

BISTECH Equity Market Data Analytics

This document is addendum to “BISTECH Genium Consolidated Feed TIP Specification”

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Table of Contents

Connection to Data Analytics.....	3
Messages	4
<i>Buyer Seller Analytics</i>	4
<i>Volume Weighted Average Price Analytics</i>	5
<i>Order Arrival Analytics</i>	6
<i>Order Flow Analytics</i>	7
<i>Order Cancellation Analytics</i>	7

Connection to Data Analytics

In order to connect the Data Analytics (Veri Analitikleri Sistemi-VAS) Servers, the username and password used for BISTECH Data Dissemination System connection would be valid.

To provide Equity Market reference data, the states of markets and order books, TIP messages through BISTECH Data Dissemination System should be used. Data Analytics would contain only the information related to analytics and the messages defined in this document. IP address and Port information to connect Data Analytics can be found in the “Borsa İstanbul Data Dissemination Infrastructure Connectivity Guide”.

Messages

For all data analytics some fields may take “null” values, and in those cases related field would be sent as a “tag” without any value.

Buyer Seller Analytics

Number and quantity of executed trades by active and passive parties are disseminated.

“Buyer Seller” message is sent intraday at pre-defined frequency.

Message Type: DABSRm

Example:

DABSRm;i523;s3;t090031;DABTCf23.45;DASTCf23.45;DABTQf23.45;DASTQf23.45;DABSCRf23.45;DABSQRf23.45;DATBSCRf23.45;DATBSQRf23.45;DABSRm;i523;s3;t090031;Of;

Field Name	Key	Tag	Type	Length	Description
Id	TK	i	Id	10	Identity of the instrument in BISTECH Data Dissemination System
SourceSystem	TK	s	Integer	2	Identity of the Source System. The id is defined in the BasicDataSource message.
TimeExec		t	Time	10	Calculation time
Number of buyer-initiated trades		DABTCf	Float	13,6	Number of trades where a pending sell order(s) is matched with a new buy order per 60 seconds
Number of seller-initiated trades		DASTCf	Float	13,6	Number of trades where a pending buy order(s) is matched with a new sell order per 60 seconds
Quantity of buyer initiated trades		DABTQf	Float	13,6	Quantity of trades where a pending sell order(s) is matched with a new buy order per 60 seconds
Quantity of seller initiated trades		DASTQf	Float	13,6	Quantity of trades where a pending buy order(s) is matched with a new sell order per 60 seconds
Buyer/Seller Ratio 1		DABSCRf	Float	13,6	The ratio of the number of buyer-initiated trades to the number of seller-initiated trades per 60 seconds

Buyer/Seller Ratio 2	DABSQRf	Float	13,6	The ratio of the quantity of buyer-initiated trades to the quantity of seller-initiated trades per 60 seconds
Cumulative Buyer/Seller Ratio 1	DATBSCRf	Float	13,6	The ratio of the total number of buyer-initiated trades to the total number of seller-initiated trades up to that time
Cumulative Buyer/Seller Ratio 2	DATBSQRf	Float	13,6	The ratio of the total quantity of buyer-initiated trades to the total quantity of seller-initiated trades up to that time
OrderbookFlush	Of	Boolean		This tag is sent by itself and indicates that all trade-related data for this order book should be reset.

Volume Weighted Average Price Analytics

Weighted average prices, which are weighted by the quantity of the executed trades, are disseminated.

“Volume Weighted Average Price” message is sent intraday at pre-defined frequency.

Message type: DAVWAPm

Example:

DAVWAPm;i523;s3;t090031;DAWTf23.45;DAWATf23.45;DAWBTF23.45;DAWSTf23.45; DAVWAPm;i523;s3;t090031;Of;

Field Name	Key	Tag	Type	Length	Description
Id	TK	i	Id	10	Identity of the instrument in BISTECH Data Dissemination System
SourceSystem	TK	s	Integer	2	Identity of the Source System. The id is defined in the BasicDataSource message.
TimeExec		t	Time	10	Calculation time
VWAP of trades		DAWTf	Float	13,6	Volume weighted average price (VWAP) of trades per 5 minutes
VWAP of all trades		DAWATf	Float	13,6	Volume weighted average price (VWAP) of trades up to that time
VWAP of buyer-initiated trades		DAWBTF	Float	13,6	Volume weighted average price (VWAP) of trades where a pending sell order(s) is matched with a new buy order per 5 minutes
VWAP of seller-initiated trades		DAWSTf	Float	13,6	Volume weighted average price (VWAP) of trades where a pending buy order(s) is matched

				with a new sell order per 5 minutes
OrderbookFlush	Of	Boolean		This tag is sent by itself and indicates that all trade-related data for this order book should be reset.

Order Arrival Analytics

The number, quantity and type of orders sent to matching engine are disseminated. Order updates are also included in calculations.

“Order Arrival” message is sent intraday at pre-defined frequency.

Message type: DAARRm

Example:

DAARRm;i523;s3;t090031;DAOCf23.45;DATOCf23.45;DAOQf23.45;DATOQf23.45;DABOCf23.45;DASOCf23.45;DABOQf23.45;DASOQf23.45;DAFAKCF23.45; DAARRm;i523;s3;t090031;Of;

Field Name	Key	Tag	Type	Length	Description
Id	TK	i	Id	10	Identity of the instrument in BISTECH Data Dissemination System
SourceSystem	TK	s	Integer	2	Identity of the Source System. The id is defined in the BasicDataSource message.
TimeExec		t	Time	10	Calculation time
Number of arrived orders		DAOCf	Float	13,6	Number of orders arriving per 60 seconds
Cumulative number of arrived orders		DATOCf	Float	13,6	Total number of arrived orders up to that time
Quantity of arrived orders		DAOQf	Float	13,6	Quantity of arrived orders per 60 seconds
Cumulative quantity of arrived orders		DATOQf	Float	13,6	Total quantity of arrived orders up to that time
Number of arrived Buy orders		DABOCf	Float	13,6	Number of buy orders arriving per 60 seconds
Number of arrived Sell orders		DASOCf	Float	13,6	Number of sell orders arriving per 60 seconds
Quantity of arrived Buy orders		DABOQf	Float	13,6	Quantity of buy orders arriving per 60 seconds
Quantity of arrived Sell orders		DASOQf	Float	13,6	Quantity of sell orders arriving per 60 seconds
Number of arrived fill and kill orders		DAFAKCF	Float	13,6	Number of fill and kill orders arriving per 60 seconds

OrderbookFlush	Of	Boolean	This tag is sent by itself and indicates that all order-related data for this order book should be reset.
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Order Flow Analytics

The average quantity and volatility of orders sent to matching engine are disseminated. Order updates are also included in calculations.

“*Order Flow*” message is sent intraday at pre-defined frequency.

Message type: DAORDFm

Example:

DAORDFm;i523;s3;t090031;DAABQf23.45;DAASQf23.45;DAVBQf23.45;DAVSQf23.45;
DAORDFm;i523;s3;t090031;Of;

Field Name	Key	Tag	Type	Length	Description
Id	TK	i	Id	10	Identity of the instrument in BISTECH Data Dissemination System
SourceSystem	TK	s	Integer	2	Identity of the Source System. The id is defined in the BasicDataSource message.
TimeExec		t	Time	10	Calculation time
Average quantity of arrived Buy orders		DAABQf	Float	13,6	Average quantity of buy orders per 5 minutes
Average quantity of arrived Sell orders		DAASQf	Float	13,6	Average quantity of sell orders per 5 minutes
Volatility of arrived Buy order quantities		DAVBQf	Float	13,6	Volatility of buy order quantity per 5 minutes
Volatility of arrived Sell order quantities		DAVSQf	Float	13,6	Volatility of sell order quantity per 5 minutes
OrderbookFlush		Of	Boolean		This tag is sent by itself and indicates that all order-related data for this order book should be reset.

Order Cancellation Analytics

The number, quantity, and volume weighted average prices of cancelled orders and ratio of cancelled orders among all arrived orders are disseminated. Order updates and remaining part of fill and kill orders are also included in calculations.

“*Order Cancellation*” message is sent intraday at pre-defined frequency.

Message type: DACXRm

Example:

DACXRm;i523;s3;t090031;DACXCf23.45;DACXQf23.45;DACXBCf23.45;DACXSCf23.45;DACXBQf23.45;DACXSQf23.45;DATCXCf23.45;DAWCXf23.45;DAWCXBf23.45;DAWCXSf23.45;DACXCRf23.45;DACXQRf23.45;DATCXCRf23.45;DATCXQRf23.45;
 DACXRm;i523;s3;t090031;Of;

Field Name	Key	Tag	Type	Length	Description
Id	TK	i	Id	10	Identity of the instrument in BISTECH Data Dissemination System
SourceSystem	TK	s	Integer	2	Identity of the Source System. The id is defined in the BasicDataSource message.
TimeExec		t	Time	10	Calculation time
Number of cancelled orders		DACXCf	Float	13,6	Number of cancelled orders per 60 seconds
Quantity of cancelled orders		DACXQf	Float	13,6	Quantity of cancelled orders per 60 seconds
Number of cancelled Buy orders		DACXBCf	Float	13,6	Number of cancelled buy orders per 60 seconds
Number of cancelled Sell orders		DACXSCf	Float	13,6	Number of cancelled sell orders per 60 seconds
Quantity of cancelled Buy orders		DACXBQf	Float	13,6	Quantity of cancelled buy orders per 60 seconds
Quantity of cancelled Sell orders		DACXSQf	Float	13,6	Quantity of cancelled sell orders per 60 seconds
Cumulative number of cancelled orders		DATCXCf	Float	13,6	Total number of cancelled orders up to that time
VWAP of cancelled orders		DAWCXf	Float	13,6	Volume weighted average price of cancelled orders up to that time
VWAP of cancelled Buy orders		DAWCXBf	Float	13,6	Volume weighted average price of cancelled buy orders up to that time
VWAP of cancelled Sell orders		DAWCXSf	Float	13,6	Volume weighted average price of cancelled sell orders up to that time
Cancel/Order Ratio 1		DACXCRf	Float	13,6	The ratio of the number of cancelled orders to the number of arrived orders per 60 seconds

Cancel/Order Ratio 2	DACXQRf	Float	13,6	The ratio of the quantity of cancelled orders to the quantity of arrived orders per 60 seconds
Cumulative Cancel / Order Ratio 1	DATCXCRf	Float	13,6	The ratio of the total number of cancelled orders to the total number of arrived orders up to that time
Cumulative Cancel / Order Ratio 2	DATCXQRf	Float	13,6	The ratio of the total quantity of cancelled orders to the total quantity of arrived orders up to that time
OrderbookFlush	Of	Boolean		This tag is sent by itself and indicates that all order-related data for this order book should be reset.