HL7 OTD LIBRARY USER'S GUIDE

Release 5.1.1

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Introducing the HL7 OTD Library

This chapter provides a brief overview of the HL7 OTD Library, and presents an outline of the information provided in this user's guide.

What's in This Chapter

- **HL7 OTD Library Overview** on page 6
- **What's New in This Release** on page 7
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- **Sun Microsystems, Inc. Web Site** on page 8

1.1   HL7 OTD Library Overview

The HL7 OTD Library provides HL7 files formatted in Java™ syntax for use with the Sun SeeBeyond Enterprise Designer. An Object Type Definition (OTD) library is a compilation of pre-built message structures for industry-standard formats. The HL7 OTD Library is designed to work in conjunction with the Sun SeeBeyond eWay™ TCP/IP HL7 Adapter, to help the user establish and maintain an efficient and reliable HL7 messaging system.

The HL7 OTD Library supports the following versions of HL7:

- Version 2.1
- Version 2.2
- Version 2.3
- Version 2.3.1
- Version 2.4
- Version 2.5

The Sun SeeBeyond HL7 OTD Library files can be modified using the Sun SeeBeyond Enterprise Designer's OTD Editor. The editor also allows the user to test OTDs and verify that all data elements are available and data formats are correct before runtime. The editor executes a trace of parsing during the unmarshal process to assist with troubleshooting.

For more information on OTDs and the OTD Editor, see the *Sun SeeBeyond eGate Integrator User's Guide*.

1.2   What's New in This Release

The Sun SeeBeyond HL7 OTD Library version 5.1.1 includes the following changes and new features:

- HL7 OTD segments are externalized, allowing you to edit specific HL7 segments. These edits are applied to all HL7 messages that reference (contain) that specific HL7 OTD segment.

1.3   What's in This Document

This guide includes the following chapters:

- **Chapter 1 "Introducing the HL7 OTD Library"** provides a brief overview of the HL7 OTD Library, and presents an outline of the information provided in this user's guide.

- **Chapter 2 "Installing the HL7 OTD Library"** explains the procedures for installing the HL7 OTD Libraries.

- **Chapter 3 "Overview of HL7"** provides an overview of HL7, the HL7 standard, and its components.

- **Chapter 4 "The HL7 OTD Libraries"** lists all available HL7 OTDs and provides a cross-reference of the HL7 OTD Libraries.

- **Chapter 5 "Working With HL7 OTDs"** provides information on selecting and modifying OTDs, and testing OTDs using the OTD Editor.

- **Chapter 6 "HL7 Methods"** contains information for adding and accessing the HL7 Utility Methods.

1.3.1 HL7 OTD Library Javadoc

An HL7 OTD Library Javadoc is also provided, that documents the Java methods available with the HL7 OTD Library. The Javadoc is uploaded with the Library's documentation file (**HL7OTDLibraryDocs.sar**) and downloaded from the Documentation tab of the Sun SeeBeyond Java Composite Application Platform Suite Installer. To access the full Javadoc, extract the Javadoc to an easily accessible folder, and double-click the **index.html** file.

1.3.2 Scope of the Document

This user's guide provides a description of the HL7 OTD Library. It includes directions for installing and implementing the library. This document is also intended as a reference guide, listing available OTDs, functions, and considerations. For a reference of available OTD Java methods, see the HL7 OTD Library Javadoc.Intended Audience

This guide is intended for experienced computer users who have the responsibility of helping to set up and maintain a fully functioning Java Composite Application

Platform Suite system. This person must also understand any operating systems on which the Java Composite Application Platform Suite will be installed (Windows and UNIX), and must be thoroughly familiar with Windows-style GUI operations.

1.3.3 Text Conventions

The following conventions are observed throughout this document.

Table 1   Text Conventions

Text Convention	Used For	Examples
Bold	Names of buttons, files, icons, parameters, variables, methods, menus, and objects	▪ Click **OK**. ▪ On the **File** menu, click **Exit**. ▪ Select the **eGate.sar** file.
`Monospaced`	Command line arguments, code samples; variables are shown in **`bold italic`**	`java -jar `**`filename`**`.jar`
Blue bold	Hypertext links within document	See **Sun Microsystems, Inc. Web Site** on page 8
<u>Blue underlined</u>	Hypertext links for Web addresses (URLs) or email addresses	http://www.sun.com

1.4   Sun Microsystems, Inc. Web Site

The Sun Microsystems web site is your best source for up-to-the-minute product news and technical support information. The site's URL is:

http://www.sun.com

1.5   Documentation Feedback

We appreciate your feedback. Please send any comments or suggestions regarding this document to:

CAPS_docsfeedback@sun.com

Installing the HL7 OTD Library

This chapter provides installation information for the HL7 OTD Library.

What's in This Chapter

- **HL7 OTD Library System Requirements** on page 9
- **Installing the HL7 OTD Library** on page 9
- **Increasing the Enterprise Designer Heap Size** on page 11
- **Adding HL7 Utility Functions** on page 12

2.1 HL7 OTD Library System Requirements

The HL7 OTD Library Readme contains the latest information on:

- Supported Operating Systems
- System Requirements
- External System Requirements
- The HL7 OTD Library Readme is uploaded with the eWay's documentation file (HL7OTDLibraryDocs.sar) and can be accessed from the Documentation tab of the Sun Java Integrator Suite Installer. Refer to the HL7 OTD Library Readme for the latest requirements before installing the HL7 OTD Library.

2.2 Installing the HL7 OTD Library

The Sun SeeBeyond Java Composite Application Platform Suite Installer, a web-based application, is used to select and upload eWays and add-on files during the installation process. The following section describes how to install the selected HL7 libraries.

Note: *When the Repository is running on a UNIX operating system, the components are loaded from the Enterprise Manager running on a Windows platform connected to the Repository server using Internet Explorer.*

2.2.1 **Installing the HL7 OTD Library on an eGate Supported System**

Follow the directions for installing the *Sun SeeBeyond Java Composite Application Platform Suite* in the *Sun SeeBeyond Java Composite Application Platform Suite Installation Guide.* After you have installed eGate or eInsight, do the following:

1 From the Sun SeeBeyond Java Composite Application Platform Suite Installer's **Select Sun SeeBeyond Java Composite Application Platform Suite Products to Install** table (Administration tab), expand the **eWay** option.

2 Select the products for your Sun SeeBeyond Java Composite Application Platform Suite and include the following:

   ◆ **HL7OTDLibrary2.1** (to install the HL7 version 2.1 OTD Library)

   ◆ **HL7OTDLibrary2.2** (to install the HL7 version 2.2 OTD Library)

   ◆ **HL7OTDLibrary2.3** (to install the HL7 version 2.3 OTD Library)

   ◆ **HL7OTDLibrary2.3.1** (to install the HL7 version 2.3.1 OTD Library)

   ◆ **HL7OTDLibrary2.4** (to install the HL7 version 2.4 OTD Library)

   ◆ **HL7OTDLibrary2.5** (to install the HL7 version 2.5 OTD Library)

   ◆ **HL7OTDLibraryDocs** (to install the HL7 OTD Library User's Guide)

To upload the **HL7 OTD Library** User's Guide, Help file, Javadoc, and Readme, select the following:

   ◆ **HL7OTDLibraryDocs**

3 Once you have selected all of your products, click **Next** in the top-right or bottom-right corner of the **Select Sun SeeBeyond Java Composite Application Platform Suite Products to Install** box.

4 From the **Selecting Files to Install** box, locate and select your first product's SAR file. Once you have selected the SAR file, click **Next**. Your next selected product appears. Follow this procedure for each of your selected products. The **Installation Status** window appears and installation begins after the last SAR file has been selected.

5 Once your product's installation is finished, continue installing the Sun SeeBeyond Java Composite Application Platform Suite as instructed in the *Sun SeeBeyond Java Composite Application Platform Suite Installation Guide.*

Adding an HL7 library to an Existing Suite Installation

If you are adding an HL7 library to an existing Sun SeeBeyond Java Composite Application Platform Suite installation, do the following:

1 Complete steps 1 through 4 above.

2 Once your product's installation is finished, open the Enterprise Designer and select **Update Center** from the Tools menu. The **Update Center Wizard** appears.

3 For Step 1 of the wizard, click **Next**.

4   For Step 2 of the wizard, click the **Add All** button to move all installable files to the **Include in Install** field, then click **Next**.

5   For Step 3 of the wizard, wait for the modules to download, then click **Next**.

6   The wizard's Step 4 window displays the installed modules. Review the installed modules and click **Finish.**

7   When prompted, restart the IDE (Integrated Development Environment) to complete the installation.

After Installation

Once you install the HL7 OTD Library, it must then be incorporated into a Project before it can perform its intended functions. See the *Sun SeeBeyond eGate Integrator User's Guide* for more information on incorporating the eWay into an eGate Project.

2.3   Increasing the Enterprise Designer Heap Size

Due to the size of the HL7 OTD Libraries, the Enterprise Designer **Heap Size** may need to be increased prior to using eGate with the HL7 OTD Library. If the heap size is not increased it may result in an **OutOfMemoryError** message. To increase the heap size do the following:

1   From the Enterprise Designer Menu bar click **Tools** and select **Options**. The **Options Setup** dialog box appears (see **Figure 1 on page 11**).

Figure 1   Options Setup - Heap Size

2   Increase the configured heap size for the Enterprise Designer, OTD Tester, and JCE Tester to 512 MB as displayed in **Figure 1 on page 11**, and click **OK**.

3   Close and restart the Enterprise Designer to allow your changes to take effect.

Out of Memory Error

If an **OutOfMemoryError** message occurs while you are trying to open the Enterprise Designer, the heap size settings may be changed before starting the Enterprise Designer. You can increase the heap size values found in the **heapSize.bat** file.

1 Go to the following directory and file:

*<CAPS home>***/edesigner/bin/heapSize.bat**

2 From the BAT file code, change the following heap size values to read as follows:

- **set eDesigner_heap_size=512**

- **set OTDTester_heap_size=512**

- **set JCETester_heap_size=512**

Save the file, and start the Enterprise Designer.

2.4 Adding HL7 Utility Functions

The HL7UtilityFunctions Class contains a number of Java methods that have been exposed to extend the functionality of the HL7 OTDs. These utility functions are available to the Collaborations after the HL7OTDLibraryUtility.jar has been imported to a Project.

For information on importing and adding the HL7OTDLibraryUtility.jar or viewing the HL7UtilityFunctions Class Javadoc, see **HL7 Methods** on page 95.

Overview of HL7

This chapter presents an overview of HL7, the HL7 standard, and its components.

What's in This Chapter

3.1 HL7 Overview

HL7 is a standard for electronic data exchange in healthcare environments. It standardizes the format and protocol for the exchange of certain key data sets among healthcare computer application systems. HL7 is designed to be flexible, allowing the various systems that send or receive patient information to share and apply data as needed. Because of this diversity in systems (data models, operating systems, communication environments, and so forth) HL7 cannot be a "plug and play" interface standard.

HL7 or Health Level Seven is also the name of an organization consisting of technical committees and special interest groups who's goal is to provide standards for the exchange, management and integration of data that support clinical patient care and the management, transfer and assessment of healthcare services. Specifically, to create flexible, cost effective approaches, standards, guidelines, methodologies, and related services for interoperability between healthcare information systems.

3.2 The HL7 Standard

The HL7 Standard addresses the interfaces among various systems that send or receive healthcare focused information, such as, patient admissions/registration, discharge or transfer (ADT) data, queries, resource and patient scheduling, orders, results, clinical observations, billing, master file update information, medical records, patient referral, and patient care. It does not try to assume a particular architecture with respect to the placement of data within applications but is designed to support a central patient care system as well as a more distributed environment where data resides in departmental

systems. Instead, HL7 serves as a way for dissimilar applications and data architectures operating in a heterogeneous system environment to communicate with each other.

3.3 Components of the HL7 Message

An HL7 transaction or message is comprised of a number of components in a defined sequence. This section defines the components of the HL7 transaction.

3.3.1 The HL7 Message

The HL7 message is a unit of data transferred between systems. It consist of a group of segments in a defined sequence. Each message has a message type that defines its purpose. For example an ADT Message type is used to transmit portions of a patient's Patient Administration (ADT) data from one system to another. A three-character code contained within each message identifies its type. A **Trigger Event**, a real-world event such as a patient being admitted, initiates the exchange of messages.

Segments

A segment is a logical grouping of data fields. Segments may occur only once or repeat in a message and may be required or optional. Each segment is given a name. For example, the ADT message may include the following segments: Message Header (MSH), Event Type (EVN), Patient ID (PID), and Patient Visit (PV1). Segments are identified by unique three-character codes known as the Segment IDs.

Fields

A field is a string of characters. HL7 is not concerned with how a system actually stores data within an application. When fields are transmitted, they are sent as character strings. Except where noted, HL7 data fields may take on the null value. Sending the null value, which is transmitted as two double quote marks (""), is different from omitting an optional data field. The difference appears when the contents of a message is used to update a record in a database rather than create a new one. If no value is sent, (i.e., it is omitted) the old value should remain unchanged. If the null value is sent, the old value should be changed to null.

Data field characteristics are as follows:

- **Position**: The ordinal position or sequence of the data field within the segment.

- **Maximum Length**: Maximum number of characters that one occurrence of the data field may occupy.

- **Type of Data**: Restrictions on the contents of the data field. There are a number of data types defined by HL7, for example TX (text data), SN (structured numeric), PT (processing time), DT (date), and so forth.

- **Optionality**: Whether the field is required, optional, or conditional in a segment.

- **Repetition**: Whether the field may or may not repeat, or the number of times the field may repeat.

- **Table**: The manner in which HL7 defines the valid values for tables varies depending on institution, data type, reference, and so forth.

- **ID Number**: Small integer that uniquely identifies the data field throughout the Standard.

- **Name**: Descriptive name for the field.

Message Delimiters

Message delimiters are the specific predefined characters that are used to define the beginning and end of a message component. They are the segment terminator, the field separator, the component separator, subcomponent separator, repetition separator, and escape character.

Escape Sequences in Text Fields

Escape sequences vary depending on the type of field.

3.4 HL7 Message Sets

HL7 messages are grouped by type or purpose into transaction sets. For example, a Patient Administration (ADT) message is used to transmit patient admittance, transfer, demographic and discharge information. The Patient Administration transaction set includes messages that transmit portions, instances or updates of this data necessary to the participating healthcare system.

Table 2 displays the chapters/transaction sets that are available with the 2.2, 2.3, 2.3.1, 2.4, 2.5, and 3.0 versions of the HL7 Standard.

Table 2   HL7 Message Sets

Transaction sets	V2.2	V2.3	V2.3.1	V2.4	V2.5
Control Defines the generic rules that apply to all messages (Ch. 2)	Yes	Yes	Yes	Yes	Yes SFT Segment
Control (Ch. 2 continued)					Yes
Patient Administration (Ch. 3)	Yes	Yes	Yes	Yes	Yes
Order Entry (Ch. 4)	Yes	Yes	Yes	Yes	Yes
Query (Ch. 5)	Yes	Yes	Yes	Yes	Yes
Financial Management (Ch. 6)	Yes	Yes	Yes	Yes	Yes
Observation Reporting (Ch. 7)	Yes	Yes	Yes	Yes	Yes
Master File (Ch. 8)	Yes	Yes	Yes	Yes	Yes

Medical Records/Information Management (Ch. 9)		Yes	Yes	Yes	Yes
Scheduling (Ch. 10)		Yes	Yes	Yes	Yes
Patient Referral (Ch. 11)		Yes	Yes	Yes	Yes
Patient Care (Ch. 12)		Yes	Yes	Yes	Yes
Laboratory Automation (Ch. 13)				Yes	Yes
Application Management (Ch. 14)				Yes	Yes
Personnel Management (Ch. 15)				Yes	Yes

Control

The Control chapter (HL7 Standard, **chapter 2**) defines the general rules that apply to all messages, including form used to describe messages, encoding rules for converting abstract messages to string characters, programming procedures for exchanging messages, relationship with lower level protocols, common message segments, and the acknowledgment message that can be used as-is in multiple applications.

SFT - Software Segment

The SFT segment was added to chapter 2 with HL7 version 2.5. This segment provides information regarding the software used as a sending application, primarily for diagnostic purposes.

Control (continued)

Specific to HL7 version 2.5, the Control (continued) chapter (HL7 Standard, **chapter 2a**) lists all of the various HL7 data types, and provides more specific definitions these data types.

Patient Administration

The Patient Administration transaction set (HL7 Standard, **chapter 3**), one of the most commonly used, provides demographic and visit information about patients. The event is transmitted as an unsolicited update or as a response to a record-oriented query.

Order Entry

The Order Entry transaction set (HL7 Standard, **chapter 4**) provides for the transmission of orders for materials or services, and information regarding orders, for specific patients or departments. Order Entry messages include components that specify quantity, timing, billing, start and end date, priority, and so on.

Query

The Query transaction set (HL7 Standard, **chapter 5**) provides requests for specific information with either an immediate or deferred response, depending on the type of query. Newer versions of HL7 include many of the most common queries that are likely to occur in a hospital.

Financial Management

The Financial Management transaction set (HL7 Standard, **chapter 6**) provides for the entry and manipulation of information pertaining to billing accounts, adjustments, payments, charges, insurance, and other related patient billing and A/R information.

Observation Reporting

The Observation Reporting message set (HL7 Standard, **chapter 7**) provides for the transmission of structured patient-oriented clinical information. This includes clinical observations such as clinical laboratory results, the results of imaging studies (excluding images), EKG pulmonary function studies, vital signs, intake and output, measures of patient status and condition, severity and/or frequency of symptoms, drug allergies, diagnostic lists, physician and nursing history, physicals, progress notes, operative notes and so on. Message information is reported in text, numeric or categorical values.

Master File

A master file is a common reference file containing more or less permanent descriptive information about a principal subject. In the healthcare environment, some common master files are doctor, location, system user, patient status, patient type, lab test definition, exam code definition, and charge master files. The Master Files Notification messages (HL7 Standard, **chapter 8**) support the distribution of changes to various master files between systems, by either providing changes to the files or making data available for review and possible inclusion.

Medical Records/Information Management

The Medical Document Management (MDM) transaction set (HL7 Standard, **chapter 9**) provides for the transmission of new or updated documents. MDM messages may contain a description of the status of a document (for example, the document has been dictated and is awaiting transcription) or both the status description and the document itself. A medical document or record is a legal document that serves as an accurate and comprehensive account of healthcare services provided to a patient.

Scheduling

The Scheduling transaction set (HL7 Standard, **chapter 10**) supports the communication of various events in relation to schedules, appointments, services and resources. A schedule controls the dates and times available for the performance of a service and/or the use of a resource. The scheduling set contains three basic types of messages:

- The *Request transaction*, used to request an appointment for services or the use of resources.

- The *Query transaction*, which actively solicits scheduling information between systems.

▪ The *Unsolicited transaction*, which passively gathers and provides scheduling information between systems.

Scheduling messages may also contain other supporting information, including the reason for the appointment, patient information, person initiating the appointment, and location.

Patient Referral

The Patient Referral transaction set (HL7 Standard, **chapter 11**) provides for patient referral communications between separate healthcare related entities. This includes primary healthcare providers, hospitals, labs, specialists, government agencies, and other healthcare entities. The receiving entity may require billing information, test results, provider information, patient demographics and so forth, calling for multiple inquires and responses. For this reason, the referral set includes the referral, requests for information, and returned patient information.

Patient Care

The Patient Care transaction set(HL7 Standard, **chapter 12**) supports the communication of problem-oriented records which include clinical problems, goals, and clinical pathway information. The **problem** in this case may be a diagnosis or other professional description of healthcare issues affecting a specific patient. **Goals** are objectives to be attained as the result of healthcare intervention applied to an individual. A **pathway** refers to a standardized plan of care by which progress toward an expected outcome is measured.

Laboratory Automation

The Laboratory Automation transaction set (HL7 Standard, **chapter 13**) supports the communication of equipment information, including status, inventory, logs and service, test code settings, response, notification, and comment, as well as specimen status.

Application Management

The Application Management transaction set (HL7 Standard, **chapter 14**) supports the transmission of application management information and application control-level requests.

Personnel Management

The Personnel Management transaction set (HL7 Standard, **chapter 15**) supports the transmission of details regarding education, language, practitioner, and professional affiliations, as well as information on practitioner organization unit, and staff identification.

3.5 Additional Information

For more information regarding HL7, and HL7 standards and versions, visit the HL7 Web site at:

http://hl7.org/

The HL7 OTD Libraries

This chapter provides a cross-reference of the HL7 OTD Libraries and the HL7 OTDs.

A number of the OTDs that appear in each library are segment OTDs, which means they are one of many OTDs that apply to a specific portion, and are used to create the larger OTDs.

4.1 HL7 OTD Libraries

HL7 OTD libraries are arranged by version:

4.1.1 HL7 Version 2.5 Library

HL7 2.5 OTD	HL7 Description
HL7_25_ABS	*Segment OTD*
HL7_25_ACC	*Segment OTD*
HL7_25_ACK	*Segment OTD*
HL7_25_ADR_A19	*Segment OTD*
HL7_25_ADT_A01	Admit/Visit Notification
HL7_25_ADT_A02	Transfer a Patient
HL7_25_ADT_A03	Discharge/End Visit
HL7_25_ADT_A04	Register a Patient
HL7_25_ADT_A05	Pre-Admit a Patient
HL7_25_ADT_A06	Change an Outpatient to an Inpatient
HL7_25_ADT_A07	Change an Inpatient to an Outpatient

HL7 2.5 OTD	**HL7 Description**
HL7_25_ADT_A08	Update Patient Information
HL7_25_ADT_A09	Patient Departing - Tracking
HL7_25_ADT_A10	Patient Arriving - Tracking
HL7_25_ADT_A11	Cancel Admit/Visit Notification
HL7_25_ADT_A12	Cancel Transfer
HL7_25_ADT_A13	Cancel Discharge/end visit
HL7_25_ADT_A14	Pending Admit
HL7_25_ADT_A15	Pending Transfer
HL7_25_ADT_A16	Pending Discharge
HL7_25_ADT_A17	Swap Patients
HL7_25_ADT_A18	Merge Patient Information
HL7_25_ADT_A20	Bed Status Update
HL7_25_ADT_A21	Patient Goes on a Leave of Absence
HL7_25_ADT_A22	Patient Returns from a Leave of Absence
HL7_25_ADT_A23	Delete a Patient Record
HL7_25_ADT_A24	Link Patient Information
HL7_25_ADT_A25	Cancel Pending Discharge
HL7_25_ADT_A26	Cancel Pending Transfer
HL7_25_ADT_A27	Cancel Pending Admit
HL7_25_ADT_A28	Add Person or Patient Information
HL7_25_ADT_A29	Delete Person Information
HL7_25_ADT_A30	Merge Person Information
HL7_25_ADT_A31	Update Person Information
HL7_25_ADT_A32	Cancel Patient Arriving - Tracking
HL7_25_ADT_A33	Cancel Patient Departing - Tracking
HL7_25_ADT_A34	Merge Patient Information - Patient ID Only
HL7_25_ADT_A35	Merge Patient Information - Account Number Only
HL7_25_ADT_A36	Merge Patient Information - Patient ID & Account Number
HL7_25_ADT_A37	Unlink Patient Information
HL7_25_ADT_A38	Cancel Pre-Admit
HL7_25_ADT_A39	Merge Patient - Patient ID
HL7_25_ADT_A40	Merge Patient - Patient Identifier List
HL7_25_ADT_A41	Merge Account - Patient Account Number
HL7_25_ADT_A42	Merge Visit - Visit Number
HL7_25_ADT_A43	Move Patient Information - Patient Identifier List
HL7_25_ADT_A44	Move Account Information - Patient Account Number

HL7 2.5 OTD	HL7 Description
HL7_25_ADT_A45	Move Visit Information - Visit Number
HL7_25_ADT_A46	Change Patient ID
HL7_25_ADT_A47	Change Patient Identifier List
HL7_25_ADT_A48	Change Alternate
HL7_25_ADT_A49	Change Patient Account Number
HL7_25_ADT_A50	Change Visit Number
HL7_25_ADT_A51	Change Alternate Visit ID
HL7_25_ADT_A52	Cancel Leave of Absence for a Patient
HL7_25_ADT_A53	Cancel Patient Returns from a Leave of Absence
HL7_25_ADT_A54	Change Attending Doctor
HL7_25_ADT_A55	Cancel Change Attending Doctor
HL7_25_ADT_A60	Update Adverse Reaction Information
HL7_25_ADT_A61	Change Consulting Doctor
HL7_25_ADT_A62	Cancel Change Consulting Doctor
HL7_25_AFF	*Segment OTD*
HL7_25_AIG	*Segment OTD*
HL7_25_AIL	*Segment OTD*
HL7_25_AIP	*Segment OTD*
HL7_25_AIS	*Segment OTD*
HL7_25_AL1	*Segment OTD*
HL7_25_APR	*Segment OTD*
HL7_25_ARQ	*Segment OTD*
HL7_25_AUT	*Segment OTD*
HL7_25_BAR_P01	Add Patient Account
HL7_25_BAR_P02	Purge Patient Accounts
HL7_25_BAR_P05	Update Account
HL7_25_BAR_P06	End Account
HL7_25_BAR_P10	Transmit Ambulatory Payment Classification (APC) Groups
HL7_25_BAR_P12	Update Diagnosis Procedure
HL7_25_BLC	*Segment OTD*
HL7_25_BLG	*Segment OTD*
HL7_25_BPO	*Segment OTD*
HL7_25_BPS_O29	Blood Product Dispense Status Message
HL7_25_BPX	*Segment OTD*
HL7_25_BRP_O30	Blood Product Dispense Status Acknowledgment
HL7_25_BRT_O32	Blood Product Transfusion/Disposition Acknowledgement

HL7 2.5 OTD	HL7 Description
HL7_25_BTS_O31	Blood Product Transfusion/Disposition Message
HL7_25_BTX	*Segment OTD*
HL7_25_CDM	*Segment OTD*
HL7_25_CER	*Segment OTD*
HL7_25_CMO	*Segment OTD*
HL7_25_CM1	*Segment OTD*
HL7_25_CM2	*Segment OTD*
HL7_25_CNS	*Segment OTD*
HL7_25_CRM_C01	Register a Patient on a Clinical Trial
HL7_25_CRM_C02	Cancel a Patient Registration on Clinical Trial
HL7_25_CRM_C03	Correct/Update Registration Information
HL7_25_CRM_C04	Patient has Gone Off a Clinical Trial
HL7_25_CRM_C05	Patient Enters Phase of Clinical Trial
HL7_25_CRM_C06	Cancel Patient Entering a Phase
HL7_25_CRM_C07	Correct/Update Phase Information
HL7_25_CRM_C08	Patient has Gone Off Phase of Clinical Trial
HL7_25_CSP	*Segment OTD*
HL7_25_CSR	*Segment OTD*
HL7_25_CSS	*Segment OTD*
HL7_25_CSU_C09	Automated Time Intervals for Reporting, Like Monthly
HL7_25_CSU_C10	Patient Completes the Clinical Trial
HL7_25_CSU_C11	Patient Completes a Phase of the Clinical Trial
HL7_25_CSU_C12	Update/Correction of Patient Order/Result Information
HL7_25_CTD	*Segment OTD*
HL7_25_CTI	*Segment OTD*
HL7_25_DB1	*Segment OTD*
HL7_25_DFT_P03	Post Detail Financial Transactions
HL7_25_DFT_P11	Post Detail Financial Transactions - Expanded
HL7_25_DG1	*Segment OTD*
HL7_25_DOC_T12	*Segment OTD*
HL7_25_DRG	*Segment OTD*
HL7_25_DSC	*Segment OTD*
HL7_25_DSP	*Segment OTD*
HL7_25_EAC_U07	Automated Equipment Command
HL7_25_EAN_U09	Automated Equipment Notification
HL7_25_EAR_U08	Automated Equipment Response

HL7 2.5 OTD	HL7 Description
HL7_25_ECD	*Segment OTD*
HL7_25_ECR	*Segment OTD*
HL7_25_EDU	*Segment OTD*
HL7_25_EQP	*Segment OTD*
HL7_25_EQU	*Segment OTD*
HL7_25_ERR	*Segment OTD*
HL7_25_ESR_U02	Automated Equipment Status Request
HL7_25_ESU_U01	Automated Equipment Status Update
HL7_25_EVN	*Segment OTD*
HL7_25_FT1	*Segment OTD*
HL7_25_GOL	*Segment OTD*
HL7_25_GP1	*Segment OTD*
HL7_25_GP2	*Segment OTD*
HL7_25_GT1	*Segment OTD*
HL7_25_IAM	*Segment OTD*
HL7_25_IIM	*Segment OTD*
HL7_25_IN1	*Segment OTD*
HL7_25_IN2	*Segment OTD*
HL7_25_IN3	*Segment OTD*
HL7_25_INR_U06	Automated Equipment Inventory Request
HL7_25_INU_U05	Automated Equipment Inventory Update
HL7_25_INV	*Segment OTD*
HL7_25_IPC	*Segment OTD*
HL7_25_ISD	*Segment OTD*
HL7_25_LAN	*Segment OTD*
HL7_25_LCC	*Segment OTD*
HL7_25_LCH	*Segment OTD*
HL7_25_LDP	*Segment OTD*
HL7_25_LOC	*Segment OTD*
HL7_25_LRL	*Segment OTD*
HL7_25_LSR_U13	Automated Equipment Log/Service Request
HL7_25_LSU_U12	Automated Equipment Log Service Update
HL7_25_MDM_T01	Original Document Notification
HL7_25_MDM_T02	Original Document Notification and Content
HL7_25_MDM_T03	Document Status Change Notification
HL7_25_MDM_T04	Document Status Change Notification and Content

HL7 2.5 OTD	HL7 Description
HL7_25_MDM_T05	Document Addendum Notification
HL7_25_MDM_T06	Document Addendum Notification and Content
HL7_25_MDM_T07	Document Edit Notification
HL7_25_MDM_T08	Document Edit Notification and Content
HL7_25_MDM_T09	Document Replacement Notification
HL7_25_MDM_T10	Document Replacement Notification and Content
HL7_25_MDM_T11	Document Cancel Notification
HL7_25_MFA	*Segment OTD*
HL7_25_MFE	*Segment OTD*
HL7_25_MFI	*Segment OTD*
HL7_25_MFK_M01	*Segment OTD*
HL7_25_MFK_M02	*Segment OTD*
HL7_25_MFK_M03	*Segment OTD*
HL7_25_MFK_M04	*Segment OTD*
HL7_25_MFK_M05	*Segment OTD*
HL7_25_MFK_M06	*Segment OTD*
HL7_25_MFK_M07	*Segment OTD*
HL7_25_MFK_M08	*Segment OTD*
HL7_25_MFK_M09	*Segment OTD*
HL7_25_MFK_M10	*Segment OTD*
HL7_25_MFK_M11	*Segment OTD*
HL7_25_MFK_M12	*Segment OTD*
HL7_25_MFK_M13	*Segment OTD*
HL7_25_MFK_M14	*Segment OTD*
HL7_25_MFK_M15	*Segment OTD*
HL7_25_MFN_M01	Master File Notification - Not Otherwise Specified (for backward compatibility only)
HL7_25_MFN_M02	Master File Notification - Staff/Practitioner
HL7_25_MFN_M03	Master File Notification - Test/Observation (for backward compatibility only)
HL7_25_MFN_M04	Master File Notification - Charge Description
HL7_25_MFN_M05	Master File Notification - Patient Location
HL7_25_MFN_M06	Master File Notification - Clinical Study with Phases and Schedules
HL7_25_MFN_M07	Master File Notification - Clinical Study Without Phases but with Schedules
HL7_25_MFN_M08	Master File Notification - Test/Observation (Numeric)
HL7_25_MFN_M09	Master File Notification - Test/Observation (Categorical)

HL7 2.5 OTD	HL7 Description
HL7_25_MFN_M10	Master File Notification - Test/Observation Batteries
HL7_25_MFN_M11	Master File Notification - Test/Calculated Observations
HL7_25_MFN_M12	Master File Notification - Additional Basic Observation/Service Attributes
HL7_25_MFN_M13	Master File Notification - General
HL7_25_MFN_M14	Master File Notification - Site Defined
HL7_25_MFN_M15	Master File Notification- Inventory Item
HL7_25_MFQ_M01	Master Files Query - Not Otherwise Specified (for backward compatibility only)
HL7_25_MFQ_M02	Master Files Query - Staff/Practitioner
HL7_25_MFQ_M03	Master Files Query - Test/Observation (for backward compatibility only)
HL7_25_MFQ_M04	Master Files Query - Charge Description
HL7_25_MFQ_M05	Master Files Query - Patient Location
HL7_25_MFQ_M06	Master Files Query - Clinical Study with Phases and Schedules
HL7_25_MFQ_M07	Master Files Query - Clinical study without phases but with schedules
HL7_25_MFQ_M08	Master Files Query - Test/Observation (Numeric)
HL7_25_MFQ_M09	Master Files Query - Test/Observation (Categorical)
HL7_25_MFQ_M10	Master Files Query - Test/Observation Batteries
HL7_25_MFQ_M11	Master Files Query - Test/Calculated Observations
HL7_25_MFQ_M12	Master Files Query - Additional Basic Observation/Service Attributes
HL7_25_MFQ_M13	Master Files Query - General
HL7_25_MFQ_M14	Master Files Query - Site Defined
HL7_25_MFR_M01	*Segment OTD*
HL7_25_MFR_M02	*Segment OTD*
HL7_25_MFR_M03	*Segment OTD*
HL7_25_MFR_M04	*Segment OTD*
HL7_25_MFR_M05	*Segment OTD*
HL7_25_MFR_M06	*Segment OTD*
HL7_25_MFR_M07	*Segment OTD*
HL7_25_MFR_M08	*Segment OTD*
HL7_25_MFR_M09	*Segment OTD*
HL7_25_MFR_M10	*Segment OTD*
HL7_25_MFR_M11	*Segment OTD*
HL7_25_MFR_M12	*Segment OTD*
HL7_25_MFR_M13	*Segment OTD*

HL7 2.5 OTD	HL7 Description
HL7_25_MFR_M14	*Segment OTD*
HL7_25_MRG	*Segment OTD*
HL7_25_MSA	*Segment OTD*
HL7_25_MSH	*Segment OTD*
HL7_25_NCK	*Segment OTD*
HL7_25_NDS	*Segment OTD*
HL7_25_NK1	*Segment OTD*
HL7_25_NMD_N02	Application Management Data Message
HL7_25_NMQ_N01	Application Management Query Message
HL7_25_NMR_N01	*Segment OTD*
HL7_25_NPU	*Segment OTD*
HL7_25_NSC	*Segment OTD*
HL7_25_NST	*Segment OTD*
HL7_25_NTE	*Segment OTD*
HL7_25_OBR	*Segment OTD*
HL7_25_OBX	*Segment OTD*
HL7_25_ODS	*Segment OTD*
HL7_25_ODT	*Segment OTD*
HL7_25_OM1	*Segment OTD*
HL7_25_OM2	*Segment OTD*
HL7_25_OM3	*Segment OTD*
HL7_25_OM4	*Segment OTD*
HL7_25_OM5	*Segment OTD*
HL7_25_OM6	*Segment OTD*
HL7_25_OM7	*Segment OTD*
HL7_25_OMB_O27	Blood Product Order Message
HL7_25_OMD_O03	Dietary Order
HL7_25_OMG_O19	General Clinical Order Message
HL7_25_OMI_O23	Imaging Order Message
HL7_25_OML_O21	Laboratory Order
HL7_25_OML_O33	Laboratory Order for Multiple Orders Related to a Single Specimen
HL7_25_OML_O35	Laboratory Order for Multiple Orders Related to a Single Container of a Specimen
HL7_25_OMN_O07	Non-Stock Requisition Order
HL7_25_OMP_O09	Pharmacy/Treatment Order
HL7_25_OMS_O05	Stock Requisition Order
HL7_25_ORB_O28	Blood Product Order Acknowledgment

HL7 2.5 OTD	**HL7 Description**
HL7_25_ORC	*Segment OTD*
HL7_25_ORD_O04	Diet Order Acknowledgment
HL7_25_ORF_R04	Response to Query; Transmission of Requested Observation
HL7_25_ORG	*Segment OTD*
HL7_25_ORG_O20	General Clinical Order Response
HL7_25_ORI_O24	Imaging Order Response Message To Any OMI
HL7_25_ORL_O22	General Laboratory Order Response Message to any OML
HL7_25_ORL_O34	Laboratory Order Response Message to a Multiple Order Related to Single Specimen OML
HL7_25_ORL_O36	Laboratory Order Response Message to a single container of a Specimen OML
HL7_25_ORM_O01	Pharmacy/Treatment Order Message
HL7_25_ORN_O08	Non-Stock Requisition Acknowledgment
HL7_25_ORP_O10	Pharmacy/Treatment Order Acknowledgment
HL7_25_ORR_O02	General Order Response Message Response to any ORM
HL7_25_ORS_O06	Stock Requisition Acknowledgment
HL7_25_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_25_ORU_R30	Unsolicited Point-Of-Care Observation Message Without Existing Order _ Place An Order
HL7_25_ORU_R31	Unsolicited New Point-Of-Care Observation Message _ Search For An Order
HL7_25_ORU_R32	Unsolicited Pre-Ordered Point-Of-Care Observation
HL7_25_OSQ_Q06	Query for order status
HL7_25_OSR_Q06	*Segment OTD*
HL7_25_OUL_R21	Unsolicited Laboratory Observation
HL7_25_OUL_R22	Unsolicited Specimen Oriented Observation Message
HL7_25_OUL_R23	Unsolicited Specimen Container Oriented Observation Message
HL7_25_OUL_R24	Unsolicited Order Oriented Observation Message
HL7_25_PCR	*Segment OTD*
HL7_25_PD1	*Segment OTD*
HL7_25_PDA	*Segment OTD*
HL7_25_PEO	*Segment OTD*
HL7_25_PES	*Segment OTD*
HL7_25_PEX_P07	Unsolicited Initial Individual Product Experience Report
HL7_25_PEX_P08	Unsolicited Update Individual Product Experience Report
HL7_25_PGL_PC6	Patient Goal Message - Goal Add
HL7_25_PGL_PC7	Patient Goal Message - Goal Update
HL7_25_PGL_PC8	Patient Goal Message - Goal Delete

HL7 2.5 OTD	HL7 Description
HL7_25_PID	*Segment OTD*
HL7_25_PIN_I07	Patient Insurance Information - Unsolicited
HL7_25_PMU_B01	Add Personnel Record
HL7_25_PMU_B02	Update Personnel Record
HL7_25_PMU_B03	Delete Personnel Record
HL7_25_PMU_B04	Active Practicing Person
HL7_25_PMU_B05	Deactivate Practicing Person
HL7_25_PMU_B06	Terminate Practicing Person
HL7_25_PMU_B07	Grant Certificate/Permission
HL7_25_PMU_B08	Add Personnel Record - Revoke Certificate/Permission
HL7_25_PPG_PCG	Patient Pathway Message - Pathway (Goal-Oriented) Add
HL7_25_PPG_PCH	Patient Pathway Message - Pathway (Goal-Oriented) Update
HL7_25_PPG_PCJ	Patient Pathway Message - Pathway (Goal-Oriented) Delete
HL7_25_PPP_PCB	Patient Problem Message - Pathway (Problem-Oriented) Add
HL7_25_PPP_PCC	Patient Problem Message - Pathway (Problem-Oriented) Update
HL7_25_PPP_PCD	Patient Problem Message - Pathway (Problem-Oriented) Delete
HL7_25_PPR_PC1	Patient Problem Message - Problem Add
HL7_25_PPR_PC2	Patient Problem Message - Problem Update
HL7_25_PPR_PC3	Patient Problem Message - Problem Delete
HL7_25_PPT_PCL	Patient Pathway Goal - Oriented Query Response
HL7_25_PPV_PCA	Patient Goal Response
HL7_25_PR1	*Segment OTD*
HL7_25_PRA	*Segment OTD*
HL7_25_PRB	*Segment OTD*
HL7_25_PRC	*Segment OTD*
HL7_25_PRD	*Segment OTD*
HL7_25_PRR_PC5	Patient Problem Response
HL7_25_PTH	*Segment OTD*
HL7_25_PTR_PCF	Patient Pathway Problem - Oriented Response
HL7_25_PV1	*Segment OTD*
HL7_25_PV2	*Segment OTD*
HL7_25_QAK	*Segment OTD*
HL7_25_QBP_Q11	Query by Parameter - Requesting an RSP segment pattern response
HL7_25_QBP_Q13	Query by Parameter - Requesting an RTB - Tabular Response
HL7_25_QBP_Q15	Query by Parameter - Requesting an RDY Display Response
HL7_25_QBP_Q21	Query by Parameter - Get Person Demographics

HL7 2.5 OTD	HL7 Description
HL7_25_QBP_Q22	Query by Parameter - Find Candidates
HL7_25_QBP_Q23	Query by Parameter - Get Corresponding Identifiers
HL7_25_QBP_Q24	Query by Parameter - Allocate Identifiers
HL7_25_QBP_Q25	Query by Parameter - Personnel Information by Segment Query
HL7_25_QBP_Q31	Query by Parameter - Dispense History
HL7_25_QBP_Z73	Query by Parameter - Information about Phone Calls
HL7_25_QBP_Z75	Query by Parameter - Tabular Patient List
HL7_25_QBP_Z77	Query by Parameter - Tabular Patient List
HL7_25_QBP_Z79	Query by Parameter - Dispense Information
HL7_25_QBP_Z81	Query by Parameter - Dispense History
HL7_25_QBP_Z85	Query by Parameter - Pharmacy Information Comprehensive
HL7_25_QBP_Z87	Query by Parameter - Dispense Information
HL7_25_QBP_Z89	Query by Parameter - Lab Results History
HL7_25_QBP_Z91	Query by Parameter - Who am I
HL7_25_QBP_Z93	Query by Parameter - Tabular Dispense History
HL7_25_QBP_Z95	Query by Parameter - Tabular Dispense History
HL7_25_QBP_Z97	Query by Parameter - Dispense History
HL7_25_QBP_Z99	Query by Parameter - Who Am I
HL7_25_QCN_J01	Cancel Query/Acknowledge Message
HL7_25_QID	*Segment OTD*
HL7_25_QPD	*Segment OTD*
HL7_25_QRD	*Segment OTD*
HL7_25_QRF	*Segment OTD*
HL7_25_QRI	*Segment OTD*
HL7_25_QRY_A19	Patient Query
HL7_25_QRY_PC4	Problem Query
HL7_25_QRY_PC9	Goal Query
HL7_25_QRY_PCE	Pathway (Problem-Oriented) Query
HL7_25_QRY_PCK	Pathway (Goal-Oriented) Query
HL7_25_QRY_Q26	Pharmacy/Treatment Order Response
HL7_25_QRY_Q27	Pharmacy/Treatment Administration Information
HL7_25_QRY_Q28	Pharmacy/Treatment Dispense Information
HL7_25_QRY_Q29	Pharmacy/Treatment Encoded Order Information
HL7_25_QRY_Q30	Pharmacy/Treatment Dose Information
HL7_25_QRY_R02	Query for Results of Observation
HL7_25_QRY_T12	Document Query

HL7 2.5 OTD	HL7 Description
HL7_25_QSB_Q16	Create Subscription
HL7_25_QSB_Z83	ORU Subscription
HL7_25_QSX_J02	Cancel Subscription/Acknowledge Message
HL7_25_QVR_Q17	Query for Previous Events
HL7_25_RAR_RAR	*Segment OTD*
HL7_25_RAS_O17	Pharmacy/Treatment Administration
HL7_25_RCI_I05	*Segment OTD*
HL7_25_RCL_I06	*Segment OTD*
HL7_25_RCP	*Segment OTD*
HL7_25_RDE_O11	Pharmacy/Treatment Encoded Order
HL7_25_RDE_O25	Pharmacy/Treatment Refill Authorization Request
HL7_25_RDF	*Segment OTD*
HL7_25_RDR_RDR	*Segment OTD*
HL7_25_RDS_O13	Pharmacy/Treatment Dispense
HL7_25_RDT	*Segment OTD*
HL7_25_RDY_K15	Display Response in Response to QBP^Q15
HL7_25_RDY_Z80	Retrieve Patient Pharmacy Dispense History Information (Patient, Order Control Code, Medication, Date Range, Quantity Dispensed, and Ordering Provider)
HL7_25_RDY_Z98	Retrieve Patient Pharmacy Dispense History Information (Patient, Medication, Date Range, and How to Sort Response)
HL7_25_REF_I12	Patient Referral
HL7_25_REF_I13	Modify Patient Referral
HL7_25_REF_I14	Cancel Patient Referral
HL7_25_REF_I15	Request Patient Referral Status
HL7_25_RER_RER	*Segment OTD*
HL7_25_RF1	*Segment OTD*
HL7_25_RGR_RGR	*Segment OTD*
HL7_25_RGS	*Segment OTD*
HL7_25_RGV_O15	Pharmacy/Treatment Give
HL7_25_RMI	*Segment OTD*
HL7_25_ROL	*Segment OTD*
HL7_25_ROR_ROR	*Segment OTD*
HL7_25_RPA_I08	*Segment OTD*
HL7_25_RPA_I10	*Segment OTD*
HL7_25_RPA_I11	*Segment OTD*
HL7_25_RPI_I01	*Segment OTD*

HL7 2.5 OTD	HL7 Description
HL7_25_RPI_I04	*Segment OTD*
HL7_25_RPL_I02	*Segment OTD*
HL7_25_RPR_I03	*Segment OTD*
HL7_25_RQ1	*Segment OTD*
HL7_25_RQA_I08	Request for Treatment Authorization Information
HL7_25_RPA_I09	Request for Modification to an Authorization
HL7_25_RQA_I10	Request for Re-submission of an Authorization
HL7_25_RQA_I11	Request for Cancellation of an Authorization
HL7_25_RQC_I05	Request for Patient Clinical Information
HL7_25_RQC_I06	Request/Receipt of Clinical Data Listing
HL7_25_RQD	*Segment OTD*
HL7_25_RQI_I01	Request for Insurance Information
HL7_25_RQI_I02	Request/Receipt of Patient Selection Display List
HL7_25_RQI_I03	Request/Receipt of Patient Selection List
HL7_25_RQP_I04	Request for Patient Demographic Data
HL7_25_RRA_O18	Pharmacy/Treatment Administration Acknowledgment
HL7_25_RRD_O14	Pharmacy/Treatment Dispense Acknowledgment
HL7_25_RRE_O12	Pharmacy/Treatment Encoded Order Acknowledgment
HL7_25_RRE_O26	Pharmacy/Treatment Refill Authorization Acknowledgement
HL7_25_RRG_O16	Pharmacy/Treatment Give Acknowledgment
HL7_25_RRI_I12	*Segment OTD*
HL7_25_RRI_I13	*Segment OTD*
HL7_25_RRI_I15	*Segment OTD*
HL7_25_RRI_I14	*Segment OTD*
HL7_25_RSP_K11	Segment Pattern Response in Response to QBP^Q11
HL7_25_RSP_K21	Get Person Demographics Response
HL7_25_RSP_K22	Find Candidates Response
HL7_25_RSP_K23	Get Corresponding Identifiers Response
HL7_25_RSP_K24	Allocate Identifiers Response
HL7_25_RSP_K25	Personnel Information by Segment
HL7_25_RSP_K31	Segment Pattern Response - Pharmacy Dispense Message
HL7_25_RSP_Z82	Segment Pattern Response - Dispense History
HL7_25_RSP_Z84	Segment Pattern Response - Who Am I
HL7_25_RSP_Z86	Segment Pattern Response - Pharmacy Information Comprehensive
HL7_25_RSP_Z88	Segment Pattern Response - Dispense Information
HL7_25_RSP_Z90	Segment Pattern Response - Lab Results History

HL7 2.5 OTD	**HL7 Description**
HL7_25_RTB_K13	Tabular Response - RTB - Tabular response in response to QBP^Q13
HL7_25_RTB_Z74	Tabular Response - Information about Phone Calls
HL7_25_RTB_Z76	Tabular Response - Patient List
HL7_25_RTB_Z78	Tabular Response - Patient List
HL7_25_RTB_Z92	*Segment OTD*
HL7_25_RTB_Z94	Tabular Response - Dispense History
HL7_25_RTB_Z96	Tabular Response - Dispense History
HL7_25_RXA	*Segment OTD*
HL7_25_RXC	*Segment OTD*
HL7_25_RXD	*Segment OTD*
HL7_25_RXE	*Segment OTD*
HL7_25_RXG	*Segment OTD*
HL7_25_RXO	*Segment OTD*
HL7_25_RXR	*Segment OTD*
HL7_25_SAC	*Segment OTD*
HL7_25_SCH	*Segment OTD*
HL7_25_SFT	*Segment OTD*
HL7_25_SID	*Segment OTD*
HL7_25_SIU_S12	Schedule Information Unsolicited - Notification of new appointment booking
HL7_25_SIU_S13	Schedule Information Unsolicited - Notification of Appointment Rescheduling
HL7_25_SIU_S14	Schedule Information Unsolicited - Notification of Appointment Modification
HL7_25_SIU_S15	Schedule Information Unsolicited - Notification of Appointment Cancellation
HL7_25_SIU_S16	Schedule Information Unsolicited - Notification of Appointment Discontinuation
HL7_25_SIU_S17	Schedule Information Unsolicited - Notification of Appointment Deletion
HL7_25_SIU_S18	Schedule Information Unsolicited - Notification of Addition of Service/Resource on Appointment
HL7_25_SIU_S19	Schedule Information Unsolicited - Notification of Modification of Service/Resource on Appointment
HL7_25_SIU_S20	Schedule Information Unsolicited - Notification of Cancellation of Service/Resource on Appointment
HL7_25_SIU_S21	Schedule Information Unsolicited - Notification of Discontinuation of Service/Resource on Appointment

HL7 2.5 OTD	HL7 Description
HL7_25_SIU_S22	Schedule Information Unsolicited - Notification of Deletion of Service/Resource on Appointment
HL7_25_SIU_S23	Schedule Information Unsolicited - Notification of Blocked Schedule Time Slot(s)
HL7_25_SIU_S24	Schedule Information Unsolicited - Notification of Opened (_unblocked_) Schedule Time Slot(s)
HL7_25_SIU_S26	Schedule Information Unsolicited - Notification that Patient did Not Show Up for Schedule Appointment
HL7_25_SPM	*Segment OTD*
HL7_25_SQM_S25	Schedule Query Message - Schedule Query Message and Response
HL7_25_SQR_S25	*Segment OTD*
HL7_25_SRM_S01	Schedule Request Message - Request New Appointment Booking
HL7_25_SRM_S02	Schedule Request Message - Request Appointment Rescheduling
HL7_25_SRM_S03	Schedule Request Message - Request Appointment Modification
HL7_25_SRM_S04	Schedule Request Message - Request Appointment Cancellation
HL7_25_SRM_S05	Schedule Request Message - Request Appointment Discontinuation
HL7_25_SRM_S06	Schedule Request Message - Request Appointment Deletion
HL7_25_SRM_S07	Schedule Request Message - Request Addition of Service/Resource on Appointment
HL7_25_SRM_S08	Schedule Request Message - Request Modification of Service/Resource on Appointment
HL7_25_SRM_S09	Schedule Request Message - Request Cancellation of Service/Resource on Appointment
HL7_25_SRM_S10	Schedule Request Message - Request Discontinuation of Service/Resource on Appointment
HL7_25_SRM_S11	Schedule Request Message - Request Deletion of Service/Resource on Appointment
HL7_25_SRR_S01	*Segment OTD*
HL7_25_SRR_S02	*Segment OTD*
HL7_25_SRR_S03	*Segment OTD*
HL7_25_SRR_S04	*Segment OTD*
HL7_25_SRR_S05	*Segment OTD*
HL7_25_SRR_S06	*Segment OTD*
HL7_25_SRR_S07	*Segment OTD*
HL7_25_SRR_S08	*Segment OTD*
HL7_25_SRR_S09	*Segment OTD*
HL7_25_SRR_S10	*Segment OTD*
HL7_25_SRR_S11	*Segment OTD*

HL7 2.5 OTD	HL7 Description
HL7_25_SSR_U04	Specimen Status Request Message
HL7_25_SSU_U03	Specimen Status Update Message
HL7_25_STF	*Segment OTD*
HL7_25_TCC	*Segment OTD*
HL7_25_TCD	*Segment OTD*
HL7_25_TCR_U11	Automated Equipment Test Code Settings Request
HL7_25_TCU_U10	Automated Equipment Test Code Settings Update
HL7_25_TCD	*Segment OTD*
HL7_25_TQ2	*Segment OTD*
HL7_25_TXA	*Segment OTD*
HL7_25_UB1	*Segment OTD*
HL7_25_UB2	*Segment OTD*
HL7_25_VAR	*Segment OTD*
HL7_25_VXQ_V01	Query for Vaccination Record
HL7_25_VXR_V03	Vaccination Record Response
HL7_25_VXU_V04	Unsolicited Vaccination Record Update
HL7_25_VXX_V02	Response to Vaccination Query Returning Multiple PID Matches

4.1.2 HL7 Version 2.4 Library

HL7 2.4 OTD	HL7 Description
HL7_24_ABS	*Segment OTD*
HL7_24_ACC	*Segment OTD*
HL7_24_ACK	*Segment OTD*
HL7_24_ADR_A19	*Segment OTD*
HL7_24_ADT_A01	Admit/Visit Notification
HL7_24_ADT_A02	Transfer a Patient
HL7_24_ADT_A03	Discharge/End Visit
HL7_24_ADT_A04	Register a Patient
HL7_24_ADT_A05	Pre-Admit a Patient
HL7_24_ADT_A06	Change an Outpatient to an Inpatient
HL7_24_ADT_A07	Change an Inpatient to an Outpatient
HL7_24_ADT_A08	Update Patient Information
HL7_24_ADT_A09	Patient Departing - Tracking
HL7_24_ADT_A10	Patient Arriving - Tracking
HL7_24_ADT_A11	Cancel Admit/Visit Notification

HL7 2.4 OTD	HL7 Description
HL7_24_ADT_A12	Cancel Transfer
HL7_24_ADT_A13	Cancel Discharge/End Visit
HL7_24_ADT_A14	Pending Admit
HL7_24_ADT_A15	Pending Transfer
HL7_24_ADT_A16	Pending Discharge
HL7_24_ADT_A17	Swap Patients
HL7_24_ADT_A18	Merge Patient Information
HL7_24_ADT_A20	Bed Status Update
HL7_24_ADT_A21	Patient Goes on a Leave of Absence
HL7_24_ADT_A22	Patient Returns from a Leave of Absence
HL7_24_ADT_A23	Delete a Patient Record
HL7_24_ADT_A24	Link Patient Information
HL7_24_ADT_A25	Cancel Pending Discharge
HL7_24_ADT_A26	Cancel Pending Transfer
HL7_24_ADT_A27	Cancel Pending Admit
HL7_24_ADT_A28	Add Person or Patient Information
HL7_24_ADT_A29	Delete Person Information
HL7_24_ADT_A30	Merge Person Information
HL7_24_ADT_A31	Update Person Information
HL7_24_ADT_A32	Cancel Patient Arriving - Tracking
HL7_24_ADT_A33	Cancel Patient Departing - Tracking
HL7_24_ADT_A34	Merge Patient Information - Patient ID Only
HL7_24_ADT_A35	Merge Patient Information - Account Number Only
HL7_24_ADT_A36	Merge Patient Information - Patient ID & Account Number
HL7_24_ADT_A37	Unlink Patient Information
HL7_24_ADT_A38	Cancel Pre-Admit
HL7_24_ADT_A39	Merge Patient - Patient ID
HL7_24_ADT_A40	Merge Patient - Patient Identifier List
HL7_24_ADT_A41	Merge Account - Patient Account Number
HL7_24_ADT_A42	Merge Visit - Visit Number
HL7_24_ADT_A43	Move Patient Information - Patient Identifier List
HL7_24_ADT_A44	Move Account Information - Patient Account Number
HL7_24_ADT_A45	Move Visit Information - Visit Number
HL7_24_ADT_A46	Change Patient ID
HL7_24_ADT_A47	Change Patient Identifier List
HL7_24_ADT_A48	Change Alternate

HL7 2.4 OTD	HL7 Description
HL7_24_ADT_A49	Change Patient Account Number
HL7_24_ADT_A50	Change Visit Number
HL7_24_ADT_A51	Change Alternate Visit ID
HL7_24_ADT_A52	Cancel Leave of Absence for a Patient
HL7_24_ADT_A53	Cancel Patient Returns from a Leave of Absence
HL7_24_ADT_A54	Change Attending Doctor
HL7_24_ADT_A55	Cancel Change Attending Doctor
HL7_24_ADT_A60	Update Adverse Reaction Information
HL7_24_ADT_A61	Change Consulting Doctor
HL7_24_ADT_A62	Cancel Change Consulting Doctor
HL7_24_AFF	*Segment OTD*
HL7_24_AIG	*Segment OTD*
HL7_24_AIL	*Segment OTD*
HL7_24_AIP	*Segment OTD*
HL7_24_AIS	*Segment OTD*
HL7_24_AL1	*Segment OTD*
HL7_24_APR	*Segment OTD*
HL7_24_ARQ	*Segment OTD*
HL7_24_AUT	*Segment OTD*
HL7_24_BAR_P01	Add Patient Account
HL7_24_BAR_P02	Purge Patient Accounts
HL7_24_BAR_P05	Update Account
HL7_24_BAR_P06	End Account
HL7_24_BAR_P10	Transmit Ambulatory Payment Classification (APC) Groups
HL7_24_BLC	*Segment OTD*
HL7_24_BLG	*Segment OTD*
HL7_24_CDM	*Segment OTD*
HL7_24_CM0	*Segment OTD*
HL7_24_CM1	*Segment OTD*
HL7_24_CM2	*Segment OTD*
HL7_24_CNS	*Segment OTD*
HL7_24_CRM_C01	Register a Patient on a Clinical Trial
HL7_24_CRM_C02	Cancel a Patient Registration on Clinical Trial
HL7_24_CRM_C03	Correct/Update Registration Information
HL7_24_CRM_C04	Patient has Gone Off a Clinical Trial
HL7_24_CRM_C05	Patient Enters Phase of Clinical Trial

HL7 2.4 OTD	HL7 Description
HL7_24_CRM_C06	Cancel Patient Entering a Phase
HL7_24_CRM_C07	Correct/Update Phase Information
HL7_24_CRM_C08	Patient has Gone Off Phase of Clinical Trial
HL7_24_CSP	*Segment OTD*
HL7_24_CSR	*Segment OTD*
HL7_24_CSS	*Segment OTD*
HL7_24_CSU_C09	Automated Time Intervals for Reporting, Like Monthly
HL7_24_CSU_C10	Patient Completes the Clinical Trial
HL7_24_CSU_C11	Patient Completes a Phase of the Clinical Trial
HL7_24_CSU_C12	Update/Correction of Patient Order/Result Information
HL7_24_CTD	*Segment OTD*
HL7_24_CTI	*Segment OTD*
HL7_24_DB1	*Segment OTD*
HL7_24_DFT_P03	Post Detail Financial Transactions
HL7_24_DFT_P11	Post Detail Financial Transactions - Expanded
HL7_24_DG1	*Segment OTD*
HL7_24_DOC	*Segment OTD*
HL7_24_DRG	*Segment OTD*
HL7_24_DSC	*Segment OTD*
HL7_24_DSP	*Segment OTD*
HL7_24_DSR_Q01	*Segment OTD*
HL7_24_DSR_Q03	Deferred Response to a Query
HL7_24_EAC_U07	Automated Equipment Command
HL7_24_EAN_U09	Automated Equipment Notification
HL7_24_EAR_U08	Automated Equipment Response
HL7_24_ECD	*Segment OTD*
HL7_24_ECR	*Segment OTD*
HL7_24_EDR	*Segment OTD*
HL7_24_EDU	*Segment OTD*
HL7_24_EQL	*Segment OTD*
HL7_24_EQP	*Segment OTD*
HL7_24_EQQ_Q04	Embedded query language query
HL7_24_EQU	*Segment OTD*
HL7_24_ERP	*Segment OTD*
HL7_24_ERQ	*Segment OTD*
HL7_24_ERR	*Segment OTD*

HL7 2.4 OTD	HL7 Description
HL7_24_ESR_U02	Automated Equipment Status Request
HL7_24_ESU_U01	Automated Equipment Status Update
HL7_24_EVN	*Segment OTD*
HL7_24_FAC	*Segment OTD*
HL7_24_FTI	*Segment OTD*
HL7_24_GOL	*Segment OTD*
HL7_24_GP1	*Segment OTD*
HL7_24_GP2	*Segment OTD*
HL7_24_GT1	*Segment OTD*
HL7_24_IAM	*Segment OTD*
HL7_24_IN1	*Segment OTD*
HL7_24_IN2	*Segment OTD*
HL7_24_IN3	*Segment OTD*
HL7_24_INR_U06	Automated Equipment Inventory Request
HL7_24_INU_U05	Automated Equipment Inventory Update
HL7_24_INV	*Segment OTD*
HL7_24_ISD	*Segment OTD*
HL7_24_LAN	*Segment OTD*
HL7_24_LCC	*Segment OTD*
HL7_24_LCH	*Segment OTD*
HL7_24_LDP	*Segment OTD*
HL7_24_LOC	*Segment OTD*
HL7_24_LRL	*Segment OTD*
HL7_24_LSR_U13	Automated Equipment Log Service Request
HL7_24_LSU_U12	Automated Equipment Log Service Update
HL7_24_MDM_T01	Original Document Notification
HL7_24_MDM_T02	Original Document Notification and Content
HL7_24_MDM_T03	Document Status Change Notification
HL7_24_MDM_T04	Document Status Change Notification and Content
HL7_24_MDM_T05	Document Addendum Notification
HL7_24_MDM_T06	Document Addendum Notification and Content
HL7_24_MDM_T07	Document Edit Notification
HL7_24_MDM_T08	Document Edit Notification and Content
HL7_24_MDM_T09	Document Replacement Notification
HL7_24_MDM_T10	Document Replacement Notification and Content
HL7_24_MDM_T11	Document Cancel Notification

HL7 2.4 OTD	HL7 Description
HL7_24_MFA	*Segment OTD*
HL7_24_MFE	*Segment OTD*
HL7_24_MFI	*Segment OTD*
HL7_24_MFK_M01	*Segment OTD*
HL7_24_MFK_M02	*Segment OTD*
HL7_24_MFK_M03	*Segment OTD*
HL7_24_MFK_M04	*Segment OTD*
HL7_24_MFK_M05	*Segment OTD*
HL7_24_MFK_M06	*Segment OTD*
HL7_24_MFK_M07	*Segment OTD*
HL7_24_MFN_M01	Master File Notification
HL7_24_MFN_M02	Staff/Practitioner Master File Message
HL7_24_MFN_M03	Master File Notification - Test/Observation
HL7_24_MFN_M04	Charge Description Master File Message
HL7_24_MFN_M05	Patient Location Master File Message
HL7_24_MFN_M06	Clinical Trials Master File Message (Identifier Code CMA)
HL7_24_MFN_M07	Clinical Trials Master File Message (Identifier Code CMB)
HL7_24_MFN_M08	Master File Notification - Test/Observation (Numeric)
HL7_24_MFN_M09	Master File Notification - Test/Observation (Categorical)
HL7_24_MFN_M10	Master File Notification - Test/Observation Batteries
HL7_24_MFN_M11	Master File Notification - Test/Calculated Observations
HL7_24_MFN_M12	Master File Notification - Additional Basic Observation/Service Attributes
HL7_24_MFQ_M01	Master Files Query - Not Otherwise Specified (for backward compatibility only)
HL7_24_MFQ_M02	Master Files Query - Staff/Practitioner
HL7_24_MFQ_M03	Master Files Query - Test/Observation (for backward compatibility only)
HL7_24_MFQ_M04	Master Files Query - Charge Description
HL7_24_MFQ_M05	Master Files Query - Patient Location
HL7_24_MFQ_M06	Master Files Query - Clinical Study with Phases and Schedules
HL7_24_MFR_M01	*Segment OTD*
HL7_24_MFR_M02	*Segment OTD*
HL7_24_MFR_M03	*Segment OTD*
HL7_24_MFR_M04	*Segment OTD*
HL7_24_MFR_M05	*Segment OTD*
HL7_24_MFR_M06	*Segment OTD*

HL7 2.4 OTD	HL7 Description
HL7_24_MRG	*Segment OTD*
HL7_24_MSA	*Segment OTD*
HL7_24_MSH	*Segment OTD*
HL7_24_NCK	*Segment OTD*
HL7_24_NDS	*Segment OTD*
HL7_24_NK1	*Segment OTD*
HL7_24_NMD_N02	Application Management Data Message (unsolicited)
HL7_24_NMQ_N01	Application Management Query Message
HL7_24_NMR_N01	*Segment OTD*
HL7_24_NPU	*Segment OTD*
HL7_24_NSC	*Segment OTD*
HL7_24_NST	*Segment OTD*
HL7_24_NTE	*Segment OTD*
HL7_24_OBR	*Segment OTD*
HL7_24_OBX	*Segment OTD*
HL7_24_ODS	*Segment OTD*
HL7_24_ODT	*Segment OTD*
HL7_24_OM1	*Segment OTD*
HL7_24_OM2	*Segment OTD*
HL7_24_OM3	*Segment OTD*
HL7_24_OM4	*Segment OTD*
HL7_24_OM5	*Segment OTD*
HL7_24_OM6	*Segment OTD*
HL7_24_OM7	*Segment OTD*
HL7_24_OMD_O03	Diet Order
HL7_24_OMG_O19	General Clinical Order
HL7_24_OML_O21	Laboratory Order
HL7_24_OMN_O07	Non-Stock Requisition Order
HL7_24_OMP_O09	Pharmacy/Treatment Order
HL7_24_OMS_O05	Stock Requisition Order
HL7_24_ORC	*Segment OTD*
HL7_24_ORD_O05	*Segment OTD*
HL7_24_ORF_R04	*Segment OTD*
HL7_24_ORG	*Segment OTD*
HL7_24_ORG_O20	*Segment OTD*
HL7_24_ORL_O02	*Segment OTD*

HL7 2.4 OTD	HL7 Description
HL7_24_ORM_O01	Order Message
HL7_24_ORN-O08	*Segment OTD*
HL7_24_ORP_O10	*Segment OTD*
HL7_24_ORR_O02	Order Response
HL7_24_ORS_O06	*Segment OTD*
HL7_24_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_24_OSQ_Q06	Query for Order Status
HL7_24_OSR_Q06	*Segment OTD*
HL7_24_OUL_R21	Unsolicited Laboratory Observation
HL7_24_PCR	*Segment OTD*
HL7_24_PD1	*Segment OTD*
HL7_24_PDA	*Segment OTD*
HL7_24_PDC	*Segment OTD*
HL7_24_PEO	*Segment OTD*
HL7_24_PES	*Segment OTD*
HL7_24_PEX_P07	Unsolicited Initial Individual Product Experience Report
HL7_24_PEX_P08	Unsolicited Update Individual Product Experience Report
HL7_24_PGL_PC6	Goal Add
HL7_24_PGL_PC7	Goal Update
HL7_24_PGL_PC8	Goal Delete
HL7_24_PID	*Segment OTD*
HL7_24_PIN_I07	Unsolicited Insurance Information
HL7_24_PMU_B01	Add Personnel Record
HL7_24_PMU_B02	Update Personnel Record
HL7_24_PMU_B03	Delete Personnel Record
HL7_24_PMU_B04	Active Practicing Person
HL7_24_PMU_B05	Deactivate Practicing Person
HL7_24_PMU_B06	Terminate Practicing Person
HL7_24_PPG_PCG	Pathway (Goal-Oriented) Add
HL7_24_PPG_PCH	Pathway (Goal-Oriented) Update
HL7_24_PPG_PCJ	Pathway (Goal-Oriented) Delete
HL7_24_PPP_PCB	Pathway (Problem-Oriented) Add
HL7_24_PPP_PCC	Pathway (Problem-Oriented) Update
HL7_24_PPP_PCD	Pathway (Problem-Oriented) Delete
HL7_24_PPR_PC1	Problem Add
HL7_24_PPR_PC2	Problem Update

HL7 2.4 OTD	HL7 Description
HL7_24_PPR_PC3	Problem Delete
HL7_24_PPT_PC3	*Segment OTD*
HL7_24_PPT_PCL	*Segment OTD*
HL7_24_PPV_PCA	*Segment OTD*
HL7_24_PR1	*Segment OTD*
HL7_24_PRA	*Segment OTD*
HL7_24_PRB	*Segment OTD*
HL7_24_PRC	*Segment OTD*
HL7_24_PRD	*Segment OTD*
HL7_24_PRR_PC5	*Segment OTD*
HL7_24_PSH	*Segment OTD*
HL7_24_PTH	*Segment OTD*
HL7_24_PTR_PCF	*Segment OTD*
HL7_24_PV1	*Segment OTD*
HL7_24_PV2	*Segment OTD*
HL7_24_QAK	*Segment OTD*
HL7_24_QBP_Q11	Query by Parameter Requesting an RSP Segment Pattern Response
HL7_24_QBP_Q13	Query by Parameter Requesting an RTB - Tabular Response
HL7_24_QBP_Q15	Query by Parameter Requesting an RDY Display Response
HL7_24_QBP_Q21	Get Person Demographics
HL7_24_QBP_Q22	Find Candidates
HL7_24_QBP_Q23	Get Corresponding Identifiers
HL7_24_QBP_Q24	Allocate Identifiers
HL7_24_QBP_Q25	Personnel Information by Segment Query
HL7_24_QBP_Z73	Query by Parameter - Information about Phone Calls
HL7_24_QBP_Z75	Query by Parameter - Tabular Patient List
HL7_24_QBP_Z77	Query by Parameter - Tabular Patient List
HL7_24_QBP_Z79	Query by Parameter - Dispense Information
HL7_24_QBP_Z81	Query by Parameter - Dispense History
HL7_24_QBP_Z85	Query by Parameter - Pharmacy Information Comprehensive
HL7_24_QBP_Z87	Query by Parameter - Dispense Information
HL7_24_QBP_Z89	Query by Parameter - Lab Results History
HL7_24_QBP_Z91	Query by Parameter - Who am I
HL7_24_QBP_Z93	Query by Parameter - Tabular Dispense History
HL7_24_QBP_Z95	Query by Parameter - Tabular Dispense History
HL7_24_QBP_Z97	Query by Parameter - Dispense History

HL7 2.4 OTD	HL7 Description
HL7_24_QBP_Z99	Query by Parameter - Who Am I
HL7_24_QCK_Q02	*Segment OTD*
HL7_24_QCN_J01	Cancel Query/Acknowledge Message
HL7_24_QID	*Segment OTD*
HL7_24_QPD	*Segment OTD*
HL7_24_QRD	*Segment OTD*
HL7_24_QRF	*Segment OTD*
HL7_24_QRI	*Segment OTD*
HL7_24_QRY_A19	Patient Query
HL7_24_QRY_PC4	Problem Query
HL7_24_QRY_PC9	Goal Query
HL7_24_QRY_PCE	Pathway (Problem-Oriented) Query
HL7_24_QRY_PCK	Pathway (Goal-Oriented) Query
HL7_24_QRY_Q01	Query Sent for Immediate Response
HL7_24_QRY_Q02	Query Sent for Deferred Response
HL7_24_QRY_Q26	Pharmacy/Treatment Order Response
HL7_24_QRY_Q27	Pharmacy/Treatment Administration Information
HL7_24_QRY_Q28	Pharmacy/Treatment Dispense Information
HL7_24_QRY_Q29	Pharmacy/Treatment Encoded Order Information
HL7_24_QRY_Q30	Pharmacy/Treatment Dose Information
HL7_24_QRY_R02	Unsolicited Transmission of an Observation Message
HL7_24_QRY_T12	Document Query
HL7_24_QSB_Q16	Create Subscription
HL7_24_QSB_Z83	Create subscription - ORU
HL7_24_QSX_J02	Cancel Subscription/Acknowledge Message
HL7_24_QVR_Q17	Query for Previous Events
HL7_24_RAR_RAR	*Segment OTD*
HL7_24_RAS_O17	Pharmacy/Treatment Administration
HL7_24_RCI_I05	*Segment OTD*
HL7_24_RCI_I06	*Segment OTD*
HL7_24_RCP	*Segment OTD*
HL7_24_RDE_O11	Pharmacy/Treatment Encoded Order
HL7_24_RDF	*Segment OTD*
HL7_24_RDR_RDR	*Segment OTD*
HL7_24_RDS_O13	Pharmacy/Treatment Dispense
HL7_24_RDT	*Segment OTD*

HL7 2.4 OTD	HL7 Description
HL7_24_RDY_K15	*Segment OTD*
HL7_24_RDY_Z80	*Segment OTD*
HL7_24_RDY_Z98	*Segment OTD*
HL7_24_REF_I12	Patient Referral
HL7_24_REF_I13	Modify Patient Referral
HL7_24_REF_I14	Cancel Patient Referral
HL7_24_REF_I15	Request Patient Referral Status
HL7_24_RER_RER	*Segment OTD*
HL7_24_RF1	*Segment OTD*
HL7_24_RGR_RGR	*Segment OTD*
HL7_24_RGS	*Segment OTD*
HL7_24_RGV_O15	Pharmacy/Treatment Give
HL7_24_RMI	*Segment OTD*
HL7_24_ROL	*Segment OTD*
HL7_24_ROR_ROR	*Segment OTD*
HL7_24_RPA_I08	*Segment OTD*
HL7_24_RPA_I09	*Segment OTD*
HL7_24_RPA_I10	*Segment OTD*
HL7_24_RPA_I11	*Segment OTD*
HL7_24_RPI_I01	*Segment OTD*
HL7_24_RPI_I04	*Segment OTD*
HL7_24_RPL_I02	*Segment OTD*
HL7_24_RPR_I03	*Segment OTD*
HL7_24_RQ1	*Segment OTD*
HL7_24_RQA_I08	Request for Treatment Authorization Information
HL7_24_RQA_I09	Request for Modification to an Authorization
HL7_24_RQA_I10	Request for Re-submission of an Authorization
HL7_24_RQA_I11	Request for Cancellation of an Authorization
HL7_24_RQC_I05	Request for Patient Clinical Information
HL7_24_RQC_I06	Request/receipt of Clinical Data Listing
HL7_24_RQD	*Segment OTD*
HL7_24_RQI_I01	Request for Insurance Information
HL7_24_RQI_I02	Request/Receipt of Patient Selection Display List
HL7_24_RQI_I03	Request/Receipt of Patient Selection List
HL7_24_RQP_I04	Request for Patient Demographic Data
HL7_24_RQQ_Q09	Event Replay Query

HL7 2.4 OTD	HL7 Description
HL7_24_RRA_O18	*Segment OTD*
HL7_24_RRD_O14	*Segment OTD*
HL7_24_RRE_O12	*Segment OTD*
HL7_24_RRG_O16	*Segment OTD*
HL7_24_RRI_I12	*Segment OTD*
HL7_24_RRI_I13	*Segment OTD*
HL7_24_RRI_I14	*Segment OTD*
HL7_24_RRI_I15	*Segment OTD*
HL7_24_RSP_K11	*Segment OTD*
HL7_24_RSP_K21	*Segment OTD*
HL7_24_RSP_K22	*Segment OTD*
HL7_24_RSP_K23	*Segment OTD*
HL7_24_RSP_K24	*Segment OTD*
HL7_24_RSP_K25	*Segment OTD*
HL7_24_RSP_Z82	*Segment OTD*
HL7_24_RSP_Z84	*Segment OTD*
HL7_24_RSP_Z86	*Segment OTD*
HL7_24_RSP_Z88	*Segment OTD*
HL7_24_RSP_Z90	*Segment OTD*
HL7_24_RTB_K13	*Segment OTD*
HL7_24_RTB_Z74	*Segment OTD*
HL7_24_RTB_Z76	*Segment OTD*
HL7_24_RTB_Z78	*Segment OTD*
HL7_24_RTB_Z92	*Segment OTD*
HL7_24_RTB_Z94	*Segment OTD*
HL7_24_RTB_Z96	*Segment OTD*
HL7_24_RXA	*Segment OTD*
HL7_24_RXC	*Segment OTD*
HL7_24_RXD	*Segment OTD*
HL7_24_RXE	*Segment OTD*
HL7_24_RXG	*Segment OTD*
HL7_24_RXO	*Segment OTD*
HL7_24_RXR	*Segment OTD*
HL7_24_SAC	*Segment OTD*
HL7_24_SCH	*Segment OTD*
HL7_24_SID	*Segment OTD*

HL7 2.4 OTD	HL7 Description
HL7_24_SIU_S12	Schedule Information Unsolicited - Notification of new appointment booking
HL7_24_SIU_S13	Schedule Information Unsolicited - Notification of Appointment Rescheduling
HL7_24_SIU_S14	Schedule Information Unsolicited - Notification of Appointment Modification
HL7_24_SIU_S15	Schedule Information Unsolicited - Notification of Appointment Cancellation
HL7_24_SIU_S16	Schedule Information Unsolicited - Notification of Appointment Discontinuation
HL7_24_SIU_S17	Schedule Information Unsolicited - Notification of Appointment Deletion
HL7_24_SIU_S18	Schedule Information Unsolicited - Notification of Addition of Service/Resource on Appointment
HL7_24_SIU_S19	Schedule Information Unsolicited - Notification of Modification of Service/Resource on Appointment
HL7_24_SIU_S20	Schedule Information Unsolicited - Notification of Cancellation of Service/Resource on Appointment
HL7_24_SIU_S21	Schedule Information Unsolicited - Notification of Discontinuation of Service/Resource on Appointment
HL7_24_SIU_S22	Schedule Information Unsolicited - Notification of Deletion of Service/Resource on Appointment
HL7_24_SIU_S23	Schedule Information Unsolicited - Notification of Blocked Schedule Time Slot(s)
HL7_24_SIU_S24	Schedule Information Unsolicited - Notification of Opened (_unblocked_) Schedule Time Slot(s)
HL7_24_SIU_S26	Schedule Information Unsolicited - Notification that Patient did Not Show Up for Schedule Appointment
HL7_24_SPQ_Q08	Stored Procedure Request
HL7_24_SPR	*Segment OTD*
HL7_24_SQM_S25	Schedule Query Message and Response
HL7_24_SQR_S25	*Segment OTD*
HL7_24_SRM_S01	Schedule Request Message - Request New Appointment Booking
HL7_24_SRM_S02	Schedule Request Message - Request Appointment Rescheduling
HL7_24_SRM_S03	Schedule Request Message - Request Appointment Modification
HL7_24_SRM_S04	Schedule Request Message - Request Appointment Cancellation
HL7_24_SRM_S05	Schedule Request Message - Request Appointment Discontinuation
HL7_24_SRM_S06	Schedule Request Message - Request Appointment Deletion
HL7_24_SRM_S07	Schedule Request Message - Request Addition of Service/Resource on Appointment

HL7 2.4 OTD	HL7 Description
HL7_24_SRM_S08	Schedule Request Message - Request Modification of Service/Resource on Appointment
HL7_24_SRM_S09	Schedule Request Message - Request Cancellation of Service/Resource on Appointment
HL7_24_SRM_S10	Schedule Request Message - Request Discontinuation of Service/Resource on Appointment
HL7_24_SRM_S11	Schedule Request Message - Request Deletion of Service/Resource on Appointment
HL7_24_SRR_S01	*Segment OTD*
HL7_24_SRR_S02	*Segment OTD*
HL7_24_SRR_S03	*Segment OTD*
HL7_24_SRR_S04	*Segment OTD*
HL7_24_SRR_S05	*Segment OTD*
HL7_24_SRR_S06	*Segment OTD*
HL7_24_SRR_S07	*Segment OTD*
HL7_24_SRR_S08	*Segment OTD*
HL7_24_SRR_S09	*Segment OTD*
HL7_24_SRR_S10	*Segment OTD*
HL7_24_SRR_S11	*Segment OTD*
HL7_24_SSR_U04	Specimen Status Request
HL7_24_SSU_U03	Specimen Status Update
HL7_24_STF	*Segment OTD*
HL7_24_SUR_P09	Summary Product Experience Report
HL7_24_TBR_R08	*Segment OTD*
HL7_24_TCC	*Segment OTD*
HL7_24_TCD	*Segment OTD*
HL7_24_TCR_U11	Automated Equipment Test Code Settings Request
HL7_24_TCU_U10	Automated Equipment Test Code Settings Update
HL7_24_TXA	*Segment OTD*
HL7_24_UB1	*Segment OTD*
HL7_24_UB2	*Segment OTD*
HL7_24_UDM_Q05	Unsolicited Display Update Message
HL7_24_URD	*Segment OTD*
HL7_24_URS	*Segment OTD*
HL7_24_VAR	*Segment OTD*
HL7_24_VQQ_Q07	Virtual Table Query
HL7_24_VTQ	*Segment OTD*
HL7_24_VXQ_V01	Query for Vaccination Record

HL7 2.4 OTD	HL7 Description
HL7_24_VXR_V03	*Segment OTD*
HL7_24_VXU_V04	Unsolicited Vaccination Record Update
HL7_24_VXX_V02	*Segment OTD*

4.1.3 HL7 Version 2.3.1 Library

HL7 2.3.1 OTD	HL7 Description
HL7_231_ACC	*Segment OTD*
HL7_231_ACK	*Segment OTD*
HL7_231_ADR_A19	*Segment OTD*
HL7_231_ADT_A01	Admit/Visit Notification
HL7_231_ADT_A02	Transfer a Patient
HL7_231_ADT_A03	Discharge/End Visit
HL7_231_ADT_A04	Register a Patient
HL7_231_ADT_A05	Pre-Admit a Patient
HL7_231_ADT_A06	Change an Outpatient to an Inpatient
HL7_231_ADT_A07	Change an Inpatient to an Outpatient
HL7_231_ADT_A08	Update Patient Information
HL7_231_ADT_A09	Patient Departing - Tracking
HL7_231_ADT_A10	Patient Arriving - Tracking
HL7_231_ADT_A11	Cancel Admit/Visit Notification
HL7_231_ADT_A12	Cancel Transfer
HL7_231_ADT_A13	Cancel Discharge/End Visit
HL7_231_ADT_A14	Pending Admit
HL7_231_ADT_A15	Pending Transfer
HL7_231_ADT_A16	Pending Discharge
HL7_231_ADT_A17	Swap Patients
HL7_231_ADT_A18	Merge Patient Information
HL7_231_ADT_A20	Bed Status Update
HL7_231_ADT_A21	Patient Goes on a Leave of Absence
HL7_231_ADT_A22	Patient Returns from a Leave of Absence
HL7_231_ADT_A23	Delete a Patient Record
HL7_231_ADT_A24	Link Patient Information
HL7_231_ADT_A25	Cancel Pending Discharge
HL7_231_ADT_A26	Cancel Pending Transfer
HL7_231_ADT_A27	Cancel Pending Admit

HL7 2.3.1 OTD	HL7 Description
HL7_231_ADT_A28	Add Person or Patient Information
HL7_231_ADT_A29	Delete Person Information
HL7_231_ADT_A30	Merge Person Information
HL7_231_ADT_A31	Update Person Information
HL7_231_ADT_A32	Cancel Patient Arriving - Tracking
HL7_231_ADT_A33	Cancel Patient Departing - Tracking
HL7_231_ADT_A34	Merge Patient Information - Patient ID Only
HL7_231_ADT_A35	Merge Patient Information - Account Number Only
HL7_231_ADT_A36	Merge Patient Information - Patient ID & Account Number
HL7_231_ADT_A37	Unlink Patient Information
HL7_231_ADT_A38	Cancel Pre-Admit
HL7_231_ADT_A39	Merge Patient - Patient ID
HL7_231_ADT_A40	Merge Patient - Patient Identifier List
HL7_231_ADT_A41	Merge Account - Patient Account Number
HL7_231_ADT_A42	Merge Visit - Visit Number
HL7_231_ADT_A43	Move Patient Information - Patient Identifier List
HL7_231_ADT_A44	Move Account Information - Patient Account Number
HL7_231_ADT_A45	Move Visit Information - Visit Number
HL7_231_ADT_A46	Change Patient ID
HL7_231_ADT_A47	Change Patient Identifier List
HL7_231_ADT_A48	Change Alternate
HL7_231_ADT_A49	Change Patient Account Number
HL7_231_ADT_A50	Change Visit Number
HL7_231_ADT_A51	Change Alternate Visit ID
HL7_231_AIG	*Segment OTD*
HL7_231_AIL	*Segment OTD*
HL7_231_AIP	*Segment OTD*
HL7_231_AIS	*Segment OTD*
HL7_231_AL1	*Segment OTD*
HL7_231_APR	*Segment OTD*
HL7_231_AQR	*Segment OTD*
HL7_231_AUT	*Segment OTD*
HL7_231_BAR_P01	Add Patient Account
HL7_231_BAR_P02	Purge Patient Accounts
HL7_231_BAR_P05	Update Account
HL7_231_BAR_P06	End Account

HL7 2.3.1 OTD	**HL7 Description**
HL7_231_BLG	*Segment OTD*
HL7_231_CRM_C01	Register a Patient on a Clinical Trial
HL7_231_CRM_C02	Cancel a Patient Registration on Clinical Trial
HL7_231_CRM_C03	Correct/Update Registration Information
HL7_231_CRM_C04	Patient has Gone Off a Clinical Trial
HL7_231_CRM_C05	Patient Enters Phase of Clinical Trial
HL7_231_CRM_C06	Cancel Patient Entering a Phase
HL7_231_CRM_C07	Correct/Update Phase Information
HL7_231_CRM_C08	Patient has Gone Off Phase of Clinical Trial
HL7_231_CSP	*Segment OTD*
HL7_231_CSR	*Segment OTD*
HL7_231_CSS	*Segment OTD*
HL7_231_CSU_C09	Automated Time Intervals for Reporting, Like Monthly
HL7_231_CSU_C10	Patient Completes the Clinical Trial
HL7_231_CSU_C11	Patient Completes a Phase of the Clinical Trial
HL7_231_CSU_C12	Update/Correction of Patient Order/Result Information
HL7_231_CTD	*Segment OTD*
HL7_231_CTI	*Segment OTD*
HL7_231_DB1	*Segment OTD*
HL7_231_DFT_P03	Post Detail Financial Transactions
HL7_231_DG1	*Segment OTD*
HL7_231_DOC_T12	*Segment OTD*
HL7_231_DRG	*Segment OTD*
HL7_231_DSC	*Segment OTD*
HL7_231_DSP	*Segment OTD*
HL7_231_DSR_Q01	*Segment OTD*
HL7_231_DSR_Q03	Post Detail Financial Transactions - Expanded
HL7_231_EDR_R07	Enhanced Display Response
HL7_231_EQL	*Segment OTD*
HL7_231_EQQ_Q04	Embedded Query Language Query
HL7_231_ERP_R09	Event Replay Response
HL7_231_ERQ	*Segment OTD*
HL7_231_ERR	*Segment OTD*
HL7_231_EVN	*Segment OTD*
HL7_231_FAC	*Segment OTD*
HL7_231_FT1	*Segment OTD*

HL7 2.3.1 OTD	**HL7 Description**
HL7_231_GOL	*Segment OTD*
HL7_231_GT1	*Segment OTD*
HL7_231_IN1	*Segment OTD*
HL7_231_IN2	*Segment OTD*
HL7_231_IN3	*Segment OTD*
HL7_231_MDM_T01	Original Document Notification
HL7_231_MDM_T02	Original Document Notification and Content
HL7_231_MDM_T03	Document Status Change Notification
HL7_231_MDM_T04	Document Status Change Notification and Content
HL7_231_MDM_T05	Document Addendum Notification
HL7_231_MDM_T06	Document Addendum Notification and Content
HL7_231_MDM_T07	Document Edit Notification
HL7_231_MDM_T08	Document Edit Notification and Content
HL7_231_MDM_T09	Document Replacement Notification
HL7_231_MDM_T10	Document Replacement Notification and Content
HL7_231_MDM_T11	Document Cancel Notification
HL7_231_MFA	*Segment OTD*
HL7_231_MFE	*Segment OTD*
HL7_231_MFI	*Segment OTD*
HL7_231_MFK_M01	*Segment OTD*
HL7_231_MFK_M02	*Segment OTD*
HL7_231_MFK_M03	*Segment OTD*
HL7_231_MFK_M04	*Segment OTD*
HL7_231_MFK_M05	*Segment OTD*
HL7_231_MFK_M06	*Segment OTD*
HL7_231_MFK_M07	*Segment OTD*
HL7_231_MFK_M08	*Segment OTD*
HL7_231_MFK_M09	*Segment OTD*
HL7_231_MFK_M010	*Segment OTD*
HL7_231_MFK_M11	*Segment OTD*
HL7_231_MFN_M01	Master File Notification
HL7_231_MFN_M02	Staff/Practitioner Master File Message
HL7_231_MFN_M03	Master File Notification - Test/Observation
HL7_231_MFN_M04	Charge Description Master File Message
HL7_231_MFN_M05	Patient Location Master File Message
HL7_231_MFN_M06	Clinical Trials Master File Message (Identifier Code CMA)

HL7 2.3.1 OTD	HL7 Description
HL7_231_MFN_M08	Master File Notification - Test/Observation (Numeric)
HL7_231_MFN_M09	Master File Notification - Test/Observation (Categorical)
HL7_231_MFN_M10	Master File Notification - Test/Observation Batteries
HL7_231_MFN_M11	Master File Notification - Test/Calculated Observations
HL7_231_MFQ_M01	Master Files Query - Not Otherwise Specified (for backward compatibility only)
HL7_231_MFQ_M02	Master Files Query - Staff/Practitioner
HL7_231_MFQ_M03	Master Files Query - Test/Observation (for backward compatibility only)
HL7_231_MFQ_M04	Master Files Query - Charge Description
HL7_231_MFQ_M05	Master Files Query - Patient Location
HL7_231_MFQ_M06	Master Files Query - Clinical Study with Phases and Schedules
HL7_231_MFR_M01	*Segment OTD*
HL7_231_MFR_M02	*Segment OTD*
HL7_231_MFR_M03	*Segment OTD*
HL7_231_MFR_M04	*Segment OTD*
HL7_231_MFR_M05	*Segment OTD*
HL7_231_MFR_M06	*Segment OTD*
HL7_231_MRG	*Segment OTD*
HL7_231_MSA	*Segment OTD*
HL7_231_MSH	*Segment OTD*
HL7_231_NCK	*Segment OTD*
HL7_231_NK1	*Segment OTD*
HL7_231_NMD_N02	Application Management Data Message
HL7_231_NMQ_N01	Application Management Query Message
HL7_231_NMR_N01	*Segment OTD*
HL7_231_NPU	*Segment OTD*
HL7_231_NSC	*Segment OTD*
HL7_231_NST	*Segment OTD*
HL7_231_NTE	*Segment OTD*
HL7_231_OBR	*Segment OTD*
HL7_231_OBX	*Segment OTD*
HL7_231_ODS	*Segment OTD*
HL7_231_ODT	*Segment OTD*
HL7_231_OM1	*Segment OTD*
HL7_231_OM2	*Segment OTD*
HL7_231_OM3	*Segment OTD*

HL7 2.3.1 OTD	HL7 Description
HL7_231_OM4	*Segment OTD*
HL7_231_OM5	*Segment OTD*
HL7_231_OM6	*Segment OTD*
HL7_231_OMD_O01	Dietary Order
HL7_231_OMN_O01	Non-Stock Requisition Order Message
HL7_231_OMS_O01	Stock Requisition Order Message
HL7_231_ORC	*Segment OTD*
HL7_231_ORD_O02	Dietary Order Acknowledgment Message
HL7_231_ORF_R04	*Segment OTD*
HL7_231_ORM_O01	Pharmacy/Treatment Order Message
HL7_231_ORN_O02	General Order Acknowledgment Message
HL7_231_ORR_O02	General Order Response Message Response to any ORM
HL7_231_ORS_O02	Stock Requisition Acknowledgment
HL7_231_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_231_OSQ_Q06	Query for Order Status
HL7_231_OSR_Q06	*Segment OTD*
HL7_231_PCR	*Segment OTD*
HL7_231_PD1	*Segment OTD*
HL7_231_PDC	*Segment OTD*
HL7_231_PEO	*Segment OTD*
HL7_231_PES	*Segment OTD*
HL7_231_PEX_P07	Unsolicited Initial Individual Product Experience Report
HL7_231_PEX_P08	Unsolicited Update Individual Product Experience Report
HL7_231_PGL_PC6	Patient Goal Message - Goal Add
HL7_231_PGL_PC7	Patient Goal Message - Goal Update
HL7_231_PGL_PC8	Patient Goal Message - Goal Delete
HL7_231_PID	*Segment OTD*
HL7_231_PIN_I07	Patient Insurance Information - Unsolicited
HL7_231_PPG_PCG	Pathway (Goal-Oriented) Add
HL7_231_PPG_PCH	Pathway (Goal-Oriented) Update
HL7_231_PPG_PCJ	Pathway (Goal-Oriented) Delete
HL7_231_PPP_PCB	Pathway (Problem-Oriented) Add
HL7_231_PPP_PCC	Pathway (Problem-Oriented) Update
HL7_231_PPP_PCD	Pathway (Problem-Oriented) Delete
HL7_231_PPR_PC1	Problem Add
HL7_231_PPR_PC2	Problem Update

HL7 2.3.1 OTD	HL7 Description
HL7_231_PPR_PC3	Problem Delete
HL7_231_PPT_PCL	Pathway (Goal-Oriented) Query Response
HL7_231_PPV_PCA	Goal Response
HL7_231_PR1	*Segment OTD*
HL7_231_PRA	*Segment OTD*
HL7_231_PRB	*Segment OTD*
HL7_231_PRD	*Segment OTD*
HL7_231_PRR_PC5	Problem Response
HL7_231_PSH	*Segment OTD*
HL7_231_PTH	*Segment OTD*
HL7_231_PTR_PCF	Pathway (Problem-Oriented) Query Response
HL7_231_PV1	*Segment OTD*
HL7_231_PV2	*Segment OTD*
HL7_231_QAK	*Segment OTD*
HL7_231_QCK_Q02	*Segment OTD*
HL7_231_QRD	*Segment OTD*
HL7_231_QRF	*Segment OTD*
HL7_231_QRY_A19	Patient Query
HL7_231_QRY_PC4	Problem Query
HL7_231_QRY_PC9	Goal Query
HL7_231_QRY_PCE	Pathway (Problem-Oriented) Query
HL7_231_QRY_PCK	Pathway (Goal-Oriented) Query
HL7_231_QRY_Q01	Query Sent for Immediate Response
HL7_231_QRY_Q02	Query Sent for Deferred Response
HL7_231_QRY_R02	Query for Results of Observation
HL7_231_QRY_T12	Document Query
HL7_231_RAR_RAR	Pharmacy Administration Information
HL7_231_RAS_O01	Pharmacy/Treatment Administration Order Message
HL7_231_RCI_I05	*Segment OTD*
HL7_231_RCL_I06	*Segment OTD*
HL7_231_RDE_O01	Pharmacy/Treatment Encoded Order Message
HL7_231_RDF	*Segment OTD*
HL7_231_RDO_O01	Pharmacy/Treatment Order Message
HL7_231_RDR_RDR	Pharmacy/Treatment Dispense Information
HL7_231_RDS_O01	Pharmacy/Treatment Dispense Order Message
HL7_231_RDT	*Segment OTD*

HL7 2.3.1 OTD	HL7 Description
HL7_231_REF_I12	Patient Referral
HL7_231_REF_I13	Modify Patient Referral
HL7_231_REF_I14	Cancel Patient Referral
HL7_231_REF_I15	Request Patient Referral Status
HL7_231_RER_RER	Pharmacy/Treatment Encoded Order Information
HL7_231_RF1	*Segment OTD*
HL7_231_RGR_RGR	Pharmacy/Treatment Dose Information
HL7_231_RGS	*Segment OTD*
HL7_231_RGV_O01	Pharmacy/Treatment Give - Order Message
HL7_231_ROL	*Segment OTD*
HL7_231_ROR_R0R	Pharmacy/Treatment Order Response
HL7_231_RPA_I08	*Segment OTD*
HL7_231_RPA_I09	*Segment OTD*
HL7_231_RPA_I10	*Segment OTD*
HL7_231_RPA_I11	*Segment OTD*
HL7_231_RPI_I01	*Segment OTD*
HL7_231_RPI_I04	*Segment OTD*
HL7_231_RPL_I02	*Segment OTD*
HL7_231_RPR_I03	*Segment OTD*
HL7_231_RQ1	*Segment OTD*
HL7_231_RQA_I08	Request for Treatment Authorization Information
HL7_231_RQA_I09	Request for Modification to an Authorization
HL7_231_RQA_I10	Request for Re-submission of an Authorization
HL7_231_RQA_I11	Request for Cancellation of an Authorization
HL7_231_RQC_I05	Request for Patient Clinical Information
HL7_231_RQC_I06	Request/Receipt of Clinical Data Listing
HL7_231_RQD	*Segment OTD*
HL7_231_RQI_I01	Request for Insurance Information
HL7_231_RQI_I02	Request/Receipt of Patient Selection Display List
HL7_231_RQI_I03	Request/Receipt of Patient Selection List
HL7_231_RQP_I04	Request for Patient Demographic Data
HL7_231_RQQ_Q09	Event Replay Query
HL7_231_RRA_O02	Pharmacy/Treatment Administration Acknowledgment Message
HL7_231_RRD_O02	Pharmacy/Treatment Dispense Acknowledgment Message
HL7_231_RRE_O02	Pharmacy/Treatment Encoded Order Acknowledgment Message
HL7_231_RRG_O02	Pharmacy/Treatment Give Acknowledgment Message

HL7 2.3.1 OTD	HL7 Description
HL7_231_RRI_I12	*Segment OTD*
HL7_231_RRI_I13	*Segment OTD*
HL7_231_RRI_I14	*Segment OTD*
HL7_231_RRI_I15	*Segment OTD*
HL7_231_RRO_O02	ORR Message for Pharmacy/Treatment - Order Response
HL7_231_RXA	*Segment OTD*
HL7_231_RXC	*Segment OTD*
HL7_231_RXD	*Segment OTD*
HL7_231_RXE	*Segment OTD*
HL7_231_RXG	*Segment OTD*
HL7_231_RXO	*Segment OTD*
HL7_231_RXR	*Segment OTD*
HL7_231_SCH	*Segment OTD*
HL7_231_SIU_S12	Schedule Information Unsolicited - Notification of new appointment booking
HL7_231_SIU_S13	Schedule Information Unsolicited - Notification of Appointment Rescheduling
HL7_231_SIU_S14	Schedule Information Unsolicited - Notification of Appointment Modification
HL7_231_SIU_S15	Schedule Information Unsolicited - Notification of Appointment Cancellation
HL7_231_SIU_S16	Schedule Information Unsolicited - Notification of Appointment Discontinuation
HL7_231_SIU_S17	Schedule Information Unsolicited - Notification of Appointment Deletion
HL7_231_SIU_S18	Schedule Information Unsolicited - Notification of Addition of Service/Resource on Appointment
HL7_231_SIU_S19	Schedule Information Unsolicited - Notification of Modification of Service/Resource on Appointment
HL7_231_SIU_S20	Schedule Information Unsolicited - Notification of Cancellation of Service/Resource on Appointment
HL7_231_SIU_S21	Schedule Information Unsolicited - Notification of Discontinuation of Service/Resource on Appointment
HL7_231_SIU_S22	Schedule Information Unsolicited - Notification of Deletion of Service/Resource on Appointment
HL7_231_SIU_S23	Schedule Information Unsolicited - Notification of Blocked Schedule Time Slot(s)
HL7_231_SIU_S24	Schedule Information Unsolicited - Notification of Opened (_unblocked_) Schedule Time Slot(s)
HL7_231_SIU_S26	Schedule Information Unsolicited - Notification that Patient did Not Show Up for Schedule Appointment

HL7 2.3.1 OTD	HL7 Description
HL7_231_SPQ_Q08	Stored Procedure Request
HL7_231_SPR	*Segment OTD*
HL7_231_SQM_S25	Schedule Query Message and Response
HL7_231_SRM_S01	Schedule Request Message - Request New Appointment Booking
HL7_231_SRM_S02	Schedule Request Message - Request Appointment Rescheduling
HL7_231_SRM_S03	Schedule Request Message - Request Appointment Modification
HL7_231_SRM_S04	Schedule Request Message - Request Appointment Cancellation
HL7_231_SRM_S05	Schedule Request Message - Request Appointment Discontinuation
HL7_231_SRM_S06	Schedule Request Message - Request Appointment Deletion
HL7_231_SRM_S07	Schedule Request Message - Request Addition of Service/Resource on Appointment
HL7_231_SRM_S08	Schedule Request Message - Request Modification of Service/Resource on Appointment
HL7_231_SRM_S09	Schedule Request Message - Request Cancellation of Service/Resource on Appointment
HL7_231_SRM_S10	Schedule Request Message - Request Discontinuation of Service/Resource on Appointment
HL7_231_SRM_S11	Schedule Request Message - Request Deletion of Service/Resource on Appointment
HL7_231_SRR_S01	*Segment OTD*
HL7_231_SRR_S02	*Segment OTD*
HL7_231_SRR_S03	*Segment OTD*
HL7_231_SRR_S04	*Segment OTD*
HL7_231_SRR_S05	*Segment OTD*
HL7_231_SRR_S06	*Segment OTD*
HL7_231_SRR_S07	*Segment OTD*
HL7_231_SRR_S08	*Segment OTD*
HL7_231_SRR_S09	*Segment OTD*
HL7_231_SRR_S10	*Segment OTD*
HL7_231_SRR_S11	*Segment OTD*
HL7_231_STF	*Segment OTD*
HL7_231_SUR_P09	Summary Product Experience Report
HL7_231_TBR_R08	Tabular Data Response
HL7_231_TXA	*Segment OTD*
HL7_231_UB1	*Segment OTD*
HL7_231_UB2	*Segment OTD*
HL7_231_UDM_Q05	Unsolicited Display Update Message

HL7 2.3.1 OTD	HL7 Description
HL7_231_URD	*Segment OTD*
HL7_231_URS	*Segment OTD*
HL7_231_VAR	*Segment OTD*
HL7_231_VQQ_Q07	Virtual Table Query
HL7_231_VTQ	*Segment OTD*
HL7_231_VXQ_V01	Query for Vaccination Record
HL7_231_VXR_V03	Vaccination Record Response
HL7_231_VXU_V04	Unsolicited Vaccination Record Update
HL7_231_VXX_V02	Response to Vaccination Query Returning Multiple PID Matches

4.1.4 HL7 Version 2.3 OTD Library

HL7 2.3 OTD	HL7 Description
HL7_23_ACC	*Segment OTD*
HL7_23_ACK	*Segment OTD*
HL7_23_ADR_A19	*Segment OTD*
HL7_23_ADT_A01	Admit/Visit Notification
HL7_23_ADT_A02	Transfer a Patient
HL7_23_ADT_A03	Discharge/End Visit
HL7_23_ADT_A04	Register a Patient
HL7_23_ADT_A05	Pre-Admit a Patient
HL7_23_ADT_A06	Change an Outpatient to an Inpatient
HL7_23_ADT_A07	Change an Inpatient to an Outpatient
HL7_23_ADT_A08	Update Patient Information
HL7_23_ADT_A09	Patient Departing - Tracking
HL7_23_ADT_A10	Patient Arriving - Tracking
HL7_23_ADT_A11	Cancel Admit/Visit Notification
HL7_23_ADT_A12	Cancel Transfer
HL7_23_ADT_A13	Cancel Discharge/End Visit
HL7_23_ADT_A14	Pending Admit
HL7_23_ADT_A15	Pending Transfer
HL7_23_ADT_A16	Pending Discharge
HL7_23_ADT_A17	Swap Patients
HL7_23_ADT_A18	Merge Patient Information
HL7_23_ADT_A20	Bed Status Update
HL7_23_ADT_A21	Patient Goes on a Leave of Absence

HL7 2.3 OTD	HL7 Description
HL7_23_ADT_A22	Patient Returns from a Leave of Absence
HL7_23_ADT_A23	Delete a Patient Record
HL7_23_ADT_A24	Link Patient Information
HL7_23_ADT_A25	Cancel Pending Discharge
HL7_23_ADT_A26	Cancel Pending Transfer
HL7_23_ADT_A27	Cancel Pending Admit
HL7_23_ADT_A28	Add Person or Patient Information
HL7_23_ADT_A29	Delete Person Information
HL7_23_ADT_A30	Merge Person Information
HL7_23_ADT_A31	Update Person Information
HL7_23_ADT_A32	Cancel Patient Arriving - Tracking
HL7_23_ADT_A33	Cancel Patient Departing - Tracking
HL7_23_ADT_A34	Merge Patient Information - Patient ID Only
HL7_23_ADT_A35	Merge Patient Information - Account Number Only
HL7_23_ADT_A36	Merge Patient Information - Patient ID & Account Number
HL7_23_ADT_A37	Unlink Patient Information
HL7_23_ADT_A38	Cancel Pre-Admit
HL7_23_ADT_A39	Merge Patient - Patient ID
HL7_23_ADT_A40	Merge Patient - Patient Identifier List
HL7_23_ADT_A41	Merge Account - Patient Account Number
HL7_23_ADT_A42	Merge Visit - Visit Number
HL7_23_ADT_A43	Move Patient Information - Patient Identifier List
HL7_23_ADT_A44	Move Account Information - Patient Account Number
HL7_23_ADT_A45	Move Visit Information - Visit Number
HL7_23_ADT_A46	Change Patient ID
HL7_23_ADT_A47	Change Patient Identifier List
HL7_23_ADT_A48	Change Alternate
HL7_23_ADT_A49	Change Patient Account Number
HL7_23_ADT_A50	Change Visit Number
HL7_23_ADT_A51	Change Alternate Visit ID
HL7_23_AIG	*Segment OTD*
HL7_23_AIL	*Segment OTD*
HL7_23_AIP	*Segment OTD*
HL7_23_AIS	*Segment OTD*
HL7_23_AL1	*Segment OTD*
HL7_23_APR	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_ARQ	*Segment OTD*
HL7_23_AUT	*Segment OTD*
HL7_23_BAR_P01	Add Patient Account
HL7_23_BAR_P02	Purge Patient Accounts
HL7_23_BAR_P05	Update Account
HL7_23_BAR_P06	End Account
HL7_23_BLG	*Segment OTD*
HL7_23_CDM	*Segment OTD*
HL7_23_CM0	*Segment OTD*
HL7_23_CM1	*Segment OTD*
HL7_23_CM2	*Segment OTD*
HL7_23_CRM_C01	Register a Patient on a Clinical Trial
HL7_23_CRM_C02	Cancel a Patient Registration on Clinical Trial
HL7_23_CRM_C03	Correct/Update Registration Information
HL7_23_CRM_C04	Patient has Gone Off a Clinical Trial
HL7_23_CRM_C05	Patient Enters Phase of Clinical Trial
HL7_23_CRM_C06	Cancel Patient Entering a Phase
HL7_23_CRM_C07	Correct/Update Phase Information
HL7_23_CRM_C08	Patient has Gone Off Phase of Clinical Trial
HL7_23_CSP	*Segment OTD*
HL7_23_CSR	*Segment OTD*
HL7_23_CSS	*Segment OTD*
HL7_23_CSU_C09	Automated Time Intervals for Reporting, Like Monthly
HL7_23_CSU_C10	Patient Completes the Clinical Trial
HL7_23_CSU_C11	Patient Completes a Phase of the Clinical Trial
HL7_23_CSU_C12	Update/Correction of Patient Order/Result Information
HL7_23_CTD	*Segment OTD*
HL7_23_CTI	*Segment OTD*
HL7_23_DB1	*Segment OTD*
HL7_23_DFT_P03	Post Detail Financial Transactions
HL7_23_DG1	*Segment OTD*
HL7_23_DOC_T12	*Segment OTD*
HL7_23_DRG	*Segment OTD*
HL7_23_DSC	*Segment OTD*
HL7_23_DSP	*Segment OTD*
HL7_23_DSR_Q01	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_DSR_Q03	Deferred Response to a Query
HL7_23_EDR_Q01	Enhanced Display Response
HL7_23_EQL	*Segment OTD*
HL7_23_EQQ_Q01	Embedded Query Language Query
HL7_23_ERP_Q01	Event Replay Response
HL7_23_EQR	*Segment OTD*
HL7_23_ERR	*Segment OTD*
HL7_23_EVN	*Segment OTD*
HL7_23_FAC	*Segment OTD*
HL7_23_FT1	*Segment OTD*
HL7_23_GOL	*Segment OTD*
HL7_23_GT1	*Segment OTD*
HL7_23_IN1	*Segment OTD*
HL7_23_IN2	*Segment OTD*
HL7_23_IN3	*Segment OTD*
HL7_23_LCC	*Segment OTD*
HL7_23_LCH	*Segment OTD*
HL7_23_LDP	*Segment OTD*
HL7_23_LOC	*Segment OTD*
HL7_23_LRL	*Segment OTD*
HL7_23_MDM_T01	Original Document Notification
HL7_23_MDM_T02	Original Document Notification and Content
HL7_23_MDM_T03	Document Status Change Notification
HL7_23_MDM_T04	Document Status Change Notification and Content
HL7_23_MDM_T05	Document Addendum Notification
HL7_23_MDM_T06	Document Addendum Notification and Content
HL7_23_MDM_T07	Document Edit Notification
HL7_23_MDM_T08	Document Edit Notification and Content
HL7_23_MDM_T09	Document Replacement Notification
HL7_23_MDM_T10	Document Replacement Notification and Content
HL7_23_MDM_T11	Document Cancel Notification
HL7_23_MFA	*Segment OTD*
HL7_23_MFE	*Segment OTD*
HL7_23_MFI	*Segment OTD*
HL7_23_MFK_M01	*Segment OTD*
HL7_23_MFK_M02	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_MFK_M03	*Segment OTD*
HL7_23_MFK_M04	*Segment OTD*
HL7_23_MFK_M05	*Segment OTD*
HL7_23_MFK_M06	*Segment OTD*
HL7_23_MFK_M07	*Segment OTD*
HL7_23_MFK_M08	*Segment OTD*
HL7_23_MFK_M09	*Segment OTD*
HL7_23_MFK_M10	*Segment OTD*
HL7_23_MFK_M11	*Segment OTD*
HL7_23_MFN_M01	Master File Notification
HL7_23_MFN_M02	Staff/Practitioner Master File Message
HL7_23_MFN_M03	Master File Notification - Test/Observation
HL7_23_MFN_M04	Charge Description Master File Message
HL7_23_MFN_M05	Patient Location Master File Message
HL7_23_MFN_M06	Clinical Trials Master File Message (Identifier Code CMA)
HL7_23_MFN_M07	Clinical Trials Master File Message (Identifier Code CMB)
HL7_23_MFN_M08	Master File Notification - Test/Observation (Numeric)
HL7_23_MFN_M09	Master File Notification - Test/Observation (Categorical)
HL7_23_MFN_M10	Master File Notification - Test/Observation Batteries
HL7_23_MFN_M11	Master File Notification - Test/Calculated Observations
HL7_23_MRG	*Segment OTD*
HL7_23_MSA	*Segment OTD*
HL7_23_MSH	*Segment OTD*
HL7_23_NK1	*Segment OTD*
HL7_23_NPU	*Segment OTD*
HL7_23_NTE	*Segment OTD*
HL7_23_OBR	*Segment OTD*
HL7_23_OBX	*Segment OTD*
HL7_23_ODS	*Segment OTD*
HL7_23_ODT	*Segment OTD*
HL7_23_OM1	*Segment OTD*
HL7_23_OM2	*Segment OTD*
HL7_23_OM3	*Segment OTD*
HL7_23_OM4	*Segment OTD*
HL7_23_OM5	*Segment OTD*
HL7_23_OM6	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_OMD_O01	Dietary Order
HL7_23_OMN_O01	Non-Stock Requisition Order Message
HL7_23_OMS_O01	Stock Requisition Order Message
HL7_23_ORC	*Segment OTD*
HL7_23_ORD_O02	Dietary Order Acknowledgment Message
HL7_23_ORF_R04	*Segment OTD*
HL7_23_ORM_O01	Pharmacy/Treatment Order Message
HL7_23_ORN_O02	General Order Acknowledgment Message
HL7_23_ORR_O02	General Order Response Message Response to any ORM
HL7_23_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_23_OSQ_Q06	Query Response for Order Status
HL7_23_OSR_Q06	*Segment OTD*
HL7_23_PCR	*Segment OTD*
HL7_23_PD1	*Segment OTD*
HL7_23_PDC	*Segment OTD*
HL7_23_PEO	*Segment OTD*
HL7_23_PES	*Segment OTD*
HL7_23_PEX_P07	Unsolicited Initial Individual Product Experience Report
HL7_23_PEX_P08	Unsolicited Update Individual Product Experience Report
HL7_23_PGL_PC6	Patient Goal Message - Goal Add
HL7_23_PGL_PC7	Patient Goal Message - Goal Update
HL7_23_PGL_PC8	Patient Goal Message - Goal Delete
HL7_23_PID	*Segment OTD*
HL7_23_PIN_I07	Patient Insurance Information - Unsolicited
HL7_23_PPG_PCG	Pathway (Goal-Oriented) Add
HL7_23_PPG_PCH	Pathway (Goal-Oriented) Update
HL7_23_PPG_PCJ	Pathway (Goal-Oriented) Delete
HL7_23_PPP_PCB	Pathway (Problem-Oriented) Add
HL7_23_PPP_PCC	Pathway (Problem-Oriented) Update
HL7_23_PPP_PCD	Pathway (Problem-Oriented) Delete
HL7_23_PPR_PC1	Problem Add
HL7_23_PPR_PC2	Problem Update
HL7_23_PPR_PC3	Problem Delete
HL7_23_PPT_PCL	Pathway (Goal-Oriented) Query Response
HL7_23_PPV_PCA	Goal Response
HL7_23_PR1	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_PRA	*Segment OTD*
HL7_23_PRB	*Segment OTD*
HL7_23_PRC	*Segment OTD*
HL7_23_PRD	*Segment OTD*
HL7_23_PRR_PC5	Problem Response
HL7_23_PSH	*Segment OTD*
HL7_23_PTH	*Segment OTD*
HL7_23_PTR_PCF	Pathway (Problem-Oriented) Query Response
HL7_23_PV1	*Segment OTD*
HL7_23_PV2	*Segment OTD*
HL7_23_QAK	*Segment OTD*
HL7_23_QCK_Q02	*Segment OTD*
HL7_23_QRD	*Segment OTD*
HL7_23_QRF	*Segment OTD*
HL7_23_QRY_A19	Patient Query
HL7_23_QRY_PC4	Problem Query
HL7_23_QRY_PC9	Goal Query
HL7_23_QRY_PCE	Pathway (Problem-Oriented) Query
HL7_23_QRY_PCK	Pathway (Goal-Oriented) Query
HL7_23_QRY_Q01	Query Sent for Immediate Response
HL7_23_QRY_Q02	Query Sent for Deferred Response
HL7_23_QRY_R02	Query for Results of Observation
HL7_23_QRY_T12	Document Query
HL7_23_RAR_RAR	Pharmacy Administration Information
HL7_23_RAS_O01	Pharmacy/Treatment Administration Order Message
HL7_23_RCI_I05	*Segment OTD*
HL7_23_RCL_I06	*Segment OTD*
HL7_23_RDE_O01	Pharmacy/Treatment Encoded Order Message
HL7_23_RDF	*Segment OTD*
HL7_23_RDO_O01	Pharmacy/Treatment Order Message
HL7_23_RDR_RDR	Pharmacy/Treatment Dispense Information
HL7_23_RDS_O01	Pharmacy/Treatment Dispense Order Message
HL7_23_RDT	*Segment OTD*
HL7_23_REF_I12	Patient Referral
HL7_23_REF_I13	Modify Patient Referral
HL7_23_REF_I14	Cancel Patient Referral

HL7 2.3 OTD	HL7 Description
HL7_23_REF_I15	Request Patient Referral Status
HL7_23_RER_RER	Pharmacy/Treatment Encoded Order Information
HL7_23_RF1	*Segment OTD*
HL7_23_RGR_RGR	Pharmacy/Treatment Dose Information
HL7_23_RGS	*Segment OTD*
HL7_23_RGV_O01	Pharmacy/Treatment Give - Order Message
HL7_23_ROL	*Segment OTD*
HL7_23_ROR_ROR	Pharmacy/Treatment Order Response
HL7_23_RPA_I08	*Segment OTD*
HL7_23_RPA_I09	*Segment OTD*
HL7_23_RPA_I10	*Segment OTD*
HL7_23_RPA_I11	*Segment OTD*
HL7_23_RPI_I01	*Segment OTD*
HL7_23_RPI_I04	*Segment OTD*
HL7_23_RPL_I02	*Segment OTD*
HL7_23_RPR_I03	*Segment OTD*
HL7_23_RQ1_I	*Segment OTD*
HL7_23_RQA_I08	Request for Treatment Authorization Information
HL7_23_RQA_I09	Request for Modification to an Authorization
HL7_23_RQA_I10	Request for Re-submission of an Authorization
HL7_23_RQA_I11	Request for Cancellation of an Authorization
HL7_23_RQC_I05	Request for Patient Clinical Information
HL7_23_RQC_I06	Request/Receipt of Clinical Data Listing
HL7_23_RQD	*Segment OTD*
HL7_23_RQI_I01	Request for Insurance Information
HL7_23_RQI_I02	Request/Receipt of Patient Selection Display List
HL7_23_RQI_I03	Request/Receipt of Patient Selection List
HL7_23_RQP_I04	Request for Patient Demographic Data
HL7_23_RQQ_Q01	Event replay query - Sent for Immediate Response
HL7_23_RRA_O02	Pharmacy/Treatment Administration Acknowledgment Message
HL7_23_RRD_O02	Pharmacy/Treatment Dispense Acknowledgment Message
HL7_23_RRG_O02	Pharmacy/Treatment Give Acknowledgment Message
HL7_23_RRI_I12	*Segment OTD*
HL7_23_RRI_I13	*Segment OTD*
HL7_23_RRI_I14	*Segment OTD*
HL7_23_RRI_I15	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_RRO_O02	ORR Message for Pharmacy/Treatment - Order Response
HL7_23_RXA	*Segment OTD*
HL7_23_RXC	*Segment OTD*
HL7_23_RXD	*Segment OTD*
HL7_23_RXE	*Segment OTD*
HL7_23_RXG	*Segment OTD*
HL7_23_RXO	*Segment OTD*
HL7_23_RXR	*Segment OTD*
HL7_23_SCH	*Segment OTD*
HL7_23_SIU_S12	Schedule Information Unsolicited - Notification of new appointment booking
HL7_23_SIU_S13	Schedule Information Unsolicited - Notification of Appointment Rescheduling
HL7_23_SIU_S14	Schedule Information Unsolicited - Notification of Appointment Modification
HL7_23_SIU_S15	Schedule Information Unsolicited - Notification of Appointment Cancellation
HL7_23_SIU_S16	Schedule Information Unsolicited - Notification of Appointment Discontinuation
HL7_23_SIU_S17	Schedule Information Unsolicited - Notification of Appointment Deletion
HL7_23_SIU_S18	Schedule Information Unsolicited - Notification of Addition of Service/Resource on Appointment
HL7_23_SIU_S19	Schedule Information Unsolicited - Notification of Modification of Service/Resource on Appointment
HL7_23_SIU_S20	Schedule Information Unsolicited - Notification of Cancellation of Service/Resource on Appointment
HL7_23_SIU_S21	Schedule Information Unsolicited - Notification of Discontinuation of Service/Resource on Appointment
HL7_23_SIU_S22	Schedule Information Unsolicited - Notification of Deletion of Service/Resource on Appointment
HL7_23_SIU_S23	Schedule Information Unsolicited - Notification of Blocked Schedule Time Slot(s)
HL7_23_SIU_S24	Schedule Information Unsolicited - Notification of Opened (_unblocked_) Schedule Time Slot(s)
HL7_23_SIU_S26	Schedule Information Unsolicited - Notification that Patient did Not Show Up for Schedule Appointment
HL7_23_SPQ_Q01	Stored Procedure Request
HL7_23_SPR	*Segment OTD*
HL7_23_SQM_S25	Schedule Query Message and Response
HL7_23_SQR_S25	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_SRM_S01	Schedule Request Message - Request New Appointment Booking
HL7_23_SRM_S02	Schedule Request Message - Request Appointment Rescheduling
HL7_23_SRM_S03	Schedule Request Message - Request Appointment Modification
HL7_23_SRM_S04	Schedule Request Message - Request Appointment Cancellation
HL7_23_SRM_S05	Schedule Request Message - Request Appointment Discontinuation
HL7_23_SRM_S06	Schedule Request Message - Request Appointment Deletion
HL7_23_SRM_S07	Schedule Request Message - Request Addition of Service/Resource on Appointment
HL7_23_SRM_S08	Schedule Request Message - Request Modification of Service/Resource on Appointment
HL7_23_SRM_S09	Schedule Request Message - Request Cancellation of Service/Resource on Appointment
HL7_23_SRM_S10	Schedule Request Message - Request Discontinuation of Service/Resource on Appointment
HL7_23_SRM_S11	Schedule Request Message - Request Deletion of Service/Resource on Appointment
HL7_23_SRR_S01	*Segment OTD*
HL7_23_SRR_S02	*Segment OTD*
HL7_23_SRR_S03	*Segment OTD*
HL7_23_SRR_S04	*Segment OTD*
HL7_23_SRR_S05	*Segment OTD*
HL7_23_SRR_S06	*Segment OTD*
HL7_23_SRR_S07	*Segment OTD*
HL7_23_SRR_S08	*Segment OTD*
HL7_23_SRR_S09	*Segment OTD*
HL7_23_SRR_S10	*Segment OTD*
HL7_23_SRR_S11	*Segment OTD*
HL7_23_STF	*Segment OTD*
HL7_23_SUR_P09	Summary Product Experience Report
HL7_23_TBR_Q01	Tabular Data Response
HL7_23_TXA	*Segment OTD*
HL7_23_UB1	*Segment OTD*
HL7_23_UB2	*Segment OTD*
HL7_23_UDM_Q05	Unsolicited Display Update Message
HL7_23_URD	*Segment OTD*
HL7_23_URS	*Segment OTD*
HL7_23_VAR	*Segment OTD*

HL7 2.3 OTD	HL7 Description
HL7_23_VQQ_Q01	Virtual Table Query
HL7_23_VTQ	*Segment OTD*
HL7_23_VXQ_V01	Query for Vaccination Record
HL7_23_VXR_V03	Vaccination Record Response
HL7_23_VXU_V04	Unsolicited Vaccination Record Update
HL7_23_VXX_V02	Response to Vaccination Query Returning Multiple PID Matches

4.1.5 HL7 Version 2.2 OTD Library

HL7 2.2 OTD	HL7 Desctiption
HL7_22_ACC	*Segment OTD*
HL7_22_ACK	*Segment OTD*
HL7_22_ADR_A19	*Segment OTD*
HL7_22_ADT_A01	Admit/Visit Notification
HL7_22_ADT_A02	Transfer a Patient
HL7_22_ADT_A03	Discharge/End Visit
HL7_22_ADT_A04	Register a Patient
HL7_22_ADT_A05	Pre-Admit a Patient
HL7_22_ADT_A06	Change an Outpatient to an Inpatient
HL7_22_ADT_A07	Change an Inpatient to an Outpatient
HL7_22_ADT_A08	Update Patient Information
HL7_22_ADT_A09	Patient Departing - Tracking
HL7_22_ADT_A10	Patient Arriving - Tracking
HL7_22_ADT_A11	Cancel Admit/Visit Notification
HL7_22_ADT_A12	Cancel Transfer
HL7_22_ADT_A13	Cancel Discharge/End Visit
HL7_22_ADT_A14	Pending Admit
HL7_22_ADT_A15	Pending Transfer
HL7_22_ADT_A16	Pending Discharge
HL7_22_ADT_A17	Swap Patients
HL7_22_ADT_A18	Merge Patient Information
HL7_22_ADT_A20	Bed Status Update
HL7_22_ADT_A21	Patient Goes on a Leave of Absence
HL7_22_ADT_A22	Patient Returns from a Leave of Absence
HL7_22_ADT_A23	Delete a Patient Record
HL7_22_ADT_A24	Link Patient Information

HL7 2.2 OTD	HL7 Desctiption
HL7_22_ADT_A25	Cancel Pending Discharge
HL7_22_ADT_A26	Cancel Pending Transfer
HL7_22_ADT_A27	Cancel Pending Admit
HL7_22_ADT_A28	Add Person or Patient Information
HL7_22_ADT_A29	Delete Person Information
HL7_22_ADT_A30	Merge Person Information
HL7_22_ADT_A31	Update Person Information
HL7_22_ADT_A32	Cancel Patient Arriving - Tracking
HL7_22_ADT_A33	Cancel Patient Departing - Tracking
HL7_22_ADT_A34	Merge Patient Information - Patient ID Only
HL7_22_ADT_A35	Merge Patient Information - Account Number Only
HL7_22_ADT_A36	Merge Patient Information - Patient ID & Account Number
HL7_22_ADT_A37	Unlink Patient Information
HL7_22_AL1	*Segment OTD*
HL7_22_BAR_P01	Add Patient Account
HL7_22_BAR_P02	Purge Patient Accounts
HL7_22_BLG	*Segment OTD*
HL7_22_DFT_P03	Post Detail Financial Transactions
HL7_22_DG1	*Segment OTD*
HL7_22_DSC	*Segment OTD*
HL7_22_DSP	*Segment OTD*
HL7_22_DSR_P04	*Segment OTD*
HL7_22_DSR_Q01	*Segment OTD*
HL7_22_DSR_Q03	Deferred Response to a Query
HL7_22_DSR_R03	Display-Oriented Results, Query/Unsol. Update (for Backward Compatibility Only)
HL7_22_ERR	*Segment OTD*
HL7_22_EVN	*Segment OTD*
HL7_22_FT1	*Segment OTD*
HL7_22_GT1	*Segment OTD*
HL7_22_IN1	*Segment OTD*
HL7_22_IN2	*Segment OTD*
HL7_22_IN3	*Segment OTD*
HL7_22_MFA	*Segment OTD*
HL7_22_MFD_M01	Master Files Delayed Application Acknowledgment - Not Otherwise Specified (for Backward Compatibility Only)

HL7 2.2 OTD	HL7 Desctiption
HL7_22_MFD_M02	Master Files Delayed Application Acknowledgment - Staff Practitioner
HL7_22_MFD_M03	Master Files Delayed Application Acknowledgment - Test/Observation (for Backward Compatibility Only)
HL7_22_MFE	*Segment OTD*
HL7_22_MFI	*Segment OTD*
HL7_22_MFK_M01	*Segment OTD*
HL7_22_MFK_M02	*Segment OTD*
HL7_22_MFK_M03	*Segment OTD*
HL7_22_MFN_M01	Master File Notification - Master File Not Otherwise Specified
HL7_22_MFN_M02	Staff/Practitioner Master File Message
HL7_22_MFN_M03	Master File Notification - Test/Observation
HL7_22_MFQ_M01	Master Files Query - Not Otherwise Specified (for backward compatibility only)
HL7_22_MFQ_M02	Master Files Query - Staff/Practitioner
HL7_22_MFQ_M03	Master Files Query - Test/Observation (for backward compatibility only)
HL7_22_MFR_M01	*Segment OTD*
HL7_22_MFR_M02	*Segment OTD*
HL7_22_MFR_M03	*Segment OTD*
HL7_22_MRG	*Segment OTD*
HL7_22_MSA	*Segment OTD*
HL7_22_MSH	*Segment OTD*
HL7_22_NCK	*Segment OTD*
HL7_22_NK1	*Segment OTD*
HL7_22_NMD_N01	Application Management Data Message
HL7_22_NMQ_N02	Application Management Query Message
HL7_22_NMR_N02	*Segment OTD*
HL7_22_NPU	*Segment OTD*
HL7_22_NSC	*Segment OTD*
HL7_22_NST	*Segment OTD*
HL7_22_NTE	*Segment OTD*
HL7_22_OBR	*Segment OTD*
HL7_22_OBX	*Segment OTD*
HL7_22_ODS	*Segment OTD*
HL7_22_ODT	*Segment OTD*
HL7_22_ORC	*Segment OTD*
HL7_22_ORF_R04	Response to Query; Transmission of Requested Observation

HL7 2.2 OTD	HL7 Desctiption
HL7_22_ORM_O01	Pharmacy/Treatment - Order Message
HL7_22_ORR_O02	Pharmacy/Treatment - Order Response
HL7_22_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_22_PID	*Segment OTD*
HL7_22_PR1	*Segment OTD*
HL7_22_PV1	*Segment OTD*
HL7_22_PV2	*Segment OTD*
HL7_22_QRD	*Segment OTD*
HL7_22_QRF	*Segment OTD*
HL7_22_QRY_A19	Patient Query
HL7_22_QRY_P04	Generate Bill and A/R Statements
HL7_22_QRY_Q01	Query Sent for Immediate Response
HL7_22_QRY_Q02	Query Sent for Deferred Response
HL7_22_QRY_R02	Unsolicited Transmission of an Observation Message
HL7_22_RQ1	*Segment OTD*
HL7_22_RQD	*Segment OTD*
HL7_22_RXO	*Segment OTD*
HL7_22_UB1	*Segment OTD*
HL7_22_UB2	*Segment OTD*
HL7_22_UDM_Q05	Unsolicited Display Update Message
HL7_22_URD	*Segment OTD*
HL7_22_URS	*Segment OTD*

4.1.6 HL7 Version 2.1 OTD Library

HL7 2.1 OTD	HL7 Description
HL7_21_ADT_A01	Admit/Visit Notification
HL7_21_ADT_A02	Transfer a Patient
HL7_21_ADT_A03	Discharge/End Visit
HL7_21_ADT_A04	Register a Patient
HL7_21_ADT_A05	Pre-Admit a Patient
HL7_21_ADT_A06	Change an Outpatient to an Inpatient
HL7_21_ADT_A07	Change an Inpatient to an Outpatient
HL7_21_ADT_A08	Update Patient Information
HL7_21_ADT_A09	Patient Departing - Tracking
HL7_21_ADT_A10	Patient Arriving - Tracking

HL7 2.1 OTD	HL7 Description
HL7_21_ADT_A11	Cancel Admit/Visit Notification
HL7_21_ADT_A12	Cancel Transfer
HL7_21_ADT_A13	Cancel Discharge/End Visit
HL7_21_ADT_A14	Pending Admit
HL7_21_ADT_A15	Pending Transfer
HL7_21_ADT_A16	Pending Discharge
HL7_21_ADT_A17	Swap Patients
HL7_21_ADT_A18	Merge Patient Information
HL7_21_ADT_A20	Bed Status Update
HL7_21_ADT_A21	Patient Goes on a Leave of Absence
HL7_21_ADT_A22	Patient Returns from a Leave of Absence
HL7_21_ADT_A23	Delete a Patient Record
HL7_21_ADT_A24	Link Patient Information
HL7_21_BAR_P01	Add Patient Account
HL7_21_BAR_P02	Purge Patient Accounts
HL7_21_BLG	*Segment OTD*
HL7_21_DFT_P03	Post Detail Financial Transactions
HL7_21_DG1	*Segment OTD*
HL7_21_DSC	*Segment OTD*
HL7_21_DSP	*Segment OTD*
HL7_21_DSR_Q01	*Segment OTD*
HL7_21_DSR_Q03	Deferred Response to a Query
HL7_21_ERR	*Segment OTD*
HL7_21_EVN	*Segment OTD*
HL7_21_FT1	*Segment OTD*
HL7_21_GT1	*Segment OTD*
HL7_21_IN1	*Segment OTD*
HL7_21_MCF	*Segment OTD*
HL7_21_MRG	*Segment OTD*
HL7_21_MSA	*Segment OTD*
HL7_21_MSH	*Segment OTD*
HL7_21_NK1	*Segment OTD*
HL7_21_NPU	*Segment OTD*
HL7_21_NTE	*Segment OTD*
HL7_21_OBR	*Segment OTD*
HL7_21_OBX	*Segment OTD*

HL7 2.1 OTD	HL7 Description
HL7_21_ORC	*Segment OTD*
HL7_21_ORM_O01	Pharmacy/Treatment Order Message
HL7_21_ORO	*Segment OTD*
HL7_21_ORR_O02	General Order Response Message Response to any ORM
HL7_21_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_21_ORU_R03	Unsolicited Transmission of an Observation Message
HL7_21_PID	*Segment OTD*
HL7_21_PR1	*Segment OTD*
HL7_21_PV1	*Segment OTD*
HL7_21_QRD	*Segment OTD*
HL7_21_QRF	*Segment OTD*
HL7_21_QRY_A19	Patient Query
HL7_21_QRY_Q01	Query Sent for Immediate Response
HL7_21_QRY_Q02	Query Sent for Deferred Response
HL7_21_RX1	*Segment OTD*
HL7_21_UB1	*Segment OTD*
HL7_21_UDM_Q05	Unsolicited Display Update Message
HL7_21_URD	*Segment OTD*
HL7_21_URS	*Segment OTD*

Working With HL7 OTDs

This chapter provides information on how to use the Sun SeeBeyond Enterprise Designer's OTD Editor to select, modify, and test HL7 OTDs.

What's in this Chapter

5.1 The OTD Editor

The OTD Editor displays the structure of a selected Object Type Definition (OTD) and allows you to verify its operation with a built-in tester. You can also use the editor to create and modify OTDs. For an overview of Object Type Definitions, OTD structure, and the OTD Editor, see the *Sun SeeBeyond eGate Integrator User's Guide*. The eGate Integrator User's Guide defines all available OTD properties and provides a description of all of the OTD Editor's features.

The following chapter provides information specific to using Library OTDs with the OTD Editor. These OTDs are templates that correspond to message types used by industry-specific data exchange systems and open-source standards. The templates are pre-defined and can be used as-is, or modified using the OTD Editor.

5.2 Viewing an OTD using the OTD Editor

The OTD Editor displays the structure of a selected Object Type Definition (OTD) and allows you to verify its operation with a built-in tester. You can also use the editor to create and modify User-Defined OTDs.

To view the HL7 Generic OTD or an HL7 Library OTD (if you are using the HL7 eWay in conjunction with the Sun SeeBeyond HL7 OTD Library) using the OTD Editor, do the following:

1 From the Enterprise Designer's Project Explorer tree, expand the **Sun SeeBeyond OTD Library** directory, the **HL7** directory, and the folder for the appropriate HL7

Library version (see Figure 2). Only the version or versions you install will be displayed in your build.

Figure 2   Selecting an OTD from the Project Explorer Tree
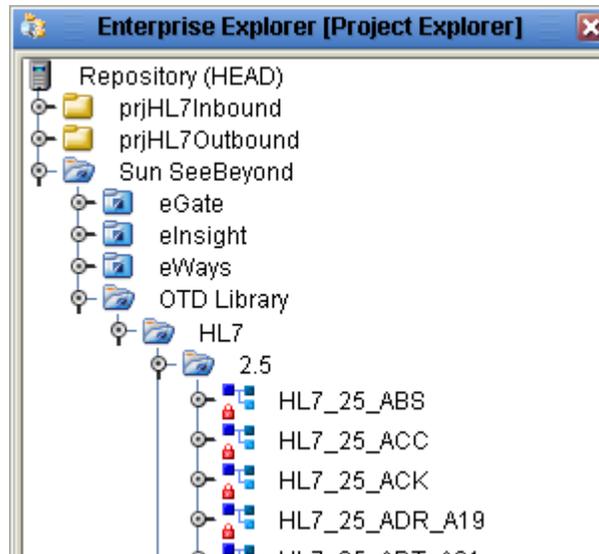
2   The OTDs available under OTD Library in the Project Editor are protected (read-only). You can view the OTD in **read-only** mode by double-clicking the OTD in its current location.

Copying an OTD to your Project

3   To view the OTD in an editable mode, you must copy and paste the OTD to your Project. Right-click the OTD and select **Copy** from the shortcut menu, then right-click your Project and select Paste from the shortcut menu. The OTD is added to your Project on the Project Explorer tree.

4   To view the copied OTD, double-click the copied OTD. The editable OTD appears in the OTD Editor. Notice that for the Library OTDs, the OTD segments are still write protected. The OTDs properties can only be modified from the Root node at this point(see **Figure 3 on page 77**).

Figure 3   The OTD Editor - HL7_25_ADT_A01
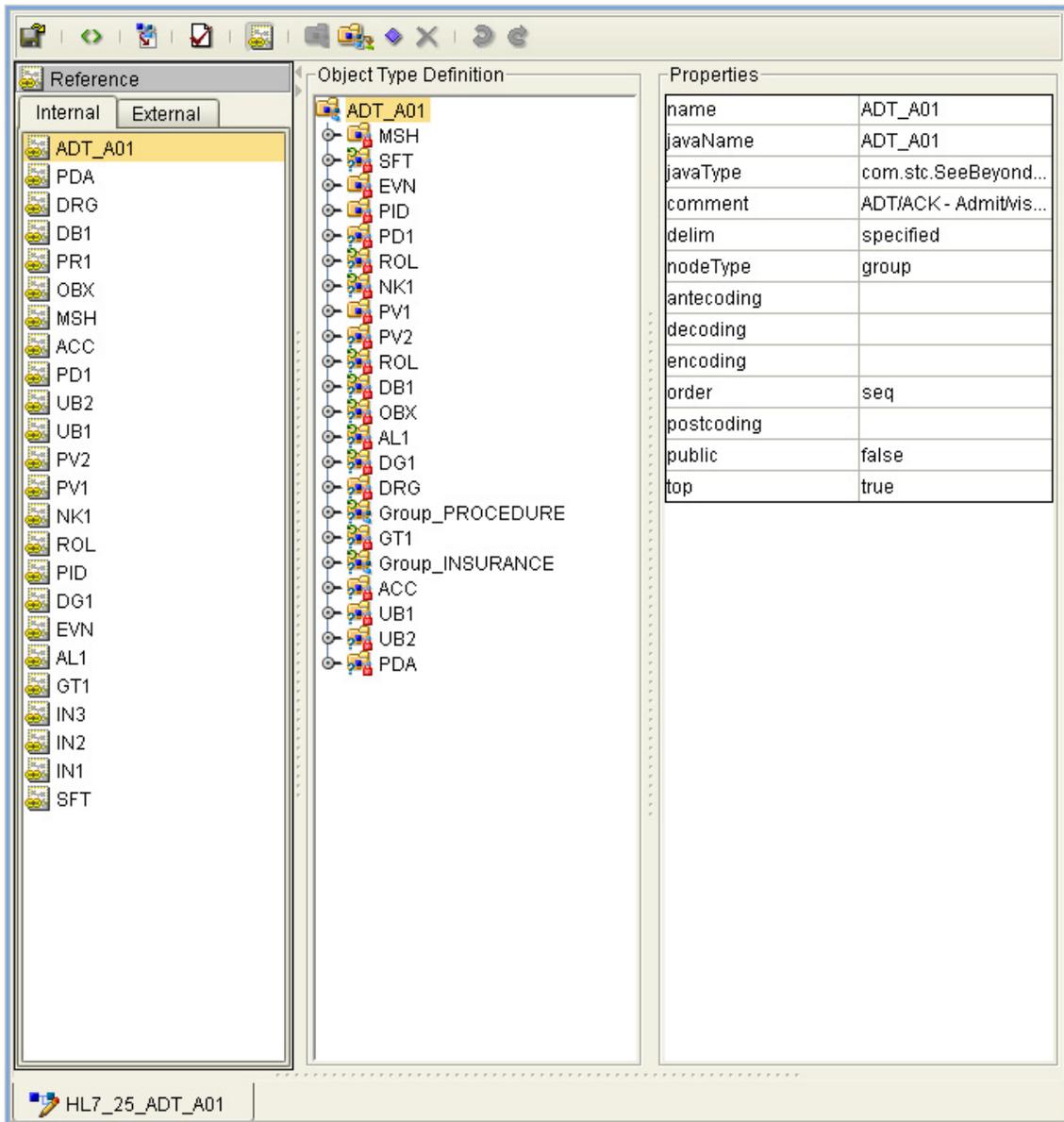
5   From the editor's Object Type Definition pane, select any of the OTDs nodes or sub-nodes to see the nodes properties displayed in the editor's Properties pane.

For an overview of Object Type Definitions, OTD structure, and the OTD Editor, see the *Sun SeeBeyond eGate Integrator User's Guide*.

5.3   Modifying an OTD Using the OTD Editor

OTD Check Out and Check In

The Generic HL7 OTDS and OTDs installed from the HL7 OTD Library) are located in the Project Explorer's **Sun SeeBeyond** folder. These OTDs are protected and cannot be modified. This assures that the original OTDs are always available in their original form. To modify an OTD, you must first copy and paste the OTD from the Sun SeeBeyond > OTD Library folder to your Project.

Version Control is available for any OTD you save to your Projects. To check-in or check-out an OTD, right-click the OTD from the Project Explorer tree, and select **Version Control > Check Out** or **Check In** from the shortcut menu. When an OTD has been checked-in, the OTD file icon appears in the Project Explorer tree as "locked" (The icon includes a red padlock).

5.3.1   Editing an OTD's Root Properties

The HL7 OTD copied to your Project can only be edited from the Root node. Each of the OTD's segments are write protected. The OTD segments are visible from the Reference pane of the OTD Editor. This Reference pane contains internal and external templates for the OTD file. To edit specific segments of a Library OTD, see **"Adding and Editing OTD Segments" on page 86**. For more information regarding OTD properties, see **"OTD Properties" on page 88**.

Root Node Properties

The set of properties associated with Root nodes is shown in Figure 4.

Figure 4   Root Node Properties (delim nodeType)

Properties	
name	GENERIC_EVT
javaName	GENERIC_EVT
javaType	com.stc.SeeBeyond.OTD...
comment	Generic HL7 Event based...
delim	specified
nodeType	array
showDelim	\r
antecoding	
decoding	
encoding	
order	seq
postcoding	
public	false
top	true

Table 3 Node Properties

Node Property Descriptions	
name	Node display name. This can be a virtually-arbitrary string.
javaName	Property accessor basename. This is normally derived from the display name, modified to suit the restrictions on Java identifiers, and supplied automatically by eGate.
javaType	Java type; automatically assigned, not editable.
comment	Free-form text (no run-time effect).
delim	Specified delimiter. See **Specifying Delimiters** on page 81.
nodeType	Governs the marshal/unmarshal format. See **Specifying the Node Type** on page 92.
antecoding	Specifies the input data coding (see Specifying Data Encoding on page 219). If this property is not specified, the value specified for the **decoding** property will be used for the input data. This property is displayed only when the top property is set to **true**.
decoding	Specifies the unmarshal coding (see Specifying Data Encoding on page 219). (It is recommended to use UTF-8 for DBCS data, since the hex value of some ASCII delimiter may coincide with a hex value contained within a double-byte character.) This property is displayed only when the top property is set to **true**.
encoding	Specifies the marshal coding (see Specifying Data Encoding on page 219). This property is displayed only when the top property is set to true.
order	Specifies the ordering of the Root node's children: ▪ **seq**: specifies that the child nodes must appear in sequence. ▪ **any**: specifies that the child nodes can appear in any order. ▪ **mix**:
postcoding	Specifies the output data coding (see Specifying Data Encoding on page 219). If this property is not specified, the value specified for the encoding property will be used for the output data. This property is displayed only when the top property is set to **true**.
public	Reserved for future development
top	Flag on Root node: support marshal/unmarshal (T/F).

Properties edited from the Root node are applied inclusively to the OTD. For example, a level three delimiter, changed from the Root node, applies to all level three node delimiters. (The properties for specific segments can be exclusively edited, but to do this you must copy and paste the specific OTD that the segment refers to into your Project. For more information on editing specific segments, see **"Adding and Editing OTD Segments" on page 86**.

To edit an HL7 OTD's Root node properties, do the following:

1 Copy and paste the OTD to your Project. The OTD is added to your Project in the Project Explorer tree.

2 Double-click the OTD to open your Project in the OTD Editor.

3 From the editor's Object Type Definition pane, select the **Root node** of the OTD. The Root properties and displayed in the editor's Properties pane.

4 From the Properties pane, click on any property field to edit the property.

5.3.2 Editing the OTD Delimiters

Delimiters for all node levels are set (and modified) from the Root node. Be aware that the default level 1 delimiter character is a non-ASCII character. Once it has been changed it cannot be typed back in as a character (but can be pasted). For information about editing a specific segment of the OTD, see **"Adding and Editing OTD Segments" on page 86**.

To edit the Delimiters from the Root node do the following:

1 From the OTD Editor, select the Root node in the Object Type Definition pane (for this example **ADT_A02**). From the Properties pane, double-click the **delim** properties field. An ellipsis (...) button appears in the field. Click the ellipsis button. The **Delimiter List Editor** appears (see **Figure 5 on page 80**).

Figure 5   HL7 OTD Editor - Delimiter List Editor
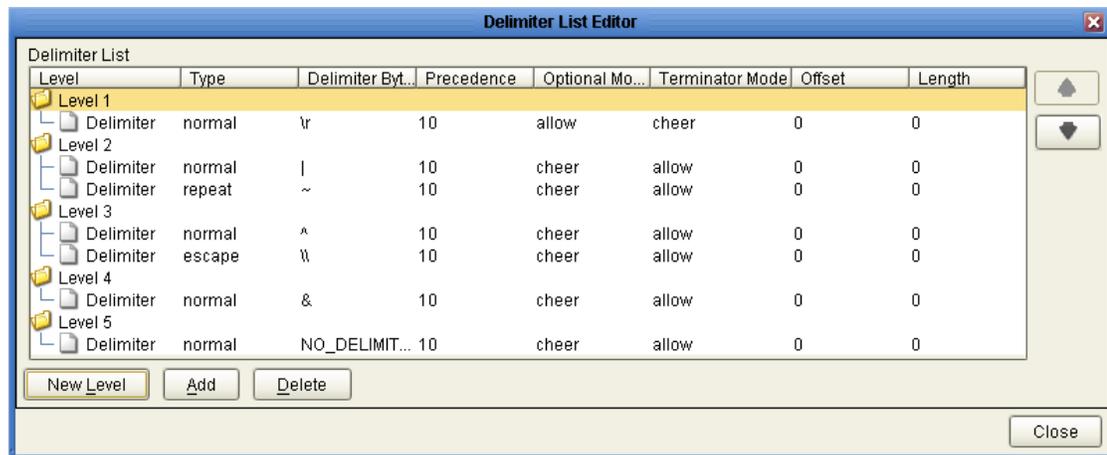
2 Double-clicking any field in the OTD Editor's Properties field, for any level, makes the field editable or displays a list of options. Double-click the Delimiter Bytes field for level 3 (see Figure 5). Change the current delimiter character to a pound sign (#), **Tab** to the next field, and click **OK**.

The delimiter for all level 3 nodes in the OTD is now a pound sign (#), unless it is specified differently for a specific segment. Figure 6 displays an example of various levels in the Object Type Definition tree, from the Root node.

Figure 6   Node Levels From the Root Node
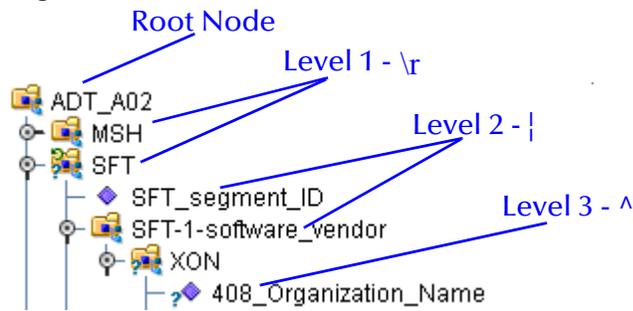
5.3.3 Changing HL7 Standard Encoding Characters

All HL7 OTDs have a predefined list of delimiters, per the definition in the HL7 Standard. If you elect to change the delimiter encoding characters in your HL7 messages, you must change the delimiter in the OTD from the Root node using the OTD Editor, to match the delimiters used in the HL7 message.

The delimiter encoding character field is a fixed-length field of four encoding characters plus the field separator. The fifth (extra) character is necessary for the segment field separator.

If you wish to validate against the encoding characters, modify the pre-built Collaboration rules as follows:

```
// first unmarshal the HL7 OTD payload

// then get the encoding character field:
String encodingChars = otdHL7_GENERIC_EVT_1.getMSH().getMsh2EncodingCharacters();

if (!encodingChars.equals("<customer_encoding_characters>")) {
validated = false;
ErrorMessage = "Validation Failure: Receiving Facility";
log( LOG_LEVEL_ERROR, "Validate HL7 Message failed: Encoding character field" );
}
```

5.3.4 Specifying Delimiters

A node defines a set of delimiters to be used in the external data representation for itself and its descendents in the hierarchical data structure. If a node defines a delimiter list, this negates any effect of any ancestor's delimiter list on itself and its descendents. The delimiter list is typically specified on the Root node.

For example, if you want to parse the following data:

    a^b|c^d|e

you might define an OTD as follows:

- demo-otd
    - element1
        - field1
        - field2
    - element2
        - field3

- field4

- field5

The delimiter list for this OTD will be specified on the *demo-otd* element, so that it applies to the entire OTD, and will have two levels:

- Level 1

  - Delimiter |

- Level 2

  - Delimiter ^

Level 1's delimiter applies to the two elements and field5, and level 2's delimiter applies to fields 1 through 4.

Delimiter lists can be much more complex than this very simple example. For instance, you can create multiple delimiters of different types at any given level, and you can specify a delimiter list on any node within the OTD—not only the Root node as shown in the example. See **Modifying an OTD Using the OTD Editor** on page 78 for a description of the procedure for creating a Delimiter List.

Delimiter Properties

Delimiters are defined using the Delimiter List Editor (see Figure 5).

The Delimiter properties and values are displayed in Table 4.

Table 4

Delimiter Properties and Value Options		
Property	**Option**	**Description**
Level		Child level beneath defining node.
Type	escape	Escape sequence.
	repeat	Array delimiter/separator.
	normal	Terminator.
Delimiter Bytes		Delimiter (single or multiple characters).
Precedence		See **Precedence** on page 85.
Optional Mode	never	Do not allow on input, do not emit on output (empty field between delimiters implies zero length data field).
	allow	Skip empty field if present; if absent, do not delimit on output.
	cheer	Skip empty field if present; if absent, do delimit on output.
	force	Require empty, delimited field on input; always delimit on output.

Table 4

Delimiter Properties and Value Options (Continued)		
Property	**Option**	**Description**
Terminator Mode	never	Do not allow on input, do not emit on output (pure separator).
	allow	Allow on input, do not emit on output.
	cheer	Allow on input, always emit on output.
	force	Require on input, always emit on output (pure terminator).

Type Property - *Escape* Option

An *escape* delimiter is simply a sequence that will be recognized *and ignored* during parsing. Its purpose is to allow the use of escape sequences to embed byte sequences in data that would otherwise be seen as delimiter occurrences.

For example, if there is a normal delimiter "**+**" at a given level, and we define an escape delimiter "**\+**", then **aaa+b\+c+ddd** will parse as three fields: **aaa**, **b\+c**, and **ddd**. If the escape delimiter were not defined, the sequence would then parse as four fields: **aaa**, **b**, **c**, and **ddd**.

If there is *only* an escape delimiter on a given level, however, it presents a *no delimiter defined* situation for **delim** and **array** nodes.

Delimiter Bytes

There is essentially no limitation on what characters you can use as delimiters; however, you obviously want to avoid characters that can be confused with data or interfere with escape sequences. The backslash (\) is normally used as an escape character (the HL7 protocol uses a double backslash as part of an escape sequence that provides special text formatting instructions).

Note: *You should avoid using a colon (:) as a delimiter character, since it is used as a literal in system-generated time strings. This can interfere with recovery procedures, for example following a Domain shutdown.*

Terminator Mode Property

Consider the tree structure shown in **Figure 7 on page 84**, where the node **a** has a pipe (**|**) as its delimiter, the sub-node **b** has a tilde (**~**) as its delimiter, and sub-node **c** has an asterisk (*****) as its delimiter.

Figure 7   Terminal Type Property Example

```
┌─────────────────────┐
│                     │
│   a (|)             │
│   │                 │
│   ├──  b (*)        │
│   │                 │
│   └──  c (*)        │
│                     │
└─────────────────────┘
```
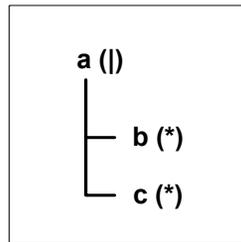
Option	Input	Output
never	**c|**	**c|**
allow	**c|** or **c*|**	**c|**
cheer	**c|** or **c*|**	**c*|**
force	**c*|**	**c*|**

Optional Mode **Property**

Consider the tree structures shown in Figure 8 and **Figure 9 on page 85**, where the node **a** has a pipe (**|**) as its delimiter, and the sub-nodes **b**, **c**, and **d** all have asterisks (*****) as their delimiters.

- **Example 1:** Sub-node **c** is *optional*. (Sub-node **c** and sub-node **d** must have different values for the *match* parameter.)

Figure 8   Optional Property (Example 1)

```
┌─────────────────────┐
│                     │
│   a (|)             │
│   │                 │
│   ├──  b (*)        │
│   │                 │
│   ├──  c? (*)       │
│   │                 │
│   └──  d (*)        │
│                     │
└─────────────────────┘
```
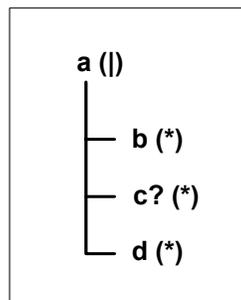
Option	Input	Output
never	**b*d|**	**b*d|**
allow	**b**d|**	**b*d|**
cheer	**b**d|**	**b**d|**
force	**b**d|**	**b**d|**

▪ **Example 2:** Both sub-node **c** and sub-node **d** are *optional*.

Figure 9   Optional Property (Example 2)

```
a (|)

 ── b (*)

 ── c? (*)

 ── d? (*)
```
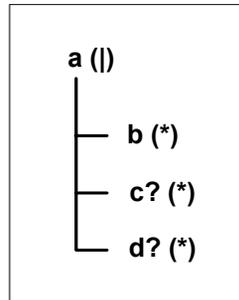
Option	Input	Output
never	**b|**	**b|**
allow	**b|**, **b*|**, or **b**|**	**b|**
cheer	**b|**, **b*|**, or **b**|**	**b**|**
force	**b**|**	**b**|**

Precedence

Precedence (see **Figure 6 on page 81**) indicates the priority of a certain delimiter, relative to the other delimiters. By default, all delimiters are at precedence 10, which means they are all considered the same; fixed fields are hard-coded at precedence 10. Delimiters on parent nodes are not considered when parsing the child fields; only the child's delimiter (or if it is a fixed field, its length).

Changing the precedence of a delimiter will cause them to be applied to the input data-stream in different ways. For example:

▪ *Root node*

  ◆ element (type delim, delimiter = "^", repeat)

    ◆ field1 (type fixed, length = 5)

    ◆ field2 (type fixed, length = 8, optional)

Although this will parse **'abcde12345678^zyxvuABCDEFGH'**, it will *not* parse the text **'abcde^zyxvuABCDEFGH'** even though the second fixed field is optional. The reason is that the element's delimiter is ignored within the fixed field because they have the same precedence. If you want the element's delimiter to be examined within the fixed field data, you must change its precedence, for example:

▪ *Root node*

  ◆ element (type delim, delimiter = "^", repeat, **precedence = 11**)

    ◆ field1 (type fixed, length = 5)

    ◆ field2 (type fixed, length = 8, optional)

This will successfully parse the text **'abcde^zyxvuABCDEFGH'**.

5.3.5 **Adding and Editing OTD Segments**

HL7 Library OTDs are made up of various OTDs that correspond to the HL7 message segments. The main HL7 message OTDs contain references to the segment OTDs, which are located in the same HL7 directory.

Editing a Segment

The following example uses the **HL7_25_ADT_A02** OTD. To edit the properties for the specific segment of an OTD, do the following:

1 Once you have determined the OTD segment you want to edit, copy and paste the segment OTD from the Project Explorer's Sun SeeBeyond > OTD Library > HL7 folder to your Project.

2 Make a note of the segment OTD order in the Editor's Object Type Definition pane. It is important to retain the original OTD structure. In the following step you will be deleting a segment OTD from this list, so it is important to make a note of the original segment OTDs location so that you can relocate the edited segment OTD to it's original position in the OTD structure (see **Figure 10 on page 86**).

Figure 10   OTD Segment Location
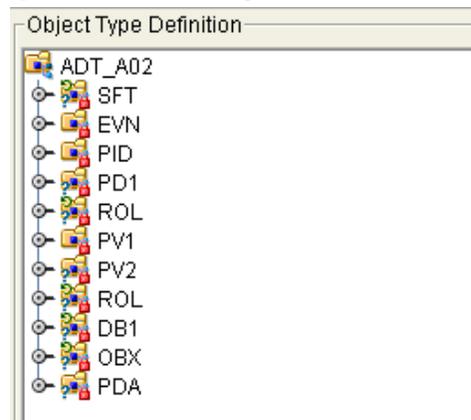
3 From the Internal tab of the Reference pane, delete the SFT segment by right-clicking the segment and selecting **Delete**.

4 From the Object Type Definition pane, delete the SFT segment from the OTD tree. To do this, right-click the segment and selecting **Delete** from the shortcut menu.

5 From the External tab of the Reference pane, delete any one reference of the segment OTD. Doing this will also remove all other references to the segment OTD.

6 To import the segment OTD to your main OTD, click the **Import OTD to External Template** icon. The **Import** dialog box appears.

7 From the **Import** dialog box, locate and select the OTD you want to import from your Project file. Click the **Add** button to add the OTD to the **Select OTD(s) to import** field. Click **Import** (see **Figure 11 on page 87**). The OTD is added to the editor's External tab of the Reference pane.

Figure 11   Import OTD Segment
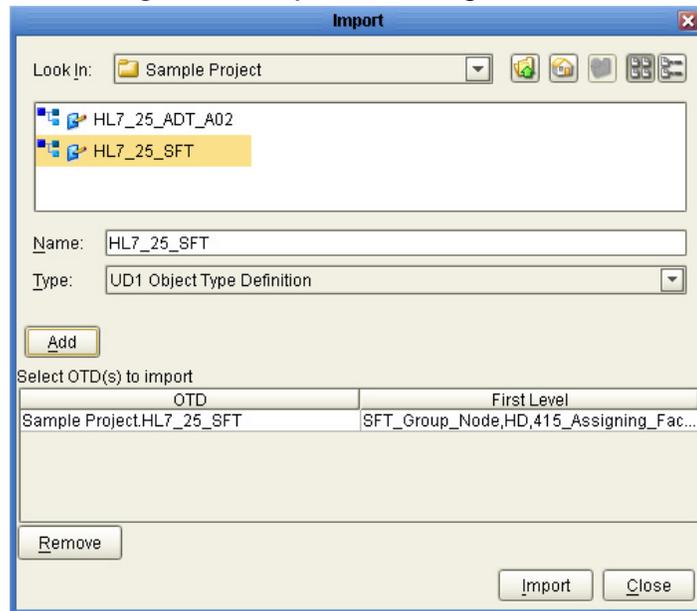
8   From the External tab of the Reference pane, drag and drop the imported segment reference (for this example **HL7_25_SFT/SFT**) onto the Root Node of the Object Type Definition pane. The segment is added to the Object Type Definition tree.

9   From the Object Type Definition tree, right click the segment and select **Level Up** from the shortcut menu to move the segment up the tree. Repeat this step until the new segment is in the same position that the segment you are replacing was in.

10   Save Your changes to the Repository.

You can now open the segment OTD, located in your Project, and edit the properties.

Adding a Segment OTD to a Message OTD

You can also modify an OTD by adding additional segment OTDs to your OTD's external template.

1   Copy and save your OTD and any segment OTDs you wish to import, to your Project. Then, open your OTD in the OTD Editor.

2   From the OTD Editor toolbar, click the **Import OTD to External Template** icon. The **Import** dialog box appears.

3   From the **Import** dialog box, locate and select the OTDs you want to import from your Project file. Click the **Add** button to add the OTD to the **Select OTD(s) to import** field. Click **Import**. The OTD is added to the editor's External tab of the Reference pane.

4   From the External tab of the Reference pane, drag and drop the segment OTD reference onto the Root Node in the Object Type Definition pane. The segment OTD is added to the Object Type Definition tree.

5   Save Your changes to the Repository.

5.3.6 **OTD Properties**

The Object Type Definition pane (center pane) of the OTD Editor displays the nodes, elements, and fields of the OTD. When any of these are selected, the item's properties are displayed in the Properties pane.

Node Properties

When an HL7 OTD is opened in the OTD Editor, the properties of the Root node are displayed in the Properties pane. The configurable node properties are displayed in Table 5.

Table 5   Node Properties

Node Property Descriptions	
name	Node display name. This can be a virtually-arbitrary string.
javaName	Property accessor basename. This is normally derived from the display name, modified to suit the restrictions on Java identifiers, and supplied automatically by eGate.
javaType	Java type; automatically assigned, not editable.
comment	Free-form text (no run-time effect).
delim	Specified delimiter. See **Specifying Delimiters** on page 81.
nodeType	Governs the marshal/unmarshal format. See **Specifying the Node Type** on page 92.
antecoding	Specifies the input data coding (see Specifying Data Encoding on page 219). If this property is not specified, the value specified for the **decoding** property will be used for the input data. This property is displayed only when the top property is set to **true**.
decoding	Specifies the unmarshal coding (see Specifying Data Encoding on page 219). (It is recommended to use UTF-8 for DBCS data, since the hex value of some ASCII delimiter may coincide with a hex value contained within a double-byte character.) This property is displayed only when the top property is set to **true**.
encoding	Specifies the marshal coding (see Specifying Data Encoding on page 219). This property is displayed only when the top property is set to true.
order	Specifies the ordering of the Root node's children: ▪ **seq**: specifies that the child nodes must appear in sequence. ▪ **any**: specifies that the child nodes can appear in any order. ▪ **mix**:

Node Property Descriptions (Continued)	
postcoding	Specifies the output data coding (see Specifying Data Encoding on page 219). If this property is not specified, the value specified for the encoding property will be used for the output data. This property is displayed only when the top property is set to **true**.
public	Reserved for future development
showDelim	If nodeType is delimited.
top	Flag on Root node: support marshal/unmarshal (T/F).

Important: Do not modify the javaName property.

Element Properties

The set of properties associated with the element level is shown in Figure 12.

Figure 12 OTD Editor - OTD Element Properties
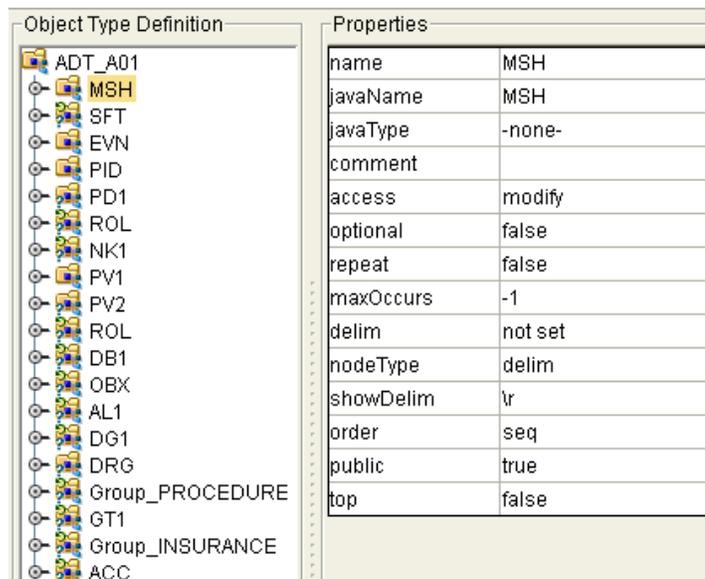
The configurable element properties are displayed in Table 6

Table 6

Element Property Descriptions	
name	Element display name.
javaName	Property accessor basename.
javaType	Java type; automatically assigned, not editable.
comment	Free-form text (no run-time effect).
access	Access specification.

Element Property Descriptions (Continued)	
optional	Flag: Can the element be absent? (T/F) Not applicable to Root, or child of a choice Node.
repeat	Flag: Can the node appear multiple times? (T/F) Not applicable to Root, or child of a choice Node.
maxOccurs	Specifies the maximum number of occurrences of the node if the node is repeating. Property has no effect if node is non-repeating, but may show error during validation if set to value >1.
delim	Delimiter specification (see **Specifying Delimiters** on page 81).
nodeType	Governs the marshal/unmarshal format.
showDelim	If nodeType is delimited,
Public	For future use, not currently active.
Top	Specifies whether or not marshal/unmarshal is supported (**true** or **false**). The default value is **true**.

Important: *Do not modify the javaName property.*

Field Properties

The set of properties associated with the field level is shown in Figure 13.

Figure 13   OTD Editor - OTD Field Properties

The configurable field properties are displayed in Table 7

Table 7

Field Property Descriptions	
name	Field display name.
javaName	Property accessor basename.
javaType	Java type: can be either java.lang.String or byte array (byte[]).
comment	Free-form text (no run-time effect).
access	Access specification.
optional	Specifies whether or not the field can be absent from an instance. Clicking the *Value* field toggles between **true** and **false**. Not applicable if the field is the child of a *choice element* node.
repeat	Specifies whether or not the node can appear multiple times. Clicking the *Value* field toggles between **true** and **false**. Not applicable if the field is the child of a *choice element* node.
maxOccurs	Specifies the maximum number of occurrences of the node if the node is repeating. Property has no effect if node is non-repeating, but may show error during validation if set to value >1.
delim	Delimiter specification (see **Specifying Delimiters** on page 81).
initial	Initial field value, set when the parent node is created or reset. When provided, it is assigned to the node before the node is populated with any data.
match	If **nodeType** is delimited, performs exact match to the data.
nodeType	Governs the marshal/unmarshal format.
align	Specifies the byte alignment criteria for the **match** property.
decoding	Displayed only if nodeType is fixed. Specifies the unmarshal coding. (It is recommended to use UTF-8 for DBCS data, since the hex value of some ASCII delimiter may coincide with a hex value contained within a doublebyte character.)
encoding	Displayed only if nodeType is fixed. Specifies the marshal coding.
length	Displayed only if **nodeType** is *fixed*. Specifies the length of the field; the default value is **0**.

Important: *Do not modify the javaName property.*

5.3.7 Specifying the Node Type

Click on the nodeType properties field to activate the field for editing. Click the arrow button to display the selection menu. Descriptions of the property options are listed in Table 8.

Table 8

Node Type Property Options				
Option	Description	Element	Field	Internal
array	Array is a delimited structure. If repeated, occurrences are separated by the *repeat* delimiter. The last occurrence may be terminated by a *normal* delimiter.	Yes	Yes	simple or group
delim	Delim (*delimited*) structure. If repeated, occurrences are separated by a *normal* delimiter.	Yes	Yes	simple or group
fixed	Fixed indicates a fixed length, which is specified by non-negative integer (or zero to indicate end of parent node data).	Yes	Yes	simple or group
group	Group provides organizational grouping for purposes such as repetition. Applies only to elements.	Yes	No	group
trans	Trans (*transient*) appears only in an internal tree as a scratch pad field. It does not appear in external data representation, and can only have *trans* nodeTypes as children.	Yes	Yes	choice, simple, or group

Note: *If you move an OTD node, you must reset the nodeType for that node.*

Node Management

The OTD Editor allows you to:

- **Add** nodes and elements to an OTD.

- **Delete** nodes and elements from an OTD.

  When a node is *deleted*, both the node and its associated *children* (data elements) are deleted.

- **Prune** nodes in an OTD.

  When a node is *pruned*, only its associated *children* (data elements) are deleted, while the node itself is preserved. Pruning can only be performed on nodes.

These commands are accessed from the node context menu.

5.4 Using the OTD Tester

The OTD Tester allows you to simulate the operation of a Collaboration containing a specific OTD, thereby checking the correctness of the OTD during the design phase. You can enter input data values, perform the unmarshal and marshal operations, and also manipulate the OTD tree structure as a Collaboration might do by using the Add Instance and Delete Instance buttons. By using these latter features, you can prepare an output data file that can then be used as an input data file for testing purposes.

To use the OTD Tester

1 Open an OTD.

2 From the OTD Editor toolbar, click the **Run Test** icon (see Figure 14).

Figure 14 OTD Tester
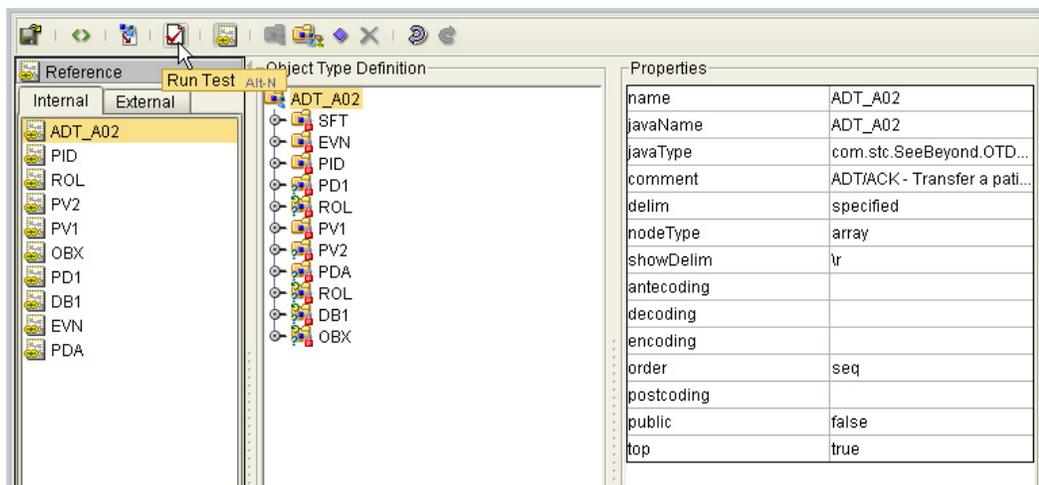
This saves the currently displayed OTD to the Repository and displays the OTD Tester. The OTD Tester appears at the bottom of the OTD editor. Note that the data display panel offers four different data display modes. (see Figure 15). The Input mode is selected by default.

Figure 15 Test Panel Data Display
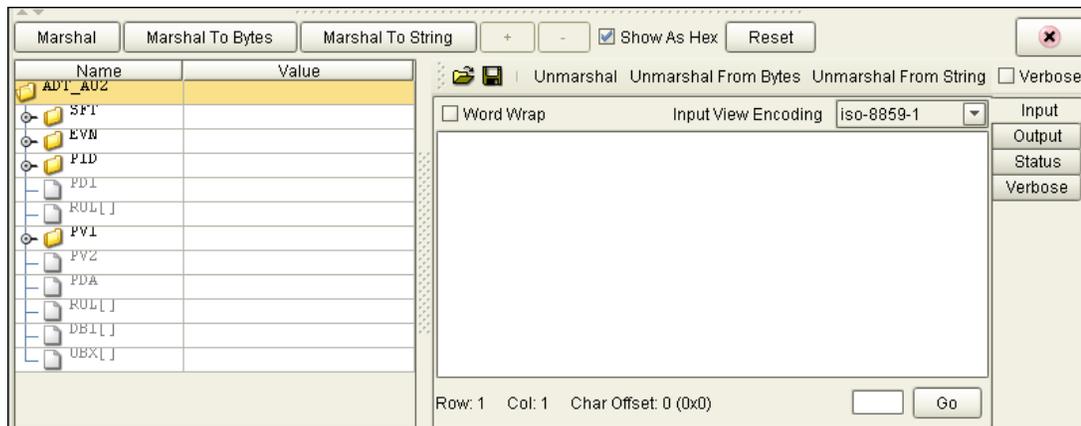
3 You can provide the input test data either by clicking the **Open a file** icon (the open folder) and selecting a data file, or by copying and pasting the data to the OTD Tester data panel.

Testing Data Unmarshal Functionality

4 Click the desired **unmarshal** command to unmarshal the data from the Input panel to the OTD tree.

5 To verify the unmarshal process, check the values of each element for correctness.

Figure 16   Object Elements and Values

6 Save your input test data to a file for re-use by selecting the Input panel and clicking the Save icon.

7 If there are errors in your input data, the Status panel is automatically invoked, displaying the appropriate error messages. Confirmation of correct operation is also reported.

Interpreting Failed Parse Messages Using the Verbose Option

For selected OTDs, the Verbose option provides a trace of parsing actions during the unmarshal process to aid in debugging the OTD structure. Selecting the Verbose check box causes parsing information to appear on the Verbose panel. The format and content of the data display are OTD-specific.

Testing Data Unmarshal Functionality

1 From the OTD Tester, enter or change data values for each node in the Value column of the node table. Use the Add/Delete Instance (+/-) buttons to add or remove instances where appropriate.

2 Specify the appropriate output encoding by selecting the character encoding in the Input View Encoding drop-down menu.

3 Click the desired marshal button to marshal (serialize) the data. The output is displayed in the Output panel

For detailed information on the OTD Tester and its features, see the *Sun SeeBeyond eGate Integrator User's Guide*.

HL7 Methods

This chapter contains information for adding and accessing the HL7 Utility Methods.

Chapter Topics

- **HL7 OTD Library Javadoc** on page 95
- **Importing HL7OTDLibraryUtility.jar** on page 95
- **Adding the HL7 Utility Methods to a Collaboration** on page 96

6.1 HL7 Utility Methods

The **HL7UtilityFunctions** Class contains a number of Java methods that have been exposed to extend the functionality of the HL7 OTDs. These utility functions are available to the Collaborations after the HL7OTDLibraryUtility.jar has been imported to a Project. To view a list of the available methods see the HL7 OTD Library Javadoc.

HL7 OTD Library Javadoc

The HL7 OTD Library Javadoc is uploaded with the Library's documentation file (**HL7OTDLibraryDocs.sar**) and downloaded from the **Documentation** tab of the Enterprise Manager. To access the full Javadoc, extract the Javadoc to an easily accessible folder, and double click the **index.html** file.

6.1.1 Adding the HL7 Utility Functions

To add the HL7 utility functions you must have at least one version of the HL7 OTD Library installed.

Importing HL7OTDLibraryUtility.jar

1   From the Enterprise Designer's Enterprise Explorer tree, right-click an HL7 Project and select **Import > File**. The **Import Files** dialog box appears.

2   Click the **Look In** fields down arrow and browse to the following directory:

```
<JavaCAPS51>\edesigner\usrdir\modules\ext\HL7OTDLibrary
```

where *<JavaCAPS51>* is the directory where the Sun SeeBeyond Java Composite Application Platform Suite is installed.

3   From the selection window below the Look In field, select the
     HL7OTDLibraryUtility.jar file and click **Select**. The **HL7OTDLibraryUtility.jar**
     file is added to the **Selected Import Files** field.

4   Click **Import**. The **HL7OTDLibraryUtility.jar** file is added to the Enterprise
     Explorer tree under the selected Project.

Adding the HL7 Utility Methods to a Collaboration

To add the imported HL7 Utility Methods to a Collaboration do the following:

1   From the Collaboration Editor toolbar, click the **Import Jar File** icon. The **Add/
     Remove Jar Files** dialog box appears. Click **Add**, locate and select the imported
     HL7OTDLibraryUtility.jar file. Click **Close**.

2   From the **Business Rules** pane of the Collaboration Editor, right click the **receive**
     method at the top of the Business Rules tree. From the shortcut menu, select **New >
     Field**. The **Create Field** dialog box appears.

3   Enter the name of the field in the **Name** field (for this example, **HL7_Utilities**).

4   Enter the Modifier values in the **Modifier** section. If you are unsure of the
     appropriate values, leave the default values for the Modifiers section.

5   For **Type** select **Class.** Click the elepsis (...) button, and from the **Class Browser**
     dialog box, select **HL7UtilityFunctions** as the **Class Name** (upper left pane). Click
     Select.

6   Click OK to close the **Create Field** dialog box. The field is added to the Business
     Rules tree and the Business Rules Designer. The HL7 Utility methods can be
     accessed by right-clicking the new field and clicking **Select a method to call** on the
     shortcut menu.

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