GLIMPSE Market Data Specification (Bonds)

Version 2.00

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1 Introduction

This document explains access to the **bonds market data services** of Japannexts **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 Japannexts Technical Support at

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 Japannexts PTS execution system. GLIMPSE uses the same messages as the Japannexts 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.
- Signed integer fields are signed big-endian (network byte order) binary-encoded numbers.
- Alpha fields are left-justified and right-padded with spaces.
- Price fields are 4-byte signed integer fields. When converted to a fixed-point number format, price fields have 7 whole number digits and 3 decimal places. The maximum representable value is 2,147,483.646 (7FFFFFFE hex) and the minimum representable value is –2,147,483.648 (80000000 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 Japannexts 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. Value: DJGB = JGB 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	Yield tick size.
Price Start	13	4	Signed Integer	Start of yield range for this yield tick size.

5.4 Orderbook Directory Message

Orderbook Directory Messages provide information about order books available in the Japannexts PTS execution system. Note that reference yields are provided via **Order Add ed 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	Integer	Bond code per SICC definition.
Orderbook Code	9	12	Alpha	International Securities Identification Number (ISIN).
Group	21	4	Alpha	Order book group identifier. Value: DJGB = JGB Market
Round Lot Size	25	4	Integer	Number of bonds 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 3.
Upper Price Limit	37	4	Signed Integer	Maximum tradable yield.
Lower Price Limit	41	4	Signed Integer	Minimum tradable yield.

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	Integer	Bond code per SICC definition.
Group	9	4	Alpha	Order book group identifier. Value: DJGB = JGB Market
Trading State	13	1	Alpha	Current trading state. Values: T = Trading V = Suspended

5.6 Order Added Messages

An **Order Added Message** indicates that an order exists in the displayable order book of the Japannexts PTS execution system. This message includes an Order Number which is unique per day per order book group. An Order Number with a value of zero denotes a reference yield message for the order book. Reference yield messages 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 yield 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 bonds added to order book. Ignore if reference yield message.
Orderbook Id	18	4	Integer	Bond code per SICC definition.
Group	22	4	Alpha	Order book group identifier. Value: DJGB = JGB Market
Price	26	4	Signed Integer	Order yield. For a reference yield message, a value of 2,147,483.647 (7FFFFFFF hex) denotes no reference yield available.

5.7 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 link to Japannexts SoupBinTCP Specification. Added note about Requested Session field in SoupBinTCP Login Request Packet. Reworded reference yield update/s → reference yield message/s. Other parts of the text have been reworded to improve readability. No other factual changes made to technical content.
2018-01-19	1.2	Renamed messages: Orderbook Directory → Orderbook Directory Message Orderbook Trading Action → Trading State Message Add Order Message → Order Added Message. Clarified initial and update reference price mechanisms.
2017-10-26	1.1	Replaced Order Reference Number field name with Order Number. Replaced Security with Orderbook in message and field names. Replaced Bonds with Quantity in data type descriptor and field names. Replaced Yield with Price in data type descriptor, and message and field names.
2016-12-05	1.0	Initial version.