASSIFICATION>
        </BOND>
        ... other bonds
    </BONDS>
    <CERTIFICATES>
        <CERTIFICATE>  one <CERTIFICATE> element per certificate
            <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
            <PLACEOFTRADE>trading place</PLACEOFTRADE>
            <SYMBOL>trading symbol of instrument</SYMBOL>
            <ENXTCODE>Euronext code of instrument</ENXTCODE>
            <NAME>name of instrument</NAME>
            <TRADINGGROUP>trading type of instrument</TRADINGGROUP>
            <UNITSIZE>trading lot of instrument</UNITSIZE>
            <PRICEUNITTYPE>price unit type of instrument</PRICEUNITTYPE>
            <AMOUNTOUTSTANDING>number of tradable instruments</AMOUNTOUTSTANDING>
            <ICB_CLASSIFICATION>ICB classification of instrument</ICB_CLASSIFICATION>
        </CERTIFICATE>
        ... other certificates
    </CERTIFICATES>
    <WARRANTS>
        <WARRANT>  one <WARRANT> element per warrant
            <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
            <PLACEOFTRADE>trading place</PLACEOFTRADE>
            <SYMBOL>trading symbol of instrument</SYMBOL>
            <ENXTCODE>Euronext code of instrument</ENXTCODE>
            <NAME>name of instrument</NAME>
            <TRADINGGROUP>trading type of instrument</TRADINGGROUP>
            <UNITSIZE>trading lot of instrument</UNITSIZE>
            <PRICEUNITTYPE>price unit type of instrument</PRICEUNITTYPE>
            <AMOUNTOUTSTANDING>number of tradable instruments</AMOUNTOUTSTANDING>
            <ICB_CLASSIFICATION>ICB classification of instrument</ICB_CLASSIFICATION>
        </WARRANT>
        ... other warrants
    </WARRANTS>
</CASH_REF>
```

Tags

Tag	Description	Format	Value
<MARKETIDENTIFIER>	Market entry place	Alphanumeric	CASH_AMS = Amsterdam CASH_BRU = Brussels CASH_LIS = Lisbon CASH_PAR = Paris
<FILETYPE>	Type of the file	Alphanumeric	REF = referential
<DATETIME>	Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ssTZD*)	Date and time of file generation
<INSTRUMENTIDENTIFIER>	ISIN code	Alphanumeric	ISIN code of instrument
<PLACEOFTRADE>	Place of trading	Integer	1 = Paris 2 = Amsterdam 3 = Brussels 4 = Lisbon
<SYMBOL>	Trading symbol	Alphanumeric	Trading symbol of instrument
<ENXTCODE>	Euronext code	Alphanumeric	Euronext code of instrument
<NAME>	Instrument name	Alphanumeric	Name of instrument
<TRADINGGROUP>	Trading group	Alphanumeric	Trading group to which the instrument belongs
<UNITSIZE>	Trading lot	Floating point	Trading lot of instrument
<PRICEUNITTYPE>	Price Unit Type (% or Units)	Floating point	Price unit type of instrument
<AMOUNTOUTSTANDING>	Number of shares	Integer	Number of shares of instrument
<ICB_CLASSIFICATION>	ICB classification	Integer	ICB classification of instrument

CSV file

File name

*YYYYMMDDhhmm*_CASH_REF_*MEP*.csv

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *MEP* is the market entry place (AMS = Amsterdam, BRU = Brussels, LIS = Lisbon, PAR = Paris).

Coverage

All cash instruments (stocks, indices, funds, trackers, bonds and warrants) listed at the Euronext market entry place *MEP*.

Structure

The cash referential CSV file contains the following records:

1 x header record
1 x fields record
s x stock record where *s* is the number of stocks listed at market entry place *MEP*
f x fund record where *f* is the number of funds listed at market entry place *MEP*
t x tracker record where *t* is the number of trackers listed at market entry place *MEP*
b x bond record where *b* is the number of bonds listed at market entry place *MEP*
w x warrant record where *w* is the number of warrants listed at market entry place *MEP*

The fields in the records are separated by semicolons.

Header record

Field	Format	Value
Record type	Alphanumeric	H = header record
Market entry place	Alphanumeric	CASH_AMS = Amsterdam CASH_BRU = Brussels CASH_LIS = Lisbon CASH_PAR = Paris
Type of the file	Alphanumeric	REF = referential
Date and time of file generation	ISO standard for dates and times (*YYYY-MM-DD*T*hh:mm:ssTZD*)	Date and time of file generation

Fields record

Field	Format	Value
Record type	Alphanumeric	`F` = fields record
Instrument type	Alphanumeric	`InstrumentType`
ISIN code	Alphanumeric	`ISINCode`
Place of trading	Alphanumeric	`PlaceOfTrading`
Trading symbol	Alphanumeric	`TradingSymbol`
Euronext code	Alphanumeric	`EuronextCode`
Instrument name	Alphanumeric	`InstrumentName`
Trading group	Alphanumeric	`TradingGroup`
Trading lot	Alphanumeric	`TradingLot`
Price unit type	Alphanumeric	`PriceUnitType`
Number of shares	Alphanumeric	`NumberOfShares`
ICB classification	Alphanumeric	`ICBClassification`

Other records

Field	Format	Value
Record type	Alphanumeric	`R` = reference record
Instrument type	Alphanumeric	`S` = stock `C` = certificate `F` = fund `T` = tracker `B` = bond `W` = warrant
ISIN code	Alphanumeric	ISIN code of instrument
Place of trading	Integer	`1` = Paris `2` = Amsterdam `3` = Brussels `4` = Lisbon
Trading symbol	Alphanumeric	Trading symbol of instrument
Euronext code	Alphanumeric	Euronext code of instrument
Instrument name	Alphanumeric	Name of instrument
Trading group	Alphanumeric	Trading group to which the instrument belongs
Trading lot	Floating point	Trading lot of instrument
Price unit type	Floating point	Price unit type of instrument
Number of shares	Integer	Number of shares of instrument
ICB classification	Integer	ICB classification of instrument

4.2.3 Cash quote file

XML file

File name

*YYYYMMDDhhmm*_CASH_QUO_*MEP*.xml

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *MEP* is the market entry place (AMS = Amsterdam, BRU = Brussels, LIS = Lisbon, PAR = Paris).

Coverage

All tradeable cash instruments (stocks, funds, trackers, bonds and warrants) listed at the Euronext market entry place *MEP*.

Structure

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<CASH_QUO>
   <HEADER>
      <MARKETIDENTIFIER>market entry place</MARKETIDENTIFIER>
      <FILETYPE>type of the file</FILETYPE>
      <DATETIME>date and time of file generation</DATETIME>
   </HEADER>
   <STOCKS>
      <STOCK>  one <STOCK> element per stock
         <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
         <PLACEOFTRADE>trading place</PLACEOFTRADE>
         <CURRENCY>currency in which the instrument is listed</CURRENCY>
         <PREVCLOSE>previous closing price of instrument</PREVCLOSE >
         <OPEN>opening price of instrument</OPEN>
         <OPENTIME>date and time of opening price of instrument</OPENTIME>
         <HIGH>highest price of instrument</HIGH>
         <HIGHTIME>date and time of highest price of instrument</HIGHTIME>
         <LOW>lowest price of instrument</LOW>
         <LOWTIME>date and time of lowest price of instrument</LOWTIME>
         <LAST>last traded price of instrument</LAST>
         <LASTTIME>date and time of last traded price of instrument</LASTTIME>
         <CLOSE>closing price of instrument</CLOSE>
         <CLOSETIME>date and time of closing price of instrument</CLOSETIME>
         <VOLUME>cumulative number of traded instruments in central order book</VOLUME>
         <VOLUMEOFFMARKET>cumulative number of traded instruments off market</VOLUMEOFFMARKET>
         <TURNOVER>cumulative turnover</TURNOVER>
         <BID>bid price of instrument</BID>
         <BIDQTY>bid size</BIDQTY>
         <BIDTIME>date and time of bid price of instrument</BIDTIME>
         <ASK>ask price of instrumen</ASK>
         <ASKQTY>ask size</ASKQTY>
         <ASKTIME>date and time of ask price of instrument</ASKTIME>
      </STOCK>
      … other stocks
   </STOCKS>
   <FUNDS>
      <FUND>  one <FUND> element per fund
         <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
         <PLACEOFTRADE>trading place</PLACEOFTRADE>
         <CURRENCY>currency in which the instrument is listed</CURRENCY>
         <PREVCLOSE>previous closing price of instrument</PREVCLOSE >
         <OPEN>opening price of instrument</OPEN>
         <OPENTIME>date and time of opening price of instrument</OPENTIME>
         <HIGH>highest price of instrument</HIGH>
         <HIGHTIME>date and time of highest price of instrument</HIGHTIME>
         <LOW>lowest price of instrument</LOW>
         <LOWTIME>date and time of lowest price of instrument</LOWTIME>
         <LAST>last traded price of instrument</LAST>
         <LASTTIME>date and time of last traded price of instrument</LASTTIME>
```

```
        <CLOSE>closing price of instrument</CLOSE>
        <CLOSETIME>date and time of closing price of instrument</CLOSETIME>
        <VOLUME>cumulative number of traded instruments in central order book</VOLUME>
        <VOLUMEOFFMARKET>cumulative number of traded instruments off market</VOLUMEOFFMARKET>
        <TURNOVER>cumulative turnover</TURNOVER>
        <BID>bid price of instrument</BID>
        <BIDQTY>bid size</BIDQTY>
        <BIDTIME>date and time of bid price of instrument</BIDTIME>
        <ASK>ask price of instrumen</ASK>
        <ASKQTY>ask size</ASKQTY>
        <ASKTIME>date and time of ask price of instrument</ASKTIME>
    </FUND>
    ... other funds
  </FUNDS>
  <TRACKERS>
    <TRACKER>  one <TRACKER> element per tracker
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        <PLACEOFTRADE>trading place</PLACEOFTRADE>
        <CURRENCY>currency in which the instrument is listed</CURRENCY>
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        <OPEN>opening price of instrument</OPEN>
        <OPENTIME>date and time of opening price of instrument</OPENTIME>
        <HIGH>highest price of instrument</HIGH>
        <HIGHTIME>date and time of highest price of instrument</HIGHTIME>
        <LOW>lowest price of instrument</LOW>
        <LOWTIME>date and time of lowest price of instrument</LOWTIME>
        <LAST>last traded price of instrument</LAST>
        <LASTTIME>date and time of last traded price of instrument</LASTTIME>
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        <CLOSETIME>date and time of closing price of instrument</CLOSETIME>
        <VOLUME>cumulative number of traded instruments in central order book</VOLUME>
        <VOLUMEOFFMARKET>cumulative number of traded instruments off market</VOLUMEOFFMARKET>
        <TURNOVER>cumulative turnover</TURNOVER>
        <BID>bid price of instrument</BID>
        <BIDQTY>bid size</BIDQTY>
        <BIDTIME>date and time of bid price of instrument</BIDTIME>
        <ASK>ask price of instrumen</ASK>
        <ASKQTY>ask size</ASKQTY>
        <ASKTIME>date and time of ask price of instrument</ASKTIME>
    </TRACKER>
    ... other trackers
  </TRACKERS>
  <BONDS>
    <BOND>  one <BOND> element per bond
        <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
        <PLACEOFTRADE>trading place</PLACEOFTRADE>
        <CURRENCY>currency in which the instrument is listed</CURRENCY>
        <PREVCLOSE>previous closing price of instrument</PREVCLOSE >
        <OPEN>opening price of instrument</OPEN>
        <OPENTIME>date and time of opening price of instrument</OPENTIME>
        <HIGH>highest price of instrument</HIGH>
        <HIGHTIME>date and time of highest price of instrument</HIGHTIME>
        <LOW>lowest price of instrument</LOW>
        <LOWTIME>date and time of lowest price of instrument</LOWTIME>
        <LAST>last traded price of instrument</LAST>
        <LASTTIME>date and time of last traded price of instrument</LASTTIME>
        <CLOSE>closing price of instrument</CLOSE>
        <CLOSETIME>date and time of closing price of instrument</CLOSETIME>
        <VOLUME>cumulative number of traded instruments in central order book</VOLUME>
        <VOLUMEOFFMARKET>cumulative number of traded instruments off market</VOLUMEOFFMARKET>
        <TURNOVER>cumulative turnover</TURNOVER>
        <BID>bid price of instrument</BID>
        <BIDQTY>bid size</BIDQTY>
        <BIDTIME>date and time of bid price of instrument</BIDTIME>
        <ASK>ask price of instrumen</ASK>
        <ASKQTY>ask size</ASKQTY>
```

```
        <ASKTIME>date and time of ask price of instrument</ASKTIME>
    </BOND>
    ... other bonds
  </BONDS>
  <WARRANTS>
    <WARRANT>  one <WARRANT> element per warrant
        <INSTRUMENTIDENTIFIER>ISIN code of instrument</INSTRUMENTIDENTIFIER>
        <PLACEOFTRADE>trading place</PLACEOFTRADE>
        <CURRENCY>currency in which the instrument is listed</CURRENCY>
        <PREVCLOSE>previous closing price of instrument</PREVCLOSE >
        <OPEN>opening price of instrument</OPEN>
        <OPENTIME>date and time of opening price of instrument</OPENTIME>
        <HIGH>highest price of instrument</HIGH>
        <HIGHTIME>date and time of highest price of instrument</HIGHTIME>
        <LOW>lowest price of instrument</LOW>
        <LOWTIME>date and time of lowest price of instrument</LOWTIME>
        <LAST>last traded price of instrument</LAST>
        <LASTTIME>date and time of last traded price of instrument</LASTTIME>
        <CLOSE>closing price of instrument</CLOSE>
        <CLOSETIME>date and time of closing price of instrument</CLOSETIME>
        <VOLUME>cumulative number of traded instruments in central order book</VOLUME>
        <VOLUMEOFFMARKET>cumulative number of traded instruments off market</VOLUMEOFFMARKET>
        <TURNOVER>cumulative turnover</TURNOVER>
        <BID>bid price of instrument</BID>
        <BIDQTY>bid size</BIDQTY>
        <BIDTIME>date and time of bid price of instrument</BIDTIME>
        <ASK>ask price of instrumen</ASK>
        <ASKQTY>ask size</ASKQTY>
        <ASKTIME>date and time of ask price of instrument</ASKTIME>
    </WARRANT>
    ... other warrants
  </WARRANTS>
</CASH_QUO>
```

Tags

Tag	Description	Format	Value
<MARKETIDENTIFIER>	Market entry place	Alphanumeric	CASH_AMS = Amsterdam CASH_BRU = Brussels CASH_LIS = Lisbon CASH_PAR = Paris
<FILETYPE>	Type of the file	Alphanumeric	QUO = quote
<DATETIME>	Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ss*TZD)	Date and time of file generation
<INSTRUMENTIDENTIFIER>	ISIN code	Alphanumeric	ISIN code of instrument
<PLACEOFTRADE>	Place of trading	Integer	1 = Paris 2 = Amsterdam 3 = Brussels 4 = Lisbon
<CURRENCY>	Trading currency	Alphanumeric	ISO currency code
<PREVCLOSE>	Previous closing price	Floating point	Previous closing price of instrument
<OPEN>	Opening price	Floating point	Opening price of instrument on current trading day; empty when no trading in instrument yet on current trading day
<OPENTIME>	Time of opening price	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ss*TZD)	Date and time of opening price; empty when no trading in instrument yet on current trading day
<HIGH>	Highest price	Floating point	Highest price of instrument on current trading day; empty when no trading in instrument yet on current trading day
<HIGHTIME>	Time of highest price	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ss*TZD)	Date and time of highest price; empty when no trading in instrument yet on current trading day
<LOW>	Lowest price	Floating point	Lowest price of instrument on current trading day; empty when no trading in instrument yet on current trading day
<LOWTIME>	Time of lowest price	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ss*TZD)	Date and time of lowest price; empty when no trading in instrument yet on current trading day
<LAST>	Last traded price	Floating point	Last traded price of instrument on current trading day; empty when no trading in instrument yet on current trading day
<LASTTIME>	Time of last traded price	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ss*TZD)	Date and time of last traded price; empty when no trading in instrument yet on current trading day
<CLOSE>	Close price	Floating point	Closing price of instrument on current trading day; empty when no trading in instrument took place on current trading day
<CLOSETIME>	Time of close	ISO standard for dates and times	Date and time of closing

Tag	Description	Format	Value
	price	($YYYY\!-\!MM\!-\!DD\mathrm{T}hh:mm:ssTZD$)	price; empty when no trading in instrument took place on current trading day
<VOLUME>	Cumulative number of traded shares in central order book	Integer	Cumulative number of traded shares in central order book; for bonds in % of nominal value; empty when no trading in instrument in central order book yet on current trading day
<VOLUMEOFFMARKET>	Cumulative number of traded instruments off market	Integer	Cumulative number of traded instruments off market; empty when no trading in instrument off market yet on current trading day
<TURNOVER>	Cumulative turnover	Floating point	Cumulative turnover in central order book; empty when no trading in instrument in central order book yet on current trading day
<BID>	Bid price	Floating point	Best market bid price of instrument; empty when no bid price yet on current trading day
<BIDQTY>	Bid size	Integer	Total number of offers at the market bid price; empty when no bid price yet on current trading day
<BIDTIME>	Time of bid price	ISO standard for dates and times ($YYYY\!-\!MM\!-\!DD\mathrm{T}hh:mm:ssTZD$)	Date and time of bid price; empty when no bid price yet on current trading day
<ASK>	Ask price	Floating point	Best market ask price of instrument; empty when no ask price yet on current trading day
<ASKQTY>	Ask size	Integer	Total number of offers at the market ask price; empty when no ask price yet on current trading day
<ASKTIME>	Time of ask price	ISO standard for dates and times ($YYYY\!-\!MM\!-\!DD\mathrm{T}hh:mm:ssTZD$)	Date and time of ask price; empty when no ask price yet on current trading day

CSV file

File name

*YYYYMMDDhhmm*_CASH_QUO_*MEP*.csv

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *MEP* is the market entry place (AMS = Amsterdam, BRU = Brussels, LIS = Lisbon, PAR = Paris).

Coverage

All cash instruments (stocks, indices, funds, trackers, bonds and warrants) listed at the Euronext market entry place *MEP*.

Structure

The cash quote CSV file contains the following records:

1 x header record
1 x fields record
s x stock record where *s* is the number of stocks listed at market entry place *MEP*
f x fund record where *f* is the number of funds listed at market entry place *MEP*
t x tracker record where *t* is the number of trackers listed at market entry place *MEP*
b x bond record where *b* is the number of bonds listed at market entry place *MEP*
w x warrant record where *w* is the number of warrants listed at market entry place *MEP*

The fields in the records are separated by semicolons.

Header record

Field	Format	Value
Record type	Alphanumeric	`H` = header record
Market entry place	Alphanumeric	`CASH_AMS` = Amsterdam `CASH_BRU` = Brussels `CASH_LIS` = Lisbon `CASH_PAR` = Paris
Type of the file	Alphanumeric	`QUO` = quote
Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*`T`*hh*:*mm*:*ssTZD*)	Date and time of file generation

Fields records

Field	Format	Value
Record type	Alphanumeric	`F` = fields record
Instrument type	Alphanumeric	`InstrumentType`
ISIN code	Alphanumeric	`ISINCode`
Place of trading	Alphanumeric	`PlaceOfTrading`
Trading currency	Alphanumeric	`TradingCurrency`
Previous closing price	Alphanumeric	`PreviousClosingPrice`
Opening price	Alphanumeric	`OpeningPrice`
Time of opening price	Alphanumeric	`TimeOfOpeningPrice`
Highest price	Alphanumeric	`HighestPrice`
Time of highest price	Alphanumeric	`TimeOfHighestPrice`
Lowest price	Alphanumeric	`LowestPrice`
Time of lowest price	Alphanumeric	`TimeOfLowestPrice`
Last traded price	Alphanumeric	`LastTradedPrice`
Time of last traded price	Alphanumeric	`TimeOfLastTradedPrice`
Close price	Alphanumeric	`ClosePrice`
Time of close price	Alphanumeric	`TimeOfClosePrice`
Cumulative number of traded shares in central order book	Alphanumeric	`CumNrTradedSharesCentralOrderBook`
Cumulative number of traded instruments off market	Alphanumeric	`CumNrTradedSharesOffMarket`
Cumulative turnover	Alphanumeric	`CumTurnover`
Bid price	Alphanumeric	`BidPrice`
Bid size	Alphanumeric	`BidSize`
Time of bid price	Alphanumeric	`TimeOfBidPrice`
Ask price	Alphanumeric	`AskPrice`
Ask size	Alphanumeric	`AskSize`
Time of ask price	Alphanumeric	`TimeOfAskPrice`

Other records

Field	Format	Value
Record type	Alphanumeric	`Q` = quote record
Instrument type	Alphanumeric	`S` = stock `I` = index `F` = fund `T` = tracker `B` = bond `W` = warrant
ISIN code	Alphanumeric	ISIN code of instrument
Place of trading	Integer	1 = Paris 2 = Amsterdam 3 = Brussels 4 = Lisbon
Trading currency	Alphanumeric	ISO currency code
Previous closing price	Floating point	Previous closing price of instrument
Opening price	Floating point	Opening price of instrument on current trading day; zero when no trading in instrument yet on current trading day
Date and Time of opening price	ISO standard for dates and times (*YYYY–MM–DD*`T`*hh*:*mm*:*ssTZD*)	Date and time of opening price; empty when no trading in instrument yet on current trading day
Highest price	Floating point	Highest price of instrument on current trading day; zero when no trading in instrument yet on current trading day
Date and Time of highest price	ISO standard for dates and times (*YYYY–MM–DD*`T`*hh*:*mm*:*ssTZD*)	Date and time of highest price; empty when no trading in instrument yet on current trading day
Lowest price	Floating point	Lowest price of instrument on current trading day; zero when no trading in instrument yet on current trading day
Date and Time of lowest price	ISO standard for dates and times (*YYYY–MM–DD*`T`*hh*:*mm*:*ssTZD*)	Date and time of lowest price; empty when no trading in instrument yet on current trading day
Last traded price	Floating point	Last traded price of instrument on current trading day; zero when no trading in instrument yet on current trading day
Date and Time of last traded price	ISO standard for dates and times (*YYYY–MM–DD*`T`*hh*:*mm*:*ssTZD*)	Date and time of last traded price; empty when no trading in instrument yet on current trading day
Close price	Floating point	Closing price of instrument on current trading day; zero when no trading in instrument took place on current trading day
Date and Time of close price	ISO standard for dates and times (*YYYY–MM–DD*`T`*hh*:*mm*:*ssTZD*)	Date and time of close price; empty when no trading in instrument took place on current trading day
Cumulative number of traded shares in central order book	Integer	Cumulative number of traded shares in central order book; for bonds in % of nominal value; zero when no trading in instrument in central order book yet on current trading day
Cumulative number of traded instruments off market	Integer	Cumulative number of traded instruments off market; zero when no trading in instrument off market yet on current trading day
Cumulative turnover	Floating point	Cumulative turnover in central order book; zero when no trading in instrument in central order book yet on current trading day

Field	Format	Value
Bid price	Floating point	Total number of offers at the market bid price; zero when no bid price yet on current trading day
Bid size	Integer	Total number of contracts bid at the market bid price; zero when no bid price yet on current trading day
Date and Time of bid price	ISO standard for dates and times (*YYYY*–*MM*–*DD*T*hh*:*mm*:*ssTZD*)	Date and time of bid price; empty when no bid price yet on current trading day
Ask price	Floating point	Best market ask price of instrument; zero when no ask price yet on current trading day
Ask size	Integer	Total number of offers at the market ask price; zero when no ask price yet on current trading day
Date and Time of ask price	ISO standard for dates and times (*YYYY*–*MM*–*DD*T*hh*:*mm*:*ssTZD*)	Date and time of ask price; empty when no ask price yet on current trading day

4.3 Derivatives files

4.3.1 File names

File names derivatives files:

Time	Type	Market-entry place	Format	File name
6:30am CET	Ref. file	Interest rate derivatives	XML	YYYYMMDDhhmm_DER_REF_IR.xml
			CSV	YYYYMMDDhhmm_DER_REF_IR.csv
		Equity derivatives	XML	YYYYMMDDhhmm_DER_REF_ED.xml
			CSV	YYYYMMDDhhmm_DER_REF_ED.csv
		Index derivatives	XML	YYYYMMDDhhmm_DER_REF_ID.xml
			CSV	YYYYMMDDhhmm_DER_REF_ID.csv
		Commodities	XML	YYYYMMDDhhmm_DER_REF_CO.xml
			CSV	YYYYMMDDhhmm_DER_REF_CO.csv
10:10am CET	Quote file	Interest rate derivatives	XML	YYYYMMDDhhmm_DER_QUO_IR.xml
			CSV	YYYYMMDDhhmm_DER_QUO_IR.csv
		Equity derivatives	XML	YYYYMMDDhhmm_DER_QUO_ED.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ED.csv
		Index derivatives	XML	YYYYMMDDhhmm_DER_QUO_ID.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ID.csv
		Commodities	XML	YYYYMMDDhhmm_DER_QUO_CO.xml
			CSV	YYYYMMDDhhmm_DER_QUO_CO.csv
6:45pm CET	Quote file	Interest rate derivatives	XML	YYYYMMDDhhmm_DER_QUO_IR.xml
			CSV	YYYYMMDDhhmm_DER_QUO_IR.csv
		Equity derivatives	XML	YYYYMMDDhhmm_DER_QUO_ED.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ED.csv
		Index derivatives	XML	YYYYMMDDhhmm_DER_QUO_ID.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ID.csv
		Commodities	XML	YYYYMMDDhhmm_DER_QUO_CO.xml
			CSV	YYYYMMDDhhmm_DER_QUO_CO.csv
7:15pm CET	Quote file	Interest rate derivatives	XML	YYYYMMDDhhmm_DER_QUO_IR.xml
			CSV	YYYYMMDDhhmm_DER_QUO_IR.csv
		Equity derivatives	XML	YYYYMMDDhhmm_DER_QUO_ED.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ED.csv
		Index derivatives	XML	YYYYMMDDhhmm_DER_QUO_ID.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ID.csv
		Commodities	XML	YYYYMMDDhhmm_DER_QUO_CO.xml
			CSV	YYYYMMDDhhmm_DER_QUO_CO.csv
10:45pm CET	Quote file	Interest rate derivatives	XML	YYYYMMDDhhmm_DER_QUO_IR.xml
			CSV	YYYYMMDDhhmm_DER_QUO_IR.csv
		Equity derivatives	XML	YYYYMMDDhhmm_DER_QUO_ED.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ED.csv
		Index derivatives	XML	YYYYMMDDhhmm_DER_QUO_ID.xml
			CSV	YYYYMMDDhhmm_DER_QUO_ID.csv
		Commodities	XML	YYYYMMDDhhmm_DER_QUO_CO.xml
			CSV	YYYYMMDDhhmm_DER_QUO_CO.csv

4.3.2 Derivatives referential file

XML file

File name

*YYYYMMDDhhmm*_DER_REF_*AC*.xml

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *AC* is the asset class (IR = interest rate derivatives, ED = equity derivatives, ID = index derivatives, CO = commodities).

Coverage

All derivatives instruments belonging to asset class *AC* for all Euronext.liffe market entry places (London, Amsterdam, Brussels, Lisbon and Paris).

Structure

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<DER_REF>
   <HEADER>
       <MARKETIDENTIFIER>asset class</MARKETIDENTIFIER>
       <FILETYPE>type of the file</FILETYPE>
       <DATETIME>date and time of file generation</DATETIME>
   </HEADER>
   <EXCHANGE>
      <EXCHANGECODE>single character code for exchange</EXCHANGECODE>
      <EXCHANGENAME>long name of the exchange</EXCHANGENAME>
      <CONTRACT>  one <CLASS> element per derivatives class
         <PHYSICALCOMMODITYCODE>trading symbol of derivatives class</PHYSICALCOMMODITYCODE>
         <COMMODITYDESCRIPTION>full name of the commodity</COMMODITYDESCRIPTION>
         <PRODUCTGROUP>product group identifier</PRODUCTGROUP>
         <DEFAULTLOTSIZE>trading lot of instrument</DEFAULTLOTSIZE>
         <CONTRACTCURRENCY>the trading currency of the contract</CONTRACTCURRENCY>
         <CALCULATIONTYPE>'I' – interest rates / 'N' - normal</CALCULATIONTYPE>
         <EXERCISETYPE>exercise type of instrument</EXERCISETYPE>
         <UNDERLYINGIDENTIFIER>ISIN code of underlying instrument</UNDERLYINGIDENTIFIER>
         <UNDERLYINGPLACEOFTRACE>trading place of underlying instrument</UNDERLYINGPLACEOFTRACE>
         <MATURITY>  one <MATURITY> element per maturity date
            <EXPIRYDATE>expiry date of instrument</EXPIRYDATE>
            <OUTRIGHT>  one <OUTRIGHT> element per outright instrument
                  <INSTRUMENTTYPE>'F' – future / 'O' - option<INSTRUMENTTYPE>
                  <INSTRUMENTIDENTIFIER>EIID code of derivative</INSTRUMENTIDENTIFIER>
                  <EXERCISEPRICE>exercise price for the series</EXERCISEPRICE>
                  <OPTIONCATEGORY>'C' – call / 'P' - put</OPTIONCATEGORY>
                  <ATMFLAG>'Y' – at-the-money / 'N' - otherwise</ATMFLAG>
                  <FIRSTTRADINGDATE>first trading date of instrument</FIRSTTRADINGDATE>
                  <LASTTRADINGDATE>last trading date of instrument</LASTTRADINGDATE>
            </OUTRIGHT>
            … other instruments
         </MATURITY>
         … other maturity dates
      </CONTRACT>
      … other derivatives classes
   <EXCHANGE>
   … other exchanges
</DER_REF>
```

Tags

Tag	Description	Format	Value
<MARKETIDENTIFIER>	Asset class	Alphanumeric	IR_DERIV = interest rate derivatives EQ_DERIV = equity derivatives ID_DERIV = index derivatives CO_DERIV = commodity
<FILETYPE>	Type of the file	Alphanumeric	REF = referential
<DATETIME>	Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time of file generation
<EXCHANGECODE>	Exchange code	Alphanumeric	Exchange code
<EXCHANGENAME>	Long name of the exchange	Alphanumeric	Name of the exchange
<PHYSICALCOMMODITYCODE>	Trading symbol of derivatives class	Alphanumeric	Trading symbol of the derivatives class
<COMMODITYDESCRIPTION>	Full name of derivatives class	Alphanumeric	Full name of the derivatives class
<PRODUCTGROUP>	Product group identifier	Alphanumeric	Description of the market segment
<DEFAULTLOTSIZE>	Trading lot of instrument	Floating point	Trading lot of instrument
<CONTRACTCURRENCY>	Trading currency of the contract	Alphanumeric	Trading currency of the contract
<CALCULATIONTYPE>	Calculation type	Alphanumeric	I = interest rates N = normal
<EXERCISETYPE>	Exercise type of instrument	Alphanumeric	E = European style A = American style
<UNDERLYINGIDENTIFIER>	ISIN code of underlying instrument	Alphanumeric	ISIN code of underlying instrument
<UNDERLYINGPLACEOFTRACE>	Trading place of underlying instrument	Alphanumeric	AMS = Euronext Amsterdam BRU = Euronext Brussels CPH = Copenhagen FRA = Deutsche Boerse HEL = Helsinki LIS = Euronext Lisbon LON = Euronext.LIFFE LSE = London Stock Exchange MAD = Bolsa de Madrid MIL = Milan Stock Exchange NAS = NASDAQ Stock Market NYS = NYSE OSL = Oslo OTH = Other PAR = Euronext Paris STO = Stockholm VTX = Virt-x
<EXPIRYDATE>	Expiry date of instrument	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Expiry date of instrument
<INSTRUMENTTYPE>	Instrument type	Alphanumeric	F = future O = option
<INSTRUMENTIDENTIFIER>	EIID code of instrument	Alphanumeric	EIID code of instrument
<EXERCISEPRICE>	Exercise price of instrument	Floating point	Exercise price of instrument
<OPTIONCATEGORY>	Type of option	Alphanumeric	C = call P = put

Tag	Description	Format	Value
<ATMFLAG>	At-the-money flag	Alphanumeric	Y = at-the-money N = otherwise
<FIRSTTRADINGDATE>	First trading date of instrument	*YYYY–MM–DD*	First trading date of instrument
<LASTTRADINGDATE>	Last trading date of instrument	*YYYY–MM–DD*	Last trading date of instrument

CSV file

File name

*YYYYMMDDhhmm*_DER_REF_*AC*.csv

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *AC* is the asset class (IR = interest rate derivatives, ED = equity derivatives, ID = index derivatives, CO = commodities).

Coverage

All derivatives instruments belonging to asset class *AC* for all Euronext.liffe market entry places (London, Amsterdam, Brussels, Lisbon and Paris).

Structure

The derivatives referential CSV file contains the following records:

1 x header record
1 x fields record
n x derivatives instrument record where *n* is the number of option series and futures belonging to all option and future classes for all Euronext market entry places and belonging to asset class *AC*

The fields in the records are separated by semicolons.

Header record

Field	Format	Value
Record type	Alphanumeric	H = header record
Market Identifier	Alphanumeric	IR_DERIV = interest rate derivatives EQ_DERIV = equity derivatives ID_DERIV = index derivatives CO_DERIV = commodity
Type of the file	Alphanumeric	REF = referential
Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of file generation

Fields record

Field	Format	Value
Record type	Alphanumeric	`F` = fields record
Exchange Code	Alphanumeric	`ExchangeCode`
Exchange Name	Alphanumeric	`ExchangeName`
Physical Commodity Code	Alphanumeric	`PhysicalCommodityCode`
CommodityDescription	Alphanumeric	`CommodityDescription`
Product Group	Alphanumeric	`ProductGroup`
Default Lot Size	Alphanumeric	`DefaultLotSize`
Contract Currency	Alphanumeric	`ContractCurrency`
Calculation Type	Alphanumeric	`CalculationType`
Exercise Type	Alphanumeric	`ExerciseType`
Underlying Identifier	Alphanumeric	`UnderlyingIdentifier`
Underlying Place of Trade	Alphanumeric	`UnderlyingPlaceofTrade`
Expiry Date	Alphanumeric	`ExpiryDate`
Instrument Type	Alphanumeric	`InstrumentType`
Instrument Identifier	Alphanumeric	`InstrumentIdentifier`
Exercise Price	Alphanumeric	`ExercisePrice`
Option Category	Alphanumeric	`OptionCategory`
ATM Flag	Alphanumeric	`ATMFlag`
First Trading Date	Alphanumeric	`FirstTradingDate`
Last Trading Date	Alphanumeric	`LastTradingDate`

Other records

Field	Format	Value
Record type	Alphanumeric	`R` = reference record
Exchange code	Alphanumeric	Exchange code
Long name of the exchange	Alphanumeric	Name of the exchange
Trading symbol of derivatives class	Alphanumeric	Trading symbol of the derivatives class
Full name of derivatives class	Alphanumeric	Full name of the derivatives class
Product group identifier	Alphanumeric	Description of the market segment
Trading lot of instrument	Floating poin	Trading lot of instrument
Trading currency of the contract	Alphanumeric	Trading currency of the contract
Calculation type	Alphanumeric	`I` = interest rates `N` = normal
Exercise type of instrument	Alphanumeric	`E` = European style `A` = American style
ISIN code of underlying instrument	Alphanumeric	ISIN code of underlying instrument
Trading place of underlying instrument	Alphanumeric	`AMS` = Euronext Amsterdam `BRU` = Euronext Brussels `CPH` = Copenhagen `FRA` = Deutsche Boerse `HEL` = Helsinki `LIS` = Euronext Lisbon `LON` = Euronext.LIFFE `LSE` = London Stock Exchange `MAD` = Bolsa de Madrid `MIL` = Milan Stock Exchange `NAS` = NASDAQ Stock Market `NYS` = NYSE `OSL` = Oslo `OTH` = Other `PAR` = Euronext Paris `STO` = Stockholm `VTX` = Virt-x
Expiry date of instrument	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Expiry date of instrument
Instrument type	Alphanumeric	`F` = future `O` = option
EIID code of instrument	Alphanumeric	EIID code of instrument
Exercise price of instrument	Floating point	Exercise price of instrument
Type of option	Alphanumeric	`C` = call `P` = put
At-the-money flag	Alphanumeric	`Y` = at-the-money `N` = otherwise
First trading date of instrument	*YYYY*–*MM*–*DD*	First trading date of instrument
Last trading date of instrument	*YYYY*–*MM*–*DD*	Last trading date of instrument

4.3.3 Derivatives quote file

XML file

File name

*YYYYMMDDhhmm*_DER_QUO_*AC*.xml

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *AC* is the asset class (IR = interest rate derivatives, ED = equity derivatives, ID = index derivatives, CO = commodities).

Coverage

All derivatives instruments belonging to asset class *AC* for all Euronext.liffe market entry places (Amsterdam, Brussels, Lisbon and Paris).

Structure

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<DER_QUO>
   <HEADER>
      <MARKETIDENTIFIER>asset class</MARKETIDENTIFIER>
      <FILETYPE>type of the file</FILETYPE>
      <DATETIME>date and time of file generation</DATETIME>
   </HEADER>
   <EXCHANGE>
      <EXCHANGENAME>long name of the exchange</EXCHANGENAME>
      <EXCHANGECODE>single character code for exchange</EXCHANGECODE>
      <CONTRACT> one <CONTRACT> element per derivatives class
         <PHYSICALCOMMODITYCODE>trading symbol of derivatives class</PHYSICALCOMMODITYCODE>
         <LASTUNDERLYING>last traded price of underlying instrumen</LASTUNDERLYING>
         <LASTUNDERLYINGTIME>time of last traded price of underlying instrument</LASTUNDERLYINGTIME>
         <MATURITY> one <MATURITY> element per maturity date
            <EXPIRYDATE>expiry date of instrument</EXPIRYDATE>
            <OUTRIGHT> one <OUTRIGHT> element per outright instrument
               <INSTRUMENTIDENTIFIER>EIID code of derivative</INSTRUMENTIDENTIFIER>
               <BID>bid price of instrument</BID>
               <BIDQTY>bid size</BIDQTY>
               <ASK>ask price of instrumen</ASK>
               <ASKQTY>ask size</ASKQTY>
               <LAST>last price of instrument</LAST>
               <LASTQTY>last qty</LASTQTY>
               <LASTTIME>last date and time</LASTTIME>
               <LASTTRADETYPE>last trade type</LASTTRADETYPE>
               <OPEN>opening price of instrument</OPEN>
               <OPENTIME>opening date and time</OPENTIME>
               <OPENTRADETYPE>opening trade type</OPENTRADETYPE>
               <CLOSEPRICE>close price</CLOSEPRICE>
               <PREVIOUSCLOSEPRICE>previous day's close price</PREVIOUSCLOSEPRICE>
               <SETTLEMENTPRICE>daily settlement price of instrument</SETTLEMENTPRICE>
               <PREVSETTLEMENTPRICE>previous setll. price of instrument</PREVDAILYSETTLEMENTPRICE>
               <EDSP>EDSP price of instrument</EDSP>
               <HIGH>highest price of instrument</HIGH>
               <HIGHTIME>highest date and time</HIGHTIME>
               <HIGHTRADETYPE>highest trade type</HIGHTRADETYPE>
               <LOW>lowest price of instrument</LOW>
               <LOWTIME>lowest date and time</LOWTIME>
               <LOWTRADETYPE>lowest trade type</LOWTRADETYPE>
               <LIFETIMEHIGH>lifetime high</LIFETIMEHIGH>
               <LIFETIMEHIGHTIME>lifetime high date and time</LIFETIMEHIGHTIME>
               <LIFETIMEHIGHTRADETYPE>lifetime high trade type</LIFETIMEHIGHTRADETYPE>
               <LIFETIMELOW>lifetime low</LIFETIMELOW>
               <LIFETIMELOWTIME>lifetime low date and time</LIFETIMELOWTIME>
               <LIFETIMELOWTRADETYPE>lifetime low trade type</LIFETIMELOWTRADETYPE>
               <YEARHIGH>year high</YEARHIGH>
               <YEARHIGHTIME>year high date and time</YEARHIGHTIME>
```

```
            <YEARHIGHTRADETYPE>year high trade type</YEARHIGHTRADETYPE>
            <YEARLOW>year low</YEARLOW>
            <YEARLOWTIME>year low date and time</YEARLOWTIME>
            <YEARLOWTRADETYPE>year low trade type</YEARLOWTRADETYPE>
            <DELTA>delta of instrument</DELTA>
            <VOLATILITY>implied volatility of instrument</VOLATILITY>
            <OPENINTEREST>open interest in instrument</OPENINTEREST>
            <OPENINTERESTDATE>date of open interest in instrument</OPENINTERESTDATE>
            <PREVOPENINTEREST>previous open interest in instrument</PREVOPENINTEREST>
            <PREVOPENINTERESTDATE>date of previous open interest in
                    instrument</PREVOPENINTERESTDATE>
            <CUMULATIVEVOLUME>cumulative volume of all trades on instrument</CUMULATIVEVOLUME>
            <CUMULATIVEVOLUMEBOOK>cumulative volume of all book trades on
                    instrument</CUMULATIVEVOLUMEBOOK>
            <CUMULATIVEVOLUMEOTC>cumulative volume of all OTC trades on
                    instrument</CUMULATIVEVOLUMEOTC>
          </OUTRIGHT>
          … other instruments
        </MATURITY>
        … other maturity dates
      </CONTRACT>
      … other derivatives classes
    <EXCHANGE>
    … other exchanges
</DER_QUO>
```

Tags

Tag	Description	Format	Value
<MARKETIDENTIFIER>	Asset class	Alphanumeric	IR_DERIV = interest rate derivatives EQ_DERIV = equity derivatives ID_DERIV = index derivatives CO_DERIV = commodity
<FILETYPE>	Type of the file	Alphanumeric	REF = referential
<DATETIME>	Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh : mm : ssTZD*)	Date and time of file generation
<EXCHANGECODE>	Type of contracts traded on the exchange	Alphanumeric	Single character code that indicates the type of contracts traded on the exchange.
<EXCHANGENAME>	Long name of the exchange	Alphanumeric	Long name of the exchange
<PHYSICALCOMMODITYCODE>	Trading symbol of derivatives class	Alphanumeric	Trading symbol of derivatives class
<LASTUNDERLYING>	Last traded price of underlying instrument	Floating point	Last traded price of underlying instrument
<LASTUNDERLYINGTIME>	Time of last trade	*hh : mm : ssTZD*	Time of last trade
<EXPIRYDATE>	expiry date of instrument	*YYYY–MM–DD*	Expiry date of instrument
<INSTRUMENTTYPE>	Instrument type	Alphanumeric	F = future O = option
<INSTRUMENTIDENTIFIER>	EIID code of instrument	Alphanumeric	EIID code of instrument
<BID>	Best bid (buy) price	Floating point	Best bid (buy) price
<BIDQTY>	Best bid (buy) quantity	Integer	Best bid (buy) quantity
<ASK>	Best ask (sell/offer) price	Floating point	Best ask (sell/offer) price
<ASKQTY>	Best ask (sell/offer) quantity	Integer	Best ask (sell/offer) quantity
<LAST>	Last traded price	Floating point	Last traded price
<LASTQTY>	Volume associated with the last trade	Integer	Volume associated with the last trade
<LASTTIME>	Time when the last trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh : mm : ssTZD*)	Date and time when the last trade was made
<LASTTRADETYPE>	Type of trade - e.g. Basis, Block, etc:	Alphanumeric	Type of trade - e.g. Basis, Block, etc.
<OPEN>	The price at the beginning of trading or on the opening of the market (backwardation) .	Floating point	The price at the beginning of trading or on the opening of the market (backwardation)
<OPENTIME>	Time when the opening trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh : mm : ssTZD*)	Date and time when the opening trade was made
<OPENTRADETYPE>	The type of the	Alphanumeric	The type of the opening trade

Tag	Description	Format	Value
	opening trade		
<CLOSEPRICE>	Close price confirmed by the market after market close	Floating point	Close price confirmed by the market after market close
<PREVIOUSCLOSEPRICE>	Previous days close price confirmed by the market after market close.	Floating point	Previous days close price confirmed by the market after market close.
<SETTLEMENTPRICE>	The daily settlement price used to revalue open positions	Floating point	The daily settlement price used to revalue open positions
<PREVSETTLEMENTPRICE>	The daily settlement price for the previous day that was used to revalue open positions	Floating point	The daily settlement price for the previous day that was used to revalue open positions
<EDSP>	Exchange delivery settlement price used to calculate settlement on open positions on expiry of the tradable instrument	Floating point	Exchange delivery settlement price used to calculate settlement on open positions on expiry of the tradable instrument
<HIGH>	Daily high trade price	Floating point	Daily high trade price
<HIGHTIME>	Time when the daily high trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time when the daily high trade was made
<HIGHTRADETYPE>	The type of trade that caused the daily high	Alphanumeric	The type of trade that caused the daily high
<LOW>	Daily low traded price	Floating point	Daily low traded price
<LOWTIME>	Time when the low trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time when the low trade was made
<LOWTRADETYPE>	The type of trade that caused the daily low	Alphanumeric	The type of trade that caused the daily low
<LIFETIMEHIGH>	Lifetime high trade price	Floating point	Lifetime high trade price
<LIFETIMEHIGHTIME>	Date and time when the lifetime high trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time when the lifetime high trade was made
<LIFETIMEHIGHTRADETYPE>	The type of trade that caused the lifetime high	Alphanumeric	The type of trade that caused the lifetime high
<LIFETIMELOW>	Lifetime low trade price	Floating point	Lifetime low trade price
<LIFETIMELOWTIME>	Date and time when the lifetime low trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time when the lifetime low trade was made
<LIFETIMELOWTRADETYPE>	The type of trade that	Alphanumeric	The type of trade that caused the lifetime low

Tag	Description	Format	Value
	caused the lifetime low		
<YEARHIGH>	Yearly high trade price	Floating point	Yearly high trade price
<YEARHIGHTIME>	Date and time when the yearly high trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ssTZD*)	Date and time when the yearly high trade was made
<YEARHIGHTRADETYPE>	The type of trade that caused the yearly high	Alphanumeric	The type of trade that caused the yearly high
<YEARLOW>	Yearly low trade price	Floating point	Yearly low trade price
<YEARLOWTIME>	Date and time when the yearly low trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh* : *mm* : *ssTZD*)	Date and time when the yearly low trade was made
<YEARLOWTRADETYPE>	The type of trade that caused the yearly low	Alphanumeric	The type of trade that caused the yearly low
<DELTA>	The delta of an option, i.e. the change in the value of an option based on changes in the underlying	Floating point	The delta of an option, i.e. the change in the value of an option based on changes in the underlying
<VOLATILITY>	Volatility	Floating point	Volatility
<OPENINTEREST>	The net open position (volume) for the instrument.	Integer	The net open position (volume) for the instrument
<OPENINTERESTDATE>	The date corresponding to the value in the Open Interest field.	*YYYY–MM–DD*	The date corresponding to the value in the Open Interest field
<PREVOPENINTEREST>	The net open position (volume) for the instrument reported for the previous day	Integer	The net open position (volume) for the instrument reported for the previous day
<PREVOPENINTERESTDATE>	The date corresponding to the value in the Previous Open Interest field.	*YYYY–MM–DD*	The date corresponding to the value in the Previous Open Interest field
<CUMULATIVEVOLUME>	Total traded quantity in the instrument for the day.	Integer	Total traded quantity in the instrument for the day
<CUMULATIVEVOLUMEBOOK>	Total book traded quantity in the insrument for the day.	Integer	Total book traded quantity in the insrument for the day
<CUMULATIVEVOLUMEOTC>	Total OTC traded quantity in the instrument for the day.	Integer	Total OTC traded quantity in the instrument for the day

CSV file

File name

*YYYYMMDDhhmm*_DER_QUO_*AC*.csv

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *AC* is the asset class (IR = interest rate derivatives, ED = equity derivatives, ID = index derivatives, CO = commodities).

Coverage

All derivatives instruments belonging to asset class *AC* for all Euronext.liffe market entry places (London, Amsterdam, Brussels, Lisbon and Paris).

Structure

The derivatives referential CSV file contains the following records:

1 x header record
1 x fields record
n x derivatives instrument record where *n* is the number of option series and futures belonging to all option and future classes for all Euronext market entry places and belonging to asset class *AC*

The fields in the records are separated by semicolons.

Header record

Field	Format	Value
Record type	Alphanumeric	H = header record
Market identifier	Alphanumeric	IR_DERIV = interest rate derivatives EQ_DERIV = equity derivatives ID_DERIV = index derivatives CO_DERIV = commodity
Type of the file	Alphanumeric	QUO = referential
Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of file generation

Fields record

Field	Format	Value
Record type	Alphanumeric	Q = quote record
Exchange code	Alphanumeric	ExchangeCode
Exchange name	Alphanumeric	ExchangeName
Physical commodity code	Alphanumeric	PhysicalCommodityCode
Last underlying	Alphanumeric	LastUnderlying
Last underlying time	Alphanumeric	LastUnderlyingTime
Expiry date	Alphanumeric	ExpiryDate
Instrument type	Alphanumeric	InstrumentType
Instrument identifier	Alphanumeric	InstrumentIdentifier
Bid	Alphanumeric	Bid
Bid qty	Alphanumeric	BidQty
Ask	Alphanumeric	Ask
Ask qty	Alphanumeric	AskQty
Last	Alphanumeric	Last
Last qty	Alphanumeric	LastQty
Last time	Alphanumeric	LastTime
Last trade type	Alphanumeric	LastTradeType
Open	Alphanumeric	Open
Open time	Alphanumeric	OpenTime
Open trade type	Alphanumeric	OpenTradeType
Close price	Alphanumeric	ClosePrice
Previous close price	Alphanumeric	PreviousClosePrice
Settlement price	Alphanumeric	SettlementPrice
Prev settlement price	Alphanumeric	PrevSettlementPrice
EDSP	Alphanumeric	Edsp
High	Alphanumeric	High
High time	Alphanumeric	HighTime
High trade type	Alphanumeric	HighTradeType
Low	Alphanumeric	Low
Low time	Alphanumeric	LowTime
Low trade type	Alphanumeric	LowTradeType
Lifetime high	Alphanumeric	LifetimeHigh
Lifetime high time	Alphanumeric	LifetimeHighTime
Lifetime high trade type	Alphanumeric	LifetimeHighTradeType
Lifetime low	Alphanumeric	LifetimeLow
Lifetime low time	Alphanumeric	LifetimeLowTime
Lifetime low trade type	Alphanumeric	LifetimeLowTradeType
Year high	Alphanumeric	YearHigh
Year high time	Alphanumeric	YearHighTime
Year high trade type	Alphanumeric	YearHighTradeType
Year low	Alphanumeric	YearLow
Year low time	Alphanumeric	YearLowTime
Year low trade type	Alphanumeric	YearLowTradeType
Delta	Alphanumeric	Delta
Volatility	Alphanumeric	Volatility
Open interest	Alphanumeric	OpenInterest
Open interest date	Alphanumeric	OpenInterestDate
Prev open interest	Alphanumeric	PrevOpenInterest
Prev open interest date	Alphanumeric	PrevOpenInterestDate
Cumulative volume	Alphanumeric	CumulativeVolume
Cumulative volume book	Alphanumeric	CumulativeVolumeBook
Cumulative volume OTC	Alphanumeric	CumulativeVolumeOTC

Other records

Tag	Format	Value
Record type	Alphanumeric with length 1	`Q` = quote record
Type of contracts traded on the exchange	Alphanumeric	Single character code that indicates the type of contracts traded on the exchange.
Long name of the exchange	Alphanumeric	Long name of the exchange
Trading symbol of derivatives class	Alphanumeric	Trading symbol of derivatives class
Last traded price of underlying instrument	Floating point	Last traded price of underlying instrument
Date and Time of last trade	*hh:mm:ssTZD*	Time of last trade
Expiry date of instrument	*YYYY–MM–DD*	Expiry date of instrument
Instrument type	Alphanumeric	`F` = future `O` = option
EIID code of instrument	Alphanumeric	EIID code of instrument
Best bid (buy) price	Floating point	Best bid (buy) price
Best bid (buy) quantity	Integer	Best bid (buy) quantity
Best ask (sell/offer) price	Floating point	Best ask (sell/offer) price
Best ask (sell/offer) quantity	Integer	Best ask (sell/offer) quantity
Last traded price	Floating point	Last traded price
Volume associated with the last trade	Integer	Volume associated with the last trade
Time when the last trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time when the last trade was made
Type of trade - e.g. Basis, Block, etc:	Alphanumeric	Type of trade - e.g. Basis, Block, etc.
The price at the beginning of trading or on the opening of the market (backwardation).	Floating point	The price at the beginning of trading or on the opening of the market (backwardation)
Time when the opening trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time when the opening trade was made
The type of the opening trade	Alphanumeric	The type of the opening trade
Close price confirmed by the market after market close	Floating point	Close price confirmed by the market after market close
Previous days close price confirmed by the market after market close.	Floating point	Previous days close price confirmed by the market after market close.
The daily settlement price used to revalue open positions	Floating point	The daily settlement price used to revalue open positions
The daily settlement price for the previous day that was used to revalue open positions	Floating point	The daily settlement price for the previous day that was used to revalue open positions
Exchange delivery settlement price used to calculate settlement on open positions on expiry of the tradable instrument	Floating point	Exchange delivery settlement price used to calculate settlement on open positions on expiry of the tradable instrument
Daily high trade price	Floating point	Daily high trade price
Time when the daily high trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time when the daily high trade was made
The type of trade that caused the daily high	Alphanumeric	The type of trade that caused the daily high
Daily low traded price	Floating point	Daily low traded price
Time when the low trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time when the low trade was made
The type of trade that caused the daily low	Alphanumeric	The type of trade that caused the daily low
Lifetime high trade price	Floating point	Lifetime high trade price
Date and time when the lifetime high trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time when the lifetime high trade was made
The type of trade that caused the lifetime high	Alphanumeric	The type of trade that caused the lifetime high
Lifetime low trade price	Floating point	Lifetime low trade price
Date and time when the lifetime low trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh:mm:ssTZD*)	Date and time when the lifetime low trade was made

Tag	Format	Value
The type of trade that caused the lifetime low	Alphanumeric	The type of trade that caused the lifetime low
Yearly high trade price	Floating point	Yearly high trade price
Date and time when the yearly high trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time when the yearly high trade was made
The type of trade that caused the yearly high	Alphanumeric	The type of trade that caused the yearly high
Yearly low trade price	Floating point	Yearly low trade price
Date and time when the yearly low trade was made	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time when the yearly low trade was made
The type of trade that caused the yearly low	Alphanumeric	The type of trade that caused the yearly low
The delta of an option, i.e. the change in the value of an option based on changes in the underlying	Floating point	The delta of an option, i.e. the change in the value of an option based on changes in the underlying
Volatility	Floating point	Volatility
The net open position (volume) for the instrument.	Integer	The net open position (volume) for the instrument
The date corresponding to the value in the Open Interest field.	*YYYY–MM–DD*	The date corresponding to the value in the Open Interest field
The net open position (volume) for the instrument reported for the previous day	Integer	The net open position (volume) for the instrument reported for the previous day
The date corresponding to the value in the Previous Open Interest field.	*YYYY–MM–DD*	The date corresponding to the value in the Previous Open Interest field
Total traded quantity in the instrument for the day.	Integer	Total traded quantity in the instrument for the day
Total book traded quantity in the insrument for the day.	Integer	Total book traded quantity in the insrument for the day
Total OTC traded quantity in the instrument for the day.	Integer	Total OTC traded quantity in the instrument for the day

4.4 Indices files

4.4.1 File names and generation times

Time	Type	Market-entry place	Format	File name
10:10am CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_IND_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_IND_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_IND_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_IND_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_PAR.csv
6:45pm CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_IND_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_IND_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_IND_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_IND_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_PAR.csv
7:15pm CET	Quote file	Amsterdam	XML	*YYYYMMDDhhmm*_IND_QUO_AMS.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_AMS.csv
		Brussels	XML	*YYYYMMDDhhmm*_IND_QUO_BRU.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_BRU.csv
		Lisbon	XML	*YYYYMMDDhhmm*_IND_QUO_LIS.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_LIS.csv
		Paris	XML	*YYYYMMDDhhmm*_IND_QUO_PAR.xml
			CSV	*YYYYMMDDhhmm*_IND_QUO_PAR.csv

4.4.2 Indices quote file

XML file

File name

*YYYYMMDDhhmm*_IND_QUO_*MEP*.xml

where:

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *MEP* is the market entry place (AMS = Amsterdam, BRU = Brussels, LIS = Lisbon, PAR = Paris).

Coverage

All Euronext indices calculated by Indices B.V. for market entry place *MEP*.

Structure

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<IND_QUO>
  <HEADER>
    <MARKETIDENTIFIER>market entry place</MARKETIDENTIFIER>
    <FILETYPE>type of the file</FILETYPE>
    <DATETIME>date and time of file generation</DATETIME>
  </HEADER>
  <INDICES>
    <INDEX>  one <INDEX> element per index
      <INDEXNAME>name of index</INDEXNAME>
      <INSTRUMENTIDENTIFIER>ISIN code of index</INSTRUMENTIDENTIFIER>
      <PLACEOFTRADE>trading place of index</PLACEOFTRADE>
      <CURRENCY>currency of market capitalizations of the index constituents</CURRENCY>
      <PREVCLOSE>previous closing level of index</PREVCLOSE>
      <FIRST>first level of index</FIRST>
      <FIRSTTIME>date and time of first level of index</FIRSTTIME>
      <OPEN>opening level of index</OPEN>
      <OPENTIME>date and time of opening level of index</OPENTIME>
      <HIGH>highest level of index</HIGH>
      <HIGHTIME>date and time of highest level of index</HIGHTIME>
      <LOW>lowest level of index</LOW>
      <LOWTIME>date and time of lowest level of index</LOWTIME>
      <LAST>last level of index</LAST>
      <LASTTIME>date and time of last level of index</LASTTIME>
      <CLOSE>closing level of index</CLOSE>
      <CLOSETIME>date and time of closing level of index</CLOSETIME>
    </INDEX>
    ... other indices
  </INDICES>
</IND_QUO>
```

Tags

Tag	Description	Format	Value
<MARKETIDENTIFIER>	Market entry place	Alphanumeric	IND_AMS = Amsterdam IND_BRU = Brussels IND_LIS = Lisbon IND_PAR = Paris
<FILETYPE>	Type of the file	Alphanumeric	QUO = quote
<DATETIME>	Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of file generation
<INDEXNAME>	Name	Alphanumeric	Name of index
<INSTRUMENTIDENTIFIER>	ISIN code	Alphanumeric	ISIN code of index
<PLACEOFTRADE>	Place of trading	Integer	1 = Paris 2 = Amsterdam 3 = Brussels 4 = Lisbon
<CURRENCY>	Currency	Alphanumeric	Currency of market capitalizations of the index constituents
<PREVCLOSE>	Previous closing price	Floating point	Previous closing level of index
<FIRST>	First price	Floating point	First level of index on current trading day; empty when first index level not available yet on current trading day
<FIRSTTIME>	Date and Time of first price	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of first level; empty when first index level not available yet on current trading day
<OPEN>	Opening price	Floating point	Opening level of index on current trading day; empty when first opening level not available yet on current trading day
<OPENTIME>	Date and Time of opening price	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of opening level; empty when first opening level not available yet on current trading day
<HIGH>	Highest price	Floating point	Highest level of index on current trading day; empty when index not calculated yet on current trading day
<HIGHTIME>	Date and Time of highest price	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of highest level; empty when index not calculated yet on current trading day
<LOW>	Lowest price	Floating point	Lowest level of index on current trading day; empty when index not calculated yet on current trading day
<LOWTIME>	Date and Time of lowest price	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ssTZD*)	Date and time of lowest level; empty when index not calculated yet on current trading day
<LAST>	Last traded price	Floating point	Last traded level of index on current trading day; empty when index not calculated yet on current trading day
<LASTTIME>	Date and Time	ISO standard for dates and times	Date and time of last level;

Tag	Description	Format	Value
	of last traded price	($YYYY\!-\!MM\!-\!DD\mathtt{T}hh:mm:ssTZD$)	empty when index not calculated yet on current trading day
<CLOSE>	Close price	Floating point	Close level of index on current trading day; empty when index not calculated yet on current trading day
<CLOSETIME>	Date and Time of close price	ISO standard for dates and times ($YYYY\!-\!MM\!-\!DD\mathtt{T}hh:mm:ssTZD$)	Date and time of close level; empty when index not calculated yet on current trading day

CSV file

File name

*YYYYMMDDhhmm*_IND_QUO_*MEP*.csv

where :

- *YYYYMMDDhhmm* is the time and date of the generation of the file.
- *MEP* is the market entry place (AMS = Amsterdam, BRU = Brussels, LIS = Lisbon, PAR = Paris).

Coverage

All Euronext indices calculated by Indices B.V. for market entry place *MEP*.

Structure

The indices quote CSV file contains the following records:

1 x header record
1 x fields record

The fields in the records are separated by semicolons.

Header record

Field	Format	Value
Record type	Alphanumeric	H = header record
Market entry place	Alphanumeric	IND_AMS = Amsterdam IND_BRU = Brussels IND_LIS = Lisbon IND_PAR = Paris
Type of the file	Alphanumeric	QUO = quote
Date and time of file generation	ISO standard for dates and times (*YYYY–MM–DD*T*hh*:*mm*:*ss*TZD)	Date and time of file generation

Fields records

Field	Format	Value
Record type	Alphanumeric	F = fields record
Instrument type	Alphanumeric	InstrumentType
Index name	Alphanumeric	IndexName
ISIN code	Alphanumeric	ISINCode
Place of trading	Alphanumeric	PlaceOfTrading
Trading currency	Alphanumeric	TradingCurrency
Previous closing price	Alphanumeric	PreviousClosingPrice
First price	Alphanumeric	FirstPrice
Time of first price	Alphanumeric	TimeOfFirstPrice
Opening price	Alphanumeric	OpeningPrice
Time of opening price	Alphanumeric	TimeOfOpeningPrice
Highest price	Alphanumeric	HighestPrice
Time of highest price	Alphanumeric	TimeOfHighestPrice
Lowest price	Alphanumeric	LowestPrice
Time of lowest price	Alphanumeric	TimeOfLowestPrice
Last traded price	Alphanumeric	LastTradedPrice
Time of last traded price	Alphanumeric	TimeOfLastTradedPrice
Close price	Alphanumeric	ClosePrice
Time of close price	Alphanumeric	TimeOfClosePrice

Other records

Field	Format	Value
Record type	Alphanumeric	`Q` = quote record
Instrument type	Alphanumeric	`I` = index
Index name	Alphanumeric	Name of index
ISIN code	Alphanumeric	ISIN code of index
Place of trading	Integer	`1` = Paris `2` = Amsterdam `3` = Brussels `4` = Lisbon
Currency	Alphanumeric	Currency of market capitalizations of the index constituents
Previous closing price	Floating point	Previous closing level of index
First price	Floating point	First level of index on current trading day; zero when first index level not available yet on current trading day
Date and Time of first price	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Date and time of first level; empty when first index level not available yet on current trading day
Opening price	Floating point	Opening level of index on current trading day; zero when first opening level not available yet on current trading day
Date and Time of opening price	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Date and time of opening level; empty when first opening level not available yet on current trading day
Highest price	Floating point	Highest level of index on current trading day; zero when index not calculated yet on current trading day
Date and Time of highest price	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Date and time of highest level; empty when index not calculated yet on current trading day
Lowest price	Floating point	Lowest level of index on current trading day; zero when index not calculated yet on current trading day
Date and Time of lowest price	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Date and time of lowest level; empty when index not calculated yet on current trading day
Last traded price	Floating point	Last traded level of index on current trading day; zero when index not calculated yet on current trading day
Date and Time of last traded price	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Date and time of last level; empty when index not calculated yet on current trading day
Close price	Floating point	Close level of index on current trading day; zero when index not calculated yet on current trading day
Date and Time of close price	ISO standard for dates and times (*YYYY*–*MM*–*DD*`T`*hh*:*mm*:*ss**TZD*)	Date and time of close level; empty when index not calculated yet on current trading day

5 Delivery methods

5.1 General information

The Euronext Market Summaries files are offered via file transfer through the internet. This is either by means of FTP push or FTP pull.

5.2 FTP push

In case of FTP push, the files are transferred from Euronext directly to the customers' FTP server through the internet using the FTP protocol.
The customer needs to provide Euronext the following information in order to enable the transfer of the files to its FTP server:

- IP address;
- user id;
- password.

The customers firewall(s) must allow file transfer from the following IP address: <this address will provided separately or in a new version of this document>

5.3 FTP pull

In case of FTP pull, the customer can download the files with FTP from the following FTP server:
`ftp.euronextmarketsnapshot.if5.com`.
Euronext will provide a user id and a password to the customer that will remain valid until the customer decides to cancel the subscription.

5.4 Directory structure FTP server

For each type of Market Summary file, there is a unique directory on the FTP server. This means that there is a directory for each of the following types of files:

- Euronext Amsterdam Cash referential XML files;
- Euronext Amsterdam Cash referential CSV files;
- Euronext Amsterdam Cash quote XML files;
- Euronext Amsterdam Cash quote CSV files;
- Euronext Brussels Cash referential XML files;
- etc.

Each user will be assigned a unique logon (username and password) that will be permissioned to access one or more directories according to the users subscription. The user will be able to see all the file directories but will be able to access only those he is permissioned for. All user logons for Market Summaries will be prefixed by ms\.

6 Service support

Technical support is available from 7:30am CET to 6:30pm CET. within these hours customers are able to contact our service support team at dvsupport@liffe.com or tel. +31 20 550 4307.