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EURONEXT MARKETS - OPTIQ® DROP COPY SERVICE

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PREFACE

ABOUT THIS DOCUMENT

This document is about the Drop Copy Service that provides, nearly, a real-time copies of required information produced by Optiq under trade reports and order messages format.

To be able to connect to the Drop Copy gateway, clients will have a dedicated connection setup that fits their needs with a Drop Copy configuration allowing them to access to various "Logical Accesses", for one, or across different Optiq Segments.

DOCUMENT AUDIENCE

This document must be read by Euronext's clients or Teams developing business on Risk Management, Back-Office, and Compliance domains.

SCOPE

The scope of this document is listed below (✓ In scope, ス Out of scope):

| Optiq Segment | Segment Value | In/Out of Scope |
|------------------------------|-----------------|-----------------|
| Euronext | Cash Market | • |
| Equities EQ | 1 | 1 |
| Funds FND | 2 | 1 |
| Fixed Income FXI | 3 | 4 |
| Warrants and Certificates SP | 4 | 4 |
| Block [•] BLK | 14 | 4 |
| Irish Bonds and Funds IBF | 16 | * |
| Euronext Der | ivatives Market | |
| Commodity Derivatives CMO | 8 | 4 |
| Index Derivatives IDD | 11 | 4 |
| Equity Derivatives EQD | 12 | 4 |
| Eurone | xt Indices | |

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| Trade Reporting and Publication TRP | 10 | * |
| Other | Markets | |
| Luxembourg Stock Exchange BDL | 5 | 4 |

ASSOCIATED DOCUMENTS

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

- Euronext Markets Optiq OEG Client Specifications FIX 5.0 Interface
- Euronext Cash Markets Optiq Kinematics Specifications
- Euronext Derivatives Markets Optiq Kinematics Specifications
- Euronext Markets Optiq & TCS Error List file (.csv)
- Euronext Markets Optiq File Specifications
- Euronext Markets Optiq OEG Connectivity Specifications

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

For the latest version of documentation please visit the IT Documentation page.

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WHAT'S NEW?

Preface

The following lists only all recent modifications made to this version.

For the Document History table see the Document History in Appendix.

| Version | Changes Description |
|---------------|---|
| <u>4.12.0</u> | Introduction of SBE 312. |
| | The following changes have been made to this version of the document: |
| | In Order Messages for COB: |
| | - Added value 2 (Cancel both orders) in field STPAggressorIndicator |

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1. FUNCTIONAL OVERVIEW

1.1. INTRODUCTION

Drop Copy is a service, providing near real-time copies of trade reports and order messages, usually used by risk management, back-office and compliance teams.

Clients require a dedicated connection to receive Drop Copy messages, which can be setup with configuration that fits their needs. Drop Copy set up for a firm is independent from its Optiq access configuration.

Drop Copy Sessions can monitor multiple Optiq Order Entry Sessions / Logical Accesses, both within or across Optiq Segments within a market (Cash or Derivatives).

Drop Copy can only be used to receive messages. A Drop Copy connection cannot be used to submit any trading activity entry or to perform any other operation on the market. The scope of data in Drop Copy could supply messages to clients for various Logical Accesses, for one, or across different Optiq Segments. The data provided in these messages is based on the same one carried in private messages of a regular client's Order Entry Session, however, it is provided separately to:

- Allow the use of a different network /connectivity bandwidth from the one used by the private Order Entry messages for trading purposes,
- Protect from inadvertent provision of commands as it doesn't accept any order and command data entry, but only, allows the reception of events that have occurred on the market for followup purposes,
- Simplify the integration as only a limited number of messages are provided.

1.2. GLOSSARY

This section provides a list of some terms and abbreviations commonly used in this document.

Please note that some of these terms are described in more details in the dedicated sections within this document or in the associated Optiq specifications documents.

- Order Entry Gateway (OEG): is the software that manages the access for Exchange's 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 and real-time market data (public messages) for the Exchange's Markets.
- <u>Matching Engine (ME)</u>: is the software that manages the trading services for the Exchange's 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.

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- Partition: is a technical subdivision of an Optiq Segment which may be comprised of at least one or several partitions, physically independent one from 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 Order Entry Gateway (OEG) 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. Individual Logical Accesses are required for connection to the trading OEG and the Drop Copy gateways.
- OE Session: is the individual physical connection, to a single Partition. A single Logical Access may have as many Order Entry (OE) sessions as there are partitions in the Optiq Segment. The OE sessions connectivity rules are different for the OEG and Drop Copy gateways, for more details please review the Euronext Markets Optiq OEG Connectivity Specifications document.
- <u>Central Order Book (COB)</u>: is the Euronext Trading Platform's order book, managed in Optiq, in which all On-exchange, On-book submitted or modified orders are held until matched, expired or withdrawn.
- Euronext Trade Confirmation System (TCS): is used for declaring, publishing and reporting all transactions made Off the Central Order book (COB) but On-the exchange, for all instruments (Equities, ETFs, Warrants, Certificates and Bonds) listed on Euronext Cash Markets and, more generally, for other regulated market trades, such as negotiated deals.

1.3. SUBSCRIBING TO THE SERVICE

Clients should use the "Drop copy Access creation form" that is available in the MCA web portal to subscribe to the Drop Copy service.

Drop Copy may require clients to order extra bandwidth on their SFTI[®] infrastructure. If in doubt, clients wishing to set up one or more Drop Copy logical accesses should therefore liaise with Operational Client Services Desk at <u>clientsupport@euronext.com</u> in order to validate that they have sufficient bandwidth.

For any additional information associated to the setup of access to the Drop Copy service, clients should contact Customer Access Services at <u>cas@euronext.com</u>.

1.4. MAIN FUNCTIONAL FEATURES OF THE SERVICE

The Drop Copy service itself is provided in the FIX 5.0 protocol.

While Drop Copy is provided in FIX protocol, the service can receive data from (or monitor), trading Order Entry sessions / Logical Accesses that use either SBE or FIX protocol. Notes on SBE and FIX compatibility are provided later in this document.

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For various Euronext markets, this service in Optiq is provided for Order and Trade messages using the FIX **ExecutionReport** (8) and **OrderCancelReject** (9) messages for COB and Euronext MTFs and **TradeCaptureReportAck** (AR) message for TCS.

Clients will have the ability to select the scope of instruments and Member Code activity that their Drop Copy access will receive. During the creation or the modification of the individual Drop Copy connections' configuration, clients may select:

- The Market (Cash or Derivatives)
- One or more Optiq Segments of the Market
- The Firm ID (Member Code)
- The Logical Access
- The Type of Messages to receive

Clients may order multiple Drop Copy Logical Accesses.

1.4.1 Selection of Market

Clients may choose to obtain their Drop Copy Logical Access for Cash or Derivatives markets. The Logical Accesses are dedicated for each market. The data for each market can be provided across segments that are part of the market selected.

1.4.2 Selection of Optiq Segment

Clients may choose to assign to their Drop Copy Logical Access one or more Optiq Segments setup for the Market on which they have trading rights or are setup as the Risk Manager. As such a single Drop Copy Logical Access can receive messages from multiple segments of Optiq (cross-segment) of the same Market.

The list of Optiq Segments that can be selected is available in "Scope" section under this table.

1.4.3 Member Code (or Firm ID)

A Drop Copy Logical Access may be assigned to a Member Code (or Firm ID) with which the client is setup to trade on the Euronext Markets, or which is identified as Risk Manager role.

In case a single legal entity possesses multiple Member Codes (Firm IDs), or if those Member Codes are managed by the same Risk Manager, then a single Drop Copy Logical Access per Market can be setup to receive data for multiple Member Codes.

For maximum flexibility, data for the same Member Code may be setup (and provided) to multiple different Drop Copy Logical Accesses.

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For Example: A back-office handling a specific Member Code for the Derivatives Markets may setup a Drop Copy Access, and the same Member Code may be assigned to a Drop Copy Access for the Risk Manager following that Member Code).

1.4.4 Logical Access

A Drop Copy Logical Access is assigned at least to one Trading Logical Access (OEG) that belongs, at least, to one of the Member Codes setup for that Drop Copy Logical Access.

A single Member Code may trade on Euronext Markets with multiple Logical Accesses, either for back-up and reduction of operational risk purposes, or when accessing multiple segments.

The default Optiq Drop Copy Logical Access setup, for the Cash and Derivatives markets, is to assign (and to receive data for) all defined Trading Logical Accesses (OEG) for that Member Code.

Information for a Single Trading Logical Access (OEG), or all Trading Logical Accesses (OEG) belonging to a Member Code for a Market, may be setup to be sent to multiple different Drop Copy Logical Accesses.

If required, clients could choose to segregate their Drop Copy connections to receive information for a single Trading Logical Accesses (OEG), a sub-set, but not all trading Logical Accesses, per Drop Copy account.

For Example: A Sponsored Access client of a member firm "A" may request a Drop Copy Logical Access for their own activity performed under a dedicated trading Logical Access, at the same time back-office handling all activity of that member firm "A" may setup a separate Drop Copy Logical Access which will receive data for all activity, including that of the Sponsored Access client.

1.4.5 Type of Messages

Clients will be able to choose in the configuration of their Drop Copy Logical Access the type of messages they would like to receive, from the list below:

- Order messages from the COB (Cash and Derivatives), and Euronext MTFs (Cash);
- Trade messages from COB (Cash and Derivatives), and the various Non-COB trades¹ (Derivatives) [default service];
- Trade Confirmation System (TCS) for filled or Pre-matched declarations (Cash).

The message types listed above could be combined to be received by a single Drop Copy Logical Access.

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¹ Non-COB trades for Derivatives cover various Off-book On-exchange Facilities – including Wholesales (EMM 4) and Request for Cross (EMM 7)

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For more details on the events covered in scope of messages sent via Drop Copy for the various levels of service identified please refer to the dedicated section within this document.

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2. TECHNICAL OVERVIEW

2.1. CONNECTIVITY TO DROP COPY

To receive Drop Copy (DC) messages client should connect to the gateway(s) dedicated to Drop Copy services for the appropriate Market.

More information on DC connectivity is provided below.

2.1.1 Connection Information

To connect to the Drop Copy service clients require a dedicated DC Logical Access which can be obtained using existing Connectivity request forms. Please see section "<u>Subscribing to the Service</u>".

With the creation of this DC Logical Access clients will also be provided with the Drop Copy ID, and the associated connectivity information to which they have to connect.

Drop Copy connectivity for Cash and Derivatives Markets is separate and different.

As Drop Copy service may provide cross-segment information for a Market (Cash or Derivatives), connectivity information for the appropriate Market's service is included in the Cash and Derivatives Standing data files, provided for each Optiq Segment in the section associated to connectivity.

While the Order Entry connectivity information provided for each Optiq Segment is specific only to that segment, the Drop Copy connectivity information included in the individual segment standing data files is the same for all Optiq Segments of a specific Market (e.g. Cash).

For more details on the standing data files clients should review the *Euronext Markets – Optiq File Specification* document.

Standing data files may contain connectivity information for multiple Drop Copy IDs, which represent different Drop Copy connectivity information. Clients must use only the connectivity information for the Drop Copy ID to which they were assigned. Any attempts at connecting to other Drop Copy IDs will be rejected.

For more information about connectivity, clients should refer to the *Euronext Markets – Optiq OEG Connectivity Specification* document.

2.1.2 Drop Copy Logon & Administrative Messages

Message Header:

Drop Copy services for Euronext and Luxembourg Stock Exchanges use the same infrastructure. So, for Drop Copy use, the client should set the Exchange ID with value "**EURONEXT**" in all environments:

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- For **SBE**: The field *Exchange ID* will be used for this. It is provided in outgoing messages.
- For FIX: Fields *TargetCompID* (Tag: 56) and *SenderCompID* (Tag: 49) will be used for this. They
 are needed in incoming and outgoing messages.

Logon (A) message:

To receive Drop Copy messages clients first need to successfully connect to the Drop Copy gateway, by sending a **Logon** (A) message.

Upon a successful logon, client will receive a **Logon** (A) message providing the **sequence number** of the last message received from the client. While, in case of an unsuccessful logon clients will receive a **Reject** (3) message.

Drop Copy gateway is available only for sending copies of messages to clients, and not for any instructions to be submitted to Euronext. As such some of the fields in the **Logon** (A) message (listed below) are not relevant or applicable when connecting to the Drop Copy Gateway, and if provided will be handled as described below.

| Field Name | FIX Tag | Use in Drop Copy |
|-----------------------|---------|--|
| HeartBtInt | 108 | While FIX allows clients to set a value for Heartbeat interval, in Optiq this value will be restricted to the maximum allowed by the exchange and made available in configuration of the segment. |
| EncryptMethod | 98 | Always set to zero (0) |
| OEPartitionID | 21019 | Field used, and must be specified with OE Partition ID setup for the Drop Copy gateway ID. If not provided or provided with an incorrect Drop Copy gateway ID, then the Logon will not be accepted. |
| LogicalAccessID | 21021 | Field used, and must be specified with the Logical Access ID setup for the Drop Copy connection. |
| NextExpectedMsgSeqNum | 789 | Mandatory to be provided. The field always indicates the sequence number of the next message the client is expecting to receive from the Drop Copy gateway. For the first logon of the day the field must be set to one (1). |
| Queueing Indicator | 21020 | Mandatory to be provided and while it won't be functionally used for Drop Copy the value provided in the field must be set to one of the possible values for this field as described in the FIX specifications. |
| DefaultApplVerID | 1137 | Mandatory to be provided and should be set by default to 9 = FIX50SP2 |
| Software Provider | 21050 | Optional field in which clients may provide details of the software provider used for their solution. This field may be used by the Exchange for improved troubleshooting and service purposes. |

Heartbeat (0) / TestRequest (1) messages:

As a limited number of messages is received by the Drop Copy gateway from clients, in order to maintain their Drop Copy connection active, just like on the trading OEG, it is expected that the clients' system either sends **Heartbeat** (0) messages within the pre-defined delay of inactivity interval, or replies to the Exchange's **TestRequest** (1) messages.

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The Drop Copy gateway behaves in a similar manner to the one of the Optiq trading OEG. As with the trading OEG the delay of inactivity parameter for the Drop Copy gateway is provided in the Optiq OEG Connectivity specifications document.

ResendRequest (2) / SequenceReset (4) messages:

The **ResendRequest** (2) and the **SequenceReset** (4) behaviour in Drop Copy gateway follows the same behaviour as for a trading OEG. The handling of the main cases for these messages is provided in the *Euronext Markets - Optiq OEG Client Specifications - FIX 5.0 Interface* document.

2.1.3 Throughput Limits

The messages sent via Drop Copy are targeted to be provided in near real-time, as events on the trading platform occur.

Drop Copy Logical Accesses do not have a throughput limit. Inbound throttling is not applicable to the Drop Copy connections and outbound messages are not subject to throttling and will be sent as soon as processed.

The performance of a single Drop Copy Access monitoring multiple Logical Accesses and / or across segments will encounter increased latency.

2.1.4 Conformance Testing for Drop Copy

Drop Copy sessions are an optional part of the overall Full Conformance for the SBE and FIX Interfaces.

The conformance script contains specific test cases to validate that orders and/or trades generated by the exchange via trading (OEG) Logical Accesses are received by the customer's Drop Copy Logical Access. Clients using SBE for their trading (OEG) Logical Accesses may use these tests to validate data compatibility between their SBE incoming messages, and the outgoing FIX message sent to Drop Copy.

2.2. DATA COMPATIBILITY BETWEEN PROTOCOLS

Clients are urged to carefully review the guidelines of format identified in the message specifications for both SBE and FIX on format in which data should be sent in private messages, to ensure the most appropriate correct interpretation of the data.

2.3. SCOPE OF EVENTS & ASSOCIATED MESSAGES

This document provides details of the Drop Copy Service provided to the clients of Euronext covered by Optiq.

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Via the Drop Copy Service clients receive messages associated only to the application messages (e.g. New Order, Fill) exchanged through the trading Order Entry Gateways / partitions.

Administrative messages (e.g. Logon (A)) are only used to technically connect to the Drop Copy Service. The sending of copies equivalent to the administrative messages, from the trading Order Entry Gateways / partitions to the clients is not in the Drop Copy Service scope.

When setting up their Drop Copy connection clients may choose the type of application messages to receive via the service. Sections below provide more details about the possible scope associated to the selection of messages.

Acknowledgement LP Quote (Cash and Derivatives), Wholesale and Request for Cross (RFC) submissions (Derivatives) are not sent via the Drop Copy, but when quotes generate a trade it would be sent via the service as any other trade.

2.3.1 Order Messages for COB and Request for Liquidity or Price via Quote Request (RFQ)

For order related Drop Copy, the clients will receive all order related messages which are submitted to COB for Cash and Derivatives markets, and Dark Trades for Euronext MTFs on the Cash market.

The Order messages in Drop Copy Service provide clients with a copy of orders submitted by the client to the selected segment(s) and Market.

The scope of order copies sent will be defined by the Member Code(s), trading (OEG) Logical Access(es) and/or Optiq Segment(s), and the Market assigned & authorized for the Drop Copy Logical Access.

The client can choose to receive either order messages only, or both trade and order messages. In both cases, they will receive copies of acknowledgement, triggering, modification and cancellation of orders using the FIX **ExecutionReport** (8) messages.

For Orders Cancellation:

- Orders that are cancelled due to a command submitted by a RiskGuard risk manager can be recognized by the value in the ExecType (tag: 150) set to P (Cancelled by Member Risk Manager).
- The cancellation of orders with validity type equal to GTD or GTC, that are eliminated for the previous session, and those eliminated due to Corporate Events, are sent in the Drop Copy at the start of the next trading session, with the field OrdStatus (tag: 39) set to value 3 (Done for Day).

For Request of Quote (RFQ) Ack:

In Drop Copy, the acknowledgement of RFQ messages are sent for the **Derivatives markets only**, upon submission of requests for liquidity by the clients to market via **ExecutionReport** (8) message. The messages are not sent for Cash markets or for any other events. These messages have a **ExecType** (tag: 150) set to j (RFQ Ack).

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For LP Quote:

The Drop Copy **ExecutionReport** (8) messages are not generated for **LP Quote** (Cash and Derivatives) submissions, however corresponding messages are sent in case such submission matches and generates a trade.

Order Rejection:

As part of the order message service, Drop Copy provides an **ExecutionReport** (8) for the rejection of new orders. While it provides an **OrderCancelReject** (9) for the rejection of orders modification or cancellation.

The events (and associated SBE messages) that trigger the sending of ExecutionReport (8) for orders are:

| Event | Cash Market | Derivatives Market |
|---|-------------|-----------------------|
| An Acknowledgement of a new order submission for Central Order Book (COB) | Y | Y |
| An Acknowledgement of a new submission for Wholesales and Request for Cross (RFC) | N | N |
| using EMM 4 and 7 | | |
| Triggering or conversion of previously submitted orders (e.g. Stop) | Y | N ² |
| Notification generated by client's use of Ownership Request (18) / (FIX U18) message | Y | Y |
| Cancellation of an order | Y | Y |
| Please note, that GTD / GTC orders eliminated for the end of the previous session, and | | |
| those eliminated due to Corporate Events will be sent in the Drop Copy at the start of the | | |
| next trading session, with the field OrdStatus (tag: 39) set to value 3 (Done for Day) | | |
| Modification of an order | Y | Y |
| Confirmation of an Order that breached collars | Y | N |
| An Acknowledgement of a Request for Liquidity (RFQ) | N | Y |
| Rejection of New Orders, Modification of Orders, Cancellation of Orders | N | Y |

The Mapping of SBE and FIX messages and values are provided in the table below for various cases.

| | | SBE | | FIX (ExecutionReport (8)) | | | |
|--|----------|----------|---------------------------------|--|---------------------------|------|----------------|
| Event | Message | Field | Value | ExecType (150) Value | OrdStatus (39) Value | Cash | Derivatives |
| Acknowledgement of a new order submission | Ack (03) | Ack type | 0 = New Order Ack | 0 = New | 0 = New | Y | Y |
| | Ack (03) | Ack type | 3 = Stop Triggered Ack [C] | L = Triggered or Activated by System | S = Stop Triggered Ack | Y | N ² |
| Triggering or conversion of | Ack (03) | Ack type | 5 = Refilled Iceberg Ack [C] | e = Refilled Iceberg Ack | 0 = New | Y | N |
| previously submitted orders | Ack (03) | Ack type | 6 = MTL Second Ack [C] | L = Triggered or Activated by System | T = MTL Second Ack | Y | N ² |
| | Ack (03) | Ack type | 14 = Iceberg Transformed to | h = Iceberg Transformed to | 0 = New | Y | Ν |

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| | SBE | | E FIX (ExecutionF | | Report (8)) | | |
|--|-----------|----------------|---|--|------------------------------|------|-------------|
| Event | Message | Field | Value | ExecType (150) Value | OrdStatus (39) Value | Cash | Derivatives |
| | | | Limit due to Minimum size [C] | Limit due to Minimum size | | | |
| | Ack (03) | Ack type | 16 = VFU/VFC Triggered Ack [C] | L = Triggered or Activated by System | Q = VFA VFC Triggered Ack | Y | N |
| Notification generated by client recovery messages | Ack (03) | Ack type | 15 = Ownership Request Ack [C] | k = Ownership Request Ack | I = Order Status | Y | Y |
| | Kill (05) | Kill Reason | 1 = Order Cancelled by Client | 4 = Cancelled | 4 = Cancelled | Y | Y |
| | Kill (05) | Kill Reason | 25 = Order cancelled by member risk manager | P = Cancelled by Member Risk Manager | 4 = Cancelled | N | Y |
| | Kill (05) | Kill Reason | 24 = Order cancelled by clearing risk manager | v = Order cancelled by clearing risk manager | 4 = Cancelled | N | Y |
| | Kill (05) | Kill Reason | 11 = Order Cancelled due to Cancel On Disconnect Mechanism | b = Order Cancelled due to Cancel On Disconnect Mechanism | 4 = Cancelled | Y | Y |
| | Kill (05) | Kill Reason | 8 = Remaining quantity killed (IOC) | X = Remaining quantity killed (IOC) | 4 = Cancelled | Y | Y |
| | Kill (05) | Kill Reason | 7 = Cancelled by STP | a = Cancelled by STP | 4 = Cancelled | Y | Y |
| Cancellation of an order | Kill (05) | Kill Reason | 5 = Done for day | 3 = Done for Day | 3 = Done for Day | Y | Y |
| | Kill (05) | Kill Reason | 4 = Order Eliminated due to Corporate Event | O = Eliminated by corporate event | 4 = Cancelled | Y | N |
| | Kill (05) | Kill Reason | 3 = Order Cancelled by Market Operations | U = Order Cancelled by Market Operations | 4 = Cancelled | Y | Y |
| | Kill (05) | Kill Reason | 23 = Order cancelled due to Market Maker Protection | u = Order cancelled due to Market Maker Protection | 4 = Cancelled | N | Y |
| | Kill (05) | Kill Reason | 26 = Order cancelled due to Trade Price Validation | w = Order Cancelled due to Trade Price Validation | 4 = Cancelled | N | Y |
| | Kill (05) | Kill Reason | 36 = Order Cancelled due to a potential trade outside FSP limits | n = Order Cancelled due to a potential trade outside FSP limits | 4 = Cancelled | N | Y |
| | Kill (05) | Kill Reason | 9 = Beginning of PAKO Period | Y = Beginning of PAKO Period | 4 = Cancelled | Y | N |

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Technical Overview

| | | SBE | | FIX (Execution | Report (8)) | | | |
|---|-----------|----------------|--|--|-------------------------|------|-------------|--|
| Event | Message | Field | Value | ExecType (150) Value | OrdStatus (39) Value | Cash | Derivatives | |
| | Kill (05) | Kill Reason | 2 = Order Expired | C = Expired | 4 = Cancelled | Y | Y | |
| | Kill (05) | Kill Reason | 17 = Order cancelled due to a Kill command | V = Cancelled due to a Kill command | 4 = Cancelled | Y | Y | |
| Modification of an order | Ack (03) | Ack type | 1 = Replace Ack | 5 = Replaced | 5 = Replaced | Y | Y | |
| Confirmation of a breached collar order | Ack (03) | Ack type | 4 = Collar Confirmation Ack | d = Collar Confirmation Ack | 5 = Replaced | Y | N | |
| Request for Liquidity | Ack (03) | Ack type | 11 = RFQ Ack | j = RFQ Ack | 0 = New | N | Y | |

2.3.2 Trade Messages [Default Service]

For trade related Drop Copy, the clients will receive all trade execution messages from:

- (1) COB for Cash and Derivatives markets,
- (2) Dark trades for Euronext MTFs on the Cash market,
- (3) the various Non-COB trades for the Derivatives markets.

The default level of the Drop Copy Service for trade messages is that the service provides the clients with a copy of their COB trades, Dark trades and Off Book On Exchange trades.

The scope of the trade copies sent will be defined by the Member Code(s), trading (OEG) Logical Access(es) and/or Optiq Segment(s), and the Market assigned & authorized for the Drop Copy Logical Access.

The client can choose to receive either trade messages only, or both trade and order messages. In both cases, they will receive copies of trade confirmation messages using the FIX **ExecutionReport** (8) message.

As for any other trades, Drop Copy ExecutionReport (8) messages are sent when an LP Quote (Cash and Derivatives), Wholesales submissions (Derivatives) or Request for Cross transactions (Derivatives) are matched and generate a trade.

The trading events that trigger the sending of **ExecutionReport (8)** messages for trades are:

- Trade execution.
- Cancellation of a Trade (Trade Bust).

Case of strategy trade:

Strategy trade execution:

For Derivatives Market, the trade is sent for the strategy with the list of all legs. In this case, an Individual execution message will be sent for the strategy trade listing individual legs in the same message.

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Strategy trades cancellation:

For the Derivatives Market, the strategy trade cancellation is sent for each individual leg of the strategy. In this case an individual execution message will be sent for each strategy's leg with:

- The field ParentExecID (21094) identifies the ExecID (17) provided in the original trade message,
- The ParentSecurityID (21093) represents the Symbol Index of the strategy from the original trade message.

This allows to map all cancellations of individual legs to the original message sent for the strategy trade. The individual *ExecRefID* (19), in such trade cancellation messages, is the Execution ID of each individual leg provided in the repeating group of the original trade message in field *LegExecID* (1893).

| | | | | | Trade Cancellation of Leg 1 | | |
|-----------|----------|-------|------------|--------------|-----------------------------|------------------|--|
| | | | | ExecID | Leg 1 | 456 | |
| | | | _ | ParentExecID | Strategy | 123 | |
| | Trac | le | | ExecRefID | Leg 1 | 456 | |
| ExecID | Strategy | 123 - | | | | | |
| LegExecID | Leg 1 | 456 — | | | | | |
| | Leg 2 | 951 — | | | | | |
| | | | | | Trade Cance | llation of Leg 2 | |
| | | | | ExecID | Leg 1 | 951 | |
| | | | L | ParentExecID | Strategy | 123 | |
| | | | | ExecRefID | Leg 1 | 951 | |

Case of LIS wholesale trade:

For cancellation of a LIS wholesale trade, the trade cancellation messages include the *LISTransactionID* (21085) to enable the mapping of the individual cancellation to the overall wholesale transaction.

The mapping of SBE and FIX messages and values for the trade related events are provided in the table below:

| | | FIX (ExecutionReport (8)) | | | |
|--------------------|------------------------------|----------------------------------|----------------------|------|-------------|
| Event | SBE Message | ExecType (150) Value | OrdStatus (39) Value | Cash | Derivatives |
| Trade Execution | Fill (04) | F = Trade (partial fill or fill) | 1 = Partially filled | Y | Y |
| | Fill (04) | F = Trade (partial fill or fill) | 2 = Filled | Y | Y |
| Trade Cancellation | Trade Bust Notification (19) | H = Trade Cancel | H = Trade Cancel | Y | Y |

2.3.3 TCS Messages (Cash Market)

To receive messages associated to the Filled or Pre-Matched declarations from TCS, the clients must, specifically, request for this configuration to be setup in the Euronext System. This should be identified on the setup of the type of messages to receive for the Drop Copy trade service either on the creation of the associated Logical Access, or on the request to modify it.

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Technical Overview

In TCS messages scope, the Drop Copy connection would transmit a copy of the **TradeCaptureReportAck** (AR) messages. The events that trigger the sending of **TradeCaptureReportAck** (AR) messages for TCS Declaration are:

- Pre-Matching of a Declaration
- Declaration being Filled
- Cancellation of a Declaration

Mapping of SBE and FIX values for the declarations are provided in the table below:

| | SBE (Declaration Notice (42)) | FIX (TradeCaptureReportAck (AR)) |
|-------------------------|------------------------------------|------------------------------------|
| Event | Values in Field Declaration Status | Values in Field TrdRptStatus (939) |
| Declaration Filled | 7 = Filled | 19 = Filled |
| Declaration Pre-Matched | 13 = Pre-Matched | 18 = Pre-Matched |
| Trade Cancelled | 5 = Cancelled | 2 = Cancelled |

2.3.4 Order & Trade Messages

If a client subscribes to receive both Order and Trade messages, they will receive all messages identified as available by default in scope of the two individual services of: Orders messages and the Trade messages.

Selecting Order and Trade messages can also be combined with the selection of other scope of messages, namely Declarations from TCS (for the Cash Markets).

2.3.5 What is Not in Scope

With exception of messages and functionalities identified in this document, other messages that may be in use on the trading OEG are not in scope of the Drop Copy. Messages used in Drop Copy may be used for multiple functionalities in the trading OEG and as such have a wider range of values, fields and features. The following functionalities and messages are <u>not</u> in scope of the Drop Copy:

- Euronext RiskGuard (ERG) management associated messages (User Notification, Acks of ERG Risk manager messages),
- Implied prices,
- Request for Implied Execution,
- Acknowledgement of Quotes submission messages,
- Market Maker Sign-in,
- Market Maker protection,
- Acknowledgement of Wholesale and Request for Cross (RFC) submissions.

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2.4. "START OF DAY" BEHAVIOUR

Following a successful logon to Drop Copy Gateway, for the first connection of the Trading Session, the Drop Copy will send to the clients the messages that were processed during the end of the previous trading sessions as described below.

Regular OEG will send cancellation (Kill) messages for any GTD / GTC orders that expired at the end of the previous trading session, as well as any orders that were cancelled after the trading session due to corporate action at the start of the trading session. Drop copy will also send these order cancellation messages.

In addition to this, Drop copy will, also, send out messages for orders that are cancelled at the end of the previous trading session (i.e. expiring Day orders, Delta Neutral orders, etc).

All these are sent via message: **ExecutionReport** (8), which is flagged with the field *OrdStatus* (tag 39) set with one of the following values:

- 3 = Done for Day
- 4 = Cancelled
- C = Expired

2.5. DROP COPY BEHAVIOUR IN CASE OF FAILURE

The behaviour of Drop Copy in case of failure is described in the *Euronext Markets – Optiq OEG Connectivity Specifications* document.

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Message Structure For Individual Cases

3. MESSAGE STRUCTURE FOR INDIVIDUAL CASES

The FIX **ExecutionReport** (8) message covers multiple cases of messages sent back to the clients. For Drop Copy, the list of cases is limited, and the list of fields, and possible values, is provided in the sections below on a case by case basis.

3.1. COMPATIBILITY BETWEEN SBE AND FIX

- Due to differences in representation of fields and values available between SBE and FIX, in case the original OEG messages are submitted in SBE protocol, the fields listed below in Drop Copy are provided with values "Not Applicable" (99 and 999):
 - PartyRole (452),
 - PartyRoleQualifier (2376),
 - NestedPartyRole (538),
 - NestedPartyRoleQualifier (2384).
- Values present in SBE in the field Trade Type that are identified as not in use, or in use only by Market Data messages are not present in FIX, and are not used in Drop Copy.
- Timestamps in Drop Copy messages are provided as follows:
 - All COB messages contain either *BookINTime* (21002) or *TransactTime* (60),
 - The actual time of the message being sent out to the client by the Drop Copy Gateway, is in the header of the FIX message in the field SendingTime (52).

3.2. NOTES ON REPRESENTATION OF MESSAGES & CASES

- While full set of usable fields and values are present in the overall message structure, described in the FIX message specifications to accommodate all required cases, only the fields and values that are used in each individual case are listed in the tables below.
- The graphic representation conventions used in this section are the same as those used in Euronext Markets Optiq OEG Client Specifications - FIX 5.0 Interface document, notably the use of table border outlines to represent repeating sections. Where useful and applicable, tables below provide multiple repetitions of the rows, to represent data provided via the repeating sections.

Message Structure For Individual Cases

- The "M/C" column in the tables for each message below provides presence of the field in each individual case, and uses the notation identified below. The values in this field may differ from the overall presence value provided in the FIX message specifications documents.
 - M: Mandatory for FIX 5.0 protocol,
 - A: Always provided by Euronext even if not Mandatory for FIX protocol,
 - C: Conditional,
 - O: Optional,
 - F: Future Use.
- Future Use fields are provided in the structure, to indicate fields that would become active in future versions of Optiq, but are not going to be provided for the current version of implementation. These fields will NOT be present in the messages sent by the Drop Copy until the implementation of the associated functionalities.
- In the tables for each case, column "Value Examples" is left blank where the fields are either not applicable to the case, or are for future use.

3.3. ORDER MESSAGES FOR COB

Examples of various Order message cases are provided below in individual sections.

3.3.1 Acknowledgement of New Order and Request for Liquidity or Price via Quote Request (RFQ)

Message: ExecutionReport (8)

Sample values provided in this example represent an acknowledgement of a newly entered Limit order with Day validity on instrument with Symbol Index *1110530* in Central order book.

In case of an order in a strategy, the field SecurityID (48) will provide the Symbol Index of that strategy

| Та | ag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|----|----|----------------|--------|-----|-----------------|-----|--|---------|
| | | | | | | | & Conditions | Example |
| | | Message Header | | | | М | | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|------------------------------|------------------|-----|---|-----|---|-------------------------------------|
| | | | | | | & Conditions | Example |
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | С | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20190214- 15:30:01.4 62743346 |
| 5979 | OEGINFromMemb er | UTCTimestam p | 27 | Timestamp | С | Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 7764 | OEGOUTToME | UTCTimestam p | 27 | Timestamp | С | Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway | 20190214- 15:28:52.8 34193232 |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | A | Time of order creation in ME | 20190214- 15:28:52.8 40530924 |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | С | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | 20190214- 15:28:52.8 40568733 |
| 7765 | OEGINFromME | UTCTimestam p | 27 | Timestamp | С | Gateway IN time from ME (in ns), measured when outbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Identifier of an Order assigned by the Client when submitting an order to the Exchange | 10 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange defined ID of an instrument/contract | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | ЕММ | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 7 = Derivative On Exchange Off book 8 = ETF MTF - NAV Central Order Book | A | Exchange Market Mechanism | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by ME. For acknowledgement of RFQ populated with the same value as in field QuoteReqID (131) | 5 |
| 39 | OrdStatus | Char | 1 | 0 = New | М | Order status | 0 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|---|-----|---|------------------|
| 21004 | OrderPriority | Int | 20 | From 0 to 2^64-1 | С | Rank / priority of an order. Order with lowest value in OrderPriority has the highest priority. Value that can be used to reconcile orders between private and public messages. | 2 |
| 20052 | DarkExecutionInst ruction | MultipleCharV alue | 9 | First Position = Dark Indicator (0: No ; 1: Yes) Forth Position = Sweep Order Indicator (0: No ; 1: Yes) Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES) | С | CASH ONLY Field used as instruction for dark order handling. | 000 |
| 44 | Price | Price | 20 | From -2^63 to 2^63-1 | С | Instrument price per quantity unit. Field populated for Limit, Iceberg (Cash) and Stop Limit (Cash) orders. Not provided for Market, Stop-market (Cash), Peg (Cash) and MTL orders. | 25 |
| 38 | OrderQty | Qty | 20 | From 0 to 2^64-1 | С | Total order quantity, per quantity unit | 1050 |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Indicates the remaining quantity of an order (quantity open for further execution). For RFQ Ack field populated with value -1 | 1050 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | М | Set to NA for non-trade related messages | NA |
| 150 | ЕхесТуре | Char | 1 | 0 = New i = Order Creation By Market Operations j = RFQ Ack e = Refilled Iceberg Ack h = Iceberg Transformed to Limit due to Minimum size | M | Describes the specific type of ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | 0 |
| 99 | StopPx | Price | 20 | From -2^63+1 to 2^63-1 | С | CASH ONLY Stop Trigger Price / Mandatory for Stop orders | |
| 20004 | UndisclosedPrice | Price | 20 | | F | CASH ONLY Future Use | |
| 1138 | DisplayQty | Qty | 20 | From 0 to 2^64-1 | С | Maximum quantity shown to market participants (for Iceberg Order only) | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------|-----|--|-----|---|------------------|
| 20175 | TriggeredStopTim eInForce | Char | 1 | 0 = Day 1 = Good Till Cancel 6 = Good till Date | C | <u>CASH ONLY</u> Specifies the maximum validity of an triggered stop order. On triggering of a Stop order the value in this field is populated in the field TimeInForce (59). | |
| 131 | QuoteReqID | String | 20 | From 0 to 2^64-2 | С | Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM. | |
| 21037 | RFQAnswerIndicat or | Int | 1 | 0 = No 1 = Yes | C | CASH ONLY Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message. | |
| 21038 | RFQConfirmationI ndicator | Int | 1 | 0 = No 1 = Yes | C | CASH ONLY Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message. | |
| 21800 | ConditionalOrderF lag | Int | 1 | 0 = Firm (default) 1 = Conditional | С | CASH ONLY Indicates if the order is a conditional or a firm order | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | А | In this case provides the ExecutionWithinFirmShortCode | 59786 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | A | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For Execution with Firm short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|------------|-----|---|-----|---|------------------|
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of PartyRole (452) For ExecutionWithinFirmShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Always set to Yes if OrderAttributeType (2594) if provided | |
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity. | 7 |
| 110 | MinQty | Qty | 20 | Value '0' by default and depending to a minimum value for the given instrument and/or market type | С | Minimum quantity to be executed upon order entry (else the order is rejected). Only provided when submitted in the original order entry message | |
| 21013 | AckPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Call Phase 3 = Halt Phase 5 = Trading At Last Phase 6 = Reserved 7 = Suspended 8 = Random Uncrossing Phase | A | Indicates the trading phase during which the Matching Engine has received the order Values 5 and 8 apply only for Cash markets | 1 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------|-----------------------|-----|--|-----|--|------------------|
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives position 0 is not applicable and is always set to 0. | 000000 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | Α | Identifier of the Logical Access. | 30597 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-----|------------|--------------|-----|-------------------|-----|---|---------|
| | | | | | | & Conditions | Example |
| 432 | ExpireDate | LocalMktDate | 8 | Date | С | Provided for: | |
| | | | | | | Orders submitted with | |
| | | | | | | TimeInForce (59) set to 6 = Good | |
| | | | | | | Till Date (GTD). Indicates the last | |
| | | | | | | day the order can trade ; | |
| | | | | | | Orders submitted with | |
| | | | | | | TimeInForce (59) set to 1= Good | |
| | | | | | | Till Cancel (GTC). Indicates the last | |
| | | | | | | day the order can trade. Please | |
| | | | | | | note this information will NOT be | |
| | | | | | | provided for all events of the | |
| | | | | | | order <u>on the day of its</u> | |
| | | | | | | <u>submission</u> . Only in the <u>day after</u> | |
| | | | | | | the submission - if the order has | |
| | | | | | | not been fully matched or | |
| | | | | | | cancelled the day before – the | |
| | | | | | | ExpireDate (432) will be provided | |
| | | | | | | for all events (order modification, | |
| | | | | | | order cancellation, partial or full | |
| | | | | | | execution, trade cancellation, refill | |
| | | | | | | of iceberg, trigger of stop, collar | |
| | | | | | | breach confirmation or as a result | |
| | | | | | | of an OrderMassStatusRequest | |
| | | | | | | (AF)) communicated through the | |
| | | | | | | ExecutionReport (8) message. | |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | м | Cumulated quantity (to be calculated with Quantity Decimals). | 0 |
| | | | | | | For RFQ Ack field populated with value -1 | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|------------------|--------|-----|--|-----|--|------------------|
| 336 | TradingSessionID | String | 3 | 101 = Session 1 102 = Session 2 103 = Session 3 104 = Session 4 205 = Session 1 and Session 3 313 = Session 1, 3 and Session 4 123 = All Sessions, deprecated (no more used on Optiq) | C | Defines the validity time periods for Valid For Session orders. Sessions represent the following: Session 1 – Normal Trading Hours (Cash) Session 2 – Normal Trading Hours (Derivatives for future use) Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET) Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET) For Cash: Except Structured Products: Only 101 = Session 1 is valid For Structured Products: 101 = Session 1, 205 = Session 1 + Session 3, 313 = Session1, 3 and Session 4 are allowed; For Derivatives: The field is not provided | 101 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | A | Type of Order Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

| Тад | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|------|-------------------------|------------|-----|---|-----|---|-----------|
| | | | | | | & Conditions | Example |
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | A | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides. | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | С | Indicates the side of the order. May not be populated for RFQ Ack | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction Populated in Drop Copy only if provided on order entry by the client. | 0 |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. Populated in Drop Copy only if provided on order entry by the client. | Free Text |
| 1 | Account | String | 12 | Alphanumeric | C | Account Number. Client account number identifying the investor's account. Populated in Drop Copy only if provided on order entry by the client. | |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 <u>are only for Cash</u> Markets Values 14 and 15 <u>are only for Derivatives</u> Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|-------------------|
| 20021 | LPRole | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] 12 = RFQ Liquidity Provider [C] | С | Liquidity Provider Role identifies the type of the Liquidity Provider when AccountCode (6399) is equal to "Liquidity Provider". Only value 1 is applicable for the Derivatives Markets. | |
| 9941 | TechnicalOrdType | Char | 1 | 1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining | C | Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. | |
| 7443 | PostingAction | MultipleCharV alue | 19 | 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 | 0 | Posting action code (Open/Close) for the order. Populated in Drop Copy only if provided on order entry by the client. Only positions 0 and 1 apply for the Cash markets | 00000 0000 |
| 21804 | LongClientID | String | 16 | Alphanumeric | 0 | DERIVATIVES ONLY Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives. | Long Client ID |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 5 | С | Number of NestedPartyID entries. | 5 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | This use of the repeating group is to provide InvestmentDecisionwithinShortCode | 59 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. | Ρ |
| 538 | NestedPartyRole | Int | 3 | 122 = Investment decision maker | С | Identifies the type of role of the NestedPartyID (524) specified. | 122 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|---|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 22 = Algorithm 24 = Natural person 99 = Not Applicable | c | Used to further qualify the value of NestedPartyRole (538). For Investment Decision within short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 22 (Algorithm) or 24 (Natural Person); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 95 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified | 3 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | This use of the repeating group is to provide NonExecutionBrokerShortCode | 300 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. Populated only if provided in the original order message | Р |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|--|-----|--|------------------|
| 538 | NestedPartyRole | Int | 3 | 26 = Correspondent Broker | C | Identifies the type or role of the NestedPartyID (524) specified. Populated only if provided in the original order message | 26 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). Populated only if provided in the original order message. For NonExecutionBrokerShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide Clearing Firm ID | 645 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 4 = Clearing Firm | C | Identifies the type or role of the NestedPartyID (524) specified. | 4 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | CASH ONLY This use of the repeating group is to provide Client ID provided in scope of the clearing data. This combination of fields is used for Cash markets only. For the Derivatives markets equivalent data is provided via LongClientID (21804) field. | 1158 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified. | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------------|------------------|-----|--|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For Client ID in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 126 | ExpireTime | UTCTimestam p | 27 | Date & Time | С | <u>CASH ONLY</u> For Future Use Time of order expiration for validity type GTT | |
| 21015 | STPAggressorIndic ator | Int | 1 | 0 = Cancel resting order [C] 1 = Cancel incoming order [C] <u>2 = Cancel both orders</u> 9 = Disable STP [C] | С | Field used as instruction for order handling. (STP is not applicable for Dark Orders) | |
| 21016 | DisclosedQtyRand Indicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the client requests or not a randomization for the disclosed quantity of his iceberg order. | |
| 21018 | CancelOnDisconn ectionIndicator | Int | 1 | 0 = Per Default Configuration 1 = Order not in the scope of Cancel On Disconnect | A | Indicates if order is in scope of the Cancel On Disconnect mechanism or is persisted | 1 |
| 1094 | PegPriceType | Int | 1 | 2 = Mid-price peg (mid-price of inside quote) [C] 4 = Market peg [C] 5 = Primary peg (primary market - buy at bid or sell at offer) [C] | 0 | CASH ONLY Defines the type of the peg order. | |
| 211 | PegOffsetValue | Int | 3 | From -128 to 127 | С | CASH ONLY Tick offset for a pegged order. | |
| | Message Trailer | | | | М | | |

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Message Structure For Individual Cases

3.3.2 Triggering of a Previously Submitted Order (Cash Markets Only)

Message: ExecutionReport (8)

Sample values provided in this example represent triggering of a previously entered Stop Limit order (becomes Limit) with Time in Force for the triggered order set to Day on instrument with Symbol Index *1110530* in Central order book.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------------|-----|--|-----|---|-------------------------------------|
| | Message Header | | | | м | | |
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | С | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20190214- 15:30:01.4 62743346 |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | A | Time of triggered order creation in ME | 20180312 08593000 0011000 |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | С | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | 20190214- 15:28:52.8 40568733 |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Identifier of an Order assigned by the Client when submitting an order to the Exchange | 117 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange defined ID of an instrument/contract | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 8 = ETF MTF - NAV Central Order Book | A | Exchange Market Mechanism | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by ME | 7 |
| 39 | OrdStatus | Char | 1 | Q = VFU/VFC Triggered Ack S = Stop Triggered Ack T = MTL Second Ack | М | Order status | S |
| 21004 | OrderPriority | Int | 20 | From 0 to 2^64-1 | С | Rank / priority of an order. Order with lowest value in OrderPriority has the highest priority. Value that can be used to reconcile orders between private and public messages. | 95 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|---|-----|---|------------------|
| 20052 | DarkExecutionInst ruction | MultipleCharV alue | 9 | First Position = Dark Indicator (0: No ; 1: Yes) Forth Position = Sweep Order Indicator (0: No ; 1: Yes) Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES) | С | CASH ONLY Field used as instruction for dark order handling. | |
| 44 | Price | Price | 20 | From -2^63 to 2^63-1 | C | Instrument price per quantity unit. Field populated for Limit, Iceberg (Cash) and Stop Limit (Cash) orders. Not provided for Market, Stop-market (Cash), Peg (Cash) and MTL orders. | 25 |
| 38 | OrderQty | Qty | 20 | From 0 to 2^64-1 | С | Total order quantity, per quantity unit | 1000 |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Indicates the remaining quantity of an order (quantity open for further execution) | 1000 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | М | Set to NA for non-trade related messages | NA |
| 150 | ЕхесТуре | Char | 1 | L = Triggered or Activated by System | М | Describes the specific type of ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | L |
| 20004 | UndisclosedPrice | Price | 20 | | F | CASH ONLY Future Use | |
| 20175 | TriggeredStopTim eInForce | Char | 1 | 0 = Day 1 = Good Till Cancel 6 = Good till Date | С | <u>CASH ONLY</u> Specifies the maximum validity of an triggered stop order. On triggering of a Stop order the value in this field is populated in the field TimeInForce (59). | |
| 1138 | DisplayQty | Qty | 20 | From 0 to 2^64-1 | С | Maximum quantity shown to market participants (for Iceberg Order only) | |
| 131 | QuoteReqID | String | 20 | From 0 to 2^64-2 | С | Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM. | |
| 21037 | RFQAnswerIndicat or | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message. | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------|-----|---|-----|---|------------------|
| 21038 | RFQConfirmationI ndicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message. | |
| 21800 | ConditionalOrderF lag | Int | 1 | 0 = Firm (default) 1 = Conditional | С | CASH ONLY Indicates if the order is a conditional or a firm order | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 29636 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | А | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For ExecutionwithinFirmshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of PartyRole (452) For ExecutionwithinFirmshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|------------------|
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Always set to Yes if OrderAttributeType (2594) if provided | |
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity. | 7 |
| 110 | MinQty | Qty | 20 | Value '0' by default and depending to a minimum value for the given instrument and/or market type | С | Minimum quantity to be executed upon order entry (else the order is rejected). | |
| 21013 | AckPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Call Phase 3 = Halt Phase 5 = Trading At Last Phase 6 = Reserved 7 = Suspended 8 = Random Uncrossing Phase | A | Indicates the trading phase during which the Matching Engine has received the order Values 5 and 8 apply only for Cash markets | 1 |
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives positions 0 is not applicable and is always set to 0. | 000000 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | А | Identifier of the Logical Access. | 617 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-----|------------|--------------|-----|-------------------|-----|---|---------|
| Ŭ | | | | | | & Conditions | Example |
| 432 | ExpireDate | LocalMktDate | 8 | Date | С | Provided for: | |
| | | | | | | Orders submitted with | |
| | | | | | | TimeInForce (59) set to 6 = Good | |
| | | | | | | Till Date (GTD). Indicates the last | |
| | | | | | | day the order can trade ; | |
| | | | | | | Orders submitted with | |
| | | | | | | TimeInForce (59) set to 1= Good | |
| | | | | | | Till Cancel (GTC). Indicates the last | |
| | | | | | | day the order can trade. Please | |
| | | | | | | note this information will NOT be | |
| | | | | | | provided for all events of the | |
| | | | | | | order <u>on the day of its</u> | |
| | | | | | | submission. Only in the day after | |
| | | | | | | the submission - if the order has | |
| | | | | | | not been fully matched or | |
| | | | | | | cancelled the day before – the | |
| | | | | | | ExpireDate (432) will be provided | |
| | | | | | | for all events (order modification, | |
| | | | | | | order cancellation, partial or full | |
| | | | | | | execution, trade cancellation, refill | |
| | | | | | | of iceberg, trigger of stop, collar | |
| | | | | | | breach confirmation or as a result | |
| | | | | | | of an OrderMassStatusRequest | |
| | | | | | | (AF)) communicated through the | |
| | | | | | | ExecutionReport (8) message. | |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | М | Cumulated quantity (to be calculated with Quantity Decimals). | 0 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|------------------|--------|-----|--|-----|--|------------------|
| 336 | TradingSessionID | String | 3 | 101 = Session 1 102 = Session 2 103 = Session 3 104 = Session 4 205 = Session 1 and Session 3 313 = Session 1, 3 and Session 4 123 = All Sessions, deprecated (no more used on Optiq) | c | Defines the validity time periods for Valid For Session orders. Sessions represent the following: Session 1 – Normal Trading Hours (Cash) Session 2 – Normal Trading Hours (Derivatives for future use) Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET) Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET) For Cash: Except Structured Products: Only 101 = Session 1 is valid For Structured Products: 101 = Session 3, 313 = Session 1, 3 and Session 4 are allowed; For Derivatives: The field is not provided | 101 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | С | Type of Order Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|------|-------------------------|------------|-----|---|-----|---|-----------|
| 105 | i icia i iaine | . on at | | | , c | & Conditions | Example |
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | A | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides. | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order. | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction Populated in Drop Copy only if provided on order entry by the client. | 0 |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. Populated in Drop Copy only if provided on order entry by the client. | Free Text |
| 1 | Account | String | 12 | Alphanumeric | С | Account Number. Client account number identifying the investor's account. Populated in Drop Copy only if provided on order entry by the client. | |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 <u>are only for Cash</u> Markets Values 14 and 15 <u>are only for Derivatives</u> Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|------------------|
| 20021 | LPRole | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] 12 = RFQ Liquidity Provider [C] | С | Liquidity Provider Role identifies the type of the Liquidity Provider when Account Code is equal to "Liquidity Provider". Only value 1 is applicable for the Derivatives Markets. | |
| 9941 | TechnicalOrdType | Char | 1 | 1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining | С | Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. | |
| 7443 | PostingAction | MultipleCharV alue | 19 | 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 | 0 | Posting action code (Open/Close) for the order. Populated in Drop Copy only if provided on order entry by the client. Only positions 0 and 1 apply for the Cash markets | 000000 |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 2 | С | Number of NestedPartyID entries. | 2 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide InvestmentDecisionwithinShortCode | 678 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. | Р |
| 538 | NestedPartyRole | Int | 3 | 122 = Investment decision maker | С | Identifies the type of role of the NestedPartyID (524) specified. | 122 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|------------------|-----|---|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 22 = Algorithm 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of NestedPartyRole (538). For InvestmentDecisionwithinshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 22 (Algorithm) or 24 (Natural Person); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 95 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified | 3 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 126 | ExpireTime | UTCTimestam p | 27 | Date & Time | С | <u>CASH ONLY</u> For Future Use Time of order expiration for validity type GTT | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------------|--------|-----|--|-----|--|------------------|
| 21015 | STPAggressorIndic ator | Int | 1 | 0 = Cancel resting order [C] 1 = Cancel incoming order [C] <u>2 = Cancel both orders</u> 9 = Disable STP [C] | С | Field used as instruction for order handling. (STP is not applicable for Dark Orders) | |
| 21016 | DisclosedQtyRand Indicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the client requests or not a randomization for the disclosed quantity of his iceberg order. | |
| 21018 | CancelOnDisconn ectionIndicator | Int | 1 | 0 = Per Default Configuration 1 = Order not in the scope of Cancel On Disconnect | A | Indicates if order is in scope of the Cancel On Disconnect mechanism or is persisted | 1 |
| 1094 | PegPriceType | Int | 1 | 2 = Mid-price peg (midprice of inside quote) [C] 4 = Market peg [C] 5 = Primary peg (primary market - buy at bid or sell at offer) [C] | 0 | CASH ONLY Defines the type of the peg order. | |
| 211 | PegOffsetValue | Int | 3 | From -128 to 127 | С | CASH ONLY Tick offset for a pegged order. | |
| | Message Trailer | | | | М | | |

3.3.3 Notification After Ownership Request

Message: ExecutionReport (8)

Sample values provided in this example represent an notification sent for an existing Limit order with Day validity on instrument with Symbol Index *1110530* in Central order book.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|------------------------------|------------------|-----|-----------------|-----|--|-------------------------------------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | М | | |
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | С | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20190214- 15:30:01.4 62743346 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|---|-----|---|-------------------------------------|
| 5979 | OEGINFromMemb er | UTCTimestam p | 27 | Timestamp | С | Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 7764 | OEGOUTToME | UTCTimestam p | 27 | Timestamp | С | Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway | 20190214- 15:28:52.8 34193232 |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | A | Time of order creation in ME | 20180312 08593000 0011000 |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | С | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | 20190214- 15:28:52.8 40568733 |
| 7765 | OEGINFromME | UTCTimestam p | 27 | Timestamp | С | Gateway IN time from ME (in ns), measured when outbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Identifier of an Order assigned by the Client when submitting an order to the Exchange | 157 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange defined ID of an instrument/contract | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 8 = ETF MTF - NAV Central Order Book | С | Exchange Market Mechanism | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by ME | 94856 |
| 39 | OrdStatus | Char | 1 | I = Order Status | М | Order status | 1 |
| 21004 | OrderPriority | Int | 20 | From 0 to 2^64-1 | С | Rank / priority of an order. Order with lowest value in OrderPriority has the highest priority. Value that can be used to reconcile orders between private and public messages. | 682 |
| 20052 | DarkExecutionInst ruction | MultipleCharV alue | 9 | First Position = Dark Indicator (0: No ; 1: Yes) Forth Position = Sweep Order Indicator (0: No ; 1: Yes) Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES) | C | CASH ONLY Field used as instruction for dark order handling. | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|--------|-----|---|-----|---|------------------|
| 44 | Price | Price | 20 | From -2^63 to 2^63-1 | c | Instrument price per quantity unit. Field populated for Limit, Iceberg (Cash) and Stop Limit (Cash) orders. Not provided for Market, Stop-market (Cash), Peg (Cash) and MTL orders. | 205 |
| 38 | OrderQty | Qty | 20 | From 0 to 2^64-1 | С | Total order quantity, per quantity unit | 500 |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Indicates the remaining quantity of an order (quantity open for further execution) | 500 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | M | Set to NA for non-trade related messages | NA |
| 150 | ExecType | Char | 1 | k = Ownership Request Ack | М | Describes the specific type of ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | k |
| 99 | StopPx | Price | 20 | From -2^63+1 to 2^63-1 | C | CASH ONLY Stop Trigger Price / Mandatory for Stop orders | |
| 20004 | UndisclosedPrice | Price | 20 | | F | CASH ONLY Future Use | |
| 1138 | DisplayQty | Qty | 20 | From 0 to 2^64-1 | С | Maximum quantity shown to market participants (for Iceberg Order only) | |
| 20175 | TriggeredStopTim eInForce | Char | 1 | 0 = Day 1 = Good Till Cancel 6 = Good till Date | с | <u>CASH ONLY</u> Specifies the maximum validity of an triggered stop order. On triggering of a Stop order the value in this field is populated in the field TimeInForce (59). | |
| 131 | QuoteReqID | String | 20 | From 0 to 2^64-2 | С | Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM. | |
| 21037 | RFQAnswerIndicat or | Int | 1 | 0 = No 1 = Yes | C | CASH ONLY Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message. | |
| 21038 | RFQConfirmationI ndicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message. | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|--------------------------|------------|-----|---|-----|---|------------------|
| 21800 | ConditionalOrderF lag | Int | 1 | 0 = Firm (default) 1 = Conditional | С | CASH ONLY Indicates if the order is a conditional or a firm order | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 9514 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | А | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For Execution with Firm short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of PartyRole (452) For ExecutionwithinFirmshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|------------------|
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Always set to Yes if OrderAttributeType (2594) if provided | |
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity. | 7 |
| 110 | MinQty | Qty | 20 | Value '0' by default and depending to a minimum value for the given instrument and/or market type | С | Minimum quantity to be executed upon order entry (else the order is rejected). | |
| 21013 | AckPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Call Phase 3 = Halt Phase 5 = Trading At Last Phase 6 = Reserved 7 = Suspended 8 = Random Uncrossing Phase | A | Indicates the trading phase during which the Matching Engine has received the order Values 5 and 8 apply only for Cash markets | 1 |
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives positions 0 is not applicable and is always set to 0. | 000000 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | А | Identifier of the Logical Access. | 9967 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-----|------------|--------------|-----|-------------------|-----|---|---------|
| Ŭ | | | | | | & Conditions | Example |
| 432 | ExpireDate | LocalMktDate | 8 | Date | с | Conditions Provided for: Orders submitted with TimeInForce (59) set to 6 = Good Till Date (GTD). Indicates the last day the order can trade ; Orders submitted with TimeInForce (59) set to 1= Good Till Cancel (GTC). Indicates the last day the order can trade. Please note this information will <u>NOT</u> be provided for all events of the | Example |
| | | | | | | provided for all events of the order <u>on the day of its</u> <u>submission</u> . Only in the <u>day after</u> <u>the submission</u> - if the order has not been fully matched or cancelled the day before – the ExpireDate (432) will be provided for <u>all events</u> (order modification, order cancellation, partial or full execution, trade cancellation, refill of iceberg, trigger of stop, collar breach confirmation or as a result of an OrderMassStatusRequest | |
| | | | | | | (AF)) communicated through the ExecutionReport (8) message. | |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | М | Cumulated quantity (to be calculated with Quantity Decimals). | 0 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|------------------|--------|-----|--|-----|--|------------------|
| 336 | TradingSessionID | String | 3 | 101 = Session 1 102 = Session 2 103 = Session 3 104 = Session 4 205 = Session 1 and Session 3 313 = Session 1, 3 and Session 4 123 = All Sessions, deprecated (no more used on Optiq) | С | Defines the validity time periods for Valid For Session orders. Sessions represent the following: Session 1 – Normal Trading Hours (Cash) Session 2 – Normal Trading Hours (Derivatives for future use) Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET) Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET) For Cash: Except Structured Products: Only 101 = Session 1 is valid For Structured Products: 101 = Session 1, 205 = Session 1 + Session 3, 313 = Session1, 3 and Session 4 are allowed; For Derivatives: The field is not provided | 101 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | A | Type of Order Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

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|------|-------------------------|--------------|-----|---|------|---|-----------|
| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
| | | | | - | | & Conditions | Example |
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | A | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides. | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order. | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction Populated in Drop Copy only if provided on order entry by the client. | 0 |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. Populated in Drop Copy only if provided on order entry by the client. | Free Text |
| 1 | Account | String | 12 | Alphanumeric | С | Account Number. Client account number identifying the investor's account. Populated in Drop Copy only if provided on order entry by the client. | 957856 |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 are only for Cash Markets Values 14 and 15 are only for Derivatives Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|-------------------|
| 20021 | LPRole | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] 12 = RFQ Liquidity Provider [C] | С | Liquidity Provider Role identifies the type of the Liquidity Provider when AccountCode is equal to "Liquidity Provider". Only value 1 is applicable for the Derivatives Markets. | |
| 9941 | TechnicalOrdType | Char | 1 | 1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining | C | Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. | |
| 7443 | PostingAction | MultipleCharV alue | 19 | 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 | 0 | Posting action code (Open/Close) for the order. Populated in Drop Copy only if provided on order entry by the client. Only positions 0 and 1 apply for the Cash markets | 000000 |
| 21804 | LongClientID | String | 16 | Alphanumeric | 0 | DERIVATIVES ONLY Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives. | Long Client ID |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 5 | С | Number of NestedPartyID entries. | 5 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide InvestmentDecisionwithinShortCode | 66558 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. | Р |
| 538 | NestedPartyRole | Int | 3 | 122 = Investment decision maker | С | Identifies the type of role of the NestedPartyID (524) specified. | 122 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|---|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 22 = Algorithm 24 = Natural person 99 = Not Applicable | c | Used to further qualify the value of NestedPartyRole (538). For Investment Decision within short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 22 (Algorithm) or 24 (Natural Person); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 95 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified | 3 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide NonExecutionBrokerShortCode | 300 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. Populated only if provided in the original order message | Р |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|--|-----|--|------------------|
| 538 | NestedPartyRole | Int | 3 | 26 = Correspondent Broker | С | Identifies the type or role of the NestedPartyID (524) specified. Populated only if provided in the original order message | 26 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). Populated only if provided in the original order message. For NonExecutionBrokerShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide Clearing Firm ID | 9995 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 4 = Clearing Firm | С | Identifies the type or role of the NestedPartyID (524) specified. | 4 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | CASH ONLY This use of the repeating group is to provide Client ID provided in scope of the clearing data. This combination of fields is used for Cash markets only. For the Derivatives markets equivalent data is provided via LongClientID (21804) field. | 1581 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified. | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------------|------------------|-----|--|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For Client ID in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 126 | ExpireTime | UTCTimestam p | 27 | Date & Time | С | <u>CASH ONLY</u> For Future Use Time of order expiration for validity type GTT | |
| 21015 | STPAggressorIndic ator | Int | 1 | 0 = Cancel resting order [C] 1 = Cancel incoming order [C] <u>2 = Cancel both orders</u> 9 = Disable STP [C] | С | Field used as instruction for order handling. (STP is not applicable for Dark Orders) | |
| 21016 | DisclosedQtyRand Indicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the client requests or not a randomization for the disclosed quantity of his iceberg order. | |
| 21018 | CancelOnDisconn ectionIndicator | Int | 1 | 0 = Per Default Configuration 1 = Order not in the scope of Cancel On Disconnect | A | Indicates if order is in scope of the Cancel On Disconnect mechanism or is persisted | 1 |
| 1094 | PegPriceType | Int | 1 | 2 = Mid-price peg (midprice of inside quote) [C] 4 = Market peg [C] 5 = Primary peg (primary market - buy at bid or sell at offer) [C] | 0 | CASH ONLY Defines the type of the peg order. | |
| 211 | PegOffsetValue | Int | 3 | From -128 to 127 | С | CASH ONLY Tick offset for a pegged order. | |
| | Message Trailer | | | | М | | |

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3.3.4 Cancellation of an Order

Message: ExecutionReport (8)

Sample values provided in this example represent a message sent for cancellation of a Limit order with Day validity on instrument with Symbol Index *1110530* in Central order book.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|------------------------------|------------------|-----|----------------------|-----|--|-------------------------------------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | М | | |
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | С | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20190214- 15:30:01.4 62743346 |
| 5979 | OEGINFromMemb er | UTCTimestam p | 27 | Timestamp | С | Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 7764 | OEGOUTToME | UTCTimestam p | 27 | Timestamp | С | Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway | 20190214- 15:28:52.8 34193232 |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | A | Time of order cancellation by the ME | 20180312 08593000 0011000 |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | С | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | 20190214- 15:28:52.8 40568733 |
| 7765 | OEGINFromME | UTCTimestam p | 27 | Timestamp | С | Gateway IN time from ME (in ns), measured when outbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Identifier of an Order Cancellation message assigned by the Client when submitting the Order Cancellation message to the Exchange | 89 |
| 41 | OrigClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Client order ID of the original order that client is requesting to cancel | 35 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange defined ID of an instrument/contract | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |

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Message Structure For Individual Cases

| Тад | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|---|-----|---|------------------|
| 20020 | ЕММ | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 7 = Derivatives On Exchange Off book 8 = ETF MTF - NAV Central Order Book | С | Exchange Market Mechanism | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by ME | 598 |
| 39 | OrdStatus | Char | 1 | 3 = Done for Day 4 = Cancelled C = Expired | М | Order status | 4 |
| 21004 | OrderPriority | Int | 20 | From 0 to 2^64-1 | С | Rank / priority of an order. Order with lowest value in OrderPriority has the highest priority. Value that can be used to reconcile orders between private and public messages. | 27 |
| 20052 | DarkExecutionInst ruction | MultipleCharV alue | 9 | First Position = Dark Indicator (0: No ; 1: Yes) Forth Position = Sweep Order Indicator (0: No ; 1: Yes) Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES) | С | CASH ONLY Field used as instruction for dark order handling. | |
| 44 | Price | Price | 20 | From -2^63 to 2^63-1 | С | Instrument price per quantity unit. Field populated for Limit, Iceberg (Cash) and Stop Limit (Cash) orders. Not provided for Market, Stop-market (Cash), Peg (Cash) and MTL orders. | 56 |
| 38 | OrderQty | Qty | 20 | From 0 to 2^64-1 | С | Total order quantity, per quantity unit | 10 |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Indicates the remaining quantity of an order (quantity open for further execution) | 10 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | М | Set to NA for non-trade related messages | NA |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|------------------------------|--------|-----|--|-----|---|---------|
| - | | | | | | & Conditions | Example |
| 150 | ЕхесТуре | Char | 1 | 3 = Done for Day 4 = Cancelled a = Cancelled by STP b = Order Cancelled due to Cancel On Disconnect Mechanism n = Order Cancelled due to a potential trade outside FSP limits u = Order cancelled due to Market Maker Protection v = Order cancelled by clearing risk manager w = Order cancelled due to Trade Price Validation C = Expired O = Eliminated by corporate event P = Cancelled by Member Risk Manager U = Order Cancelled by Market Operations V = Cancelled due to a Kill command X = Remaining quantity killed (IOC) Y = Beginning of PAKO Period | M | Describes the specific type of ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | 4 |
| 99 | StopPx | Price | 20 | From -2^63+1 to 2^63-1 | C | CASH ONLY Stop Trigger Price / Mandatory for Stop orders | |
| 20004 | UndisclosedPrice | Price | 20 | | F | <u>CASH ONLY</u> Future Use | |
| 1138 | DisplayQty | Qty | 20 | From 0 to 2^64-1 | С | Maximum quantity shown to market participants (for Iceberg Order only) | |
| 20175 | TriggeredStopTim eInForce | Char | 1 | 0 = Day 1 = Good Till Cancel 6 = Good till Date | С | <u>CASH ONLY</u> Specifies the maximum validity of an triggered stop order. On triggering of a Stop order the value in this field is populated in the field TimeInForce (59). | |
| 131 | QuoteReqID | String | 20 | From 0 to 2^64-2 | С | Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM. | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------|-----|--|-----|---|------------------|
| 21037 | RFQAnswerIndicat or | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message. | |
| 21038 | RFQConfirmationI ndicator | Int | 1 | 0 = No 1 = Yes | C | CASH ONLY Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message. | |
| 21800 | ConditionalOrderF lag | Int | 1 | 0 = Firm (default) 1 = Conditional | С | CASH ONLY Indicates if the order is a conditional or a firm order | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 9756 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | А | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For ExecutionwithinFirmshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|-------------------------|------------|-----|---|-----|---|---------|
| | | | | | | & Conditions | Example |
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | C | Used to further qualify the value of PartyRole (452) For ExecutionwithinFirmshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | 5 |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Always set to Yes if OrderAttributeType (2594) if provided | |
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity. | 9 |
| 110 | MinQty | Qty | 20 | Value '0' by default and depending to a minimum value for the given instrument and/or market type | С | Minimum quantity to be executed upon order entry (else the order is rejected). | |
| 21013 | AckPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Call Phase 3 = Halt Phase 5 = Trading At Last Phase 6 = Reserved 7 = Suspended 8 = Random Uncrossing Phase | A | Indicates the trading phase during which the Matching Engine has received the order Values 5 and 8 apply only for Cash markets | 1 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------|-----------------------|-----|--|-----|---|------------------|
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives positions 0 is not applicable and is always set to 0. | 000000 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 12 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | А | Identifier of the Logical Access. | 65537 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-----|------------|--------------|-----|-------------------|-----|--|---------|
| | | | | | | & Conditions | Example |
| 432 | ExpireDate | LocalMktDate | 8 | Date | c | Provided for: - Orders submitted with TimeInForce (59) set to 6 = Good Till Date (GTD). Indicates the last day the order can trade ; - Orders submitted with TimeInForce (59) set to 1= Good Till Cancel (GTC). Indicates the last day the order can trade ; - Orders submitted with TimeInForce (59) set to 1= Good Till Cancel (GTC). Indicates the last day the order can trade. Please note this information will NOT be provided for all events of the order on the day of its submission. Only in the day after the submission - if the order has not been fully matched or cancelled the day before – the ExpireDate (432) will be provided for all events (order modification, order cancellation, partial or full execution, trade cancellation, refill of iceberg, trigger of stop, collar breach confirmation or as a result of an OrderMassStatusRequest (AF)) communicated through the ExecutionReport (8) message. | |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | М | Cumulated quantity (to be calculated with Quantity Decimals). | 0 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|------------------|--------|-----|--|-----|--|------------------|
| 336 | TradingSessionID | String | 3 | 101 = Session 1 102 = Session 2 103 = Session 3 104 = Session 4 205 = Session 1 and Session 3 313 = Session 1, 3 and Session 4 123 = All Sessions, deprecated (no more used on Optiq) | c | Defines the validity time periods for Valid For Session orders. Sessions represent the following: Session 1 – Normal Trading Hours (Cash) Session 2 – Normal Trading Hours (Derivatives for future use) Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET) Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET) For Cash: Except Structured Products: Only 101 = Session 1 is valid For Structured Products: 101 = Session 1, 205 = Session 1 + Session 3, 313 = Session1, 3 and Session 4 are allowed; For Derivatives: The field is not provided | 101 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | С | Type of Order Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|-------------------------|------------|-----|---|-----|---|------------------|
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | A | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides. | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order. | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction Populated in Drop Copy only if provided on order entry by the client. | 10 |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. Populated in Drop Copy only if provided on order entry by the client. | Free Text |
| 1 | Account | String | 12 | Alphanumeric | С | Account Number. Client account number identifying the investor's account. Populated in Drop Copy only if provided on order entry by the client. | 19765 |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 are only for Cash Markets Values 14 and 15 are only for Derivatives Markets | 1 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|-------------------|
| 20021 | LPRole | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] 12 = RFQ Liquidity Provider [C] | С | Liquidity Provider Role identifies the type of the Liquidity Provider when AccountCode is equal to "Liquidity Provider". Only value 1 is applicable for the Derivatives Markets. | |
| 9941 | TechnicalOrdType | Char | 1 | 1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining | С | Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. | |
| 7443 | PostingAction | MultipleCharV alue | 19 | 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 | 0 | Posting action code (Open/Close) for the order. Populated in Drop Copy only if provided on order entry by the client. Only positions 0 and 1 apply for the Cash markets | 000000 |
| 21804 | LongClientID | String | 16 | Alphanumeric | 0 | DERIVATIVES ONLY Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives. | Long Client ID |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 3 | С | Number of NestedPartyID entries. | 3 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 9976 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|------------------|-----|---|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | C | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide Clearing Firm ID | 3674 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 4 = Clearing Firm | С | Identifies the type or role of the NestedPartyID (524) specified. | 4 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | CASH ONLY This use of the repeating group is to provide Client ID provided in scope of the clearing data. This combination of fields is used for Cash markets only. For the Derivatives markets equivalent data is provided via LongClientID (21804) field. | 995887 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified. | 3 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity | C | Used to further qualify the value of NestedPartyRole (538). | 23 |
| 126 | ExpireTime | UTCTimestam p | 27 | Date & Time | С | CASH ONLY For Future Use Time of order expiration for validity type GTT | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------------|--------|-----|--|-----|--|------------------|
| 21015 | STPAggressorIndic ator | Int | 1 | 0 = Cancel resting order [C] 1 = Cancel incoming order [C] <u>2 = Cancel both orders</u> 9 = Disable STP [C] | С | Field used as instruction for order handling. (STP is not applicable for Dark Orders) | |
| 21016 | DisclosedQtyRand Indicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the client requests or not a randomization for the disclosed quantity of his iceberg order. | |
| 21018 | CancelOnDisconn ectionIndicator | Int | 1 | 0 = Per Default Configuration 1 = Order not in the scope of Cancel On Disconnect | A | Indicates if order is in scope of the Cancel On Disconnect mechanism or is persisted | 0 |
| 1094 | PegPriceType | Int | 1 | 2 = Mid-price peg (midprice of inside quote) [C] 4 = Market peg [C] 5 = Primary peg (primary market - buy at bid or sell at offer) [C] | 0 | CASH ONLY Defines the type of the peg order. | |
| 211 | PegOffsetValue | Int | 3 | From -128 to 127 | С | CASH ONLY Tick offset for a pegged order. | |
| 21807 | KillReason | Char | 5 | Future Use | С | Future Use | |
| | Message Trailer | | | | м | | |

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3.3.5 Modification of an Order

Message: ExecutionReport (8)

Sample values provided in this example represent a modification of an existing Limit order with Day validity on instrument with Symbol Index *1110530* in Central order book.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|------------------------------|------------------|-----|----------------------|-----|--|-------------------------------------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | Μ | | |
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | С | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20190214- 15:30:01.4 62743346 |
| 5979 | OEGINFromMemb er | UTCTimestam p | 27 | Timestamp | С | Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 7764 | OEGOUTToME | UTCTimestam p | 27 | Timestamp | С | Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway | 20190214- 15:28:52.8 34193232 |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | A | Time of order modification is processed by the ME | 20180312 08593000 0011000 |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | С | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | 20190214- 15:28:52.8 40568733 |
| 7765 | OEGINFromME | UTCTimestam p | 27 | Timestamp | С | Gateway IN time from ME (in ns), measured when outbound message enters the gateway | 20190214- 15:28:52.8 33883664 |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Identifier of an Order Modification message assigned by the Client when submitting the order modification message to the Exchange | 25 |
| 41 | OrigClOrdID | String | 20 | From -2^63 to 2^63-1 | A | Client order ID of the original order that client is requesting to modify | 7 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange defined ID of an instrument/contract | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|---|-----|---|------------------|
| 20020 | EMM | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 8 = ETF MTF - NAV Central Order Book | С | Exchange Market Mechanism | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by ME | 15 |
| 39 | OrdStatus | Char | 1 | 5 = Replaced | М | Order status | 5 |
| 21004 | OrderPriority | Int | 20 | From 0 to 2^64-1 | С | Rank / priority of an order. Order with lowest value in OrderPriority has the highest priority. Value that can be used to reconcile orders between private and public messages. | 57 |
| 20052 | DarkExecutionInst ruction | MultipleCharV alue | 9 | First Position = Dark Indicator (0: No ; 1: Yes) Forth Position = Sweep Order Indicator (0: No ; 1: Yes) Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES) | С | CASH ONLY Field used as instruction for dark order handling. | 000 |
| 44 | Price | Price | 20 | From -2^63 to 2^63-1 | С | Instrument price per quantity unit. Field populated for Limit, Iceberg (Cash) and Stop Limit (Cash) orders. Not provided for Market, Stop-market (Cash), Peg (Cash) and MTL orders. | 25 |
| 38 | OrderQty | Qty | 20 | From 0 to 2^64-1 | С | Total order quantity, per quantity unit | 150 |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Indicates the remaining quantity of an order (quantity open for further execution) | 150 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | М | Set to NA for non-trade related messages | NA |
| 150 | ЕхесТуре | Char | 1 | 5 = Replaced | М | Describes the specific type of ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | 5 |
| 99 | StopPx | Price | 20 | From -2^63+1 to 2^63-1 | С | CASH ONLY Stop Trigger Price / Mandatory for Stop orders | |
| 20004 | UndisclosedPrice | Price | 20 | | F | CASH ONLY Future Use | |
| 1138 | DisplayQty | Qty | 20 | From 0 to 2^64-1 | С | CASH ONLY Maximum quantity shown to market participants (for Iceberg Order only) | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------|-----|--|-----|---|------------------|
| 20175 | TriggeredStopTim eInForce | Char | 1 | 0 = Day 1 = Good Till Cancel 6 = Good till Date | С | <u>CASH ONLY</u> Specifies the maximum validity of an triggered stop order. On triggering of a Stop order the value in this field is populated in the field TimeInForce (59). | |
| 131 | QuoteReqID | String | 20 | From 0 to 2^64-2 | С | Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM. | |
| 21037 | RFQAnswerIndicat or | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message. | |
| 21038 | RFQConfirmationI ndicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message. | |
| 21800 | ConditionalOrderF lag | Int | 1 | 0 = Firm (default) 1 = Conditional | С | CASH ONLY Indicates if the order is a conditional or a firm order | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 6786 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | Α | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For Execution with Firm short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |

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Message Structure For Individual Cases

| Тад | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|------------|-----|---|-----|---|------------------|
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of PartyRole (452) For ExecutionwithinFirmshortcode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Always set to Yes if OrderAttributeType (2594) if provided | |
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity. | 7 |
| 110 | MinQty | Qty | 20 | Value '0' by default and depending to a minimum value for the given instrument and/or market type | С | Minimum quantity to be executed upon order entry (else the order is rejected). | |
| 21013 | AckPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Call Phase 3 = Halt Phase 5 = Trading At Last Phase 6 = Reserved 7 = Suspended 8 = Random Uncrossing Phase | A | Indicates the trading phase during which the Matching Engine has received the order Values 5 and 8 apply only for Cash markets | 1 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------|-----------------------|-----|--|-----|---|------------------|
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives positions 0 is not applicable and is always set to 0. | 000000 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | Α | Identifier of the Logical Access. | 9702 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-----|------------|--------------|-----|-------------------|-----|--|---------|
| | | | | | | & Conditions | Example |
| 432 | ExpireDate | LocalMktDate | 8 | Date | с | Provided for: - Orders submitted with TimeInForce (59) set to 6 = Good Till Date (GTD). Indicates the last day the order can trade ; - Orders submitted with TimeInForce (59) set to 1= Good Till Cancel (GTC). Indicates the last day the order can trade. Please note this information will NOT be provided for all events of the order on the day of its submission. Only in the day after the submission - if the order has not been fully matched or cancelled the day before – the ExpireDate (432) will be provided for all events (order modification, order cancellation, partial or full execution, trade cancellation, refill of iceberg, trigger of stop, collar breach confirmation or as a result of an OrderMassStatusRequest (AF)) communicated through the ExecutionReport (8) message. | Example |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | М | Cumulated quantity (to be calculated with Quantity Decimals). | 0 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|------------------|--------|-----|--|-----|---|------------------|
| 336 | TradingSessionID | String | 3 | 101 = Session 1 102 = Session 2 103 = Session 3 104 = Session 4 205 = Session 1 and Session 3 313 = Session 1, 3 and Session 4 123 = All Sessions, deprecated (no more used on Optiq) | С | Defines the validity time periods for Valid For Session orders. Sessions represent the following: Session 1 – Normal Trading Hours (Cash) Session 2 – Normal Trading Hours (Derivatives for future use) Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET) Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET) For Cash: Except Structured Products: Only 101 = Session 1 is valid For Structured Products: 101 = Session 4, 205 = Session 1 + Session 4 are allowed; For Derivatives: The field is not provided | 101 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | A | Type of Order Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

| Tere | Field Name | Former | 1.00 | Possible Values | 24/0 | Chart Description, Consectibility Nature | Value |
|------|-------------------------|------------|------|---|------|---|-----------|
| Tag | Field Name | Format | Len | Possible values | M/C | Short Description, Compatibility Notes | |
| | | | - | | - | & Conditions | Example |
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | A | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides. | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order. | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction Populated in Drop Copy only if provided on order entry by the client. | 0 |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. Populated in Drop Copy only if provided on order entry by the client. | Free Text |
| 1 | Account | String | 12 | Alphanumeric | С | Account Number. Client account number identifying the investor's account. Populated in Drop Copy only if provided on order entry by the client. | |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 are only for Cash Markets Values 14 and 15 are only for Derivatives Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|-----------------------|-----|--|-----|---|-------------------|
| 20021 | LPRole | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] 12 = RFQ Liquidity Provider [C] | С | Liquidity Provider Role identifies the type of the Liquidity Provider when AccountCode is equal to "Liquidity Provider". Only value 1 is applicable for the Derivatives Markets. | |
| 9941 | TechnicalOrdType | Char | 1 | 1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining | С | Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. | |
| 7443 | PostingAction | MultipleCharV alue | 19 | 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 | 0 | Posting action code (Open/Close) for the order. Populated in Drop Copy only if provided on order entry by the client. Only positions 0 and 1 apply for the Cash markets | 00000 0000 |
| 21804 | LongClientID | String | 16 | Alphanumeric | 0 | DERIVATIVES ONLY Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives. | Long Client ID |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 5 | С | Number of NestedPartyID entries | 5 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | This use of the repeating group is to provide InvestmentDecisionwithinShortCode | 463 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. | Ρ |
| 538 | NestedPartyRole | Int | 3 | 122 = Investment decision maker | С | Identifies the type of role of the NestedPartyID (524) specified. | 122 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|---|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 22 = Algorithm 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For Investment Decision within short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 22 (Algorithm) or 24 (Natural Person); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 463 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified | 3 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | This use of the repeating group is to provide NonExecutionBrokerShortCode | 300 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. Populated only if provided in the original order message | Р |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|--|-----|--|------------------|
| 538 | NestedPartyRole | Int | 3 | 26 = Correspondent Broker | C | Identifies the type or role of the NestedPartyID (524) specified. Populated only if provided in the original order message | 26 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). Populated only if provided in the original order message. For NonExecutionBrokerShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide Clearing Firm ID | 809 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 4 = Clearing Firm | С | Identifies the type or role of the NestedPartyID (524) specified. | 4 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | <u>CASH ONLY</u> This use of the repeating group is to provide Client ID provided in scope of the clearing data. This combination of fields is used for Cash markets only. For the Derivatives markets equivalent data is provided via LongClientID (21804) field. | 73 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value. | D |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified. | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------------|------------------|-----|--|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For Client ID in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 126 | ExpireTime | UTCTimestam p | 27 | Date & Time | С | <u>CASH ONLY</u> For Future Use Time of order expiration for validity type GTT | |
| 21015 | STPAggressorIndic ator | Int | 1 | 0 = Cancel resting order [C] 1 = Cancel incoming order [C] <u>2 = Cancel both orders</u> 9 = Disable STP [C] | С | Field used as instruction for order handling. (STP is not applicable for Dark Orders) | |
| 21016 | DisclosedQtyRand Indicator | Int | 1 | 0 = No 1 = Yes | С | CASH ONLY Indicates whether the client requests or not a randomization for the disclosed quantity of his iceberg order. | |
| 21018 | CancelOnDisconn ectionIndicator | Int | 1 | 0 = Per Default Configuration 1 = Order not in the scope of Cancel On Disconnect | A | Indicates if order is in scope of the Cancel On Disconnect mechanism or is persisted | 1 |
| 1094 | PegPriceType | Int | 1 | 2 = Mid-price peg (midprice of inside quote) [C] 4 = Market peg [C] 5 = Primary peg (primary market - buy at bid or sell at offer) [C] | 0 | CASH ONLY Defines the type of the peg order. | |
| 211 | PegOffsetValue | Int | 3 | From -128 to 127 | С | CASH ONLY Tick offset for a pegged order. | |
| | Message Trailer | | | | М | | |

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3.3.6 Rejection of a New Order

Message: ExecutionReport (8)

Sample values provided in this example represent a rejection of New Order on instrument with Symbol Index 1110530 in COB.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|------------------|-------------|-----|--|-----|---|------------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | М | | |
| 21005 | ClientMessageSen | UTCTimestam | 27 | Timestamp | С | Indicates the time of message transmission, | 20190214- |
| | dingTime | р | | | | the consistency of the time provided is not | 15:30:01.4 |
| | | | | | | checked by the Exchange. | 62743346 |
| 5979 | OEGINFromMemb | UTCTimestam | 27 | Timestamp | С | Order Entry Gateway IN time from member | 20190214- |
| | er | р | | | | (in ns), measured when inbound message | 15:28:52.8 |
| | | | | | | enters the gateway | 33883664 |
| 7764 | OEGOUTToME | UTCTimestam | 27 | Timestamp | С | Gateway OUT time to ME (in ns), measured | 20190214- |
| | | р | | | | when inbound message leaves the gateway | 15:28:52.8 |
| | | | | | | | 34193232 |
| 21002 | BookINTime | UTCTimestam | 27 | Timestamp | Α | Time of order modification is processed by | 20180312 |
| | | р | | | | the ME | 08593000 |
| | | | | | | | 0011000 |
| 21003 | BookOUTTime | UTCTimestam | 27 | Timestamp | C | Matching Engine OUT time (in ns), when | 20190214- |
| | | р | | | | message leaves the Matching Engine (ME) | 15:28:52.8 |
| | | | | | | | 40568733 |
| 7765 | OEGINFromME | UTCTimestam | 27 | Timestamp | C | Gateway IN time from ME (in ns), measured | 20190214- |
| | | р | | | | when outbound message enters the | 15:28:52.8 |
| | | | | | - | gateway | 33883664 |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | С | Identifier of an Order assigned by the Client | 97 |
| | | | | | | when submitting an order to the Exchange | |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange defined ID of an | 1110530 |
| | | <u>.</u> | | | | instrument/contract | <u> </u> |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | M | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) | С | Exchange Market Mechanism | 1 |
| | | | | 7 = Derivatives On Exchange Off book | | | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|---------------|------------|----------|---------------------------------------|-----|--|------------------|
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | M | Numerical order identifier assigned by ME Order ID is provided in case the rejection of the order is Functional. | 15 |
| | | | | | | In case a FIX message is rejected for Technical reasons, it is not processed by the matching engine and then the OrderID is not allocated and not provided in the rejection message. | |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Indicates the remaining quantity of an order (quantity open for further execution). | 1050 |
| 17 | FueelD | Chrise | 10 | From 0 to 2^32-2 | м | For RFQ Ack field populated with value -1 | NA |
| 17 | ExecID | String | 10 20 | From 0 to 2^32-2 From -1 to 2^64-2 | | Set to NA for non-trade related messages | NA 0 |
| 14 | CumQty | Qty | 20 | From -1 to 2"64-2 | м | Cumulated quantity (to be calculated with Quantity Decimals). | 0 |
| 39 | OrdStatus | Char | 1 | 8 = Rejected | м | For RFQ Ack field populated with value -1 Order status | 8 |
| 150 | ExecType | Char | 1 | 8 = Rejected | M | Describes the specific type of | 8 |
| 150 | Ехестуре | Char | 1 | o = kejetteu | IVI | ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | 0 |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 6786 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | Α | Source of PartyID value | Р |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|-------------------------|------------|-----|---|-----|---|------------------|
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For Execution with Firm short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | C | Used to further qualify the value of PartyRole (452) For ExecutionWithinFirmShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Always set to Yes if OrderAttributeType (2594) if provided | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------|-----------------------|-----|--|-----|---|------------------|
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives positions 0 is not applicable and is always set to 0. | 000000 |
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | A | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | Always set to 1 | А | Two fill messages are sent for Cross orders | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | Α | Indicates the side of the order. | 1 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | С | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | С | Identifier of the Logical Access. | 9702 |
| 9955 | ErrorCode | Int | 5 | From 0 to 2^16-2 | А | Error code in case of rejection. | 2101 |
| | Message Trailer | | | | М | | |

3.3.7 Rejection of Order Modification or Cancellation

Message: OrderCancelReject (9)

Sample values provided in this example represent a rejection of order modification on instrument with Symbol Index 1110530 in COB.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-----|----------------|--------|-----|-----------------|-----|--|---------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | М | | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------------|-----|--|-----|--|---------------------------------|
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | С | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20180312 08593000 0009000 |
| 5979 | OEGINFromMemb er | UTCTimestam p | 27 | Timestamp | С | Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway | |
| 7764 | OEGOUTToME | UTCTimestam p | 27 | Timestamp | С | Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway | |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | С | Time of order modification rejection processed by the ME | |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | С | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | |
| 7765 | OEGINFromME | UTCTimestam p | 27 | Timestamp | С | Gateway IN time from ME (in ns), measured when outbound message enters the gateway | |
| 11 | ClOrdID | String | 20 | From -2^63 to 2^63-1 | С | Identifier of an Order Modification message assigned by the Client when submitting the order modification message to the Exchange | 171 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | С | Exchange defined ID of an instrument/contract | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | С | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) | С | Exchange Market Mechanism | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | С | Numerical order identifier assigned by ME | 15 |
| 9955 | ErrorCode | Int | 5 | From 0 to 2^16-2 | А | Error code in case of rejection. | 2101 |
| 434 | CxlRejResponseTo | Char | 1 | 1 = OrderCancelRequest (F) 2 = OrderCancelReplaceRequest (G) 3 = MassQuote (i) 4 = OrderMassCancelRequest (q) | М | Identifies the type of request that the OrderCancelReject (9) is in response to. | 1 |
| 39 | OrdStatus | Char | 1 | 8 = Rejected | М | Order status | 8 |

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Message Structure For Individual Cases

| | | | | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------------|-----------------------|----|--|--------|---|------------------|
| 21014 | AckQualifiers | MultipleCharV alue | 15 | 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 | A | Field used to provide additional information on the corresponding order. For Derivatives positions 0 is not applicable and is always set to 0. | 000000 |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | С | Identifies uniquely an OE Optiq partition by which the engine is reached. Provided in case | 10 |
| 21021 | LogicalAccessID Message Trailer | Int | 10 | From 0 to 2^32-1 | C M | Identifier of the Logical Access. | 9702 |

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3.4. TRADE MESSAGES

Examples of various trade message cases are provided below in individual sections.

3.4.1 Trading Venue Transaction Identification Code (TVTIC)

The Trading Venue Transaction Identification Code (TVTIC) is the unique identifier of a trade in the MiFID II framework. Each individual trade has a corresponding TVTIC.

For Cash Markets

The TVTIC is the concatenation of:

- The SecurityID (48) (equivalent of SBE Symbol Index) (10 characters, left-padded with zeroes).
- The EMM (20020) (equivalent SBE EMM) (3 characters, left-padded with zeroes).
- The ExecID (17) (equivalent of SBE Execution ID) (10 characters, left-padded with zeroes).

The different ways to get a trade TVTIC are:

- Using the public Market Data feed, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC.
- Using the private Order Entry feed, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above (Symbol Index (FIX SecurityID (48)) + EMM (FIX EMM (20020)) + ExecutionID (FIX ExecID (17))).
- Using the EOD Day Trade file (FTRRM), field TVTIC (as of implementation of new TVTIC format for Cash Markets in Production).

For Derivatives Markets

For trades on individual instruments: (Derivatives outright instruments)

The TVTIC is the concatenation of:

- The Execution ID (FIX ExecID (17)).
- The instrument ISIN.

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Message Structure For Individual Cases

The different ways to get a trade TVTIC are:

- Using the Market Data flow, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC.
- Using the private Order Entry flow, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above (ExecutionID (FIX ExecID (17)) + ISIN).

For transactions on complex instruments: (Derivatives Strategies Trades on Central Order Book (COB) or Large in Scale (LiS) Packages Trades on Derivatives Wholesales).

For COB Strategy Trades: each strategy trade is always published alongside the corresponding trades at leg level. MiFID II reporting being at leg level, clients should build the TVTIC of each trade at the leg level.

For LiS Package Trades: the transaction consists of a single consistent pre-negotiated package, and the individual components of the trade are not published individually in Market Data. To build each individual trade component, clients must use the LiS Transaction ID of the Package (Provided on both Market Data and Order Entry feeds) to group all private **Fill** (04) / **Execution Report** messages received for the LiS Package Transaction.

The TVTIC is built as follows:

- For COB Strategy Trades: TVTIC = Execution ID (FIX LegExecID (1893)) + Strategy Symbol Index (FIX LegEscurityID (600)).
- For LiS Package Trades: TVTIC = LiS Transaction ID (FIX LISTransactionID (21085)) + Contract Symbol Index (for COB Strategy trades FIX LegSecurityID (600), for LIS Package Trades FIX SecurityID (48)).

The different ways to get a trade TVTIC are:

- Using the Market Data feed, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC.
- Using the private Order Entry feed, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above:
 - For COB Strategy Trades: getting Execution ID (FIX LegExecID (1893)) + Strategy Symbol Index (FIX LegEsecurityID (600))
 - For LIS Package Trades: getting LIS Transaction ID (FIX LisTransactionID (21085)) + Contract Symbol Index (FIX SecurityID (48)).

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3.4.2 Trade Execution (Full or Partial Fill) – Individual Instrument (Cash) / Outright (Derivatives)

Sample values provided in this example represent a newly executed trade, with details of either fully or partially filled orders. A trade message contains the required details of participated orders. Each participant receives specific data details associated to their orders. The example below is for a Full Fill of a Limit order with Day validity on instrument with Symbol Index *1110530* in Central order book.

For Wholesale Trades:

The trade execution for a Wholesale Transaction is provided via the ExecutionReport (8) message. For an Outright or a Strategy, this message will be with EMM = 4 (Derivative Wholesales).

The executions for wholesale transactions done on strategies send individual ExecutionReport (8) messages for each leg of the strategy. This mean that for Delta-Neutral with a Cash underlying, submitted as a wholesale transaction, the client receives a private message for the Cash instrument that is part of the Delta-neutral strategy.

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For Request for Cross (RFC) Trades:

The trade execution for a Request for Cross (RFC) facility is provided via the ExecutionReport (8) message, for an Outright or a Strategy. This message will be with EMM = 7 (Derivative On Exchange Off book).

Message: ExecutionReport (8)

| Тад | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|------------------|-----|------------------|-----|---|---|
| | Message Header | - | | | м | | |
| 60 | TransactTime | UTCTimestam p | 27 | Timestamp | A | Indicates the time of message transmission In ExecutionReport (8) it is provided only in case of Fill or Partial Fill. | 20190214 - 15:28:49. 80223235 1 |
| 21005 | ClientMessageSen dingTime | UTCTimestam p | 27 | Timestamp | A | Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. | 20190214 - 15:30:01. 46242585 7 |
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | A | Matching Engine OUT time (in ns), when message leaves the Matching Engine | 20190214 - 15:28:49. 80223235 1 |
| 41 | OrigClOrdID | UTCTimestam p | 27 | Timestamp | A | Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests. | 11500009 22 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange identification code of the instrument represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files. | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|---|-----|---|------------------|
| 20020 | ЕММ | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 4 = Derivative Wholesales 7 = Derivative On Exchange Off book 8 = ETF MTF - NAV Central Order Book | A | Defines the Exchange Market Mechanism applied on each platform. | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by the matching engine, unique per instrument and EMM. ClOrdID (11) is not provided in unsolicited messages, however the order can be identified using the provided OrderID (37) | 9756482 |
| 39 | OrdStatus | Char | 1 | 1 = Partially filled 2 = Filled | М | Order status | 2 |
| 21004 | OrderPriority | Int | 20 | DISTRICTION CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR C | С | Rank / priority of an order. Order with lowest value in OrderPriority has the highest priority. Value that can be used to reconcile orders between private and public messages. | 2 |
| 20052 | DarkExecutionInst ruction | MultipleCharV alue | 9 | First Position = Dark Indicator (0: No ; 1: Yes) Forth Position = Sweep Order Indicator (0: No ; 1: Yes) Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES) | С | CASH ONLY Field used as instruction for dark order handling. | 000 |
| 44 | Price | Price | 20 | From -2^63 to 2^63-1 | 0 | Instrument price per quantity unit (to be calculated with Price/Index Level Decimals). Field populated for Limit, Iceberg (Cash) and Stop Limit (Cash) orders. Not provided for Market, Stop-market (Cash), Peg (Cash) and MTL orders. For trade prices clients should rely on field LastPx (31). | 25 |
| 38 | OrderQty | Qty | 20 | From 0 to 2^64-1 | 0 | Total order quantity, per quantity unit (to be calculated with Quantity Decimals). | 100 |
| 110 | MinQty | Qty | 20 | Value '0' by default and depending to a minimum value for the given instrument and/or market type | С | Minimum quantity to be executed upon order entry (else the order is rejected). | |
| 31 | LastPx | Price | 20 | From -2^63 to 2^63-1 | Α | Price at which order is filled | 002475 |
| 32 | LastQty | Qty | 20 | From 0 to 2^64-1 | Α | Quantity of the fill | 100 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|---------------|------------|-----|--|-----|---|------------------|
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | м | Indicates the remaining quantity of an order, i.e. the quantity open for further execution (to be calculated with Quantity Decimals). | 0 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | М | The ExecID 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. | 9856741 |
| 150 | ЕхесТуре | Char | 1 | F = Trade G = Trade Creation by Market Operation R = RFQ partially or fully matched with other counterparts | м | Describes the specific ExecutionReport while OrdStatus (39) will always identify the current order status (e.g. Partially Filled). | F |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries. | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 59786 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | A | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For Execution with Firm short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|-------------------------|------------|-----|--|-----|---|------------------|
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of PartyRole (452) For ExecutionWithinFirmShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |
| 2593 | NoOrderAttribute s | NumInGroup | 1 | If provided, from 1 to 2 | С | Number of order attribute entries | |
| 2594 | OrderAttributeTyp e | Int | 1 | 0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order | С | Used in case client needs to indicate values of AGGR or PNAL, OR in Risk Reduction order Provided if filled in the original order is flagged with one of the possible values | |
| 2595 | OrderAttributeVal ue | String | 1 | Y = Yes | С | Provided if OrderAttributeType (2594) is specified | |
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order that participated in the trade results from trading as matched principal, on own account or as any other capacity. | 7 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------|--------|-----|---|-----|--|------------------|
| 21010 | TradeType | Int | 3 | 1 = Conventional Trade (Cash and Derivatives) 2 = Large in Scale (LiS) Trade (Derivatives Only) 5 = Guaranteed Cross Trade (Cash and Derivatives) 6 = Against Actual Trade (Derivatives Only) 9 = Exchange for Swaps Trade (Derivatives Only) 11 = Strategy Leg Conventional Trade (Derivatives Only) 20 = BoB Trade (Cash Only) 30 = Request for Cross Trade (Derivatives Only) 31 = Request for cross strategy Leg Trade (Derivatives Only) 33 = Dark Trade (Cash Only) 34 = Delta Neutral Trade - Underlying Future Leg (Derivatives Only) 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) 42 = Large in Scale (LiS) Package Trade in Dasis points (Derivatives Only) | С | Type of trade | 1 |
| 21023 | ExecPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Uncrossing Phase 3 = Trading At Last Phase 4 = Continuous Uncrossing Phase | A | Indicates the trading phase during which the trade has occurred. | 1 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------|-----------------------|-----|--|-----|---|------------------|
| 21080 | TradeQualifier | MultipleCharV alue | 15 | 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 | A | Trade Qualifier. This field can contain up to 7 values, space delimited, provided in different positions. | 2 |
| 375 | ContraBroker | String | 20 | From 0 to 2^64-1 | С | CASH ONLY ID of the Counterpart Firm in specific cases | |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | А | Identifier of the Logical Access. | 9875 |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | М | Cumulated quantity (to be calculated with Quantity Decimals). | 100 |

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4.12.0

Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|------------------|--------|-----|--|-----|--|------------------|
| 336 | TradingSessionID | String | 3 | 101 = Session 1 102 = Session 2 103 = Session 3 104 = Session 4 205 = Session 1 and Session 3 313 = Session 1, 3 and Session 4 123 = All Sessions, deprecated (no more used on Optiq) | С | Defines the validity time periods for Valid For Session orders. Sessions represent the following: Session 1 – Normal Trading Hours (Cash) Session 2 – Normal Trading Hours (Derivatives for future use) Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET) Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET) For Cash: Except Structured Products: Only 101 = Session 1 is valid For Structured Products: 101 = Session 3, 313 = Session 1, 3 and Session 4 are allowed; For Derivatives: The field is not provided | 101 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | A | Type of Order. Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|-------------------------|------------|-----|---|-----|--|------------------|
| 59 | TimeInForce | Char | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | С | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | Always set to 1 | А | Two fill messages are sent for Cross orders | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order. | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction. Populated in Drop Copy only if provided on order entry by the client. | |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. This field is part of the clearing data. Populated in Drop Copy only if provided on order entry by the client. | |
| 1 | Account | String | 12 | Alphanumeric | С | Account Number. Client account number identifying the investor's account. This field is part of the clearing data. | |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 are only for Cash Markets Values 14 and 15 are only for Derivatives Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility | Value |
|-------|------------------|---------------|-----|---|-------|---|-----------|
| Tag | Field Name | Format | Len | Possible values | IVI/C | | |
| 20024 | LPRole | 1.1 | 4 | | C | Notes & Conditions | Example |
| 20021 | LPROIE | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] | C | Liquidity Provider Role identifies the type of the Liquidity Provider when | |
| | | | | 12 = RFQ Liquidity Provider [C] | | AccountCode is equal to "Liquidity | |
| | | | | IZ = RFQ Liquidity Provider [C] | | Provider". | |
| | | | | | | Flowider . | |
| | | | | | | Only value 1 is applicable for the | |
| | | | | | | Derivatives Markets. | |
| 7443 | PostingAction | MultipleCharV | 19 | 0 = Field Actively Used | 0 | Posting action code (Open/Close) for the | 000000 |
| | 0 | alue | _ | 1 = Leg 1 | - | order. | 0000 |
| | | | | 2 = Leg 2 | | | |
| | | | | 3 = Leg 3 | | Populated in Drop Copy only if provided on | |
| | | | | 4 = Leg 4 | | order entry by the client. | |
| | | | | 5 = Leg 5 | | | |
| | | | | 6 = Leg 6 | | Only positions 0 and 1 apply for the Cash | |
| | | | | 7 = Leg 7 | | markets | |
| | | | | 8 = Leg 8 | | | |
| | | | | 9 = Leg 9 | | | |
| 21804 | LongClientID | String | 16 | Alphanumeric | 0 | DERIVATIVES ONLY | Long |
| | | | | | | Field used to identify the Client (investor), | Client ID |
| | | | | | | or trader's reference / posting order | |
| | | | | | | number for a pre-posting, entered as a free | |
| | | | | | | text used for clearing purposes. This field is | |
| | | | | | | part of the clearing aggregate for Derivatives. | |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 6 | С | Number of NestedPartyID entries. | 6 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | This use of the repeating group is to | 463 |
| 524 | NesteuraityiD | String | 11 | Alphanumenc | C | provide | 405 |
| | | | | | | InvestmentDecisionwithinShortCode | |
| 525 | NestedPartyIDSou | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. | Р |
| 525 | rce | C.I.d. | _ | | | | |
| 538 | NestedPartyRole | Int | 3 | 122 = Investment decision maker | С | Identifies the type of role of the | 122 |
| | | | | | | NestedPartyID (524) specified. | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|---|-----|---|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 22 = Algorithm 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of NestedPartyRole (538). For Investment Decision within short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 22 (Algorithm) or 24 (Natural Person); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 463 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | С | Identifies the type or role of the NestedPartyID (524) specified | 3 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | C | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide NonExecutionBrokerShortCode | 300 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | C | Source of NestedPartyID value. Populated only if provided in the original order message | Р |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|--|-----|--|------------------|
| 538 | NestedPartyRole | Int | 3 | 26 = Correspondent Broker | С | Identifies the type or role of the NestedPartyID (524) specified. Populated only if provided in the original order message | 26 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | C | Used to further qualify the value of NestedPartyRole (538). Populated only if provided in the original order message. For NonExecutionBrokerShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide Clearing Firm ID | 9995 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value | D |
| 538 | NestedPartyRole | Int | 3 | 4 = Clearing Firm | С | Identifies the type or role of the NestedPartyID (524) specified | 4 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | C | CASH ONLY This use of the repeating group is to provide Client ID provided in scope of the clearing data. This combination of fields is used for Cash markets only. For the Derivatives markets equivalent data is provided via LongClientID (21804) field. | 1581 |
| 525 | NestedPartyIDSou rce | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value | D |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | C | Identifies the type or role of the NestedPartyID (524) specified | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility | Value |
|-------|------------------------------|------------|-----|--|-----|---|---------|
| | | | | | | Notes & Conditions | Example |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For Client ID in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 21096 | ESCBMembership | Int | 2 | 0 = False 1 = True | 0 | For Wholesale Trades only (Outright and Strategy) 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. | 0 |
| 21802 | EvaluatedPrice | Price | 20 | From -2^63+1 to 2^63-1 | С | For TRF and MOC contracts only For TRF and MOC contracts only This field is used for the Total Return Future (TRF) and Market On Close (MOC) contracts to provide the trade price calculated against provisional (a.k.a. preliminary) or final price of the underlying index or stock, while Last Traded Price provides price in Spread (in basis or index points). The value in field Trade Type allows to identify if the trade message contains provisional or final price. | 35 |
| 21803 | MessagePriceNota tion | Enumerated | 2 | 1=Price 2=Spread in basis points 3=Spread | C | Eor TRF and MOC contracts only This field provides the type of price notation used per message. For TRF and MOC products the value "Price" is used for TAM trading mode, the values "Spread in basis points" and "Spread" are used for TAIC trading mode. | 1 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility | Value |
|-----------------------------------|---|-----------------|--------------|---|------------------|---|--------------------------------|
| | | | | | | Notes & Conditions | Example |
| 21805 | FinalSecurityID | String | 10 | From 0 to 2^32-2 | С | For MOC contracts only | |
| | | | | | | Used only for trades of Market On Close | |
| | | | | | | Future. Provided in the Final trade to allow | |
| | | | | | | linking to the Temporary trade. | |
| 21806 | FinalExecID | String | 10 | From 0 to 2^32-2 | С | For MOC contracts only | |
| | | | | | | Used only for trades of Market On Close | |
| | | | | | | Future. Provided in the Final trade to allow | |
| | | | | | | linking to the Temporary trade. | |
| 21085 | LISTransactionID | String | 10 | From 0 to 2^32-2 | С | For Wholesale Trades only (Outright and | 957831 |
| | | | | | | Strategy) | |
| | | | | | | ID that can be used to associated | |
| | | | | | | Executions belonging to the same LIS | |
| | | | | | | Transaction | |
| | ting group is provi | | | , in addition to the fields already identific he strategy. | d in the s | ection above for Trade Execution, the | following |
| repea | ting group is provi | ded for each le | eg of t | he strategy. | | | - |
| | | | | · · · | ed in the s | ection above for Trade Execution, the For Wholesale Trades on Strategy only | following |
| repea | ting group is provi | ded for each le | eg of t | he strategy. | | For Wholesale Trades on Strategy only | - |
| repea | ting group is provi | ded for each le | eg of t | he strategy. | | For Wholesale Trades on Strategy only Provides the number of repeating groups. | - |
| repea | ting group is provi | ded for each le | eg of t | he strategy. From 1 to 7 | C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 | 1 |
| repea | ting group is provi | ded for each le | eg of t | he strategy. | | For Wholesale Trades on Strategy only Provides the number of repeating groups. | - |
| repea | ting group is provi | ded for each le | eg of t | he strategy. From 1 to 7 | C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 | 1 |
| repea | ting group is provi | ded for each le | eg of t | he strategy. From 1 to 7 | C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 For Wholesale Trades on Strategy only | 1 |
| repea | ting group is provi | ded for each le | eg of t | he strategy. From 1 to 7 | C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 For Wholesale Trades on Strategy only When populated should always contain the | 1 |
| repea 555 600 | ting group is provi NoLegs LegSymbol | ded for each le | 2 10 | he strategy. From 1 to 7 From 0 to 2^32-2 | C M | For Wholesale Trades on Strategy onlyProvides the number of repeating groups.Maximum number of legs is 7For Wholesale Trades on Strategy onlyWhen populated should always contain theSymbol Index of the ContractFor Wholesale Trades on Strategy only | 1 90030000 |
| repea 555 600 | ting group is provi NoLegs LegSymbol | ded for each le | 2 10 | he strategy. From 1 to 7 From 0 to 2^32-2 | C M | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 For Wholesale Trades on Strategy only When populated should always contain the Symbol Index of the Contract | 1 90030000 |
| repea 555 600 602 | NoLegs | ded for each le | 2 10 10 10 | he strategy. From 1 to 7 From 0 to 2^32-2 From 0 to 2^32-2 | C M C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 For Wholesale Trades on Strategy only When populated should always contain the Symbol Index of the Contract For Wholesale Trades on Strategy only Symbol Index of the Leg | 1 90030000 90030001 |
| repea 555 600 602 | NoLegs LegSymbol LegSecurityID LegSecurityIDSour | ded for each le | 2 10 10 10 | he strategy. From 1 to 7 From 0 to 2^32-2 From 0 to 2^32-2 | C M C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 For Wholesale Trades on Strategy only When populated should always contain the Symbol Index of the Contract For Wholesale Trades on Strategy only Symbol Index of the Leg For Wholesale Trades on Strategy only Symbol Index of the Leg For Wholesale Trades on Strategy only Required if LegSecurityID (602) is provided. | 1 90030000 90030001 |
| repea 555 600 602 603 | NoLegs LegSymbol LegSecurityID LegSecurityIDSour ce | ded for each le | 2 10 10 10 1 | he strategy. From 1 to 7 From 0 to 2^32-2 From 0 to 2^32-2 8 = Symbol Index | C M C C | For Wholesale Trades on Strategy onlyProvides the number of repeating groups. Maximum number of legs is 7For Wholesale Trades on Strategy onlyWhen populated should always contain the Symbol Index of the ContractFor Wholesale Trades on Strategy onlySymbol Index of the LegFor Wholesale Trades on Strategy onlySymbol Index of the LegFor Wholesale Trades on Strategy onlyRequired if LegSecurityID (602) is provided. For Derivatives markets only. | 1 90030000 90030001 8 |
| repea 555 600 602 | NoLegs LegSymbol LegSecurityID LegSecurityIDSour | ded for each le | 2 10 10 10 | he strategy. From 1 to 7 From 0 to 2^32-2 From 0 to 2^32-2 | C M C | For Wholesale Trades on Strategy only Provides the number of repeating groups. Maximum number of legs is 7 For Wholesale Trades on Strategy only When populated should always contain the Symbol Index of the Contract For Wholesale Trades on Strategy only Symbol Index of the Leg For Wholesale Trades on Strategy only Symbol Index of the Leg For Wholesale Trades on Strategy only Required if LegSecurityID (602) is provided. | 1 90030000 90030001 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|-----------------|--------|-----|---------------------|-----|--|------------------|
| 1418 | LegLastQty | Qty | 20 | From 0 to 2^64-2 | С | For Wholesale Trades on Strategy only Execution quantity for the leg | 10 |
| 624 | LegSide | Char | 1 | 1 = Buy 2 = Sell | С | For Wholesale Trades on Strategy only Indicates the side of the trade leg. | 1 |
| 1893 | LegExecID | String | 10 | From 0 to 2^32-2 | C | For Wholesale Trades on Strategy only The Leg Execution ID is unique per instrument and per day. It is the unique identifier of a trade for each leg of the strategy trade. This field is provided in case of fill, partial fill or trade cancellation for a strategy. | 1 |
| | Message Trailer | | | | м | | |

3.4.3 Cancellation of a Trade

Message: ExecutionReport (8)

Sample values provided in this example represent a cancellation of a previously executed trade. The details of the order that participated in the cancelled trade are for a Full Fill of a Limit order with Day validity on instrument with Symbol Index *1110530* in Central order book.

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|-------|---------------------|------------------|-----|-----------------|-----|---|---------------------------------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | Μ | | |
| 5979 | OEGINFromMemb er | UTCTimestam p | 27 | Timestamp | A | Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway | 20180312 08593000 0020700 |
| 21002 | BookINTime | UTCTimestam p | 27 | Timestamp | A | Time of trade cancellation is processed by the ME | 20180312 08593000 0021000 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------|------------------|-----|--|-----|---|---------------------------------|
| 21003 | BookOUTTime | UTCTimestam p | 27 | Timestamp | A | Matching Engine OUT time (in ns), when message leaves the Matching Engine (ME) | 20180312 08593000 0021050 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange identification code of the instrument represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files. | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | Int | 2 | 1 = Cash and Derivative Central Order Book (COB) 4 = Derivative Wholesales 7 = Derivative On Exchange Off book 8 = ETF MTF - NAV Central Order Book | A | Defines the Exchange Market Mechanism applied on each platform. | 1 |
| 37 | OrderID | String | 20 | From 0 to 2^64-2 | М | Numerical order identifier assigned by the matching engine, unique per instrument and EMM. ClOrdID (11) is not provided in unsolicited messages, however the order can be identified using the provided OrderID (37) | 9756482 |
| 39 | OrdStatus | Char | 1 | H = Cancel Trade | М | Order status | Н |
| 31 | LastPx | Price | 20 | From -2^63 to 2^63-1 | Α | Price at which order is filled | 002475 |
| 32 | LastQty | Qty | 20 | From 0 to 2^64-1 | Α | Quantity of the fill | 100 |
| 151 | LeavesQty | Qty | 20 | From -1 to 2^64-2 | М | Remaining quantity of an order is provided as value '-1' for Trade cancellation. | -1 |
| 17 | ExecID | String | 10 | From 0 to 2^32-2 | М | The ExecID is unique per instrument and per day. It is the unique identifier of a trade per instrument. In case of Cancellation this field contains the same value as the one provided in field ExecRefID, which identifies the ID of the trade being cancelled. | 587 |
| 150 | ЕхесТуре | Char | 1 | H = Cancel Trade | М | Describes the specific type of ExecutionReport (8) message while OrdStatus (39) always identifies the current order status (e.g. Partially Filled). | Н |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|--------------------|------------|-----|---|-----|---|------------------|
| 21094 | ParentExecID | String | 10 | From 0 to 2^32-2 | С | Used for a Strategy only Derivatives Only Unique identifier of a parent trade executed on the strategy. | 8789 |
| 21093 | ParentSecurityID | String | 10 | From 0 to 2^32-2 | С | Used for a Strategy only Derivatives Only Unique identifier of the strategy on which the trade was executed. | 9998000 |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries. | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the ExecutionWithinFirmShortCode | 59786 |
| 447 | PartyIDSource | Char | 1 | P = Short code identifier | А | Source of PartyID value | Р |
| 452 | PartyRole | Int | 3 | 3 = Client ID 12 = Executing Trader 999 = Not Applicable | A | Identifies the type or role of the PartyID (448) specified. For Execution with Firm short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 999 (Not Applicable); • were received in FIX protocol, the value will be set to 3 (Client ID) or 12 (Executing Trader) | 12 |
| 2376 | PartyRoleQualifier | Int | 2 | 22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | C | Used to further qualify the value of PartyRole (452) For ExecutionWithinFirmShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol, the value will be set to 22 (Algorithm) or 23 (Firm or Legal Entity) or 24 (Natural Person); | 23 |
| 1724 | OrderOrigination | Int | 1 | 5 = Order received from a direct access or sponsored access customer | С | Identifies the origin of the order | |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------|-----------------------|-----|---|-----|--|------------------|
| 29 | LastCapacity | Char | 1 | 7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC) | A | Indicates whether the order that participated in the trade results from trading as matched principal, on own account or as any other capacity. | 7 |
| 21010 | TradeType | Int | 2 | 24 = Trade Cancellation (Cash and Derivatives) | С | Type of trade | 1 |
| 21023 | ExecPhase | Char | 1 | 1 = Continuous Trading Phase 2 = Uncrossing Phase 3 = Trading at Last Phase 4 = Continuous Uncrossing Phase | A | Indicates the trading phase during which the trade has occurred. | 1 |
| 21080 | TradeQualifier | MultipleCharV alue | 15 | 0 = Uncrossing Trade 1 = First Trade Price 2 = Passive Order 3 = Aggressive Order 4 = Trade Creation by Market Operations (Future Use) 5 = NAV Trade expressed in bps (Future Use) 6 = NAV Trade expressed in price currency (Future Use) | A | Trade Qualifier. This field can contain up to 7 values, space delimited, provided in different positions. | 2 |
| 375 | ContraBroker | String | 20 | From 0 to 2^64-1 | C | CASH ONLY ID of the Counterpart Firm in specific cases | |
| 21019 | OEPartitionID | Int | 5 | From 0 to 2^16-1 | A | Identifies uniquely an OE Optiq partition by which the engine is reached. | 10 |
| 21021 | LogicalAccessID | Int | 10 | From 0 to 2^32-1 | А | Identifier of the Logical Access. | 9875 |
| 19 | ExecRefID | String | 10 | Sequential number. From 0 to 2^32-1 | С | The ExecRefID is an unique identifier of a trade being cancelled. In the original Trade message this value is provided in the field ExecID (17). This field is provided in case of trade cancellation. | 587 |
| 14 | CumQty | Qty | 20 | From -1 to 2^64-2 | М | Cumulated quantity is provided as value '-1' for Trade cancellation. | -1 |
| 40 | OrdType | Char | 1 | 1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg T = Average Price X = Iceberg | A | Type of Order. Values 3, 4, K, P, T and X are only for Cash Markets | 2 |

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Message Structure For Individual Cases

| Tog | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|------|-------------------------|------------|-----|---|-------|---|---------|
| Тад | Field Name | Format | Len | Possible values | IVI/C | & Conditions | |
| 50 | TimeInForce | Char | 1 | 0.0. | С | | Example |
| 59 | limeinForce | Cnar | 1 | 0 = Day 1 = Good Till Cancel (GTC) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good till Date (GTD) 7 = At the Close A = Good for Time (GTT) B = Good for auction (GFA) | | Specifies the maximum validity of an order. Values 7 and B are only for Cash Markets. | 0 |
| 552 | NoSides | NumInGroup | 1 | Always set to 1 | А | Two fill messages are sent for Cross orders | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order. | 1 |
| 577 | ClearingInstructio n | Int | 4 | 0 = Process normally (formerly Systematic posting) 8 = Manual mode 9 = Automatic posting mode 10 = Automatic give-up mode | С | Clearing Instruction. Populated in Drop Copy only if provided on order entry by the client. | |
| 58 | Text | String | 18 | Alphanumeric | 0 | Free Text is manually entered by the trader issuing the order. This field is part of the clearing data. Populated in Drop Copy only if provided on order entry by the client. | |
| 1 | Account | String | 12 | Alphanumeric | С | Account Number. Client account number identifying the investor's account. This field is part of the clearing data. | |
| 6399 | AccountCode | Int | 1 | 1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client | 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. Values 4, 7, and 8 are only for Cash Markets Values 14 and 15 are only for Derivatives Markets | 2 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------------------|-----------------------|-----|--|-----|--|------------------|
| 20021 | LPRole | Int | 1 | 1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider [C] 12 = RFQ Liquidity Provider [C] | С | Liquidity Provider Role identifies the type of the Liquidity Provider when AccountCode is equal to "Liquidity Provider". Only value 1 is applicable for the Derivatives Markets. | |
| 7443 | PostingAction | MultipleCharV alue | 19 | 1 = Leg 1 | 0 | Posting action code (Open/Close) for the order. This field is part of the clearing data. Populated in Drop Copy only if provided on order entry by the client. | |
| 539 | NoNestedPartyIDs | NumInGroup | 1 | From 1 to 4 | С | Number of NestedPartyID entries. | 6 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide InvestmentDecisionwithinShortCode | 463 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 122 = Investment decision maker | С | Identifies the type of role of the NestedPartyID (524) specified. | 122 |
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 22 = Algorithm 24 = Natural person 99 = Not Applicable | С | Used to further qualify the value of NestedPartyRole (538). For Investment Decision within short code in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 22 (Algorithm) or 24 (Natural Person); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide ClientIdentificationShortCode | 463 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value | Р |
| 538 | NestedPartyRole | Int | 3 | 3 = Client ID | C | Identifies the type or role of the NestedPartyID (524) specified | 3 |

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Message Structure For Individual Cases

| Tag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|------------------------------|--------|-----|---|-----|--|------------------|
| 2384 | NestedPartyRoleQ ualifier | Int | 2 | 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable | с | Used to further qualify the value of NestedPartyRole (538). For ClientIdentificationShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity) or 24 (Natural person) | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide NonExecutionBrokerShortCode | 300 |
| 525 | NestedPartyIDSou rce | Char | 1 | P = Short code identifier | С | Source of NestedPartyID value. Populated only if provided in the original order message | Ρ |
| 538 | NestedPartyRole | Int | 3 | 26 = Correspondent Broker | С | Identifies the type or role of the NestedPartyID (524) specified. Populated only if provided in the original order message | 26 |
| 2384 | NestedPartyRoleQ ualifier | int | 2 | 23 = Firm or legal entity 99 = Not Applicable | с | Used to further qualify the value of NestedPartyRole (538). Populated only if provided in the original order message. For NonExecutionBrokerShortCode in Drop Copy where the values in the original trading OEG message: • were received in SBE protocol the value will be set to 99 (Not Applicable); • were received in FIX protocol the value will be set to 23 (Firm or Legal Entity); | 23 |
| 524 | NestedPartyID | String | 11 | Alphanumeric | С | This use of the repeating group is to provide Clearing Firm ID | 9995 |

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Message Structure For Individual Cases

| T | ag | Field Name | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|---|----|------------------|--------|-----|-------------------------------|-----|--|---------|
| | | | | | | | & Conditions | Example |
| 5 | 25 | NestedPartyIDSou | Char | 1 | D = Proprietary / Custom code | С | Source of NestedPartyID value | D |
| | | rce | | | | | | |
| 5 | 38 | NestedPartyRole | Int | 3 | 4 = Clearing Firm | С | Identifies the type or role of the | 4 |
| | | | | | | | NestedPartyID (524) specified | |
| | | Message Trailer | | | | М | | |

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3.5. TCS MESSAGES (CASH ONLY)

Examples of various TCS declaration message cases are provided below in individual sections.

MIFID II short codes are not sent back in TCS declaration messages in Drop Copy.

3.5.1 "Pre-Matched" Declaration Notice

Message: TradeCaptureReportAck (AR)

Sample values provided in this example represent a notice that a declaration has been pre-matched, for an instrument with Symbol Index *1110530* in TCS, which was set on secondary listing place of XAMS.

| Тад | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|----------------|--------|-----|---|-----|--|------------------|
| | Message Header | | | | м | | |
| 571 | TradeReportID | String | 20 | From -2^63+1 to 2^63-1 | A | Unique identifier of trade capture report | 15 |
| 1003 | TradeID | String | 20 | From 0 to 2^64-2 | A | The unique ID assigned by the matching engine to the trade entity, once it is received or matched. | |
| 939 | TrdRptStatus | Int | 2 | 18 = Pre-Matched | А | Trade Report Type | 18 |
| 828 | TrdType | Int | 2 | 51 = Volume weighted average trade 1001 = Declaration of a trade outside the book 1002 = Fund order (quantity) 1003 = Fund order (cash amount) 1004 = Declaration of a trade on a Secondary listing place | A | Type of Operation | 1004 |

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Message Structure For Individual Cases

| Тад | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|--------------------------|------------|-----|---|-----|---|------------------|
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | м | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | String | 2 | 5 = Cash On Exchange Off book [C] | A | Defines the Exchange Market Mechanism applied on each platform. | 5 |
| 10042 | PreMatchingIndic ator | Int | 1 | 2 = Pre-matched for the next fixing 3 = Pre-matched for the second next fixing 4 = Pre-matched for the third next fixing 5 = Pre-matched for the fourth next fixing 6 = Pre-matched for the fifth next fixing | С | Pre-matching delay indicator for a TCS Declaration Provided only in messages with TrdType (828) set to 1002 = Fund order (quantity) OR 1003 = Fund order (cash amount) | |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order | 1 |
| 53 | Quantity | Qty | 20 | From 0 to 2^64-2 | А | Number of traded or ordered units | |
| 44 | Price | Price | 20 | From -2^63+1 to 2^63-1 | А | Instrument price per quantity unit | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries. | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | A | In this case provides the CounterParty ID | 7894 |
| 447 | PartyIDSource | Char | 1 | D = Proprietary / Custom code | А | Source of NestedPartyID value. | D |
| 452 | PartyRole | Int | 3 | 17 = Contra Broker | A | Identifies the type or role of the NestedPartyID (524) specified. | 17 |
| 2376 | PartyRoleQualifier | Int | 2 | 23 = Firm or legal entity | А | Used to further qualify the value of NestedPartyRole(538). | 23 |
| 10055 | SettlPeriod | Int | 2 | From 0 to 30 | С | Indicates the settlement delay in trading days, from 0 to 30 days Provided only if the SettlementFlag (9970) is set to 1 = True | 1 |

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Message Structure For Individual Cases

| Tag | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|-------------------------|--------|-----|--|-----|--|------------------|
| 9970 | SettlementFlag | Char | 1 | 0 = False 1 = True | A | Indicates whether the trade must be settled or not. (0: Not Settled ; 1: Settled) | 1 |
| 9971 | GuaranteeFlag | Char | 1 | 1 = Cleared but not Guaranteed 2 = Cleared and Guaranteed | С | Indicates if the trade is guaranteed or not (for clearing purposes) Provided only if the SettlementFlag (9970) is set to 1 = True | 2 |
| 1839 | TradePriceConditi on | Int | 1 | 15 = Non-price forming trade (NPFT) 101 = Plain Vanilla Trade 102 = Trade Not Contributing to Price Discovery Process 103 = Dark Trade | С | Contribution to price formation or the price discovery process. Provided only if set in the inbound messages by the client. | |
| 381 | GrossTradeAmt | Amt | 9 | Amount | С | Total amount of a Declaration Provided only in case the transaction is associated to Funds | |

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Message Structure For Individual Cases

| Tag | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|--------------------|--------|-----|--|-----|---|------------------|
| 21068 | CentralisationDate | String | 10 | Cut-off for the trading cycle / session on the Euronext Funds Service: Paris is not identified by the fund agent; as such there is no technical cut- off of a trading session set for such funds. Centralisation date may be used by the client to inform the fund agent for which session the declaration should be eligible for, and may be used as a criteria by the fund agent to accept, or not, a declaration. When used, the declaration should be automatically accepted for the following order collection cycle / session if: - centralisation date is not specified by the client AND the session has passed its cut-off, OR - centralisation date is specified, and fund agent elects not to acknowledge the declaration during the session identified in the broker's message AND doesn't reject the declaration. Should be provided in binary equivalent of YYYY- MM-DD, where YYYY = 0000-9999, MM = 01-12, DD = 01-31 Should be provided for Euronext Funds Service: Paris instruments only. | с | YYYY = 0000-9999, MM = 01-12, DD = 01-31 Provided only if set in the inbound messages by the client AND is relevant to the type of product / market. | |
| | Message Trailer | | | | М | | |

3.5.2 "Filled" Declaration Notice

Message: TradeCaptureReportAck (AR)

Sample values provided in this example represent a notice that a declaration has been Filled, for an instrument with Symbol Index *1110530* in TCS, which was set on secondary listing place of XAMS.

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Message Structure For Individual Cases

Trading Venue Transaction Identification Code (TVTIC) is the unique identifier of a trade in the MiFID II framework. Each individual trade has a corresponding TVTIC.

For Cash Markets

The TVTIC is the concatenation of:

- The SecurityID (48) (equivalent of SBE Symbol Index) (10 characters, left-padded with zeroes).
- The EMM (20020) (equivalent SBE EMM) (3 characters, left-padded with zeroes).
- The ExecID (17) (equivalent of SBE Execution ID) (10 characters, left-padded with zeroes).

The different ways to get a trade TVTIC are:

- Using the public Market Data feed, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC;
- Using the private Order Entry feed, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above (Symbol Index (FIX SecurityID (48)) + EMM (FIX EMM (20020)) + ExecutionID (FIX ExecID (17))).
- Using the EOD Day Trade file (FTRRM), field TVTIC (as of implementation of new TVTIC format for Cash Markets in Production).

| Тад | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes | Value |
|------|----------------|--------|-----|------------------------|-----|--|---------|
| | | | | | | & Conditions | Example |
| | Message Header | | | | м | | |
| 571 | TradeReportID | String | 20 | From -2^63+1 to 2^63-1 | А | Unique identifier of trade capture report. | 15 |
| 1003 | TradeID | String | 20 | From 0 to 2^64-2 | A | The unique ID assigned by the matching engine to the trade entity, once it is received or matched. | 15 |
| 939 | TrdRptStatus | Int | 2 | 19 = Filled | А | Trade Report Type. | 19 |

Message Structure For Individual Cases

| Tag | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|--------------------------|------------------|-----|---|-----|--|--------------------------------|
| 828 | TrdType | Int | 2 | 51 = Volume weighted average trade 1001 = Declaration of a trade outside the book 1002 = Fund order (quantity) 1003 = Fund order (cash amount) 1004 = Declaration of a trade on a Secondary listing place | A | Type of Operation | 1004 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files. | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | м | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | String | 2 | 5 = Cash On Exchange Off book | A | Defines the Exchange Market Mechanism applied on each platform. | 5 |
| 10042 | PreMatchingIndic ator | Int | 1 | 2 = Pre-matched for the next fixing 3 = Pre-matched for the second next fixing 4 = Pre-matched for the third next fixing 5 = Pre-matched for the fourth next fixing 6 = Pre-matched for the fifth next fixing | С | Pre-matching delay indicator for a TCS Declaration Provided only in messages with TrdType (828) set to 1002 = Fund order (quantity) OR 1003 = Fund order (cash amount) | |
| 60 | TransactTime | UTCTimestam p | 27 | Timestamp | A | Indicates the time of message transmission | 01803120 84539000 000000 |

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Message Structure For Individual Cases

| Тад | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-----------------------------|------------|-----|--|-----|---|------------------|
| 2670 | TrdRegPublication Reason | Int | 2 | 0 = NLIQ 1 = OILQ 2 = PRIC 3 = RFPT 4 = ILQD 5 = SIZE 6 = LRGS (Future Use 7 = ILQD – deferred 8 = SIZE – deferred | с | Waiver Indicator In outbound TradeCaptureReportAck (AR) messages (from TCS) provided only if TrdRptStatus (939) is one of the following values: 19 = Filled AND the transaction meets the conditions required for a waiver | |
| 552 | NoSides | NumInGroup | 1 | From 1 to 2 | А | Number of sides. | 1 |
| 54 | Side | Char | 1 | 1 = Buy 2 = Sell | A | Indicates the side of the order | 1 |
| 53 | Quantity | Qty | 20 | From 0 to 2^64-2 | А | Number of traded or ordered units | |
| 44 | Price | Price | 20 | From -2^63+1 to 2^63-1 | А | Instrument price per quantity unit | |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries. | 1 |
| 448 | PartyID | String | 11 | Alphanumeric | А | In this case provides the CounterParty ID | 7894 |
| 447 | PartyIDSource | Char | 1 | D = Proprietary / Custom code | А | Source of PartyID value. | D |
| 452 | PartyRole | Int | 3 | 17 = Contra Broker | A | Identifies the type or role of the PartyID (448) specified. | 17 |
| 2376 | PartyRoleQualifier | Int | 2 | 23 = Firm or legal entity | А | Used to further qualify the value of PartyRole(452). | 23 |
| 10055 | SettlPeriod | Int | 2 | From 0 to 30 | С | Indicates the settlement delay in trading days, from 0 to 30 days Provided only if the SettlementFlag (9970) is set to 1 = True | 1 |
| 9970 | SettlementFlag | Char | 1 | 0 = False 1 = True | А | Indicates whether the trade must be settled or not. (0: Not Settled ; 1: Settled) | 1 |

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Message Structure For Individual Cases

| Tag | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|-------------------------|--------|-----|--|-----|---|------------------|
| 9971 | GuaranteeFlag | Char | 1 | 1 = Cleared but not Guaranteed 2 = Cleared and Guaranteed | С | Indicates if the trade is guaranteed or not (for clearing purposes) Provided only if the SettlementFlag (9970) is set to 1 = True | 2 |
| 1839 | TradePriceConditi on | Int | 1 | 15 = Non-price forming trade (NPFT) 101 = Plain Vanilla Trade 102 = Trade Not Contributing to Price Discovery Process 103 = Dark Trade | A | Contribution to price formation or the price discovery process. Provided only if set in the inbound messages by the client. | 101 |
| 381 | GrossTradeAmt | Amt | 9 | Amount | С | Total amount of a Declaration Provided only in case the transaction is associated to Funds | |
| 21068 | CentralisationDate | String | 10 | Cut-off for the trading cycle / session on the Euronext Funds Service: Paris is not identified by the fund agent; as such there is no technical cut- off of a trading session set for such funds. Centralisation date may be used by the client to inform the fund agent for which session the declaration should be eligible for, and may be used as a criteria by the fund agent to accept, or not, a declaration. When used, the declaration should be automatically accepted for the following order collection cycle / session if: - centralisation date is not specified by the client AND the session has passed its cut-off, OR - centralisation date is specified, and fund agent elects not to acknowledge the declaration during the session identified in the broker's message AND doesn't reject the declaration. Should be provided in binary equivalent of YYYY- MM-DD, where YYYY = 0000-9999, MM = 01-12, DD = 01-31 Should be provided for Euronext Funds Service: Paris instruments only. | с | YYYY = 0000-9999, MM = 01-12, DD = 01-31 Provided only if set in the inbound messages by the client AND is relevant to the type of product / market. | |

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Message Structure For Individual Cases

| Tag | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-----|-----------------|--------|-----|-----------------|-----|--|------------------|
| | Message Trailer | | | | м | | |

3.5.3 "Trade Cancelled" Declaration Notice

Message: TradeCaptureReportAck (AR)

Sample values provided in this example represent a notice that a declaration that was previously filled, has been cancelled, for an instrument with Symbol Index *1110530* in TCS, which was set on secondary listing place of XAMS.

| Тад | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|-------|------------------|------------|-----|---|-----|--|------------------|
| | Message Header | | | | м | | |
| 1003 | TradeID | String | 20 | From 0 to 2^64-2 | A | The unique ID assigned by the matching engine to the trade entity, once it is received or matched. | 15 |
| 939 | TrdRptStatus | Int | 2 | 2 = Cancelled 16 = Elimination of a pre-matched declaration following a CE 17 = Elimination of a pre-matched declaration by MOC | A | Trade Report Type | 2 |
| 48 | SecurityID | String | 10 | From 0 to 2^32-2 | М | Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files. | 1110530 |
| 22 | SecurityIDSource | String | 1 | 8 = Symbol Index | М | Type of the SecurityID. Always set to 8 | 8 |
| 20020 | EMM | String | 2 | 5 = Cash On Exchange Off book [C] | A | Defines the Exchange Market Mechanism applied on each platform. | 5 |
| 453 | NoPartyIDs | NumInGroup | 1 | Always set to 1 | А | Number of PartyID entries. | 1 |

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Message Structure For Individual Cases

| Тад | Field | Format | Len | Possible Values | M/C | Short Description, Compatibility Notes & Conditions | Value Example |
|------|---|--------|--------------------------------|---------------------------|-----|---|------------------|
| 448 | PartyID | String | 11 | Alphanumeric | А | In this case provides the CounterParty ID | 7894 |
| 447 | PartyIDSource Char 1 D = Proprietary / Custom code A Source of Ne | | Source of NestedPartyID value. | D | | | |
| 452 | PartyRole | Int | 3 | 17 = Contra Broker | A | Identifies the type or role of the NestedPartyID (524) specified. | 17 |
| 2376 | PartyRoleQualifier | Int | 2 | 23 = Firm or legal entity | A | Used to further qualify the value of NestedPartyRole(538). | 23 |
| | Message Trailer | | | | м | | |

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0.25" +

REVISION HISTORY

1

Г

| Version | Change Description | | |
|---------|--|---|--|
| 4.12.0 | Introduction of SBE 312. | | |
| | The following changes have been made to this version of the document: | | |
| | In Order Messages for COB: | | |
| | Added value 2 (Cancel both orders) in field STPAggressorIndicator | | Formatted: Bulleted + Level: 1 + Aligned at: (|
| 4.11.0 | Introduction of SBE 311 – no impacts | | Indent at: 0.5" |
| 4.10.0 | Introduction of SBE 310 – no impacts | | |
| 4.6.0 | Introduction of SBE 306 – no impacts | | |
| 4.5.0 | Introduction of SBE 305 – no impacts | | |
| 4.4.0 | Introduction of SBE 304 – no impacts | 1 | |
| 2.1.1 | The following changes have been made: | | |
| | At Messages/Fields Level: | | |
| | Field TradingSessionID tag (336): the description of the field is updated. | | |
| | Field TradeQualifier tag (21080): the length of the field is updated to 15 instead of 13. | | |
| | Field orderStatus tag (39): the value of the field is updated to 3 (Done for Day) as kill reason instead of 4 (Cancelled) for the case of cancellation of an order with execType (150) value 3 (Done for Day). | | |
| | At Descriptions Level: | | |
| | Preface section added. | | |
| | Support section updated by adding phone number per country. | | |
| | Merge the Functional Overview description and the Introduction description to have one Introduction under Functional Overview chapter. | | |
| | Put the Glossary section under the Functional Overview chapter. | | |
| | Remove the table of Optiq segments from Selection of Optiq Segment section and replace it by adding a link to the Optiq Segment table available and the newly added section "Scope". | | |
| | Improving sections' 2.1.2, 2.3.1, 3.4.1 and 3.4.2 descriptions. | | |
| | Clarifying the case of "Strategy Trade" which is available under section 2.3.2. | | |
| | The OrderCancelReject (9) is provided by Drop Copy for the rejection of an Order Cancel or an Order Modification for both Cash and Derivatives Market updated under section 2.3.1- Order Rejection case. | | |
| | The document format is improved. | | |
| 2.1.0 | The following changes have been made: | | |
| | At Messages/Fields Level: | | |
| | PartyRole (452): | | |
| | removed value 1 = Executing Firm; | | |
| | added value 12 = Executing Trader; | | |
| | conditions adjusted to explain the field population depending if the order entry messages were submitted in SBE or FIX protocol; | | |
| | PartyRoleQualifier (2376): | | |
| | conditions adjusted to explain the field population depending if the order entry messages were submitted in SBE or FIX protocol; | | |
| | NestedPartyRole (538): | | |
| | | | |

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Revision History

| Version | Change Description | | | | | |
|---------|---|--|--|--|--|--|
| Cr3ioff | | | | | | |
| | conditions adjusted to explain the field population depending if the order entry messages were submitted in SBE or FIX protocol; | | | | | |
| | NestedPartyRoleQualifier (2384): | | | | | |
| | conditions adjusted to explain the field population depending if the order entry messages were | | | | | |
| | submitted in SBE or FIX protocol; | | | | | |
| | TimeInForce (59): | | | | | |
| | conditions updated concerning the values available for Cash and/or Derivatives; | | | | | |
| | TradingSessionID (336): | | | | | |
| | Possible Values and conditions adjusted; | | | | | |
| | Added value 205 = Session 1 and Session 3; | | | | | |
| | Added value 313 = Session 1, 3 and Session 4; | | | | | |
| | Flagged as Not Applicable 123 = All Sessions; | | | | | |
| | ExpireDate(432): Condition adjusted; | | | | | |
| | OEGINFromME (7765), OEGOUTToMe (7764), OEGINFromMember (5979) removed from the case of | | | | | |
| | "Triggering of a Previously Submitted Order (Cash Market Only)" | | | | | |
| | Removed repeating group cases for "Corresponding Broker" from the Trade notification; | | | | | |
| | | | | | | |
| | At Descriptions Level: | | | | | |
| | Added a new section "Trading Venue Transaction Identification Code (TVTIC)" within section "3.4 Trades | | | | | |
| | Messages" and "3.5 TCS Messages (Cash Only)" | | | | | |
| | Sections "Rejection of a New Order" and "Rejection of Order Modification" flagged as applicable to both Cash and Derivatives. | | | | | |
| 2.0.0 | The following changes have been made: | | | | | |
| 2.010 | | | | | | |
| | Update for the migration of Derivatives Market to Optiq: | | | | | |
| | Added identification of Market (Cash and Derivatives) and segments that are available for these markets | | | | | |
| | Combined content of section 1.2 "Message Types Used" with section 3.3 Scope Of Events & Associated Messages | | | | | |
| | In section 3.1 "Connectivity to Drop Copy" – added clarification on connectivity details per Market and various segments, expectations for throughput and performance | | | | | |
| | In section 3.3 "Scope Of Events & Associated Messages" > "Order Messages for COB" | | | | | |
| | - Update table of Order events: Added indication if events are applicable for Cash and Derivative markets | | | | | |
| | Added support for Rejection messages for the Derivatives markets | | | | | |
| | Updated mapping table of SBE and FIX Ack types: | | | | | |
| | Added indication if applicable for Cash and Derivative markets; | | | | | |
| | Added Ack Type of RFQ Ack – for Request for Quote service on Derivatives markets; | | | | | |
| | Removed value of Ack type = '2' (Order Creation By Market Operations) for SBE (value 'i' for FIX) as it is not used; | | | | | |
| | Adjusted SBE message for "Modification of an order" to be an Ack (03) with Ack Type = '1' (Replace Ack) | | | | | |
| | In section 3.3 "Scope Of Events & Associated Messages" > "Trade Messages [default service]" | | | | | |
| | Added support for Off-book On-exchange (Wholesales) trades | | | | | |
| | - Update table of Trade events: Added indication if events are applicable for Cash and Derivative markets | | | | | |
| | - Added explanation for handling of Strategy trades, and cancellation for Strategies in Wholesales | | | | | |
| | Added section "What is not in scope" | | | | | |
| | In section 4.1 "Order Messages for COB": | | | | | |
| | Throughout the messages the "Short Description, Compatibility Notes & Conditions" updated to clarify use in different cases | | | | | |

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Revision History

| ersion | Change Description | | | | | | |
|--------|--------------------|--|--|--|--|--|--|
| | | For Acknowledgement of a new order, Cancellation of an Order and Rejection of a new orders - added EMM 7 – for the RFC | | | | | |
| | | Added sections for newly handled cases for the Derivatives markets | | | | | |
| | | Rejection of a New Order via ExecutionReport (8) | | | | | |
| | | Rejection of Order Modification or Cancellation via OrderCancelReject (9) | | | | | |
| | | Fields ConditionalOrderFlag (21800), DarkExecutionInstruction (20052), DisclosedQtyRandIndicator (21016), ExpireTime (126), PegoffsetValue (211), PegPriceType (1094), RFQAnswerIndicator (21037), RFQConfirmationIndicator (21038), StopPx (99), TriggeredStopTimeInForce (20175), and UndisclosedPrice (20004) are identified as Cash only in the various cases for orders | | | | | |
| | | Updated values and conditions of the Parties and NestedParties groups for handling of values that are submitted in the original trading OEG message via SBE. For fields PartyRole (452) and NestedPartyRole (2376) added value 999 = Not Applicable, and for fields PartyRoleQualifier (2376) and NestedPartyRoleQualifier (2384) added value 99 = Not Applicable. Updated conditions of the associated fields. | | | | | |
| | | Updated length of field AckQualifiers (21014) to 15 | | | | | |
| | | Added Fields for (i) Timestamps: ClientMessageSendingTime (21005), OEGINFromMember (5979), OEGOUTTOME (7764), BookINTime (21002), BookOUTTime (21003), OEGINFromME (7765), (ii) Derivatives specific fields: LongClientID (21804), ESCBMembership (21096), EvaluatedPrice (21802), MessagePriceNotation (21803), LISTransactionID (21085), (iii) Future use KillReason (21807) | | | | | |
| | • | In section 4.2 "Trade Messages" | | | | | |
| | | - Throughout the messages the "Short Description, Compatibility Notes & Conditions" updated to clarify use in different cases | | | | | |
| | | Section "Trade Execution (Full or Partial Fill)" specified to be for Individual Instrument (Cash) / Outright (Derivatives); and NestedParties repeating group for Corresponding Broker identified as (Cash Only) | | | | | |
| | | Added section "Additional Fields for Wholesale Trades (Outright and Strategy)" | | | | | |
| | | Added fields ClientMessageSendingTime (21005), BookOUTTime (21003), OrigClOrdID (41), OrderPriority (21004), DarkExecutionInstruction (20052), Derivatives specific fields: LongClientID (21804), ESCBMembership (21096), EvaluatedPrice (21802), MessagePriceNotation (21803), LISTransactionID (21085), FinalSecurityID (21805), FinalExecID (21806) and NoLegs repeating group fields to support TRF and MOC contracts. | | | | | |
| | | Removed field CustOrderCapacity (582) as unused | | | | | |
| | | Updated values and conditions of the Parties and NestedParties groups for handling of values that are submitted in the original trading OEG message via SBE. For fields PartyRole (452) and NestedPartyRole (2376) added value 999 = Not Applicable, and for fields PartyRoleQualifier (2376) and NestedPartyRoleQualifier (2384) added value 99 = Not Applicable. Updated conditions of the associated fields. | | | | | |
| | | Removed value "4" from the possible values for field TradeType (21010) | | | | | |
| | | Updated length of field TradeType (21010) to 3 and added values 100 through 101 to support TRF and MOC | | | | | |
| | | In section 4.2 "Trade Messages" > "Cancellation of a Trade" | | | | | |
| | | Added fields ParentExecID (21094) and ParentSecurityID (21093) for cancellation of strategy trades, and fields OEGINFromMember (5979), BookOUTTime (21003) for the timestamps provided in the message | | | | | |
| | | Removed fields OrderQty (38), TradingSessionID (336), CustOrderCapacity (582), and NoOrderAttributes and NestedParties repeating groups for ClientID as unused | | | | | |
| | | Sections for TCS Messages renamed TCS Messages (Cash Markets) Added support for Derivatives COB orders and trades and Off-book On-exchange trades Throughout the document: | | | | | |
| | | References to "Cash Markets" only updated to Cash and Derivatives Markets where applicable, and added clarification for differences in messages, and specific uses and behaviour for the individual markets | | | | | |
| | | - Updated references to the documentation, that covers both Cash and Derivatives markets | | | | | |

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Revision History

| ersion | Change Description |
|--------|--|
| | - Changed contact reference for CCC to Operational Client Services Desk at with email |
| | <u>clientsupport@euronext.com</u> |
| | Formatting updates and correction of phrasing, typos and cosmic changes |
| 1.3.0 | The following changes have been made: |
| | ETF Access / Dark updates : |
| | Tag 39 OrdStatus |
| | - In Cancellation of an order message: remove "Future Use" for values |
| | - M = RFQ expired |
| | O = RFQ cancelled by the issuer |
| | Tag 40 OrdType : remove "Future Use" for values |
| | - P = Peg |
| | T = Average Price |
| | Tag 131 QuoteReqID remove "Future Use" and add description |
| | Tag 150 ExecType : remove "Future Use" for values |
| | In Acknowledgement of a new order message: j = RFQ Ack |
| | - In COB Trade Execution (Fill or Partial Fill) message: R = RFQ partially or fully matched with other |
| | counterparts |
| | In Cancellation of an order message: Q = RFQ expired, and S = RFQ cancelled by the issuer |
| | Tag 150 ExecType : Addition of values |
| | In Cancellation of an order message: r = LP Order cancelled due to RFQ expiration / f = LP Order cancelled due to RFQ cancellation / q = RFQ Remaining quantity killed / s = LP Order cancelled due to RFQ confirmation |
| | Tag 211 PegOffsetValue : remove "Future Use" and add description |
| | Tag 1080 TradeQualifier: Remove "Future Use" for values |
| | In COB Trade Execution (Fill or Partial Fill) message: 4 = Trade Creation by Market Operations / 5 = NAV Trade expressed in bps / 6 = Trade expressed in price currency |
| | Tag 1080 TradeQualifier: addition of value 7 = Deferred Publication |
| | Tag 1094 PegPriceType : remove "Future Use" and add description |
| | Tag 1839 TradePriceCondition : remove "Future Use" from value 103 = Dark Trade |
| | Tag 20005 UndisclosedIcebergType has been removed |
| | Tag 20020 EMM : remove "Future Use" for value 8 = ETF MTF - NAV Central Order Book |
| | Tag 20021 LPRole: add value 12 = RFQ Liquidity Provider [C] in <u>Order Messages for COB</u> (Acknowledgment, Triggering, Ownership, Cancellation, Modification) and <u>Trade Messages for COB (Trade, Trade Cancellation</u>) |
| | Tag 20052 DarkExecutionInstruction : remove "For Future Use" and add description |
| | Tag 21010 TradeType : |
| | In COB Trade Execution (Fill or Partial Fill) message : |
| | remove "Future Use" for value 33 = Dark Trade |
| | remove values: 37 = ETF-MTF NAV Trade (price in basis points) (Future use) / 38 = ETF-MTF NAV Dark Trade (price in basis points) (Future use) |
| | Tag 21014 Ack Qualifiers : Future Use" and add description |
| | Tag 21037 RFQAnswerIndicator : remove "Future Use" and add description |
| | Tag 21038 RFQConfirmationIndicator : remove "Future Use" and add description |
| | Block updates: |
| | Tag 150 ExecType addition of value c = Conditional Order cancelled due to Potential Matching |
| | Tag 21013 AckPhase addition of value 8 = Random Uncrossing Phase In Cancellation of an order message |
| | Tag 21013 AckPhase addition of value 8 = kandom oncrossing Phase in <u>Cancendulon of an order message</u> Tag 21800 ConditionalOrderFlag is added in <u>Order Messages for COB</u> (Acknowledgment, Triggering, |
| | Tag 21800 ConditionalOrderFlag is added in <u>Order Messages for COB</u> (Acknowledgment, Triggering, Ownership, Cancellation, Modification) |

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Revision History

| Version | Change Description | | | | | |
|---------|---|--|--|--|--|--|
| | Miscellaneous updates : | | | | | |
| | Tag 126 ExpireTime : remove "Future Use" | | | | | |
| | Tag 432 ExpireDate : remove "Future Use | | | | | |
| 1.2.0 | The following changes have been made: | | | | | |
| | Update with clarifications and corrections: | | | | | |
| | Added section "4.4 - "Start of Day" Behaviour" | | | | | |
| | ExpireTime was flagged as a field for Future Use | | | | | |
| 1.1.0 | The following changes have been made: | | | | | |
| | Update with clarifications and corrections: | | | | | |
| | Added clarification on value for Exchange ID in section "Drop Copy Logon & Administrative Messages" | | | | | |
| | Removed repeating group cases for "Corresponding Broker" from the Cancellation of a Trade | | | | | |
| | In TCS messages added field for Centralization date | | | | | |
| | Spelling & grammar corrections | | | | | |
| 1.0.0 | First Version for Optiq | | | | | |

DOCUMENT HISTORY

| Version No | Date | Author | Change Description |
|---------------|--------------------|-----------------------------|--|
| <u>4.12.0</u> | <u>24 Dec 2021</u> | IT Market Services – WMA | Introduction of SBE 312 – Self Trade Prevention (STP) feature |
| 4.11.0 | 24 Nov 2021 | IT Market Services – WMA | Introduction of SBE 311 – no impacts |
| 4.10.0 | 6 Oct 2021 | IT Market Services – WMA | Introduction of SBE 310 – no impacts |
| 4.6.0 | 8 Feb 2021 | IT Market Services – WMA | Introduction of SBE 306 – no impacts |
| 4.5.0 | 04 Jan 2021 | IT Market Services | Introduction of SBE 305 – no impacts |
| 4.4.0 | 2 Nov 2020 | IT Market Services – WMA | Introduction of SBE 304 – no impacts |
| 2.1.1 | Oct 2020 | IT Solutions | Update with clarifications and corrections |
| 2.1.0 | Jun 2020 | IT Solutions | Add new sections in the document and update some message's fields definition |
| 2.0.0 | Sep 2019 | IT Solutions | Update for the migration of Derivatives Market to Optiq |
| 1.3.0 | Dec 2018 | IT Solutions | Updates for ETF Access, Dark book and Euronext Block |
| 1.2.0 | Apr 2018 | IT Solutions | Second update with clarifications and corrections |
| 1.1.0 | Mar 2018 | IT Solutions | Update with clarifications and corrections |
| 1.0.0 | Feb 2018 | IT Solutions | First Release for Optiq |

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