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# Technical Specification

November 2017

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# Reconciliation Files



**London**  
Stock Exchange Group

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## 1.0 Change History

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Version	Date	Reason for Change
1.0	August 2017	First Draft
1.1	October 2017	Added NU messages for orders modified by SEP criteria
1.2	October 2017	Document reorganization
1.3	October 2017	File Format paragraph updated Base 62 Trade Number field length amended Connectivity paragraph added Typos
1.4	November 2017	Report Type added to ORD and TRD files



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## 2.0 Introduction

### 2.1 Purpose

The purpose of this document is to provide a technical description of the Report Reconciliation Service available on the SOLA platform.

The new Reconciliation Files provide customers with their orders and trades details in a MIFID II compliant format to support their reporting duties under MIFID II regulation. This service offers to Market Participants the ability to retrieve all information related to orders and trades executed on IDEM, LSEDM and CURVE by the participant company during one trading day.

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## 3.0 Content

In order to generate the file ORD file, the following events will be taken into account:

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Event	SAIL message	Notes
New Order	KE	
Triggered Order	KE	KE messages with Special Price Term blank and Additional Price populated
Modified Order	KM	
Cancelled by Participant Order	KZ	
Cancelled by the Exchange Orders	NZ	
Expired Orders	NZ	
Orders subjected to SEP	NU	This is only for Reduce and Cancel Rule. The Order id remains the same but the quantity is reduced



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For the generation of file TRD file, the following events will be taken into account:

Event	SAIL message	Notes
Partially traded Orders	NT	
New Cross Order (OX)	NT	
Trades	NT, NL	
Cancellation by Exchange Trades	NX, NY	



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## 3.1 File Format

Files available for reconciliation are the following:

1. **ORD\_[MARKET]\_MEMBER\_DATE**: all orders sent by all users in the Company, including all changes in status
2. **TRD\_[MARKET]\_MEMBER\_DATE**: all trades executed by all users in the Company

These files are created in accordance with the following specifications:

File format	Field Delimiters	Decimal symbol	Digit grouping symbol (thousands separator)	Date fields format
Csv	; (semicolon)	. (point)	none	yyyymmdd

The fields length is variable, moreover the maximum length for fields is defined in the datatype column of the tables below

## 3.2 ORD\_[MARKET]\_MEMBER\_DATE

Field Name	Field Type	Data Type	Size	Description	Notes
Report Type	Message Type	Enum	2	Report type: KE: Order Acknowledgment KM: Order Modification KZ: Order Cancellation NZ: Order Cancellation by the System NU: Update Order Notice	
Order timestamp	Timestamp	Numeric	20	Order date/time in MIFID format:	



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Field Name	Field Type	Data Type	Size	Description	Notes
				YYYYMMDDHHM MSSmmmuuu	
Instrument	Sail Instrument ID + Group ID	AlphaNum	6	Instrument Sico	
ISIN	ISIN	AlphaNum	12	Instrument ISIN	
Trader ID	Trader ID	AlphaNum	8	Identification of the trader: FirmID (4)+ExchangeID(1 ) + ID <b>0201IMM1</b>	ExchangeID: I: IDEM E: EDX R: CURVE
Order ID	Order ID	AlphaNum	14	Unique Order Id: Instrument Sico + Order Id	
Order Status	Status	Enum	1	This field may contain the following values: ' ': blank 'A': Cancelled by trader 'X': Order fully executed (or remaining quantity having possibly been eliminated due to FAK or SEP) 'E': The order has been eliminated by the trading engine. 'B': Order eliminated (Out of instrument limits) 'C': Order eliminated by	Used for reporting: <ul style="list-style-type: none"> <li>cancelled orders</li> <li>stop triggered orders</li> </ul>



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Field Name	Field Type	Data Type	Size	Description	Notes
				Circuit Breaker 'M': Eliminated by Market Control 'I': Eliminated on disconnection 'U': Eliminated due to Unpriced Leg 'R': Eliminated Due To Risk Master Switch 'S': Order put in book as Stop order 'T': Eliminated Due To Risk Limit Exceeded 'Z': Removed by SEP	
Verb	Verb	Enum	1	Order side. Possible values: 'B': Buy 'S': Sell	
Quantity	Quantity	Numeric	8	Order size	
Assigned Price	Price	Numeric	10	Order price	Price format is reported with decimal separators: es. 9.6000
Clearing Instruction	Clearing Instruction	AlphaNum	12	Free text clearing instructions	
Account Type	Account Type	Enum	1	Possible values: 'C': Client 'H': House 'P': Matched Principal	
Open/Close	Open/Close	Enum	1	Possible values	





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Field Name	Field Type	Data Type	Size	Description	Notes
				are: 'O': Open 'C': Close	
Hedge/Spec	Hedge/Spec	Enum	1	Possible values are: 'H': Hedge 'S': Speculator	
Clearing Operation	Clearing Operation mode	Enum	1	This field can contain the following values: ' ': blank 'G': Give up	
Owner Data	Client Order ID	AlphaNum	24	Client OrderID	Free text. This value is taken from the first 24 characters of the Owner Data
Owner Data	Client Reference ID	AlphaNum	26	Client ReferenceID	Free text. This value is taken from the last 26 characters of the Owner Data
Original Order ID	Original Order ID	AlphaNum	14	Unique Original order id: Instrument Sico + Original Order Id	
Client Code Qualifier	Client ID Code Qualifier	Enum	1	Possible values: ' ': blank or 0 'L': Legal Entity Identifier 'P': Natural Person	
Client ID Code	Client ID Code	Numeric	10	Possible values: ' ': blank or 0 '1': AGGR	



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Field Name	Field Type	Data Type	Size	Description	Notes
				'2': PNAL Numerical Short Code	
Investment Decision Qualifier	Investment Decision Qualifier	Enum	1	Possible values: ' ': blank or 0 'A': Algorithm 'P': Natural Person	
Investment Decision	Investment Decision	Numeric	10	Possible values: ' ': blank or 0 Numerical Short Code	
Execution Decision Qualifier	Execution Decision Qualifier	Enum	1	Possible values: ' ': blank or 0 'A': Algorithm 'P': Natural Person	
Execution Decision	Execution Decision	AlphaNum	10	Possible values: '3': CLIENT Numerical Short Code	
DEA Flag	Yes/No (1)	Enum	1	Possible values: 'Y' or 'N'	
Algo Flag	Yes/No (1)	Enum	1	Possible values: 'Y' or 'N'	
Liquidity Provision Flag	Yes/No (1)	Enum	1	Possible values: 'Y' or 'N'	
Physical Leg	Text	AlphaNum	20	This field will only be populated for Exchange For Physical orders (Price Type: 'P')	
Price Type	Price Type	Enum	1	Possible values:	



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Field Name	Field Type	Data Type	Size	Description	Notes
				'L': Limit 'O': at Opening price 'M': at best opposite price (Top Order) 'W': at any price (Market Order) 'C': Committed 'P': Exchange For Physical blank: Unknown	
Displayed Quantity	Displayed Size	Numeric	8	This value shows: <ul style="list-style-type: none"><li>• full order quantity at order entry</li><li>• remaining order quantity in case of partial trade</li><li>• Disclosed Quantity for Iceberg Orders</li></ul>	
Proposal Type	Proposal Type	Enum	1	This field can contain the following values: 'B': Bundle Order 'T': Inter Dealer Broker Order Reported only in case of Bundle committed or Third Party Committed orders	



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Field Name	Field Type	Data Type	Size	Description	Notes
Proposal ID	Proposal ID	AlphaNum	8	Proposal ID. Reported only in case of Bundle committed or Third Party Committed orders	
Operation Firm ID	Firm ID	AlphaNum	4	Participant Firm ID	
Special Price Term	Special Price Term	Enum	1	Populated only for Stop Orders. Can contain the following values: ' ': No term 'S': Stop 'T': If Touched 'E': Stop On Bid 'F': If Bid Touched 'I': Stop On Ask 'H': If Ask Touched	
Additional Price	Additional Price	Numeric	10	This price is only populated when Special Price Term is one of the followings: 'S': Stop 'T': If Touched 'E': Stop On Bid 'F': If Bid Touched 'I': Stop On Ask 'H': If Ask Touched	Price format is reported with decimal separators: es. 9.6000
Quantity Term	Quantity Term	Enum	1	This field can contain one of the following values: 'M': Minimum 'D': Disclosed ' ': None	Field is only populated for the following order types: <ul style="list-style-type: none"> <li>• FOK</li> <li>• FAK</li> </ul>



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Field Name	Field Type	Data Type	Size	Description	Notes
					<ul style="list-style-type: none"> <li>Iceberg</li> </ul>
Additional Quantity	Additional Quantity	Numeric	8	This field is populated only in case the field Quantity Term is 'M' or 'D'	
Duration Type	Time in force	Enum	1	<p>This field can contain one of the following values:</p> <p>'J': Day (Valid for the current Day only)</p> <p>'D': Good till date (Order is Valid until date)</p> <p>'F': Good till cancel (Valid until instrument expiration)</p> <p>'E': Fill and Kill (Immediate order, cannot be booked)</p> <p>'W': While Connected</p>	
GTD Date	GTD Date	Numeric	8	Order time validity expressed in: YYYYMMDD	
Opposite Firm	Firm ID	AlphaNum	4	Market Firm ID. Only populated in case of Committed Orders	
Order Type	Order Type	Enum	1	'O': Order	
Remaining Quantity	Quantity	Numeric	8	Remaining size of partially traded orders	



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Field Name	Field Type	Data Type	Size	Description	Notes
Initial Quantity	Quantity	Numeric	8	Initial Order Size	
Priority Timestamp	Timestamp	Numeric	20	Anytime the order changes its priority (iceberg refill, order modification, etc), this field is updated with the new priority timestamp expressed in MIFID II format YYYYMMDDHHM MSSmmuuu	

## 3.3 TRD\_[MARKET]\_MEMBER\_DATE

Field Name	Field Type	Data Type	Size	Description	Notes
Report Type	Message Type	Enum	2	Report type: NT: Execution Notice NL: Leg Execution Notice NX: Execution Cancellation Notice NY: Leg Execution Cancellation Notice	
Trade timestamp	timestamp	Numeric	20	Trade date/time in MIFID format: YYYYMMDDHHMMSSmmuuu	Message header
Instrument	Sail Instrument ID + Group ID	AlphaNum	6	Instrument Sico	
ISIN	ISIN	AlphaNum	12	Instrument ISIN	



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Field Name	Field Type	Data Type	Size	Description	Notes
Trader ID	Trader ID	AlphaNum	8	Identification of the trader: FirmID (4)+ExchangeID(1)+ ID <b>0201IMM1</b>	ExchangeID: I: IDEM E: EDX R: CURVE
Reference ID	Reference ID	AlphaNum	14	Order unique identifier: Sail Instrument Sico + Order ID	
Verb	Verb	Enum	1	Order side. Possible values: 'B': Buy 'S': Sell	
Quantity Traded	Quantity	Numeric	8	Match quantity	
Trade Price	Price	Numeric	10	Match Price	Price format is reported with decimal separators: es. 9.6000
Clearing Instruction	Clearing Instruction	AlphaNum	12	Free text clearing instructions	
Account Type	Account Type	Enum	1	Possible values: 'C': Client 'H': House 'P': Matched Principal	
Open/Close	Open/Close	Enum	1	Possible values are: 'O': Open 'C': Close	
Hedge/Spec	Hedge/Spec	Enum	1	Possible values are: 'H': Hedge 'S': Speculator	
Clearing Operation	Clearing Operation mode	Enum	1	This field can contain the following values: ' ': blank	



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Field Name	Field Type	Data Type	Size	Description	Notes
				'G': Give up	
Owner Data	Client Order ID	AlphaNum	24	Client OrderID	Free text. This value is taken from the first 24 characters of the Owner Data
Owner Data	Client Reference ID	AlphaNum	26	Client ReferenceID	Free text. This value is taken from the last 26 characters of the Owner Data
Special Trade Indicator	Special Trade Indicator	Enum	1	This field may contain one of the following values: ' ': Normal Trade '1': Exchange Granted 1 (EG1) '2': Exchange Granted 2 (EG2) 'B': Block 'D': Crossed 'K': Committed Block 'T': Committed 'E': Exchange for Physical (EFP)	
Price Type	Price Type	Enum	1	Possible values: 'L': Limit 'O': at Opening price 'M': at best opposite price (Top Order) 'W': at any price (Market Order) 'C': Committed 'P': Exchange For Physical blank: Unknown	
Trade Type	Trade Type	Enum	1	Possible values: 'O': Opening (Uncrossing trades) 'M': Trade entered by the	





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Field Name	Field Type	Data Type	Size	Description	Notes
				Exchange 'F': Traded during Continuous Trading	
Transaction Venue ID	Transaction ID	AlphaNum	14	Transaction unique identifier: Sail Instrument Sico + Trade Number Es: <b>IZ10zA00003462</b>	
Transaction Venue ID Base 62	Transaction ID base62	AlphaNum	52	Transaction unique identifier	Base 62 Decoded version of the SOLA Trade ID concatenate SICO (Instrument ID + Group ID) with Trade Number
Trade Memo	Trade Memo	AlphaNum	50	Free text	
Original Reference ID	Original Reference ID	AlphaNum	8	Sail Instrument Sico + Original Order ID	Instrument's Sico and Order id.
Client Code Qualifier	Client ID Code Qualifier	Enum	1	Possible values: ' ': blank or 0 'L': Legal Entity Identifier 'P': Natural Person	
Client ID Code	Client ID Code	Numeric	10	Possible values: ' ': blank or 0 '1': AGGR '2': PNAL Numerical Short Code	
Investment Decision Qualifier	Investment Decision Qualifier	Enum	1	Possible values: ' ': blank or 0 'A': Algorithm 'P': Natural Person	



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Field Name	Field Type	Data Type	Size	Description	Notes
Investment Decision	Investment Decision	Numeric	10	Possible values: ' ': blank or 0 Numerical Short Code	
Execution Decision Qualifier	Execution Decision Qualifier	Enum	1	Possible values: ' ': blank or 0 'A': Algorithm 'P': Natural Person	
Execution Decision	Execution Decision	Numeric	10	Possible values: '3': CLIENT Numerical Short Code	
DEA Flag	Flag	Enum	1	Possible values: 'Y' or 'N'	
Algo Flag	Flag	Enum	1	Possible values: 'Y' or 'N'	
Liquidity Provision Flag	Flag	Enum	1	Possible values: 'Y' or 'N'	
PTT Trade Type Flag	PTT Trade Type Flag	Enum	1	Possible values: ' ': blank 'T': Package transaction flag 'X': Exchange for physical transaction flag	
PTT Cancellations and Amendments Flag	PTT Cancellations and Amendments Flag	Enum	1	Possible values: ' ': blank 'C': Cancellation flag 'A': Amendment flag	
Waiver Indicator Flag	Pre trade Waiver Indicator Flag	Enum	1	Possible values: ' ': blank '0': Large in scale '1': Negotiated transaction in illiquid instrument '2': Above specified size transaction	
Deferral Flag	Post Trade Deferral	Enum	1	Possible values: ' ': blank 'L': Deferral for Large in	



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Field Name	Field Type	Data Type	Size	Description	Notes
	Flag			scale 'I': Deferral for illiquid instrument 'S': Deferral for size specific transaction	
Trade Status	Proposal Status	Enum	1	Possible values: 'A': Approved	
Physical Leg	Text	AlphaNum	20	Free text. Always populated in case of Price Type 'P' (Exchange For Physical)	
Order Type	Order Type	Enum	1	Possible values: 'O': Order 'Q': Quote 'X': Cross Order	
Liquidity Status	Liquidity Status	Enum	1	Possible values: 'M': Maker 'T': Taker ' ': blank	The field will assume value 'Taker' for traded aggressive orders and 'Maker' for traded passive (in the book) orders. This field will always be blank in case of uncrossing trades (NT with Trade Type ='O')
Remaining Quantity	Quantity	Numeric	8	This field is populated in case of partially filled orders	
Proposal Type	Proposal Type	Enum	1	This field can contain the following values: 'B': Bundle Order 'T': Inter Dealer Broker Order  Reported only in case of Bundle committed or Third Party Committed orders	



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Field Name	Field Type	Data Type	Size	Description	Notes
Proposal ID	Proposal ID	AlphaNum	8	Proposal ID. Reported only in case of Bundle committed or Third Party Committed orders	
Special Price Term	Special Price Term	Numeric	1	Can contain the following values: ' ': No term 'S': Stop 'T': If Touched 'E': Stop On Bid 'F': If Bid Touched 'I': Stop On Ask 'H': If Ask Touched	
Additional Price	Additional Price	Numeric	10	This price is only populated when Special Price Term is one of the followings: 'S': Stop 'T': If Touched 'E': Stop On Bid 'F': If Bid Touched 'I': Stop On Ask 'H': If Ask Touched	Price format is reported with decimal separators: es. 9.6000
Additional Quantity	Quantity Term	Numeric	1	This field can contain one of the following values: 'M': Minimum 'D': Disclosed ' ': None	Field is only populated for the following order types: <ul style="list-style-type: none"> <li>• FOK</li> <li>• FAK</li> <li>• Iceberg</li> </ul>
Additional Quantity	Additional Quantity	Numeric	8	This field is populated only in case the field Quantity Term is 'M' or 'D'	
Duration Type	Time in force	Enum	1	This field can contain one of the following values: 'J': Day (Valid for the current Day only) 'D': Good till date (Order is Valid until date) 'F': Good till cancel (Valid	



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Field Name	Field Type	Data Type	Size	Description	Notes
				until instrument expiration) 'E': Fill and Kill (Immediate order, cannot be booked) 'W': While Connected	
GTD Date	GTD Date	Numeric	8	Order time validity expressed in YYYYMMDD	
Connection ID	Member Participant	AlphaNum	11	Participant ID connection	
Exchange ID	Exchange ID	Enum	1	This field may contain the following values: 'I': IDEM	It can be used to map the market MIC Code: XDMI
OrderTimeStamp	Date Time ms	Numeric	20	Order timestamp expressed in MIFID II format: YYYYMMDDHHMMSSmmuuu	
Strategy Sico	Instrument Sico: Strategy Instrument ID + Strategy Group ID	AlphaNum	6	Populated in case of Strategy Report or Implied Trades	
Strategy Verb	Verb	Enum	1	Populated in case of Strategy Report or Implied Trades	
Strategy Transaction Venue ID	Number	AlphaNum	14	Transaction unique identifier: Instrument Sico + Trade Number	Instrument ID + Group ID + Strategy Trade Number
Strategy Transaction Venue ID Base 62	Strategy transaction ID	AlphaNum	52	Transaction unique identifier: Instrument Sico + Trade Number	Base 62 Decoded version of the SOLA Trade Number: concatenate SICO (Instrument ID + Group ID) with



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Field Name	Field Type	Data Type	Size	Description	Notes
					Strategy Trade Number
Match Number	Match Number	Numeric	8	Match ID that links all trades involved in the match (NT's and NL's)	
Notional Amount	Notional Value	Numeric	16	Trade notional amount expressed in 12i.4d	

## 4.0 Connectivity

### 4.1 IDEM: Production IP addresses and ports

Reconciliation Files are available in production environment for all customers who submit the service upon ftp connection to the server

- PDC:
  - o 81.174.64.61
  - o 81.174.64.62
- SDC:
  - o 81.174.64.189

Dedicated Username and password to connect to the servers will be provided to customers as they join the service.

### 4.2 LSEDM and CURVE: Production IP addresses and ports

Reconciliation Files in the production environment are available via the internet for all customer IPs whitelisted to access <https://data.lseg.com> (194.169.1.49)

- Port 22 (SFTP) or
- Port 443 (HTTPS)

Dedicated username and password to login to <https://data.lseg.com> will be provided to customers as they join the service.

For any issues with the SFTP, please contact our Service Desk:

- Telephone: 0080026772000
- e-mail: [service-desk@borsaitaliana.it](mailto:service-desk@borsaitaliana.it)



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For functional queries, client on-boarding and technical advice about the LSEDM and CURVE reconciliation files, please contact our Technical Account Management team:

- Telephone: +44 (0)20 7797 3939
- e-mail: [londontam@lseg.com](mailto:londontam@lseg.com)



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