ARENA DATA FEED

Entities Description

Version 2.2.63

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2.2.16	24/07/2008	Florin Duminica	Add TBONDS symbol type
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2.2.18	23.06.2010	Iulia Iercosan	Add RGSP market, STR-PRD symbol-type and session schedule for RGSP market
2.2.19	05.10.2010	Iulia Iercosan	Add XRSI and XDSI markets
2.2.20	13.10.2010	Iulia Iercosan	Add XRS and XDS markets
2.2.21	17.11.2010	Iulia Iercosan	Add trading scheduler for XRSI, XDSI markets
2.2.22	08.07.2011	Iulia Iercosan	Change trading scheduler for next markets: REGS, RGSI, RGBS, REGT, DEALS, DLBS, ODDS, DEALR, ODBS, DLSI, DLST, REGF, RGSP, XRSI, XDSI, ORDR, XORDR, ORDR, XORDR, UNLS
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2.2.24	28 11.2011	Iulia Iercosan	Trading hour for XRSI and XDSI markets
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2.2.27	27.09.2012	Iulia Iercosan	Add session schedule for XRS market
2.2.28	29.01.2013	Iulia Iercosan	Add DLSP, RVSP markets
2.2.29	04.07.2013	Iulia Iercosan	Add XRS1, XDS1 markets
2.2.30	29.07.2013	Iulia Iercosan	Add session schedule for XDS market
2.2.31	02.10.2013	Iulia Iercosan	Change trading schedule for ORDR and ORDRI markets
2.2.32	28.11.2013	Florin Duminica	Change trading schedule for REGS, DEALS, ODDS, RGSI, DLSI, ORDR, DEALR, ORDRI markets starting

			January 3, 2014
2.2.33	11.12.2013	Iulia Iercosan	Add TRADING AT LAST phase
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2.2.36	15.09.2014	Florin Duminica	Add BET-TR index
2.2.37	04.11.2014	Iulia Iercosan	Add MIC code for every market
			Eliminating ODDS and ODBS market as of December 2, 2014
2.2.38	26.11.2014	Iulia Iercosan	Session schedule for bonds and government bonds that will be applied starting with December 8, 2014; See section 2.7
2.2.39	30.01.2015	Iulia Iercosan	Eliminate session schedule for RGSI, DLSI, XRS, XDS markets (not used anymore).
			Session schedule for symbol-market traded on auction model. Effective of February 23, 2015
2.2.40	17.02.2015		Session schedule for XRS1 And XDS1 markets. Effective of February 25, 2015;
			Add POFX market, special operation market for instruments being traded on ATS
2.2.41	16.03.2015	Florin Duminica	Add BET-XT-TR index
2.2.42	21.04.2015		Add POFBX market
2.2.43	07.05.2015		Extend trading program for REGS/DEALS markets; Effective of May 21, 2015
2.2.44	05.06.2015		Add POFY, POFYA market for bonds quoted on yield
2.2.45	19.06.2015		Add POFAV market
2.2.46	14.07.2015		Add XRB and XDB markets, effective July 16,2015
2.2.47	15.09.2015	Iulia Iercosan	Session schedule for REGS, REGT, DLST, ORDB, QIDB markets. Effective of October 5, 2015
2.2.48	7.10.2015	Iulia Iercosan	Add 2.16 Session schedule for symbol-markets with trading using auction model (XRS1 market). Effective of October 12, 2015
2.2.49	17.11.2015	Iulia Iercosan	Session schedule for XRS1; effective of November 23, 2015; Remove unused markets UNLB, UNLS, RGBS, DLBS, ODBS, XMBS, XDEAL, POFBS, POFBV).
2.2.50	13.12.2016		Update XORDR schedule.
2.2.51	04/01/2017		Add symbol-market status for volatility interruption.
			Changes highlighted; Effective of December 11, 2017
2.2.52	18/09/2017		Add EUR-BOND symbol -type.
			Add markets for trading and settlement in EUR currency. Add market schedule for EPOFB, EORDB, EQIDB.
2.2.53	24/10/2017		Add paragraph. Tick Size
			Effective of December 11, 2017
2.2.54	07/09/2018		Update trading scheduler. Changes highlighted
2.2.55	25.02.2019		Add EXRB and EXDB markets (changes in blue)

2.2.56	16.10.2019	Add Closing Auction at 18:00 Bucharest Hour for XRS1, XRSI, XRB, EXRB, XORDB market (changes in blue).
2.2.57	01.11.2019	Opening and Closing Phase are randomly generated by trading system and occurs up to 30 seconds on the given times. Applied for REGS market. Effective of December 2nd, 2019
2.2.58	03.12.2019	Add EPOFY market (changes in blue).
2.2.59	16.04.2020	Add **XDEALR market** (changes in blue).
2.2.60	02.07.2020	Paragraph. Tick Size,(https base)
2.2.61	11.08.2020	Add EREGT, EDLST (changes in blue).
2.2.62	23.02.2022	Update Definition and Abbreviations Add 2.3 List of markets defined in ARENA Trading Energy (System identifier – FBSE) Reindex paragraph
2.2.63	10.28.2026	Add EXRBI, EXDSI market for foreigner bond listed on ATS Add SME Growth Markets; Update 2.2 List of markets defined in ARENA Trading (System Identifier = XBSE) Update 2.10 Session schedule for derivative market (REGF) Add 2.16 Session schedule for SME Growth Market Update 2.9 Session schedule for all POFs (public offer) and special operation markets Changes in blue

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1 Introduction

1.1 Purpose

Purpose of this document is to provide overview of Bucharest Stock Exchange market.
This document describes entities defined in the Arena Trading System, the trading system which is the source of Arena data feed.

An entity is an abstract amount of information which is referred in document named "Arena2DATAFEED_specification.doc"
Entities can be: market entity, symbol-type entity, symbol entity, symbol-market entity, index entity.

1.2 Definition and Abbreviations

Term	Description
DATA FEED	Generic name for real time data dissemination software application
BVB/BSE	Bucharest Stock Exchange
ARENA	Electronic platform for trading, registry and clearing operations. It is the property of Bucharest Stock Exchange
Data Vendor	External party which takes and disseminates to his client's information transmitted through DATA FEED
ATS	Alternative/Multilateral Trading System ATS (alias CAN, AERO, SMT, MTS)
Arena Trading	Electronic platform for trading equity, debt and futures instruments
Arena Trading Energy	Electronic platform for trading power futures instruments
FBSE	Identifier for Arena Trading Energy System
XBSE	Identifier for Arena Trading System
DATA FEED XBSE	Software dissemination of market data sourced by Arena Trading (XBSE)
DATA FEED FBSE	Software dissemination of market data sourced by Arena Trading Energy (FBSE)

2 Market entity

2.1 Overview

Bucharest Stock Exchange (BSE) will extend trading services to include derivative products.
BSE will operate two trading systems, each of them match distinct instruments:

BSE will operate two trading systems, each handling distinct categories of financial instruments:

- **Arena Trading (XBSE)** - used for trading equities, debt instruments, exchange-traded funds, and stock/index futures
- **Arena Trading Energy (FBSE)** - designed for trading energy derivatives, such as futures and forward contracts

Each trading system has its own markets

A market implements BSE's trading regulations, follows a specific trading mechanism, and is equivalent to an order book for a particular instrument.
Arena supports four types of market mechanisms

- Order-driven market – trades are concluded through automatic matching of an order with the best buy or sell side of a firm quote (auction market). All bids and offers are competitive.
- Quotes-driven market (price -driven) – trades are determined from quotations made by market makers. Quotes could be competitive or indicative.
- Deal-driven market – trades are concluded through dealing mechanism (confirmation of a deal by the counterpart)
- Hybrid market – any combination of mechanism described above.

All trades, no matter in what market are concluded, are transmitted through ARENA DATA FEED in format described in the document named "Arena2DATAFEED_specification.doc".

According to the BSE's regulations new market can be defined for new instruments that will be traded.

2.2 List of markets defined in ARENA Trading (System Identifier = XBSE)

Market Code	Market Mechanism	Market description	Instrument traded	Market segment MIC ISO 10383 MIC
ORDB	Order-driven	Order driven market for BSE listed bonds (municipal bonds and corporate bond issued by listed company)	Bonds	XBSE
QIDB	Deal& Quotes -driven	Deal & Quote-driven market for BSE listed bonds (municipal bonds and corporate bond issued by listed company); Only indicative quotes and orders are permitted.	Bonds	XBSE
REGS	Order-driven	Order-driven market for BSE listed shares	Shares, Fund Units, Exchange Traded Funds	XBSE
DEALS	Deal-driven	Deal-driven market for BSE listed shares. No quotes or orders are	Shares, Fund Units, Exchange	XBSE

		permitted.	Traded Funds	
POF	Order-driven	Order-driven market for the securities involved in public offers	Shares	XBSE
POFSV	Order-driven	Order-driven market for the BSE securities involved in special operation.	Shares	XBSE
POFR	Order-driven	Order-driven for the securities involved in public offers with arbitrary allocation	Shares	XBSE
POFB	Order-driven	Order-driven market for the securities involved in public offers	Bonds	XBSE
POFBR	Order-driven	Order-driven for the securities involved in public offers with arbitrary allocation	Bonds	XBSE
ORDR	Order driven	Order-driven market for domestic rights	Rights	XBSE
DEALR	Deal driven	Order-driven market for rights	Rights	XBSE
REGF	Order driven	Order-driven market for derivative	Derivative	XBSD
RGSI	Order driven	Order-driven market for foreigner issues (not used)	Shares	XBSE
DLSI	Deal driven	Deal-driven market for shared issued by foreigner (not used)	Shares	XBSE
POFS	Order-driven	Order-driven market for the securities involved in public offers	Shares	XBSE
REGT	Order-driven	Order-driven market for Government bonds	Bonds	XBSE
DLST	Deal-driven	Deal-driven market for Government bonds. Indicative orders are permitted.	Bonds	XBSE
RGSP	Order-driven	Order-driven market for structured products	Structured products	XBSE
XRSI	Order-driven	ATS market for foreigner issues	Share	XCAN
XDSI	Deal-driven	ATS market for foreigner issues	Share	XCAN
XRS	Order-driven	ATS market for domestic issues (not used)	Share	XCAN
XDS	Deal-driven	ATS market for domestic issues (not used)	Share	XCAN
ORDRI	Order driven	Order-driven market for foreigner rights	Rights	XBSE
XRSA	Order-driven	ATS market for foreigner issues (traded on U.S. markets)	Share	XCAN
XDSA	Deal-driven	ATS market for foreigner issues (traded on U.S. markets)	Share	XCAN
DLSP	Deal-driven	Deal market for structured products	Structured products	XBSE
RVSP	Order-driven	Market use for redemption of expired structured product	Structured products	XBSE
XRS1	Order-driven	ATS market for domestic issues	Share	XCAN
XDS1	Deal-driven	ATS market for domestic issues	Share	XCAN
POFA	Order-driven	Order-driven market for the securities involved in public offers	Shares	XBSE

POFX	Order-driven	Order-driven market for special operation of instruments being traded on ATS	Shares	XCAN
POFBX	Order-driven	Order-driven market for the bonds involved in public offers	Bonds	XCAN
POFY	Order-driven	Order-driven market for the instruments involved in public offers and quoted on yield	Bonds, T-Bills	XBSE
POFYA	Order-driven	Order-driven market for the instruments involved in public offers and quoted on yield	Bonds, T-Bills	XBSE
POFAV	Order-driven	Order-driven market for special operation of instruments being traded on ATS	Shares	XCAN
XRB	Order-driven	Order driven market for ATS listed bonds	Bonds	XCAN
XDB	Deal-driven	Deal market for ATS listed bonds	Bonds	XCAN
XORDR	Order driven	Order-driven market for rights	Rights	XCAN
EPOFB	Order driven	Order-driven market for public offers with trading and settlement in EUR currency	Bonds	XBSE
EORDB	Order driven	Order-driven market for bonds with trading and settlement in EUR currency	Bonds	XBSE
EQIDB	Deal& Quotes -driven	Deal & Quote-driven market for bonds with trading and settlement in EUR currency	Bonds	XBSE
EXRB	Order driven	Order-driven market for bonds with trading and settlement in EUR currency (instruments traded on ATS)	Bonds	XCAN
EXDB	Deal& Quotes -driven	Deal-driven market for bonds with trading and settlement in EUR currency (instruments traded on ATS)	Bonds	XCAN
EPOFY	Order-driven	Order-driven market for public offers with trading and settlement in EUR currency	Bonds, T-Bills	XBSE
XDEALR	Deal-driven	Deal-driven market for rights	Rights	XCAN
EREGT	Order-driven	Order-driven market for Government bonds, with trading and settlement in EUR	Bonds	XBSE
EDLST	Deal& Quotes-driven	Deal-driven market for Government bonds, with trading and settlement in EUR	Bonds	XBSE
EXRBI	Order-driven	ATS Order-driven market for foreigner bonds, with trading and settlement in EUR	Bonds	XCAN
EXDBI	Deal-driven	ATS dela-driven market for foreigner bonds, with trading and settlement in EUR	Bonds	XCAN
XRSC	Order-driven	SME Growth Market for Shares	share	XGRW

XDSC	Deal-driven	SME Growth Market for Shares	share	XGRW
POFC	Order-driven	SME Growth Market for Shares - public offer	share	XGRW
POFCV	Order-driven	SME Growth Market for Shares - special operation	share	XGRW
XRRC	Order-driven	SME Growth Market for Rights	share	XGRW
XDRC	Deal-driven	SME Growth Market for Rights	share	XGRW
XRBC	Order-driven	SME Growth Market for Bonds	bond	XGRW
XDBC	Deal-driven	SME Growth Market for Bonds	bond	XGRW
POFBC	Order-driven	SME Growth Market for Shares - public offer	bond	XGRW
EXRBC	Order-driven	SME Growth Market for Bonds with trading and settlement in EUR currency	bond	XGRW
EXDBC	Deal-driven	SME Growth Market for Bonds with trading and settlement in EUR currency	bond	XGRW
EPOFBC	Order-driven	SME Growth Market for Shares - public offer with trading and settlement in EUR currency	bond	XGRW

2.3 List of markets defined in ARENA Trading Energy (System identifier – FBSE)

Market Code	Market Mechanism	Market description	Instrument traded	Market segment MIC ISO 10383
RFEC	Order-driven	Power derivative market for contract with cash delivery	Power Future with cash delivery	XNRG
DFEC	Deal-driven	Power derivative market for contract with cash delivery	Power Future with cash delivery	XNRG

2.4 Short description of market state:

State	Description
PREOPEN	During this state, the system allows entry, modification and cancellation of orders BSE calculates and continuously disseminate indicative auction price and volume
OPENING	Opening auction. The system proceeds to match compatible orders: trades are concluded at one price only, the opening price (single-price auctions) During this state, the system does not accept any new orders and does not allow existing orders to be modified.
OPENED	Continuous market. During this state of market orders are accepted and are matched according with exchange rule
PRECLOSE	During this state, the system allows entry, modification, and cancellation of orders.
CLOSE	During this state of market only reports are allowing to the participant of trading. In exceptional cases, trades correction could occur.
CLOSING	Closing auction. The system proceeds to match compatible orders: trades are concluded at

	one price only (single-price auctions). BSE calculate and continually disseminate indicative auction price and volume
TRADING AT LAST	Trading at last - a continuous market state when the conclusion of trades is allowed exclusively on a fixed price (the price resulted from closing auction or another price)

2.5 Market State Diagram

Trading on the Bucharest Stock Exchange is conducted in two ways: continuous model and auction model.
In **continuous trading** model, the session phases are:
PREOPEN → OPENNING AUCTION→ OPEN (CONTINOUS MARKET)→PRECLOSE →CLOSING AUCTION → TRADING AT LAST → CLOSE
Some of markets do not have OPENING and CLOSING auction.

In **auction trading** model, session phases are:
PREOPEN → OPENNING AUCTION → TRADING AT LAST →PRECLOSE →CLOSING AUCTION → TRADING AT LAST → CLOSE

2.6 Session schedule for regulated market - shares and unit fund (REGS, DEALS)

Market code	Market status						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
REGS*	09:45 - 10:00	10:00 + 30s	10:00 - 17:45	17:45 - 17:50	17:50+30s	17:50 - 18:00	18:00
DEALS			10:00-18:00				18:00

All times are related to Bucharest Hour
*Opening Auction and Closing Auction Phase for REGS market are randomly generated by trading system and occurs up to 30 seconds on the given times;

2.7 Session schedule for regulated market – bonds (ORDB, QIDB, REGT, DLST, EORDB, EQIDB, EREGT, EDLST)

Market code	Stare piata						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
ORDB	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
QIDB	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00
REGT	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
DLST	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00
EORDB	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
EQIDB	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00
EREGT	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
EDLST	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00

* All times are related to Bucharest Hour

2.8 Session schedule regulated market - rights (ORDR, DEALR, ORDRI)

Market code	Stare piata						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
ORDR	09:45 - 10:00	10:00	10:00 - 17:45	17:45 - 17:50	17:50	17:50 - 18:00	18:00
ORDRI	09:45 - 10:00	10:00	10:00 - 17:45	17:45 - 17:50	17:50	17:50 - 18:00	18:00
DEALR	N/A	N/A	10:00-18:00	N/A	N/A	N/A	18:00

* All times are related to Bucharest Hour

2.9 Session schedule for all POFs (public offer) and special operation markets

Market code	Market status						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
POF	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFR	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFS	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFSV	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFB	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFBR	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFA	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFX	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFBX	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFY	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFYA	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFAV	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
EPOFB	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFC	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFCV	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
POFBC	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30
EPOFBC	10:00 - 14:30	N/A	N/A	N/A	N/A	N/A	14:30

* All times are related to Bucharest Hour.

2.10 Session schedule for derivative market (REGF) – TO BE CONFIRMED

Market code	Market status						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
REGF	09:45 - 10:00	10:00	10:00 - 17:45	17:45 - 18:00	18:00	N/A	18:00

2.11 Session schedule for structured products markets (RGSP, DLSP, RVSP)

Market code	Market status						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
RGSP	09:45 - 10:15	10:15	10:15 - 17:55	17:55 - 18:00	18:00	N/A	18:00

DLSP	N/A	N/A	10:15 - 18:00	N/A	N/A	N/A	18:00
RVSP	13:30 – 18:00	N/A	N/A	N/A	N/A	N/A	18:00

2.12 Session schedule ATS market (XRS1, XDS1, XDSA, XRSA, XRSI, XDSI, XORDR, XDEALR, EXRBI, EXDBI)

Market code	Market status						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
XRS1	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
XDS1	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00
XRSI	09:45 – 10:15	10:15	10:15 – 17:55	17:55– 18:00	18:00	N/A	18:00
XDSI	N/A	N/A	10:15 – 18:00	N/A	N/A	N/A	18:00
XRSA	16:30 – 16:35	16:35	16:35 – 18:25	18:25 – 18:30	N/A	N/A	18:30
XDSA	N/A	N/A	N/A	N/A	N/A	N/A	N/A
XORDR	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
XDEALR	N/A	N/A	10:00-18:00	N/A	N/A	N/A	18:00
EXRBI	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
EXDBI	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00

2.13 Session schedule for symbol-markets with trading using auction model (REGS market)

Market code	Market status						
	PREOPEN	OPENNING AUCTION	TRADING AT LAST	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
REGS	09:45 – 12:30	12:30	12:30 – 13:00	13:00 – 17:50	17:50	17:50 – 18:10	18:10

2.14 Session schedule for ATS market – bonds (XRB, XDB)

Market code	Market status						
	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
XRB	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
XDB	N/A	N/A	10:00 -18:00	N/A	N/A	N/A	18:00
EXRB	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
EXDB	N/A	N/A	10:00 -18:00	N/A	N/A	N/A	18:00

2.15 Session schedule for symbol-markets with trading using auction model (XRS1 market)

Market code	Market status						
	PREOPEN	OPENNING AUCTION	TRADING AT LAST	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
XRS1	09:45 – 12:30	12.30	12:30-13:00	13:00 – 18.00	18:00	N/A	18:00

2.16 Session schedule for SME *Growth Market*

Market	Market status

code	PREOPEN	OPENNING AUCTION	CONTINOUS TRADING	PRECLOSE	CLOSING AUCTION	TRADING AT LAST	CLOSE
XRSC	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
XDSC	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00
XRBC	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
XDBC	N/A	N/A	10:00 -18:00	N/A	N/A	N/A	18:00
EXRBC	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
EXDBC	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00
XRRC	09:45 - 10:00	10:00	10:00 - 17:55	17:55 - 18:00	18:00	N/A	18:00
XDRC	N/A	N/A	10:00 - 18:00	N/A	N/A	N/A	18:00

3 Symbol-type entity

3.1 Overview

A symbol-type contains a group of symbols, which all are traded and cleared in the same currencies.

Arena accommodates more types of instruments:

- Equities (shares, right)
- Futures
- Fixed-income
    - Issued with interest (fixed rate, pre-defined floating interest rate, post-defined floating interest rate). Trading is based on clean price.
    - Issued with discount. Trading is based on yield.

Trading and settlement can be performed in RON or foreign currency.

Depending on instrument type, trading currency and clearing currency are instantiated a lot of symbol-types.

All instruments, no matter in what symbol-type entity are classified, are transmitted through ARENA DATA FEED in format described in the document named "Arena2DATAFEED_specification.doc".

According to the BSE's regulations new symbol-type market can be defined for new instruments that will be traded.

3.2 List of symbol-types defined in ARENA Trading System

Symbol-Type	Trading Currency	Clearing Currency	Description	Instrument Type
BOND	RON	RON	Bonds which are traded and cleared in RON	Bonds
BONDS_USD	USD	RON	Bonds which are traded in USD and cleared in RON	Bonds
BOND_EURO	EURO	RON	Bonds which are traded in EURO and cleared in RON	Bonds
SHARE	RON	RON	Shares which are traded in RON and cleared in RON	Shares
RIGHT	RON	RON	Right which are traded in RON and cleared in RON	Right
SHARE-ATS	RON	RON	Shares (less liquid shares) which are traded in RON and cleared in RON	Shares
FUTURES	RON	RON	Derivative instrument	Future
SHARE-INT	RON	RON	Shares issued by foreigner issuers. Both trading value and clearing value are expressed in RON	Share
TBONDS	RON	RON	Government bonds	Bonds
FUND-UNITS	RON	RON	OPC / Collective Investment Undertakings (Funds)	Fund Units, ETF

BOND-INT	RPN	RON	Bonds issued by foreigner issuers.	Bonds
STR-PRD	RON	RON	Structured products	Structured products
TBILLS	RON	RON	Instruments quoted on yield (bonds, Treasury Bill)	T-Bill
EUR-BOND	EUR	EUR	Bond type instrument. Trading and settlement are concluded in EUR currency	Bonds

4 Symbol entity

4.1 Overview

All symbols defined in system are transmitted through ARENA DATA FEED in format described in the document named “Arena2DATAFEED_specification.doc”.

Information about all symbols defined in ARENA System are transmitted to data vendor at starting day.

According to the BSE’s regulations new symbols can be defined. Also, symbols can be deleted from the system.

4.2 Symbol State

State	Description
READY	Issue is ready for trading.
SUSPENDED	Issue is suspended from trading
DELISTED	Issue is suspended from trading and will be removed from system in next futures.

5 Symbol - Market Entity

5.1 Overview

A symbol-market entity is a group formed by symbol traded in one market.

For a symbol, can be defined more than one symbol-market, as well a symbol can be traded on more than one market, using different market mechanism.

A "Major market" (alias Primary market or mainly market) for a symbol is that market whose close price is used as reference price for next trading day. There is only one Major Market for a symbol.

In Baseline Messages from Datafeed, tag 915 indicate markets list a symbol can be traded and tag 916 point the Major Market.

According to the BSE's regulations new symbol-market can be defined. Also, symbol-market can be deleted from system.

Examples:
A municipal bond (let's say XXX) can be traded on two markets simultaneous:
- ORDB (Order Driven Market for Bond)
- QIDB (Quotes and Dealing Market for Bond)

For symbol XXX there are 2 symbol-markets: XXX-ORDB and XXX-QIDB.
Symbol-market XXX-ORDB is marked as "Major Market so that close price from ORDB market becomes reference price for symbol XXX for next trading day.

5.2 Symbol Market State

State (TAG 103)	Description
PREOPEN (5)	During this state of market the system allows entry, modification, and cancellation of orders BSE calculate and continually disseminate indicative auction price and volume.
OPENING/ CLOSING AUCTION (4)	The system proceeds to match compatible orders: trades are concluded at one price only, the opening price (single-price auctions) During this state of market the system does not accept any new orders and does not allow existing orders to be modified.
OPENED (1)	Continuous market. During this state of market orders are accepted and are matched according with exchange rule;
PRECLOSE (6)	During this state of market the system allows entry, modification, and cancellation of orders. BSE calculate and continually disseminate indicative auction price and volume
CLOSE (3)	During this state of market only reports are allowing to the participant of trading. In exceptional cases, trades correction could occur.
TRADING AT LAST (7)	Trading at last - a continuous market state when the conclusion of trades is allowed exclusively on a fixed price (the price resulted from closing auction or another price)
PREOPEN-EXTENDED (8)	At the end of PREOPEN state, if potential open price lies outside the dynamic tunnel, symbol-market is moved to PREOPEN EXTENDED. PREOPEN- EXTENDED is similar with PREOPEN.
PRECLOSE-EXTENDED (9)	At the end of PRECLOSE state, if potential close price lies outside the dynamic tunnel, symbol-market is moved to PRECLOSE EXTENDED PRECLOSE - EXTENDED is similar with PRECLOSE.

VOLATILITY INTERUPTION (10)	In Continuous Trading, if the potential execution price lies outside the dynamic and/or static price range, symbol-market state is moved to VOLATILITY INTERUPTION. During this state of market the system allows entry, modification, and cancellation of orders
VOLATILITY INTERUPTION EXTENDED (11)	At the end of the volatility interruption if the potential execution price is outside a dynamic price range, an VOLATILITY INTERUPTION EXTENDED is initiated. During this state of market the system allows entry, modification, and cancellation of orders

6 Indices entity

6.1 Overview

The Bucharest Stock Exchange (BVB) calculates and distributes in real-time 12 indices.
https://www.bvb.ro/FinancialInstruments/Indices/Overview

6.2 List of indexes defined in ARENA Trading System

Index	Description	Notes
BET	Bucharest Exchange Trading	Shares
BET-C	Bucharest Exchange Trading – Composite Index	Shares Inactive from June, 23 2014
BET-FI	Bucharest Exchange Trading – Investment Fund	Shares
BET-XT	Bucharest Exchange Trading – Extend	Share
BET-NG	Bucharest Exchange Trading – Energy and Related Utilities	Share
BET-BK	Bucharest Exchange Trading Benchmark Index	Share
BETPlus	Bucharest Exchange Trading Plus Index	Share Starting from June 23, 2014
BET-TR	Bucharest Exchange Trading Total Return Index	Share Starting from September 22, 2014
BET-XT-TR	Bucharest Exchange Trading – Extended Total Return Index	Share Starting from March 23, 2015
BET-TRN	BUCHAREST EXCHANGE TRADING NET TOTAL RETURN INDEX	Launch Date: 10/11/2021
BET-XT-TRN	BUCHAREST EXCHANGE TRADING EXTENDED NET TOTAL RETURN	Launch Date: 10/11/2021
BET-EF	Bucharest Exchange Trading Energy, Utilities and Financials Index	Launch Date: 7/29/2024
BETAeRO	BUCHAREST EXCHANGE TRADING AeRO INDEX	Launch Date: 10/11/2021

7 Tick size

7.1 Overview

Currently, for every instrument, exchange apply a tick size table, based on liquidity band. Every tick size table for a given liquidity bands has a name. Tick size table name is disseminated via feed in tag 917.

Tag 917 could be empty, means that instrument has no tick size regime.

Any change in tick size table will be available on our web site and on official announcement channel.

7.2 Tick size table

Correspondence between tick size table name (tag 917) and effective tick size is available on our web site:
https://www.bvb.ro/FinancialInstruments/Details/TickSizeTable.ashx

File format: delimited text file; fields are separated by semicolon (;)
Fields description:

name - tick size table, disseminated in tag 917 for every instrument
ticksize = effective tick size
minprice_inclusive = low value of price range; minprice_inclusive value is included in price range when effective tick size is applied
maxprice_exclusive = high value of price range; maxprice_exclusive value is excluded from price range when effective tick size is applied

8 Messages Type available for every market

Depending on market mechanism, some feed message type are not

Market mechanism	Market Status Message	Trade Message	Best Quotes Message	Top5 Market By Price Message	Symbol Market Statistics Message	Official Close Message [1]
order driven	X	X	X	X	X	X
deal-driven	X	X	X		X	
Quote-driven market (price-driven)	X	X	X	X	X	X

(x means that the message type is available)

Note: 1. Official Close Message is for symbol-level, not for symbol-market level.
For a symbol, Official Close is disseminated at its main market close event. In case of overwriting, a new Official Close Message is disseminated. Any Official Close Message overrides the previous value.

9 Messages Type available for every markets state

Message type/ MARKETS	Market Status Message	Trade Message	Best Quotes Message	Top 5 Market By Price Message	Symbol Market Statistics Message	Official Close Message	Index Message
PREOPEN	X	X	X (TAG 103=5)	X	X		X
OPENING	X	X	X (TAG103=4)		X		X
OPEN	X	X	X (TAG 103=1)	X	X		X
PRECLOSE	X	X	X (TAG103=6)	X	X		X
CLOSING	X	X	X (TAG103=4)		X		X
CLOSE	X	X	X (TAG 103=3)	X	X	X	X
TRADING AT LAST	X	X	X (TAG 103=7)	X	X		

(x means that the message type is available)