

April 2021

IDEM Reference Data File

Service: **FTP Services**

Document type: **User guide**

Relevant for: **IDEM**

Version number: **2.0**

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1. Introduction

1.1 Document history

Version	Date	Description
1.0	October 2019	First issue of this document published via Borsa Italiana's website.
2.1	29 April 2021	Document re-branding.

1.2 Purpose

This document provides Borsa Italiana's customers with technical details regarding:

- the content of a reference data file for the IDEM market, available through an FTP repository, describing the instruments that are available for trading on the IDEM market on the current trading day;
- how to connect to the FTP repository, to download the IDEM Reference Data file.

1.3 Readership

This document is particularly relevant to the technical staff within Borsa Italiana's member firms, information vendors and other market participants interested in receiving IDEM's reference data via FTP, as an alternative to the reference data messages disseminated directly by the market data feed HSVF. This document should be read in conjunction with the other SOLA® guides reported in the next paragraph.

Document series

This document is part of a series of documents which provide technical specifications for the SOLA® Trading System. This series of documents includes:

- IDEM - Guide to the Trading System
- SOLA® Connectivity Guide
- SAIL Protocol: SAIL Specifications
- Fix Protocol: FIX 4.2 Specifications
- HSVF Market Data
- IDEM - Guide to PTV functionality

The latest version of these documents can be found at the following links:

- Italian Version:

www.borsaitaliana.it/borsaitaliana/gestione-mercati/migrazioneidem/migrazioneidem.htm

- English Version:

www.borsaitaliana.it/borsaitaliana/gestione-mercati/migrazioneidem/migrazioneidem.en.htm

2. FTP Services – IDEM Reference Data file

2.1 Availability and data layout

This service provides a daily reference data file for the IDEM market. IDEM reference data are provided each day in one single file, in csv format, with the following naming convention:

INSTR_REFDATA_IDEM_yyyymmdd.csv

This file is available on each day when IDEM is open for trading, starting from 07:00 a.m. CET. No intraday updates of this file are generated. Files are created in accordance with the following specifications:

Symbol / Format for	Symbol / Format
Fields delimiter	; (semicolon)
Decimal separator	. (point)
Digit grouping (thousands separator)	None
Date fields	yyymmdd

The content of the file is described in paragraphs 2.2 and 3.1. The format of the available fields is described in the "Type" column in paragraph 3.1.

2.2 Content of IDEM Market Reference Data

The IDEM Reference Data file for day "yyymmdd" includes all instruments that are available for trading on the IDEM market on the same trading day. Please note that the list of instruments:

- will include futures, options as well as their related strategies (standard and flexible combinations);
- with the following status at market open:
 - Authorized/Normal
 - Hidden/Normal
- as an exception to the above, it will NOT include flexible combinations that are not in active status at market open on day T;
- (if any) will NOT include instruments where expiry is on day T, but whose trading schedule does not consent trading during the same day.
- market participants must be aware that, since no updates of the IDEM Market Reference Data file will be generated intraday, any potential intraday update of the following fields by Borsa Italiana's Market Supervision will not be available through this reference data file:



- field #35 "Minimum Threshold Price", and;
- field #36 "Maximum Threshold Price".

These updates (if any) are disseminated in real-time by HSVF messages.

Access to the service

The IDEM Market Reference Data file is available through a FTP repository, whose details (address, username and password) can be found in the SOLA® Connectivity Guide, that is available at the following link:

www.borsaitaliana.it/borsaitaliana/gestione-mercati/migrazioneidem/migrazioneidem.htm

3. IDEM Reference data - Layouts

3.1 Record layout

Columns "F", "O", "SC" and "FC" indicate whether the corresponding field is populated for the following instrument types, respectively: Futures, Options, Standard Combinations, Flexible Combinations. The asterisk (*) indicates that the field is populated only for a subset of the respective instruments, as outlined under "Description".

Column "Type": for fields of type "number" and "char", the number in parenthesis indicates the fixed length of the field. For fields of type "text", the number in parenthesis indicates the maximum length of the field. Fields of type Format "number" (when not integers) can have up to 4 decimals.

Field	Type	F	O	SC	FC	Description	
1	Ref date	number integer(8)	Y	Y	Y	Y	Indicates the date when the reference data file has been generated (YYYYMMDD).
Instrument series identifiers							
2	Exchange ID	char(1)	Y	Y	Y	Y	The internal code of the trading venue where the instrument is available for trading. For IDEM instruments, 'Exchange ID' is always equal to 'I'.
3	MIC Code	char(4)	Y	Y	Y	Y	The MIC code of the trading venue. For IDEM instruments, the MIC code is always equal to 'XDMI'.
4	ISIN	char(12)	Y	Y	N	N	The ISIN code (ISO 6166) of the instrument. Not populated (blank) for strategies.
5	Group Instrument	char(2)	Y	Y	Y	Y	The unique identifier of the SOLA® Group to which the instrument belongs to.
6	Instrument	char(6)	Y	Y	Y	Y	The internal identifier of the instrument (unique within a SOLA® Group). <i>Concatenation of 'Instrument' + 'Group Instrument' (also referred to as 'Security Identifier Code' or 'SICO') is a unique identifier for an instrument, across the whole trading venue.</i>
7	Symbol Root	char(6)	Y	Y	N	N	Root code for the instrument. See paragraph 3.1(a) of the "IDEM Guide to the trading system" for the list of available root codes. Examples (not exhaustive):

Field	Type	F	O	SC	FC	Description	
						<ul style="list-style-type: none"> 'FIB': FTSE MIB futures 'MINI': FTSE MIB mini futures 'MIBO': FTSE MIB options 'MIBO1W': FTSE MIB weekly options, week 1 'MCAP': FTSE Italia Mid Cap PIR futures 'ENI': stock futures and American options, physically settled on the ordinary shares of ENI S.p.A. '4ENI': European options, cash settled on the ordinary shares of ENI S.p.A. '1ENI': futures on dividends paid by the ordinary shares of ENI S.p.A. 'ENI1W': weekly stock option on the ordinary shares of ENI S.p.A., week 1 Not populated (blank) for strategies.	
8	External Code	text(30)	Y	Y	Y	Y	The SOLA external identifier for the series (unique across the whole trading venue). <i>For standard series, this is the concatenation of [Symbol Root] + [Maturity Year] + [Maturity Month] + [Strike Price] (for options only) + [Corporate action] (if any)</i> <i>For strategies, please refer to par.3.1(b) of the 'IDEM – Guide to the trading system'.</i>
9	Description	text(100)	Y	Y	Y	Y	A text description of the instrument.
Corporate action							
10	Corporate Action	char(1)	Y*	Y*	N	N	Indicates whether this instrument has been subject to adjustments following a corporate action. <ul style="list-style-type: none"> 'X', 'Y', 'Z' etc. for adjusted instruments Empty in case instrument characteristics were never adjusted. Not relevant and never populated (blank) for index derivatives, commodity derivatives and strategies.
Type of instrument							
11	CFI	char(6)	Y	Y	N	N	The CFI code (ISO 10962) for the instrument. Not populated (blank) for strategies.
12	CFI Code Source	char(1)	Y	Y	N	N	Describes whether the CFI code is provisional (generated by Borsa Italiana based on ISO 10962) or official: <ul style="list-style-type: none"> 'P': provisional (provisionally assigned by Borsa Italiana) 'O': official (assigned by National Numbering Agency for Italy - Bank of Italy) Not populated (blank) for strategies.

Field	Type	F	O	SC	FC	Description
13 Instrument Type	char(1)	Y	Y	Y	Y	Describes the type of derivatives contract: <ul style="list-style-type: none"> 'F': Futures contract 'X': Options contract 'S': Strategy
14 Call/put Code	char(1)	N	Y	N	N	For options only. Describes the option type: <ul style="list-style-type: none"> 'C': Call option 'P': Put option Not relevant (blank) for futures and strategies
15 Option Type	char(1)	N	Y	N	N	For options only. Describes the option exercise type: <ul style="list-style-type: none"> 'A': American 'E': European Not relevant (blank) for futures and strategies
16 Delivery Type	char(1)	Y	Y	Y	Y	Describes the settlement style: <ul style="list-style-type: none"> 'C': Cash settled 'P': Physically settled For Agrex futures, the default delivery type (physical settlement) is indicated.
17 IsFlexible	char(1)	Y	Y	Y	Y	Indicates whether the derivatives series is a standard series created by Borsa Italiana, or it is a flex series created directly by a customer. For IDEM, this field will always be equal to '0': <ul style="list-style-type: none"> '1': Series created by a customer (flex instrument) '0': Standard series
Underlying						
18 Underlying Instrument Type	char(1)	Y	Y	Y	Y	Describes the type of underlying of the derivatives contract: <ul style="list-style-type: none"> 'I': 'Index' for FTSE MIB futures, mini-futures and options; FTSE Italia PIR Mid Cap futures 'N': 'Dividend Index' for FTSE MIB Dividend futures 'E': 'Equity' for single stock options and futures 'D': 'Dividend' for stock dividend futures '5': 'Energy Power' for IDEX futures

Field	Type	F	O	SC	FC	Description	
						<ul style="list-style-type: none"> '1': 'Agrics' for Agrex futures 	
19	Underlying External ISIN	char(12)	Y	Y	Y	N	Indicates the ISIN code (ISO 10962) of the underlying. Not populated for flexible combinations.
20	Underlying Issuer name	text(6)	Y	Y	Y	N	Identifying code for the underlying. For index derivatives (incl. related standard strategies), the following underlying codes are in use: <ul style="list-style-type: none"> 'FTMIB': FTSE MIB index 'FDIV': FTSE MIB dividend index 'MCAP': FTSE Italia Mid Cap PIR index For single name derivatives and related standard strategies, it is equal to the ticker of the underlying stock. For single stock dividends and related standard strategies, to the ticker of the underlying dividend paying stock. For IDEX contracts, it is equal to 'IDEX'; for Agrex contracts, it is equal to 'DWHEAT'. Not populated (blank) for flexible combinations.
Characteristics of the instrument							
21	First Trading Day	number integer(8)	Y	Y	Y	Y	Indicates the first trading day for the instrument (YYYYMMDD).
22	Expiry Date	number integer(8)	Y	Y	Y	Y	The maturity (expiry) date for the instrument (YYYYMMDD). For all IDEM derivatives, excluding stock options, it also represents the last trading date for the instrument. For stock options, the last trading date is on [Maturity date]-1. For strategies, corresponds to the expiration date of the strategy leg with the earliest expiry.
23	Last Trading Date	number integer(8)	Y	Y	Y	Y	The last trading date for the instrument (YYYYMMDD).
24	Month Code	char(12)	Y	Y	N	N	Decoding string for (positions indicate months from Jan to Dec): <ul style="list-style-type: none"> expiry/maturity month (for equity derivatives), or month of end of the delivery period (for IDEX and Agrex futures) The following strings are in use: <ul style="list-style-type: none"> "ABCDEFGHijkl" for futures (excluding IDEX quarterly futures) and call options; "MNOPQRSTUVWXYZ" for put options "111222333444" for IDEX quarterly futures

Field	Type	F	O	SC	FC	Description	
						Not populated (blank) for strategies.	
25	Strike Price	number	N	Y	N	N	For options only: indicates the strike price of the option. Not populated (blank) for futures and strategies (incl. options strategies).
Contract size and currency							
26	Contract Size	number (integer)	Y	Y	N	N	Relevant for stock, stock dividend and commodity contracts only. It represents:: <ul style="list-style-type: none"> the number of underlying shares for 1 lot (for stock and stock dividend contracts), or the number of underlying units (MWh, Tons) to be delivered for 1 lot (for commodity derivatives). For power derivatives, it depends on the number of hours of the delivery period For index derivatives, this field is always equal to 1 (see field 'Multiplier' instead). Not populated (blank) for strategies.
27	Multiplier	number	Y	Y	Y	N	Relevant for index derivatives only, incl. related standard strategies. Indicates the currency value of 1 index point. For the currency of the Multiplier, refer to field 'Currency'. For single stock (incl. related standard strategies) and commodity contracts, this field is equal to 1. Not populated (blank) for flexible combinations.
Currency							
28	Currency	char(3)	Y	Y	Y	Y	ISO 4217 code for: <ul style="list-style-type: none"> the currency of the Multiplier (for index futures, index options and commodity futures), or the currency of the futures price (for stock and dividend futures), or the currency of the Strike Price and option premium (for stock options) More generally, it represents the currency of the notional value for the instrument.
Trading parameters (order book)							
29	Tick Increment Table	char(2)	Y	Y	N	N	Represents the identifier code of the tick table in place for the instrument. For the available codes and the corresponding price brackets / tick increments, please refer to the HSVF Market Data protocol specifications. Not populated (blank) for strategies (see field 'Tick Increment' instead).
30	Tick Increment	number	N	N	Y	Y	For strategies only: indicates the tick size in use for order book trading and for negotiated transactions.

Field	Type	F	O	SC	FC	Description	
31	Order Min Volume	number (integer)	Y	Y	Y	Y	The minimum size for an order to be accepted for order book trading. Also valid for IoI messages.
32	Order Min Value	number	Y	Y	N	N	Expressed in lots ('Order Min Volume') and notional value ('Order Min Value'). Both minimum sizes must be respected by an incoming order. For strategies, the field 'Order Min Value' (blank) is not meaningful.
33	Order Max Volume	number (integer)	Y	Y	Y	Y	The maximum size for an order to be accepted for order book trading. Also valid for IoI messages.
34	Order Max Value	number	Y	Y	N	N	Expressed in lots ('Order Max Volume') and notional value ('Order Max Value'). Both maximum sizes must be respected by an incoming order. For strategies, the field 'Order Max Value' (blank) is not meaningful.
35	Minimum Threshold Price	+/-sign number	Y	Y	Y	Y	Minimum permitted price for an order when entering the order book.
36	Maximum Threshold Price	+/-sign number	Y	Y	Y	Y	Maximum permitted price for an order when entering the order book.
37	Strategy Allow Implied	char(1)	N	N	Y	Y	For strategies only: indicates whether an order on the strategy instrument will generate implied-out prices on the strategy legs: <ul style="list-style-type: none"> 'Y': Implied-out active 'N': Implied-out not active Not populated (blank) for non-strategy instruments.
38	Strategy Pricing	char(1)	N	N	Y	Y	For strategies only: indicates the algorithm in use to generate implied-out prices. For IDEM instruments, value 'L' (price-time priority, same of legs) is always used. See the IDEM Guide to the Trading System for more information. Not populated (blank) for non-strategy instruments.
Trading parameters (BNTs)							
39	Block Min Volume	number (integer)	Y	Y	Y	Y	The minimum permitted size for an order to execute a bilateral transaction. Expressed in lots ('Block Min Volume') and notional value ('Block Min Value').
40	Block Min Value	number	Y	Y	N	N	Both minimum sizes must be respected by an incoming order and/or an executable bilateral trade. For strategies, the field 'Block Min Value' (blank) is not meaningful. See the IDEM Guide to the Trading System for more information regarding bilateral trading for strategies.
41	Block Max Volume	number (integer)	Y	Y	Y	Y	The maximum size for an order to execute a bilateral transaction. Expressed in lots ('Block Max Volume') and notional value ('Block Max Value').

Field	Type	F	O	SC	FC	Description	
42	Block Max Value	number	Y	Y	N	N	Both maximum sizes must be respected by an incoming order and/or an executable trade. For strategies, the field 'Block Max Value' (blank) is not meaningful. See the IDEM Guide to the Trading System for more information regarding bilateral trading for strategies.
43	Outside Spread Min Volume	number (integer)	Y	Y	Y	Y	The minimum permitted size for an order to execute a bilateral transaction at prices outside the available best bid-offer. Expressed in lots ('Outside Spread Min Volume') and notional value ('Outside Spread Min Value').
44	Outside Spread Min Value	number	Y	Y	N	N	Both minimum sizes must be respected by an incoming order and/or an executable trade. For strategies, the field 'Outside Min Value' (blank) is not meaningful. See the IDEM Guide to the Trading System for more information regarding bilateral trading for strategies.
Post trade transparency							
45	PostTrade LIS Volume	number (integer)	Y	Y	Y	Y	The minimum permitted size allowing to require a deferral to the publication of trade details in market data (applicable to negotiated transactions only). Expressed in lots ('Post trade LIS Volume') and notional value ('Post trade LIS Value').
46	Post Trade LIS Value	number	Y	Y	N	N	Both minimum sizes must be respected to accept a deferral request. For strategies, the field 'Outside Min Value' (blank) is not meaningful. See the IDEM Guide to the Trading System for more information regarding bilateral trading for strategies.
Regulatory							
47	Liquidity Status	char(1)	Y	Y	N	N	Indicates whether the instrument is classified as 'liquid' or not liquid by the European Securities Market Association (ESMA), according to MiFIR/MiFID 2 rules. <ul style="list-style-type: none"> 'L': Liquid 'I': Not liquid Not populated (blank) for strategies.
48	Sub Asset Class of Derivatives	char(1)	Y	Y	N	N	Code to indicate the MiFIR/MiFID 2 sub asset class of derivatives, as defined by RTS 2 ¹ . Values in use are: <ul style="list-style-type: none"> 'E': Energy commodity futures / forwards 'G': Agricultural commodity futures / forwards 'K': Stock index futures / forwards 'L': Stock index options 'M': Dividend index futures / forwards

¹ Commission Delegated Regulation (EU) 2017/583 of 14 July 2016.

Field	Type	F	O	SC	FC	Description	
						<ul style="list-style-type: none"> 'O': Stock options 'P': Stock futures 'Q': Stock dividend futures / forwards Not populated (blank) for strategies.	
49	Sub Class of Derivatives	char(2)	Y*	Y*	N	N	Relevant for commodity derivatives only. Code to indicate the MiFIR/MiFID 2 sub-class of derivatives, as defined by RTS 2 ¹ . Values in use are: <ul style="list-style-type: none"> 'AE': Italian durum wheat, with notional in EUR 'EA': Electricity, Italian PUN, with notional currency in Euro, baseload, cash settled / physically delivered via GME 'EB': Electricity, Italian PUN, with notional currency in Euro, peakload, cash settled / physically delivered via GME 'XX': Not relevant Not populated (blank) for strategies.
50	Liquidity/Maturity Bucket	char(1)	Y	Y	N	N	Indicates the MiFIR/MiFID 2 liquidity class (for equity derivatives) or maturity class (for commodity derivatives) to which the instrument belongs. For each sub-asset class and sub-class, it corresponds to a specific set of regulatory pre- and post-trade transparency thresholds. See the Appendix for the list of values in use. Not populated (blank) for strategies.
51	Measurement Unit	char(1)	Y*	N	N	N	For commodity derivatives only (IDEX and Agrex): indicates the unit of the Contract Size. <ul style="list-style-type: none"> 'M': MWh 'T': Tons Not populated (blank) for equity derivatives (incl. related strategies).
52	Price Notation	char(1)	Y*	Y*	Y*	Y*	Indicates the unit in which the price of an order/trade is expressed, according to MiFIR/MiFID 2 classifications. Not populated (blank) for index derivatives and related strategies, as the price is expressed in index points. For all other instruments, incl. commodity derivatives, the value 'M' = 'Monetary' is in place.

3.2 Appendix: Liquidity/Maturity Bucket (field #50)

Liquidity / maturity bucket		Relevant for :
P	ESMA liquidity bucket 1 (with lowest ADNA)	Equity derivatives , corresponding to the following sub-asset classes: <ul style="list-style-type: none"> • 'K': Stock index futures / forwards • 'L': Stock index options • 'M': Dividend index futures / forwards • 'O': Stock options • 'P': Stock futures • 'Q': Stock dividend futures / forwards See Table 6.2 of Annex 2 of CDR 2017/583.
Q	ESMA liquidity bucket 2	
R	ESMA liquidity bucket 3	
S	ESMA liquidity bucket 4	
T	ESMA liquidity bucket 5 (with highest ADNA), where applicable	
A	ESMA maturity bucket 1 (with shortest time to maturity)	IDEX and Agrex commodity derivatives classified as 'liquid' by ESMA, corresponding to the following sub-asset classes: <ul style="list-style-type: none"> • 'E': Energy commodity futures / forwards • 'G': Agricultural commodity futures / forwards
B	ESMA maturity bucket 2	
C	ESMA maturity bucket 3	
D	ESMA maturity bucket 4	
E	ESMA maturity bucket 5 (with longest time to maturity)	
Z	Not relevant	For illiquid commodity derivatives.