

DOCUMENT TITLE

# Appendix to the Euronext Multicast Feed Specification for Cash Markets

STATUS

Version 1.5

# Preface

This document details the Specifications of the Euronext Multicast Feed (EMF) in relation to Cash Markets.

The constituent Euronext Exchanges historically have used separate legacy systems to distribute Market Data to Euronext Customers (ECs). Euronext wants to offer a single, consolidated data source for all Euronext Products, to their customers. A single interface will be presented, potentially reducing costs, increasing flexibility and allowing Euronext to respond rapidly to its customer needs. In addition, facilities will be provided to package data dependent on the requirements of ECs.

This document details the technical information for customers and other users (referred to in the document as the clients) to interface with EMF.

A separate document contains appendices which provide other essential information necessary for processing the data.

## Disclaimer

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## Document History

DOCUMENT VERSION NO.	DATE	CHANGE DESCRIPTION
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1.00	1-Jun-2007	First version
1.1	15 Jan 2008	<p><b>1-</b> Updates (BBO10 and Multidecimal).</p> <p>Msg 151-Before Trading Hours</p> <ul style="list-style-type: none"> <li>• Number_Of_Instrument_Initialized removed (not required anymore).</li> <li>• Amount_Of_The_Fixed_Price_Tick (0x6336) added</li> <li>• Index_Of_The_Set_Of_Variable_Price_tick (0x8790) added.</li> <li>• Event_Timestamp (0x53E5) missing to be added.</li> </ul> <p>Msg 151-After Trading Hours</p> <ul style="list-style-type: none"> <li>• Number_Of_Instrument_Initialized removed (not required anymore).</li> <li>• Date_Instrument_Last_Traded removed (not required anymore)</li> <li>• Number_Of_Instrument_Traded_On_Previous_Day removed (not required any more).</li> <li>• Previous_Trading_Day_Volume_In_Capital removed (not required anymore).</li> <li>• Last_Price_For_The_Previous_Traded_Day_Ajusted removed (not required anymore).</li> <li>• Amount_Of_The_Fixed_Price_Tick (0x6336) added</li> <li>• Index_Of_The_Set_Of_Variable_Price_tick (0x8790) added.</li> <li>• Event_Timestamp (0x53E5) missing to be added.</li> </ul> <p>Msg 156 updated,</p> <ul style="list-style-type: none"> <li>• Last_Trade_At_The_Same_Price_Indicator (0x42E8) missing to be added.</li> <li>• Nsc_Depth_Bid/Ask_Level from 1 to 11- FIDs updated and created.</li> <li>• Number_Of_Shares_Issued (0x67BE) format updated to Long Decimal.</li> <li>• Utc_Hours (0x8720) and Utc_Hours_2 (0x8721) format updated to String.</li> </ul> <p><b>2-</b> Miscellaneous appendices (3) added.</p> <p><b>3-</b> Comments in data dictionary updated.</p>
1.2	01 June 2008	<p><b>1-</b> Field Variation linked to BBO10 and Multidecimalization project,</p> <ul style="list-style-type: none"> <li>• Variation_Of_Todays_Price_From_Reference_Price (0x63FB), new field created and implemented msg characterized as followed: MiD=156 /Cash Message Type (0x8485) = 01, 02, 03, 30,32.</li> </ul> <p><b>2-</b>SOB integration.</p> <ul style="list-style-type: none"> <li>• MIC_List (0x839D), new field created and implemented in msg characterised as followed: MiD=151 /Cash Message Type (0x8485) = H3, J3.</li> <li>• Trading Venue (0x8791), added in msg characterized as followed: MiD=156 /Cash Message Type (0x8485) = I0.</li> </ul> <p><b>3-</b>NSC Warrant New market Model.</p> <ul style="list-style-type: none"> <li>• Period_Side (0x43C4), new field created and implemented in msg characterised as followed: MiD=156 /Cash Message Type (0x8485) = 05.</li> <li>• NSC_Depth_Bid/Ask level from 1 to 11 (0x83D6, 0x83D8, 0x83DA, 0x83DC, 0x83DE, 0x83E6, 0x83E8, 0x83EA, 0x83EC, 0x83EE, 0x83E0, 0x83DF, 0x83D5, 0x83D7, 0x83D9, 0x83DB, 0x83DD, 0x83E5, 0x83E7, 0x83E9, 0x83EB, 0x83ED), have been modified at the field structure. Lp_Indicator information has been added in msg characterized as followed: MiD=156 /Cash Message Type (0x8485) = 04, L4.</li> </ul> <p><b>4-</b> Data dictionary updated (comments)</p>
1.3	06 Oct. 2008	<p><b>1-</b> UTP impacts on following fields. Data dictionary updated. Code Indicating the State of The Instrument in NSC (0x86D7),</p>

		<p>Instrument Trading State Indicator (0x42D3),  Last NSC Trade Id (0x4B18),  Last Trade at The Same Price Indicator (0x42E8),  Most Recent Action Code For Instrument State Change (0x42D8),  NSC Depth Ask/Bid Level 1 to 11,  NSC instance ID (0x871B),  Origin Of Market Information Indicator (0x42E9),  TOP Bid/Ask Price (0x6199 and 0x619A).</p> <p><b>2-</b> Period Side (0x43C4) missed from the previous version.</p> <p><b>3-</b> Bug fixed-  Order Priority Timestamp (0x5186) is able to include the hundredth seconds. A new data field Order Priority Timestamp Micro (0x4B8D) has been added showing the microsecond portion of the original Order Priority Timestamp field.</p> <ul style="list-style-type: none"> <li>Implemented in msg characterized as followed:  MiD=156 /Cash Message Type (0x8485) = S3.</li> </ul>
1.4	31 Oct. 2008	<p>1- Modification of the comments for Type of last Price (0x489C).</p> <p><b>2-</b> Adjustments on fields  Most Recent Action Code For Instrument State Change (0x42D8),  Instrument Trading State Indicator (0x42D3),</p> <p><b>3-</b> Nyse Arca Europe financial Market code and Market feed code added.</p>
<b>1.5</b>	<b>15 Mar. 2009</b>	<p><b>1-</b> UK Price currency information (Static information in 151 messages).</p> <ul style="list-style-type: none"> <li>Strike_Price (0x63FC),  Strike_Price_Currency (0x8792),  Change_Rate_Coefficient (0x63FD),  Change_Rate_Indicator_Traded_Price (0x43C5),  Change_Rate_Indicator_Strike_Price (0x43C6).</li> </ul> <p>These new fields are created and implemented in msg characterised as followed:  MiD=151 /Cash Message Type (0x8485) = H3, J3.</p> <p><b>2-</b> SmartPool financial Market code and Market feed code added.</p>

## Associated Documents

The following lists the associated documents, which either should be read in conjunction with this document or which provide other relevant information for the user:

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# 1. Cash Markets Transmission Schedule

## 1.1 Before Trading Hours

### 1.1.1 Process Static Data Refresh

MESSAGE IDENTIFICATION SECTION		
Data Field	Value	Remark
MESSAGE IDENTITY	151	Static Data Refresh
MESSAGE INFORMATION SECTION		
Data Field	Value	Remark
UNIQUE OUTPUT KEY		Unique message identifier attached to broadcast output messages for data recovery.
BROADCAST TIMESTAMP		

The DATA IDENTIFICATION section determines the instrument type to which the static data refers.

DATA IDENTIFICATION SECTION		
Data Field	Value	Remark
EIID		
INSTRUMENT TYPE		
DATA SECTION (Data fields have been provided in alphabetical order by field name)		
Data Field	Value	Remark
ALPHABETICAL SEQUENCE NUMBER ON THE OFFICIAL QUOTATION LIST		
AMOUNT OF THE FIXED PRICE TICK		
AMOUNT PAR VALUE		
BIC CODE OF DEPOSITARY OR SETTLEMENT SYSTEM		
BROAD INSTRUMENT CATEGORY		
CASH MESSAGE TYPE	H3, A5	
CFI CODE		
CHANGE RATE COEFFICIENT		
CHANGE RATE INDICATOR CURRENCY TRADED PRICE		
CHANGE RATE INDICATOR CURRENCY STRIKE PRICE		
DATE INSTRUMENT LAST TRADED		

DEPOSITORY OR SETTLEMENT SYSTEM		
DEPOSITORY OR SETTLEMENT SYS ID LIST		
DERIVATIVE INSTRUMENTS ASSOCIATED		
EVENT TIMESTAMP		
EXPIRY DATE OF LENDING SECURITY		
FINANCIAL MARKET CODE		
FIRST POSSIBLE SETTLEMENT DATE		
FREQUENCY OF INDEX CALCULATION		
FTSE ID FOR SUB-SECTOR		
HUB SEQUENCE NUMBER		
ICB CLASSIFICATION		
INDEX OF THE SET OF VARIABLE PRICE TICK		
INDICATOR OF UNDERLYING SECURITY ON LENDING MARKET		
INSTRUMENT GROUP CODE		
INSTRUMENT LONG NAME		
ISIN CODE		
ISIN CODE OF UNDERLYING SECURITY FOR LENDING MARKET		
ISSUING COUNTRY CODE		
IVAL INSTRUMENT TYPE		
LAST FOR INDEX		
LAST PRICE FOR THE PREVIOUS TRADED DAY (ADJUSTED)		
LIST OF SECURITIES BELONGING TO THE INDEX		
MARKET FEED CODE		
MIC (MARKET IDENTIFICATION CODE)		
<b>MIC LIST</b>		
MINIMUM TRADEABLE QUANTITY		
MNEMONIC CODE		
NUMBER OF INSTRUMENT TRADED ON PREVIOUS DAY		
NUMBER OF SHARES ISSUED		
OFFICIAL QUOTATION LIST CLASSIFICATION		
PREVIOUS DAY'S REFERENCE CLOSING INDEX		
PREVIOUS TRADING DAY VOLUME IN CAPITAL		
PRICE UNIT TYPE		
QUANTITY NOTATION		
SHORT INSTRUMENT ID CODE		

STOCK EXCHANGE CODE		
STRIKE PRICE		
STRIKE PRICE CURRENCY		
TAX DEDUCTIBILITY CODE		
TOTAL NUMBER OF SECURITIES IN THE INDEX		
TRADING CURRENCY		
TYPE OF CORPORATE EVENT		
TYPE OF MARKET ADMISSION		
UNDERLYING ISIN CODE		
UTC HOURS		
UTC HOURS 2		

### INSTRUMENT GROUP

DATA IDENTIFICATION SECTION		
Data Field	Value	Remark
EIID		
INSTRUMENT TYPE		INSTRUMENT GROUP
DATA SECTION		
Data Field	Value	Remark
STOCK GROUP CODE		For Instrument Group only

## 1.2 During Trading Hours

### 1.2.1 Process Static Data Update

<b>MESSAGE IDENTIFICATION SECTION</b>		
<b>Data Field</b>	<b>Value</b>	<b>Remark</b>
MESSAGE IDENTITY	151	Static Data Refresh
<b>MESSAGE INFORMATION SECTION</b>		
<b>Data Field</b>	<b>Value</b>	<b>Remark</b>
UNIQUE OUTPUT KEY		Unique message identifier attached to broadcast output messages for data recovery.
BROADCAST TIMESTAMP		

The DATA IDENTIFICATION section determines the instrument type to which the static data refers.

<b>DATA IDENTIFICATION SECTION</b>		
<b>Data Field</b>	<b>Value</b>	<b>Remark</b>
EIID		
INSTRUMENT TYPE		INSTRUMENT GROUP
<b>DATA SECTION</b>		
<b>Data Field</b>	<b>Value</b>	<b>Remark</b>
STOCK GROUP CODE		For Instrument Group only

## 1.2.2 Process Price Data Update

MESSAGE IDENTIFICATION SECTION		
Data Field	Value	Remark
MESSAGE IDENTITY	156	Price Data Update
MESSAGE INFORMATION SECTION		
Data Field	Value	Remark
UNIQUE OUTPUT KEY		Unique message identifier attached to broadcast output messages for data recovery.
BROADCAST TIMESTAMP		

The DATA IDENTIFICATION section determines the instrument type to which the quote or trade refers.

DATA IDENTIFICATION SECTION (Data fields have been provided in alphabetical order by field name)																									
Data Field	Value																							Remark	
EIID																								Euronext Trading Code Specific value for CASH MESSAGE TYPE S0, 'K' Specific value for CASH MESSAGE TYPE 23, 'N'	
INSTRUMENT TYPE																								Refer to the EMF General Appendix.	
DATA SECTION																									
Data Field																									
	Depending on the <i>CASH Message TYPE</i> value, ticked fields are presents, in the Price Data Update message (156). Note, for instruments traded on UTP, the fields associated to the <i>Cash message Type = A6</i> will not be available.																								
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	10
				L4																					
ADJUSTMENT COEFFICIENT FOR THE BASE CAPITALISATION OF AN INDEX																					✓				
ADDRESS TYPE								✓																	
AMOUNT SECURITY ASK PRICE																						✓			
AMOUNT SECURITY BID PRICE																						✓			
AVERAGE PERCENTAGE OF VARIATION FOR DECLINING INSTRUMENTS IN INDEX																				✓					
AVERAGE PERCENTAGE OF VARIATION FOR RISING INSTRUMENTS IN INDEX																				✓					
BEST ASK PRICE																								✓	
BEST BID PRICE																								✓	
BUYING PRICE OF THE WEIGHTED AVERAGE SPREAD														✓											
CASH MESSAGE TYPE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CHANGE IN EURO INTERBANK RATE								✓																	
CODE INDICATING THE STATE OF THE INSTRUMENT IN NSC				✓																					

	Depending on the <i>CASH Message TYPE</i> value, ticked fields are presents, in the Price Data Update message (156).																									
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	10	
CROSS ORDER INDICATOR	✓	✓		L4																						
CURRENT DAY'S TCS CUMULATIVE VOLUME																										✓
CURRENT DAY'S TCS TRADE TURNOVER																										✓
DATE FOR DAYS SUMMARY PRICE AND AMOUNT																									✓	
DAY AMOUNT OF CAPITAL TRADED																									✓	
DETAILS MEMBER SENDING BBO																					✓					
EMAIL MESSAGE								✓																		
EMAIL MESSAGE NUMBER								✓																		
END TIME FOR VWAP COMPUTATION PERIOD																										✓
EURO INTERBANK RATE IN ANOTHER CURRENCY							✓																			
EVENT TIMESTAMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FINANCIAL MARKET CODE FOR THE SECURITY																										✓
GLOBAL PROFITABILITY INDEX (Gross Return)																				✓						
HUB SEQUENCE NUMBER	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
INDEX																				✓						
INDEX LEVEL INDICATOR																				✓						
INDEX2																				✓						
INDICATOR FOR CHANGE IN EURO INTERBANK RATE							✓																			
INDICATOR GIVING ORIGIN OF INSTRUMENT RESERVATION				✓																						
INDICATOR OF VALUATION PRICE FOR FIRST PRICE										✓																
INSTRUMENT GROUP CODE								✓				✓														
INSTRUMENT STATE CODE IN TCS SYSTEM				✓																						
INSTRUMENT TRADING STATE INDICATOR				✓																						
ISO3A CODE FOR EURO INTERBANK RATE CURRENCY OF EXPRESSION							✓																			
LAST NSC TRADE ID	✓	✓																								
LAST PRICE	✓	✓	✓							✓															✓	
LAST QUANTITY TRADED	✓	✓																								
LAST TCS TRADE ID																										✓
LAST TCS QUANTITY TRADED																										✓

	Depending on the <i>CASH Message TYPE</i> value, ticked fields are presents, in the Price Data Update message (156).																									
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	I0	
LAST TCS TRADE PRICE				L4																						✓
LAST TRADE AT SAME PRICE INDICATOR	✓	✓																								
LIQUIDITY PROVIDER ASK PRICE																						✓				
LIQUIDITY PROVIDER BID PRICE																						✓				
LOWER STATIC THRESHOLD OF FREEZING													✓													
MARKET SHEET ACTION CODE																✓										
MAXIMUM AUTHORISED PRICE FOR BLOCK TRADES OUTSIDE THE TRADING SESSION											✓															
MAXIMUM AUTHORISED PRICE FOR ORDINARY TRADES OUTSIDE THE TRADING SESSION											✓															
<i>MEMBER CODE</i>	<i>Not used.</i>																									
MINIMUM AUTHORISED PRICE FOR BLOCK TRADES OUTSIDE THE TRADING SESSION											✓															
MINIMUM AUTHORISED PRICE FOR ORDINARY TRADES OUTSIDE THE TRADING SESSION											✓															
MOST RECENT ACTION CODE FOR INSTRUMENT STATE CHANGE					✓																					
MOST RECENT THEORETICAL OPENING PRICE									✓																	
MNEMONIC CODE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NAME OF SUBSCRIBER REPRESENTATIVE																							✓			
NATURE OF MESSAGE								✓																		
NET PROFITABILITY INDEX (Net Return)																				✓						
NORMAL MONEY AMOUNT OF BLOCK FOR CALCULATION OF THE WAS														✓												
NSC DEPTH ASK LEVEL from 1 to 11				✓																						
NSC DEPTH BID LEVEL from 1 TO 11				✓																						
NSC INSTANCE ID															✓											
<i>NUMBER OF DAYS COVERED</i>	<i>Not Used</i>																									
NUMBER OF DECLINING INSTRUMENTS IN INDEX																				✓						
NUMBER OF MESSAGE EMAIL								✓																		
NUMBER OF RESERVED INSTRUMENTS IN INDEX																				✓						
NUMBER OF RISING INSTRUMENTS IN INDEX																				✓						
NUMBER OF TRADED INSTRUMENTS																				✓						

	Depending on the CASH Message TYPE value, ticked fields are presents, in the Price Data Update message (156).																									
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	I0	
NUMBER OF SUSPENDED INSTRUMENT IN INDEX				L4																✓						
NUMBER OF UNCHANGED INSTRUMENTS IN INDEX																				✓						
NUMBER OF UNTRADED INSTRUMENTS IN INDEX																				✓						
ORDER DISPLAYED QUANTITY																✓										
ORDER ID																✓	✓									
ORDER PRIORITY TIMESTAMP																✓										
ORDER PRIORITY TIMESTAMP MICRO																✓										
ORIGINAL ORDER PRICE																✓										
ORIGIN OF MARKET INFORMATION INDICATOR		✓		✓																						
PERCENTAGE OF CAPITALIZATION IN INDEX																				✓						
PERCENTAGE OF PRICE VARIATION IN MOST RECENT TRADE FROM LAST REFERENCE PRICE	✓	✓	✓							✓																
PERCENTAGE OF THEORETICAL PRICE VARIATION FROM LAST REFERENCE PRICE									✓																	
PERIOD SIDE					✓																					
PREVIOUS DAY'S REFERENCE CAPITALIZATION FOR THE INDEX																					✓					
PREVIOUS INDICATOR FLAG																				✓						
PRIORITY INDICATOR								✓																		
PROGRAMMED OPENING TIME					✓																					
QUANTITY BOUGHT	Not Used																									
QUANTITY SOLD	Not Used																									
QUOTE CURRENCY CODE																					✓		✓			
QUOTE TYPE																					✓		✓			
SEQUENCE NUMBER EMAIL								✓																		
SELLING PRICE OF THE WEIGHTED AVERAGE SPREAD														✓												
SETTLEMENT PRICE					✓																					
SIDE OF THE ORDER																✓	✓									
SIGN OF PRICE VARIATION IN MOST RECENT TRADE FROM LAST REFERENCE PRICE	✓	✓	✓							✓																
SIGN OF PRICE VARIATION IN THE MOST RECENT TRADE FROM PREVIOUS PRICE	✓	✓								✓																
SIGN OF THEORETICAL PRICE VARIATION FROM LAST REFERENCE PRICE									✓																	
START DATE FOR SUSPENSION					✓																					

	Depending on the <i>CASH Message TYPE</i> value, ticked fields are presents, in the Price Data Update message (156).																									
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	I0	
START END TRANSMISSION INDICATOR				L4											✓											
START TIME FOR SUSPENSION					✓																					
START TIME FOR VWAP COMPUTATION PERIOD																										✓
SUBSCRIBER ID																						✓	✓			
SUBSCRIBER ID BEST ASK PRICE																								✓		
SUBSCRIBER ID BEST BID PRICE																								✓		
TCS BLOCK-TRADE CODE																										✓
TCS CHANGE TRADING DAY INDICATOR													✓													
TCS DATE ORIGINAL DECLARATIONS WERE MATCHED																										✓
TCS EFFECTIVE DATE OF TRADE INDICATOR																										✓
TCS FIRST																										✓
TCS HIGH																										✓
TCS LAST																										✓
TCS LOW																										✓
TCS TIME ORIGINAL DECLARATIONS WERE MATCHED																										✓
TCS TRADE CANCELLATION INDICATOR																										✓
TCS TRADE MESSAGE SUB-TYPE CODE																										✓
TCS TRADE TYPE																										✓
TEL OF SUBSCRIBER REPRESENTATIVE																								✓		
TODAY'S FIRST INSTRUMENT PRICE										✓																
TODAY'S FIRST PRICE ON TCS AND NSC																									✓	
TODAY'S FIRST REAL-TIME INDEX LEVEL																						✓				
TODAY'S FIRST REAL-TIME INDEX LEVEL TIME																						✓				
TODAY'S HIGHEST INDEX LEVEL																				✓	✓					
TODAY'S HIGHEST INDEX LEVEL TIME																				✓	✓					
TODAY'S HIGHEST INSTRUMENT PRICE		✓	✓							✓																
TODAY'S HIGHEST PRICE ON TCS AND NSC																									✓	
TODAY'S LAST PRICE ON TCS AND NSC																									✓	
TODAY'S LOWEST INDEX LEVEL																				✓	✓					
TODAY'S LOWEST INDEX LEVEL TIME																				✓	✓					

	Depending on the <i>CASH Message TYPE</i> value, ticked fields are presents, in the Price Data Update message (156).																								
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	I0
TODAY'S LOWEST INSTRUMENT PRICE		✓	✓	L4						✓															
TODAY'S LOWEST PRICE ON TCS AND NSC																									✓
TODAY'S REFERENCE AT-EXPIRATION SETTLEMENT INDEX LEVEL																					✓				
TODAY'S REFERENCE AT-EXPIRATION SETTLEMENT INDEX LEVEL TIME																					✓				
TODAY'S REFERENCE CLOSING INDEX LEVEL																					✓				
TODAY'S REFERENCE CLOSING INDEX LEVEL TIME																					✓				
TODAY'S REFERENCE CLOSING INDEX LEVEL (GROSS RETURN)																					✓				
TODAY'S REFERENCE CLOSING INDEX LEVEL (NET RETURN)																					✓				
TODAY'S REFERENCE OPENING INDEX LEVEL																					✓				
TODAY'S REFERENCE OPENING INDEX LEVEL TIME																					✓				
TODAY'S REFERENCE PRELIMINARY OPENING INDEX LEVEL																					✓				
TODAY'S REFERENCE PRELIMINARY OPENING INDEX LEVEL TIME																					✓				
TODAY'S REFERENCE DAILY SETTLEMENT INDEX LEVEL																					✓				
TODAY'S REFERENCE DAILY SETTLEMENT INDEX LEVEL TIME																					✓				
TOP BID PRICE																					✓				
TOP ASK PRICE																					✓				
TOTAL GROSS DIVIDENDS DETACHED TODAY FOR ALL INSTRUMENTS IN INDEX																					✓				
TOTAL NET DIVIDENDS DETACHED TODAY FOR ALL INSTRUMENTS IN INDEX																					✓				
TOTAL NUMBER OF SECURITIES IN THE INDEX																					✓				
TOTAL NUMBER OF TRANSMITTER PROCESS																✓									
TOTAL QUANTITY TRADED TODAY	✓	✓								✓															
TRADE CANCEL FLAG		✓																							
TRADING VENUE																									✓
TYPE OF DELETION																					✓				
TYPE OF LAST PRICE			✓							✓											✓				
TYPE OF PRICE ENTERED																	✓								
TYPE OF RATE FOR CURRENCY RATE UPDATE								✓																	
TYPE OF SUBSCRIBER REPRESENTATIVE																							✓		
UPPER STATIC THRESHOLD OF FREEZING													✓												

	Depending on the <i>CASH Message TYPE</i> value, ticked fields are presents, in the Price Data Update message (156).																									
	01	02	03	04	05	10	13	23	30	32	34	35	37	38	S0	S3	S4	A6	B1	B2	B4	B5	B6	B9	I0	
VARIATION FOR INSTRUMENT IN INDEX				L4																✓						
VARIATION FORERUNNER																				✓						
VARIATION INDEX FROM LIQUID DAY																				✓						
VARIATION INDEX FROM PREVIOUS DAY																				✓						
VARIATION INDEX FROM PREVIOUS YEAR																				✓						
VARIATION OF TODAY'S HIGHEST INDEX LEVEL FROM PREVIOUS DAY'S CLOSING																					✓					
VARIATION OF TODAY'S LOWEST INDEX LEVEL FROM PREVIOUS DAY'S CLOSING																					✓					
VARIATION OF TODAY'S PRICE FROM REFERENCE PRICE	✓	✓	✓						✓	✓																
VARIATION OF TODAY'S REFERENCE CLOSING INDEX LEVEL FROM PREVIOUS DAY																					✓					

## INSTRUMENT GROUP

<b>DATA IDENTIFICATION SECTION</b>		
<b>Data Field</b>	<b>Value</b>	<b>Remark</b>
EIID		
INSTRUMENT TYPE		
<b>DATA SECTION</b>		
<b>Data Field</b>	<b>Value</b>	<b>Remark</b>
CASH MESSAGE TYPE	39, 16	
EVENT TIMESTAMP		
HUB SEQUENCE NUMBER		
STOCK GROUP CODE		
STOCK GROUP STATUS CODE		
TIME OF CLOSING 1		
TIME OF CLOSING 2		
TIME OF CLOSING 3		
TIME OF END-OF-DAY CONSOLATION		
TIME OF OPENING 1		
TIME OF OPENING 2		
TIME OF OPENING 3		
TIME OF PRE-OPENING 1		
TIME OF PRE-OPENING 2		
TIME OF PRE-OPENING 3		

## 1.3 After Trading Hours

### 1.3.1 Process Static Data Refresh

MESSAGE IDENTIFICATION SECTION		
Data Field	Value	Remark
MESSAGE IDENTITY	151	Static Data Refresh
MESSAGE INFORMATION SECTION		
Data Field	Value	Remark
UNIQUE OUTPUT KEY		Unique message identifier attached to broadcast output messages for data recovery.
BROADCAST TIMESTAMP		

The DATA IDENTIFICATION section determines the instrument type to which the static data refers.

DATA IDENTIFICATION SECTION		
Data Field	Value	Remark
EIID		
INSTRUMENT TYPE		
DATA SECTION (Data fields have been provided in alphabetical order by field name)		
Data Field	Value	Remark
ALPHABETICAL SEQUENCE NUMBER ON THE OFFICIAL QUOTATION LIST		
AMOUNT OF THE FIXED PRICE TICK		
AMOUNT PAR VALUE		
BIC CODE OF DEPOSITARY OR SETTLEMENT SYSTEM		
BROAD INSTRUMENT CATEGORY		
CASH MESSAGE TYPE	J3	
CFI CODE		
CHANGE RATE COEFFICIENT		
CHANGE RATE INDICATOR CURRENCY TRADED PRICE		
CHANGE RATE INDICATOR CURRENCY STRIKE PRICE		
DEPOSITARY OR SETTLEMENT SYSTEM		
DEPOSITARY OR SETTLEMENT SYS ID LIST		
DERIVATIVE INSTRUMENTS ASSOCIATED		
EXPIRY DATE OF LENDING SECURITY		

EVENT TIMESTAMP		
FINANCIAL MARKET CODE		
FIRST POSSIBLE SETTLEMENT DATE		
FTSE ID FOR SUB-SECTOR		
HUB SEQUENCE NUMBER		
ICB CLASSIFICATION		
INDEX OF THE SET OF VARIABLE PRICE TICK		
INDICATOR OF UNDERLYING SECURITY ON LENDING MARKET		
INSTRUMENT GROUP CODE		
INSTRUMENT LONG NAME		
ISIN CODE		
ISIN CODE OF UNDERLYING SECURITY FOR LENDING MARKET		
ISSUING COUNTRY CODE		
IVAL INSTRUMENT TYPE		
MARKET FEED CODE		
MIC (MARKET IDENTIFICATION CODE)		
MIC LIST		
MINIMUM TRADEABLE QUANTITY		
MNEMONIC CODE		
NUMBER OF SHARES ISSUED		
OFFICIAL QUOTATION LIST CLASSIFICATION		
PRICE UNIT TYPE		
QUANTITY NOTATION		
STOCK EXCHANGE CODE		
SHORT INSTRUMENT ID CODE		
STRIKE PRICE		
STRIKE PRICE CURRENCY		
TAX DEDUCTIBILITY CODE		
TRADING CURRENCY		
TYPE OF CORPORATE EVENT		
TYPE OF MARKET ADMISSION		
UNDERLYING ISIN CODE		
UTC HOURS		
UTC HOURS 2		

## 1.4 Data Field Directory

FIELD NAME	FID	DATA TYPE	DESCRIPTION
ADJUSTMENT COEFFICIENT FOR THE BASE CAPITALISATION OF AN INDEX	0x65BB	Long Decimal	<p>The number without units by which the base market capitalisation for a given stock index should be multiplied to neutralize the effect on the unadjusted-for-dividends index level of all change-of-capital corporate events that have been applied (to the instruments in the index sample) since the date that this base capitalisation was calculated.</p> <p>This coefficient is updated at the beginning of each trading day D, based on the corporate events effective on day D. The coefficient is obtained using the following formula:</p> $\text{coeff (D)} = \text{coeff (D-1)} * (\text{Cap-after-CE (D)} / \text{Cap-before-CE (D)})$ <p>where:</p> <p>Coeff (D) = adjustment coefficient for the base capitalization of the index, on the given date D</p> <p>Coeff (D-1) = adjustment coefficient for the base capitalization of the index, on the previous trading day</p> <p>Cap-after-CE (D) = previous day's reference capitalization for index I after corporate events effective on day D = Sum for all instruments V in the index sample of the following calculation : Number of shares of V in I after applying the corporate events effective on day D * Adjusted reference price of V on D-1 * Capitalization adjustment coefficient for V in I.</p> <p>Cap-before-CE (D) = previous day's reference capitalization for index I before corporate events effective on day J = Sum for all instruments V in the index sample of the following calculation : Number of shares of V in I before applying the corporate events effective on day D * Non-adjusted reference price of V on J-1 * Capitalization adjustment coefficient for V in I.</p>
ADDRESS TYPE	0x8782	String	<p>Indicates the users to whom the message is addressed.</p> <ul style="list-style-type: none"> <li>. TO TOPCAC message.</li> <li>. FI FIM message.</li> <li>. FT FIM and TOPCAC message</li> </ul>
ALPHABETICAL SEQUENCE NUMBER ON THE OFFICIAL QUOTATION LIST	0x85B5	String	<p>Sequence number for a security within a heading or sub-heading in the « Bulletin de la Cote Officielle ».</p> <p>Possible values / Restrictions:</p> <p>Numeric value greater than zero</p> <p>Must be used with the Cote Officielle (Official Quotation List) section number and heading number.</p>
AMOUNT PAR VALUE	0x48A1	Integer	Amount par value for instrument for calculating trade amount.
AMOUNT OF THE FIXED PRICE TICK	0x6336	decimal	The degree of precision with which the price of an instrument or the limit of an order can be expressed, when the degree of precision is fixed. That is when it is not associated with a given range for a price or limit. The degree of precision is expressed in the trading currency of the instrument. If the price tick is variable, a value is not provided for this data item. In applications that round off to the price tick or that check limits, the price tick is then determined from the

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			index of the set of variable prices ticks for the instrument.
AMOUNT SECURITY ASK PRICE	0x4B8C	Integer	Amount of security that the Liquidity Provider can buy at the given ask price
AMOUNT SECURITY BID PRICE	0x4B8B	Integer	Amount of security that this Liquidity Provider can sell at the given bid price
AVERAGE PERCENTAGE OF VARIATION FOR DECLINING INSTRUMENTS IN INDEX	0x632A	Decimal	Indicates the average percentage of variation for declining instrument in the index. Absolute value.
AVERAGE PERCENTAGE OF VARIATION FOR RISING INSTRUMENTS IN INDEX	0x632B	Decimal	Indicates the average percentage of variation for rising instrument in the index. Absolute value.
BEST ASK PRICE	0x62F7	Decimal	The lowest ask price available among all valid, complete quotes at the time that the calculation for this message is made. (A complete quote is a quote that has a quantity and a price other than zero.). The ask price is expressed in the currency appropriate for the given security.
BEST BID PRICE	0x62F6	Decimal	The highest bid price available among all valid, complete quotes at the time that the calculation for this message is made. (A complete quote is a quote that has a quantity and a price other than zero.). The bid price is expressed in the currency appropriate for the given security
BIC CODE OF DEPOSITARY OR SETTLEMENT SYSTEM	0x85C4	String	<p>Identifies the depository organisation for the instrument, or when the same organisation manages several systems. This value identifies the relevant settlement system for settling trades on a given instrument. The ID is allocated by SWIFT, according to the BIC standard (ISO 9362).</p> <p>Used by Euronext NV's Clearing 21® system to determine the relevant system for settling trades in a Brussels-listed instrument (the Bank of Belgium's X/N system or VIF system), and thus, the time at which the transactions must be sent during the operating day, and the format in which they must be sent.</p> <p>Permitted Values :</p> <p>Spaces if not provided.</p>
BROAD INSTRUMENT CATEGORY	0x41AB	Character	<p>The code is a characteristic of the security, and defines the category to which it belongs</p> <p>Possible values / Restrictions:</p> <p>'A' - Stock</p> <p>'O' - Bond</p> <p>'D' - Miscellaneous.</p>
BROADCAST TIMESTAMP	0x7711	Long Integer	This timestamp placed by the broadcasting system allows a determination of elapsed time between the transmission and processing by a client application. It can be used by a client application to ignore the oldest messages in case of delay, and help catch up with the real time feed. The value of this field is the number of elapsed micro-seconds since midnight of the current day
BUYING PRICE OF THE WEIGHTED AVERAGE SPREAD	0x62F2	Decimal	Average price at which the shares of a given instrument can be sold for a predetermined money amount, expressed by the data item Normal Money

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>Amount of Block for calculation of the WAS.</p> <p>This price is calculated according to the price limits and the displayed quantities that are present in the buy order book when the Weighted Average Spread is calculated. According to Euronext's rule book, this price must not be more than 5% lower than the best buy limit.</p> <p>When the field is updated :</p> <p>After an instrument's opening or an group's opening;</p> <p>When the shown quantity of an order is modified, but only if this modification makes vary the WAS. Should the opposite occur, the WAS is not resent;</p> <p>When the Normal Money Block Amount is changed;</p> <p>When a global cancellation of the orders for a member is made;</p> <p>Sent to zero during an instrument's suspension or an instrument's reservation;</p> <p>Every 30 seconds during trading on the continuous market when an order is introduced, modified or cancelled in the system, which would change the WAS;</p> <p>Sent to zero (purchase WAS and sell WAS both filled with zero) on an opened instrument in session, if one of the sides of its order book does not contain orders.</p>
CASH MESSAGE TYPE	0x8485	String	Code identifying data type and format contained in the application message.
CFI CODE	0x871F	String	CFI (Classification of Financial Instrument) code identifying the type of instrument, according to ISO 10962
CHANGE IN EURO INTERBANK RATE	0x62EE	Decimal	Percentage variation for Euro interbank rate in relation to previous rate (rate for the "previous day").
CHANGE RATE COEFFICIENT	0x63FD	Decimal	<p>Change ratio coefficient of currency applied on instrument: Used in conjunction with one of the change rate indicators in order to apply this coefficient on a currency among two available currencies defined for the instrument:</p> <ul style="list-style-type: none"> <li>- Trading currency</li> <li>- Currency code of strike price for Derivative Instrument</li> </ul> <p>The currency on which this coefficient will be applied is only depending on one of the two values set to the related indicators (defined below in the integrity constraints).</p> <p>This coefficient is used when the currency is not compliant with the ISO 4217 (3A) standard as pence (GBP) or cent (USD) expression of an official currency. In this case the formula to apply for retrieving the price expressed in an official currency is:</p> <p>Real price in Trading currency = Traded price (i.e. 1565 pence) x Change ratio coefficient value (0.01)</p>
CHANGE RATE INDICATOR CURRENCY TRADED PRICE	0x43C5	Character	<p>Indicates if the change rate will be applied on the currency defined for traded prices of the instrument.</p> <p>Possible values:</p> <p>"0' Change rate not applied on the traded price.</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			'1' Change rate applied on the traded price
CHANGE RATE INDICATOR CURRENCY STRIKE PRICE	0x43C6	Character	Indicates if the change rate will be applied on the currency defined for strike prices of the instrument.  Possible values:  "0" Change rate not applied on the strike price. "1" Change rate applied on the strike price
CODE INDICATING THE STATE OF THE INSTRUMENT IN NSC	0x86D7	String	The instrument's trading status. This determines the functions that are authorised on the instrument and the management rules related to order entry and processing A value is always provided for this field. Possible values / Restrictions: <u>For instruments traded on NSC</u> 1st character: 'I' - inhibited 'A' - authorised 2nd character: Space - open or not provided 'S' - suspended 'R' - reserved 'G' - Frozen  <u>For instrument s traded on UTP:</u> 1st character: 'I' - for inherited(from its class) with orders rejection. 'A' - for inherited (from its classwith orders entry authorized. 2nd character: ' ' - blank - open. 'S' - halted Note, ' <i>inherited</i> ', the instrument state follows the state of its Class (Group).
CROSS ORDER INDICATOR	0x42E7	Character	Indicates the last trade on the centralised market concerns an application-type trade (cross trade)  Possible values / Restrictions:  '0' - if the trade is not a cross order.  '1' - if the trade is a classical cross order.  '3' - if the order is a cross order stemming from a basket  '4' - if the order is a valuation trade.
CURRENT DAY'S TCS CUMULATIVE VOLUME	0x770C	Long Integer	Cumulative volume of the TCS trades disseminated during the current trading day
CURRENT DAY'S TCS TRADE TURNOVER	0x67BC	Long Decimal	Cumulative turnover of the TCS trades disseminated during the current trading day.

FIELD NAME	FID	DATA TYPE	DESCRIPTION
DATE FOR DAYS SUMMARY PRICE AND AMOUNT	0x848A	String	Date for the trading day on which the TCS and NSC trades occurred that are included in the day's summary of prices and amount traded for a given listed instrument. In conjunction with the listed instrument ID, this date makes it possible to identify a summary of prices and amount of capital traded
DATE INSTRUMENT LAST TRADED	0x848B	String	Date of the last trading day during which a trade was executed for the security in question, not including the current trading day.  In the format "AAAAMMJJ" (YYYYMMDD).  Possible values / Restrictions  Present from the day following the first quotation of the security.
DAY AMOUNT OF CAPITAL TRADED	0x67BD	Long Decimal	Sum of the capital traded in TCS trades published during a given TCS session plus the capital traded in NSC trades occurring on a given day for a given listed instrument.  The following TCS trades are taken into account:  - the TCS trades declared the previous day after the TCS session (and therefore published during the TCS session of the current day)  - the TCS trades declared and broadcast during the TCS session of the current day  This sum is expressed in the trading currency of the instrument.
DEPOSITORY OR SETTLEMENT SYSTEM	0x85C0	String	Identifies the main or default depository organization for the instrument associated with a listed instrument or - when the same depository manages several systems, this item identifies the relevant settlement system for settling trades on this listed instrument.  The ID of the main depository belongs to the list of depositories.  Used by Euronext NV's C21 system to determine the relevant system for settling trades.  Permitted Values:  '00001' - Euroclear France '00002' - CIK (Belgium) '00003' - NECIGEF (the Netherlands) '00004' - X/N (BoB's system) '00005' - VIF (non-fungible Belgian instruments) '00006' - Euroclear bank '00007' - NIEC '00008' - Physical '00009' - Euronext Paris non Euroclear France '00010' - Interbolsa '00000' - no depository organisation Space - non significant.
DEPOSITORY OR SETTLEMENT SYS ID LIST	0x83EF	Byte Array	List of ID of depository or settlement system of the instrument.  Field structure is an array of 5-char string.
DERIVATIVE INSTRUMENTS ASSOCIATED	0x41B3	Character	This field indicates the type of derivative instrument associated with the security: Monep (option), ETF, etc.  Possible values / Restrictions:  Always provided

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			'1' - INAV (Indicative net asset value for ETF) '4' - Supports options (only for Paris) '9' - No
DETAILS MEMBER SENDING BBO	0x878B	String	Free text displaying all the information needed to contact the market maker's representative on Alternext.
EMAIL MESSAGE	0x8783	String	Gives the title and the text of the E-mail message. If the message is urgent, the title can indicate this.  Enables the Cash Market Operations to inform member firms by means of text messages.  The length of this E-mail message when transmitted varies depending on the length of this field
EMAIL MESSAGE NUMBER	0x47D2	Short Integer	Aids in rebuilding an E-mail message that was sent as several messages. Reset to zero every day.  The message number is increased by 1 each time the Cash Market Operations sends an entirely new E-mail message
END TIME FOR VWAP COMPUTATION PERIOD	0x5BF2	Time	Indicates, for the last TCS trades with trade type=E (VWAP operation), the boundary for the end time of the period used for the determination of the VWAP reference price
EURO INTERBANK RATE IN ANOTHER CURRENCY	0x62EB	Decimal	Official rate for the Euro, expressed in another currency.  This rate is published daily by the French national bank "Banque de France".  Setting of the buying and selling price for 1 Euro in an interbank currency.
EURONEXT CODE	0x85A5	String	Euronext Code of the instrument. Can differ if the ISIN code (if the instrument is multi-listed).
EVENT TIMESTAMP	0x53E5	Date Time	Event Timestamp
EXPIRY DATE OF LENDING SECURITY	0x848D	String	Last date (inclusive) on which loan contract security can be traded.  Date Format "YYYYMMDD"  Default value zero  Possible values / Restrictions:  Date value entered on creation of security  Non-zero value if and only if security is listed on lending market
FINANCIAL MARKET CODE	0x8788	String	
FINANCIAL MARKET CODE FOR THE SECURITY	0x4318	Character	Nature of the operation from which originates a TCS trade.
FIRST POSSIBLE SETTLEMENT DATE	0x848E	String	Represents the first possible settlement date for a given instrument with the instrument's depository. When this date is not provided, it means that the first possible settlement date is the same as the instrument's flotation date. This item is provided solely for Amsterdam-listed instruments of the type As If and When Issues. In other words, it is provided solely for new issues for which the first settlement date is a considerable length of time in the future, or is still not known even though it is already possible to trade the instrument. As long as the date remains unknown, this is a fictitious date that must be modified as soon

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>as the real date is known. In terms of instrument types, the instrument can be either a bond or a warrant.</p> <p>This value is determined as follows:</p> <p>if the marketplace = 038 (Amsterdam), then</p> <p>If the instrument is a bond, then the first possible settlement date is the settlement date for the issue price (taken from the Bond Characteristics message) if this value is not set to zero.</p> <p>If the instrument is a warrant, then the first possible settlement date is the settlement date for the issue price (taken from the Warrant Characteristics message) if this value is not set to zero.</p> <p>In all other cases, this value is not provided.</p> <p>Used by Euronext NV's C21 system in the rule for determining the theoretical settlement date for a trade.</p> <p>Permitted Values:</p> <p>YYYYMMDD format.</p> <p>20111111 is the date used for Dutch warrants for which the settlement date is unknown at the time the instrument is floated.</p> <p>Spaces if not provided.</p>
FIX AMOUNT TICK SIZE	0x6336	decimal	<p>The degree of precision with which the price of an instrument or the limit of an order can be expressed, when the degree of precision is fixed. That is when it is not associated with a given range for a price or limit. The degree of precision is expressed in the trading currency of the instrument. If the price tick is variable, a value is not provided for this data item. In applications that round off to the price tick or that check limits, the price tick is then determined from the index of the set of variable prices ticks for the instrument.</p>
FREQUENCY OF INDEX CALCULATION	0x42D0	Character	<p>How often the stock index is calculated, with two possible options:</p> <p>Continuous calculation: An index level is calculated at regular time intervals.</p> <p>Discontinuous calculation: An index level is calculated based on the first and last prices of each trading day.</p> <p>Possible values/restrictions:</p> <p>'C' - Continuous calculation of the stock index.</p> <p>'D' - Discontinuous calculation of the stock index.</p>
FTSE ID FOR SUB-SECTOR	0x85C2	String	<p>Identifies a subsector within the classification system for issuers as defined by FTSE International. (The FTSE classification system is composed of three levels: economic group, sector and subsector.) This code is an ID within its own right - there is no need to attach the prefix for its economic group in order for the ID to be unique.</p> <p>Possible values / Restrictions :</p> <p>Not provided for level 1 market index-type instruments (indices for which the sample comprises all or some of the instruments that belong to an economic group), nor for level 2 market index-type instruments (indices for which the sample comprises all or some of the</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			instruments that belong to a given sector). See appendix 1 for list of values
GLOBAL PROFITABILITY INDEX	0x63F1	Decimal	Indice, is calculated by adding in the net coupon plus the tax credit. It provides standards for measuring the performance of French equity portfolios.  - For discontinuous indices, it is broadcasted at opening and closing of the trading day.  - Always 0 for NextWeather
HUB SEQUENCE NUMBER	0x7590	Long Integer	
ICB CLASSIFICATION	0x8560	String	ICB ID for economic sub-sector of the issuing company
INDEX	0X63E9	Decimal	
INDEX LEVEL INDICATOR	0x43BB	Character	The identifier for the first index, real-time index, forerunner index, clearing index, reference index, average clearing index, liquidation index, etc.  Identifies the level (type) of index described in the message so that the data can be properly interpreted.  <ul style="list-style-type: none"> <li>. 1 First index.</li> <li>. 2 Real-time index.</li> <li>. 3 Forerunner (éclaireur) index.</li> <li>. 4 Not used.</li> <li>. 5 Reference index.</li> <li>. 6 Options clearing index.</li> <li>. 7 Options liquidation index.</li> <li>. 8 Pre-Opening forerunner index.</li> <li>. 9 Opening forerunner index.</li> <li>. A Opening index.</li> <li>. B Temporary reference for opening index.</li> <li>. C Opening reference index.</li> </ul>
INDEX2	0x63F2	Decimal	
INDEX OF THE SET OF VARIABLE PRICE TICK	0x8790	string	The key for the variable price tick table consists of two data items [the index for a set of variable price ticks, the lowest value in a range of prices]. The index data item refers to a set of lines in that table which make possible to determine the price tick for an instrument, based on the price range in which a given price for the instrument falls (ie a price to be rounded off or a limit to be checked).  When a listed security is created, or when the characteristics of an existing listed security are modified, this data item is (re)initialized to the typical index value for the listed security (if a value is not provided for the Fixed Price Tick data item). This typical index is derived from the following three characteristics: <ul style="list-style-type: none"> <li>• Trading Currency</li> <li>• Broad instrument category associated with the listed security</li> <li>• Trading Group.</li> </ul>
INDICATOR FOR CHANGE IN EURO INTERBANK RATE	0x42ED	Character	Indicator for change in Euro interbank rate / previous rate
INDICATOR GIVING ORIGIN OF INSTRUMENT RESERVATION	0x42D4	Character	Indicates the origin of the reservation of the instrument when the price is beyond the upper or lower limit; that is, indicates whether the instrument was reserved automatically or was reserved manually by the market authority

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>Possible values / Restrictions:</p> <p>'A' - automatic  'M' - manual  Space - Not provided</p> <p>In messages sent by NSC, no value is provided for certain types of instrument state changes (programming of a deferred opening for an instrument, cancellation of a deferred opening).</p>
INDICATOR OF UNDERLYING SECURITY ON LENDING MARKET	0x41BD	Character	<p>Indicates whether security listed on French market underlies any loan contracts.</p> <p>Possible values / Restrictions:</p> <p>'0' - security underlies no loan contract.  '1' - security underlies one or more loan contracts  '2' - security eligible for the different settlement and delivery but not for the loan and lending market.  '3' - security eligible for the load and lending market but not for the different settlement and delivery  '8' - not significant.</p>
INDICATOR OF VALUATION PRICE FOR FIRST PRICE	0x42E6	Character	Indicator of valuation price for first price
INSTRUMENT GROUP CODE	0x85AF	String	<p>For instruments listed in NSC: Designates the NSC group of instruments to which the instrument belongs. (Instruments that are traded by the NSC central trading system can be organised into subsets called groups. Each of these subsets includes instruments that obey the same rules, such as the trading timetable and authorised price fluctuation).</p> <p>The other instruments are grouped according to different, heterogeneous criteria, such as indices calculated by Euronext (group '81'), etc.</p>
INSTRUMENT LONG NAME	0x845D	String	Instrument long name
INSTRUMENT STATE CODE IN TCS SYSTEM	0x42DA	Character	<p>The state of the instrument in TCS determines whether negotiations for the instrument can be entered, and thus whether declarations can be executed as trades</p> <p>In TCS, instrument state changes are decided by Surveillance.</p> <p>Possible values / Restrictions:</p> <p>'S' - instrument inhibited  'A' - instrument authorised  Space - Not significant.</p>
INSTRUMENT TRADING STATE INDICATOR	0x42D3	Character	<p>Indicates whether trading on an instrument is halted, or if trading was halted, whether trading has been resumed.</p> <p>Possible values/restrictions:  Spaces = not provided.</p> <p><u>For instruments traded on NSC</u></p> <p>S - Suspended  H - Reserved, price outside upper limit  B - Reserved, price outside lower limit  R - Trading resumed after the instrument was reserved  P - Simple reservation  ' ' - Other type of transmission (for example cancellation of a programmed opening)</p> <p><u>For instruments trading on UTP,</u>  S – Suspended.</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
ISIN CODE	0x85A4	String	<p>Identifies a security, according to the European system this means that the real ISIN is used here.</p> <p>Possible values / Restrictions:</p> <p>The ISIN code consists of a total of 12 characters, as follows:</p> <p>The first two characters are taken up by the alpha-2 country code in accordance with the international standard ISO 3166 of the country where the issuer of securities is legally registered.</p> <p>The next nine characters are alpha-numerical characters containing the National Securities Identification Number.</p> <p>The final character represents the key of the ISIN code.</p>
ISIN CODE OF UNDERLYING SECURITY FOR LENDING MARKET	0x85B9	String	<p>Designates underlying security for loan contracts, at given value on centralised lending market.</p> <p>The term "lending security" refers to the security used in the loan quotation system.</p> <p>Possible values / Restrictions:</p> <p>Zeros if not provided.</p> <p>Provided if the security in question is listed on the centralised lending market.</p>
ISO3A CODE FOR EURO INTERBANK RATE CURRENCY OF EXPRESSION	0x86EF	String	<p>The currency in which the relevant "Euro interbank currency rate" data is given is codified using the ISO3A (ISO 4217) codes.</p>
ISSUING COUNTRY CODE	0x85A8	String	<p>Country in which the head office of the company issuing the securities is located</p>
IVAL INSTRUMENT TYPE	0x45B4	Short Integer	<p>Groups together securities to which the same data transmission systems, general handling conditions and Euroclear accounting systems apply, and conferring the same rights on shareholders: voting rights, dividends, subscription rights.</p>
LAST FOR INDEX	0x43B9	Char	<p>Indicates whether this is the last 00A5 message for a given index (that is, whether this message is related to the last stock making up the index). Is useful in reconstituting information about the full range of stocks in an index.</p> <p>. 0 This 00A5 message is NOT the last message for the given index.</p> <p>. 1 This 00A5 message IS the last message for the given index.</p>
LAST NSC TRADE ID	0x4B18	Integer	<p>Serves as a reference in identifying and cancelling trades. Unique identifier per instrument. and per day.</p>
LAST PRICE	0x62DF	Decimal	<p>Last price at which instruments were traded on the centralised market</p> <p>For instruments traded in currency, multiplied by quantity allows the total value of the trade to be determined</p> <p>For instruments traded in percentage, multiplied by face value and quantity, allows the total value of the trade to be determined.</p>
LAST PRICE FOR THE PREVIOUS TRADED DAY (ADJUSTED)	0x61DE	Decimal	<p>Last price for the previous traded day (adjusted)</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
LAST QUANTITY TRADED	0x4ADE	Integer	Indicates, for the last trade on the centralised market, how many instruments were traded.
LAST TCS TRADE ID	0x8710	String	<p>Defines an exchange of instruments declared to Euronext via the TCS system. If the Trade Cancellation Indicator is set to 1, identifies a cancelled trade.</p> <p>ID is sent by TCS in the declaration acknowledgement message to parties declaring trades.</p> <p>Serves as a reference in modifying and cancelling declarations.</p>
LAST TCS QUANTITY TRADED	0x4B11	Integer	Number of instruments exchanged in the last TCS trade.
LAST TCS TRADE PRICE	0x6312	Decimal	Price at which the instrument was exchanged in this TCS trade. The price is expressed in the currency used for trading this instrument.
LAST TRADE AT SAME PRICE INDICATOR	0x42E8	Character	<p>Indicates whether the last price on the centralized market describes the last of a series of trades executed at the same price.</p> <p>Possible values / Restrictions:</p> <p><u>For Instruments traded on NSC:</u></p> <p>'1' - if the message is the last of a series of trades at the same price '0' - if not.</p> <p><u>For instruments traded on UTP:</u></p> <p>Filled with blank.</p>
LIQUIDITY PROVIDER ASK PRICE	0x6334	Decimal	<p>Price at which this Liquidity Provider proposes to sell the security.</p> <ul style="list-style-type: none"> <li>. Has a value of zero when the subscriber's Front-End either cancels a previous Liquidity Provider quote or indicates that no Liquidity Provider ask price is being provided.</li> <li>. The price is expressed in the currency appropriate for the given security.</li> <li>. Has a value of zero or is greater than or equal to the Liquidity Provider bid price.</li> </ul>
LIQUIDITY PROVIDER BID PRICE	0x6333	Decimal	<p>Price at which this liquidity provider proposes to buy the security.</p> <ul style="list-style-type: none"> <li>. Has a value of zero when the Subscriber's Front-End either cancels a previous liquidity provider quote or indicates that no liquidity provider bid price is being provided.</li> <li>. The price is expressed in the currency appropriate for the given security.</li> <li>. Must be less than or equal to the Liquidity Provider ask price unless the ask price is zero.</li> </ul>
LIST OF SECURITIES BELONGING TO THE INDEX	0x82CD	Byte Array	<p>List of constituents of an index.</p> <p>For each instrument an array of 37 bytes is present, set up as follows :</p> <p><b>Pos. Len Contents</b>  01-12 12 Long instrument code  13-17 5 Mnemonic code  18-24 7 % in previous day's reference capitalization</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			25-25 1 Decimal point locator 26-37 12 Capitalization adjustment coefficient Such an array appears as many times in the overall 0x82CD as there are instruments in the index, so there is net set maximum length for this byte array
LOWER STATIC THRESHOLD OF FREEZING	0x62FF	Decimal	<p>The minimum authorised price at which an instrument can trade. Thresholds are updated via a surveillance command. Enables Surveillance to control fluctuations in permitted prices.</p> <p>Calculated from the previous day's reference price plus or minus the first variation percentage of the relevant securities group:</p> <p>The static tick limit is in percentage:  <math display="block">\text{SIB} = \text{static reference price} - \text{static reference price} * \text{static tick limit} / 100</math></p> <p>The static tick limit is in discrepancy:  <math display="block">\text{SIB} = \text{static reference price} - \text{static tick limit}</math></p> <p>If the flag of updating thresholds at Opening is set for the group, the static reference price is equal to the first quoted price at opening. If the opening produces no quoted price, the static reference price is the adjusted last day price.</p> <p>Possible values / Restrictions:</p> <p>When the value is « MIN », it means that there is no lower threshold and the price format has the value 0. The value can be zero.</p>
MARKET FEED CODE	0x8787	String	
MARKET SHEET ACTION CODE	0x40FF	Character	<p>Indicates the type of update to make on the market sheet</p> <ul style="list-style-type: none"> <li>. C Creation of an order on the market sheet</li> <li>. M Modification of an order on the market sheet if the order does not lose its priority</li> <li>. R Retransmission of all orders on the market sheet</li> </ul>
MARKET TYPE	0x85CB	String	<p>Defines the type of instrument.</p> <p>Possible values / Restrictions:</p> <ul style="list-style-type: none"> <li>01 - Stock</li> <li>02 - Index</li> <li>03 - Warrant</li> <li>04 - Tracker</li> <li>05 - Bond</li> <li>06 - Repo</li> <li>07 - Funds</li> <li>08 - Options</li> <li>09 - Futures</li> <li>10 - Commodities</li> <li>11 - Currency.</li> </ul>
MAXIMUM AUTHORISED PRICE FOR BLOCK TRADES OUTSIDE THE TRADING SESSION	0x62FD	Decimal	<p>The lower upper price limit authorised for out-of-session block trades for the given security. Used in checking TCS trades.</p> <p>Possible values / Restrictions:</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			This field is significant if a normal block size has been defined for the given security (a security traded on a continuous basis that has been accepted by market authorities for block trading)
MAXIMUM AUTHORISED PRICE FOR ORDINARY TRADES OUTSIDE THE TRADING SESSION	0x62FB	Decimal	The lower (or upper) price limit authorised for normal out-of-session trades for the given security. Used in checking TCS trades.
MEMBER CODE	0x8784	String	Member Code
MIC (MARKET IDENTIFICATION CODE)	0x85C5	String	Identifies the market to which a listed security belongs by its MIC (Market Identification Code). Permitted Values : Alphanumeric.
MIC LIST	0x839D	Byte Array	Identifies the Euronext markets on which a security is listed by its MICs (Market Identification Code). For a security listed on a single Euronext market, the listing MIC is the same as MIC of the instrument. For a security listed on several Euronext market,: The 1 <sup>st</sup> MIC is the same as MIC of the instrument., the other MICs indicate the other listing place. Field Structure, 4 bytes Alphanumeric.
MINIMUM AUTHORISED PRICE FOR BLOCK TRADES OUTSIDE THE TRADING SESSION	0x62FC	Decimal	The lower price limit authorised for out-of-session block trades for the given security. Used in checking TCS trades. Possible values / Restrictions: This field is significant if a normal block size has been defined for the given security (a security traded on a continuous basis that has been accepted by market authorities for block trading).

FIELD NAME	FID	DATA TYPE	DESCRIPTION
MINIMUM AUTHORISED PRICE FOR ORDINARY TRADES OUTSIDE THE TRADING SESSION	0x62FA	Decimal	The lower price limit authorised for normal out-of-session trades for the given security. Used in checking TCS trades.
MINIMUM TRADEABLE QUANTITY	0x65BF	Long Decimal	<p>An operation cannot be executed on the market unless the number of shares to be bought or sold is a multiple of a fixed number of shares. This number is defined by the EURONEXT and is called the "Quotité de Marché" (Minimum market tradable quantity).</p> <p>The value is calculated in the following way:</p> <p>For Brussels-listed bonds that are quoted in %:</p> <p>If <math>1 \leq \text{par value for trade amount} \leq 99\,999\,999</math>, then the minimum tradable quantity is the integer part of the par value for trade amount (and, moreover, the par value for trade amount is set to 1).</p> <p>For Amsterdam-listed bonds quoted in %:</p> <p>If <math>1 \leq \text{initial par value} \leq 99\,999\,999</math>, then the minimum tradable quantity is the integer part of the initial par value (and, moreover, the par value for trade amount is set to 1).</p> <p>In all other cases, the minimum tradable quantity will contain the data (this is a whole number of shares or bonds).</p> <p>Note 1: only positive values are possible.</p> <p>Note 2: only integer values that are equal to or greater than one are accepted until Euronext systems have been adapted for using quantities expressed as a par value amount (Decimalization project).</p>
MNEMONIC CODE	0x8513	String	Mnemonic code
MOST RECENT ACTION CODE FOR INSTRUMENT STATE CHANGE	0x42D8	Character	<p>Provides the code of the action that caused a change in the instrument state. It indicates the phase of the trading day that the instrument is in currently.</p> <p>Possible values / Restrictions:</p> <p><u>For instruments traded on NSC.</u></p> <ul style="list-style-type: none"> <li>- Space - not provided</li> <li>- P a deferred opening or fixing has been programmed for the instrument</li> <li>- M instrument reserved or suspended manually by Surveillance</li> <li>- C the instrument is currently being traded</li> <li>- O the instrument is now open (after R or S)</li> <li>- R the instrument has been automatically reserved after the opening of its group</li> <li>- D a deferred opening or auction has been cancelled</li> <li>- A order entry has been authorised for the instrument</li> <li>- I order entry has been forbidden (inhibited) for the instrument</li> <li>- E orders in the book have been eliminated</li> <li>- N the instrument is being initialised (beginning of the trading day)</li> <li>- F instrument in Fast-Market state</li> <li>- S return to normal activity (Slow-Market state)</li> <li>- G the instrument has been frozen or unfrozen</li> <li>- U modification of the state of a warrant due to a change of state of its underlying instrument.</li> <li>- W Programming of a deferred opening for a warrant.</li> <li>- X Cancellation of a deferred opening of a warrant</li> </ul>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<ul style="list-style-type: none"> <li>- Y Beginning of a one side only period.</li> <li>- Z End of a one side only period.</li> </ul> <p><u>For instrument s traded on UTP.</u></p> <ul style="list-style-type: none"> <li>- P a deferred opening or fixing has been programmed for the instrument</li> <li>- M instrument reserved or halted manually by Cash market Operations.</li> <li>- C the instrument is currently being traded</li> <li>- O the instrument is now open (after R or S)</li> <li>- R the instrument has been automatically reserved after the opening of its group</li> <li>- D a deferred opening or auction has been cancelled.</li> <li>- N the instrument is being initialised (beginning of the trading day</li> </ul>
MOST RECENT THEORETICAL OPENING PRICE	0x62DB	Decimal	Price at which transactions on a security would occur if Opening occurred at this moment
NAME OF SUBSCRIBER REPRESENTATIVE	0x878E	String	Text giving the name of the subscriber's representative.
NATURE OF MESSAGE	0x43B8	Character	<p>Indicates the general contents of the E-mail message.</p> <ul style="list-style-type: none"> <li>. B Message contains market information.</li> <li>. T Message contains technical information.</li> <li>. R Message contains both market and technical information.</li> </ul>
NET PROFITABILITY INDEX	0x63F0	Decimal	<p>Indice, is calculated by adding in the net dividend paid by each of the companies in the index (on the coupon payment date for the net profitability index). It provides standards for measuring the performance of French equity portfolios.</p> <p>For discontinuous indices, it is broadcasted at opening and closing of the trading day.</p> <ul style="list-style-type: none"> <li>- Always 0 for NextWeather</li> </ul>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
NORMAL MONEY AMOUNT OF BLOCK FOR CALCULATION OF THE WAS	0x66F4	Long Decimal	<p>The normal money amount of block represents the minimum amount of money that a trade outside the central order book must reach to be regarded as a block trade, according to Euronext's rule book. This amount is expressed in the instrument's trading currency.</p> <p>The normal block is to be interpreted as opposed to structuring block.</p> <p>When the field is updated:</p> <p>After an instrument's opening or an group's opening;</p> <p>When the shown quantity of an order is modified, but only if this modification makes vary the WAS. Should the opposite occur, the WAS is not reset;</p> <p>When the Normal Money Block Amount is changed;</p> <p>When a global cancellation of the orders for a member is made;</p> <p>Sent to zero during an instrument's suspension or an instrument's reservation;</p> <p>Every 30 seconds during trading on the continuous market when an order is introduced, modified or cancelled in the system, which would change the WAS;</p> <p>Sent to zero (purchase WAS and sell WAS both filled with zero) on an opened instrument in session, if one of the sides of its order book does not contain orders.</p>

#### NSC\_DEPTH\_ASK&BID Level

##### 1. The concept of Best Limits

###### For Instruments traded on NSC.

The limits for orders in the order book can be ranked in terms of their interest to a counterparty, with the most interesting orders listed first that is:

- Buy orders in descending order by price
- Sell orders in ascending order by price

The "best limit with a rank of N" is a summary of the buy orders and of the sell orders present in the order book at the Nth best limit. Best limit N is characterized by:

Its rank N,

For Buy orders : the price limit for rank N, the number of orders at this limit and the total quantity that can be executed, and an indicator for pre-opening phase (Normal, OUV, MX type).

For Sell orders : the price limit for rank N, the number of orders at this limit and the total quantity that can be executed, and an indicator for pre-opening phase (Normal, OUV –Opening-, MX-market order only- type).

Any change to the value of any of the above data items results in the sending of a best limit message.

That concerns the following fields:

NSC DEPTH ASK/BID LEVEL from 1 to 5 if message type = 0004 5 Best Limits.

NSC DEPTH ASK/BID LEVEL from 1 to 10 if message type = 00L4 10 Best Limits.

Orders participating in the calculation of the best limits: Only normal orders are used in calculating the best limits, that is, all orders except non-triggered Stop orders.

###### For Instruments traded on UTP.

Definition: Indicative Matching Price = Theoretical Opening Price.

Note: In the pre-opening, the best bid price and/or the best ask price can have the value MX (3) for Market order or At Opening Order. The value OUV (2) for the At Opening Orders disappears.

In session, the best bid and/or best ask price can have the value MX (3) for the Market orders.

##### 2. The concept of Market Summary for an instrument (BBO10).

###### For Instruments traded on NSC.

This is the summary of the orders that would be executed if the Opening of the instrument took place at the moment this message was sent. The market Summary has no meaning except when the TOP (Theoretical Opening Price) has been determined during the pre-Opening phase. The Market Summary is not provided if it is equal to the first limit. The Market Summary can be used to calculate the Theoretical Opening Volume as followed:

FIELD NAME	FID	DATA TYPE	DESCRIPTION
<p>Upon reception of a TOP (Theoretical Opening Price - Message 0030) then  If the TOP is provided then,      If the Limit 11 is updated then,          If the Limit 11 is provided then,              The TOV is the minimum between the total quantity of the buy orders and the total quantity in the sell orders from Limit 11              Else, The TOV is the minimum between the total quantity of the buy orders and the total quantity in the sell orders from Limit 1          Else, The TOV is the minimum between the total quantity of the buy orders and the total quantity in the sell orders from Limit 1      Else The TOV is 0  That concerns the following fields:      NSC DEPTH ASK/BID LEVEL from 6 if message type = 0004 5 Best Limits.      NSC DEPTH ASK/BID LEVEL from 11 if message type = 00L4 10 Best Limits.</p> <p>For Instruments traded on UTP.  As the Indicative Matching Price is displayed at regular intervals of time, the Market Summary (11<sup>th</sup> limit) is only provided when the later is sent to the Market data.  The 'market summary' for an instrument will contain the theoretical opening volume at the Indicative Matching Price. The information will be the same on the buys and sell sides.</p>			
NSC DEPTH ASK LEVEL 1	0x83D6	Byte Array	<p>NSC Depth ask level 1, Field structure:</p> <p>For Instruments traded on NSC  Price – 6 Bytes (Decimal: 4 Bytes Mantissa + 2 Bytes Exponent)  No. of Order – 2 Bytes (Integer)  Volume – 4 Bytes (Integer)  Price Type – 1 Byte (Integer)      0: Normal price      2: OUV      3: MX  LP Indicator – 1 Byte (Char).</p> <p>For Instruments traded on UTP  Price – 6 Bytes (Decimal: 4 Bytes Mantissa + 2 Bytes Exponent)  No. of Order – 2 Bytes (Integer)  Volume – 4 Bytes (Integer)  Price Type – 1 Byte (Integer)      0: Normal price      3: MX  LP Indicator – 1 Byte (Char).</p>
NSC DEPTH ASK LEVEL 2	0x83D8	Byte Array	NSC Depth ask level 2. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 3	0x83DA	Byte Array	NSC Depth ask level 3. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 4	0x83DC	Byte Array	NSC Depth ask level 4. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 5	0x83DE	Byte Array	NSC Depth ask level 5. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 6	0x83E6	Byte Array	NSC Depth ask level 6 / Market Summary (ASK) BBO5. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 7	0x83E8	Byte Array	NSC Depth ask level 7. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 8	0x83EA	Byte Array	NSC Depth ask level 8. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 9	0x83EC	Byte Array	NSC Depth ask level 9. Field structure same as NSC Depth Ask Level 1.

FIELD NAME	FID	DATA TYPE	DESCRIPTION
NSC DEPTH ASK LEVEL 10	0x83EE	Byte Array	NSC Depth ask level 10. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH ASK LEVEL 11	0x83E0	Byte Array	NSC Depth ask level 11 / Market Summary (ASK) BBO10. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 1	0x83D5	Byte Array	NSC Depth bid level 1. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 2	0x83D7	Byte Array	NSC Depth bid level 2. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 3	0x83D9	Byte Array	NSC Depth bid level 3. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 4	0x83DB	Byte Array	NSC Depth bid level 4. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 5	0x83DD	Byte Array	NSC Depth bid level 5. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 6	0x83E5	Byte Array	NSC Depth bid level 6 / Market Summary (BID) BBO5. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 7	0x83E7	Byte Array	NSC Depth bid level 7. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 8	0x83E9	Byte Array	NSC Depth bid level 8. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 9	0x83EB	Byte Array	NSC Depth bid level 9. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 10	0x83ED	Byte Array	NSC Depth bid level 10. Field structure same as NSC Depth Ask Level 1.
NSC DEPTH BID LEVEL 11	0x83DF	Byte Array	NSC Depth bid level 11 / Market Summary (BID) BBO10. Field structure same as NSC Depth Ask Level 1.
NSC INSTANCE ID	0x871B	String	Identifies the instance which sent the message in which this data item appears.  Permitted Values: <ul style="list-style-type: none"> <li>'VE', Instance for the instruments traded on NSC</li> <li>'VL', Instance for the instruments traded on NSC</li> <li>'VW', Instance for the instruments traded on NSC</li> <li>'C1', Instance for the instruments traded on UTP.</li> </ul>
NUMBER OF DAYS COVERED	0x47D5	Short Integer	Number of trading days in the previous work week (covered in this message).
NUMBER OF DECLINING INSTRUMENTS IN INDEX	0x4576	Short Integer	
NUMBER OF INSTRUMENT TRADED ON PREVIOUS DAY	0x75BC	Long Integer	Indicates the number of instrument traded on the centralised market on previous day
NUMBER OF MESSAGE EMAIL	0x47D3	Short Integer	Aids in rebuilding an E-mail message that was sent in several transmissions.  Between 1 and 10.  . If the value is 1, the entire E-mail message is contained in the current transmission.  . Otherwise, this field indicates the number of

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			messages making up the E-mail message.
NUMBER OF RESERVED INSTRUMENTS IN INDEX	0x4577	Short Integer	
NUMBER OF RISING INSTRUMENTS IN INDEX	0x4578	Short Integer	
NUMBER OF SHARES ISSUED	0x67BE	Long Decimal	<p>Shares: Number of shares in circulation</p> <p>Bonds: Number of bonds resulting from the issue of the loan.</p> <p>Not handled for Amsterdam Securities</p> <p>One of the elements used in the calculation of the security's "floating value".</p> <p>Used to calculate market capitalisation</p> <p>Number of shares issued/bonds outstanding after repayments (MiFID reg.) New format</p>
NUMBER OF SUSPENDED INSTRUMENTS IN INDEX	0x4579	Short Integer	
NUMBER OF TRADED INSTRUMENT	0x457A	Short Integer	
NUMBER OF UNCHANGED INSTRUMENTS IN INDEX	0x457B	Short Integer	
NUMBER OF UNTRADED INSTRUMENTS IN INDEX	0x457C	Short Integer	
OFFICIAL QUOTATION LIST CLASSIFICATION	0x85AD	String	<p>Official Quotation List classification: (Section number+ Heading number)</p> <p>Gives the section, heading and sub-headings in which the security figures in the "Bulletin de la Cote Officielle". Allows the selection of securities according to "La Cote Officielle (CO)". Allows the selection of securities by heading for a given section.</p> <p>Possible values / Restrictions (Section number):</p> <p>0 - French national funds and treasury bonds</p> <p>1 - Bonds, warrants, public and semi-public sector</p> <p>2 - Bonds, warrants, French common bond funds</p> <p>3 - French domestic equities and odd lots (cash)</p> <p>4 - Other securities in French francs (cash), and international issues</p> <p>5 - Foreign securities (cash)</p> <p>6 - Monthly settlement securities</p> <p>7 - Second Market</p> <p>8 - Hors Cote and Eurocac</p> <p>9 - Miscellaneous (gold, foreign exchange, indexes etc.).</p>
ORDER DISPLAYED QUANTITY	0x4902	Integer	<p>Number of shares visible to the traders. Allows NSC-VE to process an order in several steps, with the total order quantity being disclosed little by little.</p> <p><u>- Possible values / Restrictions:</u></p> <p>. Less than or equal to the quantity remaining to be executed</p>
ORDER ID	0x7559	Long Integer	. Identifies an order on the market sheet for a given instrument. Composed of Date of the order +

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			Sequential order number -> <u>Date of the order (YYYYMMDD)</u> , Date that the order was introduced  -> <u>Sequential order number</u> , The number that was chronologically assigned to the order by NSC-VE when it was introduced into the system
ORDER PRIORITY TIMESTAMP	0x5186	Date Time	Include the hundredth seconds.
ORDER PRIORITY TIMESTAMP MICRO	0x4B8D	Integer	Shows the microsecond portion of the original Order Priority Timestamp (0x5186) field.
ORIGINAL ORDER PRICE	0x6101	Decimal	The real price at which an order is listed on the market sheet
ORIGIN OF MARKET INFORMATION INDICATOR	0x42E9	Character	Origin of market information indicator  Possible values / Restrictions: <u>For Instruments traded on NSC:</u> Always filled with "B" <u>For Instruments traded on UTP:</u> filled with blank.
PERCENTAGE OF CAPITALIZATION IN INDEX	0x6326	Decimal	Sum of the percentages (capitalisation) of the quoted stocks used in calculating the forerunner index. Aids in interpreting the forerunner index; gives an indication about the weight of the stocks quoted as compared to those not quoted.  - Possible values / Restrictions: . Less than or equal to 100% (100% if index is suspended). . Always 0 for NextWeather
PERCENTAGE OF PRICE VARIATION IN MOST RECENT TRADE FROM LAST REFERENCE PRICE	0x62E2	Decimal	Indicates the percentage of price variation in the most recent trade on the centralised market as compared to last reference price.  Possible values / Restrictions:  To be interpreted with the field 'Sign of price variation in most recent trade from last reference price'.
PERCENTAGE OF THEORETICAL PRICE VARIATION FROM LAST REFERENCE PRICE	0x62DD	Decimal	Indicates whether the TOP-Theoretical Opening Price is rising or falling as compared to last trading day's reference price  Possible values / Restrictions:  To be interpreted with the field 'Sign of Theoretical Price Variation from last reference price'.
PERIOD SIDE	0x43C4	Char	Indicates the side phase for an instrument being in a Bid only situation or Offer only situation. This indicator is only available on the NSC VW system.  Possible values / restrictions: 'A', Bid only period 'V' Offer only period ' ' blank not significant.

FIELD NAME	FID	DATA TYPE	DESCRIPTION
PREVIOUS DAY'S REFERENCE CLOSING INDEX	0x62CF	Decimal	Value for yesterday's adjusted closing reference index for a given index.
PREVIOUS DAY'S REFERENCE CAPITALISATION FOR THE INDEX	0X671F	Long Decimal	An index's capitalisation at the close of the previous day is equal to the sum of the capitalisation of each stock making up the index. The capitalisation for a given stock at the close of the previous day is equal to the total number of shares existing for that stock multiplied by the previous day's adjusted closing price.
PREVIOUS DAY'S REFERENCE CLOSING INDEX LEVEL	0x631E	Decimal	Value for yesterday's unadjusted closing reference index for a given index (Unadjusted = excluding dividends).
PREVIOUS INDICATOR FLAG	0x43C1	Character	- This field specifies whether or not previous indicators are provided: <ul style="list-style-type: none"> <li>. 0 previous indicators are not provided.</li> <li>. 1 previous indicators are provided.</li> <li>. '' Options clearing index (level 6).</li> </ul>
PREVIOUS TRADING DAY VOLUME IN CAPITAL	0x65E5	Long Decimal	Previous trading day volume in capital
PRICE UNIT TYPE	0x41AA	Character	The unit in which the security price is quoted. Possible values / Restrictions: <ul style="list-style-type: none"> <li>1 - in units</li> <li>2 - as a % of nominal</li> <li>8 - in kilograms</li> <li>9 - in ounces.</li> </ul>
PRIORITY INDICATOR	0x43B7	Character	. Indicates the urgency of the E-mail message. <ul style="list-style-type: none"> <li>. O urgent message.</li> <li>. N non-urgent message.</li> </ul>
PROGRAMMED OPENING TIME	0x5AD9	Time	Defines the instrument opening time that has been programmed by the Surveillance.
QUANTITY BOUGHT	0x4B87	Integer	Amount of a given stock bought by the member firm on NSC-VE during the previous work week.
QUANTITY NOTATION	0x8722	String	Specifies the nature of the amount expression used for negotiating the instrument on the market UNT: in unit (i.e. number of shares) FMT: in facial amount (i.e. bonds expressed in %) Blank: not applicable
QUANTITY SOLD	0x4B88	Integer	Amount of a given stock sold by the member firm on NSC-VE during the previous work week.
QUOTE CURRENCY CODE	0x840A	String	Code of the currency in which the security is traded.
QUOTE TYPE	0x432C	Character	Defines the type of market intermediary who sent the quote or the financial market for which the quote was sent. <ul style="list-style-type: none"> <li>. 1 quote sent by a Liquidity Provider subscriber.</li> </ul>
SELLING PRICE OF THE WEIGHTED AVERAGE SPREAD	0x62F3	Decimal	Average price at which the shares of a given instrument can be bought in NSC for a predetermined money amount, expressed by the data item Normal Money Amount of Block for calculation of the WAS.  This price is calculated according to the price limits and the displayed quantities that are present in the sell order book when the Weighted Average Spread is

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>calculated. According to Euronext's rule book, this price must not be more than 5% higher than the best sell limit.</p> <p>When the field is updated:</p> <p>After an instrument's opening or an group's opening;</p> <p>When the shown quantity of an order is modified, but only if this modification makes vary the WAS. Should the opposite occur, the WAS is not resent;</p> <p>When the Normal Money Block Amount is changed;</p> <p>When a global cancellation of the orders for a member is made;</p> <p>Sent to zero during an instrument's suspension or an instrument's reservation;</p> <p>Every 30 seconds during trading on the continuous market when an order is introduced, modified or cancelled in the system, which would change the WAS;</p> <p>Sent to zero (purchase WAS and sell WAS both filled with zero) on an opened instrument in session, if one of the sides of its order book does not contain orders.</p>
SEQUENCE NUMBER EMAIL	0x47D4	Short Integer	. Aids in rebuilding an E-mail message. Between 1 and 10.
SETTLEMENT PRICE	0x62F5	Decimal	<p>The settlement price is a standard price used to value the trade that initiates a securities lending transaction and to calculate the return price</p> <p>The settlement price of a security admitted to the lending market is calculated every trading day for each underlying security as follows:</p> <p>settlement price calculated and sent morning of day D applied to loans set up during trading on day D</p> <p>loans set up during trading day D are assumed effective as of D-1, i.e. the nature of the stock exchange does not allow for stock events effective as of day D</p> <p>therefore, if the security was listed on day D-1, its settlement price, calculated on day D, will be given by the closing price on D-1, with no adjustment for OST effective as of day D</p> <p>if the security was not listed on day D-1, its settlement price, calculated on day D, will be given by the latest price, adjusted and super-adjusted for stock events effective as of day D-1, but not as of day D.</p>
SHORT INSTRUMENT ID CODE	0x489E	Integer	<p>(This is the new name of "Sicovam Code"),</p> <p>For a Euronext cash instrument (equity, index, ...), this data item is not provided and takes the constant value 000000 (after the ISIN switchover).</p>
SIDE OF THE ORDER	0x4100	Character	<p>. Indicates the position (buy / sell) of the order</p> <p>. A Buy</p> <p>. V Sell</p>
SIGN OF PRICE VARIATION IN MOST RECENT TRADE FROM LAST REFERENCE PRICE	0x42E1	Character	<p>Sign of price variation in the most recent trade on the centralised market as compared to last reference price.</p> <p>Possible values / Restrictions:</p> <p>To be interpreted with the field 'Percentage of price variation in most recent trade from last reference</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			price' + Positive variation - Negative variation 0 No variation
SIGN OF PRICE VARIATION IN THE MOST RECENT TRADE FROM PREVIOUS PRICE	0x42EA	Character	Sign of price variation in the most recent trade as compared to previous price.  Possible values / Restrictions: + Positive variation - Negative variation 0 No variation
SIGN OF THEORETICAL PRICE VARIATION FROM LAST REFERENCE PRICE	0x42DC	Character	Indicates whether the TOP-Theoretical Opening Price- is rising or falling as compared to last trading day's reference price.  Possible values / Restrictions:  To be interpreted with the field 'Percentage of Theoretical Price Variation from last reference price'. + Positive variation - Negative variation 0 No variation
START DATE FOR SUSPENSION	0x848f	String	Date that suspension of trading on the centralised market started for an instrument.  Possible values / Restrictions:  A value is provided only in case of a manual suspension;  This field is filled as long as the instrument is suspended;  To be interpreted with the field 'Start time for suspension'.
START END TRANSMISSION INDICATOR	0x431C	Character	. Enables the system receiving the message to recognise the first and last message in a group of market sheet retransmission messages for a given NSC instance.  . D beginning of the retransmission of market sheets.  . F end of the retransmission of market sheets.
START TIME FOR SUSPENSION	0x5AD6	Time	Time that suspension of trading on the centralised market started for an instrument (the time that the suspension command was entered by the Surveillance).  Possible values / Restrictions:  A value is provided only in case of a manual suspension;  This field is filled as long as the instrument is suspended;  To be interpreted with the start date for suspension.
START TIME FOR VWAP COMPUTATION PERIOD	0x5BF1	Time	Indicates, for the last TCS trades with trade type=E (VWAP operation), the boundary for the start time of the period used for the determination of the VWAP reference price
STOCK EXCHANGE CODE	0x85AE	String	Code indicating the stock exchange where the instrument is traded

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			Possible values / Restrictions: See appendix
STOCK GROUP CODE	0x87AA	String	Designates the NSC group of instruments to which the instrument belongs. (Instruments that are traded by the NSC central trading system can be organized into subsets called groups. Each of these subsets includes instruments that obey the same rules, such as the trading timetable and authorized price fluctuation).
STOCK GROUP STATUS CODE	0x43B5	Character	Indicates which phase of the trading day a given instrument group is in or the special state initiated by Surveillance for this group (interrupted or inhibited).  Possible values / Restrictions: P - Pre-Opening C - Beginning-of-Day Consultation O - Opening S - Market Session R - Trading at last N - Surveillance Intervention F - End-of-Day Inquiry Z - Interrupted I - Forbidden.
STRIKE PRICE	0x63FC	Decimal	The specified price on an option contract at which the contract may be exercised, whereby a call option buyer can buy the underlier or a put option buyer can sell the underlier. The buyer's profit from exercising the option is the amount by which the strike price exceeds the cash instrument price (in the case of a call), or the amount by which the cash instrument price exceeds the strike price (in the case of a put).  In general, the smaller the difference between spot (cash instrument price) and strike price, the higher the option premium. also called exercise price.  <u>Permitted values</u>  Only provided for warrants or other derivative instruments
STRIKE PRICE CURRENCY	0x8792	String	Code of the currency in which the strike price is exercised. Could be different from the trading currency of the instrument. To be linked also with the data value of Change Rate Coefficient and its associated indicator.  ISO 4217 (3A) compliant
SUBSCRIBER ID	0x878A	String	. The ID of the Subscriber (member firm) that sent the Liquidity Provider quote to the trading systems
SUBSCRIBER ID BEST ASK PRICE	0x8289	Byte Array	This field appears three times, with the IDs of the subscribers offering the first best ask price, then the second best ask price, then the third best ask price.  Gives the ID of the subscriber that sent the nth best liquidity provider sell quote (ask price) for a security.  . The liquidity provider ask prices that are considered as "best" are those which are 'complete' and whose ask prices are the lowest.  . A "complete" liquidity provider quote is a quote that has a quantity and a price other than zero.

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>. The third "best" liquidity provider ask price is obtained after the best liquidity provider ask prices are ranked using the following criteria:</p> <ol style="list-style-type: none"> <li>1. The amount of the security, in ascending order.</li> <li>2. The time the quote was received (the earlier the quote, the higher the priority).</li> </ol> <p>Significant only if a third 'best' liquidity provider ask price exists.</p>
SUBSCRIBER ID BEST BID PRICE	0x828A	Byte Array	<p>- This field appears three times, with the IDs of the subscribers offering the third best bid price, then the second best bid price, then the first best bid price.</p> <p>Gives the ID of the subscriber that sent the nth best liquidity provider buy quote (bid price) for a security.</p> <p>. The liquidity provider bid prices that are considered as "best" are those which are 'complete' and whose bid prices are the highest.</p> <p>. A "complete" liquidity provider quote is a quote that has a quantity and a price other than zero.</p> <p>. The third "best" liquidity provider bid price is obtained after the best liquidity provider bid prices are ranked using the following criteria:</p> <ol style="list-style-type: none"> <li>1. The amount of the security, in ascending order.</li> <li>2. The time the quote was received (the earlier the quote, the higher the priority).</li> </ol> <p>Significant only if a third "best" liquidity provider bid price exists.</p>
TAX DEDUCTIBILITY CODE	0x41B7	Character	<p>This field is only available for Euronext Paris markets.</p> <p>Tax deduction code (for stock market investments) to which the stock belongs</p> <p>For example : indicates whether the stock comes under the 1978 « loi de finances » concerning the non-taxation of revenue invested in shares (called the Monory Law) and, by extension, the 1982 « loi de finances » (CEA), or whether the stock can belong to a stock savings plan (PEA).</p> <p>Possible values / Restrictions:</p> <p>0 - the stock has never been a « Monory » stock  1 - Monory or CEA  2 - Monory or CEA  3 - PEA  4 - Monory or CEA</p>
TCS BLOCK-TRADE CODE	0x4316	Character	<p>For regulated shares indicates if the TCS trade relates to a block following the MiFID rules or is a negotiated deal.</p> <p>For all other Products when applicable indicates if the trade is a regular trade or a block trade following Euronext rules.</p> <p>Possible values / Restrictions:</p> <p>B - Block-trade  N - Regular trade  ' ' - Undefined (blank).</p>
TCS CHANGE TRADING DAY	0x412E	Character	TCS change trading day indicator

FIELD NAME	FID	DATA TYPE	DESCRIPTION
INDICATOR			
TCS DATE ORIGINAL DECLARATIONS WERE MATCHED	0x8490	String	Date when the last TCS trade was considered valid by the TCS system.  This is either the date that the declaration was matched by TCS or, in the case of an internal declaration, the date that this declaration was validated by TCS.  Possible values / Restrictions:  To be interpreted with the field 'TCS time original declarations were matched'
TCS EFFECTIVE DATE OF TRADE INDICATOR	0x4315	Character	Indicates whether the declarations making up the last TCS trade were introduced into the TCS system on the day after the negotiation  Possible values / Restrictions:  0 - it is the date that the seller's declaration was received  1 - It is the trading day preceding the day that the seller's declaration was received.
TCS FIRST	0x631A	Decimal	TCS First
TCS HIGH	0x631C	Decimal	TCS High
TCS LAST	0x631B	Decimal	TCS Last
TCS LOW	0x631D	Decimal	TCS Low
TCS TIME ORIGINAL DECLARATIONS WERE MATCHED	0x5B14	Time	Time when the last TCS trade was considered valid by the TCS system.  This is either the time that the declaration was matched by TCS or, in the case of an internal declaration, the time that this declaration was validated by TCS.  Possible values / Restrictions:  To be interpreted with the field 'TCS date original declarations were matched'.
TCS TRADE CANCELLATION INDICATOR	0x4114	Character	. Indicates if the specified TCS trade was cancelled.  . ' ' Summary message.  . 0 TCS trade is valid.  . 1 TCS trade has been cancelled.
TCS TRADE MESSAGE SUB-TYPE CODE	0x4319	Character	TCS trade message sub-type code  Determines whether the two majors data groups conveyed by this message are significant or not:  - Data concerning the trading activity summary for a given stock.  - Data concerning the TCS Trade  Values:  - 'R' complete summary  - 'S' trade without summary.
TCS TRADE TYPE	0x4317	Character	Type of operation giving rise to the last TCS trade. Used by TCS to identify operations other than out-of-market trades (whose prices are not controlled)  Used by TCS to classify operations appearing in the statements produced by the computer system.  Possible values / Restrictions:

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>D - Delta neutral LIFFE CONNECT®</p> <p>E - Market VWAP operation</p> <p>H - Non-NSC trading</p> <p>I – Investment Funds Market Trade</p> <p>L - Options executions</p> <p>O - MA (Market Authorities) reporting - other trades</p> <p>The types D, E and H are considered as regulated trades.</p> <p>The types G, L and O are considered as non regulated trades.</p>
TEL OF SUBSCRIBER REPRESENTATIVE	0x878F	String	. How to contact the subscriber's representative by telephone.
TIME OF CLOSING 1	0x5BAD	Time	Indicates the closing time of the stock group for the session of the current trading day.
TIME OF CLOSING 2	0x5BB0	Time	<p>Indicates, if applicable, the closing time of the second auction.</p> <p>Possible values / Restrictions:</p> <p>Zeros if not provided</p>
TIME OF CLOSING 3	0x5BB3	Time	<p>Indicates, if applicable, the closing time of the third auction.</p> <p>Possible values / Restrictions:</p> <p>Zeros if not provided</p>
TIME OF END-OF-DAY CONSOLATION	0x5BB4	Time	Indicates the time of end-of-day consolation. It means the time after which the surveillance will no more modify or delete trades.
TIME OF OPENING 1	0x5BAC	Time	Indicates the opening time of the stock group for the session of the current trading day.
TIME OF OPENING 2	0x5BAF	Time	Indicates, if applicable, the opening time of the second auction.
TIME OF OPENING 3	0x5BB2	Time	Indicates, if applicable, the opening time of the third auction.
TIME OF PRE-OPENING 1	0x5BAB	Time	Indicates the pre-opening time of the stock group for the session of the current trading day.
TIME OF PRE-OPENING 2	0x5BAE	Time	Indicates, if applicable, the pre-opening time of the second auction.
TIME OF PRE-OPENING 3	0x5BB1	Time	Indicates, if applicable, the pre-opening time of the third auction.
TODAY'S FIRST INSTRUMENT PRICE	0x62E5	Decimal	Today's First Instrument Price on the centralised market.
TODAY'S FIRST PRICE ON TCS AND NSC	0x6191	Decimal	Today's first price on TSC & NSC
TODAY'S FIRST REAL-TIME INDEX LEVEL	0x638B	Decimal	Today's first real-time index level
TODAY'S FIRST REAL-TIME INDEX LEVEL TIME	0x5BE6	Time	Today's First real-time index level time
TODAY'S HIGHEST INDEX LEVEL	0x63A6	Decimal	Today's Highest index level

FIELD NAME	FID	DATA TYPE	DESCRIPTION
TODAY'S HIGHEST INDEX LEVEL TIME	0x5BED	Time	Today's Highest index level time
TODAY'S HIGHEST INSTRUMENT PRICE	0x62E3	Decimal	Today's Highest Instrument Price on the centralised market.
TODAY'S HIGHEST PRICE ON TCS AND NSC	0x6193	Decimal	Today's highest price on TSC & NSC
TODAY'S LAST PRICE ON TCS AND NSC	0x6194	Decimal	Today's last price on TSC & NSC
TODAY'S LOWEST INDEX LEVEL	0x63A8	Decimal	Today's Lowest index level
TODAY'S LOWEST INDEX LEVEL TIME	0x5BEE	Time	Today's Lowest index level time
TODAY'S LOWEST INSTRUMENT PRICE	0x62E4	Decimal	Today's Lowest Instrument Price on the centralised market.
TODAY'S LOWEST PRICE ON TCS AND NSC	0x6192	Decimal	Today's lowest price on TSC & NSC
TODAY'S REFERENCE AT-EXPIRATION SETTLEMENT INDEX LEVEL	0x639E	Decimal	Today's Reference At-expiration Settlement Index Level. Depending of the methodology of the index, this level is calculated or not.
TODAY'S REFERENCE AT-EXPIRATION SETTLEMENT INDEX LEVEL TIME	0x5BE9	Time	Today's Reference At-expiration Settlement Index Level time.
TODAY'S REFERENCE CLOSING INDEX LEVEL	0x6396	Decimal	Today's Reference Closing Index Level.
TODAY'S REFERENCE CLOSING INDEX LEVEL TIME	0x5BE7	Time	Today's Reference Closing Index Level time.
TODAY'S REFERENCE CLOSING INDEX LEVEL (GROSS RETURN)	0x6398	Decimal	Gross Return value of today's reference closing index level. Depending of the methodology of the index, this level is calculated or not.
TODAY'S REFERENCE CLOSING INDEX LEVEL (NET RETURN)	0x6397	Decimal	Net return value of today's reference closing index level. Depending of the methodology of the index, this level is calculated or not.
TODAY'S REFERENCE DAILY SETTLEMENT INDEX LEVEL	0x639C	Decimal	Today's Reference Daily Settlement Index Level. Depending of the methodology of the index, this level is calculated or not.
TODAY'S REFERENCE DAILY SETTLEMENT INDEX LEVEL TIME	0x5BE8	Time	Indicates the time of calculation of the reference daily settlement Index Level.
TODAY'S REFERENCE OPENING INDEX LEVEL	0x6327	Decimal	Today's Reference Opening Index Level.
TODAY'S REFERENCE OPENING INDEX LEVEL TIME	0x585B	Time	Today's Reference Opening Index Level time.
TODAY'S REFERENCE PRELIMINARY OPENING INDEX LEVEL	0x6328	Decimal	Today's Reference Preliminary Opening Index Level.
TODAY'S REFERENCE PRELIMINARY OPENING INDEX LEVEL TIME	0x585C	Time	Today's Reference Preliminary Index Level time.
TOP BID PRICE	0x6199	Decimal	Theoretical opening bid price

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			For instruments traded on UTP, the field will not be available.
TOP ASK PRICE	0x619A	Decimal	Theoretical opening ask price. For instruments traded on UTP, the field will not be available.
TOTAL GROSS DIVIDENDS DETACHED TODAY FOR ALL INSTRUMENTS IN INDEX	0x678A	Long Decimal	Total Gross Dividends Detached Today for all Instruments in Index. Used in calculating the Global Profitability level of the index.
TOTAL NET DIVIDENDS DETACHED TODAY FOR ALL INSTRUMENTS IN INDEX	0x6789	Long Decimal	Total Net Dividends Detached Today for all Instruments in Index. Used in calculating the Net Performance level of the index
TOTAL NUMBER OF SECURITIES IN THE INDEX	0x46CE	Short Integer	Total number of securities in the index
TOTAL NUMBER OF TRANSMITTER PROCESS	0x4B15	Integer	Allows the systems that receive Market Sheet Retransmission messages to determine the number of End messages to be received from a given NSC instance, in order to recognise that the transmission is complete.
TOTAL QUANTITY TRADED TODAY	0x76E0	Long Integer	Total Quantity Traded Today on Instrument on the centralised market
TRADE CANCEL FLAG	0X8515	String	. Indicates if the message results from a cancellation or not. . 07: Trading . 00: Cancellation
TRADING CURRENCY	0x85A9	String	Code of the currency in which the security is traded. If the price of a security is quoted as a percentage of the nominal value, this field contains the currency in which the nominal value is traded. Possible values / Restrictions: See appendix.
TRADING VENUE	0x8791	String	Identifies the Euronext markets on which a security is traded by its MICs (Market Identification Code). For a security ltraded using the TCS operation type: D Delta Neutral, E Market VWAP operation, H Out of market, I Investment funds: The MIC is always the same as the MIC of the instrument itself. For a security traded using the TCS operation type: R Secondary listing place: The MIC is always an Euronext MIC but different than the MIC of the instrument itself.
TYPE OF CORPORATE EVENT	0x8786	String	Indicates the type of corporate event that has occurred on an instrument on the current day, such as detachment of rights, or of coupons. The data item is automatically calculated by the adjustment application but in case of problem or error, the data item value could be modified manually by the corporate events department, particularly for purging the order book in case of absence of corporate event. This data has to be treated in consideration of the date of the event included into the header of the message. 00: no specific event 01: dividend payment in cash or in stocks

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>02: interest payment (bonds for which the price is not expressed in % of the nominal, only)</p> <p>04: split</p> <p>05: bonus (i.e. attribution)</p> <p>06: subscription</p> <p>07: share allocation</p> <p>08: share swap</p> <p>09: reverse split</p> <p>10: merger</p> <p>11: final bond redemption</p> <p>12: capital amortisation</p> <p>13: Draw announcement (Belgian bonds only)</p> <p>16: complex corporate event</p> <p>17: purge of the order book (purge is initiated manually in the absence of a corporate event, e.g. following the modification of the variable tick of the listed security)</p>
TYPE OF DELETION	0x4107	Character	<p>. Defines the type of deletion to make on the market sheet. Enables the market sheet to be updated based on the orders entered by traders.</p> <p>. Type 1: a specific order.</p> <p>. Type 2: all previous orders on a given side of the book, starting with and including a given order.</p> <p>. Type 3: all orders for the given instrument.</p>
TYPE OF LAST PRICE	0x489C	Integer	<p>Indicates the type of operation described in this message.</p> <ul style="list-style-type: none"> <li>. 00 Trade cancellation.</li> <li>. 02 Buy price.</li> <li>. 03 Sell price.</li> <li>. 04 First traded price (one auction only).</li> <li>. 05 Market in-balance ask price.</li> <li>. 06 Market in-balance bid price.</li> <li>. 07 Nth traded price.</li> <li>. 30 Change of first price.</li> <li>. 31 New high price.</li> <li>. 32 New low price.</li> <li>. 33 New last price.</li> <li>. 34 New previous day's closing price.</li> <li>. 41 Warrant opening indicative value.</li> <li>. 42 Warrant closing indicative value.</li> </ul>
TYPE OF MARKET ADMISSION	0x43B6	Character	<p>Designates the type of market to which a Euronext listed security has been admitted.</p> <p>Euronext cash instruments are classified according to market admission criteria. This classification is not dependant upon the marketplace; it applies to all listed securities, regardless of the marketplace: Amsterdam, Bruxelles, Paris, etc.</p> <p>Possible Values / Restrictions:</p> <p>Part of the Euronext listing which a trading segment belongs to.</p> <ul style="list-style-type: none"> <li>A - Regulated market - First market</li> <li>B - Regulated market - Second market</li> <li>C - Regulated market - New market</li> <li>D - Non regulated market - Free market (Marché Libre)</li> <li>E - Non regulated market - Alternext</li> <li>F - non listed (not admitted for trading on any market enterprise)</li> <li>G - Regulated market / Non equities</li> </ul>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			<p>H - Regulated market / Equities / Segment A  I - Regulated market / Equities / Segment B  J - Regulated market / Equities / Segment C  H - Regulated market / Equities / Others instruments  S - mutual funds, non listed SICOMI  6 - off market  7 - gold, currency and indices  9 - foreign.</p>
TYPE OF PRICE ENTERED	0x431D	Character	<p>Indicates the nature of the order limit as specified by the trader</p> <ul style="list-style-type: none"> <li>. O Opening price order.</li> <li>. L Limit order (a specific price is indicated).</li> <li>. X Market order.</li> </ul>
TYPE OF RATE FOR CURRENCY RATE UPDATE	0x42EC	Character	<p>Nature of the rate contained in the last "Euro interbank rate" update.</p> <p>The "Euro interbank rate" update can be used for other types of rates.</p> <p>Possible values / Restrictions:</p> <p>4 - Interbank currency rate</p> <p>Always filled</p>
TYPE OF SUBSCRIBER REPRESENTATIVE	0x878D	String	<p>Defines the role played by the subscriber's representative in relation to the financial market and/or the security.</p> <ul style="list-style-type: none"> <li>. 1 Liquidity provider subscriber.</li> </ul>
UNDERLYING ISIN CODE	0x86CB	String	<p>Gives the Long instrument ID of the underlying listed securities of a warrant in the cash instrument reference database. When a warrant has more than one associated underlying, IVAL (NyseEuronext DB) carries over the code for the underlying with the latest exercise period.</p> <p>Possible values / Restrictions:</p> <p>Spaces if not provided.  Provided if and only if the security is a warrant.</p>
UPPER STATIC THRESHOLD OF FREEZING	0x62FE	Decimal	<p>The Maximum authorised price at which an instrument can trade.</p> <p>Thresholds are updated via a surveillance command</p> <p>Enables Surveillance to control fluctuations in permitted prices.</p> <p>Calculated from the previous day's reference price plus or minus the first variation percentage of the relevant securities group:</p> <p>The static tick limit is in percentage:  SIH = static reference price + static reference price * static tick limit / 100</p> <p>The static tick limit is in discrepancy:  SIH = static reference price + static tick limit</p> <p>If the flag of updating thresholds at Opening is set for the group, the static reference price is equal to the first quoted price at opening. If the opening produces no quoted price, the static reference price is the adjusted last day price.</p>
UTC HOUR	0x8720	String	<p>Indicates the time difference between the trading venue (Euronext Amsterdam, Euronext Brussels, Euronext Lisbon or Euronext Paris) to where the</p>

FIELD NAME	FID	DATA TYPE	DESCRIPTION
			instrument is listed and GMT.
UTC HOUR 2	0x8721	String	Indicates the time difference between GMT and the time zone of the regulator of the most relevant market of the instrument.
VARIATION FOR INSTRUMENT IN INDEX	0x6329	Decimal	- Signed value of the variation (average percentages) price variation for each stock making up an index, as compared to the previous day's closing price.
VARIATION FORERUNNER	0x63EC	Decimal	Signed value of the variation (in percent) of the forerunner (éclaireur) index from the last reference index, calculated on the basis of stocks currently quoting.  . The forerunner index is calculated and broadcast at the beginning of the trading session when not all stocks are trading, between the end of the MCC session and the end of the NSC session, when the index is suspended, or when a large number of stocks are suspended. Allows a theoretical calculation of the index, based only on the stocks currently quoted.
VARIATION INDEX FROM LIQUID DAY	0x63EE	Decimal	Signed value of the variation (in percent) of the CAC40 index from the liquidation day price.
VARIATION INDEX FROM PREVIOUS DAY	0x63ED	Decimal	Signed value of the variation (in percent) of the real-time index from the previous day's value. (The real-time index is included the message).
VARIATION INDEX FROM PREVIOUS YEAR	0x63EF	Decimal	Signed value of the variation (in percent) of the CAC 40 since the previous year end (31 December).
VARIATION OF TODAY'S HIGHEST INDEX LEVEL FROM PREVIOUS DAY'S CLOSING	0x63A7	Decimal	Signed value expressing the percent of change of today's High as compared to yesterday's closing reference index at 5: 30 pm.
VARIATION OF TODAY'S LOWEST INDEX LEVEL FROM PREVIOUS DAY'S CLOSING	0x63A9	Decimal	Signed value expressing the percent of change of today's Low as compared to yesterday's closing reference index at 5 pm.
VARIATION OF TODAY'S PRICE FROM REFERENCE PRICE	0x63FB	Decimal	Percentage variation of the last traded price against the previous day's reference price for the concerned instrument, eg the last known price of the last price indication (if an indication was entered after the last traded price).
VARIATION OF TODAY'S REFERENCE CLOSING INDEX LEVEL FROM PREVIOUS DAY	0x6399	Decimal	Signed value expressing the percent of change of the unadjusted last Liquidation index as compared to yesterday's unadjusted closing reference index.

## 1.5 Appendix: Cash Message Types

This appendix lists the value that Cash Message Types (FiD 0x8485) can take.

Data Field	Value	Remark
Cash Message Type	'01'	Opening Trade
	'02'	Trade
	'03'	Price Update
	'04'	<i>Five Best Limits</i>
	'L4'	Ten Best Limits
	'05'	Instrument State Change
	'10'	Settlement Price
	'13'	Euro Interbank Rate
	'16'	Group State Change
	'23'	Mail
	'30'	Theoretical Opening Price
	'32'	Summary
	'34'	Authorized out of Session Limits
	'35'	TCS Trading state changes
	'37'	Intermediate Static Thresholds
	'38'	Weighted Average Spread
	'39'	Session Timetable
	'S0'	Market Sheet Retransmission
	'S3'	Market Sheet Update
	'S4'	Deletions in Market Sheet
	'A5'	Composition of the Index
	'A6'	Display Bid or Ask
	'B1'	Index
	'B2'	Index Summary
	'B4'	Liquidity Provider Quote
	'B5'	Name Of Subscriber Representative
	'B6'	Best Liquidity Provider Quotes (Yellow Strip)
	'B9'	Day's Summary of Prices and Amount of Capital on TCS & NSC
	'I0'	TCS Trade
	'H3'	Instrument Characteristics For the Current Business Date (Morning)
	'J3'	Instrument Characteristics For the Current Business Date (Evening)

## 1.6 Appendix: Financial Market Code

Data Field	Value	Remark
Financial Market Code (0x8788)	'000'	Non Applicable
	'025'	SBF Market-Bourse de Paris
	'277'	Centralized Lending Market
	'278'	Brussels
	'279'	Amsterdam
	'290'	Lisbon
	'295'	Luxembourg
	'299'	Europe
	'300'	MNR
	301	SmartPool
	302	Nyse Arca Europe

## 1.7 Appendix: Market Feed Code

### 1.7.1 Euronext Paris

- 00 Miscellaneous securities
- 01 CAC40 stocks (equities) that support traded options + indices calculated by SBF.
- 02 CAC40 stocks that do not support traded options.
- 03,05 Non-CAC40 Cash Market stocks that support traded options.
- 04,06 Non-CAC40 Cash Market stocks that do not support traded options.
- 07 Bonds
- 10 Over-the-counter free market
- 11 Securities in process of being introduced (SHIVA)
- 12 Gold
- 13 Foreign exchange
- 15 Centralized lending market
- 17 Nyse Arca Europe
- 16 MNR
- 60 ETF Securities (Exchange traded fund)
- 62 NextWeather indices
- 79 Smartpool

### 1.7.2 Euronext Brussels

- 20 Stocks listed in Brussels
- 21 Bonds listed in Brussels
- 22 Indices on Brussels securities
- 23 Warrants listed in Brussels

### 1.7.3 Euronext Amsterdam

- 30 Stocks listed in Amsterdam
- 31 Bonds listed in Amsterdam
- 32 Indices on Amsterdam securities
- 33 Warrants listed in Amsterdam

### 1.7.4 Euronext Lisbon

- 40 Stocks listed in Lisbon
- 41 Bonds listed in Lisbon

42 Indices on Lisbon Securities

43 Warrants listed in Lisbon

### **1.7.5 Luxembourg**

50 Stocks listed in BDL

51 Bonds listed in BDL

52 Corporate Bonds listed in BDL

53 Warrants listed in BDL (bilateral clearing / settlement)

55 OPCs listed in BDL (bilateral clearing / settlement)

56 Bonds listed in BDL (bilateral clearing / settlement)

57 Stocks listed on BDL with MiFID compliancy criteria

### **1.7.6 Europe**

65 Stocks listed in Europe

Note: This code is only included in a message if the message relates to a security (including foreign exchange and indices), a series, or several series.

This code is not included in: technical messages, messages related to a stock group, etc.