TRADING TECHNOLOGIES

B3 Binary Protocols

Migration Guide v1.0

REVISION HISTORY

Date	Chapter	Description of Revision
April 2024		Initial Version

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Overview

B3 has introduced new, lower latency Binary protocols for Market Data via the Unified Market Data Feed (UMDF) and Order Entry via Simple Binary Encoding (SBE).

TT upgraded the B3 Binary market data protocol in UAT on **March 19, 2024**. The release note can be found here https://library.tradingtechnologies.com/release_notes/uat-2024-03.html

On **April 02, 2024**, TT deployed the new Binary Order Entry API in UAT. Requests for new credentials should be submitted to the exchange for configuration within TT.

Features supported on B3 market:
https://library.tradingtechnologies.com/trade/b3-trading-on-b3-overview.html

NOTE:
TT will allow customers to continue using their existing order connections on legacy protocol, and in parallel will allow customers to configure and use new connections using SBE.

When a user is configured with both legacy and binary connections, the binary connection will take precedence over the legacy connection for new orders being sent to B3.

On the Binary protocol, B3 does not send the fill price of a Market to Limit order. Therefore, to cancel or modify any partially filled 'Market to Limit' order, the user cannot use the MDT widget but must rely on the order book widget.

The new fields added on Accounts for Binary API are,
1. Self-Trade Prevention: With this upgrade to the new Protocol, TT will support all three self-trade prevention settings, available in the TTUS Account configuration. The user is required to fill the Investor ID and Self Trade Prevention Instruction on Account:
   - Cancel Resting
   - Cancel Aggressor
   - Cancel Both
2. Routing Instruction: Retail Liquidity Trader, Waived Priority, Broker Only, Broker Only Removal

B3 has discontinued the support of 'Clearing Firm' field in the SBE protocol. This field will be used only by the legacy order entry server. The order routed through the new Binary connections will not acknowledge the Clearing Firm value.

Please note that TT does not support the SimpleNewOrder (Message Type: 15) and SimpleModifyOrder (Message Type: 16) templates introduced in the Binary protocol. TT will continue to support NewOrderSingle (Message Type: 17), OrderCancelReplaceRequest (Message Type: 18).

TT FIX Adapter Impact

As B3 has discontinued the support of tag 452= 4 (Clearing Firm) in the binary protocol, the order routed through the new Binary connections will not acknowledge the Clearing Firm value (452=4). There are no other changes to the existing tags for FIX clients.

FIX clients will be able to use the new tag 8000 to send SMP instructions on the Binary connection. Possible values are,
- O: SMP Instruction type cancel resting
- N: SMP Instruction type cancel aggressor
- B: SMP Instruction type cancel both

More Information:
https://library.tradingtechnologies.com/tt-fix/general/fix_exchange_reference.html

Adding a B3 Binary Connection

1. Click **Connections** in the left navigation panel.
2. Click **+New Connection**
3. Configure the settings in the **General Settings** section:

- ○ **Connection Enabled**: Check this setting to activate the connection. Uncheck to deactivate the connection.
- ○ **Name**: This is a *required* field for creating a connection.
- ○ **Exchange**: Select **B3**. Only one exchange is allowed per connection.
- ○ In the **Type** field, select either **BM&F Derivatives (Binary)** or **BOVESPA Equities (Binary)**. This field sets the connection to route orders for either derivatives products or equities products on B3.
4. Configure the settings in the **Additional Settings** section.

Additional Settings

Primary IP *	200.19.60.77
Primary Port *	62000
Sender Location *	BVMF
Entering Firm *	935
On Behalf Firm	Text (optional)
Session ID *	209350016
Password *	············· 👁
	☑ Cancel Orders On Disconnect
Max Order Rate (orders/sec)	Number (optional)
Server host name	Text (optional)

- ○ **Primary IP** — Sets the exchange-provided IP address for connecting to the exchange. This is required.
- ○ **Primary Port** — Sets the exchange-provided port for connecting to the exchange. This is required.
- ○ **Sender Location** — Identifies the order originator. This is required.
- ○ **Entering Firm** — Sets the broker identifier for the Desk Trader's firm. Enter the numeric code provided by the Exchange. This is required.
- ○ **Session ID** — The session ID provided by the exchange. This is required.
- ○ **Password** — The session password provided by the exchange. This is required.
- ○ **Cancel Orders on Disconnect** — Sets whether to enable use of the exchange's Cancel on Disconnect functionality. When this setting is checked, all orders except GTC and GTDate orders are canceled when the session disconnects. By default, this setting is unchecked and all orders are persisted at the exchange when the session disconnects.

5. Click **Create**. You can select the connection in the data grid and review the connection settings in the **Settings** tab.
6. Click the **Accounts** tab to assign an existing account to the connection. Multiple accounts can be added to a single connection. Please note that the connection will not become active until at least one account is assigned.
7. Click **Save Changes**.

Additional information on Binary protocols:

- Order Entry: https://clientes.b3.com.br/en/w/gateway-binario
- Market Data: https://clientes.b3.com.br/en/w/market-data-binario

*All clients are strongly encouraged to test in UAT and provide feedback.