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PREFACE

About This Document

This document sets out the client messages specifications for Optiq OEG using the SBE format. More specifically, it describes the contents of administrative and application messages and provides detailed field descriptions.

Associated Documents

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

- Euronext Markets – OEG Client Specifications – FIX 5.0 Interface
- Euronext Cash Markets – Optiq Kinematics Specifications
- Euronext Derivatives Markets – Optiq Kinematics Specifications
- Euronext Markets – CCG to OEG Changes Highlight
- Euronext Markets – Optiq & TCS Error List file (.csv)
- Euronext Markets – Optiq MDG Client Specifications
- Euronext Markets – Optiq File Specifications
- Optiq Technical Note SBE
- Euronext Markets – Optiq OEG Connectivity Specifications

Clients are additionally advised to also refer to the Euronext Rules and Regulations documents for more details.

For the latest version of documentation please visit http://www.euronext.com/optiq

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What's New?

The following lists only the most recent modification made to this version. For the Document History table, see the Appendix.

Version	Change Description
2.0.0	Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made: ■ For support of the Derivative segments, the following New messages have been added: a) **MM Sign-In** (47) and **MM Sign-In Ack** (48) b) **Security Definition Request** (60) and **Security Definition Ack** (61) c) **MM Protection Request** (62) and **MM Protection Ack** (63) d) **New Wholesale Order** (64) and **Wholesale Order Ack** (65) ■ In section 5.3 "Administration Messages" – added support for the Derivatives segments ■ For support of the Derivative segments, the following changes have been updated in the existing messages:

Version	Change Description
	a) **New Order** (01): In the block added a field *Non Executing Client ID*; Added support for the Derivatives segments; modified references to the repeating groups to show the names provided in the SBE template b) **Ack** (03): Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added support for the Derivatives segments; updated description of Ack responses that are specific to the Cash markets only, or are for future use, and added clarification for reconciliation of private and public messages for the Cash markets only, and use of Order Priority for the Derivatives markets c) **Fill** (04): Deprecated fields in the OptionalFieldsFill repeating group: *Underlying Last Traded Price*, *Package ID*, *Underlying Instrument ID*; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added support for the Derivatives segments d) **Kill** (05): In the block added a field *Ack Qualifiers*; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added support for the Derivatives segments; updated description for the specific use of fields for Cash and Derivatives markets e) **Cancel Replace** (06): Added support for the Derivatives segments without changes in the structure and updated description for the specific use of fields for Cash and Derivatives markets f) **Reject** (07): Added support for the Derivatives segments; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators* g) **Quotes** (08): In the block added a field *Execution Instruction* & deprecated field *RFE Answer;* Added field *RFE Answer* in the QuoteRep repeating group to make the RFE responses possible on the individual double-sided quote; Added support for the Derivatives segments; updated description for different behavior and support for the Warrants & Certificates and the Derivatives segments h) **Quote Ack** (09): In the block added fields *ExecutionWithinFirmShortCode* and *Ack Qualifiers*; Added support for the Derivatives segments; updated description for different behavior and support for the Warrants & Certificates and the Derivatives segments i) **Quote Request** (10): Added support for the Derivatives segments without changes in the structure and updated description and updated description to indicate the specific use and conditions for the Derivatives segments j) **Mass Cancel** (13): In the block added a field *TargetExecutionWithinFirmShortCode*; Added support for the Derivatives segments; updated description for different behaviour on the Cash and Derivatives markets k) **Mass Cancel Ack** (14): In the block added fields *Ack Qualifiers* and *TargetExecutionWithinFirmShortCode*; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added message support for the Derivatives segments l) **Trade Bust Notification** (19): In the block added fields *LIS Transaction ID, Parent Execution ID* and *Parent Symbol Index*; Added support for the Derivatives segments; updated description for specifics of the Derivatives segments m) Added support for the Derivatives segments for the existing messages that do not change in structure: **Cancel Request** (12), **Open Order Request** (15), **Ownership Request** (18), **Ownership Request Ack** (17), **User Notification** (39), **Instrument Synchronization List** (50), **Synchronization Time** (51) ■ Field Descriptions: a) Add new fields: *Breach Action, Breach Status, Contract Symbol Index, Current MMP Position, ESCBMembership, Leg Error Code, Leg Last Trading Date, Leg Price, Leg Put Or Call, Leg Ratio, Leg Security Type, Leg Strike Price, Leg Symbol Index, LIS Transaction ID, MMP Execution Type, Non Executing Client ID, Parent Execution ID, Parent Symbol Index, Protection Threshold, Protection Type, Quantity, Request Type, Response Type, Security Request ID, Side, Strategy Code, TargetExecutionWithinFirmShortCode, Wholesale Side, Wholesale Trade Type* b) Enriched values for fields as follows: *Ack Qualifiers* – added values 2 = Request with Client Order Id, 3 = Use of Cross Partition, 4 = Internal1, 5 = Internal2, 6 = Execution Upon Entry flag Enabled, and 7 = Execution Upon Entry flag; *Account Type* and *Account Type Cross* - added values 14 = Omega Client and 15 = Ceres Client; *MIFID Indicators* – added value 5 = FR MAR AMP LP (for Future use on the Cash markets) c) Deprecated values for fields as follows: *Clearing Instruction* – deprecated values 4008, 4009, 4010; *Dark Execution Instruction* – deprecated values 1 = Deferred Trade Indicator and 2 = Displayed Order Interaction; *Trade Type* – deprecated values 7 = Asset Allocation Trade (Derivatives Only), 10 = Exchange for Physical Trade - Cash Leg (Cash Only), 14 = Strategy Leg Guaranteed Cross Trade (Derivatives Only), 16 = Strategy Leg Asset Allocation Trade (Derivatives Only), 19 = Strategy Leg Exchange For Physical Trade (Derivatives Only), 22 = AtomX Trade (Derivatives Only) d) Deprecated fields or those set to future use: *Contract ID*, *Package ID*, *Underlying Instrument ID*, *Underlying Last Traded Price* e) Enriched conditions and descriptions of fields *Account Type Cross, Ack Qualifiers, AFQ Reason, Bid Error Code, Bid Order ID, Bid Price, Bid Quantity, Breached Collar Price, Clearing Instruction, Collar Rejection Type, Contract ID, Contract Symbol Index, EMM, Exchange ID, Execution Instruction, Execution ID, Leg*

Version	Change Description
	Option Type, Leg Price, Leg Strike Price, Leg Ratio, LP Role, MIFID Indicators, Log Out Reason Code, Maturity, MMP Execution Type, Non Executing Client ID, Offer Error Code, Offer Order ID, Offer Quantity, Offer Price, Order ID, Order Category, Order Side, Original Client Order ID, Parent Execution ID, Peg Offset, Price, Quantity, Rejected Message, Symbol Index, Trade Type, Trading Session Validity and Undisclosed Iceberg Type, Undisclosed Price f) Use of the following fields extended to be for both Cash and Derivatives: *Buy Revision Indicator, Order Priority, RFE Answer, Sell Revision Indicator, STP ID, Technical Origin* ■ Throughout the document: a) References to "Cash Markets" updated to "Cash and Derivatives Markets" where applicable, and added clarification for differences in messages, and specific uses and behaviour for the individual markets b) Updated references to the documentation, that covers both Cash and Derivatives markets c) Formatting updates and correction of phrasing, typos and cosmic changes d) Replaced segment tags on individual messages with text based ones, for convenient searching ■ In MIFID II related fields and values updated list of messages that include short codes ■ Added section 1.5 "Error Codes" – where description from the dedicated document "Euronext Markets - Optiq & TCS Error List". Associated references to the document removed. ■ Added a section "Work in Progress" ■ Added a table mapping of OEG SBE templates and specifications per segment, with latest and earliest supported versions ■ In "Determine the 'shorter path' added footnote on Cash and Derivatives standing data ■ Section 4.5 "Price, Quantity, Ratio and Amount Formats" added clarification for prices in basis points ■ Section 4.6.2 "Order Priority" added clarification for reconciliation use in Market data for Cash markets only ■ Section 5.1.1 "Scope of Messages and Functionalities" updated the list of Optiq Segments, to include Derivatives segments, and use text-based tags used for the segments ■ Section 5.2.2 "Example: NewOrder (01) message" updated example to be in line with new format

The correspondence of the SBE templates and specifications per Optiq segment is provided in the table below.
Intermediary versions of SBE may be within the latest SBE template, while they may not be in the table, and may not be published.

Optiq Segment		Latest		Earliest Supported	
		SBE template	Specifications	SBE template	Specifications
Equities	EQ	109	1.5.0	102	1.3.2
Funds	FND	109	1.5.0	102	1.3.2
Fixed Income	FXI	109	1.5.0	102	1.3.2
Warrants and Certificates	SP	109	1.5.0	102	1.3.2
Equity Derivatives	EQD	200	2.0.0	To be identified with go live of Derivatives Market on Optiq	To be identified with go live of Derivatives Market on Optiq
Index Derivatives	IDD	200	2.0.0	To be identified with go live of Derivatives Market on Optiq	To be identified with go live of Derivatives Market on Optiq
Financial Derivatives	FID	200	2.0.0	To be identified with go live of Derivatives Market on Optiq	To be identified with go live of Derivatives Market on Optiq
Commodities	CMO	200	2.0.0	To be identified with go live of Derivatives Market on Optiq	To be identified with go live of Derivatives Market on Optiq
Block	BLK	110	1.6.1	110	1.6.1

CONTENTS

1. SOLUTION OVERVIEW

1.1 INTRODUCTION

The Euronext Optiq Order Entry Gateway (OEG) provides high-speed and real-time connection to the Euronext markets.

The system has the following high-level features:

- **Predictability**
- **Ultra-low latency**
- **MiFID II compliance**
- **Cash & Derivatives message harmonization**
- **High availability**
- **Reliable network solution**
- **High level of scalability**
- **Access to every Euronext Market**

This document provides detailed information about the features of the system to support the development of client applications.

The scope of this version of the document is for Cash and Derivatives markets. With migration of Derivatives market to Optiq, harmonization between Cash and Derivatives messages is completed. The single set of messages used for Optiq in SBE protocol is provided in the document.

1.2 MIFID II RELATED FIELDS AND VALUES

The following sections describe (i) the fields available in the messages, (ii) system functionalities based on the MiFID II requirements and (iii) related services provided by Euronext to its clients.

In this document term ‘MIFID II’ includes MIFID (2014/65/EU), MIFIR EU (600/2014) as well as the texts of level 2 and 3.

1.2.1 Maintenance of Relevant Data relating to Orders in Financial Instruments

The delegated act “supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the maintenance of relevant data relating to orders in financial instruments” issued by ESMA within the MiFID II requires trading venues to be able to supply to the regulators a wide range of order related data.

In order to fulfil this requirement, members are requested to provide data in the fields available in the Optiq messages, e.g. **NewOrder** (01) message. The sub-set of fields present in different messages for compliance with the acts are listed in the table below. These fields are also included in the description of each individual message:

Field in the Act	Optiq fields (SBE & FIX)	Used In
Client identification code	ClientIdentificationShortCode	New Order (01) Cancel Replace (06) Quotes (08) Quote Request (10) Cancel Request (12) Mass Cancel (13) Open Order Request (15) Ownership Request (18) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) User Notification (39) MM Sign-In (47) MM Protection Request (62) New Wholesale Order (64)
Investment decision within firm	InvestmentDecisionWFirmShortCode	New Order (01) Quotes (08) New Wholesale Order (64)
Execution within firm	ExecutionWithinFirmShortCode	New Order (01) Cancel Replace (06) Quotes (08) Quote Request (10) Cancel Request (12) Mass Cancel (13) Open Order Request (15) Ownership Request (18) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) User Notification (39) New Wholesale Order (64)
Non-executing broker	NonExecutingBrokerShortCode	New Order (01) Quotes (08) New Wholesale Order (64)
MiFID Indicators	MiFIDIndicators	New Order (01) Cancel Replace (06) Quotes (08) New Wholesale Order (64)
Trading Capacity	Trading Capacity	New Order (01) Quotes (08) New Wholesale Order (64)

To reduce latency impacts associated to the use of these fields and to avoid sensitive information from being routed over the non-encrypted order interface, the optimized representation of this data is transmitted to Euronext via short codes. Mapping of short codes to required data for reporting may be provided by clients by end of business on the trading day when trade has occurred using the process described below:

- Clients have access to the Customer Web portal where they are able to input the MiFID II compliant data for each required field. This data could be associated to the short codes, which may also be provided by the clients via the Customer Web Portal. For Example:

- To identify a non-DEA client on behalf of which an order was entered in the system, members are requested to enter their MiFID II Client identification code (as described in the associated act): Where the client is a legal entity, the LEI code of the client shall be used. Where the client is not a legal entity, the National ID shall be used.

- When this code is entered, the clients is able to assign a short code to it in the Customer Web Portal. This short code may be used in the **NewOrder** (01) message in the field *ClientIdentificationShortCode*.
- For clients using algorithms in their trading, guidelines for the way they should generate and populate the short codes associated to the executing (*ExecutionWithinFirmShortCode*) and investment decision making (*InvestmentDecisionWFirmShortCode*) should be set based on the setting of the Algo Indicator in the order messages:
  - If the Indicator is set to "0: No algorithm involved" then all positive values (from 0 to 2^{31}-1) would represent a human trader,
  - If the indicator is set to "1: Algorithm involved" clients are requested to populate this field with the ranges of values identified below. No technical checks would be performed to validate correctness of the ranges used by the system:
    - In–house algorithms: with positive range of values between 0 to 2^{31}-1
    - ISV algorithms: negative range of values between $-2^{31}+1$ to -1

Clients should take the following into consideration for population of short codes in inbound messages:

- *ExecutionWithinFirmShortCode* is mandatory to be provided in all inbound application messages;
- *InvestmentDecisionWFirmShortCode* is mandatory to be provided in when the order is flagged as Liquidity Provider, Related Party or House. It does not apply if an order is flagged as DEA. It is optional in other cases.
- *ClientIdentificationShortCode* is mandatory when an order is flagged as Client, RO or DEA. It is optional in other cases.
- *NonExecutingBrokerShortCode* is optional in all cases.

In the order messages short codes are used for regulatory reporting. In most other messages these codes, if identified, are to be used for purposes of identifying individual market makers and Kill command.

1.2.2 Reporting to Competent Authorities

MiFID II requires market participants to report additional transaction information to the regulators. The requirements for this reporting are summed up in the delegated act "supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the reporting of transactions to competent authorities" issued by ESMA within the MiFID II Regulatory Technical Standards. Euronext provides an Approved Reporting Mechanism (ARM) service to its clients, which allows them to comply with these requirements in a stream-lined manner.

Clients established within the European Union, are able to subscribe to this optional supplementary service. For clients established outside of the European Union the reporting is done by the exchange on a compulsory basis, with client participation in the service and provision of data required by this act being mandatory.

1.3 FUTURE USE

In preparation for various functionalities expected to be implemented in the future on Optiq a number of messages and fields were added and flagged "For Future Use".

Details of functionalities flagged in the specifications as for 'Future Use' are provided for information purposes only, and may change significantly until such time as the finalised specifications for the relevant service are communicated to clients.

The associated messages and effective use of fields will not be technically supported until the announced date for implementation of these functionalities. Submission of inbound messages that are flagged as 'Future Use' will be rejected by the system. Such fields or values, if provided in supported inbound messages, will be ignored by the system.

This behaviour applies to:

- **Messages** flagged as 'For Future Use';
- **Fields** flagged as 'For Future Use', 'Pending Regulatory Approval' and when Used For is set to 'Derivatives'.

Note: Fields and Values for future in the messages structures are represented in *italic and in grey*.

1.4 GLOSSARY

This section provides some high level definitions of commonly used terms in this document. Please note that some of these terms are described in more details in the dedicated sections within this document.

- **Optiq:** is Euronext's multi-market full trading chain technology platform.
- **Order Entry Gateway (OEG):** is the software that manages the access for exchanges' clients, and acts as the private interface between the clients and the Optiq matching engine.
- **Market Data Gateway (MDG):** is the software that provides high-speed, real-time market data (public messages) for the Euronext markets.
- **Matching Engine:** is the software that manages the trading services for the Euronext markets.
- **Optiq Segment:** defines a universe of instruments habitually sharing common trading properties. An OPTIQ Segment can contain one or several asset classes. An OPTIQ Segment access is setup through a Logical Access.
- **Partition:** is a technical subdivision of an Optiq Segment. An Optiq Segment may be comprised of at least one or several partitions, physically independent one from one another, but connected to each other within the context of the Optiq Segment. Instruments may move from one partition to another within an OPTIQ segment.
- **Logical Access:** is an OEG (Order Entry Gateway) entry point, setup for clients to connect to a single OPTIQ Segment, containing the technical configuration for the client's connectivity. Multiple logical accesses can share the same SFTI line.
- **OE Session:** the individual physical connection, to a single Partition. A single Logical access may have as many OE sessions as there are partitions in the Optiq segment.
- **Simple Binary Encoding (SBE):** is the open source binary protocol used as the solution for market data and order entry messaging in Optiq. SBE was designed within the FIX Protocol Limited organization, with a focus on low-bandwidth utilization and the goal of producing a binary encoding solution for low-latency financial trading.
- **Symbol Index:** is a unique system-wide identifier (in private and public messages) assigned to a trading instrument and Contracts in Optiq. Note that an instrument here represents either a single tradeable instrument, an index or a strategy. Except for strategies, it represents the combination of the following instrument characteristics: ISIN, MIC, Currency and when required the MIC of the Market of Reference. SymbolIndex will not change over the lifetime of the instrument, but can take a different value for the same instrument, depending on the environment (Prod or Test).

- **Message:** is a discrete unit of communication, provided in pre-defined format, which depends on the chosen protocol and the target functionality it relates to, containing information exchanged between Euronext and its clients, to enable trading on its systems.
  - **Administration message** is an electronic instruction from client or response from the OEG used to exchange technical, non-trade related information, most notably used to setup and maintain connectivity between a client and an OEG.
  - **Application message** is an electronic instrument from a client or a response from the OEG, used to exchange order and trade related information, including requests and events that impact orders and trades, but do not directly represent them.
  - **Order:** An order is an electronic instruction from a firm to buy or sell an instrument via Optiq. Firms can send many types of buy, sell and cross orders that are matched upon arrival or placed in the order book to await a match.
  - **Trade:** A trade is an electronic agreement between the client(s) that submitted the order(s) to exchange for a certain quantity of one or more instruments, for one of the various forms of reimbursements (payment, exchange of goods, services, etc.).
- **Standing Data:** provides referential data characteristics of all trading instruments available on Euronext markets. The data is provided via files and messages.
  - **Standing data files** contain referential data characteristics of the contracts, trading instruments including outrights, and strategies that may be required, or provided as value-added information. These files are provided on a daily basis and can be obtained from a separate HTTPS service.
  - **Standing data messages** contain the basic information of each instrument and strategy, and are disseminated via MDG at the start of each trading session and intra-day on creation of Derivative instruments.
  - Clients should refer to the **MDG documentation** for the full details about these services.
- **Self-Trade Prevention (STP):** Service provided by Euronext on its trading platform, to allow trading clients to avoid unintentional trading with themselves, that results from the matching of two opposite orders of the same client. This service is made available to clients performing specific types of activities (e.g. Liquidity Providers) setup depending on the rules defined per Optiq Segment.
- **Firm:** A firm is an investment firm or financial institution that deals, advises, and/or acts on behalf of its clients and possibly itself on the Euronext markets.
- **A Firm Access**: An entity allowing the Firm to access the Trading Platform. The two Firm Access types, which can both be used by a given Firm, are **Regular Access** and **Service Bureau Access**, as described below:
  - **Regular Access**: when a firm contracts its own and exclusive order entry access means directly with Euronext, the Firm Trading Solution type is Regular Access (or sometimes Direct Access).
  - **Service Bureau Access**: when a third-party customer, which may, among others, refer to a Service Bureau, contracts order entry access means with Euronext to act as an order carrier on behalf of several firms, the Firm Trading Solution type is Service Bureau Access.

1.5 ERROR CODES

When the Matching Engine receives an incoming message, it performs several checks on this message, and may reject it. When this occurs, the error is identified in the outgoing message sent back by the responding system as an error code. In Optiq the response messages contain only the error codes.

The list of errors that can be issued by the Optiq Matching Engine (ME) & Order Entry Gateway (OEG) upon reception of incoming private messages is provided in a dedicated file: Error Code List, which may be downloaded from the Euronext website. This list includes errors that may occur due to issue encountered within messages sent by customers to or exchange business continuity conditions, as well as the errors that are issued by the Trade Confirmation System (TCS).

The Error Codes are classified by Rejection Type. The rejection types are defined in the following table and the first digit in the Error code is set to represent the type of rejection:

Rejection Type	Technical / Functional	Description
0 - TCS	TCS	Errors specific to messages sent to the Trade Confirmation System (TCS)
1 - Inconsistent	Functional	The specified value is functionally invalid (e.g., Expire time < actual time); OR Fields/characteristics are provided in the message but are irrelevant (e.g., a Stop Price filled for a Limit Order)
2 - Forbidden	Functional	Request is forbidden due to Exchange's Functional rules described in the associated Rules & Regulations documents (e.g. Trading Manual identifies that during the current phase, or due the member's authorizations a specific type of activity is forbidden)
3 - Invalid	Technical	The specified value is technically invalid (e.g., MsgSeqNum n < MsgSeqNum n-1); OR The format is not the expected format for free fields (String instead of Integer); OR The specified value is not one of the enumerated values listed for the field
4 - Missing	Technical	Necessary field is missing
5 - Failure	Technical	Failure in the exchange system

Important notes:

- Fields, presence of which is "Mandatory" or "Conditional", can lead to an order rejection (Rejection type 4 - Missing) if not provided
- Fields, format of which is "Enumerated", can lead to an order rejection (Rejection Type 3 - Invalid) if the value provided is not among the authorized values
- All Fields can lead to an order rejection (Rejection Type 3 - Invalid) if the format is different from the format required
- Fields with null value are considered as not provided
- Information related to that are still work in progress (e.g. ETF MTF, ERG for Cash) may be present in this document are subject to change when finalized version of the specifications for these initiatives are released
- Dark Functionality is for future use, pending regulatory approval

1.6 WORK IN PROGRESS

Some functionalities to be provided in Optiq for Derivatives markets are slated to be available at a later date. As such, the current version of the document may not contain the associated updates and messages.

The high level list of topics not covered is listed below:

- Management or Reservation (e.g. in case of Trade Price Validation)
- Interaction via private messages with Event Driven Implied Model (EDIM)
- Request for Cross.

2. ORDER ENTRY MAIN PRINCIPLES

2.1 NEW INSTRUMENT SEGREGATION - OPTIQ SEGMENT

High reliability, significantly increased throughput and latency performance with minimal standard deviation, improved flexibility in delivery of new functionalities and products, shorter time to market as well as the improved resiliency will be ensured within Optiq in part by introduction of the new instrument segmentation through Optiq Segments.

2.1.1 Optiq Segments

An Optiq Segment defines a universe of instruments sharing common trading and financial properties, it allows Euronext to segregate instruments among hermetic universes to facilitate clients' organisation toward Euronext financial markets.

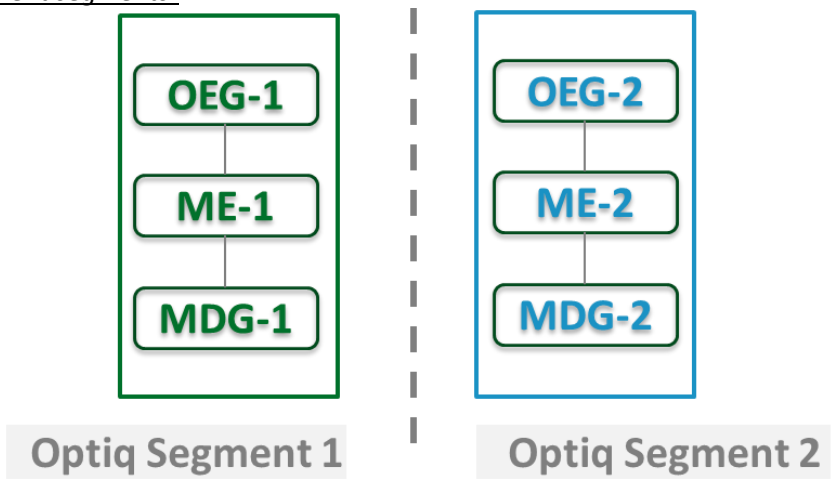
For the implementation of Optiq Segments the instrument universe is rationalized and reorganized to fit the new structure.

A segment can contain one or several asset classes. Information of the Optiq Segment to which an instrument belongs to / hosted on is communicated to clients within the Standing Data files and messages[1].

Clients must be aware of the different existing Optiq segments and the instruments they host in order to identify which segment(s) they would connect to.

- Segmentation provides:
  - Improvement in resiliency - failure of a single Optiq segment should have limited direct technical impact on other Optiq segments;
  - Increased flexibility – possibility of independent software and operational lifecycle.

Illustration of two different segments:



[1] Standing data files and messages refer to the data provided for Cash and Derivatives, instruments, contracts, outrights and strategies.

2.1.2 Partitions

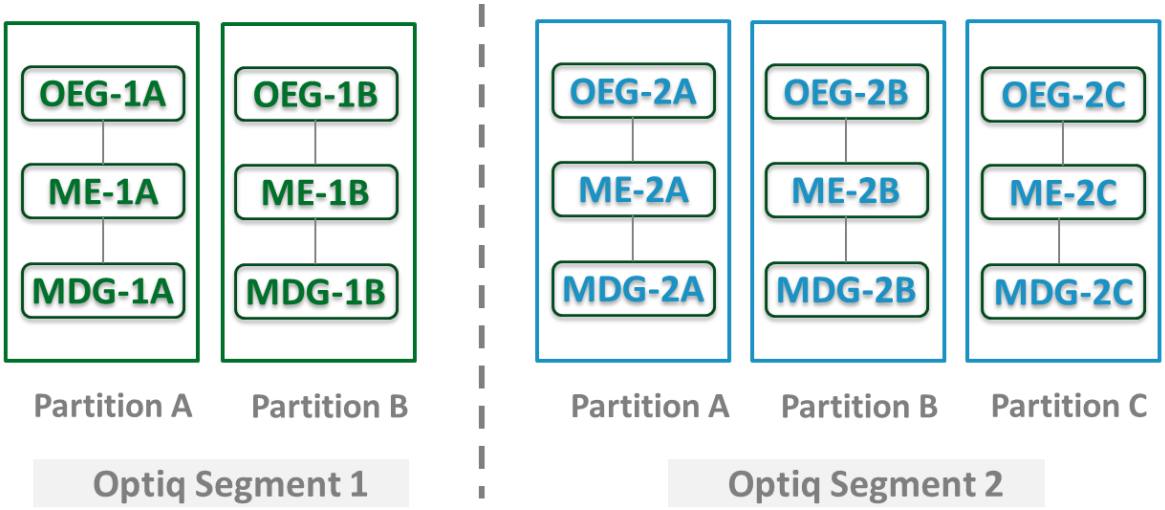
An Optiq Segment may be comprised of one or more physical partitions.

A partition is composed of an Order Entry Gateway (OEG), a Matching Engine (ME) and a Market Data Gateway (MDG).

Instruments have the flexibility to be moved from one partition to another within an Optiq segment.

- Partitioning provides the following benefits:
  - Improved resiliency - failures on one partition impact only a fraction of the market / clients;
  - Improved scalability: simple and seamless scalability model based on horizontal scalability principles;
  - Ensured stable latency and high performance.

Illustration of segments divided into partitions:



2.1.3 Logical Access and OE Sessions

Access to an Optiq Segment requires a dedicated Logical Access:

- A Logical Access is a point of entry configuration for connectivity to a specific Optiq Segment and allows the client to technically reach all the instruments belonging to the particular segment for which an access is setup.
  - A Logical Access is dedicated to an Optiq Segment, i.e. a single Logical Access cannot connect to two different Optiq Segments;
  - Clients may have several Logical Accesses per Optiq Segment;
  - It allows the client to connect to all partitions belonging to the segment either directly or indirectly;
  - The physical connection is managed at the OE Session level and there is at least one per Logical Access.
- An OE session corresponds to the actual physical connection of the client to a partition:
  - OE Sessions are automatically created by the Exchange upon creation of a Logical Access;
  - OE Session is the login identifier for each physical connection represented by the combination of the *Logical Access ID* and the *OE Partition ID*. These two fields represent an ID which is unique across the whole system and across the various Optiq Segments;
  - One OE Session always belongs to one Logical Access, but a Logical Access can have multiple OE Sessions. There can be as many OE Sessions as there are partitions in the Segment;
  - An OE session inherits the majority of characteristics setup for the Logical Access;
  - By default, OE Sessions hold the ownership of the orders entered through it.

2.1.4 Full mesh OEG-ME Connection

If a segment has multiple partitions, for the best possible response times, clients should initiate an OE session for each available partition and send messages through it only for the instruments hosted on this partition. However, a client may use a single OE Session to access all the instruments of an Optiq Segment, no matter how many partitions compose the segment. This is made possible by the full mesh OEG-ME connectivity provided by Optiq as represented in the diagram below. Such cross-partition access will incur additional response times (i.e. increased latency).

Quotes and other Market Making messages cannot be sent across partitions, and must be sent only to the partition where the Instrument or Contract is hosted.

By default, the responses to the private response messages sent through a different partition will return to the OE session holding the ownership of the order (from which it was sent). However, the corresponding MDG messages is issued by the partition on which the instrument is hosted.

As it relates to the OEG and private messaging, Order ownership is the technical belonging of the order to the physical connection that submitted the order, or to the physical connection that took ownership of the order. Outbound messages are sent to the OE Session that owns the corresponding order. Functionally the orders belong to the Firm (designated by its Firm ID), and for the scope of change of ownership; modification can only be done by the requestor with the same Firm ID, and between physical connections or Logical Accesses that are set with the same Firm ID.

Illustration of segments, partitions and connectivity:

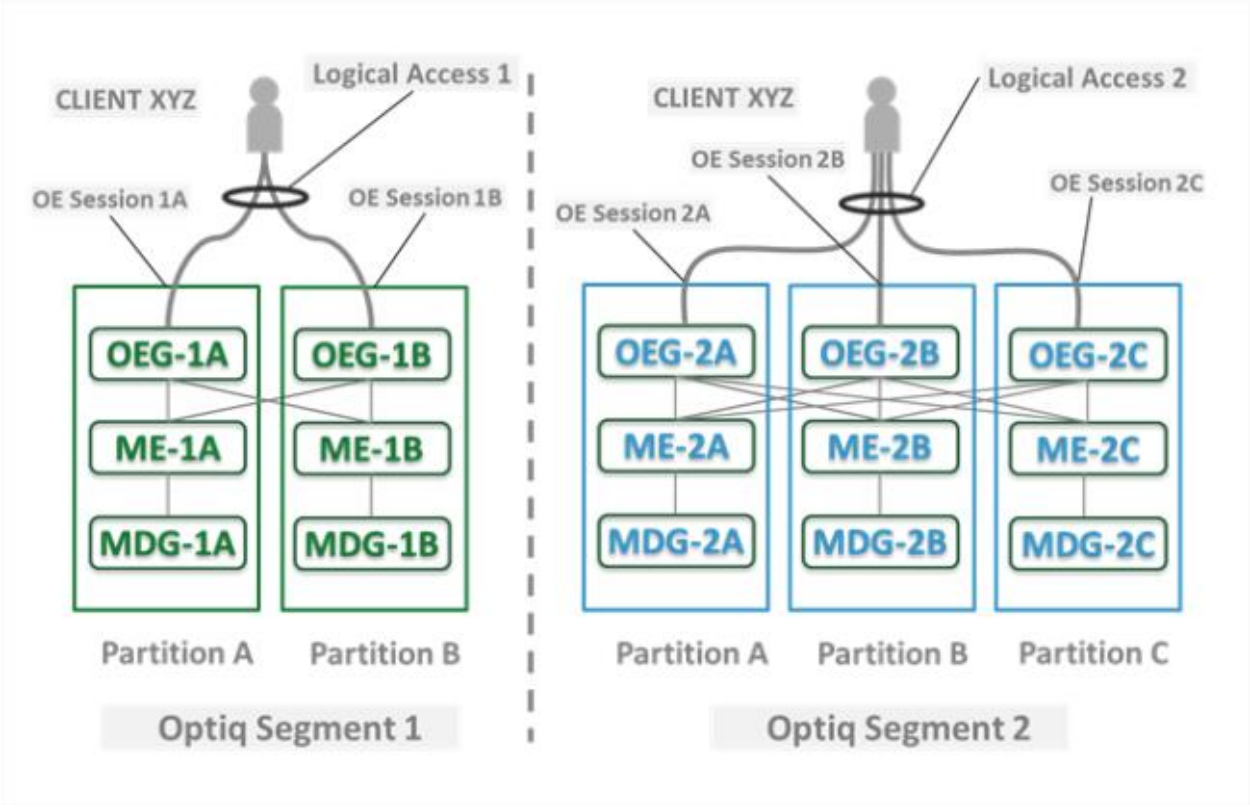
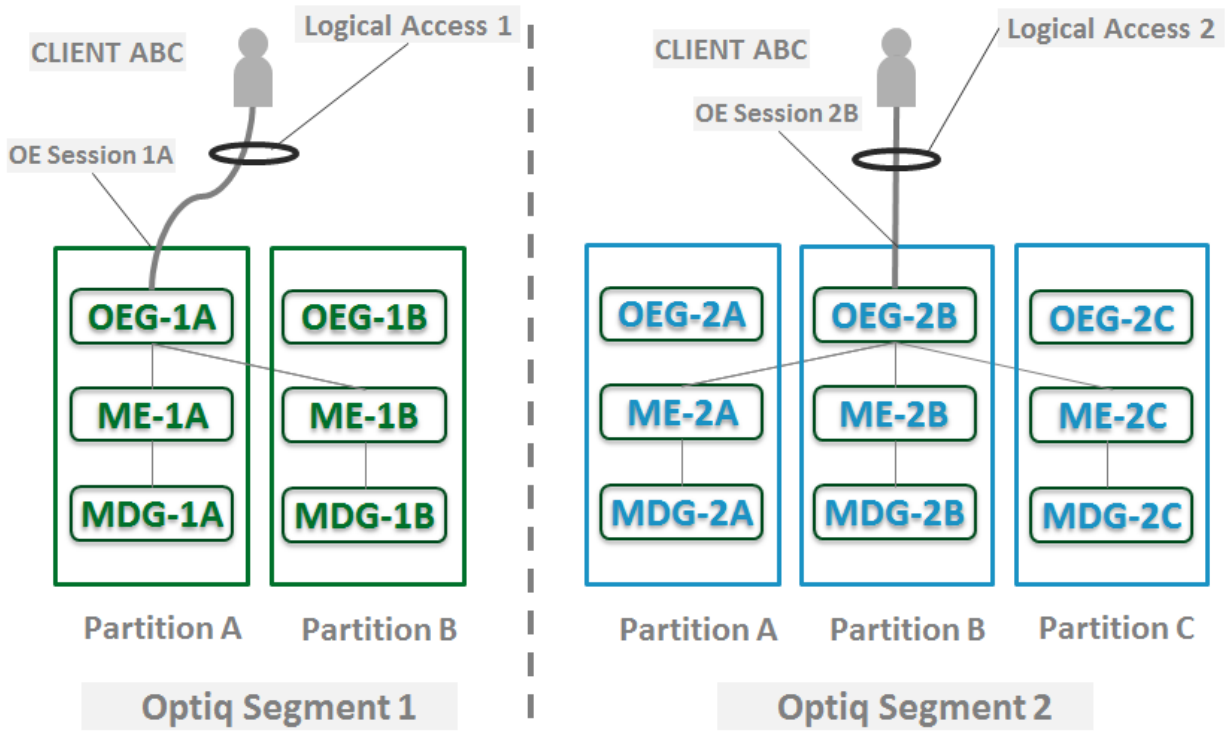


*Illustration of the **full mesh** connectivity:*



2.1.5 Determine the "shorter path"

In order to benefit from the best response times, the clients should send messages directly to the partition on which the instrument is located. To identify on which partition each instrument is located, clients must use, and update on a daily basis, their referential data by downloading the Standing Data files or using the **StandingData** market data messages, where details of the *Partition ID* assigned to each instrument are provided[2].

2.1.6 Setting Up Connectivity

Euronext provides connectivity information within a dedicated document, the Connectivity Detail specifications, covering all required technical details. Ranges of IPs / Ports and Multi-cast channels are identified for each Optiq segment for Order Entry and Market Data gateways.

To take full advantage of the scalability of Optiq, and ensure continuity of service, clients are strongly encouraged to setup connectivity to the full range specified per segment for OEG and MDG. Individual partitions will be assigned a sub-set of values identified within the specified ranges.

In addition, the relevant details for OEG and MDG connectivity per instrument will be communicated in the referential standing data files provided on a daily basis. For the details of the format in which this data is provided please refer to the *Euronext Market – Optiq File Specifications* document.

[2] For the Cash markets. Standing data file is: CashStandingDataFile (9007); Real time MDG Standing data messages: Standing Data (1007) | For the Derivatives markets. Standing data file is: DerivativesStandingDataFile (9013); Real time MDG Standing data messages: Contract Standing Data (1013)

2.1.7 Overnight instrument migration between partitions

In order to improve latencies and predictability, an overnight load balancing mechanism is introduced by the new Optiq system. This new technical mechanism implies that every day all instruments belonging to an Optiq Segment may potentially be relocated across the partitions belonging to this Optiq Segment.

Please note that this migration between partitions will not cause instruments to migrate from one Optiq Segment to another Optiq Segment.

Every instrument can migrate overnight from one partition to another. It means that connectivity information associated to an instrument can change every day, which is why it is crucial for clients to daily update their referential data by downloading the standing data files provided on the Euronext server.

Please refer to the *Euronext Markets – Optiq MDG Client Specifications* document for further details on standing data files.

Note: While migration of instruments between Optiq Segments is not expected to be a regularly occurring event, it may happen, and will be done with prior notification to clients.

2.1.8 Added / Removed Partition

The partitioning of the Optiq Segments, and full-mesh connectivity, allows Euronext to add or remove a partition without impacting the clients' connectivity. Adding or removing a partition will not impact connectivity to other existing partitions or OE sessions.

In case of introduction of new partitions. Until clients are able to connect to the new partition they will still be able to use individual order messages to access all the instruments belonging to an Optiq Segment by connecting to the already existing partition(s).

In case of removal of a partition, Clients will still be able to connect to existing partitions, and access instruments that were hosted on these partitions before the change, as well as any instruments that had to be moved to the existing partitions from the one being removed.

Partition on which the contract or instrument is hosted is identified in the Standing data that is provided on a daily basis.

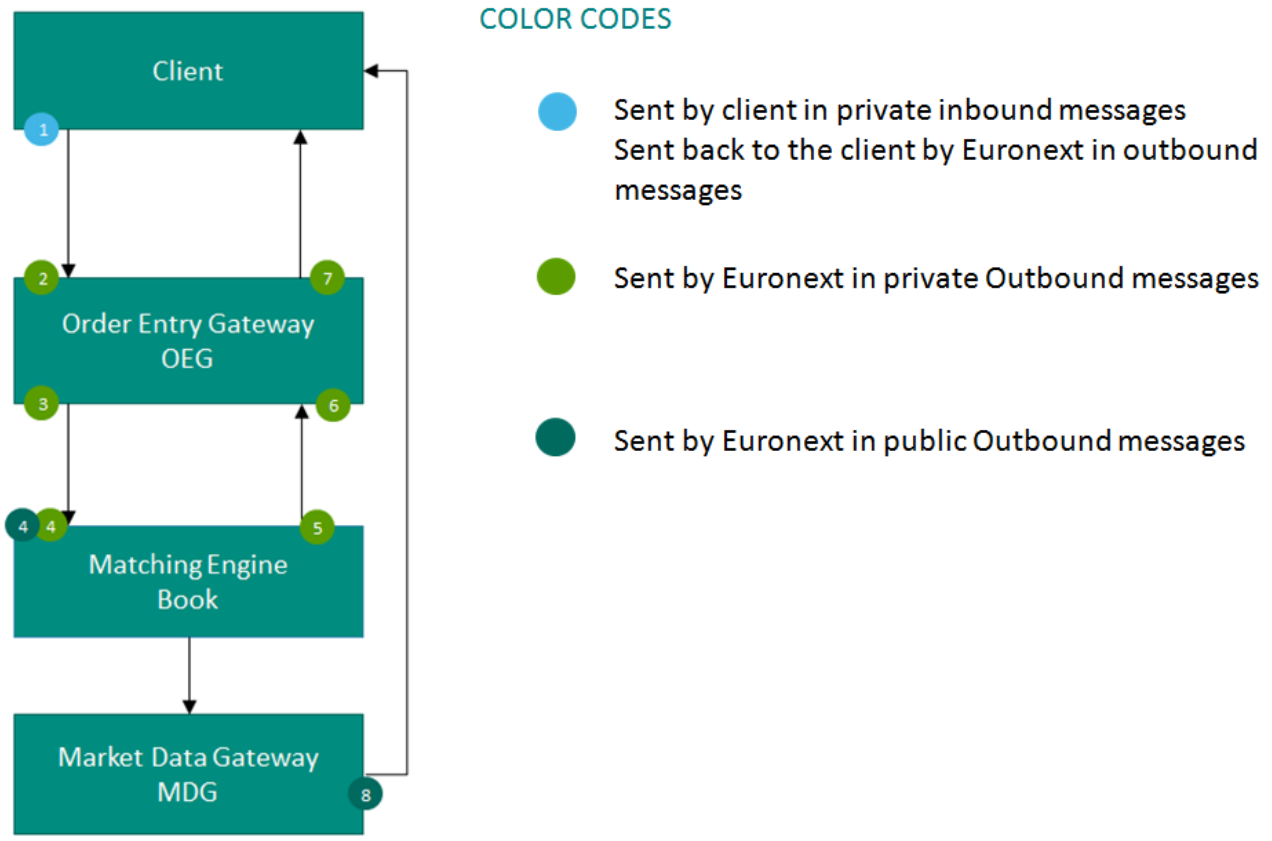
In all cases clients will always be provided prior notice before such changes are performed.

2.2 TECHNICAL FEATURES

2.2.1 Latency Monitoring and Timestamps

Outbound messages provide several internal timestamps to allow the clients to monitor the processing time of the system at different levels.

- The following diagram represents the different timestamps provided in the outbound messages:



#	Field name	Description of data provided
1	*Message Sending Time*	is assigned by the Client in his inbound message
2	*OEG IN From Member*	is assigned by the OEG after decoding the inbound message
3	*OEG Out to ME*	is assigned by the OEG when sending the inbound message to the matching engine, and is later on provided in the Outbound messages
4	*Book IN Time*	is assigned by the ME when receiving the inbound message from the OEG
5	*Book OUT Time*	is assigned by the ME when sending the outbound message to the OEG
6	*OEG IN From ME*	is assigned by the OEG when receiving the outbound message from the ME
7	*OEG OUT To Member*	is assigned by the OEG when sending the outbound message to the client
8	*Packet Time*	is assigned by the MDG when sending the message to the market

2.2.2 Drop Copy

Drop Copy is a service, providing near real-time copies of trade reports & order messages, usually used for risk management and for compliance needs.

Clients require a dedicated connection to receive Drop Copy messages, which can be setup with configuration that fits their needs.

The service is available in FIX protocol only; further details are provided in a dedicated document.

2.3 CLIENT ORDER ID MANAGEMENT

2.3.1 Client Order ID Overview

Clients must provide a *Client Order ID* in every inbound application message, otherwise the message will be immediately rejected by the OEG.

Clients may provide any value that respects the *Client Order ID* format, which is an 8-byte signed integer, and the ranges as defined below. The Exchange recommends setting a unique ID per order, Firm and Symbol Index.

For order entry, the *Client Order ID* value is not checked by the Exchange[3], it is simply returned in the corresponding outbound message to allow clients to reconcile the response message with their original inbound request.

For modification and cancellation using the *Original Client Order ID* as unique identifier[4], the value is checked by the Exchange for possible duplicates, that would represent different live orders originally submitted with the same *Client Order ID*. In case of duplicates, the inbound request is rejected with the associated error code.

2.3.2 Client Order ID Usages for Order Management

Clients can submit modification and cancellation requests by using the *Original Client Order ID* as unique identifier, i.e. the value of the *Client Order ID* as submitted previously with the original order.

This allows clients to use the *Client Order ID* as unique identifier to modify or cancel their orders per Symbol Index and Firm, in addition of the *Order ID*. It does not restrict clients to use the *Order ID* to manage their orders.

Please note that *Client Order ID* provided for the modification requests will not be updated in the live order itself; order will keep its original *Client Order ID*.

To properly perform the inbound request, the system checks that the value exists on the corresponding Symbol Index among live orders belonging to the requesting Firm. If no order is found the request is rejected, or if more than one order is found the request is also rejected. In this case clients must use the *Order ID* to reach their orders.

As the uniqueness of the *Client Order ID* is not checked by the Exchange for order entry but only in case of modification and cancellation requests, clients who want to use the *Original Client Order ID* as unique identifier for these requests must ensure on their own the unicity of the Client Order ID per Symbol Index and Firm for orders they submit.

As requests using the *Original Client Order ID* require additional checks to be performed by the system, clients may observe a slight increase of the response time for these requests. Hence to ensure the best possible response times clients are encouraged to use *Order ID* as the reference for their orders.

2.3.3 Client Order ID Ranges

Depending on the nature of the client access, the *Client Order ID* must respect some constraints as described below.

Moreover, it is recommended that clients implement their own configurable prefix in order to allow firms to integrate several application instances easily and ensure *Client Order ID* uniqueness across all the firm orders.

2.3.3.1 For Regular “In House” Accesses

The guideline for the range to use for the Regular In-House accesses (i.e. non via ISV nor using Service Bureau):

[3] With the exception of the Service Bureau accesses for which a check is always performed.

[4] If both *Original Client Order ID* and *Order ID* are provided in a modification or cancellation request, the *Original Client Order ID* is totally ignored and the request is performed on *Order ID* only.

- clients should use the positive number range only;
- numerically it means that clients are restricted to values from 0 to 2^{63} -1.

There is no other constraint than positive values for the non-Service Bureau accesses.

The correct use of the client order id range is checked by the exchange during the conformance test, however afterwards the OEG will not perform any checks of the correct assignment of the range in the inbound application message.

2.3.3.2 For Regular Accesses via ISV

The guideline for the range to use for the Regular access via ISV, without use of Service Bureau:

- clients should use the negative number range only;
- clients should insert at the beginning of the field the unique ISV ID, which will be provided by the Exchange.
  - the ISV ID is composed of three digits
- numerically it means that clients are restricted to a range from –XXX0000000000000000 to –XXX9999999999999999, where XXX is their ISV ID.

The correct use of the ISV ID and range is checked by the exchange during the conformance test, however afterwards the OEG will not perform any checks of the correct assignment of the ID or range in the inbound application message.

2.3.3.3 For Service Bureau Accesses

For Service Bureau accesses:

- clients must use the negative number range only;
- clients must insert at the beginning of the field the unique Service Bureau ID, as provided by the Exchange.
  - the Service Bureau ID is composed of three digits
- numerically it means that clients are restricted to a range from –XXX0000000000000000 to –XXX9999999999999999, where XXX is their Service Bureau ID.

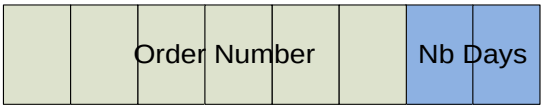
The Service Bureau ID is provided by the Exchange and is checked during the conformance test and is also checked and enforced at the OEG level for each inbound application message.

2.4 ORDER ID

The *Order ID* used in the messages for trading purposes is a numerical order identifier assigned by the matching engine, unique per instrument over the entire lifetime of the order, which means that this value remains unchanged, even upon submission of the modifications of the order using **CancelReplace** (06) message.

For reconciliation purposes with Euronext's clearing & settlement partners clients may obtain the Order Number and the Order Entry Date from the *Order ID* field, which is composed of two parts required for this, as depicted below:

- the least-significant 2-bytes include the relative calendar days number since 1-jan-1970 at 0:00 UTC (EPOCH); (Please note, currently the clearing partners may use the date corresponding to this value in ASCII format)
- The remaining most-significant 6-bytes contain the Order Number.



3. ORDER ENTRY GATEWAY SPECIFICS

3.1 SESSION MANAGEMENT

3.1.1 Logon Overview

Clients initiate a TCP/IP session to the Order Entry Gateway, and then initiate a logon by sending the **Logon** (100) message. Session Logon is always initiated by the client. The **Logon (100)** message must be the first message sent by the client otherwise the OEG will drop the connection, and needs to be sent individually to each partition to which physical connection will be established. Please refer to the description of use for the individual messages and Kinematics document to see the various cases and the associated expected exchange of messages.

After the logon is successful application messages may be exchanged between the client and server. A client has *n* seconds after they connect to send a logon request, otherwise the server drops the connection.

The value of the time delay *n* is provided for each Optiq Segment in the *Euronext Markets – Optiq OEG Connectivity Specifications* document.

3.1.2 Heartbeats and TestRequests

The OEG uses the **Heartbeat** and **TestRequest** messages to ensure the connection between the client and the Exchange is up and functioning properly. During periods of inactivity the mechanism used by the OEG functions as described below.

OEG sends a:

- **Heartbeat** (106) message after the given delay of inactivity on its side, i.e. the OEG sends a **Heartbeat** message after it hasn't sent out any messages within *n* second(s). In case no other application messages, the clients will receive at least one **Heartbeat** (106) message every *n* second(s) when they are logged on. This ensures the client that OEG is up and functions properly.
- **TestRequest** (107) message after the given delay of inactivity on the client side, i.e. when the client has not sent any message in the last *n* second(s).
  - The client has another, equivalent time delay to answer the **TestRequest** (107) message by sending back to the OEG either a **Heartbeat** (106) message, or any other application message.
  - Otherwise if the client does not issue any message within the given delay, the OEG closes the connection. (Note that this disconnection triggers the Cancel on Disconnect mechanism for any messages in scope)

The **TestRequest** (107) message can also be sent by the client to the OEG at any moment and the OEG will answer with a **Heartbeat** (106) message.

The parameter n has a specific value for each Optiq Segment that is specified in the *Euronext Markets – Optiq OEG Connectivity Specifications* document.

3.1.3 Logout

Logout (103) message is used to improve session management processes. This message identifies to the exchange if the client has disconnected on purpose or because of technical issue.

3.1.4 Message Sequence Usage

Optiq uses sequence numbers to ensure no loss of messages. Clients assign sequence numbers to the messages they send to the exchange and the Optiq tracks these numbers for the incoming (sent by client) messages. Similarly, Optiq assigns its own sequence numbers to the outgoing messages (sent by Optiq) that it sends to the client.

The first sequence values provided in the initial Logon messages of the day are set to zero (0) [or 1 for FIX]. When clients log on after a disconnection, the Logon message allows the client and Optiq to exchange the sequence numbers of the last messages that they processed from each other. Each side can then start sending the next message that has not been processed by the other side, or otherwise follow the business continuity and recovery processes.

Please note that message sequence numbers are assigned only to application messages and not to administration messages.

3.2 CANCEL ON DISCONNECT MECHANISM

Cancel on Disconnect is a mechanism which triggers an automatic cancellation of all non-persisted orders upon disconnection of the client whether voluntary or due to an issue.

In typical day-to-day operations the Cancel On Disconnect applies at the OE Session level, which means that it is triggered per OE Session (physical connection) and it does not affect other OE Sessions that belong to the same Logical Access.

By default, the Cancel On Disconnect is enabled for all clients and for all their Logical Accesses / OE Sessions. It means that every single order is checked for Cancel On Disconnect.

The Cancel On Disconnect mechanism is triggered when the connection between a client and the OEG is dropped. If the client application is disconnected from the OEG, then all live quotes and non-persisted orders submitted during current day's trading sessions, and belonging to the corresponding OE Session are cancelled for their remaining quantity, regardless of order type and validity type.

When the mechanism kicks in, a **Kill** (05) messages are sent to the OE Session for which the mechanism has been triggered, for each instrument in scope and each killed order. If the client has not yet reconnected the messages will be queued until he returns.

Clients can indicate on each order if they want it to be persistent, i.e. not included in the scope of the Cancel On Disconnect mechanism. If the *Disabled Cancel On Disconnect Indicator* (see field *Execution Instruction*) is set to "True" for an order, this order will not be cancelled even if the Cancel On Disconnect kicks in for the OE Session it belongs to.

Please refer to the "Cancel on Disconnect for OEG" section of the *Euronext Markets – Optiq OEG Connectivity Specifications* document for further details.

4. FORMATTING

4.1 SBE MESSAGE STRUCTURE

Private inbound and outbound messages are composed of the following parts displayed from left to right in the table below:

SBE Structure													
Frame	SBE Header	Block	Repeating Section 1					...	Repeating Section N				
			Repeating Section Header	Rep. Sec. 1.a	Rep. Sec. 1.b	...	Rep. Sec. 1.n	...	Repeating Section Header	Rep. Sec. N.a	Rep. Sec. N.a	...	Rep. Sec. N.a
2 bytes	8 bytes	n bytes	2 bytes	x_1 bytes	x_1 bytes	...	x_1 bytes	...	2 bytes	x_N bytes	x_N bytes	...	x_N bytes

Each message is enriched with a "Frame" field followed by the SBE header. The "Frame" field contains the length of the message including the length of the "Frame" and "SBE header" fields.

Please note that even if the Frame must be present on the wire for every message, for readability purpose it is not represented in the message structures of this document.

4.1.1 SBE Header

The SBE Header is composed of the following fields:

Field	Description	Length	Values
Block Length	Length of the block. The Block is the message without the repeating section headers and the repeating sections. This is especially useful of new versions of messages in case Euronext adds fields at the end of the block. Clients will remain able to process the block fields and know where the repeating sections starts.	2 bytes	From 0 to 2^{16}-1
Template ID	Identifier of the message template. This is the **message type** of the messages (e.g. NewOrder (01), Ack (03)…).	2 bytes	From 0 to 2^{16}-1
Schema ID	Identifier of the message schema that contains the template.	2 bytes	From 0 to 2^{16}-1
Schema version	Version of the message schema in which the message is defined. Used to add messages and/or modify some others.	2 bytes	From 0 to 2^{16}-1

A Schema is the file describing a group of messages (Private inbound and outbound, Market Data, etc.) used by the Exchange. The group of messages is identified by the *Schema ID*. The schema contains the templates that represent the structure of messages supported by the Exchange, each message being identified by its *Template ID* (message type). A given schema may have several *Schema Version* values, which specify the message structure used by the sender.

Hence the OEG SBE template file (or the *OEG_SBE_Input_Schema*) contains all the Templates for the private inbound and outbound messages. The Schema Version defines the version of this *OEG_SBE_Input_Schema* and the structure to be used by the sender. For more information for the SBE template please review the *Euronext Markets – Optiq File Specifications* document.

Please note that the SBE Header must be present on the wire for every message, but for readability purpose it is not represented in the message structures of this document.

4.1.2 SBE Repeating Section Header

The SBE Repeating Section Header is composed of the following fields:

Field	Description	Length	Values
Block Length	Defines the length in bytes of a repeating section (without the length of the header).	1 bytes	From 0 to 255
Num In Group	Defines how many times the repeating section is repeated. It is set to "0" if there is no occurrence of this repeating section.	1 bytes	From 0 to 255

This header must be present at the beginning of each repeating section group.

Please note – the messages structures contain the actual names of the repeating groups that are used in the SBE template.

In the message structures (section 5), repeating section headers are represented as follows:

Field	Short Description	Format	Len	Values	Presence	Page
Block Length for repeating section 1	Defines the length in bytes of the repeating section 1.	Header	1	18	Mandatory	24
Num In Group for repeating section 1	Defines how many times the repeating section 1 is repeated.	Header	1	0 to n	Mandatory	24

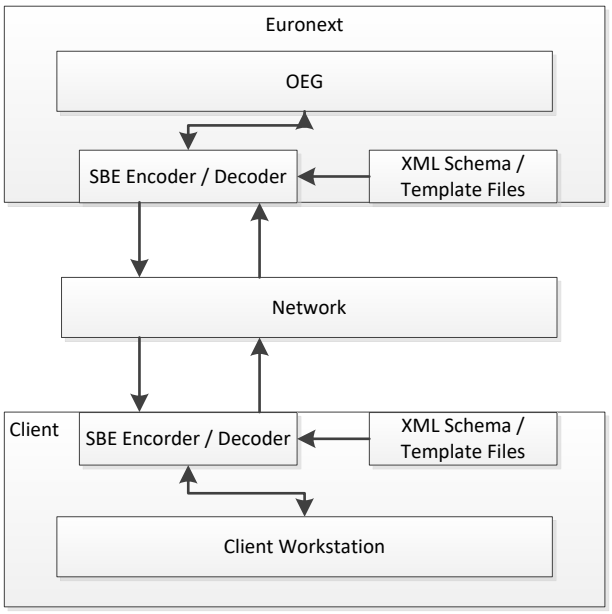
Some empty repeating sections have been introduced for future use purpose at the end of some messages. But due to technical constraints, headers of these repeating sections must be present at the end of the messages; they are represented in message structures as follows:

Field	Short Description	Format	Len	Values	Presence	Page
Block Length for repeating section 1	Defines the length in bytes of the repeating section 1.	Header	1	**0**	Mandatory	24
Num In Group for repeating section 1	Defines how many times the repeating section 1 is repeated.	Header	1	**0**	Mandatory	24

For these empty repeating sections, clients must set the two fields of the header to zero "0".

4.1.3 SBE Usage

Euronext provides SBE Template XML files that contain all message types supported by the system. Client systems can decode and encode SBE message using the schema and the template files as below:



SBE offers the possibility to have backward and forward compatibility. It means that clients are not required to be on the last version of Schema Version (message structure version) to be able to read the message. This is only possible if changes between versions occurred at the end of:

- The block
- The repeating section.

Using message length, SBE is able to know the difference between the block length or the repeating section length managed by a given client and the received message. As such, fields that do not match a client's version of the messages will be skipped.

However, it is crucial to note that the list of available values in any given field can be updated and the length can be changed. In this case, the update must be taken into account.

Hence if a field required by the regulator becomes mandatory in a message, each client using this message will need to update its Schema for the latest version, otherwise this message will be rejected by the Order Entry Gateway. A change of length of any field will also lead client to update their Schema if they want to use a message containing this field.

Please refer to the *Euronext - SBE Technical Note* for further details on the SBE Encoder / Decoder.

Note: Changes of SBE template are communicated to clients in advance.

4.1.4 SBE Optional Fields and Null Value

Optional and conditional fields can be provided as null value, as defined by the SBE standard and further indicated in the SBE XML templates.

Please note that the Null Value means that the field is not applicable, not provided or not used. This is different from the value of zero (0), which may have its own meaning depending on the field.

For unused Bitmap fields all the bits must be set to '0'.

4.2 TECHNICAL FORMAT FIELDS

The format of the fields contained in the messages will follow these rules:

- All integers are numeric (signed/ unsigned specified in each field format description) using two's complement method.
- Binary data are in Intel byte order (Little-Endian).
- All "Alphanumerical ID" and "Text" fields are alphanumeric based on UTF-8, left aligned and null padded.
- SBE allows optional fields with a null value. The applicable NULL value is defined by SBE interface.
- Only field values will appear in the published messages (no name or 'tag' will appear in the messages).
- The field names that appear in this document are for reference purposes only.
- All the fields are contiguous.
- All field sizes are fixed and constant.
- Even if it is not always mandatory to be able to process last message version (Schema Version), it is mandatory for clients to check for each update if it contains important or regulatory updates.

Format fields	Description
Alphanumerical ID	String type identifying an element.
Amount	Signed numerical field representing an amount.
Bitmap	Array of bits, each bit specifying whether an optional value is present (set to "1") or not (set to "0") (in Little-Endian). e.g. For the field Execution Instruction a Bitmap field allows indicating in different positions of the field, for the same order message, in position zero (0) with the bit set to one (1) STP type of Resting, as well as in position four (4) with the bit set to one (1) as well, indicate that this order should be persisted and should be excluded from the scope of CoD
Boolean	Indicator having two possible values, either 'true - 1' or 'false - 0'. This value is set on the first bit of the byte (in Little-Endian).
Date	Date of an event (in number of days since 01/01/1970 UTC - 01/01/1970 is the day "0").
Enumerated	Information having a delimited set of possible values.
Numerical	Generic numerical field.
Numerical ID	Numerical field identifying an element.
Price	Numerical field representing a price (either signed or not signed). See the description in Price, Quantity, Ratio and Amounts Formats
Quantity	Unsigned numerical field representing a quantity of elements (for example a number of shares).
Sequence	See the description in Sequence Numbers
Text	Text in UTF-8, left aligned and completed with null padding.
Epoch Time in Nanoseconds	Time in number of nanosecond since 01/01/1970 UTC.

4.3 DATE AND TIME CONVENTIONS

Date and Time provided in this document refer to the following names, and are provided in the following format:

- Timestamps are expressed in UTC (Universal Time, Coordinated) and are synchronised using Precision Time Protocol (PTP). Their format is defined in number of nanoseconds since 01/01/1970 UTC, and is populated as 8-byte unsigned integers.
- Dates are defined in number of days since 01/01/1970 UTC (01/01/1970 is the day "0") and are populated as 2-byte unsigned integers.
- *Note:* Expiry Date and Time provided for Good Till Time (GTT) and Good Till Date (GTD) orders follow their own rules, please refer to the field description for further details.

4.4 SEQUENCE NUMBERS

The Order Entry Gateway manages two sequence numbers:

- Message Sequence Number: this sequence number is incremented one by one by the OEG and per OE Session (physical connection). It is provided in every application outbound message.
- Client Message Sequence Number: this sequence number must be managed by the client's workstation and is mandatory for each application inbound message. It is recommended to increment this number one by one per OE Session (physical connection), starting from 1. Please note that this sequence is not checked by the OEG but will be useful for some specific recovery cases.

4.5 PRICE, QUANTITY, RATIO AND AMOUNT FORMATS

If a price is needed in the messages, it is expressed in currency or in percentages (generally for bonds).

The volume of the order is a number of Securities or an amount expressed in currency.

All prices are processed using two values:

- the price value (Signed/Unsigned Integer);
- the scale code (*Price/Index Level Decimals*).

Clients have to link each instrument to the associated "*Price/Index Level Decimals*" from the Standing Data message or file.

The prices must be calculated according to the following formula:

$$\text{Price} = \frac{Integer}{10^{\text{"Price/Index Level Decimals"}}}$$

For example, a price of 27.56 is sent in messages in the Price field as an Integer of 275600, if the "*Price / Index Level Decimals*" from the Standing Data is equal to 4.

Whether the price is expressed in currency or in basis points, the format of providing the price is the same.

- The same mechanism is used for:
  - All quantities with "*Quantity Decimals*"
  - All ratios and percentages with "*Ratio / Multiplier Decimals*"
  - All amounts with "*Amount Decimals*"

4.6 INSTRUMENT IDENTIFIERS AND EMM

4.6.1 Symbol Index

An instrument is identified by its Symbol Index.

The standard security identifier (for example ISIN), mnemonic, tick size, instrument name and other instrument characteristics are carried only in the following Market Data messages: **StandingData** (1007), **OutrightStandingData** (1014), **StrategyStandingData** (1012), **ContractStandingData** (1013) and in the Standing Data files available on the HTTPS server. As such, the client applications must link the Symbol Index which is used in all messages, with other instrument characteristics present in the Standing Data messages or files.

The Symbol Index is assigned by Euronext and will not change over the lifetime of the instrument.

In some extraordinary cases an instrument can move from one Optiq segment to another keeping its Symbol Index. Clients will always be notified in advance before such changes.

Any Corporate Action leading to a change of ISIN will lead to change of *SymbolIndex*. These Corporate Actions are generally part of the mandatory reorganisation events; the most frequent ones being stock split, reverse stock split, change of name / denomination. However the ISIN change is not systematic and will be in any case communicated upfront through the Euronext Corporate Action notices.

For further details on the Standing Data messages and files please refer to the *Euronext Markets – Optiq MDG Client Specifications* document.

4.6.2 Order Priority

The *Order Priority* is provided in private **Ack** (03) messages for every individual order.

Value in the field *Order Priority* is based on the time of the entry of the order into the book, or the cases of its modification that impact priority.

According to the rules of the market modification of price and volume of an order in most cases have a negative impact on the priority, with exception of modification that is reducing the volume, in which case order maintains its priority. In case of loss of priority, the Order Priority is reset to the time of the modification.

For **Quotes** (08) messages priority is not assigned, as an individual Market Maker may be present only once at single price level.

For Cash Markets Only

For the Cash Markets the *Order Priority* may be used to allow clients to reconcile with the Market Data feed as the *Order Priority* is also provided in the **OrderUpdate** (1002) message.

For further details please refer to the description of the **Ack** (03) message and to the Cash Market Kinematics document in Section *1.2.5.1 Private and Public feed reconciliation*.

For Stop orders *Order Priority* will be provided in the private **Ack** (03) message. This order priority indicates the rank of the stop order on its arrival. If multiple stop orders exist with the same price conditions, they would be triggered in the order of the priority assigned to the stop order upon entry.

When Stop orders are triggered, a new **Ack** (03) message is issued, with the field *Ack Type* set to “Stop Triggered Ack”, they will be assigned a new order priority that indicates their priority vs. the rest of the order book.

4.6.3 EMM

The *Exchange Market Mechanism* represents the platform to which the order sent by the client must be routed. It must be specified by clients each time a *Symbol Index* is specified as it is used to route the order to the right platform.

5. MESSAGES

5.1 IMPORTANT NOTES

5.1.1 Scope of Messages and Functionalities

While attempts are made to provide as comprehensive an overview of functionalities as possible please note that:

- Some of the functionalities and messages in the document are applicable only when enabled for the specific scope of instruments;
- The functionalities follow the rules set out in the Euronext Trading manual and Rule books.

The following table describe each Optiq Segment tag. Each tag will be then used for each message to specify on which Optiq Segment this message applies on.

Optiq Segment	Tag
Equities	EQ
Funds	FND
Fixed Income	FXI
Warrants and Certificates	SP
Equity Derivatives	EQD
Index Derivatives	IDD
Financial Derivatives	FID
Commodities	CMO
Block	BLK

5.1.2 Conditional Values in Outbound Messages

Please note that for the outbound messages (Client◀OEG) the “presence” of the fields in the block of the message is often set to “Conditional”, which means that those fields might be populated with Null Value, when not required. As a single outbound message may cover several trading cases, it contains fields needed in all of these cases, which may be populated or not.

5.2 MESSAGES FORMATTING

5.2.1 Introduction to Message Representation

To help reading the message structure in this document the following introductory explanation is provided.

- In all the structures of messages of this document (the tables representing the messages only):
  - All the lengths identified are in bytes.
  - Short descriptions of individual fields within the structures might not be exhaustive, please refer to Section 6 Field Description where further details are provided for each individual field.
  - Where a list of specific allowed values is provided, if client provides data that is outside of this range of values, the message will be rejected
  - In the fields description the following pictograms represent:
    - [C] means that the value is for Cash only;
    - [D] means that the value is for Derivatives only;
    - [i] means that special conditions apply to the displayed value. These conditions are detailed in the "conditions" in the description of the corresponding field.
  - The display of message sections is formatted as described below:
    - **Block section**: The block is for all the non-repeated fields. They must be present on the wire for each message, even if they are optional or conditional. The length of the section is defined in each individual message template (in bytes).

Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	From 0 to 2^32-2	Mandatory	96
Firm ID	Identifier of the member firm that sends the message.	Alphanumeric al ID	8	(See field description)	Mandatory	104
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	From 0 to 2^64-2	Mandatory	111
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	From -2^63+1 to 2^63-1	Mandatory	96
Symbol Index	Exchange identification code of the instrument.	Numerical ID	4	From 0 to 2^32-2	Mandatory	125
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory	100

    - **Green Repeating section**: All the fields that are repeated. All these fields are in bold and green table borders, it might be **0 to *n* occurrence(s)** for this repeating section. (the maximum value of *n* is defined in the *Template*)

Bid Quantity	Quote bid quantity, (To be calculated with Quantity Decimals).	Quantity	8	From 0 to 2^64-1	Optional	93
Bid Price	Quote bid price, (To be calculated with Price/Index Level Decimals).	Price	8	From -2^63 to 2^63-1	Optional	93
Offer Quantity	Quote offer quantity, (To be calculated with Quantity Decimals).	Quantity	8	From 0 to 2^64-1	Optional	116
Offer Price	Quote offer price, (To be calculated with Price/Index Level Decimals).	Price	8	From -2^63 to 2^63-1	Optional	116
Symbol Index	Exchange identification code of the instrument.	Numerical ID	4	From 0 to 2^32-2	Mandatory	125
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory	100

    - **Light Blue Repeating section**: All these fields are in bold and light blue table borders, it might be 0 to 2 occurrence(s) for this repeating section. This is mainly used to manage optional fields.

Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(See field description)	Optional	105

    - **Blue Repeating section**: All these fields are in bold and blue table borders, it might be **0 to 1 occurrence** for this repeating section. This is mainly used to manage optional fields.

Collar Rejection Type	Hit collar type (high or low) in case of order rejection due to collar breach.	Enumerated	1	1 = Low dynamic collar 2 = High dynamic collar	Conditional	98
Breached Collar Price	Breached collar price in case of collar rejection.	Price	8	From -2^63 to 2^63-1	Conditional	94

- SBE message structures are organized as below:

SBE Section	Description	Length
Block	The block is for all the non-repeated fields. They must be present on the wire for each message, even if they are optional.	As defined by the individual message template (in bytes)
Repeating section 1	All the fields that are repeated. All these fields are in bold and are outlined by green table borders; there may be 0 to *n* occurrences of this repeating section. (the maximum value of *n* is defined in the *Template*)	As defined by the template (in bytes)
Repeating section 2	All these fields are in bold and are outlined by light blue table borders; there may be 0 to 2 occurrences of this repeating section. This it is mainly used to manage optional fields.	As defined by the template (in bytes)
Repeating section 3	All these fields are in bold and are outlined by blue table borders; there may be 0 to 1 occurrence of this repeating section. This it is mainly used to manage optional fields.	As defined by the template (in bytes)

- In this explanatory example, the Frame, SBE Header and SBE Repeating Section Header are represented in the structure. There are in a grey background and will not be provided in the rest of this document.
- Please note not all messages use repeating sections. In those cases, repeating sections are not identified in the structure of the message.

- For example: the following combination of blocks could be present in a Message Structure

SBE Section	Description	Length
Frame	The "Frame" field contains the length of the message including the length of the "Frame" and "SBE header" fields.	2 bytes
SBE Header	SBE header is composed of 4 fields, as previously defined.	8 bytes
Block	The block is for all the non-repeated fields. They must be present on the wire for each message, even if they are optional.	As defined by the template (in bytes)
Repeating section 1 header	This is how many times the repeating section is repeated and the length of the repeating section. It will not been displayed in any below message. *Num In Group* is at 0 if there is no repeating section.	2 bytes (1byte for the length 1byte for the count)
Repeating section 1.a	First occurrence of the repeating section 1.	As defined by the template (in bytes)
Repeating section 1.n	Occurrence N of the repeating section 1.	As defined by the template (in bytes)
Repeating section 2 header	This is how many times the repeating section is repeated and the length of the repeating section. It will not been displayed in any below message. *Num In Group* is at 0 if there is no repeating section.	2 bytes (1byte for the length 1byte for the count)
Repeating section 2.a	All these fields are in bold and blue table borders, it might be 0 to 1 occurrence for this repeating section. This it is used to manage optional fields.	As defined by the template (in bytes)

5.2.2 Example: NewOrder (01) message

- Below is an example representing the sections using the **NewOrder** (01) message (Frame and headers provided):

SBE Section	Description	Length
Frame	The "Frame" field contains the length of the message including the length of the "Frame" and "SBE header" fields.	2 bytes
SBE Header	SBE header is composed of 4 fields, as previously defined.	8 bytes
Block	Includes all the mandatory fields for the NewOrder (01) message.	As defined by the template (in bytes)
FreeTextSection header	This is how many times the repeating section 1 is repeated and the length of a repeating section 1. It will not been displayed in any below message. It is at 0 if there is no repeating section.	2 bytes (1byte for the length 1byte for the count)
FreeTextSection Repeating section	This repeating section contains only the *FreeText* and can be populated 0, 1 or 2 times (2 times for Cross Orders only).	As defined by the template (in bytes)
MiFIDShortcodes Repeating section header	This is how many times the repeating section 2 is repeated and the length of a repeating section 2. It will not been displayed in any below message. It is at 0 if there is no repeating section.	2 bytes (1byte for the length 1byte for the count)
MiFIDShortcodes Repeating section	This repeating section contains MiFID II short codes and can be populated 0, 1 or 2 times (2 times for Cross Orders only).	As defined by the template (in bytes)
OptionalFields Repeating section header	This is how many times the repeating section 3 is repeated and the length of a repeating section 3. It will not been displayed in any below message. It is at 0 if there is no repeating section.	2 bytes (1byte for the length 1byte for the count)
OptionalFields Repeating section	This repeating section contains additional order characteristics and can be populated 0 or 1 time.	As defined by the template (in bytes)
ClearingFields Repeating section header	This is how many times the repeating section 4 is repeated and the length of a repeating section 4. It will not been displayed in any below message. It is at 0 if there is no repeating section.	2 bytes (1byte for the length 1byte for the count)
ClearingFields Repeating section	This repeating section contains the clearing data and can be populated 0, 1 or 2 times (2 times for Cross Orders only).	As defined by the template (in bytes)
NotUsedGroup1 Repeating section header	Header of an empty repeating section; both fields of this header must be set to "0".	2 bytes (1byte for the length 1byte for the count)
NotUsedGroup2 Repeating section header	Header of an empty repeating section; both fields of this header must be set to "0".	2 bytes (1byte for the length 1byte for the count)

It means that a message that contains at least one repeating section has a variable length, depending of the number of times each repeating section is populated.

- As an example, below is a representation of the fields that may be sent in the structure of NewOrder (01) message, that represent some of the sections listed above.
  - The following sections are populated in this example: the Frame, SBE Header, Block, **MiFIDShortcodes Repeating Section** populated once, **OptionalFields Repeating Section** populated once.
  - The following sections are not populated in this example: **FreeTextSection Repeating Section, ClearingFields Repeating Section**.

Please note that the values provided in this example are purely indicative and do not represent any specific trading case. Moreover, the values are here provided in a "human readable format" when in reality they will be sent on the wire in a binary format.

Field	Short Description	Values	Presence
Frame	The "Frame" field contains the length of the message including the length of the "Frame" and "SBE header" fields.	152	Mandatory
Block Length	Length of the block. The Block is the message without the repeating sections.	72	Mandatory
Template ID	Identifier of the message template. This is the message type of the message	01	Mandatory
Schema ID	Identifier of the message schema that contains the template.	2	Mandatory
Schema version	Version of the message schema in which the message is defined.	1	Mandatory
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	5	Mandatory
Firm ID	Firm ID.	00010258	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	26th October 2016 @ 12:16:46-015-255-248	Mandatory
Client Order ID	Client order ID.	1	Mandatory
Symbol Index	Exchange identification code of the instrument.	46489	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	1 COB	Mandatory
Order Side	Indicates the side of the order.	2 Sell	Mandatory
Order Type	Type of Order.	2 Limit	Mandatory
Time In Force	Specifies the maximum validity of an order.	0 Day	Mandatory
Order Price	Instrument price per quantity unit.	150000000	Conditional
Order Quantity	Total order quantity, per quantity unit.	200000000	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	54687785	Mandatory
Trading Capacity	MiFID II field that indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	1	Mandatory
Account Type	Indicates the account type for which the order is entered.	4 RO	Mandatory
LP Role	Liquidity Provider Role identifies the type of the Liquidity Provider.	Null Value	Conditional
Execution Instruction	Field used as instruction for order handling.	00000000	Mandatory
Dark Execution Instruction	Field used as instruction for dark order handling.	00000000	Mandatory

Field	Short Description	Values	Presence
MiFID Indicators	Field used as instruction for order handling.	00000000	Mandatory
STP ID	For Future Use.	Null Value	Optional
Non Executing Client ID	This field will be used as unique client Key.	Null Value	Optional
Block Length for FreeTextSection repeating section	Defines the length in bytes of the repeating section 1.	18	Mandatory
Num In Group for FreeTextSection repeating section	Defines how many times the repeating section 1 is repeated.	0	Mandatory
Block Length for MiFIDShortcodes repeating section	Defines the length in bytes of the repeating section 2.	12	Mandatory
Num In Group for MiFIDShortcodes repeating section	Defines how many times the repeating section 2 is repeated.	1	Mandatory
InvestmentDecisionWFirmShortCode	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision.	Null Value	Conditional
NonExecutingBrokerShortCode	MiFID II short code, Non-executing broker, identifier of the non-executing broker.	432108435	Optional
ClientIdentificationShortCode	MiFID II short code, Client identification code. Short Code used to identify the entity executing the transaction. In case there is DEA, the code of the DEA user shall be used.	525896547	Conditional
Block Length for OptionalFields repeating section	Defines the length in bytes of the repeating section 3.	50	Mandatory
Num In Group for OptionalFields repeating section	Defines how many times the repeating section 3 is repeated.	1	Mandatory
Stop Trigger Price	Stop Trigger Price is mandatory for stop orders.	Null Value	Conditional
Undisclosed Price	Optional price a client can give to the hidden part of an Iceberg order.	Null Value	Conditional
Disclosed Quantity	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Level Decimals)	Null Value	Conditional
Minimum Order Quantity	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Level Decimals).	50000000	Optional
QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	Null Value	Optional
Order Expiration Time	Field used as time of order expiration for GTT orders.	Null Value	Conditional
Order Expiration Date	Field used as date of order expiration for GTD orders.	Null Value	Conditional
Peg Offset	Tick offset for a pegged order.	Null Value	Conditional
Trading Session Validity	Trading Session Validity.	Null Value	Optional

Field	Short Description	Values	Presence
Undisclosed Iceberg Type	Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.	Null Value	Optional
Triggered Stop Time In Force	Specifies the maximum validity of an triggered stop order.	Null Value	Conditional
Block Length for ClearingFields repeating section	Defines the length in bytes of the repeating section 4.	34	Mandatory
Num In Group for ClearingFields repeating section	Defines how many times the repeating section 4 is repeated.	0	Mandatory
Block Length for NotUsedGroup1 repeating section	Defines the length in bytes of the repeating section 5.	**0**	Mandatory
Num In Group for NotUsedGroup1 repeating section	Defines how many times the repeating section 5 is repeated.	**0**	Mandatory
Block Length for NotUsedGroup2 repeating section	Defines the length in bytes of the repeating section 6.	**0**	Mandatory
Num In Group for NotUsedGroup2 repeating section	Defines how many times the repeating section 6 is repeated.	**0**	Mandatory

- Below is another example of the fields that may be sent in the structure of NewOrder (01) message, but this time the repeating section containing the clearing data is repeated twice:
  - The following sections are populated in this example: the Frame, SBE Header, Block, **ClearingFields Repeating Section** populated twice.
  - The following sections are not populated in this example: **FreeTextSection Repeating Section**, **MiFIDShortcodes Repeating Section** and **OptionalFields Repeating Section**.

Please note that the values provided in this example are purely indicative and do not represent any specific trading case. Moreover, the values are here provided in a "human readable format" when in reality they will be sent on the wire in a binary format.

Field	Short Description	Values	Presence
Frame	The "Frame" field contains the length of the message including the length of the "Frame" and "SBE header" fields.	154	Mandatory
Block Length	Length of the block. The Block is the message without the repeating sections.	72	Mandatory
Template ID	Identifier of the message template. This is the message type of the message	01	Mandatory
Schema ID	Identifier of the message schema that contains the template.	2	Mandatory
Schema version	Version of the message schema in which the message is defined.	1	Mandatory
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	7	Mandatory

Field	Short Description	Values	Presence
Firm ID	Firm ID.	00010258	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	26th October 2016 @ 14:07:22-785-123-591	Mandatory
Client Order ID	Client order ID.	2	Mandatory
Symbol Index	Exchange identification code of the instrument.	77997	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	1 COB	Mandatory
Order Side	Indicates the side of the order.	3 Cross	Mandatory
Order Type	Type of Order.	2 Limit	Mandatory
Time In Force	Specifies the maximum validity of an order.	0 Day	Mandatory
Order Price	Instrument price per quantity unit.	273000000	Conditional
Order Quantity	Total order quantity, per quantity unit.	1000000000	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	2132156	Mandatory
Trading Capacity	MiFID II field that indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	1	Mandatory
Account Type	Indicates the account type for which the order is entered.	1 Client	Mandatory
LP Role	Liquidity Provider Role identifies the type of the Liquidity Provider.	Null Value	Conditional
Execution Instruction	Field used as instruction for order handling.	00000000	Mandatory
Dark Execution Instruction	Field used as instruction for dark order handling.	00000000	Mandatory
MiFID Indicators	Field used as instruction for order handling.	00000000	Mandatory
STP ID	For Future Use.	Null Value	Optional
Non Executing Client ID	This field will be used as unique client Key.	Null Value	Optional
Block Length for FreeTextSection repeating section	Defines the length in bytes of the repeating section 1.	18	Mandatory
Num In Group for FreeTextSection repeating section	Defines how many times the repeating section 1 is repeated.	0	Mandatory
Block Length for MiFIDShortcodes repeating section	Defines the length in bytes of the repeating section 2.	12	Mandatory
Num In Group for MiFIDShortcodes repeating section	Defines how many times the repeating section 2 is repeated.	0	Mandatory
Block Length for OptionalFields repeating section	Defines the length in bytes of the repeating section 3.	50	Mandatory

Field	Short Description	Values	Presence
Num In Group for OptionalFields repeating section	Defines how many times the repeating section 3 is repeated.	0	Mandatory
Block Length for ClearingFields repeating section	Defines the length in bytes of the repeating section 4.	34	Mandatory
Num In Group for ClearingFields repeating section	Defines how many times the repeating section 4 is repeated.	2	Mandatory
Clearing Firm ID	Clearing firm ID.	Null Value	Optional
Client ID	Field used to identify the client (investor).	Null Value	Optional
Account Number	Account Number	JFG147G22G14	Optional
Technical Origin	Indicates the nature of the order issuer	Null Value	Optional
Open Close	Open Close Indicator, Posting action.	Null Value	Optional
Clearing Instruction	Clearing Instruction.	Null Value	Optional
Account Type Cross	Indicates the account type for which the sell side of a cross order is entered.	Null Value	Optional
Clearing Firm ID	Clearing firm ID.	Null Value	Optional
Client ID	Field used to identify the client (investor).	Null Value	Optional
Account Number	Account Number	DHCVIE14987G	Optional
Technical Origin	Indicates the nature of the order issuer	Null Value	Optional
Open Close	Open Close Indicator, Posting action.	Null Value	Optional
Clearing Instruction	Clearing Instruction.	8 Manual Mode	Optional
Account Type Cross	Indicates the account type for which the sell side of a cross order is entered.	1 Client	Optional
Block Length for NotUsedGroup1 repeating section	Defines the length in bytes of the repeating section 5.	**0**	Mandatory
Num In Group for NotUsedGroup1 repeating section	Defines how many times the repeating section 5 is repeated.	**0**	Mandatory
Block Length for NotUsedGroup2 repeating section	Defines the length in bytes of the repeating section 6.	**0**	Mandatory
Num In Group for NotUsedGroup2 repeating section	Defines how many times the repeating section 6 is repeated.	**0**	Mandatory

5.3 ADMINISTRATION MESSAGES

All administrative messages are available on the following Optiq Segments:

EQ FND FXI SP EQD IDD FID CMO BLK

5.3.1 Logon (100)

Client ▶ OEG

5.3.1.1 Message Description

The **Logon** (100) message is used by the clients to establish a connection with the Exchange and identify the last response message they have processed. It must be the first message sent by the client otherwise the OEG will drop the connection.

The **Logon** (100) message contains the following fields:

- *Logical Access ID*: it must be populated by the client according to the Logical Access used.
- *OE Partition ID*: it must be populated according to the partition the client connects to.
- *Last Message Sequence Number*: it is the sequence number of the last message received by the client from the Exchange on a specific OE Session.
- *Software Provider*: it is an optional field that should be populated for client using software provider services.
- *Queueing Indicator*: defines whether the orders are rejected or queued in case of throttling.

If the logon is successful, the OEG sends back a **LogonAck** (101) message providing the exchange identifier (*Exchange ID*) and the sequence number of the last message received from the client. Otherwise the OEG sends back a **LogonReject** (102) message providing the reason of the rejection (*Logon Reject Code*) and closes the connection.

Use of the Last Message Sequence Number

At the first logon of the trading day the client must set the field *Last Message Sequence Number* to 0, as no message can be received before a successful logon.

In case of an unintentional disconnection the client must use the field *Last Message Sequence Number* to indicate to the Exchange the sequence number of the last message he has received. If some messages have been lost during the disconnection the OEG will resend them to the client.

The clients must not skip sequence numbers; can however pass the Null Value as *Last Message Sequence Number* to notify the server not to validate the next sequence number. The server will accept the next sequence from the client and then send what it thinks is the next outbound sequence.

If the *Last Message Sequence Number* provided in the Logon message exceeds the sequence number of the last message sent by the Exchange, the OEG will reject the logon (**LogonReject** (102)) and will drop the connection, (this behaviour may differ for specific recovery cases).

5.3.1.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-2	Mandatory
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-2	Mandatory
Last Message Sequence Number	Indicates the sequence number of the last message received by the Client from the Exchange on the OE Session.	Sequence	4	0..2^32-2	Conditional
Software Provider	Free text field entered by the client in the Logon (100) message, identifying the provider of the software used for exchange of messages for trading purposes.	Text	8	(Free Text)	Optional
Queueing Indicator	Indicates whether the client requests its orders to be queued or rejected in case of throttling. (0: False - Reject ; 1: True - Queue).	Boolean	1	0 = False 1 = True	Mandatory

5.3.2 Logon Ack (101)

Client ◀ OEG

5.3.2.1 Message Description

The **LogonAck** (101) message is sent by the OEG as a response to a successful logon of a client. The message provides the Exchange identifier (*Exchange ID*) along with the sequence number of the last client message processed by the system.

The sequence number may be used to identify gap in the messages sent or received. If the client realizes that some messages have been dropped, he can decide whether to resend or not to the messages that have not been processed by the Exchange.

Please note that rejected messages are considered as processed messages.

5.3.2.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Exchange ID	Identifies the exchange in the Logon process	Text	8	(See field description)	Mandatory
Last Client Message Sequence Number	Indicates the sequence number of the last message received by the Exchange from the Client on the OE Session.	Sequence	4	0..2^32-2	Mandatory

5.3.3 Logon Reject (102)

Client ◀ OEG

5.3.3.1 Message Description

The **LogonReject** (102) message is sent by the OEG as a response to an unsuccessful logon of a client. The message provides the Exchange identifier (*Exchange ID*) along with the reason of the rejection (*Logon Reject Code*).

The *Last Client Message Sequence Number* indicates the sequence number of the last client message processed by the system and *Last Message Sequence Number* indicates the sequence number of the last message sent by the Exchange.

A logon rejection will automatically lead OEG to drop the connection.

If the logon fails because the OEG does not recognize the **Logon** (100) message at all (because of a structural error, when a message is improperly formatted according to these specifications, for example), then no connection is established and OEG does NOT send a **LogonReject** (102) message. In this circumstance, the client does not receive any response at all to the **Logon** (100) message.

5.3.3.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Exchange ID	Identifies the exchange in the Logon process	Text	8	(See field description)	Mandatory
Logon Reject Code	Provides the logon rejection reason.	Enumerated	1	(See field description)	Mandatory
Last Client Message Sequence Number	Indicates the sequence number of the last message received by the Exchange from the Client on the OE Session.	Sequence	4	0..2^32-2	Mandatory
Last Message Sequence Number	Indicates the sequence number of the last message received by the Client from the Exchange on the OE Session.	Sequence	4	0..2^32-2	Mandatory

5.3.4 Logout (103)

Client ◀▶ OEG

5.3.4.1 Message Description

The **Logout (103)** message with *Log Out Reason Code* = 0 is sent by the client in order to close the connection with the Exchange. In regular cases, at the end of day the Exchange sends a **Logout (103)** message with *Log Out Reason Code* = 1 to the clients before dropping the connection.

Please note that in both cases it will trigger the Cancel On Disconnect mechanism if it is enabled.

5.3.4.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Log Out Reason Code	Log Out Reason Code. Value 0 is provide by the client, all other possible values are provided by the Exchange.	Enumerated	1	(See field description)	Mandatory

5.3.5 Heartbeat (106)

Client ◀▶ OEG

5.3.5.1 Message Description

The **Heartbeat** (106) message is used during periods of inactivity, (i.e. when there is no exchange of application messages), either by the OEG or the clients to notify each other that this inactivity is not due to a technical issue.

The message is only composed of an SBE Header. Please refer to Section 4.1.1 SBE Header.

It is sent by:

- The OEG after *n* second(s) of inactivity to notify the client that the connection functions properly, or as a response to a client's **TestRequest** (107).
- The client as a response to a **TestRequest** (107) message to notify the OEG that his system functions properly. (Please note that any application message is also a proper response to the **TestRequest** (107) message.)

The parameter *n* has a specific value defined for each Optiq Segment. Please refer to the *Euronext Markets – Optiq OEG Connectivity Specifications* document for the values of the parameter *n*.

5.3.6 TestRequest (107)

Client ◀▶ OEG

5.3.6.1 Message Description

The **TestRequest** (107) message is used by the OEG to check if the network and the client's system function properly.

The message is only composed of an SBE Header. Please refer to Section 4.1.1 Header.

It is sent by the OEG after *n* second(s) of inactivity on the client side. Then:

- The client has *n* second(s) delay to answer the **TestRequest** (107) message by sending a **Heartbeat** (106) message, or any other application message.
- Otherwise if the client does not issue any message within the given delay, the OEG closes the connection. (Note that it triggers the Cancel on Disconnect mechanism if it is enabled)

It can also be sent by the clients to the OEG at any moment and the OEG will answer with a **Heartbeat** (106) message.
The parameter *n* has a specific value defined for each Optiq Segment.
Please refer to the *Euronext Markets – Optiq OEG Connectivity Specifications* document for the values of the parameter *n*.

5.3.7 Technical Reject (108)

Client ◀ OEG

5.3.7.1 Message Description

The **TechnicalReject** (108) message is sent by the order entry gateway to notify the request issuer that their requests are not processed. It is used to reject application and unknown messages sent by the client.

The **TechnicalReject** (108) message is sent by the order entry gateway for the following reasons:

- Throttling
- Unknown message

The *Rejected Client Message Sequence Number* provided in the **TechnicalReject** (108) message identifies the request which is rejected: it is the *Client Message Sequence Number* of the corresponding inbound message sent by the client.

Note: in case of a rejection of an unknown message the *Rejected Client Message Sequence Number* may not be provided.

The reason of the rejection is provided by the Error Code, and a text message explaining the error is provided in the Error Code list file (.csv).

Please refer to the *Euronext Markets – Optiq OEG Connectivity Specifications* and *Euronext Cash Markets – Throttling Description* documents for further details.

5.3.7.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
Rejected Client Message Sequence Number	Indicates the Client Message Sequence Number of the rejected message.	Sequence	4	0..2^32-2	Conditional
Rejected Message	*[N/A] Deprecated field*	*Numerical ID*	*1*	*0..2^8-1*	*Conditional*
Error Code	Error code in case of rejection.	Numerical ID	2	0..2^16-2	Mandatory
Rejected Message ID	Provides the ID (Template ID) of the rejected message.	Numerical ID	2	0..2^16-1	Conditional

5.4 APPLICATION MESSAGES

5.4.1 New Order (01)

Client ▶ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.1.1 Message Description

The **NewOrder** (01) message is used by the clients to create a new order.

All the fields in the block of the message must be populated for each **NewOrder** (01) otherwise the message will be immediately rejected by the Order Entry Gateway (OEG).

Optional fields clients do not want to populate must still be present in the block and set to the null value by the client application. For example, for Market, Stop-Market and Market To Limit orders, the *Order Price* is useless but the field must be present and set to the null value.

On ETF Access platform, the **NewOrder** (01) message can be used by the Liquidity Providers to answer a specific **QuoteRequest** (10) message and by the RFQ issuer to confirm the RFQ.

On Derivatives segments, Market Makers using Logical Accesses setup as 'Market Making', may use the **NewOrder** (01) message while also using the **Quotes** (08) messages. In such a case, if the order remained in the book its price and volume, submitted using New Order would override the information provided by the earlier Quotes message, and vice versa. To avoid this **NewOrder** (01) messages with account type of Liquidity Provider can be submitted only for Order Types 'Market' and 'Limit' in combination with Time in Force 'IOC' or 'FOK'. All other Order Type and Time in Force combinations for Market Maker Logical Accesses would be rejected.

Repeating Section Usage

The message contains **six optional repeating sections:**

- **FreeText repeating section:** the first repeating section contains only the field *FreeText*. It can be populated once for Buy and Sell orders and twice for Cross orders, respectively for the buy side and the sell side. Please note that the *FreeText* is part of the Clearing Data repeating section, which aggregates the clearing-related data (clearing aggregate) but it is set in a dedicated repeating section for performance purpose. Possible number of repeating groups: 0, 1, 2.
- **MiFID Shortcodes repeating section:** the second repeating section contains the MiFID shortcodes and can be populated once for Buy and Sell orders. It can be repeated twice for Cross orders, respectively for the buy side and the sell side. Possible number of repeating groups: 0, 1, 2.
- **Additional Order Characteristics repeating section:** the third repeating section can be populated only once and contains optional order characteristics along with conditionally required fields. For the specific conditions on the conditionally required fields please refer to section *Order Characteristics*. Possible number of repeating groups: 0, 1.
- **Clearing Data repeating section:** the fourth repeating section contains the clearing fields. Possible number of repeating groups: 0, 1, 2.
  - For standard Buy and Sell orders the first occurrence is optional and contains all the clearing data of the order. Please note that in that case, the field *Account Type Cross* is always ignored by the system as the Account Type value of the standard order is specified in the block of the message.
  - For Cross orders, two occurrences are mandatory; the first one for the buy side and the second one for the sell side. Please note that in that case the Account Type value of the buy side is specified in the *Account Type* field in the block of the message and the Account Type value of the sell side is specified in the *Account Type Cross* field of the second occurrence (the sell side occurrence).

- As a consequence, the *Account Type Cross* field of the first occurrence is never used and is thus ignored by the OEG.

- **NotUsedGroup1 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".
- **NotUsedGroup2 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".

5.4.1.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell 3 = Cross [i]	Mandatory
Order Type	Type of Order.	Enumerated	1	(See field description)	Mandatory
Time In Force	Specifies the maximum validity of an order.	Enumerated	1	(See field description)	Mandatory
Order Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Conditional
Order Quantity	Total order quantity, per quantity unit. (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Trading Capacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Enumerated	1	1 = Dealing on own account (DEAL) 2 = Matched principal (MTCH) 3 = Any other capacity (AOTC)	Mandatory
Account Type	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Enumerated	1	(See field description)	Mandatory

Field	Short Description	Format	Len	Values	Presence
LP Role	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Enumerated	1	1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider 12 = RFQ Liquidity Provider	Conditional
Execution Instruction	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
Dark Execution Instruction	Field used as instruction for dark order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	0 = Dark Indicator *1 = Deferred Trade Indicator* *2 = Displayed Order Interaction* 3 = Sweep Order Indicator 4 = Minimum Quantity Type	Mandatory
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
STP ID	*For Future Use.*	*Numerical ID*	*2*	*0..2^16-1*	*Optional*
Non Executing Client ID	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Numerical ID	2	0..2^16-1	Optional
FreeTextSection length		Numerical	1	18	Mandatory
FreeTextSection occurrences		Numerical	1	0..2	Mandatory
Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(Free Text)	Optional
MiFIDShortcodes length		Numerical	1	12	Mandatory
MiFIDShortcodes occurrences		Numerical	1	0..2	Mandatory
InvestmentDecisionWFirmShortCode	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision.	Numerical ID	4	-2^31+1..2^31-1	Conditional
NonExecutingBrokerShortCode	MiFID II short code, Non-executing broker, identifier of the non-executing broker.	Numerical ID	4	-2^31+1..2^31-1	Optional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
OptionalFields length		Numerical	1	50	Mandatory
OptionalFields occurrences		Numerical	1	0 .. 1	Mandatory
Stop Trigger Price	Stop Trigger Price is mandatory for stop orders.	Price	8	-2^63+1..2^63-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Undisclosed Price	*[N/A] Optional price for the hidden part of an Iceberg order.*	*Price*	*8*	*-2^63+1..2^63-1*	*Optional*
Disclosed Quantity	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Decimals)	Quantity	8	0..2^64-1	Conditional
Minimum Order Quantity	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-1	Optional
QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-1	Conditional
Order Expiration Time	*[N/A] Field used as time of order expiration for GTT orders.*	*Numerical ID*	*4*	*0..2^32-1*	*Conditional*
Order Expiration Date	Field used as date of order expiration for GTD orders.	Date	2	0..2^16-1	Conditional
Peg Offset	Tick offset for a pegged order.	Numerical ID	1	-128 .. 127	Conditional
Trading Session Validity	Trading Session Validity. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	1 = Session 1 2 = Session 2 3 = Session 3	Conditional
Undisclosed Iceberg Type	*[N/A] Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.*	*Enumerated*	*1*	*1 = Limit* *2 = Peg Mid-Point* *3 = Peg Primary* *4 = Peg Market*	*Optional*
Triggered Stop Time In Force	Specifies the maximum validity of an triggered stop order.	Enumerated	1	0 = Day 1 = Good Till Cancel 6 = Good till Date	Conditional
ClearingFields length		Numerical	1	34	Mandatory
ClearingFields occurrences		Numerical	1	0..2	Mandatory
Clearing Firm ID	Clearing firm ID.	Alphanumerical ID	8	(See field description)	Optional
Client ID	Field used to identify the client (investor). This field is part of the clearing aggregate	Alphanumerical ID	8	(See field description)	Optional
Account Number	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	Alphanumerical ID	12	(See field description)	Optional
Technical Origin	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Enumerated	1	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining	Optional
Open Close	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	Bitmap	2	(See field description)	Optional
Clearing Instruction	Clearing Instruction.	Enumerated	2	(See field description)	Optional
Account Type Cross	Indicates the account type for which the sell side of a cross order is entered.	Enumerated	1	(See field description)	Optional

Field	Short Description	Format	Len	Values	Presence
NotUsedGroup1 length		Numerical	1	0	Mandatory
NotUsedGroup1 occurrences		Numerical	1	0	Mandatory
NotUsedGroup2 length		Numerical	1	0	Mandatory
NotUsedGroup2 occurrences		Numerical	1	0	Mandatory

5.4.2 Ack (03)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.2.1 Message Description

The acknowledgment message is sent by the matching engine to confirm that the corresponding request has been taken into account by the matching engine. Moreover, it usually allows the client to reconcile the *Client Order ID* he has given to its request with the *Order ID* assigned by the matching engine.

Note: *Original Client Order ID* is only provided in the **Ack** (03) as response to a **CancelReplace** (06) message if originally used in the corresponding request.

The acknowledgment message is sent by the matching engine in the following situations:

- Responses to **NewOrder** (01) requests in case of acceptation;
- Responses to **CancelReplace** (06) requests in case of acceptation;
- Responses to **CollarBreachConfirmation** (20) requests in case of acceptation; *used on the Cash markets only*
- Responses to **PriceInput** (28) requests in case of acceptation; *used on the Cash markets only*
- Responses to **LiquidityProviderCommand** (32) requests in case of acceptation; *used on the Cash markets only*
- Responses to **QuoteRequest** (10) requests, on ETF Access platform, in case of acceptation;
- Responses to **NewOrder** (01) or **CancelReplace** (06) for an Iceberg Transformed to Limit due to Minimum size;
- Notifications of triggered Stop-Market/Stop-Limit orders;
- Notifications of triggered Valid For Uncrossing and Valid For Closing Uncrossing orders;
- Notifications of refilled Iceberg orders;
- Notifications of MTL orders transformed into Limit at the end of an Uncrossing trading phase;
- Notifications of order creations by Market Operations.

As a response to a NewOrder (01) request, *Ack Type*=New Order Ack.
It confirms the creation of the new order and specifies the *Order ID*, *Order Side*, *Order Price* (if any), *Order Quantity* for which the system has processed the order.

As a response to a CancelReplace (06) request, *Ack Type*=Replace Ack.
It confirms the modification of the order identified by the *Order ID* and specifies the *Order Side*, *Order Price (if any)*, *Order Quantity* for which the system has processed the modified order. The *Original Client Order ID* will also be provided if it was provided in the original corresponding request. Note that the *Order Quantity* is the total order quantity originally submitted or newly modified by the client and not the leaves quantity.

As a response to a CollarBreachConfirmation (20) request, *Ack Type*=Collar Confirmation Ack.

It confirms that the price of the order lies now within the updated collars and that the new order has been created. It also specifies the *Order ID, Order Side*, *Order Price* (if any), *Order Quantity* for which the system has processed the order.

As a response to a PriceInput (20) request, *Ack Type*=Price Input Ack.
It confirms that the matching engine has accepted the submitted reference price. It specifies the accepted price in the field *Order Price*, the fields *Order Side* and *Order Quantity* are irrelevant and then set to the null value.

As a response to a LiquidityProviderCommand (32) request, *Ack Type*=KIBI/KOBI/PAKO/Bid Only/Offer Only Ack.
It confirms that the matching engine has accepted the submitted action. The action is specified in the Ack Type (KIBI/KOBI/PAKO/Bid Only/Offer Only).

As a response to a QuoteRequest (10) message, *Ack Type*=RFQ Ack.
It confirms the creation of the new RFQ and specifies the *QuoteReqID* of this request. This *QuoteReqID* is provided to the client in the *OrderID* field of the **Ack (03)** message.

As a response to a NewOrder (01) for an Iceberg Transformed to Limit due to Minimum size, *Ack Type*= Iceberg Transformed to Limit due to Minimum size.
It confirms the creation of the new order but it notifies the client that his iceberg order has been transformed into a limit order because any Iceberg order that is entered into the book below the minimum iceberg amount (as defined by MiFID II), or has its total amount updated to be below this amount, is automatically converted to a Limit order.

As a notification of a triggered Stop-Market/Stop-Limit order, *Ack Type*=Stop Triggered Ack.
It is an unsolicited message which notifies the client that its stop order previously submitted (identified by the *Order ID*) has been triggered and it specifies the *Order Side*, *Order Price* (if any), *Order Quantity* and *Order Priority* for which the system has processed the order.

As a notification of a triggered Valid For Uncrossing and Valid For Closing Uncrossing orders, *Ack Type*= VFU/VFC Triggered Ack.
It is an unsolicited message which notifies the client that its VFU/VFC order previously submitted (identified by the *Order ID*) has been triggered and it specifies the *Order Side*, *Order Price* (if any), *Order Quantity* and *Order Priority* for which the system has processed the order.

As a notification of a refilled Iceberg order, *Ack Type*=Refilled Iceberg Ack.
It is an unsolicited message which notifies the client that its Iceberg order has been refilled and it specifies the *Order Side*, *Order Price*, *Order Quantity* and *Order Priority* for which the system has processed the refilled order. Note that the *Order Quantity* is the total order quantity originally submitted by the client and not the quantity shown to the market nor the leaves quantity.

As a notification of a resting MTL order transformed into Limit order during uncrossing, *Ack Type*=MTL Second Ack.
It is an unsolicited message which notifies the client that its MTL has been transformed into a Limit order. It specifies the *Order Side*, *Order Price*, *Order Quantity* for which the system has processed the order. The *Order Price* is the price of the transformed Limit order and the *Order Quantity* is the total order quantity submitted by the client and not the leaves quantity.
It occurs if at the end of an Uncrossing trading phase:

- the instrument switches to a Continuous trading phase, all MTL orders (partially or not executed) always become Limit orders at the Uncrossing price for their remaining quantity;
- the instrument switches to a Call trading phase, all MTL orders partially executed become Limit orders at the Uncrossing price for their remaining quantity.

Notification using Ack Type= Order Creation By Market Operations is for Future use only. Currently not supported

Short Codes in Outbound messages

The **Ack** (03) message echoes back to clients the following MIFID Short code fields

- ClientIdentificationShortCode
- ExecutionWithinFirmShortCode
- MiFIDIndicators

The values provided in these fields are populated with the originally submitted information in the **New Order** (01) message. If a modification of these fields is submitted, it is ignored by the system, and the **Ack** (03) message will still reply only the originally submitted values.

Private & Public by order feed reconciliation (when applicable)

For the Cash Markets the **Ack** (03) message allows the clients to reconcile their orders with the Market Data feed by using the field *Order Priority*.

This mechanism is explained in the Cash Market Kinematics document in Section *1.2.5.1 Private and Public feed reconciliation*.

This allows the clients to identify their orders in public feed as the *Order Priority* is also provided in the public **OrderUpdate** (1002) message. The *Order Priority* is thus used as an order identifier.

Please note that the field Order Priority is provided in private message for all orders on the market. List below identifies the cases in which it is provided:

- In the **Ack** (03) message as a response to a **NewOrder** (01) (*including Stop-market/Stop-limit orders*) or a **CollarBreachConfirmation** (20);
- In the **Ack** (03) message for a triggered Stop-market/Stop-limit and VFU/VFC orders;
- In the **Ack** (03) message for a refilled Iceberg Order.

Modifications of non-triggered stop orders should not result in modification of their priority.

For the Derivatives Markets the **Ack** (03) message provides the Order Priority. It is provided to indicate the Order Priority, as indicated in the section 2.4 Order ID.

5.4.2.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Conditional
Ack Type	Indicates the type of the Ack message	Enumerated	1	(See field description)	Mandatory
Ack Phase	Indicates the trading phase during which the Matching Engine has processed the event that has triggered this Ack (03) message.	Enumerated	1	(See field description)	Conditional
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-1	Conditional
Order Priority	Rank giving the priority of the order. The order with the lowest value of Order Priority has the highest priority.	Numerical ID	8	0..2^64-2	Conditional
Order Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Conditional
Order Quantity	Total order quantity, per quantity unit. (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-1	Conditional
Ack Qualifiers	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
MiFIDFields length		Numerical	1	9	Mandatory
MiFIDFields occurrences		Numerical	1	1	Mandatory

Field	Short Description	Format	Len	Values	Presence
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Conditional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Conditional

5.4.3 Fill (04)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.3.1 Message Description

The **Fill** (04) message is an unsolicited message sent by the matching engine and is used to relay order execution reports. It notifies the issuers of orders that their orders have been partially or completely filled.

The order that has matched is identified by its *Order ID*; in case of Quotes the *Order ID* field is used for the *Bid Order ID* and *Offer Order ID*, the side is identified by the *Order Side*.

The message specifies the price (*Last Traded Price*), the quantity (*Last Traded Quantity*), the execution type (*Trade Type*) and the time (*Trade Time*) of the execution along with the *Execution ID* assigned by the matching engine. It also provides the remaining quantity of the order (*Leaves Quantity*).

Repeating Section Usage

The message may contain **two repeating sections:**

- **Additional Execution Data repeating section:** the first repeating section can be populated only once and contains only one field used by the Cash matching engine: *Counterpart Firm ID*. Possible number of repeating groups: 0, 1.
- **Strategy Execution Data repeating section:** the second repeating section is only used by the Derivatives matching engine.

5.4.3.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Trade Time	Time of the trade.	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional

Field	Short Description	Format	Len	Values	Presence
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Mandatory
Trade Type	Type of trade.	Enumerated	1	(See field description)	Mandatory
Trade Qualifier	Trade Qualifier. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Mandatory
Last Traded Price	The Last Traded Price indicates the price of last fill on an instrument (to be calculated with the Price/Index Decimals).	Price	8	-2^63+1..2^63-1	Mandatory
Last Traded Quantity	The Last Traded Quantity indicates the quantity of last fill on an instrument (to be calculated with the Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory
Leaves Quantity	Indicates the remaining quantity of an order, i.e. the quantity open for further execution.	Quantity	8	0..2^64-2	Mandatory
Execution ID	The Execution ID is unique per instrument and per day. It is the unique identifier of a trade per instrument. This field is provided in case of fill, partial fill or trade cancellation.	Numerical ID	4	0..2^32-2	Mandatory
Execution Phase	Indicates the trading phase during which the trade has occurred.	Enumerated	1	1 = Continuous Trading Phase 2 = Uncrossing Phase 3 = Trading At Last Phase 4 = Continuous Uncrossing Phase	Mandatory
LIS Transaction ID	ID that can be used to associated Executions belonging to the same LIS Transaction	Numerical ID	4	0..2^32-2	Conditional
ESCBMembership	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.	Boolean	1	0 = False 1 = True	Optional

Field	Short Description	Format	Len	Values	Presence
OptionalFieldsFill length		Numerical	1	32	Mandatory
OptionalFieldsFill occurrences		Numerical	1	0 .. 1	Mandatory
Counterpart Firm ID	ID of the clearing house in case of a CCP clearable transaction – also in the specific case of Internal Matching Service (IMS) with clearing:	Alphanumerical ID	8	(See field description)	Conditional
Underlying Last Traded Price	*Deprecated*	*Price*	*8*	*Deprecated*	*Conditional*
Package ID	*Deprecated*	*Alphanumerical ID*	*12*	*Deprecated*	*Conditional*
Underlying Instrument ID	*Deprecated*	*Numerical ID*	*4*	*Deprecated*	*Conditional*
StrategyFields length		Numerical	1	25	Mandatory
StrategyFields occurrences		Numerical	1	0..254	Mandatory
Leg Last Traded Price	Leg Last Traded Price	Price	8	-2^63+1..2^63-1	Conditional
Leg Last Traded Quantity	Leg Last Traded Quantity	Quantity	8	0..2^64-1	Conditional
Leg Instrument ID	Numerical leg instrument identifier (SymbolIndex) valid for the life of the instrument.	Numerical ID	4	0..2^32-1	Conditional
Leg Side	Indicates the side of the trade leg.	Enumerated	1	1 = Buy 2 = Sell	Conditional
Execution ID	The Execution ID is unique per instrument and per day. It is the unique identifier of a trade per instrument. This field is provided in case of fill, partial fill or trade cancellation.	Numerical ID	4	0..2^32-1	Conditional
MiFIDFields length		Numerical	1	9	Mandatory
MiFIDFields occurrences		Numerical	1	1	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Conditional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Conditional

5.4.4 Kill (05)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.4.1 Message Description

The **Kill** (05) message is a message sent by the matching engine to notify the order issuer that his or her order is no longer active.

The **Kill** (05) message is sent by the matching engine in the following situations:

- Responses to **CancelRequest** (12) requests in case of acceptation;
- Responses to **MassCancel** (13) requests for each order successfully cancelled;
- Notifications of the cancellation of the remaining quantity of IOC orders;
- Notification of orders cancelled by STP;
- Notifications of expired orders;
- Notifications of killed orders due to the Cancel On Disconnect mechanism;
- Notifications of killed orders due to a Kill command;
- Notifications of orders eliminated due to Corporate Events;
- Notifications of orders cancelled by Market Operations;
- Notifications of MTL orders cancelled at the end of an Uncrossing trading phase when switching to a Continuous trading phase if the order book on the opposite side is empty;
- Notifications of cancelled orders when an instrument is moving into Payment After Knock-Out (PAKO) period;
- Notifications of cancelled quotes when an instrument is Knock-Out;
- On ETF Access platform, notifications of cancellation of orders sent as 'RFQ Answer' (field *Execution Instruction*) in case the RFQ is cancelled by the issuer, expired or matched with other counterparts;
- On Euronext Block platform, notifications of conditional orders cancelled due to potential matching; this should be interpreted as a Firm-Up request;
- For Derivatives markets notifications of the cancellation of the unexecuted FOK orders;
- For Derivatives markets notifications of the cancellation of the Market orders that are not immediately executed on entry.

In the block of the message the field *Client Order ID* identifies the request originally sent by the client that triggered the **Kill** (05) message, thus it is filled only if the **Kill** (05) message was solicited (e.g. as a response to a **CancelRequest** (06) message). It represents the data provided by the client and does not identify the id used by the system to kill the order, for these purposes the system uses the Order ID.

The killed order is identified by its *Order ID* and a *Kill Reason* is always provided for each killed order.

5.4.4.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory

Field	Short Description	Format	Len	Values	Presence
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Kill Reason	Order Kill Reason	Enumerated	2	(See field description)	Mandatory
Ack Qualifiers	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Optional
MiFIDFields length		Numerical	1	9	Mandatory
MiFIDFields occurrences		Numerical	1	1	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Conditional

Field	Short Description	Format	Len	Values	Presence
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Conditional

5.4.5 Cancel Replace (06)

Client ▶ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.5.1 Message Description

The **CancelReplace** (06) message is used to modify **active orders in the order book**, note that only the originating Firm (regardless of the Logical Access) is authorized to modify its orders.

All the **fields in the block of the message must be populated** for each **CancelReplace** (06) otherwise the message will be immediately rejected by the Order Entry Gateway (OEG).

The MiFID short codes included in this message concern the **CancelReplace** (06) itself; it will not lead to any modification on the MiFID short codes previously submitted and associated to the live order to be modified.

Please note that the field *Client Order ID* is an identifier of the **CancelReplace** (06) request, and may not be equal to the value of the Client Order ID submitted in the original order message.

Important Note: An active order can be modified by specifying the *Order ID* of the original order or the *Original Client Order ID*:

- If the **CancelRequest** (12) message contains both *Order ID* and *Original Client Order ID*, the matching engine uses the *Order ID* to cancel the order. If the *Order ID* specified in the message is not found in the active orders list, the order modification is rejected. If the Order ID specified in the message is found the matching engine does not check that the Client Order ID of the order found ("modified" order) matches with the *Original Client Order ID* contained in the **CancelRequest** (12) message.

Handling of fields not available for modification

- *Account Type* and *LP Role* fields present in this message will always be ignored by the system, which means that clients are not able to modify *Account Type/ LP Role* of their live orders. If modification is required clients must cancel their existing order and submit a new one with a **NewOrder** (01) message.
- *Order Side* and *Order Type* fields present in this message are not available for modification, but the values provided must match the values originally set on submission of the order. In the case where the values in the **CancelReplace** (06) message do not match with the *Order Side* and *Order Type* of the targeted order it will lead to the rejection of the request with the error code 2101 "Unknown Order". (For triggered Stop orders, the value in field *Order Type* must be equal to Limit (2), for Stop-limit, or Market (1) for Stop-market order, corresponding to the type of stop order originally submitted.)
- Modification of Time In Force
  - For the Cash Markets - modification of *Time In Force* results in rejection of the request in case orders are modified from a validity that is against market rules or cannot be executed. Such cases include modification of 'Valid for Closing Uncrossing' (7) or 'Valid for Uncrossing' (2) to any other validity.

– For the Derivatives Markets – modification of *Time In Force* is not permitted. If **CancelReplace** (06) message is submitted with a different value for *Time In Force* then the original order, the modification request will be rejected.

Repeating Section Usage: the message contains **five optional repeating sections**:

- **FreeText repeating section:** the first repeating section contains only the field *FreeText*. It can be populated only once and will override the previously submitted value if populated, if not populated the previously submitted value will be deleted. Possible number of repeating groups: 0, 1.
- **Additional Order Characteristics repeating section:** the second repeating can be populated only once and contains optional order characteristics. If some optional fields are populated those values will override the previously submitted values, otherwise if not populated the previously submitted value will be deleted. Possible number of repeating groups: 0, 1.
- **Clearing Data repeating section:** the third repeating section contains the clearing fields. If some values are populated, they will override the previously submitted values, otherwise if not populated the previously submitted value will be deleted. Possible number of repeating groups: 0, 1.
- **NotUsedGroup1 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".
- **NotUsedGroup2 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".

5.4.5.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Order Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Conditional
Order Quantity	Total order quantity, per quantity unit. (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory

Field	Short Description	Format	Len	Values	Presence
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Mandatory
Order Type	Type of Order.	Enumerated	1	(See field description)	Mandatory
Time In Force	Specifies the maximum validity of an order.	Enumerated	1	(See field description)	Mandatory
Account Type	*[N/A] Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.*	*Enumerated*	*1*	*(See field description)*	*Optional*
LP Role	*[N/A] Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".*	*Enumerated*	*1*	*1 = Liquidity Provider or Market Maker* *3 = Retail Liquidity Provider* *12 = RFQ Liquidity Provider*	*Optional*
Execution Instruction	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
Dark Execution Instruction	Field used as instruction for dark order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	0 = Dark Indicator *1 = Deferred Trade Indicator* *2 = Displayed Order Interaction* 3 = Sweep Order Indicator 4 = Minimum Quantity Type	Mandatory
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
STP ID	*For Future Use.*	*Numerical ID*	*2*	*0..2^16-1*	*Optional*
FreeTextSection length		Numerical	1	18	Mandatory
FreeTextSection occurrences		Numerical	1	0..1	Mandatory
Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(Free Text)	Optional
OptionalFields length		Numerical	1	34	Mandatory
OptionalFields occurrences		Numerical	1	0..1	Mandatory
Stop Trigger Price	Stop Trigger Price is mandatory for stop orders.	Price	8	-2^63+1..2^63-1	Conditional
Peg Offset	Tick offset for a pegged order.	Numerical ID	1	-128 .. 127	Conditional
Undisclosed Price	*[N/A] Optional price for the hidden part of an Iceberg order.*	*Price*	*8*	*-2^63+1..2^63-1*	*Optional*

Field	Short Description	Format	Len	Values	Presence
Disclosed Quantity	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Decimals)	Quantity	8	0..2^64-2	Conditional
Order Expiration Time	*[N/A] Field used as time of order expiration for GTT orders.*	*Numerical ID*	*4*	*0..2^32-2*	*Conditional*
Order Expiration Date	Field used as date of order expiration for GTD orders.	Date	2	0..2^16-2	Conditional
Trading Session Validity	Trading Session Validity. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	1 = Session 1 2 = Session 2 3 = Session 3	Conditional
Triggered Stop Time In Force	Specifies the maximum validity of an triggered stop order.	Enumerated	1	0 = Day 1 = Good Till Cancel 6 = Good till Date	Conditional
Undisclosed Iceberg Type	*[N/A] Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.*	*Enumerated*	*1*	*1 = Limit* *2 = Peg Mid-Point* *3 = Peg Primary* *4 = Peg Market*	*Optional*
ClearingFields length		Numerical	1	33	Mandatory
ClearingFields occurrences		Numerical	1	0..1	Mandatory
Clearing Firm ID	Clearing firm ID.	Alphanumerical ID	8	(See field description)	Optional
Client ID	Field used to identify the client (investor). This field is part of the clearing aggregate	Alphanumerical ID	8	(See field description)	Optional
Account Number	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	Alphanumerical ID	12	(See field description)	Optional
Technical Origin	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Enumerated	1	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining	Optional
Open Close	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	Bitmap	2	(See field description)	Optional
Clearing Instruction	Clearing Instruction.	Enumerated	2	(See field description)	Optional
NotUsedGroup1 length		Numerical	1	0	Mandatory
NotUsedGroup1 occurrences		Numerical	1	0	Mandatory
NotUsedGroup2 length		Numerical	1	0	Mandatory
NotUsedGroup2 occurrences		Numerical	1	0	Mandatory

5.4.6 Reject (07)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.6.1 Message Description

The **Reject** (07) message is a message sent by the matching engine to notify the request issuer that his or her request is not processed by the matching engine. It is a possible response to every application message sent by the client.

The **Reject** (07) message is sent by the matching engine in the following situations:

- **For technical reasons**: Symbol Index is unknown, message is wrongly formatted, unknown value, client not authorized to send messages, etc.
- **For functional reasons**: type of order forbidden for this trading phase, type of order not authorized for the client, quantity to modify no longer available, last traded price better than the stop trigger price, collars breached, invalid strategy definition code, type of strategy not authorized for the contract, etc.

Please refer to the Error Code list for an exhaustive list of those cases.

The *Client Order ID* provided in the Reject message identifies the request which is rejected; it does not refer to an order of the order book. Hence in case of a rejection of a **CancelReplace** (06) message, the *Client Order ID* field will refer to the *Client Order ID* provided in the rejected **CancelReplace** (06) request, not to the targeted order.

In case of a functional rejection of a **NewOrder** (01) the matching engine will assign an *Order ID* to the rejected order.

If a client sends an Invalid value in an enumerated field, then in place of this value the Reject messages will contain a Null value (note: the *Firm ID* behaves as an enumerated field).

The reason of the rejection is provided by the Error Code, and a text message explaining the error is provided in the Error Code list file (.csv).

All application messages are rejected by the **Reject** (07) message, unless for very specific cases (please refer to **Quotes** (08) and **TechnicalReject** (108) messages).

Rejection Behaviour

In Optiq orders are identified by multiple characteristics as follows: *Order ID* / *Original Client Order ID*, *Order Side*, *Order Type* and *Firm ID*. If any of the characteristics are not met, the order is considered “Unknown”.

In case an attempt is made to modify or cancel an order that results in a rejection, whether this order is considered to be “Known” or "Unknown", in such rejection message the same *Order ID* is echoed back, as the one provided by the client in the inbound message, in all cases.

In cases where the inbound message receives a rejection with functional or technical error code client should review the error code to identify what needs to be fixed in the submitted message.

In some cases, an “Unknown” order will not receive an error code identifying the issue, but rather code 2101 (Unknown order). In this case client should review the fields identified as mandatory order characteristics before resubmitting the request.

Repeating Section Usage

In this message there are two repeating sections CollarFields and MiFIDFields. They are populated only once.

CollarFields is populated only in the case of a rejection due to a breached collar. It provides the details related to the breached collar (high or low) and its price. Possible number of repeating groups: 0, 1.

MiFIDFields is provided when MIFID II short code information can be decoded. Possible number of repeating groups: 0, 1.

5.4.6.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Conditional
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-1	Conditional
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Conditional
Rejected Message	*[N/A] Deprecated Field.*	*Numerical ID*	*1*	*0..2^8-1*	*Conditional*
Error Code	Error code in case of rejection.	Numerical ID	2	0..2^16-2	Mandatory
Rejected Message ID	Provides the ID (Template ID) of the rejected message.	Numerical ID	2	0..2^16-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Ack Qualifiers	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Optional
CollarFields length		Numerical	1	9	Mandatory
CollarFields occurrences		Numerical	1	0..1	Mandatory
Collar Rejection Type	Hit collar type (high or low) in case of order rejection due to collar breach.	Enumerated	1	1 = Low dynamic collar 2 = High dynamic collar	Conditional
Breached Collar Price	Breached collar price in case of collar rejection.	Price	8	-2^63+1..2^63-1	Conditional
MiFIDFields length		Numerical	1	9	Mandatory
MiFIDFields occurrences		Numerical	1	1	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Conditional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Conditional

5.4.7 Quotes (08)

Client ▶ OEG
Available for SP EQD IDD FID CMO

5.4.7.1 Message Description

This message is used by Liquidity Providers (LP) / Market Makers (MM) to send several quotes (bid and ask orders) on different instruments in one unique message.

- For the Warrants & Certificates segment (SP), a LP / MM is represented by the Firm ID.
- For the Derivatives segments (EQD, IDD, FID, CMO), a LP / MM is represented by the combination of Firm ID and short code.

A given LP / MM using Quotes messages is permitted to have only one bid quote and one ask quote on a given instrument at a given time to be present in the market. Consequently, any quotes received after the first one from the same LP for a single instrument cancel and replace the previous ones.

During all trading phases, quotes are considered as normal orders, managed as Limit orders with a side (Buy or Sell), a price, a quantity and a Day validity.

- For the Warrants & Certificates segment (SP), A **Quotes** (08) message can include from 1 to 150 double-sided quotes (300 individual quotes).

- For the Derivatives segments (EQD, IDD, FID, CMO), A **Quotes** (08) message can include from 1 to 30 double-sided quotes (60 individual quotes).

As a consequence, the **Quotes** (08) message has a variable size. Each quote occurrence includes the *Symbol Index* and the *EMM*, a *Bid Price* and *Bid Quantity* or an *Offer Price* and *Offer Quantity* or both.

- For the Warrants & Certificates segment (SP) – In a single Quotes (08) message, clients must only use instruments belonging to the same Partition as the one to which they sent the message.
- For the Derivatives segments (EQD, IDD, FID, CMO) – In a single **Quotes** (08) message, **clients must only use instruments belonging to the same Contract**.

Quotes that are sent for instruments that either do not belong to the current Partition or Contract, depending on the segment, will be individually rejected by the matching engine with the applicable error code.

Quantities must be a multiple of the instrument's lot size, prices must be populated and have to be a multiple of the instrument's tick size[5]. For a given instrument the bid price must be strictly less than the ask price.

The Quote message may also be used to modify or cancel quotes:

- A valid quote submitted in an instrument that already has a quote from the same liquidity provider in the order book is considered as a modification. Quote modifications lead to the same loss of priority rules as order modifications.
- A valid quote with a quantity set to zero (0) is considered as a cancellation. Hence when a quantity equal to zero (0) is sent, the price field is not checked.
- To modify/create only one side of a Quote, the Price and Quantity of the side to be ignored have to be set to the Null Value. Null Value will **not be** considered as a cancellation.

RFE Answer

- For the Warrants & Certificates segment (SP), In the block of the message the *RFE Answer* specifies whether the double sided quote is a direct response to a **RequestForExecution** (34) message or not. This way if a Liquidity provider submits a **Quotes** (08) message with the *RFE Answer* set to "Yes" after a **RequestForExecution** (34), it will immediately trigger executions in the associated instrument. The immediate execution applies only to the quotes that are possible matches to the client's orders. In case where the quotes are not a possible match the RFE confirmation is ignored and the quote is processed normally. If the *RFE Answer* is set to "No" in the **Quotes** (08) message - it will not immediately trigger the executions.
- For the Derivatives segments (EQD, IDD, FID, CMO), In the block of the message the *RFE Answer* must always be set to "No".

On Derivatives segments, Market Makers using Logical Accesses setup as 'Market Making', may use the **NewOrder** (01) message while also using the **Quotes** (08) messages. In such a case the price and volume submitted using New Order would override the information provided by the earlier Quotes message, and vice versa. For more information on how this is avoided please review the **NewOrder** (01) message.

Responses to Quotes, Rejection & Errors

When the message is technically valid, the matching engine responds to the request with the **QuoteAck** (09) message.

When the message is technically invalid, or has any technical or functional issues, the rejections and error messages are provided as following based on the applicable case:

[5] For Derivatives, while trading may occur sub-tick, on order entry prices must be multiples of the instrumet's tick size

- When a technical error is detected in any field, including those in a repeated field, the matching engine responds with the **Reject** (07) message, and rejects the entire content of the **Quotes** (08) message.
- In the following cases the matching engine responds with the **QuoteAck** (09) message, and rejects only the invalid quotes (see message usage in **QuotesAck** (09)):
  - When a functional error is detected that impacts all repeating groups (e.g. Firm is not authorized to trade on the instrument or contract, Firm is not an LP / MM for the instrument or contract, or the identified Account Type is set to a value other than Liquidity Provider).
  - When functional errors are detected in one or several repeated fields,
  - When a given Symbol Index quote is duplicated in a **Quotes** (08) message, only the last occurrence of the quote containing the instrument is taken into account. The earlier occurrences are ignored by the engine, and get an individual error code.
  - If the field *Execution Instruction* is populated with value 1 for any positions other than those for STP service, the message will be fully rejected

Repeating Section Usage

The message contains **three repeating sections:**

- **MiFID Shortcodes repeating section:** the first repeating section contains the MiFID short codes. Possible number of repeating groups: 0, 1.
- **Clearing Data repeating section:** the second repeating section contains the clearing fields. Possible number of repeating groups: 0, 1.
- **Quotes repeating section:** the third repeating section is used to submit quotes.
  - For the Warrants & Certificates segment (SP): Possible number of repeating groups: from 1 to 150.
  - For the Derivatives segments (EQD, IDD, FID, CMO): Possible number of repeating groups: from 1 to 30.

Clearing Data and Short Codes management

- For the Warrants & Certificates segment (SP) - The Clearing Data and MiFID Short Codes associated to the Quotes are submitted once per message, and are assigned and managed for each instrument within the message as follow:
  - When the first quote(s) of the day is submitted for an instrument, the clearing data and short codes set in the message containing these quotes will be stored and be associated to this instrument.
    - If clearing data and/or short codes are not provided or provided set with the Null Value, the clearing data and/or short codes associated to this instrument will be set to blank.
  - After the submission of the first quote(s) for an instrument, all following quote(s) modifications and updates for this instrument will not lead to any modifications of clearing data and short codes previously associated to the instrument (even if they were set to blank). Clearing data and short codes contained in the messages used for updates and modifications will be ignored for instruments as it is already set based on the original quote messages.
    - Even after quotes are fully matched, submission of quotes will not lead to an update of the clearing data and short codes associated to the instrument to be updated.
  - In order to reset the clearing data and short codes associated to an instrument, the liquidity provider must fully cancel the previously sent quote by submitting a **Quotes** (08) message with **both** *Bid Quantity* **and** *Offer Quantity* set to zero (0). As identified above, this behaviour equally applies when the quote has been totally matched.

    Please note that **MassCancel** (13), Cancel on Disconnect mechanism, PAKO / KO and beginning of a One Side only (Bid Only and Offer Only) period also lead to a reset of the clearing data and short codes associated to an instrument.

- After the quote is fully cancelled, submitting a new quote for this instrument will result in the newly provided clearing data and short codes being set for the instrument; as it is done for the first quote(s) of the day.
  - A successful reset of the clearing data and short codes associated to an instrument leads to new order IDs assigned to the next submitted quotes.

- For the Derivatives segments (EQD, IDD, FID, CMO)
  - Clearing data for the Quotes on the Derivatives segments is managed within the **MM Sign-in** (47) message.

    If the clearing data repeating group is submitted in the **Quotes** (08) message on the Derivatives segments, such message, and all its component individual quotes, will be rejected using **Reject** (07) message.

  - MIFID Short codes data follows the same rules as those described above for the Warrants & Certificates segment, with the single repeating group provided per message, and applied to each instrument identified in the message.

5.4.7.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Trading Capacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Enumerated	1	1 = Dealing on own account (DEAL) 2 = Matched principal (MTCH) 3 = Any other capacity (AOTC)	Mandatory
Account Type	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Enumerated	1	(See field description)	Mandatory
LP Role	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Enumerated	1	1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider 12 = RFQ Liquidity Provider	Mandatory
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory

Field	Short Description	Format	Len	Values	Presence
RFE Answer	Indicate whether the Quotes message is an answer to a RequestForExecution (34) message or not. (0: No [False] ; 1: Yes [True])	Boolean	1	0 = False 1 = True	Mandatory
Execution Instruction	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Optional
MiFIDShortcodes length		Numerical	1	12	Mandatory
MiFIDShortcodes occurrences		Numerical	1	0..1	Mandatory
InvestmentDecisionWFirmShortCode	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision.	Numerical ID	4	-2^31+1..2^31-1	Conditional
NonExecutingBrokerShortCode	MiFID II short code, Non-executing broker, identifier of the non-executing broker.	Numerical ID	4	-2^31+1..2^31-1	Optional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
ClearingDataset length		Numerical	1	51	Mandatory
ClearingDataset occurrences		Numerical	1	0..1	Mandatory
Clearing Firm ID	Clearing firm ID.	Alphanumerical ID	8	(See field description)	Optional
Client ID	Field used to identify the client (investor). This field is part of the clearing aggregate	Alphanumerical ID	8	(See field description)	Optional
Account Number	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	Alphanumerical ID	12	(See field description)	Optional
Technical Origin	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Enumerated	1	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining	Optional
Open Close	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	Bitmap	2	(See field description)	Optional
Clearing Instruction	Clearing Instruction.	Enumerated	2	(See field description)	Optional
Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(Free Text)	Optional
QuotesRep length		Numerical	1	38	Mandatory
QuotesRep occurrences		Numerical	1	1..30 or 1..150	Mandatory
Bid Quantity	Quote bid quantity, (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-1	Optional

Field	Short Description	Format	Len	Values	Presence
Bid Price	Quote bid price, (To be calculated with Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Optional
Offer Quantity	Quote offer quantity, (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-1	Optional
Offer Price	Quote offer price, (To be calculated with Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Optional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory

5.4.8 Quote Ack (09)

Client ◀ OEG
Available for SP EQD IDD FID CMO

5.4.8.1 Message Description

This message is used by the matching engine to respond to a **Quotes** (08) message sent by Liquidity Providers (LP) / Market Makers (MM) when no error is detected in any non-repeated field of the Quotes request. In case of error in any non-repeated field in the Quotes request, the matching engine rejects the Quotes request with a **Reject** (07) message.

For each occurrence of the Quotes aggregate provided in the request (from 1 to 30 occurrences), a related occurrence of the **QuotesAck** (09) aggregate per *Symbol Index* and *EMM* may be found in the **QuotesAck** (09) message. As a result, the **QuotesAck** (09) message has a variable size.

If there are some duplicates of *Symbol Index* and *EMM* provided in the inbound **Quotes** (08) message, only the last occurrence of this *Symbol Index and EMM* is taken into account by the system, and then the earlier ones are provided in the **QuotesAck** (09) message with error code 1066 “The same Symbol Index is repeated more than once in the repeating sections for Quotes. Earlier duplicates are ignored”.

The **QuotesAck** (09) aggregate includes the *Symbol Index* and the *EMM*, a *Bid Error Code* and an *Offer Error Code* along with a Buy and Sell Order IDs and Revision Indicators. The matching engine populates the error codes as follows:

- If an error has been detected in the *Symbol Index* of the input Quotes aggregate, both the *Bid Error Code* and *Offer Error Code* are provided in the associated **QuotesAck** (09) aggregate.
- If an error is detected in the *Bid Quantity* or *Bid Price* field, the error code is provided in the *Bid Error Code* field.
- If an error is detected in *Offer Quantity* or *Offer Price* field, the error code is provided in the *Offer Error Code* field.

When no error is detected in these fields, *Bid Error Code* and *Offer Error Code* are provided with the null value.

Repeating Section Usage

The message contains **one repeating section.**

Quotes repeating section: this repeating section provides the result of the previously submitted quotes

- For the Warrants & Certificates segment (SP): Possible number of repeating groups: from 1 to 150.
- For the Derivatives segments (EQD, IDD, FID, CMO): Possible number of repeating groups: from 1 to 30.

5.4.8.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Account Type	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Enumerated	1	(See field description)	Mandatory
LP Role	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Enumerated	1	1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider 12 = RFQ Liquidity Provider	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Optional

Field	Short Description	Format	Len	Values	Presence
Ack Qualifiers	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Optional
QuoteAcks length		Numerical	1	27	Mandatory
QuoteAcks occurrences		Numerical	1	1..30 or 1..150	Mandatory
Bid Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-1	Conditional
Offer Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Buy Revision Indicator	Indicates whether the bid quote is a new quote, a replacement of a previous quote or a cancellation.	Enumerated	1	0 = New 1 = Replacement 2 = Cancellation	Conditional
Sell Revision Indicator	Indicates whether the offer quote is a new quote, a replacement of a previous quote or a cancellation.	Enumerated	1	0 = New 1 = Replacement 2 = Cancellation	Conditional
Bid Error Code	Error code returned when quote contains an invalid bid.	Numerical ID	2	0..2^16-1	Conditional
Offer Error Code	Error code returned when a quote contains an invalid offer. See Error List for details of error codes.	Numerical ID	2	0..2^16-1	Conditional

5.4.9 Quote Request (10)

Client ▶ OEG
Available for FND EQD IDD FID CMO

5.4.9.1 Message Description

The **Quote Request** (10) message is used by the clients to indicate that they have interest in the specified instrument.

This message is sent to the Liquidity Providers registered for the specified instrument and will not lead to a publication in the market data.

Field *Order Side* is optional as the client may or may not specify those parameters depending of the nature of the request.

For the Derivatives Markets this message is used to request quotes / liquidity for a specific instrument. For this use

- if the client does not wish to indicate quantity, the field *Order Quantity* should be filled with zero (0) and will be ignored, and
- the field *Dark Execution Instruction* should be filled with all positions set to zero (0).

5.4.9.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Order Quantity	Total order quantity, per quantity unit. (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Optional
Firm ID Publication	*[N/A] Indicates whether the client accept or not to provide its Firm ID to the RFQ recipients. (0:No ; 1:Yes)*	*Boolean*	*1*	*0 = False* *1 = True*	*Optional*
End Client	*[N/A] Optional field the client may use to provide the BIC of the End Client of the RFQ.*	*Alphanumerical ID*	*11*	*(See field description)*	*Optional*
Dark Execution Instruction	Field used as instruction for dark order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	0 = Dark Indicator *1 = Deferred Trade Indicator* *2 = Displayed Order Interaction* 3 = Sweep Order Indicator 4 = Minimum Quantity Type	Mandatory
Minimum Order Quantity	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Optional

5.4.10 Cancel Request (12)

Client ▶ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.10.1 Message Description

The **CancelRequest** (12) message is used to request the cancellation of the entire remaining quantity of **an active order in the order book**, note that only the originating Firm is authorized to cancel its own orders.

An order cancellation only applies to the remaining quantity of an order in the book. If the order to be cancelled was partially filled, the cancellation has no effect on the previous trades (or any previously executed quantity).

On ETF Access platform, the **CancelRequest (12)** message can be used to request the cancellation of an active RFQ previously created with the **QuoteRequest (10)** message. In this situation, the *Order ID* should contain the *QuoteReqID* and *Order Category* must be set to 'Quote Request'. It can also be used to request the cancellation of an LP Answer, in this situation the *Order ID* along with *Order Category* set to 'RFQ LP Answer' must be specified in the request.

An active order can be cancelled by specifying the *Client Order ID* of the original order:

- If the **CancelRequest** (12) message contains both *Order ID* and *Original Client Order ID*, the matching engine uses the *Order ID* to cancel the order. If the *Order ID* specified in the message is not found in the active orders list, the order modification is rejected. If the *Order ID* specified in the message is found the matching engine does not check that the Client Order ID of the order found ("cancelled" order) matches with the *Original Client Order ID* contained in the **CancelRequest** (12) message.

In the case where the values of the *Order Side* and/or *Order Type* provided in the **CancelRequest** (12) message do not match with the *Order Side* and *Order Type* of the targeted order it will lead to the rejection of the request with the error code 2101 "Unknown Order". (For triggered Stop orders, the value in field *Order Type* must be equal to Limit (2), for Stop-limit, or Market (1) for Stop-market order, corresponding to the type of stop order originally submitted.)

Repeating Section Usage:

The message contains **two optional repeating sections**:

- **NotUsedGroup1 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".
- **NotUsedGroup2 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".

5.4.10.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory

Field	Short Description	Format	Len	Values	Presence
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Mandatory
Order Type	Type of Order.	Enumerated	1	(See field description)	Mandatory
Order Category	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”.	Enumerated	1	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer	Optional
NotUsedGroup1 length		Numerical	1	0	Mandatory
NotUsedGroup1 occurrences		Numerical	1	0	Mandatory
NotUsedGroup2 length		Numerical	1	0	Mandatory
NotUsedGroup2 occurrences		Numerical	1	0	Mandatory

5.4.11 Mass Cancel (13)

Client ▶ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.11.1 Message Description

The **MassCancel** (13) message is used to request the cancellation of the entire remaining quantity of **all active orders** matching the specified criteria(s), note that only the originating Firm is authorized to cancel its own orders.

An order cancellation only applies to the remaining quantity of an order in the book. If the order to be cancelled was partially filled, the cancellation has no effect on the previous trades (or any previously executed quantity).

The scope of the mass cancellation request is defined the by the value populated in one of the two fields: *Symbol Index* or *Instrument Group Code*. If one of these fields is not populated, the Mass Cancel message will be rejected.

- To cancel orders assigned to an instrument or Contract the *Symbol Index* field must be populated with the symbol index of the instrument concerned.
- (Cash only) To cancel orders assigned to instruments attached to a given trading group the *Instrument Group Code* field must be populated with the code of the trading group concerned.

Optional additional criteria can be specified: *EMM*, *Order Side*, *Logical Access ID*, *TargetExecutionWithinFirmShortCode* and *OE Partition ID*, and be used as filters for the Mass Cancel processing. If provided, those filters are used to restrict the scope of the Mass Cancel request. (Please note that *OE Partition ID* is not taken into account if *Logical Access ID* is not populated).

In the field *TargetExecutionWithinFirmShortCode* clients may specify the value of *ExecutionWithinFirmShortCode* with which orders were originally submitted, and if provided would cover the scope of the orders and quotes submitted by the Firm and specified Short code. Value provided in this field may differ from the value specified in the field *ExecutionWithinFirmShortCode* within the **MassCancel** (13) message.

Repeating Section Usage

The message contains **two optional repeating sections**:

- **NotUsedGroup1 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".
- **NotUsedGroup2 Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".

Mass Cancellation Processing

The **MassCancel** (13) message is processed differently between Cash and Derivative segments:

- On the Cash segments, a trading group does not have its own inbound message queue. If the field *Instrument Group Code* designates a trading group, a mass cancellation request is pushed asynchronously to the inbound queue of each book of the instruments belonging to that trading group. As a consequence, a counterpart order can be sent to one of these book *after* the mass cancel request at group level but *before* the cancellation request is queued for the book; in this situation, it is possible for an order to be cancelled to match against the entering counterpart order before being actually cancelled.
- On the Derivative segments, a contract does have its own inbound queue. If the field *Contract Symbol Index* designates a contract, the mass cancellation request is queued directly into the contract's inbound queue. As a consequence, it is not possible for a counterpart order sent to an instrument of the contract after the cancellation request to match an order to be cancelled as the counterpart order is queued and processed after the mass cancellation request.

5.4.11.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-1	Conditional
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Optional
Instrument Group Code	Instrument Group / Class Identifier.	Alphanumerical ID	2	(See field description)	Conditional
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Optional
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-1	Optional
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-1	Optional
Contract ID	*Deprecated*	*Alphanumerical ID*	*4*	*Deprecated*	*Conditional*
Maturity	*[N/A] Scope of active orders to be cancelled according the selected maturity, expressed in YYYYMMDD format. (Future Use)*	*Alphanumerical ID*	*8*	*(See field description)*	*Optional*
Account Type	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Enumerated	1	(See field description)	Optional
Option Type	*[N/A] Type of the option. (Future Use)*	*Enumerated*	*1*	*1 = Call* *2 = Put*	*Optional*
Order Category	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”.	Enumerated	1	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer	Optional
TargetExecutionWithinFirmShortCode	Value of the target Execution Within Firm Short Code used as a filter to reduce scope of the Mass Cancel request	Numerical ID	4	0..2^32-1	Optional
NotUsedGroup1 length		Numerical	1	0	Mandatory
NotUsedGroup1 occurrences		Numerical	1	0	Mandatory
NotUsedGroup2 length		Numerical	1	0	Mandatory
NotUsedGroup2 occurrences		Numerical	1	0	Mandatory

5.4.12 Mass Cancel Ack (14)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.12.1 Message Description

The **MassCancelAck** (14) message is sent twice by the matching engine to confirm that the **MassCancel** request has been taken into account. The first **MassCancelAck** (14) message has *Total Affected Orders* set to -1, and repeats all the fields as they were submitted in the **MassCancel** (13) request.

The client will receive a **Kill** (05) message per successfully cancelled order (if any). Please note that **Kill** (05) messages are sent to the OE Session that owns the cancelled order.

When the mass cancel request is completely processed the client will receive a last **MassCancelAck** (14) message to notify them of the *Total Affected Orders*. The number provided by *Total Affected Orders* field could be different than the number of killed order notifications received by the issuer of the Mass Cancel request if some killed orders belonged to other OE Sessions. (Please refer to the Kinematics for further details).

5.4.12.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Total Affected Orders	Number of orders affected following a global request. It is set to -1 to indicate that the request is processed.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-1	Conditional

Field	Short Description	Format	Len	Values	Presence
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Conditional
Instrument Group Code	Instrument Group / Class Identifier.	Alphanumerical ID	2	(See field description)	Conditional
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Conditional
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-1	Conditional
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-1	Conditional
Contract ID	*Deprecated*	*Alphanumerical ID*	*4*	*Deprecated*	*Conditional*
Maturity	*[N/A] Scope of active orders to be cancelled according the selected maturity, expressed in YYYYMMDD format. (For Future Use)*	*Alphanumerical ID*	*8*	*(See field description)*	*Conditional*
Account Type	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Enumerated	1	(See field description)	Conditional
Option Type	*[N/A] Type of the option. (For Future Use)*	*Enumerated*	*1*	*1 = Call* *2 = Put*	*Conditional*
Order Category	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”.	Enumerated	1	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer	Optional
Ack Qualifiers	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Optional
TargetExecutionWithinFirmShortCode	Value of the target ExecutionWithinFirmShortCode used as a filter to reduce scope of the Mass Cancel request	Numerical ID	4	0..2^32-1	Optional
MiFIDFields length		Numerical	1	9	Mandatory
MiFIDFields occurrences		Numerical	1	1	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Conditional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Conditional

5.4.13 Open Order Request (15)

Client ▶ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.13.1 Message Description

The **OpenOrderRequest** (15) message is used by the clients to request the status of the target order (*Order ID* or *Original Client Order ID*):

- If there is a corresponding live order in the Order Book, the system will acknowledge the request with an **Ack** (03) message (*Ack Type* = 17);
- If there is no corresponding order in the Order Book, the system will reject the request with a **Reject** (07) message (*Error Code* = 2101 'Unknown Order').

5.4.13.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-1	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Category	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Enumerated	1	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer	Optional

5.4.14 Ownership Request (18)

Client ▶ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.14.1 Message Description

The **OwnershipRequest** (18) message is used by the clients to change the ownership of an active order from one OE Session to another OE Session belonging to the same Firm. Ownership migration is used to define the OE Session that will receive all outbound messages associated to the targeted order.

Please note that modifying an order (**CancelReplace** (06)) by a different OE session also leads to an ownership migration.

The scope of the ownership can be a single order by specifying the *Order ID* and *Symbol Index* of the targeted order. It could also be all orders of the specified *Symbol Index* belonging to the targeted Logical Access (*Logical Access ID*).

The **OwnershipRequest** (18) is acknowledged by the **OwnershipRequestAck** (17), and by **Ack** (03) message(s) which provides the affected order(s).

5.4.14.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-1	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-1	Conditional
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-1	Optional
Order Category	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”.	Enumerated	1	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer	Optional

5.4.15 Ownership Request Ack (17)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.15.1 Message Description

The **OwnershipRequestAck** (17) message is sent twice by the matching engine to confirm that the **OwnershipRequest** (18) has been taken into account. The first **OwnershipRequestAck** (17) message has *Total Affected Orders* set to -1, and repeats all the fields as they were submitted in the **OwnershipRequest** (18).

Subsequently the client will receive an **Ack** (03) message per order affected by the command.

When the Ownership request is totally processed the client will receive a last **OwnershipRequestAck** (17) message to notify the client of the *Total Affected Orders*.

5.4.15.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-1	Conditional
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-1	Conditional
Total Affected Orders	Number of orders affected following a global request. It is set to -1 to indicate that the request is processed.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Order Category	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”.	Enumerated	1	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer	Optional

5.4.16 Trade Bust Notification (19)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.16.1 Message Description

This message is sent to both counterparts of a trade if Market Operations busts a trade.

Please note that *Last Traded Price* and *Last Traded Quantity* refer to Price and Quantity of the cancelled trade.

For the Derivatives Markets

For Strategy trades the **Trade Bust Notification** (19) message is sent for each individual leg of the strategy. In such cases, the field *Parent Execution ID* identifies the *Execution ID* provided in the block of the **Fill** (04) message for the original trade. This allows to map all cancellations of individual legs to the original **Fill** (04) message sent for the strategy trade. The individual *Execution ID* in such **Trade Bust Notification** (19) messages is the 'leg' *Execution ID* of each individual leg provided in the repeating group of the **Fill** (04) message.

For cancellation of a LIS wholesale trade the bust messages include the *LIS Transaction ID* to help map the individual cancellation to the overall wholesale transaction.

5.4.16.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Execution ID	The Execution ID is unique per instrument and per day. It is the unique identifier of a trade per instrument. This field is provided in case of fill, partial fill or trade cancellation.	Numerical ID	4	0..2^32-2	Mandatory
Last Traded Price	The Last Traded Price indicates the price of last fill on an instrument (to be calculated with the Price/Index Decimals).	Price	8	-2^63+1..2^63-1	Mandatory
Last Traded Quantity	The Last Traded Quantity indicates the quantity of last fill on an instrument (to be calculated with the Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory
LIS Transaction ID	ID that can be used to associated Executions belonging to the same LIS Transaction	Numerical ID	4	0..2^32-2	Optional
Parent Execution ID	Unique identifier of a parent trade executed on the strategy	Numerical ID	4	0..2^32-2	Optional

Field	Short Description	Format	Len	Values	Presence
Parent Symbol Index	Exchange identification code used to point to the strategy in the leg specific messages	Numerical ID	4	0..2^32-2	Optional

5.4.17 Collar Breach Confirmation (20)

Client ▶ OEG
Available for EQ

5.4.17.1 Message Description

The **CollarBreachConfirmation** (20) message is used by a client who wants to confirm the submission of the order previously rejected for dynamic collar breach.

If an order sent causes a matching price that breaches the dynamic thresholds the order gets automatically rejected and the client who has sent the order receives a **Reject** (07) message with an *Order ID* for the rejected order.

For instruments with appropriate collar logic, in case an order submission rejected due to collar breach, clients have the possibility to confirm the submission of this order by submitting a **CollarBreachConfirmation** (20) within 30 seconds after the rejection. The confirmation will lead to the collar recalculation, and then the order is checked against the updated collars and is either accepted or rejected again due to collar breach.

Please note that there is a maximum number of confirmations allowed possible per order. It is set per Trading Group (Class). Please refer to the Trading Manual for further information.

To confirm the rejected order the client must send a **CollarBreachConfirmation** (20) message and specify the *Order ID* of the concerned order (this *Order ID* was previously provided in the corresponding **Reject** (07) message).

Note that an order can be rejected for a breach of a collar even if it has partially matched; in this case the confirmation is applied to the remaining unmatched quantity of the order.

5.4.17.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory

Field	Short Description	Format	Len	Values	Presence
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Original Client Order ID	Client order ID of the original order.	Numerical ID	8	-2^63+1..2^63-1	Conditional

5.4.18 Price Input (28)

Client ▶ OEG
Available for EQ FND FXI SP

5.4.18.1 Message Description

The **PriceInput** (28) message is used by the clients to inject prices into the matching engine, disseminate price in Market Data and update the reference price of an instrument.

The type of price is specified in the *Input Price Type* field:

- 1 – Valuation Price: for this type the *Price* must not be provided. If the message is accepted by the matching engine a public **PriceUpdate** (1003) message will be disseminated to the market for one lot size at the reference price with Market Data Price Type equals to '23' Valuation Price.
- 2 – Alternative Indicative Price: for this type the Price must be provided. If the message is accepted by the matching engine a PriceUpdate (1003) message will be disseminated to the market participants at the price provided by the client and it will accordingly update the instrument's reference price. The Dynamic Collars are updated around the price specified in the **PriceInput** (28) message and a public **MarketUpdate** (1001) message is sent to the market to disseminate the new collars.

For specific use and authorizations per Instrument Group (Class) please refer to the Trading Manual.

5.4.18.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory

Field	Short Description	Format	Len	Values	Presence
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Input Price Type	Type of input price.	Enumerated	1	1 = Valuation Price 2 = Alternative Indicative Price (AIP)	Mandatory
Price	Price per unit of quantity (to be calculated with the Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Conditional

5.4.19 Liquidity Provider Command (32)

Client ▶ OEG
Available for SP

5.4.19.1 Message Description

This message is used by a Liquidity Provider to:

- Activate a Warrant instrument upon its creation. It removes the need for further validation by Issuers of Knock-Ins (KI) in the trading system, and streamlines the overall KI process. (Knock In By Issuer functionality “KIBI”).
- Trigger a Knock-Out (KO) of an instrument independently from, and in place of, the KO system managed by Euronext. Reason for suspension (KO or not) is published in the market data and if the reason is KO, origin (KOBI or not) is provided. (Knock Out By Issuer KOBI-functionality).
- Trigger a Payment After Knock Out (PAKO) phase after a Knock-Out has been triggered, this phase enables clients to redeem leveraged Knock-Outs. (Payment After Knock Out PAKO-functionality). After PAKO is triggered the instrument is forced into a Bid Only state, even if no additional message is sent to indicate this, and remains in this state for the duration of this phase.
- Trigger a Bid Only or Offer Only period. These action codes are not accepted during PAKO phase.

The Matching Engine acknowledges the request by sending back an **Ack** (03) message.

5.4.19.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
LP Action Code	Action the LP wants to apply on the specified instrument of warrant type.	Enumerated	1	1 = Knock-In By Issuer (KIBI) 2 = Knock-Out By Issuer (KOBI) 3 = Payment After Knock-Out (PAKO) 4 = Bid Only 5 = Offer Only	Mandatory

5.4.20 Ask For Quote (33)

Client ◀ OEG
Available for SP

5.4.20.1 Message Description

This message is used only for the Warrants on the New Market Model and sent by the matching engine to the Liquidity Provider when a quote of the latter is required. *AFQ Reason* identifies the case that triggers this request.

5.4.20.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
AFQ Reason	Reason why the AFQ (33) has been sent.	Enumerated	1	1 = Quote cancelled by the Liquidity Provider 2 = Quote cancelled by Market Control 3 = No quote M minutes before an uncrossing 4 = No quote S seconds before an uncrossing 5 = Quote completely matched	Mandatory

5.4.21 Request For Execution (34)

Client ◀ OEG
Available for SP

5.4.21.1 Message Description

This message is used by the matching engine to offer the Liquidity Provider the opportunity to confirm or modify the quote of an instrument before completing any trade.

Upon reception of this message the Liquidity Provider can either send a new Quote to update the price or ignore the request (and thus trades within the timeframe). Please refer to the **Quotes** (08) message for further explanations.

5.4.21.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory

5.4.22 RFQ Notification (35)

Client ◀ OEG
Available for FND

5.4.22.1 Message Description

The **RFQ Notification** (35) message is sent by the matching engine to inform Liquidity Providers about the new RFQ characteristics previously received from an RFQ issuer (Client who send the RFQ) through the **Quote Request** (10) message.

This message is sent to Liquidity Providers registered for the dedicated instrument.

5.4.22.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory

Field	Short Description	Format	Len	Values	Presence
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Mandatory
Order Quantity	Total order quantity, per quantity unit. (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory
Counterpart Firm ID	*[N/A] ID of the clearing house in case of a CCP clearable transaction – also in the specific case of Internal Matching Service (IMS) with clearing :*	*Alphanumerical ID*	*8*	*(See field description)*	*Optional*
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
RFQ Update Type	*[N/A] Indicates the current status of the RFQ.*	*Enumerated*	*1*	*1 = New* *2 = Cancelled by the RFQ issuer* *3 = Expired* *4 = Partially or Fully Matched*	*Mandatory*
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Optional
End Client	*[N/A] Optional field the client may use to provide the BIC of the End Client of the RFQ.*	*Alphanumerical ID*	*11*	*(See field description)*	*Optional*
Dark Execution Instruction	Field used as instruction for dark order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	0 = Dark Indicator *1 = Deferred Trade Indicator* *2 = Displayed Order Interaction* 3 = Sweep Order Indicator 4 = Minimum Quantity Type	Mandatory
Minimum Order Quantity	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Optional

5.4.23 RFQ Matching Status (36)

Client ◀ OEG
Available for FND

5.4.23.1 Message Description

The **RFQMatchingStatus** (36) message is sent by the matching engine to inform RFQ issuer about the potential matching situation at the time the message is sent.

5.4.23.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Mandatory
Potential Matching Price	The Potential Matching Price indicates to the RFQ issuer the matching price for the “Potential Matching Quantity”.	Price	8	-2^63..2^63-1	Conditional
Potential Matching Quantity	The potential matching quantity indicates the maximum volume that would be matched in case of an RFQ validation.	Quantity	8	0..2^64-2	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Mandatory
Number Of LPs	Indicates the number of LPs who sent an answer to a specific RFQ.	Numerical	1	0..2^8-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Recipient Type	*[N/A] Indicates whether the message is sent to the RFQ issuer or the Liquidity Provider.*	*Enumerated*	*1*	*1 = RFQ Issuer* *2 = RFQ recipient (LP)*	*Mandatory*

5.4.24 RFQ LP Matching Status (37)

Client ◀ OEG
Available for FND

5.4.24.1 Message Description

The **RFQLPMatchingStatus** (37) message is sent by the matching engine to inform Liquidity Providers about their potential matching situation at the time the message is sent.

The field *Potential Matching Quantity* will contain the potential aggregated matching quantity for all the concerned LP's answers for the identified RFQ (provided by the *QuoteReqID*).

5.4.24.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Mandatory
Potential Matching Quantity	The potential matching quantity indicates the maximum volume that would be matched in case of an RFQ validation.	Quantity	8	0..2^64-2	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory

Field	Short Description	Format	Len	Values	Presence
Order Side	Indicates the side of the order.	Enumerated	1	1 = Buy 2 = Sell	Mandatory

5.4.25 User Notification (39)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.25.1 Message Description

In compliance with supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying organisational requirements of trading venues, as well as for the services provided for such purposes for the investment firms engaged in algorithmic trading, Euronext Market operations, or authorized representatives of the investment firms, may suspend a member's or trader's access to the trading system or trigger the use of kill functionality in order to prevent disorderly trading conditions.

In such cases, the **UserNotification** (39) message is used to notify clients if their access has been suspended/ killed or if their suspension/kill status has been lifted, and the scope (or granularity) on which this action has been applied.

The field *User Status* in this message indicates the nature of action and the case of Kill functionality the scope taken on the access and/or orders. In case of suspension the scope is provided either in the field *Symbol Index* or *Family ID*.

The text in the field *User Status* associated to each value provides for the following possible actions and granularities.

Actions

Action	Description
Suspended	access to the trading system has been suspended
Suspension Cleared	access to the trading system has been restored after a Suspension
Killed	access to the trading system has been suspended and all unexecuted orders submitted have been cancelled
Kill Cleared	access to the trading system has been restored after a Kill functionality was initiated. Orders cancelled upon initiation of Kill functionality will NOT be restored

Scope (for the Kill)

Firm ID is always provided but it represents the scope of the kill only in case the action has been taken when specified by *User Status* as Firm.

Scope	Description	Identifier Field Provided
Trader-Algo	a trader or an algorithm will be in scope, applied based on the value specified in the field *ExecutionWithinFirmShortCode.* In this case the field *ExecutionWithinFirmShortCode* in the message will be populated with the stipulated value	ExecutionWithinFirmShortCode
Firm	member, including all of the physical connections and orders associated to the Firm ID will be in scope	*Firm ID*

Scope	Description	Identifier Field Provided
DEA	the sub-set of orders / messages flagged as being submitted via a Direct Electronic access (DEA) provided by members to their own clients either for Sponsored Access or Direct Market Access (DMA). In case of Kill command being done for Sponsored access, the Status will identify "DEA" and the field *ClientIdentificationShortCode* is not populated In case the Kill command is done for the DMA, the command is applied based on the value specified in the field *ClientIdentificationShortCode*. In this case the field *ClientIdentificationShortCode* in the message will be populated with the stipulated value	ClientIdentificationShortCode

The message contains **one optional repeating section**:

- **SuspensionScope Repeating Section:** this repeating section is for future use and must not be used for now; the two fields of the header must be set to zero "0".

5.4.25.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Conditional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Family ID	Identifier of the family.	Alphanumerical ID	8	(See field description)	Conditional
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-1	Conditional
User Status	Status of the user.	Enumerated	1	(See field description)	Mandatory
SuspensionScope length		Numerical	1	0	Mandatory
SuspensionScope occurrences		Numerical	1	0	Mandatory

5.4.26 Instrument Synchronization List (50)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.26.1 Message Description

The **InstrumentSynchronizationList** (50) message is sent in order to associate each instrument with a *ResynchronizationID.* This ID is used only in case of failover of the matching engine.

Please refer to message **SynchronizationTime** (51) for further details.

5.4.26.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Optional
Resynchronization ID	Each instrument is assigned to a Resynchronization ID, that is use in case of failover.	Numerical ID	2	0..2^16-2	Mandatory
InstrumentSynchronizationSection length		Numerical	1	5	Mandatory
InstrumentSynchronizationSection occurrences		Numerical	1	1..254	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory

5.4.27 Synchronization Time (51)

Client ◀ OEG
Available for EQ FND FXI SP EQD IDD FID CMO BLK

5.4.27.1 Message Description

The **SynchronizationTime** (51) message is sent after a disruptive incident affecting the trading chain to help the clients assess whether the messages received immediately before the disruptive incident are valid and stored state or if they must be discarded.

This message provides a timestamp (*Last Book In Time*) of the last known valid and stored message, and is sent by the system for the associated resynchronization ID (*Resynchronization ID*).

Upon the reception of the message, clients must check the list of all instruments associated to the field *Resynchronization ID* and analyze all messages received before the **Synchronization Time** (51) message, related to these instruments. Messages having *Book In Time* or *Trade Time* higher than the associated *Last Book In Time* must be discarded.

For example, upon the reception of a **Synchronization Time** (51) message, if a client previously received a **Fill** (04) message with the *Trade Time* higher than the *Last Book In Time*, then this **Fill** (04) message must be ignored and the order fill must be reversed in client system; the trade is considered as if it has never happened (i.e. the quantity has not been traded, and the order may still be present in the order book for further execution).

Similarly, if a client previously received a **Kill** (05) message with a *Book In Time* higher than the *Last Book In Time,* then the Kill notification must be ignored (meaning that the order may still present in the order book for further execution).

All the messages received after the **SynchronizationTime** (51) messages must be processed normally.

5.4.27.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-2	Optional
Resynchronization ID	Each instrument is assigned to a Resynchronization ID, that is use in case of failover.	Numerical ID	2	0..2^16-2	Mandatory
Last Book IN Time	Last Matching Engine IN time (in ns) processed on the associated Resynchronization ID.	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory

5.4.28 Security Definition Request (60)

Client ▶ OEG
Available for EQD IDD FID CMO

5.4.28.1 Message Description

This message is used to create a user-defined strategy during the trading session. Any logical access of type Trading or Market Making can initiate strategy creation.

The strategy creation request is acknowledged or rejected by the system using a **Security Definition Ack (61)** message. In case of positive acknowledgement, message provides the *SymbolIndex* of the created (or existing) strategy.

The strategy to be created must respect the strategy definition corresponding to its code specified with the *Strategy Code* field. It must also be defined from the buy side perspective. For example, the strategy definition of a Future Calendar Spread must follow the following constraints:

- Two future legs within the same contract;
- Ratio 1 for the first leg L_1 as a buy;
- Ratio 1 for the second leg L_2 as a sell;
- Front leg expiry precedes second leg expiry.

This corresponds to the definition of the spread strategy L_1-L_2.

If the strategy to be created does not fully respect its strategy definition, then the strategy creation request is rejected by the system through a **Reject** (07) message.

For the list of the recognised strategies and high level description of their structures client should refer to the *Annexe 2 to Notice n° 5-01 Trading Procedures: Recognised Strategies* document.

For COB, a strategy must be created before any orders or quotes for that strategy can be submitted.

Delta-Neutral Strategies:

For Delta-Neutral (DN) strategies, creation of the strategy using **Security Definition Request** (60) messages, is required prior to submission of the order. For creation of Stock contingent DN trades at least one leg of the created strategy the field Leg Security Type must be set to 'Cash', Leg Symbol Index is filled with the Symbol Index of the Cash instrument, Leg Strike Price is populated with the Cash underlying price and the Leg Ratio specifies the Delta.

For Wholesale Facility prior creation of strategies is not required, except when submitting a Delta-neutral strategy, which this creation is mandatory.

5.4.28.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Security Request ID	ID of a strategy security definition request	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Contract Symbol Index	Exchange identification code of the Contract.	Numerical ID	4	0..2^32-2	Mandatory
Strategy Code	Exchange-recognized strategy code	Alphanumerical ID	1	(See field description)	Mandatory
StrategyLegs length		Numerical	1	22	Mandatory
StrategyLegs occurrences		Numerical	1	1..32	Mandatory
Leg Symbol Index	MDG proprietary identification code of the instrument leg for the strategy.	Numerical ID	4	0..2^32-2	Mandatory
Leg Ratio	Ratio of lots for the leg. For contingent trades, the delta (to be calculated with the Amount Decimals).	Numerical	4	0..99999	Mandatory
Leg Security Type	Defines the type of instrument of the Leg	Enumerated	1	0 = Future 1 = Option 2 = Cash	Mandatory
Leg Put Or Call	Type of the option as leg.	Enumerated	1	1 = Call 0 = Put	Optional
Leg Price	Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Optional
Leg Strike Price	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.	Price	8	-2^63+1..2^63-1	Optional
Leg Last Trading Date	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).	Numerical ID	8	YYYYMMDD	Conditional
Leg Side	Indicates the side of the trade leg.	Enumerated	1	1 = Buy 2 = Sell	Mandatory

5.4.29 Security Definition Ack (61)

Client ◀ OEG
Available for EQD IDD FID CMO

5.4.29.1 Message Description

This message is used to respond to the client's inbound **Security Definition Request** (60) message. It is an acknowledgement of strategy creation (if the request is rejected, the system sends a **Reject** (07) message).

If a client submits a creation for an already existing strategy, then the system acknowledges the request and returns the symbol index of the existing one.

In case of acknowledgement of a strategy creation, the strategy is created with the status 'Suspended New Listing' and the MDG **Strategy Standing Data** (1012) and **Market Status Change** (1005) messages are published to all market participants. Another **Market Status Change** (1005) message is published when the strategy changes its state to be available to trading after a predefined period of time (e.g. 30 seconds).

5.4.29.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional

Field	Short Description	Format	Len	Values	Presence
Security Request ID	ID of a strategy security definition request	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory

5.4.30 New Wholesale Order (64)

Client ▶ OEG
Available for EQD IDD FID CMO

5.4.30.1 Message Description

This message enables wholesale initiators to enter a new wholesale order. A wholesale order is made up of one pre-matched half trade, also called "intention" to trade. The matching of a buy intention and a sell intention satisfying the matching criteria leads to the generation of a wholesale trade.

The initiator must provide the wholesale type by populating the *WholesaleTradeType* field. Optiq supports the following wholesale trade types:

- Large In Scale (LIS)
- Against Actuals (AA)
- Exchange For Swaps (EFS).

The available wholesale trade types are defined on the standing data and configurable on a per contract basis.

The wholesale trade facility is accessible via the Exchange Market Mechanism (EMM) '4'. This EMM provides the timetable and tick table used for wholesales on a per contract basis. The message doesn't contain the field for this and is always assumed to be for this EMM only. And for this EMM this is the only inbound message that can be received.

The initiator of a wholesale trade does not provide any *LIS Transaction ID* information. Optiq provides a Transaction ID upon validation of this first intention through the **Wholesale Order Ack** (65) message. The initiator then transmits the transaction ID to the (potentially multiple) counterpart(s). When counterparts submit their intention, they must populate the *LIS Transaction ID* with the transaction ID provided by the initiator. Counterparts can submit their intentions for an individual outright instrument, for one single leg of a strategy defined by the initiator or on the whole strategy.

For submission of a wholesale transaction on a strategy, Optiq relies on the strategy structure provided by the client, that must match the exchange-recognized strategy specified in the *Strategy Code* field. This field is not provided for transaction a single Outright instrument.

- For a wholesale transaction on a single instrument, the initiator provides either the buy or sell side, or both. In this case, no *Strategy Code* nor overall *Price* or *Quantity* are provided. The initiator populates a single order with either the buy side, sell side or both (self-reaction order).
- For a wholesale transaction on an exchange-recognized strategy, the initiator must provide the *Strategy Code*, as well as the overall *Price* and *Quantity*. The overall quantity must be the sum of the legs' quantities and the overall price must be consistent with the legs' price based on the strategy scheme.
- The same policy as per strategy creation is applied: strategy codes structure applies from the buy side perspective and the number and sequence of legs' Symbol Indexes as in the strategy must be respected.

The strategy structure must respect the strategy definition corresponding to its code specified with the *Strategy Code* field. It must also be defined from the buy side perspective.

Wholesale Side	Leg Side	Effective Order Side
Buy	Buy	Bid

Wholesale Side	Leg Side	Effective Order Side
Buy	Sell	Offer
Sell	Buy	Offer
Sell	Sell	Bid

Effective Order Side reflects which field Bid Quantity or Offer Quantity is used.

Side of the Wholesale and Large In Scale (LIS) threshold:

The field *Wholesale Side* in the block of the message identifies the side the initiator is choosing to submit the Wholesale Order for, and carries the following conditions:

- If submitted as Cross, the initiator must provide information for all sides of the order, that would match against each other. If identified, no reactor can submit messages to complete such wholesale order. If any information or quantity does not correspond between the submitted sides – it will be fully rejected.
- If submitted as Buy or Sell with the field *Wholesale Trade Type* set to 0 = Large In Scale Trade, then the submitted order for the identified side, either for individual Outright or the side of the Strategy, must meet the minimum LIS threshold, according to the conditions for the contract type and the type of liquidity of the strategy.
  - For Illiquid instruments, no checks of LIS threshold are done
  - For liquid Futures – each leg must meet the LIS threshold minimum volume
  - For liquid Options:
    - for liquid strategies, each leg must meet the LIS threshold minimum volume
    - for illiquid strategies, at least one leg must meet the LIS threshold minimum volume

Use of Repeating groups:

Repeat group *WholesaleLegsRep* is used to define the structure of the Strategy submitted for the Large In Scale Trade type. Wholesales orders submitted with strategies, are allowed to be submitted only for strategies that contain up to 7 legs for each side of the transaction.

Repeat group *WholesaleClearingRep* is used to provide the clearing data, short codes and non-execution client id for each leg of the strategy, for each submitted side. If this data is submitted, then the fields *Side* and *Leg Symbol Index* must be populated. If submitting data in this repeating group, it should be submitted as following:

- For a New Wholesale order message for a single side of an Outright, or as a response on a single leg of a strategy, a single repeating group for clearing data and short codes is to be submitted.
- For a Cross for an Outright then the clearing data and short codes can be submitted once for the Buy side, and once for the Sell side, as required. The field *Side* will allow to indicate the side for which data is submitted.
- For a message for the strategy – clearing and short code data repeating group may be provided for each leg of the strategy, and for each side of the associated trade, if required.

Delta-Neutral Strategies:

For Delta-Neutral (DN) strategies, creation of the strategy using **Security Definition Request** (60) messages, is required prior to submission of the order. For creation of Stock contingent DN trades at least one leg of the created strategy the field Leg Security Type must be set to 'Cash', Leg Symbol Index is filled with the Symbol Index of the Cash instrument, Leg Strike Price is populated with the Cash underlying price and the Leg Ratio specifies the Delta.

For Wholesale Facility prior creation of strategies is not required, except when submitting a Delta-neutral strategy, which this creation is mandatory.

5.4.30.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Contract Symbol Index	Exchange identification code of the Contract.	Numerical ID	4	0..2^32-2	Mandatory
Wholesale Trade Type	Type of the Wholesale trade.	Enumerated	1	0 = Large in Scale Trade 1 = Against Actual 2 = Exchange For Swaps	Mandatory
LIS Transaction ID	ID that can be used to associated Executions belonging to the same LIS Transaction	Numerical ID	4	0..2^32-2	Conditional
Strategy Code	Exchange-recognized strategy code	Alphanumerical ID	1	(See field description)	Conditional
Price	Price per unit of quantity (to be calculated with the Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Mandatory
Quantity	Number of traded or ordered units (to be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Trading Capacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Enumerated	1	1 = Dealing on own account (DEAL) 2 = Matched principal (MTCH) 3 = Any other capacity (AOTC)	Mandatory
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
Wholesale Side	Indicates the side of the Wholesale order.	Enumerated	1	1 = Buy 2 = Sell 3 = Cross	Mandatory
ESCBMembership	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.	Boolean	1	0 = False 1 = True	Optional
WholesaleLegsRep length		Numerical	1	43	Mandatory
WholesaleLegsRep occurrences		Numerical	1	1..7	Mandatory

Field	Short Description	Format	Len	Values	Presence
Leg Symbol Index	MDG proprietary identification code of the instrument leg for the strategy.	Numerical ID	4	0..2^32-2	Mandatory
Leg Price	Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Mandatory
Bid Quantity	Quote bid quantity, (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Conditional
Offer Quantity	Quote offer quantity, (To be calculated with Quantity Decimals).	Quantity	8	0..2^64-2	Conditional
Leg Side	Indicates the side of the trade leg.	Enumerated	1	1 = Buy 2 = Sell	Conditional
Leg Strike Price	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.	Price	8	-2^63+1..2^63-1	Conditional
Leg Ratio	Ratio of lots for the leg. For contingent trades, the delta (to be calculated with the Amount Decimals).	Numerical	4	0..99999	Conditional
Leg Put Or Call	Type of the option as leg.	Enumerated	1	1 = Call 0 = Put	Conditional
Leg Security Type	Defines the type of instrument of the Leg	Enumerated	1	0 = Future 1 = Option 2 = Cash	Mandatory
Leg Last Trading Date	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).	Numerical ID	8	YYYYMMDD	Conditional
WholesaleClearingRep length		Numerical	1	77	Mandatory
WholesaleClearingRep occurrences		Numerical	1	1..14	Mandatory
Symbol Index	MDG proprietary identification code of the instrument leg for the strategy.	Numerical ID	4	0..2^32-2	Mandatory
Side	Indicates the Executing Side	Enumerated	1	1 = Buy 2 = Sell	Mandatory
Account Type	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Enumerated	1	(See field description)	Mandatory
Clearing Firm ID	Clearing firm ID.	Alphanumerical ID	8	(See field description)	Optional
Client ID	Field used to identify the client (investor). This field is part of the clearing aggregate	Alphanumerical ID	8	(See field description)	Optional
Account Number	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	Alphanumerical ID	12	(See field description)	Optional

Field	Short Description	Format	Len	Values	Presence
Technical Origin	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Enumerated	1	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining	Optional
Open Close	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	Bitmap	2	(See field description)	Optional
Clearing Instruction	Clearing Instruction.	Enumerated	2	(See field description)	Optional
Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(Free Text)	Optional
Non Executing Client ID	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Numerical ID	2	0..2^16-1	Optional
InvestmentDecisionWFirmShortCode	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision.	Numerical ID	4	-2^31+1..2^31-1	Conditional
NonExecutingBrokerShortCode	MiFID II short code, Non-executing broker, identifier of the non-executing broker.	Numerical ID	4	-2^31+1..2^31-1	Optional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional

5.4.31 Wholesale Order Ack (65)

Client ◀ OEG
Available for EQD IDD FID CMO

5.4.31.1 Message Description

This message is sent by Optiq to acknowledge or indicate rejection of a client's inbound wholesale order submitted via **New Wholesale Order** (64) message.

Acknowledgement message is not a validation of the trade execution, but only of the submission of the wholesale instruction. Execution of a wholesale trade is communicated to the clients using **Fill** (04) message.

If that wholesale order is sent by the initiator of the trade (i.e. without *LIS Transaction ID*), the system provides a *LIS Transaction ID* upon validation of this first intention through this message. It is up to the initiator to provide that *LIS Transaction ID* to counterparts for them to complete the trade (by providing the *LIS Transaction ID*), either by sending an order against a single leg, or by sending an order against the whole strategy.

The field *Ack Status* indicates if the message is sent as an acknowledgement or rejection, and in case of a rejection the *Error Code* contains the specific reason for the rejection.

Pre-negotiated off-book on-exchange business is not published to the market data, until execution of the trade.

5.4.31.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Conditional
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Conditional
Contract Symbol Index	Exchange identification code of the Contract.	Numerical ID	4	0..2^32-2	Mandatory
Wholesale Trade Type	Type of the Wholesale trade.	Enumerated	1	0 = Large in Scale Trade 1 = Against Actual 2 = Exchange For Swaps	Mandatory
LIS Transaction ID	ID that can be used to associated Executions belonging to the same LIS Transaction	Numerical ID	4	0..2^32-1	Conditional
Strategy Code	Exchange-recognized strategy code	Alphanumerical ID	1	(See field description)	Conditional
Price	Price per unit of quantity (to be calculated with the Price/Index Level Decimals).	Price	8	-2^63+1..2^63-1	Conditional
Quantity	Number of traded or ordered units (to be calculated with Quantity Decimals).	Quantity	8	0..2^64-1	Conditional

Field	Short Description	Format	Len	Values	Presence
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Trading Capacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Enumerated	1	1 = Dealing on own account (DEAL) 2 = Matched principal (MTCH) 3 = Any other capacity (AOTC)	Mandatory
MiFID Indicators	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
Wholesale Side	Indicates the side of the Wholesale order.	Enumerated	1	1 = Buy 2 = Sell 3 = Cross	Mandatory
ESCBMembership	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.	Boolean	1	0 = False 1 = True	Optional
Response Type	Indicates if incoming message is accepted or rejected.	Enumerated	1	0 = Accept 1 = Reject	Mandatory
Error Code	Error code in case of rejection.	Numerical ID	2	0..2^16-2	Mandatory
Ack Qualifiers	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	Bitmap	1	(See field description)	Mandatory
WholesaleAckLegsRep length		Numerical	1	23	Mandatory
WholesaleAckLegsRep occurrences		Numerical	1	1..7	Mandatory
Leg Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
Bid Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Offer Order ID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	Numerical ID	8	0..2^64-2	Conditional
Leg Side	Indicates the side of the trade leg.	Enumerated	1	1 = Buy 2 = Sell	Mandatory
Let Error Code	Error code in case of rejection for the leg	Numerical ID	2	0..2^16-2	Conditional
WholesaleClientRep length		Numerical	1	20	Mandatory
WholesaleClientRep occurrences		Numerical	1	0..14	Mandatory
Symbol Index	MDG proprietary identification code of the instrument leg for the strategy.	Numerical ID	4	0..2^32-2	Mandatory
Side	Indicates the Executing Side	Enumerated	1	1 = Buy 2 = Sell	Mandatory

Field	Short Description	Format	Len	Values	Presence
InvestmentDecisionWFirmShortCode	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision.	Numerical ID	4	-2^31+1..2^31-1	Conditional
NonExecutingBrokerShortCode	MiFID II short code, Non-executing broker, identifier of the non-executing broker.	Numerical ID	4	-2^31+1..2^31-1	Optional
ClientIdentificationShortCode	MiFID II short code, Client identification code.	Numerical ID	4	-2^31+1..2^31-1	Conditional
Non Executing Client ID	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Numerical ID	2	0..2^16-1	Optional

5.4.32 MM Sign-In (47)

Client ▶ OEG
Available for EQD IDD FID CMO

5.4.32.1 Message Description

This message allows Market Makers to be identified as Market Makers with their Execution within firm short codes, and then to use the following Market Maker's functionalities:

- Submission of Quotes by different Market Makers, from same firm, on the same instruments, with each Market Maker being identified with different short codes;
- Configuration of Market Maker Protections, on short code level.

In addition, the **MM Sign-In** (47) message allows Market Makers to submit clearing data before being able to trade on a contract and to specify in which logical access the member wants to receive unsolicited Market Maker Protection messages. It allows the member to send a lighter **Quotes** (08) message since it will not contain clearing data.

The member will not be able to send quotes or Market Maker protection messages without first submitting a **MM Sign-In** (47) message.

The member has to sign in once a day and can also override the sign in by sending again the message.

5.4.32.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-2	Mandatory
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-2	Mandatory

Field	Short Description	Format	Len	Values	Presence
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Clearing Firm ID	Clearing firm ID.	Alphanumerical ID	8	(See field description)	Optional
Client ID	Field used to identify the client (investor). This field is part of the clearing aggregate	Alphanumerical ID	8	(See field description)	Optional
Account Number	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	Alphanumerical ID	12	(See field description)	Optional
Technical Origin	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Enumerated	1	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining	Optional
Open Close	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	Bitmap	2	(See field description)	Optional
Clearing Instruction	Clearing Instruction.	Enumerated	2	(See field description)	Optional
Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(Free Text)	Optional

5.4.33 MM Sign-In Ack (48)

Client ◀ OEG
Available for EQD IDD FID CMO

5.4.33.1 Message Description

This message is sent as an acknowledgement of a **MM Sign-In** (47) message used by Market Makers to declare the short code(s) under which they will submit **Quotes** (08) and use MM protection messages. It contains the same fields as the request.

5.4.33.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory

Field	Short Description	Format	Len	Values	Presence
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Conditional
Logical Access ID	Identifier of the Logical Access.	Numerical ID	4	0..2^32-2	Mandatory
OE Partition ID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Numerical ID	2	0..2^16-2	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Clearing Firm ID	Clearing firm ID.	Alphanumerical ID	8	(See field description)	Optional
Client ID	Field used to identify the client (investor). This field is part of the clearing aggregate	Alphanumerical ID	8	(See field description)	Optional
Account Number	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	Alphanumerical ID	12	(See field description)	Optional

Field	Short Description	Format	Len	Values	Presence
Technical Origin	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Enumerated	1	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining	Optional
Open Close	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	Bitmap	2	(See field description)	Optional
Clearing Instruction	Clearing Instruction.	Enumerated	2	(See field description)	Optional
Free Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	Text	18	(Free Text)	Optional

5.4.34 MM Protection Request (62)

Client ▶ OEG
Available for EQD IDD FID CMO

5.4.34.1 Message Description

This message enables a Market Maker to set, adjust, reset or request the currently set configuration of a Market Maker protection against the execution of their quotes, and orders with account type set to Liquidity Provider, on a derivative contract.

Protection is defined by specifying a limit on:

- Volume;
- Delta.

When the protection limit is breached, the action specified when defining the protection is triggered.

5.4.34.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Client Message Sequence Number	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Mandatory
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Mandatory
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory

Field	Short Description	Format	Len	Values	Presence
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
Request Type	This field gives the type of request made by the Market Maker for the Market Maker Protection. At the time of activation, the Market Maker (MM) is able to Set (1) Protection Limits and Limit Breach actions for each protection type activated on a contract. MM can also Get (2) the current reached value of the limits, and breach actions can be updated by submitting an Adjust (3) at any time while the facility is active.	Enumerated	1	1 = Set 2 = Get 3 = Adjust	Mandatory
MMP Section length		Numerical	1	10	Mandatory
MMP Section occurrences		Numerical	1	1..2	Mandatory
Protection Type	Type of Market Maker protection.	Enumerated	1	1 = Delta 2 = Volume	Mandatory
Protection Threshold	Limit of the MM protection.	Quantity	8	0..2^64-2	Conditional
Breach Action	Type of action to trigger when a MM protection limit is breached.	Enumerated	1	0 = Ignore 1 = Pull	Conditional

5.4.35 MM Protection Ack (63)

Client ◀ OEG
Available for EQD IDD FID CMO

5.4.35.1 Message Description

This message is sent under different circumstances for Market Maker Protection:

- It can be provided as a solicited response to a **MM Protection Request** (62) message. Depending on the Request Type, it provides:
  - either an acknowledgement for Market Maker protection definition, adjustment or reset,
  - or the limits and current positions of the protections set by the Market Maker on the requested contract.
- It can also be sent as an unsolicited message when a Market Maker Protection position is breached; in that case, the *MMP Execution Type* provides the action triggered.

Note: If a trade occurs that goes above the MM Protection threshold, such a trade would still occur, and the **MM Protection Ack** (63) messages will be sent with the current position that is higher than the threshold. MM Protection action will be triggered after this based on the selection made by the client.

5.4.35.2 Message Structure

Field	Short Description	Format	Len	Values	Presence
Message Sequence Number	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)	Sequence	4	0..2^32-2	Mandatory
Firm ID	Identifier of the member firm that sends the message.	Alphanumerical ID	8	(See field description)	Mandatory

Field	Short Description	Format	Len	Values	Presence
Message Sending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-1	Optional
OEG IN From Member	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Optional
OEG OUT To ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Optional
Book IN Time	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	Epoch Time in Nanoseconds	8	0..2^64-2	Optional
Book OUT Time	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Optional
OEG IN From ME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Optional
OEG OUT To Member	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	Epoch Time in Nanoseconds	8	0..2^64-1	Optional
Client Order ID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	Numerical ID	8	-2^63+1..2^63-1	Optional
ExecutionWithinFirmShortCode	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making.	Numerical ID	4	-2^31+1..2^31-1	Mandatory
Symbol Index	Exchange identification code of the instrument/contract.	Numerical ID	4	0..2^32-2	Mandatory
EMM	Defines the Exchange Market Mechanism applied on each platform.	Enumerated	1	(See field description)	Mandatory
MMP Execution Type	Type of MM Protection Execution.	Bitmap	1	0 = Notification 1 = Acknowledgement 2 = Pull	Mandatory
MMP Section 2 length		Numerical	1	19	Mandatory
MMP Section 2 occurrences		Numerical	1	0..2	Mandatory
Protection Type	Type of Market Maker protection.	Enumerated	1	1 = Delta 2 = Volume	Optional
Protection Threshold	Limit of the MM protection.	Quantity	8	0..2^64-2	Optional
Breach Action	Type of action to trigger when a MM protection limit is breached.	Enumerated	1	0 = Ignore 1 = Pull	Optional
Current MMP Position	Current (Delta or Volume) position for MMP monitoring.	Quantity	8	0..2^64-2	Optional

Field	Short Description	Format	Len	Values	Presence
Breach Status	Indicator of whether the MMP has been triggered due to limit breach (0: Not breached; 1: Breached)	Boolean	1	0 = False 1 = True	Optional

6. FIELD DESCRIPTION

A

Account Number

Field Name	Account Number
Description	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.
Format	Alphanumerical ID (character)
Length	12
Used In	New Order (01) Cancel Replace (06) Quotes (08) MM Sign-In (47) New Wholesale Order (64)
Used For	Cash and Derivatives

Account Type

Field Name	Account Type
Description	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account. For Cross orders it specifies the account type for which the buy side of a cross order is entered. - Non-LP clients are not allowed to use the type '6' (Liquidity Provider). - Only members acting as Retail Member Organizations (RMO) can send '4' (RO) orders on behalf of their retail clients.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client
Conditions	It is mandatory for every NewOrder (01) messages. In CancelReplace (06) message, if provided the value is ignored.
Used In	New Order (01) Cancel Replace (06) Quotes (08) Quote Ack (09) Mass Cancel (13) Mass Cancel Ack (14) New Wholesale Order (64)
Used For	Cash and Derivatives

Account Type Cross

Field Name	Account Type Cross
Description	Indicates the account type for which the sell side of a cross order is entered.

Field Name	Account Type Cross
	Only for Cross orders.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client
Conditions	For NewOrder (01) message it is mandatory for Cross orders and it qualifies the Sell side. It must be populated in the second occurrence of this repeating section. For Declaration Entry (40) message it is mandatory when Side is equal to Cross.
Used In	New Order (01)
Used For	Cash

Ack Phase

Field Name	Ack Phase
Description	Indicates the trading phase during which the Matching Engine has processed the event that has triggered this Ack (03) message.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Continuous Trading Phase 2 = Call Phase 3 = Halt Phase 4 = Closed Phase 5 = Trading At Last Phase 6 = Reserved 7 = Suspended 8 = Random Uncrossing Phase
Used In	Ack (03)
Used For	Cash and Derivatives

Ack Qualifiers

Field Name	Ack Qualifiers
Description	Field used to provide additional information on the corresponding order. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions. - Dark Indicator: Indicates whether the corresponding order was entered as a dark order or not. (0: LIT ; 1: Dark). For Iceberg Order it indicates whether its undisclosed part is eligible to the Dark pool of liquidity or not. - Queue Indicator: Indicates whether the corresponding inbound message was queued because of throttling or not. (0: No ; 1: Yes) - Request with Client Order ID: Indicates whether the order entry is applied with Client Order ID or not. (0: No; 1: Yes) - Use of Cross Partition: Indicates whether the corresponding message routing is applied in different partition or not. (0: No ; 1: Yes) - Executed Upon Entry: Indicates whether the corresponding entered order generates trade or not. This indicator is on 2 bitmaps: number 6 and 7. (00: Information not provided; 10: No trade generated; 11: Trade generated)
Format	Bitmap (unsigned integer 8)
Length	1

Field Name	Ack Qualifiers
Possible Values	0 = Dark Indicator 1 = Queue Indicator 2 = Request with Client Order ID 3 = Use of Cross Partition 4 = Internal1 5 = Internal2 6 = Execution Upon Entry flag Enabled 7 = Executed Upon Entry flag
Used In	Ack (03) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Ack Type

Field Name	Ack Type
Description	Indicates the type of the Ack message
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = New Order Ack 1 = Replace Ack 2 = Order Creation By Market Operations 3 = Stop Triggered Ack 4 = Collar Confirmation Ack 5 = Refilled Iceberg Ack 6 = MTL Second Ack 7 = Knock-In By Issuer (KIBI) Ack 8 = Knock-Out By Issuer (KOBI) Ack 9 = Payment After Knock-Out (PAKO) Ack 10 = Price Input Ack 11 = RFQ Ack 12 = Bid Only Ack 13 = Offer Only Ack 14 = Iceberg Transformed to Limit due to Minimum size 15 = Ownership Request Ack 16 = VFU/VFC Triggered Ack 17 = Open Order Request Ack
Used In	Ack (03)
Used For	Cash and Derivatives

AFQ Reason

Field Name	AFQ Reason
Description	Reason why the AFQ (33) has been sent. Indicates the reason why the AFQ (33) message has been sent to the Liquidity Provider.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Quote cancelled by the Liquidity Provider

Field Name	AFQ Reason
	2 = Quote cancelled by Market Control 3 = No quote M minutes before an uncrossing 4 = No quote S seconds before an uncrossing 5 = Quote completely matched
Used In	Ask For Quote (33)
Used For	Cash

B

Bid Error Code

Field Name	Bid Error Code
Description	Error code returned when quote contains an invalid bid. See Error List for details of error codes
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-1
Used In	Quote Ack (09)
Used For	Cash and Derivatives

Bid Order ID

Field Name	Bid Order ID
Description	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.
Format	Numerical ID (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	Provided only if the MassQuote (i) message contains an bid quote. The field Order ID in Fill (04) message sent in case of trade resulting from a matching against a (bulk) Quote is filled with value in Bid Order ID field corresponding to the Bid quote that participated in the trade.
Used In	Quote Ack (09) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Bid Price

Field Name	Bid Price
Description	Quote bid price, (To be calculated with Price/Index Level Decimals).
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	In Quotes (08) either Bid Price or Offer Price, or both, must be populated
Used In	Quotes (08)
Used For	Cash and Derivatives

Bid Quantity

Field Name	Bid Quantity
Description	Quote bid quantity, (To be calculated with Quantity Decimals). Cancels a quote if set to zero "0".
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-1
Conditions	In the New Wholesale Order (64) messages submitted by the Initiator the Bid Quantity must be the maximum volume to match in the transaction, and must be provided when the leading side is Buy.
Used In	Quotes (08) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Book IN Time

Field Name	Book IN Time
Description	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	In the Ack (03) message it corresponds to the time at which the event generating the Ack (03) entered the matching engine. In the Kill (05) message it corresponds to the time at which the corresponding order has been killed. In the Reject (07) it is provided only in case of a functional rejection, not in case of a technical rejection. In the Trade Bust Notification (19) it corresponds to the trade cancellation time.
Used In	Ack (03) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14) Trade Bust Notification (19) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) MM Sign-In Ack (48) Security Definition Ack (61) MM Protection Ack (63) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Book OUT Time

Field Name	Book OUT Time
Description	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2

Field Name	Book OUT Time
Used In	Ack (03) Fill (04) Kill (05) Quote Ack (09) Mass Cancel Ack (14) Trade Bust Notification (19) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) MM Sign-In Ack (48) Security Definition Ack (61) MM Protection Ack (63) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Breach Action

Field Name	Breach Action
Description	Type of action to trigger when a MM protection limit is breached.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Ignore 1 = Pull
Conditions	In message MM Protection Request (62) must be populated if Request Type is Set or Adjust
Used In	MM Protection Request (62) MM Protection Ack (63)
Used For	Derivatives

Breach Status

Field Name	Breach Status
Description	Indicator of whether the MMP has been triggered due to limit breach (0 : Not breached ; 1: Breached)
Format	Boolean (unsigned integer 8)
Length	1
Possible Values	0 = False 1 = True
Used In	MM Protection Ack (63)
Used For	Derivatives

Breached Collar Price

Field Name	Breached Collar Price
Description	Breached collar price in case of collar rejection.
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Used In	Reject (07)
Used For	Cash

Buy Revision Indicator

Field Name	Buy Revision Indicator
Description	Indicates whether the bid quote is a new quote, a replacement of a previous quote or a cancellation.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = New 1 = Replacement 2 = Cancellation
Used In	Quote Ack (09)
Used For	Cash and Derivatives

C

Clearing Firm ID

Field Name	Clearing Firm ID
Description	Clearing firm ID. Identifier of the give-up firm when a give-up is executed (a give-up is a trade executed by a firm for the client of another firm, the latter being referred to as the give-up firm).
Format	Alphanumerical ID (character)
Length	8
Used In	New Order (01) Cancel Replace (06) Quotes (08) New Wholesale Order (64)
Used For	Cash and Derivatives

Clearing Instruction

Field Name	Clearing Instruction
Description	Clearing Instruction. Indicates the pre-posting and give-up action to be taken by the clearing system when a trade has occurred. ■ Process normally ■ Manual mode (pre-posting and/or pre-give up) ■ Automatic posting mode (trade posting to the position account number specified) ■ Automatic give-up mode (trade give-up to the give-up destination number specified) [C]
Format	Enumerated (unsigned integer 16)
Length	2
Possible Values	0 Process normally (formerly Systematic posting) 8 Manual mode 9 Automatic posting mode 10 Automatic give-up mode *4008 Automatic and account authorization- **Deprecated*** *4009 Manual and account authorization- **Deprecated*** *4010 Give-up to single firm- **Deprecated***
Used In	New Order (01) Cancel Replace (06) Quotes (08) New Wholesale Order (64)

Field Name	Clearing Instruction
Used For	Cash and Derivatives

Client ID

Field Name	Client ID
Description	Field used to identify the client (investor). This field is part of the clearing aggregate
Format	Alphanumerical ID (character)
Length	8
Used In	New Order (01) Cancel Replace (06) Quotes (08) New Wholesale Order (64)
Used For	Cash and Derivatives

Client Message Sequence Number

Field Name	Client Message Sequence Number
Description	The Client Message Sequence Number is mandatory for all inbound messages, but the consistency of the sequence is not checked by the Exchange.
Format	Sequence (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	New Order (01) Quotes (08)
Used For	Cash and Derivatives

Client Order ID

Field Name	Client Order ID
Description	An identifier of a message assigned by the Client when submitting an order to the Exchange. Clients must provide a Client Order ID in every inbound application message, otherwise the message will be immediately rejected by the OEG. Clients may provide any value that respects the Client Order ID format, which is an 8-byte signed integer, and the ranges as defined according to their access. The Exchange recommends setting an unique ID per order, Firm and Symbol Index. For order entry, the Client Order ID value is not checked by the Exchange, it is simply returned in the corresponding outbound message to allow clients to reconcile the response message with their original inbound request. For modification and cancellation using the Original Client Order ID as unique identifier, the value is checked by the Exchange for possible duplicates, i.e. different orders submitted with the same Client Order ID. In case of duplication, the inbound request is rejected with the according error code.
Format	Numerical ID (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	In inbound application messages, this field is always mandatory. In outbound application messages, this field is provided for solicited messages and not provided (null value) for unsolicited messages. For the Fill (04) message, it is always set to the null value. For Reject (07) message: - If message is sent due to breach of collars, as in that case there is an Ack (03) message before, the Client Order ID is set to null in the Reject (07); - In all other cases the Client Order ID is populated in the Reject (07).

Field Name	Client Order ID
Used In	New Order (01) Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Quote Ack (09) Quote Request (10) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request Ack (17) Ownership Request (18) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) MM Sign-In (47) MM Sign-In Ack (48) MM Protection Request (62) MM Protection Ack (63) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

ClientIdentificationShortCode

Field Name	ClientIdentificationShortCode
Description	MiFID II short code, Client identification code. ESMA description of the field: Code used to identify the client of the member or participant of the trading venue. In case of DEA, the code of the DEA user should be provided. Where the client is a legal entity, the LEI code of the client shall be used. Where the client is not a legal entity, the {NATIONAL_ID} shall be used. In the case of aggregated orders, the flag AGGR shall be used. In case of pending allocations, the flag PNAL shall be used. This field shall be left blank only if the member or participant of the trading venue has no client.
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	-2^31+1..2^31-1
Conditions	This field is required for DEA User in every inbound message, and when Account Type = Client. Provided in the User Notification (39) message, if User Status concerns a DEA to identify it. To indicate value of AGGR “1” shall be used. To indicate value of PNAL “2” shall be used.
Used In	New Order (01) Cancel Replace (06) Quotes (08) Quote Request (10) Cancel Request (12) Mass Cancel (13) Open Order Request (15) Ownership Request (18)

Field Name	ClientIdentificationShortCode
	Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) User Notification (39) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Collar Rejection Type

Field Name	Collar Rejection Type
Description	Hit collar type (high or low) in case of order rejection due to collar breach.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Low dynamic collar 2 = High dynamic collar
Conditions	This field is not populated when Reject (07) message is sent in cases of rejection that do not involve collars (e.g. for rejection of creation of strategies)
Used In	Reject (07)
Used For	Cash

Contract ID

Field Name	Contract ID
Description	Identifier of a derivatives contract (Symbol Index).
Format	Alphanumerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Mass Cancel (13) Mass Cancel Ack (14)
Used For	Derivatives

Contract Symbol Index

Field Name	Contract Symbol Index
Description	Exchange identification code of the Contract. The correspondence of the Contract Symbol Index and its characteristics is provided in the standing data messages and associated files. Symbol Index is valid for the life of the Contract.
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Security Definition Request (60) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

Counterpart Firm ID

Field Name	Counterpart Firm ID
Description	ID of the clearing house in case of a CCP clearable transaction – also in the specific case of Internal Matching Service (IMS) with clearing : '1 ' : LCH SA '6 ' : EuroCCP ID of the Counterpart Firm in specific cases described below. The counterpart identifier is provided in the Fill (04) message in case the notified trade is the result of : ■ the Internal Matching Service (IMS) without clearing, ■ the Internal Clearing Service (ICS) (For Future Use), ■ a transaction performed on the Public Auctions Market (VPU), ■ a transaction performed on a non-clearable instrument or non-guaranteed instrument.
Format	Alphanumerical ID (character)
Length	8
Conditions	Provided in the Fill (04) message in case the trade is the result of one of the cases listed above. Else not provided.
Used In	Fill (04) RFQ Notification (35)
Used For	Cash

Current MMP Position

Field Name	Current MMP Position
Description	Current (Delta or Volume) position for MMP monitoring.
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	MM Protection Ack (63)
Used For	Derivatives

D

Dark Execution Instruction

Field Name	Dark Execution Instruction
Description	Field used as instruction for dark order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions. - Dark Indicator: indicates whether the client requests its order to benefit from LiS Pre-Transparency waiver to match in the Dark. (0: No ; 1: Yes) - Sweep Order Indicator: indicates whether the client requests his order to sweep between both lit and the hidden pool of liquidity (Dark). (0: No ; 1: Yes) - Minimum Quantity Type: indicates whether the Minimum Quantity for a dark order is MES or MAQ. (0: MAQ ; 1: MES)
Format	Bitmap (unsigned integer 8)
Length	1
Possible Values	0 = Dark Indicator *1 = Deferred Trade Indicator - **Deprecated*** *2 = Displayed Order Interaction - **Deprecated*** 3 = Sweep Order Indicator

Field Name	Dark Execution Instruction
	4 = Minimum Quantity Type
Conditions	On ETF MTF: Value 0: No is mandatory for the position 3 (Sweep Order Indicator) for any type of LIT order sent by the client.
Used In	New Order (01) Cancel Replace (06) Quote Request (10) RFQ Notification (35)
Used For	Cash

Disclosed Quantity

Field Name	Disclosed Quantity
Description	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Decimals)
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	The Disclosed Quantity is mandatory for Iceberg orders. Disclosed quantity should be multiple of the instrument's lot size; otherwise the order will be rejected.
Used In	New Order (01) Cancel Replace (06)
Used For	Cash

E

EMM

Field Name	EMM
Description	Defines the Exchange Market Mechanism applied on each platform. In the Reject (07) message: ■ Populated only if provided as a valid value in the corresponding Inbound request AND the corresponding Inbound request was technically correctly formatted; otherwise it is provided at the Null value. ■ Not populated for rejection of strategy creation on derivative markets. In the Mass Cancel (13) message, it is mandatory when Symbol Index is provided and optional when Instrument Group Code is provided.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Cash and Derivative Central Order Book (COB) 2 = NAV Trading Facility 4 = Derivative Wholesales 5 = Cash On Exchange Off book 6 = Euronext off-exchange trade reports 7 = Derivative On Exchange Off book 8 = ETF MTF - NAV Central Order Book 9 = Listed-not traded 99 = Not Applicable (For indices and iNAV)
Conditions	In TCS messages only possible values are '2' = NAV Trading Facility and '5' = Cash On Exchange Off book. Field not populated in Reject (07) messages for rejection of strategy creation on derivatives markets. In the Reject (07) message, it is populated only if provided as a valid value in the corresponding Inbound request AND the corresponding Inbound request was technically correctly formatted; otherwise it is provided at the Null value.

Field Name	EMM
	In the Mass Cancel (13) message, it is mandatory when Symbol Index is provided and optional when Instrument Group Code is provided. In the Quotes (08), MM Sign-in (47) and MM Protection Request (62) messages the only possible value is '1' = Cash and Derivative Central Order Book (COB).
Used In	New Order (01) Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Quote Ack (09) Quote Request (10) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request (18) Trade Bust Notification (19) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) Ask For Quote (33) Request For Execution (34) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) MM Sign-In (47) MM Sign-In Ack (48) Instrument Synchronization List (50) MM Protection Request (62) MM Protection Ack (63)
Used For	Cash and Derivatives

End Client

Field Name	End Client
Description	*[N/A] Optional field the client may use to provide the BIC of the End Client of the RFQ.*
Format	Alphanumerical ID (character)
Length	11
Used In	Quote Request (10) RFQ Notification (35)
Used For	Cash

Error Code

Field Name	Error Code
Description	Error code in case of rejection. Provides the return error code when a request is rejected for a functional or a technical reason.
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-2

Field Name	Error Code
Used In	Reject (07) Technical Reject (108) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Exchange ID

Field Name	Exchange ID
Description	Identifies the exchange in the Logon process
Format	Text (character)
Length	8
Conditions	The field “Exchange ID” should be populated by the client with value “EURONEXT” in all environments. This value is also provided back to the client in this field in the outbound messages.
Used In	Logon Ack (101) Logon Reject (102)
Used For	Cash and Derivatives

Execution ID

Field Name	Execution ID
Description	The Execution ID is unique per instrument and per day. It is the unique identifier of a trade per instrument. This field is provided in case of fill, partial fill or trade cancellation. For example, let x be the reference identifier of a given trade, x is reported in the two Fill (2) messages generated for the both sides of the trade. x will also be used as reference for this trade in the Drop Copy feed. And if this trade is cancelled, x is again reported in the Trade Bust Notification (19) messages sent for the 2 sides of the trade.
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Conditions	For trades on a strategy, in Fill (04) messages, the Execution ID field in the Block of the message contains the execution for the Strategy, and in the repeating group this field contains the Execution ID of the individual strategy leg (i.e. the outright).
Used In	Fill (04) Trade Bust Notification (19)
Used For	Cash and Derivatives

Execution Instruction

Field Name	Execution Instruction
Description	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions. - STP resting order: indicates whether the STP rule is "cancel resting order" or not. (0: STP Resting Order deactivated ; 1: Cancel Resting Order) - STP incoming order: indicates whether the STP rule is "cancel incoming order" or not. (0: STP Incoming Order deactivated ; 1: Cancel Incoming Order) - Disclosed Quantity Randomization: indicates whether the client requests or not a randomization for the disclosed quantity of his iceberg order. (0: No ; 1: Yes) - Disabled Cancel On Disconnect Indicator: indicates whether the client sets his order to be persisted (is not in scope of the Cancel On Disconnect mechanism) or not. (0: Cancel on Disconnect enabled ; 1: Cancel on Disconnect disabled) - RFQ answer: indicates whether the message is, or not, a quote sent as an answer to a Quote Answer (10) message. (0: No; 1: Yes)

Field Name	Execution Instruction
	- RFQ Confirmation: indicates whether the message is, or not, an order sent as a confirmation of a Request For Quote (0: No; 1: Yes) - Conditional Order: indicates whether the order is conditional or not. (0: Firm Order; 1: Conditional Order).
Format	Bitmap (unsigned integer 8)
Length	1
Possible Values	0 = STP resting order 1 = STP incoming order 2 = Disclosed Quantity Randomization 3 = Disabled Cancel On Disconnect Indicator 4 = RFQ Answer 5 = RFQ Confirmation 6 = Conditional Order
Conditions	For the Quotes (08) message on the Derivatives markets only bits 0, 1 and 3 are applicable. All other bits should be set to zero in all cases.
Used In	New Order (01) Cancel Replace (06) Quotes (08)
Used For	Cash and Derivatives

Execution Phase

Field Name	Execution Phase
Description	Indicates the trading phase during which the trade has occurred.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Continuous Trading Phase 2 = Uncrossing Phase 3 = Trading At Last Phase 4 = Continuous Uncrossing Phase *5 = IPO*
Used In	Fill (04)
Used For	Cash and Derivatives

ExecutionWithinFirmShortCode

Field Name	ExecutionWithinFirmShortCode
Description	MiFID II short code, Execution within firm, identifier of the trader or algorithm responsible for the execution making. ESMA description of the field: Code used to identify the person (trader) or algorithm within the member or participant of the trading venue who is responsible for the execution of the transaction resulting from the order. Where a natural person is responsible for the execution of the transaction, the person shall be identified by {NATIONAL_ID} Where an algorithm is responsible for the execution of the transaction, this field shall be populated in accordance with Article 9 of [RTS 22 on transaction reporting under Article 26 of Regulation (EU) No 600/2014] Where more than one person or a combination of persons and algorithms are involved in the execution of the transaction, the member or participant or client of the trading venue shall determine the trader or algorithm primarily responsible as specified in Article 9(4) of [RTS on trading obligations under Article 26 of Regulation (EU) No 600/2014] and populate this field with the identity of that trader or algorithm.
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	-2^31+1..2^31-1

Field Name	ExecutionWithinFirmShortCode
Conditions	This field is mandatory for every application inbound messages. Always provided in outbound messages Ack (03), Fill (04), Kill (05), MassCancelAck (14) and Reject (07) for the Derivatives segments. Provided in the User Notification (39) message, if User Status concerns a Trader or an Algo to identify it. Guideline for algorithm associated values: When an order message is flagged with the ExecutionAlgoIndicator (position 2) in the MiFID Indicators field set to value "0: No algorithm" involved then all positive values (from 0 to 2^63-1) would represent a human trader. If the indicator is set to "1: Algorithm involved" clients are requested to populate this field with the ranges of values identified below. No technical checks would be performed to validate correctness of the ranges used - In–house algorithms with positive range of values between 0 to 2^63-1 - ISV algorithms : negative range of values between -2^63+1 to -1
Used In	New Order (01) Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Quote Ack (09) Quote Request (10) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request (18) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) User Notification (39) MM Sign-In (47) MM Sign-In Ack (48) MM Protection Request (62) MM Protection Ack (63) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

ESCBMembership

Field Name	ESCBMembership
Description	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.
Format	Boolean (unsigned integer 8)
Length	1
Possible Values	0 = False 1 = True
Used In	Fill (04) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

F

Family ID

Field Name	Family ID
Description	Identifier of the family.
Format	Alphanumerical ID (character)
Length	8
Conditions	If provided in the User Notification (39) message, it specifies the scope of the action specified in User Status.
Used In	User Notification (39)
Used For	Cash and Derivatives

Firm ID

Field Name	Firm ID
Description	Identifier of the member firm that sends the message. It is provided by the Exchange upon the registration of the Firm by the Membership department.
Format	Alphanumerical ID (character)
Length	8
Conditions	In inbound messages it is the ID of the firm that sent the message. In outbound messages it is the ID of the firm to which the message is sent.
Used In	New Order (01) Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Quote Ack (09) Quote Request (10) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request Ack (17) Ownership Request (18) Trade Bust Notification (19) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) Ask For Quote (33) Request For Execution (34) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) User Notification (39) MM Sign-In (47) MM Sign-In Ack (48) Security Definition Request (60) Security Definition Ack (61) MM Protection Request (62) MM Protection Ack (63)

Field Name	Firm ID
	New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Firm ID Publication

Field Name	Firm ID Publication
Description	*[N/A] Indicates whether the client accept or not to provide its Firm ID to the RFQ recipients. (0:No ; 1:Yes)* *In case of "Yes", the Firm ID will be provided to Liquidity Providers through the field Counterpart Firm ID in the RFQ Notification (35) message.*
Format	Boolean (unsigned integer 8)
Length	1
Possible Values	0 = False 1 = True
Used In	Quote Request (10)
Used For	Cash

Free Text

Field Name	Free Text
Description	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.
Format	Text (character)
Length	18
Possible Values	(Free Text)
Used In	New Order (01) Quotes (08) MM Sign-In (47) MM Sign-In Ack (48) New Wholesale Order (64)
Used For	Cash and Derivatives

I

Input Price Type

Field Name	Input Price Type
Description	Type of input price.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Valuation Price 2 = Alternative Indicative Price (AIP)
Used In	Price Input (28)
Used For	Cash

Instrument Group Code

Field Name	Instrument Group Code
Description	Instrument Group / Class Identifier.
Format	Alphanumerical ID (character)
Length	2
Used In	Mass Cancel (13) Mass Cancel Ack (14)
Used For	Cash

InvestmentDecisionWFirmShortCode

Field Name	InvestmentDecisionWFirmShortCode
Description	MiFID II short code, Investment decision within firm, identifier of the trader or algorithm responsible for the investment decision. ESMA description of the field: Code used to identify the person or the algorithm within the member or participant of the trading venue who is responsible for the investment decision. Where a natural person(s) within the member or participant of the trading venue is responsible for the investment decision the person who is responsible or has primary responsibility for the investment decision shall be identified with the {NATIONAL_ID} Where an algorithm is responsible for the investment decision the field shall be populated in accordance with Article 8 of [RTS 22 on transaction reporting under Article 26 of Regulation (EU) No 600/2014.]
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	-2^31+1..2^31-1
Conditions	This field is mandatory when Account Type = Liquidity Provider, Related Party, House or Structured Product Market Maker; and only when DEA Indicator = 0. Also mandatory in in case in the field MIFID Indicators position 1 (InvestmentAlgoIndicator) is set to “1: Algorithm involved”. Guideline for algorithm associated values: When an order message is flagged with the associated InvestmentAlgoIndicator (position 1) in the MiFID Indicators field set to value “0: No algorithm” involved then all positive values (from 0 to 2^63-1) would represent a human trader. If the indicator is set to “1: Algorithm involved” clients are requested to populate this field with the ranges of values identified below. No technical checks would be performed to validate correctness of the ranges used. - In –house algorithms with positive range of values between 0 to 2^63-1 - ISV algorithms : negative range of values between -2^63+1 to -1
Used In	New Order (01) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

K

Kill Reason

Field Name	Kill Reason
Description	Order Kill Reason
Format	Enumerated (unsigned integer 16)
Length	2
Possible Values	1 = Order Cancelled by Client 2 = Order Expired 3 = Order Cancelled by Market Operations

Field Name	Kill Reason
	4 = Order Eliminated due to Corporate Event 5 = Done for day 6 = Cancelled MTL in an empty Order Book 7 = Cancelled by STP 8 = Remaining quantity killed (IOC) 9 = Beginning of PAKO Period 11 = Order Cancelled due to Cancel On Disconnect Mechanism 12 = RFQ expired *13 = RFQ partially or fully matched with other counterparts* 14 = RFQ cancelled by the issuer *15 = RFQ Not matched due to issuer order's features* 16 = Quote cancelled due to Knock-Out 17 = Order cancelled due to a Kill command 19 = LP Order cancelled due to RFQ expiration 20 = LP Order cancelled due to RFQ cancellation 21 = RFQ Remaining quantity killed 22 = LP Order cancelled due to RFQ confirmation 23 = Order cancelled due to Market Maker Protection 24 = Order cancelled by clearing risk manager 25 = Order cancelled by member risk manager 26 = Order cancelled due to Trade Price Validation 30 = Conditional Order cancelled due to Potential Matching
Conditions	Values 12; 13; 14; 15 will be used only on ETF Access platform. Value 12 is used when an order is cancelled due to RFQ expiration. It happens when the RFQ issuer does not validate the RFQ after a predefine period of time.
Used In	Kill (05)
Used For	Cash and Derivatives

L

Last Book IN Time

Field Name	Last Book IN Time
Description	Last Matching Engine IN time (in ns) processed on the associated Resynchronization ID.
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Synchronization Time (51)
Used For	Cash and Derivatives

Last Client Message Sequence Number

Field Name	Last Client Message Sequence Number
Description	Indicates the sequence number of the last message received by the Exchange from the Client on the OE Session.
Format	Sequence (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Logon Ack (101) Logon Reject (102)
Used For	Cash and Derivatives

Last Message Sequence Number

Field Name	Last Message Sequence Number
Description	Indicates the sequence number of the last message received by the Client from the Exchange on the OE Session.
Format	Sequence (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Logon (100) Logon Reject (102)
Used For	Cash and Derivatives

Last Traded Price

Field Name	Last Traded Price
Description	The Last Traded Price indicates the price of last fill on an instrument (to be calculated with the Price/Index Decimals).
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	In the Trade Bust Notification (19) message the Last Traded Price refers to Price of the cancelled trade. Negative values authorized on ETF Access when the order is sent on the NAV trading Order Book (EMM = 8).
Used In	Fill (04) Trade Bust Notification (19)
Used For	Cash and Derivatives

Last Traded Quantity

Field Name	Last Traded Quantity
Description	The Last Traded Quantity indicates the quantity of last fill on an instrument (to be calculated with the Quantity Decimals).
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	In the Trade Bust Notification (19) message the Last Traded Quantity refers to Quantity of the cancelled trade.
Used In	Fill (04) Trade Bust Notification (19)
Used For	Cash and Derivatives

Leaves Quantity

Field Name	Leaves Quantity
Description	Indicates the remaining quantity of an order, i.e. the quantity open for further execution.
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Fill (04)
Used For	Cash and Derivatives

Leg Error Code

Field Name	Leg Error Code
Description	Error code in case of rejection for the Leg. Provides the return error code when a request is rejected for a functional or a technical reason.
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-2
Used In	Wholesale Order Ack (65)
Used For	Derivatives

Leg Instrument ID

Field Name	Leg Instrument ID
Description	Numerical leg instrument identifier (SymbolIndex) valid for the life of the instrument.
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Fill (04)
Used For	Derivatives

Leg Last Traded Price

Field Name	Leg Last Traded Price
Description	Leg Last Traded Price
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Used In	Fill (04)
Used For	Derivatives

Leg Last Traded Quantity

Field Name	Leg Last Traded Quantity
Description	Leg Last Traded Quantity
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Fill (04)
Used For	Derivatives

Leg Last Trading Date

Field Name	Leg Maturity Date
Description	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).
Format	Numerical ID (unsigned integer 64)
Length	8
Possible Values	YYYYMMDD

Field Name	Leg Maturity Date
Conditions	In Security Definition Request (60) and New Wholesale Order (64) messages this field should be populated when required to identify a Derivative outright as a leg of the strategy.
Used In	Security Definition Request (60) New Wholesale Order (64)
Used For	Derivatives

Leg Price

Field Name	Leg Price
Description	Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals).
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	This field is populated in all Security Definition Request (60) messages, except for the submission of a Delta-neutral strategy. For Delta-neutral this field should be populated with the Null value.
Used In	Security Definition Request (60) New Wholesale Order (64)
Used For	Derivatives

Leg Put Or Call

Field Name	Leg Put Or Call
Description	Type of the option as leg.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Call 0 = Put
Conditions	Only for Derivative Markets and Mandatory in message Security Definition Request (60) and New Wholesale Order (64) only populated for strategies when leg is an Option
Used In	Security Definition Request (60) New Wholesale Order (64)
Used For	Derivatives

Leg Ratio

Field Name	Leg Ratio
Description	Ratio of lots for the leg. For contingent trades, the delta (to be calculated with the Amount Decimals). ■ For Futures or Options, it is the leg ratio. In this case, the maximum value is 99999. If the value submitted by a member is higher, it will be changed to the maximum value (99999). ■ For underlyings, the delta is used with special rules: For the underlying leg of volatility strategies, this should be the delta (normally valued on two decimal places) multiplied by 1000 (e.g. a delta of 65% (0.65) is represented by 650). In this case, the maximum value is 99990 (9999%). If the value submitted by a member is higher, it will be changed to the maximum value (99990); For Conversion Reversal Strategies (Type‘=’'R'), the delta is always set to 1000.
Format	Numerical (unsigned integer 32)
Length	4
Possible Values	0..99999
Conditions	For New Wholesale Order (64) only populated for strategies
Used In	Security Definition Request (60)

Field Name	Leg Ratio
	New Wholesale Order (64)
Used For	Derivatives

Leg Security Type

Field Name	Leg Security Type
Description	Defines the type of instrument of the Leg
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Future 1 = Option 2 = Cash
Used In	Security Definition Request (60) New Wholesale Order (64)
Used For	Derivatives

Leg Side

Field Name	Leg Side
Description	Indicates the side of the trade leg.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Buy 2 = Sell
Conditions	For New Wholesale Order (64) only populated for strategies
Used In	Fill (04) Security Definition Request (60) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

Leg Strike Price

Field Name	Leg Strike Price
Description	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	In Security Definition Request (60) message this field should be populated with the Null value
Used In	Security Definition Request (60) New Wholesale Order (64)
Used For	Derivatives

Leg Symbol Index

Field Name	Leg Symbol Index
Description	MDG proprietary identification code of the instrument leg for the strategy. This identifier is unique per triplet: MIC, ISIN and currency. Once the instrument is expired its number can be used for a new instrument.
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Security Definition Request (60) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

LIS Transaction ID

Field Name	LIS Transaction ID
Description	ID that can be used to associate Executions belonging to the same LIS Transaction
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Fill (04) Trade Bust Notification (19) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

Log Out Reason Code

Field Name	Log Out Reason Code
Description	Log Out Reason Code. Value 0 is provided by the client, all other possible values are provided by the Exchange.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Regular Logout By Client 1 = End Of Day 2 = Too many unknown messages 3 = Excessive Number of Messages 4 = Excessive Amount of Data in Bytes 5 = Excessive Number of Messages and Amount of Data in Bytes
Used In	Logout (103)
Used For	Cash and Derivatives

Logical Access ID

Field Name	Logical Access ID
Description	Identifier of the Logical Access.
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2

Field Name	Logical Access ID
Conditions	It is required in both Logon (100) and Logout (103) messages. It is required in the OwnershipRequest (18) message when the Order ID is not provided. In the Mass Cancel (13) message it can be used as filter to cancel orders belonging to this Logical Access.
Used In	Logon (100) Mass Cancel (13) Mass Cancel Ack (14) Ownership Request Ack (17) Ownership Request (18) MM Sign-In (47) MM Sign-In Ack (48)
Used For	Cash and Derivatives

Logon Reject Code

Field Name	Logon Reject Code
Description	Provides the logon rejection reason.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Unknown Connection Identifier 2 = System unavailable 3 = Invalid sequence number 4 = Client session already logged on 5 = Client session disabled 6 = Invalid Queueing Indicator 7 = Invalid Logon format
Used In	Logon Reject (102)
Used For	Cash and Derivatives

LP Action Code

Field Name	LP Action Code
Description	Action the LP wants to apply on the specified instrument of warrant type.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Knock-In By Issuer (KIBI) 2 = Knock-Out By Issuer (KOBI) 3 = Payment After Knock-Out (PAKO) 4 = Bid Only 5 = Offer Only
Used In	Liquidity Provider Command (32)
Used For	Cash

LP Role

Field Name	LP Role
Description	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Liquidity Provider or Market Maker

Field Name	LP Role
	3 = Retail Liquidity Provider 12 = RFQ Liquidity Provider
Conditions	Liquidity Provider Role is mandatory when Account Type is equal to "Liquidity Provider". In CancelReplace (06) message, if provided the value is ignored. This field is not populated in message Security Definition Request (60) only for the leg that is an Option. For derivative markets, it should be set to the default value of '1' (Liquidity Provider).
Used In	New Order (01) Cancel Replace (06) Quotes (08) Quote Ack (09)
Used For	Cash and Derivatives

M

Maturity

Field Name	Maturity
Description	*[N/A] Scope of active orders to be cancelled according the selected maturity, expressed in YYYYMMDD format.* *For monthly DD must be set to 00. To identify weeklies and dailies DD must be set to the last trading day. (For Future Use)*
Format	Alphanumerical ID (character)
Length	8
Used In	Mass Cancel (13) Mass Cancel Ack (14)
Used For	Derivatives

Message Sending Time

Field Name	Message Sending Time
Description	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	New Order (01) Ack (03) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Quote Ack (09) Quote Request (10) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request (18) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32)

Field Name	Message Sending Time
	MM Sign-In (47) MM Sign-In Ack (48) Security Definition Request (60) Security Definition Ack (61) MM Protection Request (62) MM Protection Ack (63) New Wholesale Order (64) Wholesale Order Ack (65)Struct_IncomingMessageTechnicalHeader
Used For	Cash and Derivatives

Message Sequence Number

Field Name	Message Sequence Number
Description	Indicates the Message Sequence Number per OE Session. (for messages sent by the Exchange)
Format	Sequence (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Ack (03) Fill (04) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14) Ownership Request Ack (17) Trade Bust Notification (19) Ask For Quote (33) Request For Execution (34) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) User Notification (39) MM Sign-In Ack (48) Instrument Synchronization List (50) Synchronization Time (51) Security Definition Ack (61) MM Protection Ack (63)Struct_IncomingMessageTechnicalHeader Wholesale Order Ack (65)
Used For	Cash and Derivatives

MiFID Indicators

Field Name	MiFID Indicators
Description	Field used as instruction for order handling. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions. - DEA Indicator: indicates whether the order was submitted via a Direct Electronic Access (DEA) connection or not. It must be set to 1 for DEA access. (0: No ; 1: Yes) If set to 1, then field ClientIdentificationShortCode must be populated. - InvestmentAlgoIndicator: indicates whether the investment decision was submitted by a trading algorithm or not. (0: No algorithm involved ; 1: Algorithm involved) This value must be set to 1 for cases where Algorithm has made the Investment decision. If set to 1, then field InvestmentDecisionWFirmShortCode must be filled. - ExecutionAlgoIndicator: indicates whether the order execution was submitted by a trading algorithm or not. (0: No algorithm involved ; 1: Algorithm involved)

Field Name	MiFID Indicators
	- CommodityDerivativeIndicator: indicates for a commodity derivative or a warrant with a commodity underlying, if the trade reduces the risk. (0: Order not associated with reduction of risk for Commodity Derivatives or Warrants with Commodity underlyings ; 1: Risk Reduction flag for orders associated with Commodity Derivatives or Warrants with Commodity underlyings) - Deferral Indicator: Indicates whether the order is candidate for a deferred publication of the resulting trade(s) or not. (0: Not Candidate ; 1: Candidate) - FR MAR AMP LP: Indicates whether the order is subject to French Market Abuse Regulation Accepted Market Practice Liquidity provision or not (0: Not subject to FR MAR AMP LP ; 1: Subject to DE MAR AMP LP)
Format	Bitmap (unsigned integer 8)
Length	1
Possible Values	0 = DEA Indicator 1 = InvestmentAlgoIndicator 2 = ExecutionAlgoIndicator 3 = CommodityDerivativeIndicator *4 = Deferral Indicator* 5 = FR MAR AMP LP
Conditions	Always provided in outbound messages Ack (03), Fill (04), Kill (05), MassCancelAck (14) and Reject (07) for the Derivatives segments. On the Derivatives segments, for the New Wholesale Order (65) inbound messages • positions 0 and 3 may apply on the message level (not individual leg level) • positions 1, 2, 4 and 5 do not apply, and should always be filled with zero (0)
Used In	New Order (01) Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Mass Cancel Ack (14) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Minimum Order Quantity

Field Name	Minimum Order Quantity
Description	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	New Order (01) Quote Request (10) RFQ Notification (35)
Used For	Cash and Derivatives

MMP Execution Type

Field Name	MMP Execution Type
Description	Type of MM Protection Execution. - bit in position 0 - Notification (0: No ; 1: Yes) - bit in position 1 - Acknowledgment (0: No ; 1: Yes)

Field Name	MMP Execution Type
	- bit in position 2 - Pull (0: No ; 1: Yes)
Format	Bitmap (unsigned integer 8)
Length	1
Possible Values	0 = Notification 1 = Acknowledgement 2 = Pull
Used In	MM Protection Ack (63)
Used For	Derivatives

N

Non Executing Client ID

Field Name	Non Executing Client ID
Description	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.
Format	Numerical ID (unsigned integer 64)
Length	2
Possible Values	0..2^16-1
Conditions	In New Order (01) message this field must be populated if Account Type is "Omega Client" or "Ceres Client"
Used In	New Order (01) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

NonExecutingBrokerShortCode

Field Name	NonExecutingBrokerShortCode
Description	MiFID II short code, Non-executing broker, identifier of the non-executing broker. ESMA description of the field: In accordance with Article 2(d). This field shall be left blank when not relevant.
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	-2^31+1..2^31-1
Used In	New Order (01) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Number Of LPs

Field Name	Number Of LPs
Description	Indicates the number of LPs who sent an answer to a specific RFQ.
Format	Numerical (unsigned integer 8)
Length	1
Possible Values	0..2^8-2

Field Name	Number Of LPs
Used In	RFQ Matching Status (36)
Used For	Cash

O

OE Partition ID

Field Name	OE Partition ID
Description	Identifies uniquely an OE Optiq partition by which the engine is reached.
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-2
Conditions	In Logon (100) message it must be set according to the partition to which the messages are sent. In the Ownership Request (18) message it is optional, if populated it used to restrict the request of ownership to the orders belonging to the specified Logical Access ID and entered through this partition. In the Mass Cancel (13) message it is optional but cannot be populated if Logical Access ID is not populated ; if populated it used as filter to cancel orders entered through this partition (it can be combined with other criteria).
Used In	Logon (100) Mass Cancel (13) Mass Cancel Ack (14) Ownership Request Ack (17) Ownership Request (18) MM Sign-In (47) MM Sign-In Ack (48)
Used For	Cash and Derivatives

OEG IN From ME

Field Name	OEG IN From ME
Description	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Ack (03) Fill (04) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14) Trade Bust Notification (19) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) MM Sign-In Ack (48) Security Definition Ack (61) MM Protection Ack (63) Wholesale Order Ack (65)
Used For	Cash and Derivatives

OEG IN From Member

Field Name	OEG IN From Member
Description	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Ack (03) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14) MM Sign-In Ack (48) Security Definition Ack (61) MM Protection Ack (63) Wholesale Order Ack (65)
Used For	Cash and Derivatives

OEG OUT To ME

Field Name	OEG OUT To ME
Description	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Ack (03) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14) MM Sign-In Ack (48) Security Definition Ack (61) MM Protection Ack (63) Wholesale Order Ack (65)
Used For	Cash and Derivatives

OEG OUT To Member

Field Name	OEG OUT To Member
Description	Order Entry Gateway OUT time to member (in ns), measured when outbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Ack (03) Fill (04) Kill (05) Reject (07) Quote Ack (09) Mass Cancel Ack (14)

Field Name	OEG OUT To Member
	Trade Bust Notification (19) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) MM Sign-In Ack (48) Instrument Synchronization List (50) Synchronization Time (51) Security Definition Ack (61) MM Protection Ack (63) Wholesale Order Ack (65) Technical Reject (108)
Used For	Cash and Derivatives

Offer Error Code

Field Name	Offer Error Code
Description	Error code returned when a quote contains an invalid offer. See Error List for details of error codes.
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-2
Used In	Quote Ack (09)
Used For	Cash and Derivatives

Offer Order ID

Field Name	Offer Order ID
Description	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.
Format	Numerical ID (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	The field Order ID in Fill (04) message sent in case of trade resulting from a matching against a (bulk) Quote is filled with value in Offer Order ID field corresponding to the Offer quote that participated in the trade.
Used In	Quote Ack (09) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Offer Price

Field Name	Offer Price
Description	Quote offer price, (To be calculated with Price/Index Level Decimals).
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	In Quotes (08) either Bid Price or Offer Price, or both, must be populated
Used In	Quotes (08)
Used For	Cash and Derivatives

Offer Quantity

Field Name	Offer Quantity
Description	Quote offer quantity, (To be calculated with Quantity Decimals). Cancels a quote if set to zero "0".
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	In the New Wholesale Order (64) messages submitted by the Initiator the Offer Quantity must be the maximum volume to match in the transaction when the leading side is Sell.
Used In	Quotes (08) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Open Close

Field Name	Open Close
Description	Open Close Indicator, Posting action. This field is part of the clearing aggregate. The first bit will be used to indicate whether this field is being actively used or not (1 = Actively Used ; 0 = Field Not Used). For each Leg 0 means Open and 1 means Close. Leg 2 to Leg 9 are applicable for Derivatives strategy instruments (not for cash instruments).
Format	Bitmap (unsigned integer 16)
Length	2
Possible Values	0 = Field Actively Used 1 = Leg 1 2 = Leg 2 3 = Leg 3 4 = Leg 4 5 = Leg 5 6 = Leg 6 7 = Leg 7 8 = Leg 8 9 = Leg 9
Used In	New Order (01) Cancel Replace (06) Quotes (08) New Wholesale Order (64)
Used For	Cash and Derivatives

Option Type

Field Name	Option Type
Description	*[N/A] Type of the option. (For Future Use)*
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	*1 = Call* *2 = Put*
Used In	Mass Cancel (13) Mass Cancel Ack (14)

Field Name	Option Type
Used For	Derivatives

Order Category

Field Name	Order Category
Description	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”. - Lit Order: indicates whether the client requests to cancel a Lit order. - LIS Order: indicates whether the client requests to cancel a LIS order. - Quote Request: indicates whether the client requests to cancel a Quote Request. - RFQ LP Answer: indicates whether the client requests to cancel an LP Answer to a Quote Request.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Lit Order 2 = LIS Order 3 = Quote Request 4 = RFQ LP Answer
Conditions	When not provided or provided at the Null Value, it is assumed to be set at value 1 “Lit Order”.
Used In	Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request Ack (17) Ownership Request (18)
Used For	Cash

Order Expiration Date

Field Name	Order Expiration Date
Description	Field used as date of order expiration for GTD orders. - Format : MMDD - Minimum Value : 0101 (Jan 1st) - Maximum Value : 1231 (Dec 31st)
Format	Date (unsigned integer 16)
Length	2
Possible Values	0..2^16-2
Conditions	Order Expiration Date is mandatory for GTD orders.
Used In	New Order (01) Cancel Replace (06)
Used For	Cash and Derivatives

Order Expiration Time

Field Name	Order Expiration Time
Description	*[N/A] Field used as time of order expiration for GTT orders.* *- Format : HHMMSS* *- Minimum Value : 0 (00:00:00)* *- Maximum Value : 235959 (23:59:59)*
Format	Numerical ID (unsigned integer 32)

Field Name	Order Expiration Time
Length	4
Possible Values	0..2^32-2
Conditions	Order Expiration Time is mandatory for GTT orders.
Used In	New Order (01) Cancel Replace (06)
Used For	Cash

Order ID

Field Name	Order ID
Description	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.
Format	Numerical ID (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	The field Order ID in Fill (04) message sent in case of trade resulting from a matching against a (bulk) Quote is filled with value of either Bid Order ID or Offer Order ID, corresponding to the side of the quote that participated in the trade. On ETF Access platform: - In case of an Ack (03) or a Reject (07) message sent as a response to a Quote Request (10) or a Cancel Request (12), the Order ID field will broadcast the “RFQ Identifier” information (field QuoteReqID). - In case the client uses Cancel Request (12) to cancel an RFQ sent through the Quote Request (10), the Order ID field should contain the “RFQ Identifier” information previously received in the Ack (03) message. Field not populated in Reject (07) messages for rejection of strategy creation on derivatives markets.
Used In	Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Cancel Request (12) Open Order Request (15) Ownership Request Ack (17) Ownership Request (18) Collar Breach Confirmation (20)
Used For	Cash and Derivatives

Order Price

Field Name	Order Price
Description	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals). For the Market Data feed: -Set to Null Value for priceless orders. For the Order Entry -It is mandatory for priced orders (Limit, Stop-limit) and must be set to Null Value where the price is irrelevant (Market, Stop-market, Peg, MTL).
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	Negative values authorized on ETF Access when the order is sent on the NAV trading Order Book (EMM = 8).
Used In	New Order (01) Ack (03)

Field Name	Order Price
	Cancel Replace (06)
Used For	Cash and Derivatives

Order Priority

Field Name	Order Priority
Description	Rank giving the priority of the order. The order with the lowest value of Order Priority has the highest priority. Order Priority is unique per Symbol Index and EMM, therefore, it is also used as the unique order identifier in the market data feed. Order Priority should then allow clients to reconcile their orders between private order entry and market data feed. Used in conjunction with Previous Priority, for market data only.
Format	Numerical ID (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	Ack (03)
Used For	Cash and Derivatives

Order Quantity

Field Name	Order Quantity
Description	Total order quantity, per quantity unit. (To be calculated with Quantity Decimals).
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	New Order (01) Ack (03) Cancel Replace (06) Quote Request (10) RFQ Notification (35)
Used For	Cash and Derivatives

Order Side

Field Name	Order Side
Description	Indicates the side of the order. Please note that the value Cross is used only for the Order Entry, it will never be populated in the Market Data feed.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Buy 2 = Sell 3 = Cross [i]
Conditions	The value Cross is only used in the NewOrder (01) message. For Cancel Replace (06) and Cancel Request (10) messages if the Order Side different than the Order Side of the targeted order, the request will be rejected with the reason "Unknown Order". For RFQ Notification (35) message Order Side may not be provided if the RFQ issuer did not specified the side in its request.
Used In	New Order (01) Ack (03) Fill (04)

Field Name	Order Side
	Cancel Replace (06) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Quote Request (10) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37)
Used For	Cash and Derivatives

Order Type

Field Name	Order Type
Description	Type of Order. Please note that the values Stop-market/Stop-market-on-Quote, Stop limit/Stop-limit-on-quote, Average Price, Iceberg and Mid-Point Peg are used only for the Order Entry, they will never be populated in the Market Data feed.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Market 2 = Limit 3 = Stop-market or Stop-market-on-quote 4 = Stop-limit or Stop-limit-on-quote 5 = Primary Peg 6 = Market to limit 7 = Market Peg 8 = Mid-Point Peg 9 = Average Price 10 = Iceberg
Conditions	Value '9' is used only for RFQ validation on ETF Access platform. For Cancel Replace (06) and Cancel Request (10) messages if the Order Type different than the Order Type of the targeted order, the request will be rejected with the reason "Unknown Order".
Used In	New Order (01) Cancel Replace (06) Cancel Request (12)
Used For	Cash and Derivatives

Original Client Order ID

Field Name	Original Client Order ID
Description	Client order ID of the original order.
Format	Numerical ID (signed integer 64)
Length	8
Possible Values	-2^63..2^63-1
Conditions	Original Client Order ID is provided in outbound messages only as response of a modification or cancellation, which is done with the Original Client Order ID specified by the client as the criteria for the modification or cancellation.
Used In	Ack (03) Kill (05) Cancel Replace (06) Cancel Request (12) Open Order Request (15) Ownership Request (18)

Field Name	Original Client Order ID
	Collar Breach Confirmation (20)
Used For	Cash and Derivatives

P

Package ID

Field Name	Package ID
Description	*[N/A] Deprecated field*
Format	Alphanumerical ID (character)
Length	12
Possible Values	*(See field description)*
Used In	Fill (04)
Used For	Derivatives

Parent Execution ID

Field Name	Parent Execution ID
Description	Unique identifier of a parent trade executed on the strategy
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Conditions	For the Derivatives markets Trade Bust Notification (19) messages for a strategy are sent on the individual leg level. When provided the field Parent Execution ID identified the Execution ID provided in the Block of the Fill (04) messages and allows to map all legs to the Fill (04) message done for the strategy.
Used In	Trade Bust Notification (19)
Used For	Derivatives

Parent Symbol Index

Field Name	Parent Symbol Index
Description	Exchange identification code used to point to the strategy in the leg specific messages
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Conditions	For the Derivatives markets Trade Bust Notification (19) messages for a strategy are sent on the individual leg level. When provided the field Parent Symbol Index, together with field Parent Execution ID identify the original trade communicated via Fill (04) message.
Used In	Trade Bust Notification (19)
Used For	Derivatives

Peg Offset

Field Name	Peg Offset
Description	Tick offset for a pegged order. Used to indicate the signed tick added to the peg reference for a pegged order.
Format	Numerical ID (signed integer 8)

Field Name	Peg Offset
Length	1
Possible Values	-128..127
Used In	New Order (01) Cancel Replace (06)
Used For	Cash

Potential Matching Price

Field Name	Potential Matching Price
Description	The Potential Matching Price indicates to the RFQ issuer the matching price for the "Potential Matching Quantity". The Potential Matching Price is recalculated and resend to the RFQ issuer through the RFQ Matching Status (36) message each time the order book is updated.
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63..2^63-1
Conditions	Can be a negative when the price is expressed in bps. Available only for EMM = 8 (ETF MTF - NAV)
Used In	RFQ Matching Status (36)
Used For	Cash

Potential Matching Quantity

Field Name	Potential Matching Quantity
Description	The potential matching quantity indicates the maximum volume that would be matched in case of an RFQ validation. When this message is sent to the RFQ issuer, it indicates the maximum volume that would be matched in case of an RFQ validation sent with an average limit price equal to the Potential Matching Price. When this message is sent to a Liquidity Provider, it indicates the total order quantity that would be matched in case of a validation sent by the RFQ Issuer.
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Used In	RFQ Matching Status (36) RFQ LP Matching Status (37)
Used For	Cash

Price

Field Name	Price
Description	Price per unit of quantity (to be calculated with the Price/Index Level Decimals).
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Conditions	In New Wholesale Order (64) message for the Derivative markets, when price is not applicable, the field Price should be populated with value of zero (0). For DeclarationEntry (40), it must always be provided when Operation Type = '1', ‘5’ or '7'. For DeclarationNotice (42), it is provided when Operation Type = '1', ‘5’ or '7'. For a trade/declaration on Dutch Funds if expressed as an amount (Operation Type = ‘6’), this field should not be provided.
Used In	Price Input (28) New Wholesale Order (64)

Field Name	Price
	Wholesale Order Ack (65)
Used For	Cash and Derivatives

Protection Threshold

Field Name	Protection Threshold
Description	Limit of the MM protection.
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	In message MM Protection Request (62) must be populated if Request Type is Set or Adjust
Used In	MM Protection Request (62) MM Protection Ack (63)
Used For	Derivatives

Protection Type

Field Name	Protection Type
Description	Type of Market Maker protection.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Delta 2 = Volume
Used In	MM Protection Request (62) MM Protection Ack (63)
Used For	Derivatives

Q

Quantity

Field Name	Quantity
Description	Number of traded or ordered units (to be calculated with Quantity Decimals).
Format	Quantity (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	For Declaration Entry (40) message, it must always be provided when Operation Type = '1', ‘4’, ‘5’ or '7'. For a trade/declaration on Dutch Funds if expressed as an amount (Operation Type = ‘6’), this field should not be provided.
Used In	New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Queueing Indicator

Field Name	Queueing Indicator
Description	Indicates whether the client requests its orders to be queued or rejected in case of throttling. (0: False - Reject ; 1: True - Queue).

Field Name	Queueing Indicator
Format	Boolean (unsigned integer 8)
Length	1
Possible Values	0 = False 1 = True
Used In	Logon (100)
Used For	Cash and Derivatives

QuoteReqID

Field Name	QuoteReqID
Description	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.
Format	Numerical ID (unsigned integer 64)
Length	8
Possible Values	0..2^64-2
Conditions	Mandatory if 'RFQ Answer' or 'RFQ Confirmation' (field Execution Instruction) = Yes
Used In	New Order (01) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37)
Used For	Cash

R

Recipient Type

Field Name	Recipient Type
Description	*[N/A] Indicates whether the message is sent to the RFQ issuer or the Liquidity Provider.*
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	*1 = RFQ Issuer* *2 = RFQ recipient (LP)*
Used In	RFQ Matching Status (36)
Used For	Cash

Rejected Client Message Sequence Number

Field Name	Rejected Client Message Sequence Number
Description	Indicates the Client Message Sequence Number of the rejected message.
Format	Sequence (unsigned integer 32)
Length	4
Possible Values	0..2^32-2
Used In	Technical Reject (108)
Used For	Cash and Derivatives

Rejected Message

Field Name	Rejected Message
Description	***[N/A]*** *Deprecated field*
Format	Numerical ID (unsigned integer 8)
Length	1
Possible Values	*0..2^8-2*
Used In	Reject (07) Technical Reject (108)
Used For	Cash and Derivatives

Rejected Message ID

Field Name	Rejected Message ID
Description	Provides the ID (Template ID) of the rejected message. E.g. 01 for NewOrder, 06 for CancelReplace...
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-2
Used In	Reject (07) Technical Reject (108)
Used For	Cash and Derivatives

Request Type

Field Name	Request Type
Description	This field gives the type of request made by the Market Maker for the Market Maker Protection. At the time of activation, the Market Maker (MM) is able to Set (1) Protection Limits and Limit Breach actions for each protection type activated on a contract. MM can also Get (2) the current reached value of the limits, and breach actions can be updated by submitting an Adjust (3) at any time while the facility is active.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Set 2 = Get 3 = Adjust
Used In	MM Protection Request (62)
Used For	Derivatives

Response Type

Field Name	Response Type
Description	Indicates if incoming message is accepted or rejected.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Accept 1 = Reject
Used In	Wholesale Order Ack (65)
Used For	Derivatives

Resynchronization ID

Field Name	Resynchronization ID
Description	Each instrument is assigned to a Resynchronization ID, that is use in case of failover.
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	0..2^16-2
Used In	Instrument Synchronization List (50) Synchronization Time (51)
Used For	Cash and Derivatives

RFE Answer

Field Name	RFE Answer
Description	Indicate whether the Quotes message is an answer to a RequestForExecution (34) message or not. (0: No [False] ; 1: Yes [True])
Format	Boolean (unsigned integer 8)
Length	1
Possible Values	0 = False 1 = True
Conditions	For the Derivatives segments this field must be set to 0: No [False]
Used In	Quotes (08)
Used For	Cash and Derivatives

RFQ Update Type

Field Name	RFQ Update Type
Description	*[N/A] Indicates the current status of the RFQ.*
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	*1 = New* *2 = Cancelled by the RFQ issuer* *3 = Expired* *4 = Partially or Fully Matched*
Conditions	*Value 1 is used to notify to LPs a new RFQ is available.* *Value 2 is used to notify to LPs the concerned RFQ (identified through the field QuoteReqID) is no more available as it has been cancelled by the RFQ Issuer.* *Value 3 is used to notify to LPs the concerned RFQ (identified through the field QuoteReqID) has expired after the predefine period of time without any confirmation order from the RFQ issuer.* *Value 4 is used to notify to LPs the concerned RFQ (identified through the field QuoteReqID) is no more available as it has been matched.*
Used In	RFQ Notification (35)
Used For	Cash

S

Security Request ID

Field Name	Security Request ID
Description	ID of a strategy security definition request. Clients must provide a Security Request ID in every Security Definition Request (60) message, otherwise the message will be immediately rejected by the OEG. Clients should provide any numerical value. The Exchange recommends setting an unique ID per request and Firm. The Security Request ID value is not checked by the Exchange (besides the format), it is simply returned in the corresponding Security Definition Ack (61) message to allow clients reconciling the response message with their original security definition request.
Format	Numerical ID (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Used In	Security Definition Request (60) Security Definition Ack (61)
Used For	Derivatives

Sell Revision Indicator

Field Name	Sell Revision Indicator
Description	Indicates whether the offer quote is a new quote, a replacement of a previous quote or a cancellation.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = New 1 = Replacement 2 = Cancellation
Used In	Quote Ack (09)
Used For	Cash and Derivatives

Side

Field Name	Side
Description	Indicates the Executing Side
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Buy 2 = Sell
Used In	New Wholesale Order (64)
Used For	Cash and Derivatives

Software Provider

Field Name	Software Provider
Description	Free text field entered by the client in the Logon (100) message, identifying the provider of the software used for exchange of messages for trading purposes.
Format	Text (character)
Length	8

Field Name	Software Provider
Possible Values	(Free Text)
Used In	Logon (100)
Used For	Cash and Derivatives

Stop Trigger Price

Field Name	Stop Trigger Price
Description	Stop Trigger Price is mandatory for stop orders.
Format	Price (signed integer 64)
Length	8
Possible Values	-2^63+1..2^63-1
Used In	New Order (01) Cancel Replace (06)
Used For	Cash

STP ID

Field Name	STP ID
Description	*[N/A] For Future Use.*
Format	Numerical ID (unsigned integer 16)
Length	2
Possible Values	*0..2^16-1*
Used In	New Order (01) Cancel Replace (06)
Used For	Cash and Derivatives

Strategy Code

Field Name	Strategy Code
Description	Exchange-recognized strategy code
Format	Alphanumerical ID (character)
Length	1
Possible Values	A = Jelly Roll B = Butterfly C = Call or Put Cabinet D = Spread E = Calendar Spread F = Diagonal Calendar Spread G = Guts H = Two by One Ratio Spread I = Iron Butterfly J = Combo K = Strangle L = Ladder M = Strip N = Straddle Calendar Spread O = Pack P = Diagonal Straddle Calendar Spread Q = Simple Inter Commodity Spread

Field Name	Strategy Code
	R = Conversion / Reversal S = Straddle V = Volatility Trade W = Condor X = Box Y = Bundle Z = Reduced Tick Spread a = Ladder versus Underlying b = Butterfly versus Underlying c = Call Spread versus Put versus Underlying d = Call or Put Spread versus Underlying e = Call or Put Calendar Spread versus Underlying f = Call/Put Diagonal Calendar Spread versus Underlying g = Guts versus Underlying h = Two by One Call or Put Ratio Spread versus Underlying i = Iron Butterfly versus Underlying j = Combo versus Underlying k = Strangle versus Underlying m = Exchange for Physical n = Straddle Calendar Spread versus Underlying p = Put Spread versus Call versus Underlying q = Diagonal Straddle Calendar Spread versus Underlying r = Synthetic s = Straddle versus Underlying t = Condor versus Underlying u = Buy Write v = Iron Condor versus Underlying w = Iron Condor x = Call Spread versus Sell a Put y = Put Spread versus Sell a Call z = Put Straddle versus Sell a Call or a Put
Used In	Security Definition Request (60) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

Symbol Index

Field Name	Symbol Index
Description	Exchange identification code of the instrument/contract. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence of the Symbol Index and with the instrument characteristics is provided in the standing data messages and associated files. Symbol Index is valid for the life of the instrument.
Format	Numerical ID (unsigned integer 32)
Length	4
Possible Values	0..2^32-1
Conditions	For inbound messages, the Symbol Index must be specified. For second listing place trade, the Symbol Index and the MIC of secondary listing must be specified. If provided in the User Notification (39) message, it specifies the scope of the action specified in User Status. In the Reject (07) message, it is populated only if provided as a valid value in the corresponding Inbound request AND the corresponding Inbound request was technically correctly formatted; otherwise it is provided at the Null value. Field not populated in Reject (07) messages for rejection of strategy creation on derivatives markets. For all messages, with exception of MM Sign-in and MM Protection Request, this field represent the Symbol Index of the Instrument.

Field Name	Symbol Index
	For the MM Sign-in and MM Protection Request this field represents the Symbol Index of the Contract. For New Wholesale Order this represents numerical leg instrument identifier (Security ID).
Used In	New Order (01) Ack (03) Fill (04) Kill (05) Cancel Replace (06) Reject (07) Quotes (08) Quote Ack (09) Quote Request (10) Cancel Request (12) Mass Cancel (13) Mass Cancel Ack (14) Open Order Request (15) Ownership Request Ack (17) Ownership Request (18) Trade Bust Notification (19) Collar Breach Confirmation (20) Price Input (28) Liquidity Provider Command (32) Ask For Quote (33) Request For Execution (34) RFQ Notification (35) RFQ Matching Status (36) RFQ LP Matching Status (37) User Notification (39) MM Sign-In (47) MM Sign-In Ack (48) Instrument Synchronization List (50) Security Definition Ack (61) MM Protection Request (62) MM Protection Ack (63) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

T

TargetExecutionWithinFirmShortCode

Field Name	TargetExecutionWithinFirmShortCode
Description	Value of the target Execution Within Firm Short Code used as a filter to reduce scope of the Mass Cancel request
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	-2^31+1..2^31-1
Conditions	If provided in the MassCancel (13) message, the field acts as a filter to reduce the scope of the orders and quotes submitted by the Firm and specified Short code. Value provided in this field may differ from the value specified in the field ExecutionWithinFirmShortCode within the MassCancel (13) message.
Used In	Mass Cancel (13) Mass Cancel Ack (14)
Used For	Cash and Derivatives

Technical Origin

Field Name	Technical Origin
Description	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining
Used In	New Order (01) Cancel Replace (06) Quotes (08) New Wholesale Order (64)
Used For	Cash and Derivatives

Time In Force

Field Name	Time In Force
Description	Specifies the maximum validity of an order. For Stop orders it provides the maximum validity when not triggered.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Day 1 = Good Till Cancel 2 = Valid for Uncrossing 3 = Immediate or Cancel 4 = Fill or Kill *5 = Good till Time* 6 = Good till Date 7 = Valid for Closing Uncrossing *8 = Valid for Session*
Conditions	Modifying order from or to one validity type to any other, will result in loss of priority.
Used In	New Order (01) Cancel Replace (06)
Used For	Cash and Derivatives

Total Affected Orders

Field Name	Total Affected Orders
Description	Number of orders affected following a global request. It is set to -1 to indicate that the request is processed.
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	-2^31+1..2^31-1
Used In	Mass Cancel Ack (14) Ownership Request Ack (17)
Used For	Cash and Derivatives

Trade Qualifier

Field Name	Trade Qualifier
Description	Trade Qualifier. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions. ■ bit in position 0 - Uncrossing Trade: indicates whether the trade occurred during an Uncrossing, or not. (0: No; 1: Yes) ■ bit in position 1 - First Trade Price: indicates whether the price of the trade is the first trade price of the day, or not. (0: No; 1: Yes) Please note that there can be multiple Trades with the “First Trade Price” flag set to Yes. ■ bit in position 2 - Passive Order: indicates whether the corresponding order was passive, or not. (0: No; 1: Yes) ■ bit in position 3 - Aggressive Order: indicates whether the corresponding order was aggressive, or not. (0: No; 1: Yes) ■ bit in position 4 - Trade Creation by Market Operations: indicates whether the trade results from a creation by Market Operations, or not. (0: No; 1: Yes) - For future use ■ bit in position 5 - NAV Trade expressed in bps: indicates whether the trade results from a NAV trade expressed in basis point on the ETF Access platform. (0: No; 1: Yes) ■ bit in position 6 - NAV Trade expressed in price currency: indicates whether the trade is a NAV trade expressed in price currency. This trade is always an update from a previous NAV trade expressed in basis point on the ETF Access platform. (0: No; 1: Yes) ■ bit in position 7 - Deferred Publication: indicates whether the trade publication is deferred or immediate. (0: Immediate Publication; 1: Deferred Publication) If all bits are set to 0, then it means that no Trade Qualifier applies. For the Market Data feed: The values Passive Order and Aggressive Order always qualify the Buy order.
Format	Bitmap (unsigned integer 8)
Length	1
Possible Values	0 = Uncrossing Trade 1 = First Trade Price 2 = Passive Order 3 = Aggressive Order 4 = Trade Creation by Market Operations 5 = NAV Trade expressed in bps 6 = NAV Trade expressed in price currency 7 = Deferred Publication
Conditions	Values 5 and 6 will be used only for the NAV trading on the ETF Access platform.
Used In	Fill (04)
Used For	Cash and Derivatives

Trade Time

Field Name	Trade Time
Description	Time of the trade. Equals to the Matching Engine IN time (in ns), when the aggressor enters the matching engine.
Format	Epoch Time in Nanoseconds (unsigned integer 64)
Length	8
Possible Values	0..2^64-1
Used In	Fill (04)
Used For	Cash and Derivatives

Trade Type

Field Name	Trade Type
Description	Type of trade.
Format	Enumerated (unsigned integer 8)

Field Name	Trade Type
Length	1
Possible Values	1 = Conventional Trade (Cash and Derivatives) 2 = Large in Scale (LiS) Trade (Derivatives Only) *3 = Basis Trade (Derivatives Only) - Deprecated* 4 = Large in Scale (LiS) Package Trade (Derivatives Only) 5 = Guaranteed Cross Trade (Cash and Derivatives) 6 = Against Actual Trade (Derivatives Only) *7 = Asset Allocation Trade (Derivatives Only) - Deprecated* 9 = Exchange for Swap Trade (Derivatives Only) *10 = Exchange for Physical Trade - Cash Leg (Cash Only) - Deprecated* 11 = Strategy Leg Conventional Trade (Derivatives Only) *12 = Strategy Leg Large in Scale (LiS) Trade (Derivatives Only) - Deprecated* *13 = Strategy Leg Basis Trade (Derivatives Only) - Deprecated* *14 = Strategy Leg Guaranteed Cross Trade (Derivatives Only) - Deprecated* *15 = Strategy Leg Against Actual Trade (Derivatives Only) - Deprecated* *16 = Strategy Leg Asset Allocation Trade (Derivatives Only) - Deprecated* *18 = Strategy Leg Exchange For Swap Trade (Derivatives Only) - Deprecated* *19 = Strategy Leg Exchange For Physical Trade (Derivatives Only) - Deprecated* 20 = BoB Trade (Cash Only) *22 = AtomX Trade (Derivatives Only) - Deprecated* 24 = Trade Cancellation (Cash and Derivatives) 25 = Out of Market Trade (Cash Only) 26 = Delta Neutral Trade - Underlying Cash Leg (Cash Only) 27 = Market VWAP Operation Trade (Cash Only) 28 = Euronext Fund Service Trade (Cash Only) 29 = Secondary Listing Trade (Cash Only) 30 = Request for Cross Trade (Derivatives Only) 31 = Request for cross strategy Leg Trade (Derivatives Only) 32 = Trade Publication (Cash and Derivatives) 33 = Dark Trade (Cash Only) 34 = Delta Neutral Trade - Underlying Future Leg (Derivatives Only) 36 = Total Trade Volume *37 = ETF-MTF NAV Trade (price in basis points) (Cash Only) - Deprecated* *38 = ETF-MTF NAV Dark Trade (price in basis points) (Cash Only) - Deprecated* 39 = Guaranteed Cross – Negotiated deal NLIQ (Liquid) 40 = Guaranteed Cross – Negotiated deal OILQ (illiquid) 41 = Large in Scale (LIS) Trade (Cash) 42 = Large in Scale (LiS) Trade in basis points (Derivatives Only) 43 = Large in Scale (LiS) Package Trade in basis points (Derivatives Only) *44 = Strategy Leg Large in Scale (LiS) Trade in basis points (Derivatives Only) - Deprecated*
Conditions	In OEG, for the Fill (04) message, the following values are NOT used: '4', '7', '10' , '14', '16', '19', '22', '24', '25', '36', '37', and '38'; for consistency purposes other values are also listed here, however they are deprecated, or are only used in other messages and market data
Used In	Fill (04)
Used For	Cash and Derivatives

Trading Capacity

Field Name	Trading Capacity
Description	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.
Format	Enumerated (unsigned integer 8)
Length	1

Field Name	Trading Capacity
Possible Values	1 = Dealing on own account (DEAL) 2 = Matched principal (MTCH) 3 = Any other capacity (AOTC)
Used In	New Order (01) Quotes (08) New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Cash and Derivatives

Trading Session Validity

Field Name	Trading Session Validity
Description	Trading Session Validity. Sessions represent the following: - Session 1 – Normal session for the Cash Markets - Session 2 – Normal session for the Derivatives markets - Session 3 – Evening session for the Derivatives markets
Format	Bitmap (unsigned integer 8)
Length	1
Possible Values	1 = Session 1 2 = Session 2 3 = Session 3
Conditions	Specified Possible Values indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.
Used In	New Order (01) Cancel Replace (06)
Used For	Derivatives

Triggered Stop Time In Force

Field Name	Triggered Stop Time In Force
Description	Specifies the maximum validity of an triggered stop order. If both Time In Force and Triggered Stop Time In Force are Good till Date they will both refer to the same Order Expiration Date (or Order Expiration Time) provided in the order. If Order Expiration Date is modified it will be for both untriggered stop and triggered stop, or only for the triggered stop if the order was previously triggered.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Day 1 = Good Till Cancel 6 = Good till Date
Conditions	It is mandatory for stop orders.
Used In	New Order (01) Cancel Replace (06)
Used For	Cash and Derivatives

U

Underlying Instrument ID

Field Name	Undisclosed Iceberg Type
Description	*[N/A] Deprecated*
Format	Numerical ID (signed integer 32)
Length	4
Possible Values	*Deprecated*
Used In	Fill (04)
Used For	Derivatives

Underlying Last Traded Price

Field Name	Undisclosed Iceberg Type
Description	*[N/A] Deprecated*
Format	Price (signed integer 64)
Length	8
Possible Values	*Deprecated*
Used In	Fill (04)
Used For	Derivatives

Undisclosed Iceberg Type

Field Name	Undisclosed Iceberg Type
Description	*[N/A] Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity. (For Future Use, Pending Regulatory Approval)*
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	*1 = Limit* *2 = Peg Mid-Point* *3 = Peg Primary* *4 = Peg Market*
Used In	New Order (01) Cancel Replace (06)
Used For	Cash

Undisclosed Price

Field Name	Undisclosed Price
Description	*[N/A] Optional price for the hidden part of an Iceberg order. (For Future Use, Pending Regulatory Approval)*
Format	Price (signed integer 64)
Length	8
Possible Values	*-2^63+1..2^63-1*
Used In	New Order (01) Cancel Replace (06)
Used For	Cash

User Status

Field Name	User Status
Description	Status of the user.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Trader-Algo Suspended 2 = Trader-Algo Suspension Cleared 3 = Trader-Algo Killed 4 = Trader-Algo Kill Cleared 5 = Firm Suspended 6 = Firm Suspension Cleared 7 = Firm Killed 8 = Firm Kill Cleared 9 = DEA Suspended 10 = DEA Suspension Cleared 11 = DEA Killed 12 = DEA Kill Cleared
Used In	User Notification (39)
Used For	Cash and Derivatives

W

Wholesale Side

Field Name	Wholesale Side
Description	Indicates the side of the Wholesale order.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	1 = Buy 2 = Sell 3 = Cross
Used In	New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

Wholesale Trade Type

Field Name	Wholesale Trade Type
Description	Type of the Wholesale trade being submitted.
Format	Enumerated (unsigned integer 8)
Length	1
Possible Values	0 = Large in Scale Trade 1 = Against Actual 2 = Exchange For Swaps
Used In	New Wholesale Order (64) Wholesale Order Ack (65)
Used For	Derivatives

APPENDIX A: REVISION HISTORY

Version	Change Description
2.0.0	Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made: ■ For support of the Derivative segments, the following New messages have been added: a) **MM Sign-In** (47) and **MM Sign-In Ack** (48) b) **Security Definition Request** (60) and **Security Definition Ack** (61) c) **MM Protection Request** (62) and **MM Protection Ack** (63) d) **New Wholesale Order** (64) and **Wholesale Order Ack** (65) ■ In section 5.3 "Administration Messages" – added support for the Derivatives segments ■ For support of the Derivative segments, the following changes have been updated in the existing messages: a) **New Order** (01): In the block added a field *Non Executing Client ID*; Added support for the Derivatives segments; modified references to the repeating groups to show the names provided in the SBE template b) **Ack** (03): Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added support for the Derivatives segments; updated description of Ack responses that are specific to the Cash markets only, or are for future use, and added clarification for reconciliation of private and public messages for the Cash markets only, and use of Order Priority for the Derivatives markets c) **Fill** (04): Deprecated fields in the OptionalFieldsFill repeating group: *Underlying Last Traded Price*, *Package ID*, *Underlying Instrument ID*; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added support for the Derivatives segments d) **Kill** (05): In the block added a field *Ack Qualifiers*; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added support for the Derivatives segments; updated description for the specific use of fields for Cash and Derivatives markets e) **Cancel Replace** (06): Added support for the Derivatives segments without changes in the structure and updated description for the specific use of fields for Cash and Derivatives markets f) **Reject** (07): Added support for the Derivatives segments; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators* g) **Quotes** (08): In the block added a field *Execution Instruction* & deprecated field *RFE Answer;* Added field *RFE Answer* in the QuoteRep repeating group to make the RFE responses possible on the individual double-sided quote; Added support for the Derivatives segments; updated description for different behavior and support for the Warrants & Certificates and the Derivatives segments h) **Quote Ack** (09): In the block added fields *ExecutionWithinFirmShortCode* and *Ack Qualifiers*; Added support for the Derivatives segments; updated description for different behavior and support for the Warrants & Certificates and the Derivatives segments i) **Quote Request** (10): Added support for the Derivatives segments without changes in the structure and updated description and updated description to indicate the specific use and conditions for the Derivatives segments j) **Mass Cancel** (13): In the block added a field *TargetExecutionWithinFirmShortCode*; Added support for the Derivatives segments; updated description for different behaviour on the Cash and Derivatives markets k) **Mass Cancel Ack** (14): In the block added fields *Ack Qualifiers* and *TargetExecutionWithinFirmShortCode*; Added a repeating group for the short codes, including: *ExecutionWithinFirmShortCode*, *ClientIdentificationShortCode*, *MiFID Indicators*; Added message support for the Derivatives segments l) **Trade Bust Notification** (19): In the block added fields *LIS Transaction ID, Parent Execution ID* and *Parent Symbol Index*; Added support for the Derivatives segments; updated description for specifics of the Derivatives segments m) Added support for the Derivatives segments for the existing messages that do not change in structure: **Cancel Request** (12), **Open Order Request** (15), **Ownership Request** (18), **Ownership Request Ack** (17), **User Notification** (39), **Instrument Synchronization List** (50), **Synchronization Time** (51) ■ Field Descriptions: a) Add new fields: *Breach Action, Breach Status, Contract Symbol Index, Current MMP Position, ESCBMembership, Leg Error Code, Leg Last Trading Date, Leg Price, Leg Put Or Call, Leg Ratio, Leg Security Type, Leg Strike Price, Leg Symbol Index, LIS Transaction ID, MMP Execution Type, Non Executing Client ID, Parent Execution ID, Parent Symbol Index, Protection Threshold, Protection Type, Quantity, Request Type, Response Type, Security Request ID, Side, Strategy Code, TargetExecutionWithinFirmShortCode, Wholesale Side, Wholesale Trade Type* b) Enriched values for fields as follows: *Ack Qualifiers* – added values 2 = Request with Client Order Id, 3 = Use of Cross Partition, 4 = Internal1, 5 = Internal2, 6 = Execution Upon Entry flag Enabled, and 7 = Execution Upon Entry flag; *Account Type* and *Account Type Cross* - added values 14 = Omega Client and 15 = Ceres Client; *MIFID Indicators* – added value 5 = FR MAR AMP LP (for Future use on the Cash markets) c) Deprecated values for fields as follows: *Clearing Instruction* – deprecated values 4008, 4009, 4010; *Dark Execution Instruction* – deprecated values 1 = Deferred Trade Indicator and 2 = Displayed Order Interaction; *Trade Type* – deprecated values 7 = Asset Allocation Trade (Derivatives Only), 10 = Exchange for Physical Trade - Cash Leg (Cash Only), 14 = Strategy Leg Guaranteed Cross Trade (Derivatives Only), 16 = Strategy Leg Asset Allocation Trade

Version	Change Description
	(Derivatives Only), 19 = Strategy Leg Exchange For Physical Trade (Derivatives Only), 22 = AtomX Trade (Derivatives Only) d) Deprecated fields or those set to future use: *Contract ID*, *Package ID*, *Underlying Instrument ID*, *Underlying Last Traded Price* e) Enriched conditions and descriptions of fields *Account Type Cross, Ack Qualifiers, AFQ Reason, Bid Error Code, Bid Order ID, Bid Price, Bid Quantity, Breached Collar Price, Clearing Instruction, Collar Rejection Type, Contract ID, Contract Symbol Index, EMM, Exchange ID, Execution Instruction, Execution ID, Leg Option Type, Leg Price, Leg Strike Price, Leg Ratio, LP Role, MIFID Indicators, Log Out Reason Code, Maturity, MMP Execution Type, Non Executing Client ID, Offer Error Code, Offer Order ID, Offer Quantity, Offer Price, Order ID, Order Category, Order Side, Original Client Order ID, Parent Execution ID, Peg Offset, Price, Quantity, Rejected Message, Symbol Index, Trade Type, Trading Session Validity and Undisclosed Iceberg Type, Undisclosed Price* f) Use of the following fields extended to be for both Cash and Derivatives: *Buy Revision Indicator, Order Priority, RFE Answer, Sell Revision Indicator, STP ID, Technical Origin* ■ Throughout the document: a) References to "Cash Markets" updated to "Cash and Derivatives Markets" where applicable, and added clarification for differences in messages, and specific uses and behaviour for the individual markets b) Updated references to the documentation, that covers both Cash and Derivatives markets c) Formatting updates and correction of phrasing, typos and cosmic changes d) Replaced segment tags on individual messages with text based ones, for convenient searching ■ In MIFID II related fields and values updated list of messages that include short codes ■ Added section 1.5 "Error Codes" – where description from the dedicated document "Euronext Markets - Optiq & TCS Error List". Associated references to the document removed ■ Added a section "Work in Progress" ■ Added a table mapping of OEG SBE templates and specifications per segment, with latest and earliest supported versions ■ In "Determine the 'shorter path' added footnote on Cash and Derivatives standing data ■ Section 4.5 "Price, Quantity, Ratio and Amount Formats" added clarification for prices in basis points ■ Section 4.6.2 "Order Priority" added clarification for reconciliation use in Market data for Cash markets only ■ Section 5.1.1 "Scope of Messages and Functionalities" updated the list of Optiq Segments, to include Derivatives segments, and use text-based tags used for the segments ■ Section 5.2.2 "Example: NewOrder (01) message" updated example to be in line with new format
1.6.1	**The following field has been updated:** - *Kill Reason*: updated value 'Order Cancelled due to potential matching' from '18' to '30'
1.6.0	**Please note that all the changes introduced with this release and listed below are applicable and used for Euronext Block only** **The following messages have been updated:** - **New Order (01):** Added new value "Conditional Order" in field *Execution Instruction* - **Cancel Replace (06):** Added new value "Conditional Order" in field *Execution Instruction* - **Kill (05):** Added new value "Order cancelled due to potential matching" in field *Kill Reason* and message description has been updated accordingly - **Ack (03):** Added new value "Random Uncrossing Phase" in field *Ack Phase* **The following fields have been updated:** - Modified Values as follows: *Execution Instruction*: added value '6' Conditional Order; *Kill Reason*: added value '18' Order Cancelled due to potential matching; *Ack Phase*: added value '8' Random Uncrossing Phase; **The following sections have been updated:** - 5.1.1 Scope of Messages and Functionalities: added new Optiq Segment: Block - Added Block Optiq Segment in "Available For" for the following messages: all admin messages, NewOrder (01), Ack (03), Fill (04), Kill (05), CancelReplace (06), Reject (07), CancenRequest (12), MassCancel (13), MassCancelAck (14), OpenOrderRequest (15), OwnershipRequestAck (17), OwnershipRequest (18), UserNotification (39), InstrumentSynchronizationList (50), SynchronizationTime (51).
1.5.0	**The following messages have been created:** - **RFQ LP Matching Status (37)** **The following messages have been updated:** - **New Order (01):** Removed future use grey layout from the following fields: *Dark Execution Instruction*, *QuoteReqId*, *Peg Offset*; Added two empty repeating sections at the end of the message

Version	Change Description
	- **Cancel Replace (06):** Removed future use grey layout from the following fields: *Dark Execution Instruction*, *QuoteReqId*, *Peg Offset*; Added two empty repeating sections at the end of the message - **Quote Request (10):** Removed 'For Future Use' from message description; added *Dark Execution Instruction* and *Minimum Order Quantity* fields - **Cancel Request (12):** Added *Order Category* field - **Mass Cancel (13):** Added *Order Category* field; Added two empty repeating sections at the end of the message - **Mass Cancel Ack (14):** Added *Order Category* field - **Open Order Request (15):** Added *Order Category* field - **Ownership Request Ack (17):** Added *Order Category* field - **Ownership Request (18):** Added *Order Category* field - **RFQ Notification (35):** Removed 'For Future Use' from message description; added *Dark Execution Instruction*, *Minimum Order Quantity* fields; Deprecated *RFQ Update Type* field - **RFQ Matching Status (36):** Deprecated *Recipient Type* field; updated Message Usage; removed 'For Future Use' from message description - **User Notification (39):** Added one empty repeating section at the end of the message **The following fields have been created:** - *Order Category* **The following fields have been updated:** - Modified Values as follows: *LP Role*: added value '12' RFQ Liquidity Provider; *Dark Execution Instruction*: value '1' Deferred Trade Indicator set as deprecated, value '2' Displayed Order Interaction set as deprecated; *Kill Reason*: added values from '19' to '22', values '13' and '15' previously "For Future Use" set to "Deprecated"; *Trade Qualifier*: added value '7' Deferred Publication; *Trade Type*: removed 'For Future use' label from value '38', added values '42' '43' and '44' (Derivatives only); *Ack Qualifiers*: removed 'For Future Use' label from value '0'; *EMM*: added value '9' **The following fields have been deprecated:** - *Recipient Type; RFQ Update Type* **Formatting changes:** - Added repeating section headers in message structures **The following sections have been updated:** - 4.1.2 SBE Repeating Section Header: added description for empty repeating sections
1.4.0	**The following field description has been updated:** - *Counterpart Firm ID*
1.3.1	**The following messages have been updated:** - **Reject (07):** field *Rejected Message* has been deprecated and field *Rejected Message ID* has been added - **Technical Reject (108)**: field *Rejected Message* has been deprecated and field *Rejected Message ID* has been added **The following fields have been updated:** - *Rejected Message:* it has been deprecated and replaced by the field *Rejected Message ID* - *Rejected Message ID*: it has been introduced to replace field *Rejected Message*; this change has been made to align the length of this field with the length of the field *Template ID* - *Disclosed Quantity*: updated conditions, updated minimum value from 0 to 1 - *EMM*: updated conditions for presence in Reject (07) message - *Symbol Index*: updated conditions for presence in Reject (07) message - *Order ID, Bid Order ID* and *Offer Order ID*: updated conditions for the Fill (04) message - *Maturity*: updated format from Date to Alphanumerical ID – This fields is used for Derivatives only (For Future Use) - *Order Expiration Date:* updated format from Date to Numerical ID - *Time In Force:* value Good Till Time set For Future Use - *Order Expiration Time:* set For Future Use
1.3.0	**The following messages have been added:** - **Technical Reject (108)** - **Instrument Synchronization List (50)** - **Synchronization Time (51)**

Version	Change Description
	The following messages have been updated: - **Ack (03):** updated description for Order Priority details - **Reject (07):** updated description; *Firm ID* presence changed from Mandatory to Conditional - **MassCancelAck (14):** updated description for the sending of unitary Kill (05) messages - **UserNotificaiton (39):** updated description for DEA description **The following fields have been updated:** - *Exchange ID:* format changed from Numerical to Text - *InvestmentDecisionWFirmShortCode*: updated conditions - *Log Out Reason Code*: added new values - *Order Priority*: updated description for stop orders - *Trade Type:* added new values (39, 40, 41) **The following sections have been updated:** - 4.5 PRICE, QUANTITY, RATIO AND AMOUNT FORMATS: removed references to MiFID fields - 4.6.2 Order Priority **The following sections have been removed:** - Short Codes Management before January 2018
1.2.0	**The following messages have been updated:** - **Ack (03):** Updated description for VFU/VFC Ack; Updated *Client Order ID* presence from Mandatory to Conditional | **Fill (04)**: Updated description for MiFID Transaction Identification Code | **CancelReplace (06):** Updated *Account Type* and *LP Role* presences from Conditional to Optional | **Reject (07)**: Updated description for rejection in case of invalid values | **Quotes (08)**: Updated description for Clearing Data and Short Codes management; Added *Free Text* field in the clearing data repeating section | **QuoteAck (09):** Updated *Buy Revision Indicator* and *Sell Revision Indicator* presences from Mandatory to Conditional**;** Updated description for duplicates management | **MassCancelAck (14):** Updated presences of the following fields from Mandatory to Conditional: *Message Sending Time*, *OEG IN From Member*, *OEG OUT To ME* | **OpenOrderRequest (15):** Updated description following ExtendedResponse message decommissioning | **OwnershipRequestAck (17):** Updated description following ExtendedResponse message decommissioning | **OwnershipRequest (18):** Updated description following ExtendedResponse message decommissioning; Added *Original Client Order ID* and *EMM* fields | **PriceInput (28):** Removed value '3' Reference Price from the field *Input Price Type;* updated description following the removal of this value **The following messages have been removed:** - **ExtendedResponse (16)** - **ExtendedFill (29)** **The following fields have been updated:** - Multiple integer fields updated to align possible values with their presence in messages structures: the mandatory fields have one less authorized value (Null Value is not accepted) - Multiple bitmap fields updated to remove "Future Use" values previously set on unused bits - Updated descriptions for fields: *Account Number; Client Order ID; Trade Qualifier; Ack Qualifiers; Order Priority; Order Type; Software Provider* - Updated or Added conditions for fields: *Account Type; Ack Type; Client Order ID; Firm ID; InvestmentDecisionWFirmShortCode* - Modified Values as follows: *Account Type*: value '8' changed from Riskless Principal to Structured Product Market Maker; *Account Type Cross*: value '8' changed from Riskless Principal to Structured Product Market Maker; *Ack Type*: added values '16' VFU/VFC Triggered Ack, '17' Open Order Request Ack; *EMM*: value Not Applicable changed from '254' to '99'; *Input Price Type*: removed value '3'; *Logon Reject Code*: renamed values '6' and '7'; *MiFID Indicators*: updated values '4' and '5'; *Open Close*: values 2 to 9 set for Derivatives only; *Trade Qualifier*: renamed value Opening Trade to First Trade; *Trade Type*: removed value '35', added values '37' and '38'; *Triggered Stop Time In Force*: removed values '2', '3', '4', '5', '7' and '8' **The following sections have been added:** - 1.3 FUTURE USE **The following sections have been updated:**

Version	Change Description
	- 1.2.1 Maintenance of Relevant Data relating to Orders in Financial Instruments: Added paragraph on short code general presence rules | 2.2.2 Drop Copy: Removed details of SBE Drop Copy as it will be provided in FIX only | 4.1.4 SBE Optional Fields and Null Value: Added note on Bitmap | 4.3 DATE AND TIME CONVENTIONS: Removed unused time format in 27-bytes | 4.6.1 Symbol Index: Removed tab depicting Symbol Index ranges **The following sections have been removed:** - 2.4 THROTTLING MECHANISM: will be described in a dedicated document - 2.5 THROTTLING PARAMETERS: will be described in a dedicated document **Formatting changes:** - Added notes in messages for repeating section usage and number of occurrence | Renamed section 1.2.2 from *Transaction Reporting to Competent Authorities* to *Reporting to Competent Authorities* | Renamed Timestamps fields to Epoch Time in Nanoseconds | Adjusted visual representation of any "future use" fields, with addition of [N/A] "flag" in the descriptions, and different colour of the fields
1.1.1	**The following field has been updated:** - *Account Number*: Updated length from 14 to 12 bytes **The following messages have been updated:** - **NewOrder (01):** Updated *Account Number* length | **CancelReplace (06):** Updated *Account Number* length | **Quotes (08):** Updated *Account Number* length | **ExtendedResponse (16):** Updated *Account Number* length | **ExtendedFill (29):** Updated *Account Number* length **The following section has been updated:** - 5.2.2 Example: NewOrder (01) message: Updated *Account Number* length and overall message length
1.1.0	**The following section has been removed:** - 1.2 Work In Progress Sections | New Order MiFID Extension (02) **The following sections have been added:** - 1.2.3 Short Codes management before January 2018 | 2.3 Client Order ID Management | 2.3.1 Client Order ID Overview | 2.3.2 Client Order ID usages for Order Management | 2.3.3 Client Order ID Ranges | 2.3.3.1 For Regular "In House" Accesses | 2.3.3.2 For Regular Accesses via ISV | 2.3.3.3 For Service Bureau Accesses | 2.4 Throttling Mechanism | 2.4.1 General Overview | 2.4.2 Throttling Scope | 2.5 Throttling Methods | 2.5.1 Throttling Methods | 2.5.1.1 Global Throughput | 2.5.1.2 Unacknowledged Threshold | 2.5.2 Counting Window | 2.5.3 Unacknowledged Requests | 2.5.4 Queuing or Rejection | 2.6 Order ID **The following sections have been updated:** - 1.2 MiFID Related Changes | 1.2.1 Maintenance of Relevant Data relating to Orders in Financial Instruments | 2.1.3 Logical Access and OE Sessions | 2.2.2 Drop Copy | 3.1.1 Logon Overview | 3.1.2 Heartbeats and Test Requests | 4.6.1 Symbol Index | 4.6.2 Order Priority (previously named Order Reference Number) | 5.2.2 Example: NewOrder (01) message **The following messages have been updated:** - **Logon:** Updated description, Removed *OE Session ID,* Added *Logical Access ID,* Added *OE Partition ID,* Added *Software Provider,* Updated *Last Message Sequence Number* presence from Mandatory to Conditional | **Logout:** Description Updated, Removed *OE Session ID ,* Updated values for *Log Out Reason Code* | **NewOrder:** Removed *DEAIndicator,* Added *MiFID Indicators,* Added *QuoteReqID,* Added *Triggered Stop Time In Force,* Added *Trading Capacity* | **Ack:** Updated Description, Removed *Order Reference Number,* Added *Order Priority* | **Fill:** Added *Trade Type,* Moved *Leg Side* to the second repeating section, Added *Execution Phase* | **Kill:** Updated description | **Cancel Replace:** Updated description, Moved *ExecutionWithinFirmShortCode* from repeating section to the block , Moved *ClientIdentificationShortCode* from repeating section to the block, Added *Order Side,* Removed *DEAIndicator,* Removed *NonExecutingBrokerShortCode,* Added *Triggered Stop Time In Force,* Removed *Account Type Cross* | **Quotes:** Updated description, Added *ExecutionWithinFirmShortCode,* Added *MiFID Indicators,* Added *InvestmentDecisionWFirmShortCode,* Added *NonExecutingBrokerShortCode,* Added *ClientIdentificationShortCode,* Removed *RFE Indicator,* Added *RFE Answer,* Added *Trading Capacity* | **Quote Request:** New Message | **Cancel Request:** Added *ExecutionWithinFirmShortCode,* Added *ClientIdentificationShortCode,* Added *Order Side,* Added *Order Type* | **Ownership Request Ack:** New Message | **Ownership Request:** New Message | **Mass Cancel:** Updated description, Added *ExecutionWithinFirmShortCode,* Added *ClientIdentificationShortCode* ,Removed *OE Session ID* ,Added *OE Partition ID,* Added *Logical Access ID* | **Mass Cancel Ack:** Removed *OE Session ID,* Added *OE Partition ID,* Added L*ogical Access ID,* Added *Option Type* | **Open Order Request:** Added *EMM,* Added *ExecutionWithinFirmShortCode,* Added *ClientIdentificationShortCode* | **Extended Response:** Removed *Order*

Version	Change Description
	Reference Number, Added *Order Priority,* Added *MiFID Indicators,* Removed *OE Session ID,* Added *OE Partition ID,* Added *Logical Access ID,* Removed *DEAIndicator,* Added *QuoteReqID,* Added *Triggered Stop Time In Force,* Added *Trading Capacity,* | **Collar Breach Confirmation:** Added *ExecutionWithinFirmShortCode,* Added *ClientIdentificationShortCode* | **Price Input:** Added *ExecutionWithinFirmShortCode,* Added *ClientIdentificationShortCode* | **Extended Fill:** Added *MiFID Indicators,* Added *Execution Phase,* Added *QuoteReqID,* Added *Triggered Stop Time In Force,* Moved *Leg Side* to the last repeating section, Added *Trading Capacity* | **LP Command:** Added *ExecutionWithinFirmShortCode,* Added *ClientIdentificationShortCode* | **RFQ Notification:** New Message | **RFQ Matching Status:** New Message | **User Notification:** New Message **The following fields have been updated:** - Updated *Exchange ID* from 1 byte Integer to 8 characters string; Added Conditions to *Account Number;* Added Conditions to *Account Type;* Removed value '9' from *Account Type;* Added Conditions to *Ack Type;* Added values '14' and '15' to *Ack Type;* Added Conditions to *Clearing Firm ID;* Updated length of *Clearing Instruction* from 4 to 2 bytes; Updated *Client Order ID* definition; Updated *ClientIdentificationChortCode* definition; Added Conditions to *Complex Trade Component ID;* Revamped values for *Concerned Field;* Added Conditions to *Counterpart Firm ID;* Added Conditions to *Country of Executor;* Added Conditions to *Country Investor;* Added Conditions to *Dark Execution Instruction;* Removed value '3' from *EMM;* Added value '8' to *EMM;* Updated description and condition of *ExecutionWithinFirmShortCode;* Added values '4' and '5' to *Execution Instruction;* Updated *Firm ID* technical type from unsigned integer to string; Added Conditions to *InvestmentDecisionWFirmShortCode;* Added values from '12' to '17' to *Kill Reason;* Removed value '10' from *Kill Reason;* Added Conditions to *Kill Reason;* Added Conditions to *Last Traded Price;* Added value '1' to *Log Out Reason Code;* Added Conditions to *LP Role;* Added value '12' to *LP Role;* Updated *Market Of Reference MIC* length from 8 to 4 bytes; Added Conditions to *Order ID;* Added Conditions to *Order Price;* Added Conditions to *Order Side;* Added Conditions to *Order Type;* Added value '9' to *Order Type;* Revamped *Peg Offset;* Added Conditions to *Price;* Added Conditions to *Quantity;* Added Conditions to *Securities Transaction Indicator;* Updated *Sell Revision Indicator* values ; Updated *Buy Revision Indicator* values ; Added Conditions to *Symbol Index;* Removed value '9' from *Time In Force;* Added values '5' and '6' to *Trade Qualifier;* Added Conditions to *Waiver Indicator* **The following fields have been added:** - *Account Number Counterpart, Account Type Cross Buy, Account Type Cross Sell, Action Type, ARM APA Indicator, Bypass Indicator, Centralisation Date, Client Country Branch, Client Cross Birth Date, Client Cross Country Branch, Client Cross First Name, Client Cross Identification Code, Client Cross National ID, Client Cross Passport ID, Client Cross Surname, Client Decision Maker Birth, Client Decision Maker Code, Client Decision Maker First Name, Client Decision Maker NID, Client Decision Maker Passport ID, Client Decision Maker Surname, Client First Name, Client ID, Client ID MiFID, Client ID MiFID Cross, Client Identification Code, Client OrderNational ID, Client Passport ID, Client Surname, Counterparty Entity ID, Counterparty Firm Directive Indicator, Country Branch Membership, Currency, Declaration ID, Declaration Status, Deferral Indicator, Duplicative Trade Report Indicator, End Client, End Time Vwap, Entering Counterpart, Executing Broker, Executing Counterpart, Executing Entity ID, Execution Phase, ExecutionWithinFirm, ExecutionWithinFirmIDType, Family ID, FieldConcernedTradeEntry, Firm ID Publication, Free Text 1, Free Text 2, Free Text 3, Free Text 4, Free Text 5, Gross Trade Amount, Gross Trade Amount Scale, Guarantee Flag, Investment Decision Within Firm, Investment Firm Directive Indicator, ISIN Code, Logical Access ID, Market Of Reference MIC, MIC, MiFID Emission Allowance Type, MiFID Indicators, MiFID Notional Amount, MiFID Price Notation, MiFID Qty in Measurement Unit Notation, MiFID Quantity Measurement Unit, Net AmountNotional Currency, Notional Increase Decrease, Number Of LPs, OE Partition ID, Operation Type, OTC Post Trade Indicator, Other Factors Indicator, Potential Matching Price, Potential Matching Quantity, Price Multiplier, Price Multiplier Decimals, Price Scale, Quantity Notation, Quantity Scale, QuoteReqID, Recipient Type, Rejection ID, Return Type, RFE Answer, RFQ Update Type, Settlement Flag, Settlement Period, Side, Software Provider, Start Time Vwap, Trading Capacity, Trading Date Time, Trading Venue, Transaction ID, Transaction Price Type, Transaction Time, Transmission of Order Indicator, Transmitting Firm ID Buyer, Transmitting Firm ID Seller, Triggered Stop Time In Force, Upfront Payment, Upfront Payment Currency, User Status* **The following fields have been removed:** - *BorS Decision Maker Birth, BorS Decision Maker Country, BorS Decision Maker First Name, BorS Decision Maker NID, BorS Decision Maker NPassport, BorS Decision Maker Surname, Buy or Sell Decision Maker CodeRevision Indicator, Buy or Sell Identification Code, Buy Revision Indicator, Buyer or Seller date of birth, Buyer or Seller first name, Buyer or Seller National Id, Buyer or Seller NPassport, Buyer or Seller surname, Client IDBirth Date, Country Branch Buyer or Seller, Country of Executor, OE Session ID, RFE Indicator, Transmission of Order Indicator*
1.0.0	**First Version**

Document History

Revision No.	Date	Author	Change Description
2.0.0	21 May 2019	IT Solutions	Major update for the migration of the Derivatives Markets to Optiq
1.6.1	20 Nov 2018	IT Solutions - LPI	Minor Release for Updated *Kill Reason* value for Euronext Block from value '18' to value '30'
1.6.0	12 Nov 2018	IT Solutions - LPI	Major Release for Euronext Block
1.5.0	25 Oct 2018	IT Solutions - LPI	Major Release for ETF Access and Dark Initiative
1.4.0	16 Mar 2018	IT Solutions	Fifth Release
1.3.1	16 Mar 2018	IT Solutions - LPI	Minor release for Added *Rejected Message ID*
1.3.0	29 Jan 2018	IT Solutions - LPI	Fourth Release
1.2.0	20 Oct 2017	IT Solutions - LPI	Third Release
1.1.1	6 Sep 2017	IT Solutions - LPI	Minor Release for Updated *Account Number* length
1.1.0	16 Mar 2017	IT Solutions - LPI	Second Release
1.0.0	31 Oct 2016	IT Solutions - LPI	First Release