Japannext JNX

GLIMPSE Market Data Specification (Equities)

Version 2.00

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1   Introduction

This document explains access to the **equities market data services** of **Japannext PTS** via the **GLIMPSE** protocol. It describes the service configuration and specifies the application messages.

For further information and inquiries regarding trading services, and for questions concerning connectivity, contact Japannext Technical Support at ito@japannext.co.jp.

2   Overview

GLIMPSE is an industry-standard binary market data message protocol widely used by financial institutions in the electronic exchange of securities transactions. GLIMPSE is complementary to ITCH and provides a snapshot of the current state of the Japannext PTS execution system. GLIMPSE uses the same messages as the Japannext PTS ITCH protocol.

GLIMPSE messages are encapsulated by **SoupBinTCP** as the point-to-point messaging protocol.

3   Data Types

- Integer fields are unsigned big-endian (network byte order) binary-encoded numbers.
- Alpha fields are left-justified and right-padded with spaces.
- Price fields are 4-byte integer fields. When converted to a fixed-point number format, price fields have 9 whole number digits and 1 decimal place. The maximum representable value is 214,748,364.6 (7FFFFFFE hex).
- Quantity fields are 4-byte integer fields with a maximum representable value of 2,147,483,647 (7FFFFFFF hex).

4   Service Usage

When a client establishes a connection to a GLIMPSE host, the GLIMPSE host dispatches a snapshot of messages containing the current state of the Japannext PTS execution system. The final message in the snapshot provides the next sequence number of the real-time ITCH market data feed at the time the snapshot was taken.

Note that the **Requested Session** field of the SoupBinTCP **Login Request Packet** must be empty. Setting this field to any value results in a failed login and a **Login Rejected Packet**.

5   Outbound Sequenced Messages

Outbound messages are generated by the GLIMPSE host and received by the client application.

5.1 Timestamp – Seconds Message

To improve bandwidth efficiency, the timestamp is separated into two parts:

- The '**seconds**' part—a standalone **Timestamp – Seconds Message** reflecting the number of seconds past midnight of the day that the trading session started.
- The '**nanoseconds**' part—a field within individual messages as the number of nanoseconds since the most recent **Timestamp – Seconds Message**.

A **Timestamp – Seconds Message** is sent for every second in which at least one other message type is sent.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is T = Timestamp – Seconds Message.
Timestamp – Seconds	1	4	Integer	Number of seconds past midnight of the day that the trading session started.

5.2 System Event Message

System Event Messages denote data feed, system, and market events. Note that the snapshot includes only the **Start of Messages** and **End of Messages** system events that occurred up to the time the snapshot was taken.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is S = System Event Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Group	5	4	Alpha	Order book group identifier. Blank if system-wide event. Values: DAY = J-Market Daytime Session NGHT = J-Market Nighttime Session DAYX = X-Market DAYU = U-Market
System Event	9	1	Alpha	Refer to **Table 1** below.

Table 1 - System events value description

Value	Description
O	Start of Messages: Always the first message (except for Timestamp – Seconds Messages) sent on any trading day.
C	End of Messages: Always the last message sent on any trading day.

5.3 Price Tick Size Message

Price Tick Size Messages define a set of price tick size tables. **Price Tick Size Messages** are sent before **Orderbook Directory Messages**.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is L = Price Tick Size Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Price Tick Size Table Id	5	4	Integer	Price tick size table identifier.
Price Tick Size	9	4	Integer	Price tick size.
Price Start	13	4	Integer	Start of price range for this price tick size.

5.4 Orderbook Directory Message

Orderbook Directory Messages provide information about order books available in the Japannext PTS execution system. Note that reference prices are provided via **Order Added Messages**.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is R = Orderbook Directory Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Orderbook Id	5	4	Alpha	Securities Identification Code Committee (SICC) code.
Orderbook Code	9	12	Alpha	International Securities Identification Number (ISIN).
Group	21	4	Alpha	Order book group identifier. Values: DAY = J-Market Daytime Session NGHT = J-Market Nighttime Session DAYX = X-Market DAYU = U-Market
Round Lot Size	25	4	Integer	Number of shares that represent a round lot.
Price Tick Size Table Id	29	4	Integer	Price tick size table identifier.
Price Decimals	33	4	Integer	Number of decimal places in price fields. Value is 1.
Upper Price Limit	37	4	Integer	Maximum tradable price.
Lower Price Limit	41	4	Integer	Minimum tradable price.

5.5 Trading State Message

A **Trading State Message** indicates the current trading state of an order book.

Trading State Messages are sent for all order books eligible for trading at the time the snapshot was taken. If no **Trading State Message** is available for a particular order book, clients should assume that the order book was suspended at the time the snapshot was taken.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is H = Trading State Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Orderbook Id	5	4	Alpha	Securities Identification Code Committee (SICC) code.
Group	9	4	Alpha	Order book group identifier. Values: DAY = J-Market Daytime Session NGHT = J-Market Nighttime Session DAYX = X-Market DAYU = U-Market
Trading State	13	1	Alpha	Current trading state. Values: T = Trading V = Suspended

5.6 Short Selling Price Restriction State Message

A **Short Selling Price Restriction State Message** indicates the current short selling price restriction state of an order book.

Short Selling Price Restriction State Messages are sent for all order books which have a short selling price restriction in effect at the time the snapshot was taken. If no **Short Selling Price Restriction State Message** is available for a particular order book, clients should assume that the order book had no short selling price restriction at the time the snapshot was taken.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is Y = Short Selling Price Restriction State Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Orderbook Id	5	4	Alpha	Securities Identification Code Committee (SICC) code.
Group	9	4	Alpha	Order book group identifier. Values: DAY = J-Market Daytime Session NGHT = J-Market Nighttime Session DAYX = X-Market DAYU = U-Market
Short Selling State	13	1	Alpha	Current short selling price restriction state. Values: 0 = No price restriction 1 = Price restriction in effect

5.7 Order Added Messages

An **Order Added Message** indicates that an order exists in the displayable order book of the Japannext PTS execution system. This message includes an Order Number which is unique per day per order book group. The **Order Added Message** has two variations:

- **Order Added Message – No Attributes**
- **Order Added with Attributes Message**

5.7.1 Order Added Message – No Attributes

An **Order Added Message** is generated for normal orders present in the system. Reference prices are provided via **Order Added Messages** with an Order Number value of zero. Initial reference prices are sent after the **Orderbook Directory Messages**.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is A = Order Added Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Order Number	5	8	Integer	Reference number of accepted order. Zero indicates a reference price message.
Buy/Sell Indicator	13	1	Alpha	Side of order. Values: B = Buy S = Sell Ignore if reference price message.
Quantity	14	4	Integer	Total number of shares added to order book. Ignore if reference price message.
Orderbook Id	18	4	Alpha	Securities Identification Code Committee (SICC) code.
Group	22	4	Alpha	Order book group identifier. Values: DAY = J-Market Daytime Session NGHT = J-Market Nighttime Session DAYX = X-Market DAYU = U-Market
Price	26	4	Integer	Price of order. For a reference price message, a value of 214,748,364.7 (7FFFFFFF hex) denotes no reference price available.

5.7.2 Order Added with Attributes Message

An **Order Added with Attributes Message** is generated for orders with market-specific attributes present in the system.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is F = Order Added with Attributes Message.
Timestamp – Nanoseconds	1	4	Integer	Number of nanoseconds since last Timestamp – Seconds Message.
Order Number	5	8	Integer	Reference number of accepted order.
Buy/Sell Indicator	13	1	Alpha	Side of order. Values: B = Buy S = Sell
Quantity	14	4	Integer	Total number of shares added to order book.
Orderbook Id	18	4	Alpha	Securities Identification Code Committee (SICC) code.
Group	22	4	Alpha	Order book group identifier. Values: DAY = J-Market Daytime Session NGHT = J-Market Nighttime Session DAYX = X-Market DAYU = U-Market
Price	26	4	Integer	Price of order.
Attribution	30	4	Alpha	Reserved. Always blank.
Order Type	34	1	Alpha	Type of order. Value: Q = DLP order

5.8 End of Snapshot Message

The **End of Snapshot Message** provides the next sequence number of the real-time ITCH market data feed at the time the snapshot was taken.

The ITCH market data consumer should begin to process the real-time feed from the sequence number provided in this message.

Name	Offset	Length	Type	Comments
Message Type	0	1	Alpha	Value is G = End of Snapshot Message.
Sequence Number	1	8	Integer	ITCH market data feed sequence number.

6 Revision History

Date	Version	Description
2025-09-17	2.00	Document format has been revamped. Section numbers changed to accommodate new format. Added note about Requested Session field in SoupBinTCP Login Request Packet. "Quick code" changed to "Securities Identification Code Committee (SICC) code". Other parts of the text have been reworded to improve readability. No factual changes made to technical content.
2023-02-17	1.4	Changed Type of Orderbook Id to Alpha
2017-12-18	1.3	Renamed messages: Orderbook Directory → Orderbook Directory Message, Orderbook Trading Action → Trading State Message, Short Selling Price Restriction Indicator → Short Selling Price Restriction State Message, Add Order Message → Order Added Message. Clarified initial and update reference price mechanisms.
2017-10-26	1.2	Replaced Order Reference Number field name with Order Number. Replaced Security with Orderbook in message and field names.
2014-10-03	1.1	Mentioned U-market.
2013-12-19	1.0	Initial version.