Developing OTDs for Communication Adapters

Sun microsystems

Contents

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Developing OTDs for Communication Adapters

The following sections provide instructions on how to develop OTDs for communication adapters.

Understanding the HTTPS OTD

This section helps you understand the functionality of HTTPS OTD.

HTTPS Client OTD

The HTTPS OTD is specific to the HTTPS Adapter. It is used as an inbound or outbound OTD in a Collaboration.

OTDs have a tree-like hierarchical data structure composed of fields containing methods and properties.

The top root element of the OTD is the **HTTPClientApplication** interface, and the fields underneath contain Java methods. You can use these Java methods to create Business Rules that specify the HTTP message format and invoke messaging to and/or from an HTTP server.

To access other Java classes and methods, you can use the Collaboration Editor (Java) to utilize the entire contents available for **HTTPClientApplication**.

HTTP OTD Method Descriptions

The HTTP OTD includes the following methods used in HTTP data exchange:

get
: The method called in the Collaboration (Java) to send an HTTP **get** request to an HTTP server.

post
: The method called in the Collaboration (Java) to send an HTTP **post** request to an HTTP server.

getRequest
: The method called in the Collaboration (Java) for other "request" related helper methods, such as to set the URL, to add properties, and so on.

getResult
: The method called in the Collaboration (Java) for other "respond" related helper methods, such as, to obtain the respond code, respond result, text result, and so on.

For more information on methods available in the HTTP OTDs, see the HTTPS Adapter's **Javadoc**.

HTTPS Server OTD

The HTTPS Server input OTD has two nodes, Request and Response. The Request node contains the data that the HTTPS Server adapter receives from an HTTP client, while the Response node is used to set the HTTP response data that will be sent back to the HTTP client.
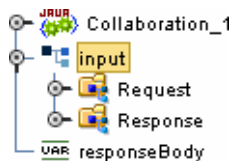
FIGURE 1–1   Input Server OTD
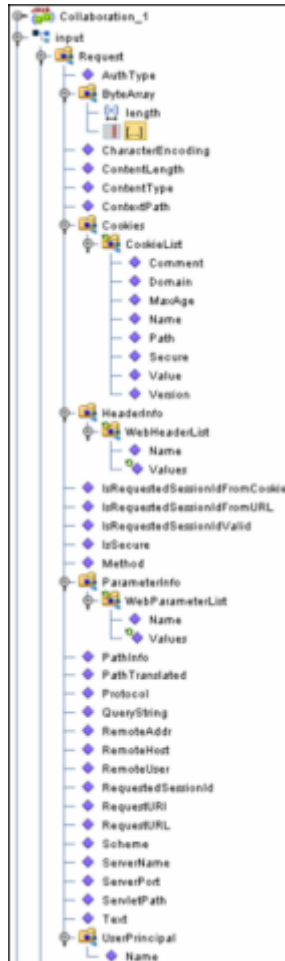
FIGURE 1–2 Input Server Request Node
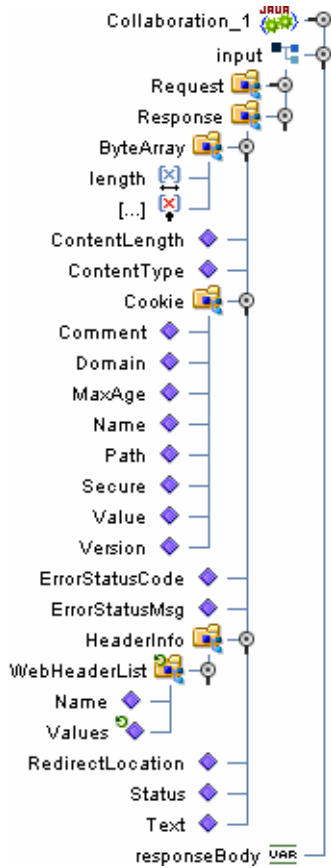
FIGURE 1–3   Input Server Response Node

Working With the Server OTD

Use the OTDs Request and Response nodes to build the logic in your HTTPS Collaborations. The HTTP response is not sent back to the HTTP client until `sendResponse()` method is called on the HTTP server input OTD.
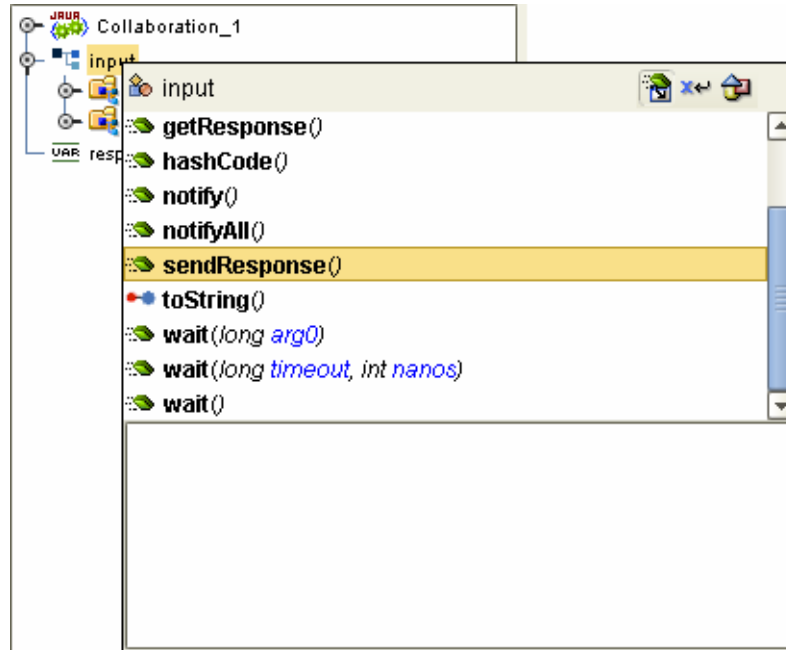
FIGURE 1–4 sendResponse() Method

It is critical that you use this method to send the response back to the client. Otherwise, the client will wait indefinitely for the response. HTTP requires that a response be sent to the client whether the response is a valid application response or an application error response.

Collaboration Example

The following example shows a simple Java Collaboration that retrieves the HTTP method from the Request node through the Method property. This creates an HTML response indicating the HTTP method. This method is retrieved from the request, sets the ContentType property as "text/html" on the Response node. It then sets the Text property with the HTML response, and then calls the sendResponse() method. This is called on the HTTP server input OTD to send the constructed response to the HTTP client.
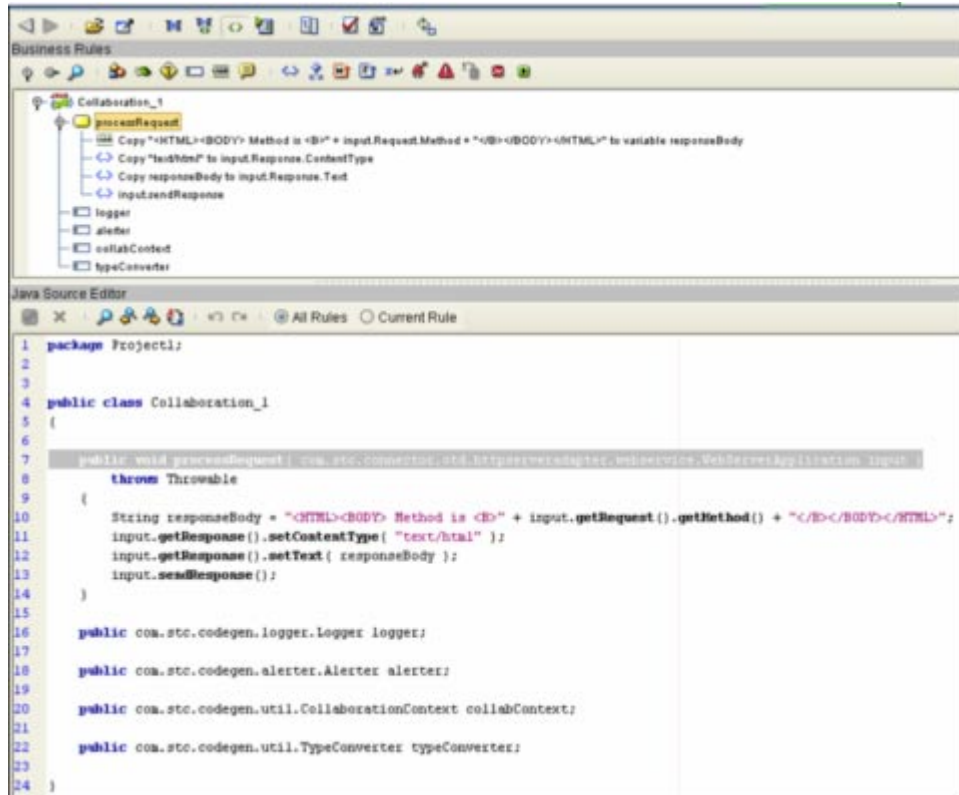
FIGURE 1–5   sendResponse() Example

Using the Batch Adapter OTDs

Overview of the Batch OTDs

An OTD contains a set of rules that define an object. The object encodes data as it travels through OTDs which are used as the basis for creating Collaboration Definitions for a Project.

Each OTD acts as a template with a unique set of features of the adapter. The Batch Adapter OTD template is not customizable and cannot be edited.

The four parts of an OTD are:

- **Element: An element** is the highest level in the OTD tree. The element is the basic container that holds the other parts of the OTD. The element can contain fields and methods.

- **Field**: Fields are used to represent data. A field can contain data in any of the following formats: string, boolean, int, double, or float.
- **Method**: Method nodes represent actual Java methods.
- **Parameter**: Parameter nodes represent the Java methods' parameters.

A high-level view of the OTD folder structure shows methods and attributes you can use in creating Business Rules that invoke FTP, secure FTP, batch record, or local file data exchange.

Types of Batch Adapter OTDs

The figure shows the specialized OTDs available with the adapter.

TABLE 1–1 Batch Adapter OTDs

OTD Name	Description
BatchFTP	Provides FTP access to remote systems.
BatchFTPOverSSL	Provides secure data transfer using FTP over SSL.
BatchSCP	Provides secure data transfer using Secure Copy Protocol with Secure Shell (SSH) as an underlying protocol.
BatchSFTP	Provides secure data transfer using SSH File Transfer Protocol or SFTP protocol.
BatchLocalFile	Provides easy access to local file systems.
BatchRecord	Allows the adapter to parse or create (or both) payloads of records in specified formats.
BatchInbound	Polls for input file, renames the file to a GUID, and triggers the Business Process or Collaboration.

This chapter describes each of these OTDs and how to use them with the adapter.

OTD Functions

OTDs provide the following functions:

- OTD are used in Collaborations to provide platform, system, and program specific functionality that allow you to create Business Rules.
- OTDs contain system specific parameters that can be configured using the Properties Editor.
- OTDs provide access to the information required to interface with specific external application.

All OTDs must be configured and administered using NetBeans IDE. Any client components relevant to these OTDs have their own requirements. See the client system's documentation for details.

For the **BatchFTP**, **BatchLocalFile**, and **BatchRecord** OTDs, only those nodes for which there is a corresponding section in the Environment or Connectivity Map properties (From the Properties Editor) are implemented on the OTD. The remaining nodes are not implemented and are reserved for potential future use.

For the **BatchFTP**, **BatchLocalFile**, and **BatchRecord** OTDs, only those configuration parameters which appear in the Environment or Connectivity Map properties (From the Properties Editor) are supported for use on the OTD. The remaining configuration parameters are not implemented, and are reserved for potential future use. Even though an implemented configuration parameter might be accessed and used from a non-implemented node, such use is not recommended.

BatchFTP OTD

The Batch Adapter includes four OTDs that allow you to perform FTP data-transfer functions. The **BatchFTP** OTD enables the Sun Enterprise Service Bus system to exchange data with other network hosts for the purpose of receiving and delivering objects stored in files. In addition, the **BatchFTPOverSSL**, **BatchSCP**, and **BatchSFTP** OTDs enable secure data transfer between the local host and a remote host using FTP over SSL and SSH.

BatchFTP OTD Structure

The BatchFTP OTD contains three top-level nodes, **Client, Configuration**, **Provider**, **State**, and **StateManager**. Expand these nodes to reveal additional sub-nodes.
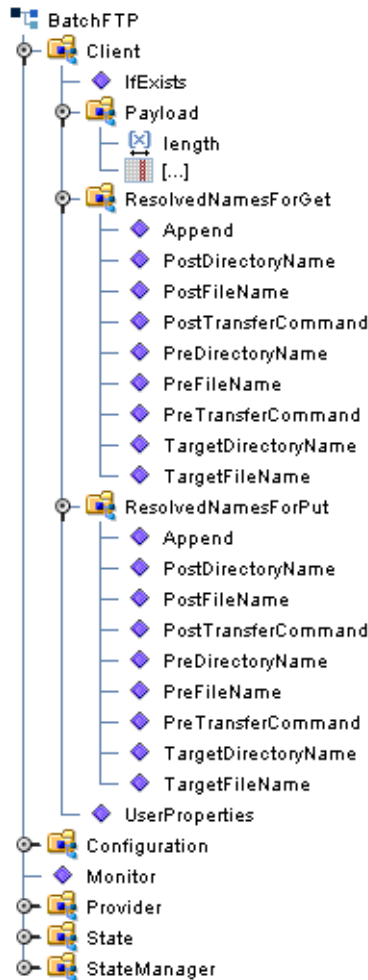
FIGURE 1–6   BatchFTP OTD Structure

Configuration Node

Each field sub-node in the **Configuration** node of the OTD corresponds to one of the adapter's FTP configuration parameters.

Client and Provider Nodes

This OTD includes two additional top-level nodes, the **Client** and **Provider**. These nodes implement their respective functionality interfaces in the adapter.

- The client interface represents how the functionality of the provider is actually used.

- The provider interface represents all of the general FTP operations that can be performed by the OTD.

BatchFTP OTD Node Functions

The following list provides an explanation of various nodes in the BatchFTP OTD, including primary functions:

- **BatchFTP**: Represents the OTD's root node.
- **Configuration**: Each field sub-node within this node corresponds to an adapter configuration parameter and contains settings information.
    - **InputStreamAdapter** and **OutputStreamAdapter**: Allow you to use and control the OTD's data-streaming features.

        Note – This OTD has configuration parameters that can be regular expressions. See "Using Regular Expressions With the Batch Adapter" on page 39 for details.

- **Client**: This node contains the following sub-nodes, which implement the adapter's client interface in the OTD (FtpFileClient):
    - **Payload**: An in-memory buffer that contains the payload or message data you want to transfer by FTP, in the form of a byte array.
    - **UserProperties**: Only used if you have provided a user-defined implementation of the **FtpFileClient** interface; in such cases, the node represents the properties specified in the configuration.

        Note – You can transfer data using the Payload node or by using data streaming (InputStreamAdapter and OutputStreamAdapter nodes), but you cannot use both methods in the same OTD.

    - **ResolvedNamesForGet** and **ResolvedNamesForPut**: Allow you to get the real file or directory name used during a transfer and perform an operation with it. For example, you could do a file transfer, with get() or put(), using the real name. You are able to retrieve the real file or directory name, even if these names have been expressed using regular expressions or special characters.

        These nodes contain sub-nodes that allow you to resolve file and directory names for target destinations, as well as names for pre- and post-transfer commands. See the Pre/Post File Transfer Commands, "Resolving Names" on page 43 for more information on these nodes. Also see "Using Regular Expressions With the Batch Adapter" on page 39 for more information on regular expressions.

- get(), put(), reset(), connect(), disconnect(), and isConnected(): See "Essential BatchFTP OTD Methods" on page 16.

- **Provider**: The sub-nodes contained in this node are methods that implement the adapter's provider interface in this OTD (**FtpFileProvider**). These methods allow you to do the general FTP operations that can be performed using the OTD.

Using the BatchFTP OTD

The BatchFTP OTD nodes allow you to configure specific adapter configuration parameters for the Collaboration controlling the FTP process. Once you have set the configuration parameters, you do not have to define the same parameters in each corresponding adapter component that uses this Collaboration.

Handling Type Conversions

The **Payload** node in the BatchFTP OTD is predefined as a byte array (**byte[]**). This definition allows the adapter to handle both binary and character data.

For example, you could use another OTD (such as an OTD from another adapter or a user-defined OTD) where the "data" node has been defined as a String (**java.lang.String**). If you were to map that String to the BatchFTP OTD's **Payload** node, the Collaboration Editor can do an automatic type conversion and create code similar to that shown in the following example.

Note – You must use care with this feature. While it works in many situations, there can be occasions when the default encoding causes errors in the translation.

Code Conversion and Generation

For example, in a string-to-byte array conversion (or vice versa), the generated Java code could be:

```
getoutput().setPayload(STCTypeConverter.toByteArray
    (getinput().getBlob()));
```

or

```
getinput().setBlob(STCTypeConverter.toString
    (getoutput().getPayload()));
```

If you define the blob data as a byte array, no type conversion is necessary. When there is a conversion, the Collaboration Editor uses the Java Virtual Machine (JVM) default encoding to do the conversion to code, as shown in the previous examples.

Type Conversion Troubleshooting

As explained previously, the default encoding and translation works for many situations. There are cases, however (for example, binary data such as a .zip file), when the encoding could cause errors in the translation. Depending on the data character set and JVM default encoding, you should choose the appropriate encoding. In most cases, using the encoding string "ISO-8859-1" is the best choice.

To use this encoding, you can modify the code manually by adding the encoding String. Taking the previous examples, the resulting code using "ISO-8859-1" is:

```
getoutput().setPayload(STCTypeConverter.toByteArray
    (getinput().getBlob(), "ISO-8859-1"));
```

or

```
getinput().setBlob(STCTypeConverter.toString
    (getoutput().getPayload(), "ISO-8859-1"));
```

Using this String solves this type conversion problem. For more information, see the appropriate JVM encoding reference manuals.

Essential BatchFTP OTD Methods

In addition to the field elements, the BatchFTP OTD's **Client** node contains methods that extend the client interface functionality of the adapter. These methods are essential to the proper use of the OTD and require some additional explanation. They are:

- get(): Retrieves a file from the remote FTP server then stores its contents as a data payload. The method retrieves the first matching file based on the **Target Directory Name** and **Target File Name** parameters and stores the contents as a data payload (a byte array). It then performs any **Post Transfer Command**.

  Note – After this method call, you can get the payload's contents through the method getPayload().

  If no qualified file is available for retrieving, you get the exception containing java.io.FTPFileException as a nested exception.

- **put()**: Places the payload data on the FTP server, that is, it performs an append or put action from the **Payload** node to the remote FTP server and performs any **Post Transfer Command**.

  If no qualified file is available for sending, you get the exception containing java.io.FTPFileException as a nested exception.

> **Note –** When you are using the adapter's data-streaming feature, the get() and put() methods operate differently. See the Streaming Data Between Components section for details on this operation.

- reset(): Allows you to return the **Client** node to its state immediately after the previous initialization.

> **Note –** The reset() method is available in the Batch FTP OTDs and BatchLocalFile OTD. The reset method must be called when the OTD has to be reused for another transfer during the same execution of executeBusinessRules() (for example, when you are using the Dynamic Configuration feature). The reset() method resets the content of the Client node without resetting the whole OTD. If you attempt another transfer without calling reset() first, the system throws an exception and makes an entry in the adapter's error log file.

- restoreConfigValues(): Allows you to restore the configuration parameter defaults to the related adapter configuration.
- connect(), disconnect(), and isConnected(): Perform connection-related operations with respect to the FTP server.

Sequence Numbering

The sequence numbering feature allows you to set up the FTP target directory or file name to contain a sequence number. You can set the starting and maximum sequence numbers using the adapter configuration parameters for the OTD.

This parameter is used for the name pattern %#.

This feature is also available with the BatchLocalFile OTD. For more information on these configuration parameters, see Sequence Numbering (BatchFTP Connectivity Map).

Additional FTP File Transfer Commands

The BatchFTP OTD also allows you to enter commands to be executed directly before and after the file transfer operation. See the Pre/Post File Transfer Commands section for details.

BatchFTPOverSSL OTD

The Batch Secure FTP over SSL OTD (BatchFTPOverSSL) provides secure data transfer using Secure Sockets Layer (SSL) protocol.

For information about configuring external FTP servers, SSL servers, and so forth, refer to the application's documentation.

BatchFTPOverSSL OTD Structure

The BatchFTPOverSSL OTD contains two top-level nodes, **Client** and **Configuration**. Expand these nodes to reveal additional sub-nodes.

FIGURE 1–7　BatchFTPOverSSL OTD Structure

BatchFTPOverSSL OTD Node Functions

The following list provides an explanation of various nodes in the BatchFTPOverSSL OTD, including primary functions:

BatchFTPOverSSL: Represents the OTD's root node.

Configuration Node

The BatchFTPOverSSL sub-nodes under the **Configuration** node correspond to BatchFTPOverSSL adapter's Connectivity Map and Environment configuration parameters.

BatchFTPOverSSL Client Node

The Client node contains sub-nodes that implement the adapter's client interface in the OTDs. The BatchFTPOverSSL Client node includes the following methods:

- `append()`: transfers data to the remote in append mode. The source of the data is determined by the configuration parameters **Local Directory** and **Local File**. If both are empty, then the data is from pay load.
- `connect()`: Connects to the FTP server and does authentication as configured.
- `deleteDir(String dir)`: Deletes the remote directory as specified by the argument.

- `deleteFile(String path)`: Deletes the remote file as specified by the argument.
- `disconnect()`: Disconnects from the FTP server.
- `doRawCommands(String commands)`: Specifies the raw commands.
- `download()`: Downloads data from the remote (specified in configuration parameters **Remote Directory** and **Remote File**) to the local (specified in configuration parameters **Local Directory** and **Local File**).
- `get()`: Copies the file or directory specified by the configuration parameters **Remote Directory** and **Remote File**, to the local, as specified by the configuration parameters **Local Directory** and **Local File**. If the configuration parameter, **Is Copy Recursive**, is set to **Yes**, the copy will be recursive.
- `getEntry()`: Gets the index entry in the current entry list.
- `getEntryCount()`: Returns the count of directory entries, as the result of invoking **listDir** or **listDirLong**.
- `getLastReply()`: Gets the FTP response code as a String.
- `getPayload()`: Returns the payload.
- `hasEntry()`: Returns **false** if there is more to the entry in the directory listing result list (when the result list is exhausted), and calls **resetEntries** to re-iterate the result list again.
- `getResolvedLocalDirectory()`: Returns the resolved local directory name.
- `getResolvedLocalFile()`: Returns the resolved local file name.
- `getResolvedRemoteDirectory()`: Returns the resolved remote directory name.
- `getResolvedRemoteFile()`: Returns the resolved remote file name.
- `hasEntry()`: Returns whether the current entry list has entries.
- `isConnected()`: Determines if the Java Integration Suite is connected to the FTP server.
- `listDir()`: Returns the entry under the remote directory (specified in configuration parameters **Remote Directory** and **Remote File**). The entry only contains the name. After this method is invoked, use methods such as **hasEntry**, **nextEntry**, **getEntry**, **getEntryCount**, and so forth. to iterate the entry information.
- `listDirLong()`: Returns the entries under the remote directory (specified in configuration parameters **Remote Directory** and `Remote File`). The entry contains details such as **name**, **size**, **time stamp**, **is directory or not**, and so forth. After this method is invoked, use methods such as **hasEntry**, **nextEntry**, **getEntry**, **getEntryCount**, and so forth, to iterate the entry information.
- `mkdir(String dir)`: Creates a directory on the remote. The name of the directory is specified in the configuration parameters.
- `nextEntry()`: Returns the next entry in the result list.
- `put()`: Same as **get**, but the data transfer is from local to remote.
- `renameFile(String newName)`: Renames the file specified by the configuration parameters **Remote Directory** and **Remote File** to a new name (arg).

- reset(): Resets the internal life cycle methods, such as discard payload buffer.
- resetEntries(): Resets the result list iterator so that it can be iterated again.
- resolveLocalAsDestination(): Resolves the local directory name and local file name if they are patterns (used to generate real directory and file name for data transfer destination), upon the success of the resolution.
- resolveLocalAsSource(): Resolves the local directory and file if they are regular expressions (filters for data transfer source); upon the success of the resolution.
- resolveRemoteAsDestination(): Resolves the remote directory name and remote file name if they are patterns (used to generate real directory and file name for data transfer destination), upon the success of the resolution.
- resolveRemoteAsSource(): Resolves the remote directory and file if they are regular expressions (filters for data transfer source); upon the success of the resolution.
- setpayload(byte[] newPayload): Sets the payload as specified by the argument.
- setResolvedLocalDirectory(String s): Sets the resolved local directory name.
- setResolvedLocalFile(String s): Sets the resolved local file name.
- setResolvedRemoteDirectory(String s): Sets the resolved remote directory name.
- setResolvedRemoteFile(String s): Sets the resolved remote file name.
- upload(): Uploads data from the local (specified in configuration parameters **Local Directory** and **Local File**) to the remote (specified in configuration parameters **Remote Directory** and **Remote File**).

Note – See the Batch adapter Javadoc for a list of all exposed FTPOverSSLClient methods.

BatchSFTP OTD

The Batch Secure SFTP OTD (BatchSFTP) provides secure data transfer using SSH File Transfer Protocol or SFTP. SFTP provides a range of operations on remote files, such as resuming interrupted transfers, directory listings, and remote file removal.

SFTP is one means of securely transferring computer files between a local and a remote host or between two remote hosts, using the Secure Shell (SSH) protocol. The BatchSFTP OTD uses SFTP to copy a file to or from a remote host.

BatchSFTP OTD Structure

The BatchSFTP OTD contains two top-level nodes, **Client** and **Configuration** (see the following figure). Expand these nodes to reveal additional sub-nodes.
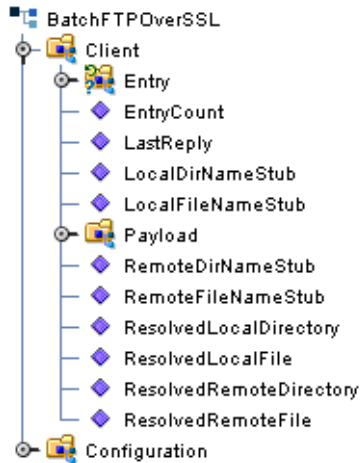
FIGURE 1–8   BatchSFTP OTD Structure

BatchSFTP OTD Node Functions

The following list provides an explanation of various nodes in the BatchSFTP OTD, including primary functions:

BatchSFTP: Represents the OTD's root node.

Configuration Node

The BatchSFTP sub-nodes under the **Configuration** node correspond to the BatchSFTP adapter's Connectivity Map and Environment configuration parameters.

BatchSFTP Client Node

The BatchSFTP OTD's Client node includes the following methods:

- `cd(String dir)`: Changes the remote current directory to the specified path.
- `connect()`: Connects to the remote SSH server and does authentication as configured.
- `delete()`: Deletes remote files specified by configuration parameters *RemoteDirectory* and *RemoteFile.*
- `delete(String file)`: Deletes remote files specified by file.
- `disconnect()`: Disconnects the client from the remote SSH server.
- `get()`: Copies data from a remote SSH server (specified by configuration parameters RemoteDirectory and RemoteFile) to the local machine. Depending on the current status of the configuration, the remote data can be stored into the payload (in memory buffer) or a local file specified by configuration parameters LocalDirectory and LocalFile.

> **Note –** The remote could be a folder. In this case, if the configuration parameter Recursive is "Yes", the folder hierarchy is copied to the local destination.

- `getEntry(int index)`: Gets the index entry in the current entry list.
- `getEntryCount()`: Returns the number of entries in the current entry list.
- `getPayload()`: Returns the payload.

> **Note –** If you call `getPayload()` when using the BatchSFTP OTD, and the Local Directory and Local Filename are set, `getPayload()` returns null, even if a file has been retrieved.

- `getResolvedLocalDirectory()`: Returns the resolved local directory name.
- `getResolvedLocalFile()`: Returns the resolved local file name.
- `getResolvedRemoteDirectory()`: Returns the resolved remote directory name.
- `getResolvedRemoteFile()`: Returns the resolved remote file name.
- `hasEntry()`: Returns whether the current entry list has entries.
- `isConnected()`: Determines if the Java Integration Suite is connected to the SSH server.
- `lcd(String dir)`: Changes the local current directory.
- `listDir()`: Lists all the entries under remote current directory.
- `lpwd()`: Returns the local current path.
- `mkdir()`: Creates a directory on the remote. The name of the directory is specified in the properties.
- `mkdir(String dir)`: Creates a directory on the remote using the name specified in the configuration parameters, **Remote Directory** and **Remote File**.
- `nextEntry()`: Returns the next entry in the current entry list.
- `put()`: Copies local data (specified by configuration parameters LocalDirectory and LocalFile) to the remote SSH server (specified by configuration parameters RemoteDirectory and RemoteFile). Depending on the current status of the configuration, the local data can be from either a payload or local file.

> **Note –** The local could be a folder. In this case, if the configuration parameter Recursive is "Yes", the folder hierarchy is copied to the remote destination.

- `pwd()`: Returns the remote current path.
- `rename(String newPath)`: Renames the file or directory specified by the old name (first argument), to new name (second argument).

- `rename(String oldPath, String newPath)`: Renames the file or directory specified by configuration parameters, **Remote Directory** and **Remote File**, to new name (argument).
- `reset()`: Resets the internal life cycle methods, such as discard payload buffer.
- `resetEntries()`: Resets the current entry list so that next call to `nextEntry()` will return the first entry in the list.
- `resolveLocalAsDestination()`: Resolves the local directory name and local file name if they are patterns (used to generate real directory and file name for data transfer destination), upon the success of the resolution.
- `resolveLocalAsSource()`: Resolves the local directory and file if they are regular expressions (filters for data transfer source); upon the success of the resolution.
- `resolveRemoteAsDestination()`: Resolves the remote directory name and remote file name if they are patterns (used to generate real directory and file name for data transfer destination), upon the success of the resolution.
- `resolveRemoteAsSource()`: Resolves the remote directory and file if they are regular expressions (filters for data transfer source); upon the success of the resolution.
- `setpayload(byte[] newPayload)`: Sets the payload.
- `setResolvedLocalDirectory(String s)`: Sets the current resolved local directory name.
- `setResolvedLocalFile(String s)`: Sets the current local file name to s, should not be invoked directly from user Collaboration.
- `setResolvedRemoteDirectory(String s)`: Sets the current resolved remote directory name.
- `setResolvedRemoteFile(String s)`: Sets the current resolved remote file name.

Note – See the Batch adapter Javadoc for a list of all exposed SFTPClient methods.

BatchSCP OTD

The Batch Secure SCP OTD (BatchSCP) provides secure data transfer using Secure Copy Protocol with Secure Shell (SSH) as an underlying protocol. SCP is similar to RCP (remote copy), but the file is copied over secure shell (SSH) rather than RSH (remote shell). When files are copied using SCP the data is encrypted during transfer.

For information about configuring external FTP servers, SSH servers, and so forth, refer to the application's documentation.

BatchSCP OTD Structure

The BatchSCP OTD contains two top-level nodes, **Client** and **Configuration** (see the following figure). Expand these nodes to reveal additional sub-nodes.

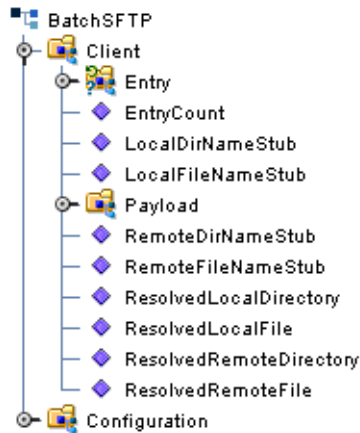**FIGURE 1–9**   BatchSCP OTD Structure

BatchSCP OTD Node Functions

The following list provides an explanation of various nodes in the BatchSCP OTD, including primary functions:

BatchSCP: Represents the OTD's root node.

Configuration Node

The BatchSCP sub-nodes under the **Configuration** node correspond to BatchSCP adapter's Connectivity Map and Environment configuration parameters.

BatchSCP Client Node

The BatchSCP OTD's Client node includes the following methods:

- `connect()`: Connects to the SSH server and does authentication as configured.
- `disconnect()`: Disconnects from the SSH server.
- `get()`: Copies the file or directory specified by the configuration parameters, **Remote Directory** and **Remote File**, to the local, as specified by configuration parameters **Local Directory** and **Local File**. If the configuration parameter, **Is Copy Recursive**, is set to **Yes**, the copy will be recursive.
- `getPayload()`: Returns the payload buffer as a byte array.
- `getRecursive()`: Copies data from remote to local with configuration parameter Recursive set to "Yes".
- `isConnected()`: Checks whether the client is connected to the SSH server.
- `put()`: Copies local data (specified by configuration parameters *LocalDirectory* and *LocalFile*) to the remote SSH server (specified by configuration parameters RemoteDirectory and RemoteFile).
- `putRecursive()`: Copies data from local to remote with the configuration parameter Recursive set to "Yes".
- `setpayload(byte[] newPayload)`: Sets the payload.

Note – See the Batch adapter Javadoc for a list of all exposed SCPClient methods.

BatchLocalFile OTD

The BatchLocalFile OTD provides access to files on your local system. While file access is not always necessary in the Sun Enterprise Service Bus, it makes sense for the Batch Adapter to have this feature because file processing is one of its core functions.

Additional BatchLocalFile features include regular expressions for accessing files and a sequence-numbering scheme for creating files.

BatchLocalFile OTD Structure

The BatchLocalFile OTD contains four top-level nodes, **Client**, **Configuration**, **PersistentState**, and **State Manager**. Expand these nodes to reveal additional sub-nodes.
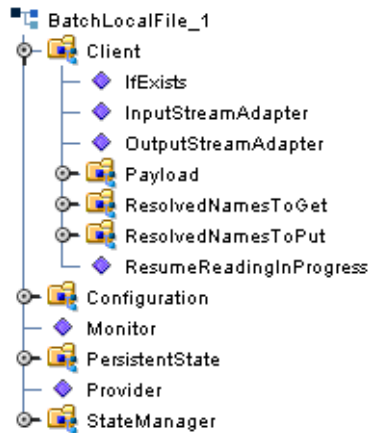
FIGURE 1–10   BatchLocalFile OTD Structure

Configuration Node

As it iw with each of the Batch OTDs, each field sub-node under the **Configuration** node in the BatchLocalFile OTD corresponds to one of the adapter's configuration parameters for that OTD. See the BatchLocalFile Connectivity Map Properties for details.

Client Node

This OTD includes an additional top-level node, the **Client**. This node implements its respective functionality interface in the adapter.

The client interface represents how the functionality of the OTD is actually used. This functionality includes the basic operations and features of the OTD. The client interface provides the OTD's the file services those who want to use them.

BatchLocalFile OTD Node Functions

The following list explains the nodes in the BatchLocalFile OTD, including primary functions:

- **Configuration**: The field sub-nodes within this node corresponds to an adapter configuration parameter and contains the corresponding settings information. See the BatchLocalFile Connectivity Map Properties section for details on these parameters and settings.

   Note – This OTD has configuration parameters that can be regular expressions. See "Using Regular Expressions With the Batch Adapter" on page 39 for details.

- **Client**: The following sub-nodes, contained in this node, implement the adapter's client interface in the OTD (**LocalFileClient**):

- **ResolvedNamesToGet** and **ResolvedNamesToPut**: Allow you to get the real file or directory name used during a transfer and perform an operation with it. For example, you could do a local file transfer, with get() or put(), using the real name. You are able to retrieve the real file or directory name, even if these names have been expressed using regular expressions or special characters.These nodes contain sub-nodes allowing you to resolve file and directory names for target destinations, as well as names for pre- and post-transfer commands (see the Pre/Post File Transfer Commands section for details).

  See "Using Regular Expressions With the Batch Adapter" on page 39 and "Using Name Patterns With the Batch Adapter" on page 42 for more information on these features.

- **InputStreamAdapter** and **OutputStreamAdapter**: Allow you to use and control the OTD's data-streaming features; see the Streaming Data Between Components section for details.

- **Payload:** An in-memory buffer that contains the payload or message data you want to transfer by local file, in the form of a byte array.

- get(), put(), and reset(): See "Essential BatchLocalFile OTD Methods" on page 29.

- **ResumeReadingInProgress**: This node allows you to resume a data-streaming file transfer operation that was interrupted for whatever reason. These transfers occur piece by piece and usually involve large files. This feature allows you to resume at the same point where the transfer left off when it stopped.

Note – You can transfer data using the Payload node or by using data streaming (InputStreamAdapter and OutputStreamAdapter nodes), but you cannot use both methods in the same OTD.

Using the BatchLocalFile OTD

This section explains how to use the BatchLocalFile OTD's features.

There is no required particular order for the calls that can be made on the BatchLocalFile OTD. The only required call is reset() after a transfer, if it is used for more than one transfer per Collaboration Rule execution. An example of this would be a dynamic batch order with multiple files to be transferred.

If you are using a Java Collaboration to generate multiple files with sequence numbers, using the BatchLocalFile interface, you must call the reset() method to indicate the end of one file and the start of the next one.

BatchLocalFile Specific Features

Using the BatchLocalFile OTD to read records from a local file has the following advantages:

- **Data Streaming**: Allows your application to stream data directly to and from a local file system when used together with the BatchFTP OTD or the record-processing OTD. This feature minimizes the required RAM when large files are read, because the entire file is never loaded in memory.
- **Resume Reading**: Allows your application to read large files in a number of subsequent Business Rule executions, when you are using data streaming. This operation is achieved by persisting information about the current successful file read operation and resuming the next read operation from that last stored position.

Pre/Post File Transfer Commands

The adapter has features that allow you to execute desired actions directly before or after the actual file transfer. You can enter these settings at the adapter configuration parameters or in the Configuration node of the desired OTD.

These features are available with both the BatchLocalFile OTD and the BatchFTP OTD.

Pre Commands

For an inbound transfer, the file can be made unavailable to other clients polling the target system with the same directory and file pattern or name (Rename). For an outbound transfer, you can perform an automatic backup of the existing file (Copy).

Your pre-transfer options are:

- **Rename**: Rename the target file for protection or recovery; you must provide a desired directory and file name. The directory is created if it does not already exist.
- **Copy**: Copy the target file for backup or recovery; you must enter a desired directory and file name.
- **None**: Do nothing.

> **Caution** – Each FTP server can behave differently when you are using Rename and a destination file already exists. For example, for some UNIX FTP servers, the destination file is overwritten without question. That is, no error or warning message is given. On other FTP servers, a Windows XP server for example, the system generates an error that results in exceptions being thrown in the called OTD method.Be sure you are familiar with the native behavior of the corresponding FTP server. If you are in doubt, try the action at the command prompt. If the action displays an error message, it is likely to result in the throwing of an exception in the Collaboration.

To gain proper protection, backup, or recovery, you must choose the appropriate setting that serves your purpose. For example, to recover from failures on an outbound appending transfer, use the **Copy** setting. When specifying file and directory names you can use regular expressions, special characters, or both.

Post Commands

For an inbound transfer, you can mark the transferred file as "consumed" by making an automatic backup (**Rename**) or by destroying it permanently (**Delete**). For an outbound transfer, you can make the transferred file available to other clients by renaming it. When specifying file and directory names you can use regular expressions, special characters, or both.

Your post-transfer options are:

- **Rename**: Rename the transferred file; you must provide a desired directory and file name.
- **Delete**: Delete the transferred file (inbound transfers only).
- **None**: Do nothing.

> **Note –** For an outbound transfer (publishing), the directory is created if it does not already exist.

For more information on Pre and Post Transfer commands see the following:

BatchFTP OTD

- Pre Transfer (BatchFTP Connectivity Map)
- Post Transfer (BatchFTP Connectivity Map)

BatchLocalFile OTD

- Pre Transfer (BatchLocalFile Connectivity Map)
- Post Transfer (BatchLocalFile Connectivity Map)

Essential BatchLocalFile OTD Methods

In addition to the field elements, the BatchLocalFile OTD's **Client** node contains methods that extend the client interface functionality of the adapter. These methods are essential to the proper use of the OTD. These methods include:

- `get()`: Retrieves a local file then stores its contents as a data payload. The method retrieves the first matching file based on the **Target Directory Name** and **Target File Name** parameters and stores the contents as a data payload (a byte array). It then performs any **Post Transfer Command**.

  After this method call, you can get the payload's contents through the method `getPayload()`.

- `put()`: Stores the data payload (as a byte array) to a file. It then performs any **Post Transfer Command**.

  Before using this method call, you must set the file contents using the method `setPayload()`.

The method throws an exception (**LocalFileException**) if an error occurs.

- `reset()`: Allows you to return the **Client** node to its state immediately after the previous initialization.

Note – The `reset()` method is available in both BatchFTP and BatchLocalFile OTDs. It must be called when the OTD has to be reused for another transfer during the same execution of executeBusinessRules() (for example, when you are using the Dynamic Configuration feature). The `reset()` method resets the content of the Client node without resetting the whole OTD.

Resume Reading Feature

The purpose of this feature is to allow an application to read large files in parts instead of processing the whole file at once. Resume Reading allows your system to read files in a number of subsequent Business Rule executions, when you are using data streaming.

General Operation

The Resume Reading feature's operation is achieved by keeping persistent information about the current successful file read operation, breaking, then resuming the next read operation from that last stored break position. As a result, the current file is read in parts, and the beginning and end of each part is determined by a predefined *break condition*.

You determine the break condition through the definition of your Business Rules. Since the Resume Reading feature operates based on reading one part of a file at a time per Business Rule, these rules must determine the break. Each Business Rule executes reading a part of the file, breaks, then passes to the next rule, which reads the next part up to the break, and so on, until the entire file is read.

A break condition can be any type of stopping point you determine in your Collaboration Rules. For example, this condition could be a fixed number of records, a delimiter, or reaching a specific character string.

The **Client** node in the OTD has a read-only property (**ResumeReadingInProgress** node) indicating whether there is a resume-reading operation in progress. This node is for informational purposes only. Also, the Resume Reading feature is available in the data-streaming mode only.

The feature has no special operational requirements besides setting the adapter configuration option. The adapter configuration has an option to enable or disable this feature. This option is also accessible at run time.

Note – If this feature is enabled, the adapter always checks first for a resume-reading operation in progress. If this feature is not in progress, the adapter determines the next file based on the adapter configuration settings.

Step-by-step Operation

The figure shows how the Resume Reading feature operates along with pre- and post-file-transfer commands. In this example, the Collaboration executes the same Business Rule four times. Each execution causes the Collaboration to read another section of the file. When the Collaboration reads the final records, it executes the Post-Transfer commands

FIGURE 1–11   Resume Reading Operation

In this example, the reading happens in the following steps:

1. The adapter starts reading the file then reaches a break condition after a partial data read (the end of **Part 1**), the adapter's pre-transfer commands have already been executed. The resume-reading state is stored, and no post-transfer commands are executed. The adapter is waiting for the next execution of the Business Rule.

2. The resume-reading operation is in progress but still attains only partial data reads. The adapter reads from one break condition to the next (**Part 2** and **Part 3** in the figure) The resume-reading state is stored in each case, and the adapter executes the Business Rule once per each part.

3. The resume-reading operation is in progress and completes its data read during the final execution of the Business Rule (**Part 4**). The adapter reads from a break condition to the end of a file. No resume-reading state is stored, and any post-transfer commands are then executed.

In all of the previous steps, the Business Rule is executed repeatedly, and the current read position in the file changes on each execution. If the file is smaller than **Part 1** in the figure, the adapter does not reach a break condition. The operation is normal, and no resume-reading state is stored. The pre- and post-transfer commands are executed.

Operation Without Resume Reading Enabled

If the Resume Reading feature is not enabled:

- **Data-read Stop Then Restart**: Any unread data at the end of the file is ignored.
- **Resume Reading in Progress**: If there is a resume-reading operation in progress from a previous execution, an error is generated, and an exception is thrown.

Note – If there is a resume-reading operation in progress it cannot be interrupted and must be completed. The `executeBusinessRules()` method must be called enough times to fully consume the file. In other words, do not discontinue processing the file before it has been completely consumed.

To Avoid Storing a Resume Reading State

Sometimes a partial data-stream read is necessary even when the Resume Reading feature is enabled. For example, there could be some application logic on top of the record parsers, which might abandon the rest of the file because of a corrupted record and close the file successfully after reading only part of the file's content.

In this case, you must set the **LocalFileOTD.Configuration.ResumeReading** node to **False** before calling **finish()**. This setting tells the BatchLocalFile OTD to complete the operation without storing a resume-reading state. You can set up the Collaboration Rule to then send notifications or take other measures, as desired.

Data Stream-adapter Provider

You can use the BatchLocalFile OTD to implement the adapter's data streaming feature. This feature is also available with the FTP and record-processing OTDs. However, the BatchLocalFile OTD is a data stream-adapter provider, while the other two OTDs are only consumers. See Streaming Data Between Components for details on how to use the OTD's data streaming feature.

Sequence Numbering

Sequence numbering for the BatchLocalFile OTD operates similar to sequence numbering for the BatchFTP OTD. See for details.

Generating Multiple Files with Sequence Numbering

When using a Java Collaboration to generate multiple files that have sequence numbering using the BatchLocalFile interface, reset() must be called to signify the end of one file and the start of the next.

Handling Type Conversions

This feature in this OTD operates in the same way as type conversion for the BatchFTP OTD. See "Handling Type Conversions" on page 15 for details.

Recommended Practice

To parse records or construct payloads in your Collaboration, we recommend that you use the record-processing BatchRecord OTD together with the BatchLocalFile OTD. Using the two OTD together provides a number of advantages over just using the BatchFTP OTD.

Example 1: Parsing a Large File

For example, you have set up a Collaboration Rule to parse a large file and submit the records to a database or a JMS IQ Manager. If something goes wrong during the parsing process, the whole file needs to be transmitted again from the FTP server.

In contrast, streaming from a local file system can avoid later FTP transfers of the same file in case of error. This approach has the advantage of allowing you to use data streaming and the Resume Reading feature with large files (see Streaming Data Between Components and Resume Reading Feature.

Example 2: Slow and Complex Query

Another scenario could be a case where a slow, complex SQL query is used to retrieve a number of records. The Collaboration Rule packs them into a **Payload** node using the record-processing OTD then sends them through FTP to an external system. If the FTP transfer fails, the SQL query must be executed again.

In contrast, if the data payload has been stored locally with the BatchLocalFile OTD, the FTP transfer can be repeated without the need to re-execute the SQL query. In such cases, you can also use data streaming and local-file appending.

In both cases, the use of a data-streaming link can significantly reduce the memory requirements compared to the in-memory data-payload transfer used with the BatchFTP OTD.

OTD Limitations

The BatchLocalFile OTD supports mapped drives and NFS mounted drives. It does not, however, support the mapping of the drives. That is, the drive must already be mapped or mounted. The adapter itself does not perform any mapping or mounting.

The OTD supports Universal Reference Identifiers (URIs) but the scheme must be left off, for example,`\\drive\directory\file_name`.

BatchRecord OTD

BatchRecord, the Batch Adapter's record-processing OTD, allows you to parse (extract) *records* from an incoming payload (payload data) or to create an outgoing payload consisting of records. Understanding the operation of this OTD and how to use it requires an explanation of some of these terms.

The word payload here refers to an in-memory buffer, that is, a sequence of bytes or a stream. Also, *records* in this context are not records in the database sense. Instead, a record simply means a sequence of bytes with a known and simple structure, for example, fixed-length or delimited records.

For example, each of the following record types can be parsed or created by this OTD:

- A large data file that contains a number of SAP IDocs, each with 1024 bytes in length.
- A data file that contains a large number of X12 purchase orders, each terminated by a special sequence of bytes.

The record-processing OTD can handle records in the following formats:

- **Fixed length**: Each record in the payload is exactly the same size.
- **Delimited**: Each record is followed by a specific sequence of bytes, for example, CR,LF.
- **Single**: The entire payload is the record.

When using character delimiters with DBCS data, use single byte character(s) or equivalent hex values with hex values that do not coincide with either byte of the double byte character.

BatchRecord OTD Structure

The BatchRecord OTD contains two top-level nodes, **Client**, **Configuration**, **PersistentState**, and **StateManager** (see the following figure). Expand these nodes to reveal additional sub-nodes.
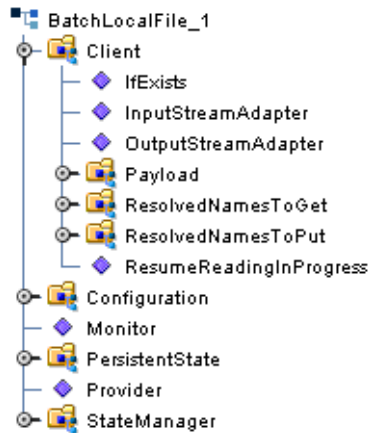
FIGURE 1–12   BatchRecord OTD Structure

OTD Structure and Operation

Each field node under the **Configuration** node of the OTD, corresponds to one of the adapter's record-processing configuration parameters.

Record-Processing OTD Node Functions

The following list explains these primary nodes in the record-processing OTD, including their functions:

- **BatchRecord**: Represents the OTD's root node.

- **Configuration**: Each sub-node within this node corresponds to an adapter configuration parameter and contains the corresponding settings information, except for the **Parse or Create** parameter. See BatchRecord Connectivity Map Properties for details.

    - **InputStreamAdapter** and **OutputStreamAdapter**: Allow you to use and control the data-streaming features of the OTD. For details on their operation, see Streaming Data Between Components.

        Note – You can transfer data using the Payload node or by using data streaming (InputStreamAdapter and OutputStreamAdapter nodes), but you cannot use both methods in the same OTD.

        For the record-processing OTD, these configuration nodes are read-only. They are provided only for the purpose of accessing and checking the configuration information at run time.

- **Record**: A properties node that represents either:

- The current record just retrieved through the get() method, if the call succeeded
- The current record to be added to the data payload when put() is called

- **Payload**: The in-memory buffer containing the data payload byte array you are parsing or creating.

⚠️ **Caution** – It is a good practice to use a byte array in all cases. Failure to do so can cause loss of data.

- put(): Adds whatever is currently in the **Record** node to the data payload. The method returns **true** if the call is successful.
- get(): Retrieves the next record from the data payload (or stream), and populates the **Record** node with the record retrieved. get() returns **true** if the call is successful.
- finish(): Allows you to indicate a successful completion of either a parse or create loop for both put() and get().

Note – Use reset() to indicate any errors and to allow the OTD to clean up any unneeded internal data structures.

Using the Record-Processing OTD

This OTD has the following basic uses:

- **Parsing a payload**: When the payload comes from an external system
- **Creating a payload**: Before sending the payload to an external system

A single instance of the OTD is not designed to be used for both purposes at the same time in the same Collaboration. To enforce this restriction, there is a setting under the adapter's General Settings parameters called **Parse or Create Mode, for which you can select either Parse or Create**.

Using get() and put()

The get() and put() methods are the heart of the OTD's functionality. If you call either method, the record retrieved or added is assumed to be of the type specified in the adapter configuration, for example, fixed-length or delimited.

The get() method can throw an exception, but generally this action only happens when there is a severe failure. One such failure is an attempt to call get() before the payload data (or stream if you are streaming) has been set. However, the best practice is to code the Collaboration to check the return value from a get() call. A return of **true** means a successful get operation; a **false** means the opposite.

Choosing the Parse or Create Mode

The adapter checks to ensure that the proper calls are made according to your mode setting. For example, calling put() in a parse-mode environment would cause the adapter to throw an exception with an appropriate error message explaining why. Calling get() in the create mode would also result in an error.

The adapter requires these restrictions because:

- If you are processing an inbound payload, you are calling get() to extract records from the payload (parsing). In this situation it makes little sense to call put(). Doing so at this point would alter the payload while you are trying to extract records from it. Calling put() would overwrite the payload and destroy the data you are trying to obtain.

- Conversely, when you are creating a payload by calling put(), you have no need to extract or parse data at this point. Therefore, you cannot call get().

As a result, you can place the OTD on the source or destination side of a given Collaboration, as desired, and use the OTD for either parsing or creating a payload. However, you cannot parse and create at the same time. Implement your OTD in a Collaboration using the Collaboration Rules Editor.

Creating a Payload

When you want the payload data sent to an external system, you can place the OTD on the outbound side of the Collaboration interfacing with that system. Successive calls to put() build up the payload data in the format defined in the adapter configuration.

Once all the records have been added to the payload, you can drag and drop the payload onto the node or nodes that represent the Collaboration's outbound destination. Also, you can set an output stream as the payload's destination (see Table 1–3 for details on payload streaming).

When you are building a data payload, you must take into account the type and format of the data you are sending. The adapter allows you to use the following formats:

- **Single Record**: This type of payload represents a single record to be sent. Each successive call to put() has the effect of growing the payload by the size of the data being put, and the payload is one contiguous stream of bytes.

- **Fixed-size Records**: This type of payload is made up of records, with each being exactly the same size. An attempt to put() a record that is not of the size specified causes an exception to be thrown.

- **Delimited Records**: This type of payload is made up of records that have a delimiter at the end. Each record can be a different size. Do not add any delimiters to this data type when it is passed to put(). The delimiters are added automatically by the adapter.

- **User Defined**: In this type of payload, the semantics are fully controlled by your own implementation.

Parsing a Payload

To represent payload data inbound from an external system, you map the data to the payload node in the OTD (from the Collaboration Rules Editor). In addition, you can specify an input stream as a source.

Either way, each successive call to get() extracts the next record from the payload. The type of record extracted depends on the parameters you set in the adapter's configuration, for example, fixed size or delimited.

You must design the parsing Collaboration with instructions on what to do with each record extracted. Normally, the record can be sent to another Collaboration where a custom OTD describes the record format and carries on further processing.

Fully Consuming a Payload

It is possible to fully consume a payload. That is, after a number of successive calls to get(), you can retrieve all the records in the payload. After this point, successive calls to get() return the Boolean **false**. You must design the business rules in the subject Collaboration to take this possibility into account.

Using Record Processing with Data Streaming

If you are using the record-processing OTD with data streaming, you must be careful not to overwrite the output files. If the OTD is continually streaming to a BatchLocalFile OTD that uses the same output file name, the OTD can write over files on the output side.

To avoid this problem, you must use either file sequence numbering or change the output file names in the Collaboration Rules. Sequence numbering allows the BatchLocalFile OTD to distinguish individual files by adding a sequence number to them. If you use target file names, post-transfer file names, or both, you can change the name of the output file to a different file name.

For more information on how to use these features, see Sequence Numbering and Pre/Post File Transfer Commands.

BatchInbound OTD

The BatchInbound Input (Trigger) File adapter polls for an input file, renames the file with a GUID prefix, and triggers the Business Process or Collaboration.

The Batch adapter's **BatchInbound** OTD acts similar to the inbound File adapter, in that it regularly polls an input directory for inbound target files. But unlike the File adapter, when a file with the appropriate name is received by the BatchInbound adapter, the target file is renamed with the following pattern: GUID.original_filename to ensure that the file is not over-written and is only sent once. A GUID (Globally Unique Identifier) provides a unique, formatted string that represents a 128-bit value.

The BatchInbound OTD does not read the file, but renames the file in such a way that it provides the name of the file that triggers the Business Process or Collaboration.

BatchInbound OTD Structure

The BatchInbound OTD contains one top-level node, **BatchAppconnMessage**, with three fields, **PathDirName**, **OriginalFileName**, and **GUIDFileName** (see the following figure). These nodes provide the external input directory, original file name, and the GUID file name.
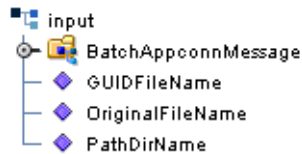
FIGURE 1–13   BatchInbound OTD Structure

Using Regular Expressions With the Batch Adapter

A regular expression is a character string in which some characters provide special meaning in regard to matching patterns. This section explains some basic guidelines on how to use regular expressions with the HTTPS.

Regular Expressions: Overview

Regular expressions allow you to specify patterns for file names and directory names. Regular expressions are used for "get" operations (receiving or source), as opposed to name patterns which are used for "put" operations (sending or destination).

The BatchFTP, Batch FTPOverSSL, BatchSFTP, BatchLocalFile, and BatchInbound OTDs allow you to use regular expressions, for example, if you want to access all files with a specific extension.

Regular expressions operate as follows:

- The directory/file names can be defined as either:
  - Actual file names (everywhere)
  - Name patterns (all names for "put" operations and pre/post transfer names for get operations)
  - Regular expressions (target names for "get" operations)

The difference between the regular expressions and name patterns is:

- Regular expressions are used to match existing names on the FTP server or the local file system.
- Name patterns are used to create names by replacing the special characters in the pattern.

  For more information on name patterns using special characters, see "Using Name Patterns With the Batch Adapter" on page 42.

You can specify an extension, for example, `.*\.dat$`. Then, each time the `get()` method is called, the adapter gets the next file with a `.dat` extension. The adapter then retrieves each file into the OTD's **Payload** node and updates the working file-name attribute with the name of the file currently being accessed.

For another example, you can use the file-matching the pattern `data\.00[1-9]` to get the files `data.001`, then `data.002`, and so on. In each case the "." is escaped, which is consistent with regular-expression syntax. It also matches to `xyzdata.001` and `xyz.data.001`, because it does not exclude anything before "data". To make "data" the exact start of the matching pattern you must use `^data\.00[1-9]` or `\A data\.00[1-9]`.

> ⚠ **Caution** – The use of regular expressions is an advanced feature and must be implemented carefully. An improperly formed regular expression can cause undesired data or even the loss of data. You must have a clear understanding of regular-expression syntax and construction before attempting to use this feature. It is recommended that you test such configurations thoroughly before moving them to production.

Entering Regular Expressions

You can enter a regular expression for the FTP or local file name in a variety of ways, for example, `.*\.dat$` or `^xyz.*\.dat$`. The first case indicates all files with an extension of `.dat`. The second case indicates all file names with an extension of `.dat` whose names start with `xyz`.

Another example could be `file[0-9]\.dat`. This expression specifies `file0.dat`, `file1.dat`, `file2.dat`, and so on, through `file9.dat`. This will also match `xyz.file0.dat`, `xyz.file1.dat`, and so on. This type of expression will not exclude anything in front of "file". To exclude any characters before "file" (to make "file" the exact beginning) use `^file[0-9].dat` or `\Afile[0-9].dat`.

These types of regular expression patterns can be used for a get operation.

Regular Expressions and the Adapter

The adapter provides a **File Name Is Pattern** or **Directory Name Is Pattern** configuration parameter after every property that allows a regular expression as an option. This feature allows you to specify that the pattern entered is a regular expression or just a static text entry to be interpreted literally.

Note – Regular expressions will resolve even with a partial match to the file name. The resolution process searches for the file name contents rather than the file name.

Rules for Directory Regular Expressions

There are special considerations you must be aware of when you use regular expressions for directory names. This section describes these restrictions and provides some examples.

Restrictions for Using Regular Expressions as Directory Names

The following restrictions apply when using regular expressions as directory names:

- The directory root, the drive name, and directory separators must be expressed exclusively. That is, do not express any of these elements as a regular expression. Only folder names are expected to appear as regular expressions.

- A regular expression must not span over the directory separators. If you use a regular expression between two directory separators, it must be one whole expression.

- Escape all directory separators in a directory pattern if the separator conflicts with a regular expression special character (that is, ″ * [ ] ( ) | + { } : . ^ $? \"). The back slash (\) is the special character used to escape other special characters in regular expressions. For Windows platforms, the directory separator is the back slash, so it must be escaped as \\.

- For the Windows Universal Naming Convention (UNC), the directory root (including the computer name and the shared root folder name) must be expressed exclusively. That is, do not express the computer name and shared root folder as a regular expression.

- Directory separators are platform dependent, for example:
  - For **Windows** platforms, the directory path follows this pattern:

    ```
    drive:\\regexp1\\regexp2\\regexp3 ...
    ```

    or for **Windows UNC** notation, the directory path follows this pattern:

    ```
    \\\\machineName\\shared_folder\\regexp1\\regexp2\\regexp3 ...
    ```

  - For **UNIX** platforms, including mounted directories, the directory path follows this pattern:

    ```
    /regexp1/regexp2/regexp3 ...
    ```

Regular Expression Directory Name Examples

The following are several examples of regular expression directory name usage:

- Windows:

    ```
    c:\\$\\^client\\collab\D\\ ...
    ```

The expression \D indicates any non-digit character.

```
d:\\a.b\\c.d\\e.f\\g.h\\[0-9]\\ ...
```

The symbol "." means any character

- Windows UNC notation:

```
\\\\My_Machine\\public\\xyz$\\^abc
```

The prefix for Windows UNC notation is \\. After escaping, it becomes \\\\.

- UNIX:

```
/abc\d/def/ghi/ ...
```

The expression \d means any digit character.

```
/^PRE[0-9]{5}\.dat$/ ...
```

This expression means to begin with PRE followed by a five-digit number and use a .dat extension. The symbol \. means to interpret the real character (a period) instead of any character. Therefore, PRE12345.dat does match, but PRE123456dat does not.

Using Name Patterns With the Batch Adapter

The Batch adapter allows you to use a Name Pattern, that is, special characters that symbolize often-used information as short-hand. You can use these character combinations to specify place holders for this specific information. Using these characters, you can quickly convey date/time, number, and file-name information.

The BatchFTP, Batch FTPOverSSL, BatchSFTP, BatchLocalFile, and BatchInbound OTDs allow you to use special characters or specify a name pattern. A name pattern allows you to specify patterns for file names and directory names. Name patterns are used for "put" operations (sending or destination) , as opposed to regular expressions which are used for "get" operations (receiving or source).

Special characters are utilities the adapters use for file-name pattern. The general rules for their use are:

- Use % to indicate the special character that needs to be expanded.
- Use %% to indicate the escaped character %; for example, abc%%d means abc%d, and the %d is not expanded again.

For example, for a put operation, a pattern such as file%#.dat can be used. This pattern uses the sequence number setting in the configuration, and each put creates successive files named file1.dat, file2.dat, and so on.

For information on regular expressions, see "Using Regular Expressions With the Batch Adapter" on page 39.

Types of Name Patterns

The adapter provides the following types of name patterns:

- **Date/Time stamp**: Uses the format `%[GyMdhHmsSEDFwWakKz]`, for example, `abc%y%y%y%y` means `abc2001` (see Table 1–2 for more information).
- **Sequence number**: Uses the format `%#, %5#`, for example, `abc%#` means `abc1, abc2, abc3`, and so on; for another example, `abc%5#` (zero-padded) means `abc00001, abc00002, abc00003, ..., abc00010, ..., abc00100`, and so on.
- **Working-file name**: Uses the format `%f`; normally, it is used for pre- or post-file-transfer commands, for example, `%f.abc` means `working_filename.abc`.

The sequence of expansion operates in the reverse order of the previous list, that is, first the file name is expanded, then the sequence number, and finally the time stamp.

Some additional examples of name pattern:

- `abc.%y%y%y%y%M%M%d%d.%h%h%m%m%s%s%S%S%S` means `abc.20011112.162532678`
- `abc%#.def%#` means `abc2.def3`
- `%f.%#` means `xxxxx.4, xxxxx.5, ...` (Where xxxxx is the working-file name)

Resolving Names

Typically, the pre/post names with name patterns or regular expressions are resolved during `get()` and `put()` method calls. But sometimes, in using Collaboration Rules, the adapter has to get the resolved names before the actual `get()` or `put()` call.

In such cases, you can get the resolved names in this way through the **ResolvedNamesForGet** and **ResolvedNamesForPut** nodes in the BatchFTP OTD, for example:

```
getResolvedNamesForPut().getTargetFileName()
```

The previous code yields `file1` based on the pattern `file%#`. In this usage, the OTD nodes can be used to make the desired method call.

Date and Time Format Syntax

The adapter uses the Java simple default date and time format syntax (U.S. locale). To specify these formats for name pattern, you must use a time pattern string.

Note – The adapter uses the Java standard for date/time stamps from the Java class java.text.SimpleDateFormat. Some of these formats can differ from the list given here, depending on the Java SDK version you are using.

In these patterns, all ASCII letters are reserved as pattern letters. See Table 1–2 for a complete list.

TABLE 1–2   Time Pattern Strings and Meanings

Symbol	Meaning	Presentation	Example
%G	Era designator	Text	AD
%y	Year	Number	1996
%M	Month in year	Text and number	July & 07
%d	Day in month	Number	10
%h	Hour in a.m./p.m. (1 through 12)	Number	12
%H	Hour in day (0 through 23)	Number	0
%m	Minute in hour	Number	30
%s	Second in minute	Number	55
%S	Millisecond	Number	978
%E	Day in week	Text	Tuesday
%D	Day in year	Number	189
%F	Day of week in month	Number	2 (second Wednesday in July)
%w	Week in year	Number	27
%W	Week in month	Number	2
%a	Marker for a.m./p.m.	Text	PM
%k	Hour in day (1 through 24)	Number	24
%K	Hour in a.m./p.m. (0 through 1)	Number	0
%z	Time zone	Text	Pacific Standard Time

The general rules for date/time formats are:

- **Text**: The count of pattern letters determines the format as follows:
    - For four or more pattern letters, use the full form.
    - For fewer than four, use the short or abbreviated form if one exists.

Number: The minimum number of digits as follows:

- Shorter numbers are zero-padded to this amount.
- The year is handled differently; that is, if the count of "y" is two, the year is truncated to two digits.

Text and number: For three or more pattern letters, use text; otherwise use a number.

- **Quotes and Delimiters**: Use these symbols as follows:
  - Enclose literal text you want rendered within single quotes.
  - Use double quotes to mean single quotes.
  - Use commas for delimiters.

    Table 1–3 shows some examples using the U.S. locale.

TABLE 1–3   U.S. Locale Date and Time Patterns

Format Pattern	Result
yyyy.MM.dd, G, 'at' hh:mm:ss, z	1996.07.10 AD at 15:08:56 PDT
E, M, dd, "yy	Wednesday, July 10, '96
h:mm, a	12:08 PM
h, 'o"clock' a, z	12 o'clock PM., Pacific Daylight Time
K:mm a, z	0:00 p.m., PST
yyyyy.M.dd, G, hh:mm, a	1996.July.10 AD 12:08 PM

Creating a New COM and DCOM OTD

The COM OTD Wizard generates an OTD from a COM automation-compatible component's Type Library files. COM Type Library files describe the methods and properties exposed from an automation-compatible component. COM type libraries may have the file extension .tlb or .olb, however, most components typically embed the type library file in the DLL, OCX, or EXE file that contains the component.

▼ To Create a COM OTD

1   Right click your Project from the Project Explorer tree and select New —> Object Type Definition from the shortcut menu.

2   Select the COM Wizard from the Select Wizard Type window of the New Object Type Definition Wizard and click Next).
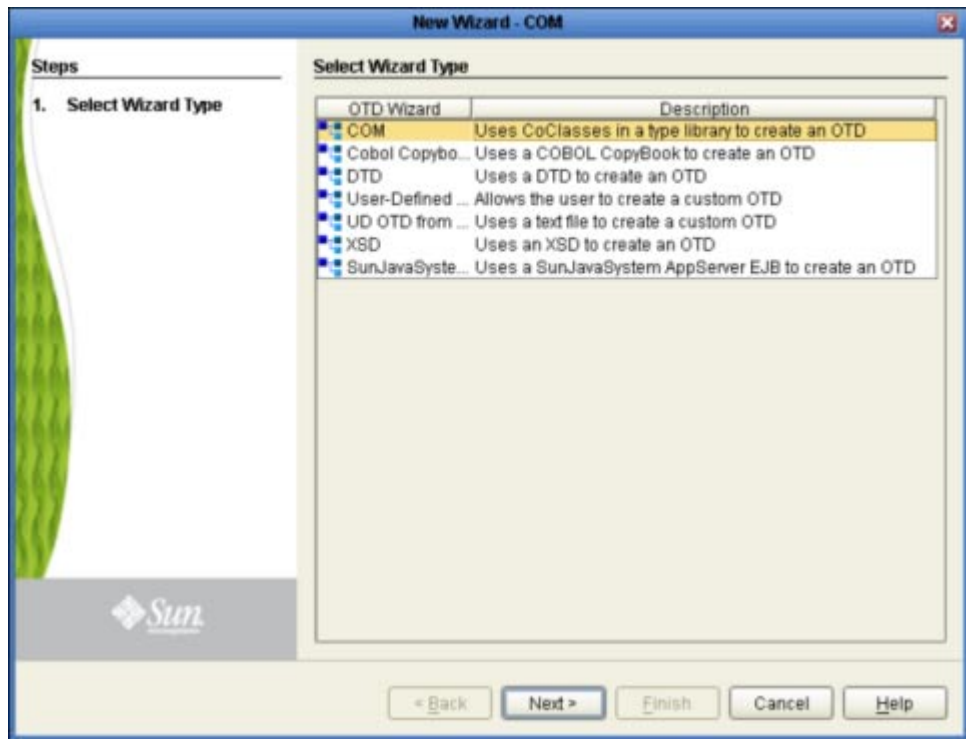
3 **Browse to the directory that contains the type library file from which the OTD will be created.**
   You can only select one type library file at a time.

4 **Select your type library file, click the Select button, then click Next.**
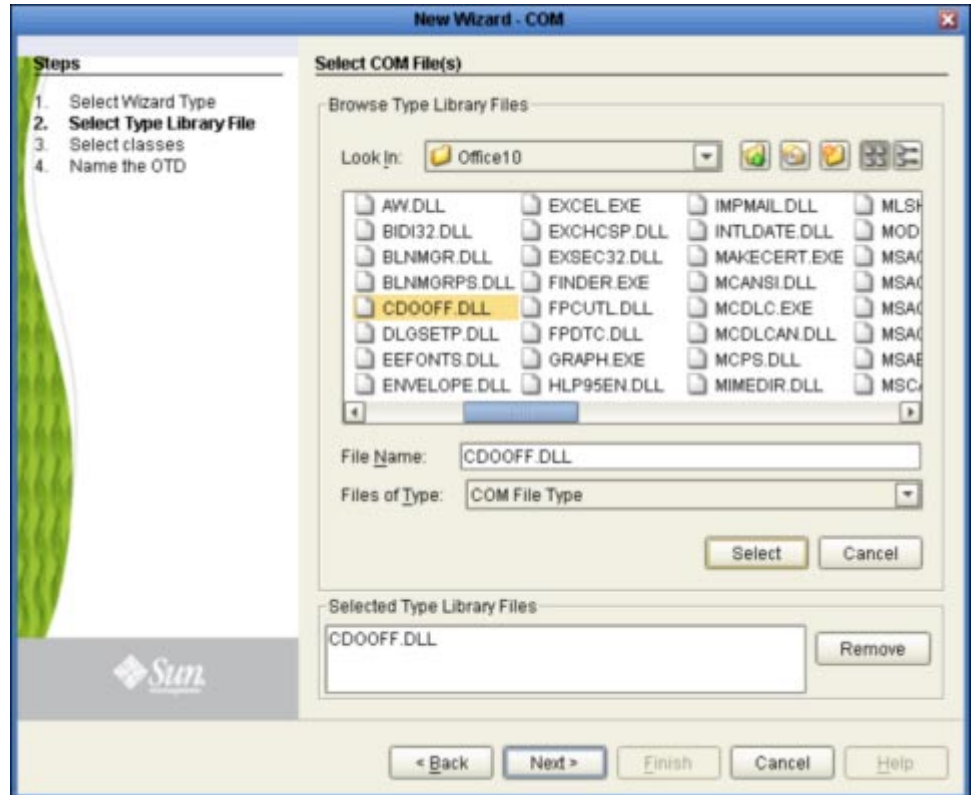
5 **Select one or more of the CoClasses from the type library and click Next.**
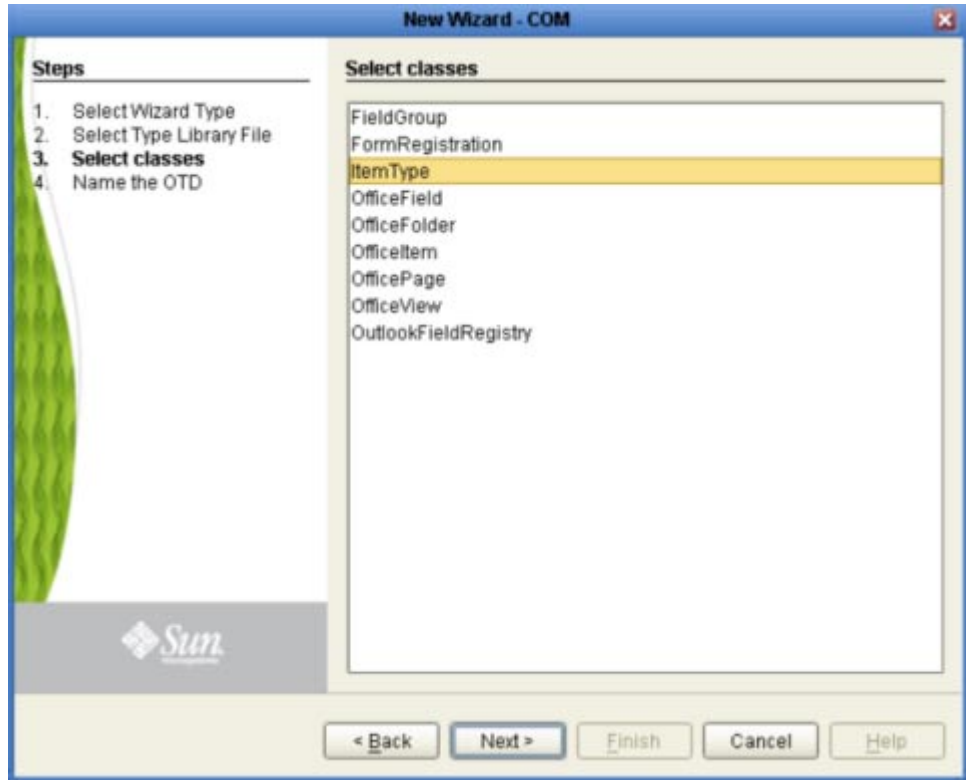
6   Enter a name for the new OTD in the OTD Name field and click Finish.
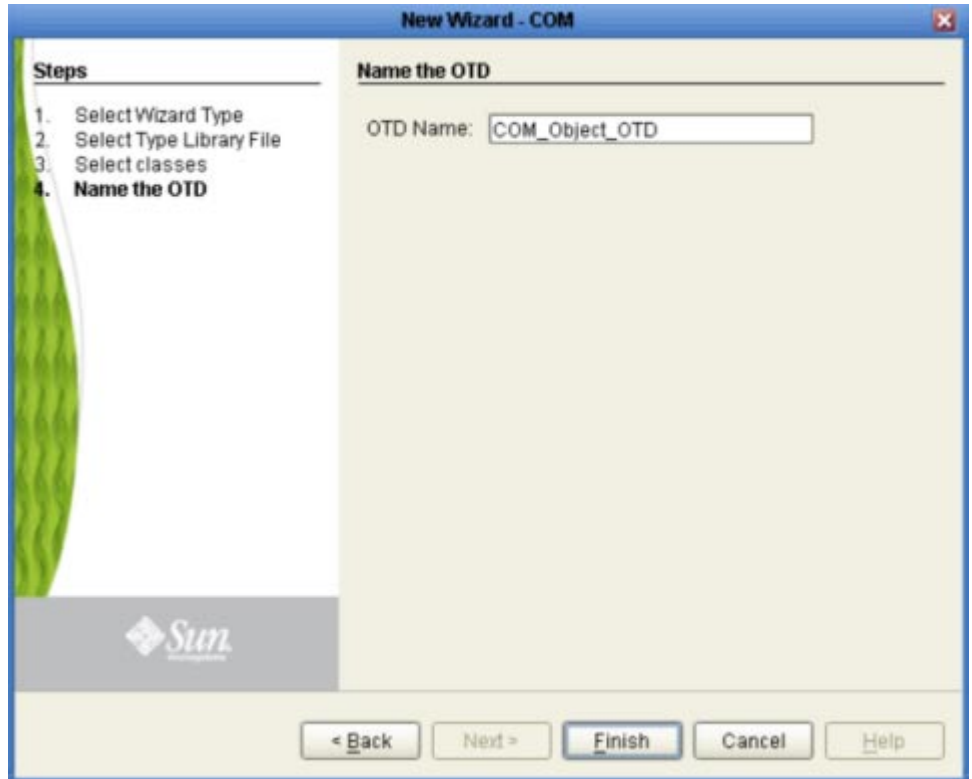
If any of the selected CoClasses contain a method with an unsupported data type, an Information box appears.

The Information box indicates that some methods were not created in the OTD, and provides the location of the generated "Skipped Methods" log. This log provides a report of any methods that were skipped when the OTD was created (this information is also written to the IDE log file). If this information box appears, click **OK** to acknowledge and close the Information box.

The OTD Editor appears displaying the new **OTD**.
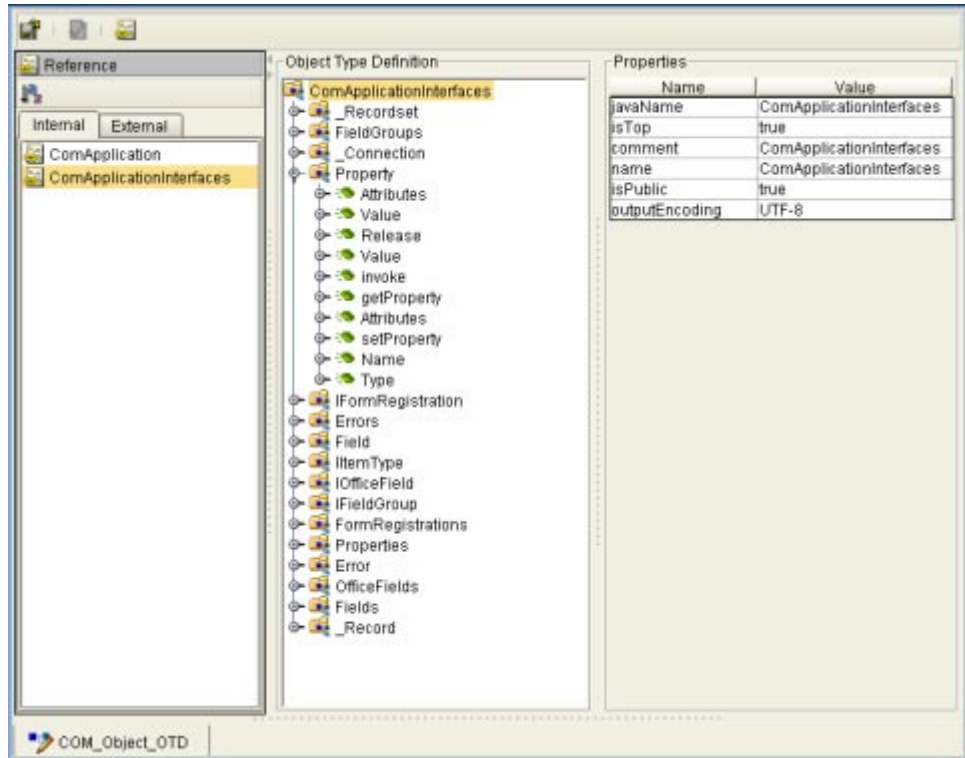
The resulting OTD is now available for use in your Collaborations.

For more information on using the OTD Editor see the *Sun Enterprise Service Bus* User's Guide.

Relaunching OTDs

A single OTD can consist of many lines of metadata. When a change to the metadata occurs in an OTD, it does not have to be recreated from scratch. Using the Relaunch function allows the OTD to be rebuilt and saved under the same name, then relaunched back to the same java collaboration or BPEL.

▼ To Relaunch an Existing OTD

1   **Right-click on the OTD in the Enterprise Explorer.**

2   **Click Relaunch from the submenu.**
    The Select Files Wizard opens.

3   **Enter the File Name (or Browse and Select) that you wish to be relaunched and click Next.**

4   **Continue with the Wizard as described when creating the OTD.**

5   **Click the Finish button to save the changes.**

When relaunching an OTD, an existing collaboration will not be affected if:

- New columns are added
- Deleted columns are not used in the original collaboration

Note – Validation will fail if existing collaborations are not modified when columns are renamed or deleted.

File Adapter Components

The File adapter is used in most of the sample Projects provided with the Sun Java™ Composite Application Platform Suite and the adapter Intelligent Adapters. The File adapter includes the following components that are unique to this adapter:

- **File Adapter Configuration Properties File:** The properties files for the File Adapter defines how the adapter connects with external systems as well as how data (messages) are handled. These properties are configured using the Properties Editor. For more information about the Batch Adapter properties files and the Properties Editor.

- **FileClient OTD:** The File OTD provides functionality for receiving or sending files and triggering a Business Process or Collaboration. Object Type Definitions (OTDs) map input and output message segments at the field level.

File OTD Operations

The following File Adapter OTD attributes or operations are used in both BPEL and JCD Projects:

- **receive** (inbound File Adapter)
- **write** (outbound File Adapter)

The **write** (output) Business Process operation has an additional input function provided to receive and handle incoming error exception messages.

HL7 OTD Libraries

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

A number of 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. HL7 OTD libraries are arranged by version.

HL7 Version 2.6 OTD Library

The table describes HL7 Version 2.6 OTD Library.

TABLE 1–4 HL7 Version 2.6 OTD Library

HL7 2.6 OTD	HL7 Description
HL7_26_ADT_A03	ADT/ACK - Discharge/end visit
HL7_26_SIU_S13	SIU/ACK - Notification of appointment rescheduling
HL7_26_QBP_Z81	Dispense History
HL7_26_OMN_O07	OMN - Non-stock requisition order
HL7_26_RRE_O26	RRE - Pharmacy/Treatment Refill Authorization Acknowledgement
HL7_26_ADT_A01	ADT/ACK - Admit/visit notification
HL7_26_QSX_J02	QSX/ACK - Cancel subscription/acknowledge message
HL7_26_SRM_S05	SRM/SRR - Request appointment discontinuation
HL7_26_EHC_E21	Cancel Authorization Request
HL7_26_RSP_K25	RSP - Personnel Information by Segment Response
HL7_26_DFT_P03	DFT/ACK - Post detail financial transaction
HL7_26_PEX_P07	PEX - Unsolicited initial individual product experience report
HL7_26_MDM_T03	MDM/ACK - Document status change notification
HL7_26_RQA_I09	RQA/RPA - Request for modification to an authorization
HL7_26_SRR_S08	SRM/SRR - Request modification of service/resource on appointment
HL7_26_ADT_A37	ADT/ACK - Unlink patient information
HL7_26_ADT_A52	ADT/ACK - Cancel leave of absence for a patient
HL7_26_ADT_A22	ADT/ACK - Patient returns from a "leave of absence"

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_SIU_S24	SIU/ACK - Notification of opened ("unblocked") schedule time slot(s)
HL7_26_MFK_M14	MFN/MFK - Master file notification - site defined
HL7_26_ADT_A12	ADT/ACK - Cancel transfer
HL7_26_RRD_O14	RRD - Pharmacy/treatment dispense acknowledgment
HL7_26_PMU_B02	PMU/ACK - Update personnel record
HL7_26_RSP_E03	HealthCare Services Invoice Status
HL7_26_QBP_E03	HealthCare Services Invoice Status
HL7_26_MFK_M05	MFN/MFK - Patient location master file
HL7_26_ADT_A42	ADT/ACK - Merge visit - visit number
HL7_26_RSP_Z82	Dispense History (Response)
HL7_26_RCL_I06	RQC/RCL - Request/receipt of clinical data listing
HL7_26_PEX_P08	PEX - Unsolicited update individual product experience report
HL7_26_ADT_A39	ADT/ACK - Merge person - patient ID (for backward compatibility only)
HL7_26_ADT_A55	ADT/ACK - Cancel change attending doctor
HL7_26_ADT_A38	ADT/ACK - Cancel pre-admit
HL7_26_OPU_R25	OPU - Unsolicited Population/Location-Based Laboratory Observation Message
HL7_26_SRM_S06	SRM/SRR - Request appointment deletion
HL7_26_ADT_A54	ADT/ACK - Change attending doctor
HL7_26_EAN_U09	EAN/ACK - Automated equipment notification
HL7_26_ADT_A06	ADT/ACK - Change an outpatient to an inpatient
HL7_26_SIU_S17	SIU/ACK - Notification of appointment deletion
HL7_26_ADT_A35	ADT/ACK - Merge patient information - account number only (for backward compatibility
HL7_26_ACK	Version 2.6 HL7 Acknowledgment
HL7_26_PMU_B08	PMU/ACK - Revoke Certificate/Permission
HL7_26_MFN_M11	MFN/MFK - Test/calculated observations master file
HL7_26_RDY_Z80	Dispense Information (Response)

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_QBP_Q15	QBP - Query by parameter requesting an RDY display response
HL7_26_SRR_S03	SRM/SRR - Request appointment modification
HL7_26_QRY_Q26	ROR - Pharmacy/treatment order response
HL7_26_QBP_Q24	QBP - Allocate identifiers
HL7_26_MFK_M10	MFN/MFK - Test /observation batteries master file
HL7_26_ADT_A46	ADT/ACK - Change patient ID (for backward compatibility only)
HL7_26_ADT_A45	ADT/ACK - Move visit information - visit number
HL7_26_OUL_R23	OUL - Unsolicited Specimen Container Oriented Observation Message
HL7_26_SRR_S10	SRM/SRR - Request discontinuation of service/resource on appointment
HL7_26_MFN_M01	MFN/MFK - Master file not otherwise specified (for backward compatibility only)
HL7_26_RQA_I10	RQA/RPA - Request for re-submission of an authorization
HL7_26_SCN_S37	SCN/ACK - Notification of anti-microbial device cycle data
HL7_26_QBP_E22	Authorization Request Status
HL7_26_MFK_M07	MFN/MFK - Clinical study without phases but with schedules master file
HL7_26_RTB_Z94	Tabular Dispense History (Response)
HL7_26_ADT_A48	ADT/ACK - Change alternate patient ID (for backward compatibility only)
HL7_26_MDM_T06	MDM/ACK - Document addendum notification and content
HL7_26_MDM_T10	MDM/ACK - Document replacement notification and content
HL7_26_NMQ_N01	NMQ/NMR - Application management query message
HL7_26_INR_U06	INR/ACK - Automated equipment inventory request
HL7_26_RSP_K22	RSP - Find candidates response
HL7_26_MDM_T09	MDM/ACK - Document replacement notification
HL7_26_RSP_K24	RSP - Allocate identifiers response
HL7_26_SRM_S04	SRM/SRR - Request appointment cancellation
HL7_26_PMU_B03	PMU/ACK - Delete personnel re cord
HL7_26_ADT_A23	ADT/ACK - Delete a patient record

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_MFN_M05	MFN/MFK - Patient location master file
HL7_26_RTB_Z92	Who Am I (Response)
HL7_26_ADT_A30	ADT/ACK - Merge person information (for backward compatibility only)
HL7_26_CSU_C11	CSU - Patient completes a phase of the clinical trial
HL7_26_TCR_U11	TCR/ACK - Automated equipment test code settings request
HL7_26_ADT_A04	ADT/ACK - Register a patient
HL7_26_ADT_A26	ADT/ACK - Cancel pending transfer
HL7_26_ACK_var	null
HL7_26_ORU_R01	ORU/ACK - Unsolicited transmission of an observation message
HL7_26_OMI_O23	OMI - Imaging order
HL7_26_MFK_M17	DRG Master File Message
HL7_26_OML_O33	OML - Laboratory order for multiple orders related to a single specimen
HL7_26_PMU_B04	PMU/ACK - Active practicing person
HL7_26_CRM_C02	CRM - Cancel a patient registration on clinical trial (for clerical mistakes only)
HL7_26_RGR_RGR	Pharmacy/Treatment Dose Information
HL7_26_OMB_O27	OMB - Blood product order
HL7_26_RQP_I04	RQD/RPI - Request for patient demographic data
HL7_26_ADT_A15	ADT/ACK - Pending transfer
HL7_26_BAR_P01	BAR/ACK - Add patient accounts
HL7_26_CRM_C03	CRM - Correct/update registration information
HL7_26_ORL_O34	ORL - Laboratory order response message to a multiple order related to single specification
HL7_26_DFT_P11	DFT/ACK - Post Detail Financial Transactions - New
HL7_26_INU_U05	INU/ACK - Automated equipment inventory update
HL7_26_QBP_Z93	Tabular Dispense History
HL7_26_PPT_PCL	PPT - PC/ pathway (goal-oriented) query response
HL7_26_RSP_K31	RSP - Dispense History Response

TABLE 1–4 HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_RPL_I02	RQI/RPL - Request/receipt of patient selection display list
HL7_26_RSP_E22	Authorization Request Status
HL7_26_MFN_M02	MFN/MFK - Master file - staff practitioner
HL7_26_VXR_V03	VXR - Vaccination record response
HL7_26_RSP_Z86	Pharmacy Information Comprehensive (Response)
HL7_26_RTB_Z76	Tabular Patient List (Response)
HL7_26_RPA_I09	RQA/RPA - Request for modification to an authorization
HL7_26_ADT_A05	ADT/ACK - Pre-admit a patient
HL7_26_ADT_A53	ADT/ACK - Cancel patient returns from a leave of absence
HL7_26_SIU_S22	SIU/ACK - Notification of deletion of service/resource on appointment
HL7_26_RSP_Z88	Dispense Information (Response)
HL7_26_RTB_K13	RTB - Tabular response in response to QBP^Q13
HL7_26_MDM_T08	MDM/ACK - Document edit notification and content
HL7_26_BPS_O29	BPS - Blood product dispense status
HL7_26_MFK_M12	MFN/MFK - Master file notification message
HL7_26_ROR_ROR	ROR - Pharmacy prescription order query response
HL7_26_RDS_O13	RDS - Pharmacy/treatment dispense
HL7_26_EHC_E20	Submit Authorization Request
HL7_26_PIN_I07	PIN/ACK - Unsolicited insurance information
HL7_26_SIU_S18	SIU/ACK - Notification of addition of service/resource on appointment
HL7_26_ADT_A43	ADT/ACK - Move patient information - patient identifier list
HL7_26_ADT_A41	ADT/ACK - Merge account - patient account number
HL7_26_QBP_Q21	QBP - Get person demographics
HL7_26_ADT_A60	ADT/ACK - Update allergy information
HL7_26_MFK_M15	MFN/MFK - Inventory item master file notification
HL7_26_RAR_RAR	Pharmacy/Treatment Administration Information
HL7_26_OUL_R24	OUL - Unsolicited Order Oriented Observation Message
HL7_26_RPI_I04	RQD/RPI - Request for patient demographic data

TABLE 1–4 HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_ADT_A08	ADT/ACK - Update patient information
HL7_26_RSP_K21	RSP - Get person demographics response
HL7_26_MDM_T04	MDM/ACK - Document status change notification and content
HL7_26_EHC_E15	Payment/Remittance Advice
HL7_26_CRM_C05	CRM - Patient enters phase of clinical trial
HL7_26_EHC_E13	Additional Information Response
HL7_26_SRR_S07	SRM/SRR - Request addition of service/resource on appointment
HL7_26_RDE_O11	RDE - Pharmacy/treatment encoded order
HL7_26_MFK_M13	MFN/MFK - Master file notification - general
HL7_26_ORN_O08	ORN - Non-stock requisition acknowledgment
HL7_26_SSR_U04	SSR/ACK - specimen status request
HL7_26_ADT_A16	ADT/ACK - Pending discharge
HL7_26_OML_O21	OML - Laboratory order
HL7_26_MFN_M14	MFN/MFK - Master file notification - site defined
HL7_26_QBP_Q13	QBP - Query by parameter requesting an RTB - tabular response
HL7_26_OPR_O38	OPR - Population/Location-Based Laboratory Order Acknowledgment Message
HL7_26_MFN_M06	MFN/MFK - Clinical study with phases and schedules master file
HL7_26_ORI_O24	ORI - Imaging order response message to any OMI
HL7_26_ORU_R32	ORU - Unsolicited Pre-Ordered Point-Of-Care Observation
HL7_26_ADT_A34	ADT/ACK - Merge patient information - patient ID only (for backward compatibility)
HL7_26_VXU_V04	VXU - Unsolicited vaccination record update
HL7_26_RRA_O18	RRA - Pharmacy/treatment administration acknowledgment
HL7_26_BAR_P10	BAR/ACK - Transmit Ambulatory Payment Classification (APC)
HL7_26_EAC_U07	EAC/ACK - Automated equipment command
HL7_26_RRE_O12	RRE - Pharmacy/treatment encoded order acknowledgment
HL7_26_BRT_O32	BRT - Blood product transfusion/disposition acknowledgment

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_PMU_B07	PMU/ACK - Grant Certificate/Permission
HL7_26_SRR_S05	SRM/SRR - Request appointment discontinuation
HL7_26_RQA_I11	RQA/RPA - Request for cancellation of an authorization
HL7_26_QRY_Q29	RER - Pharmacy/treatment encoded order information
HL7_26_PRR_PC5	PRR - PC/ problem response
HL7_26_ADT_A50	ADT/ACK - Change visit number
HL7_26_RPR_I03	RQI/RPR - Request/receipt of patient selection list
HL7_26_EAR_U08	EAR/ACK - Automated equipment response
HL7_26_PPR_PC2	PPR - PC/ problem update
HL7_26_PMU_B05	PMU/ACK - Deactivate practicing person
HL7_26_RGV_O15	RGV - Pharmacy/treatment given
HL7_26_CSU_C12	CSU - Update/correction of patient order/result information
HL7_26_ORL_O36	ORL - Laboratory order response message to a single container of a specimen OML
HL7_26_CRM_C08	CRM - Patient has gone off phase of clinical trial
HL7_26_MFN_M13	MFN/MFK - Master file notification - general
HL7_26_ADT_A24	ADT/ACK - Link patient information
HL7_26_SLN_S35	SLN/ACK - Notification of sterilization lot deletion
HL7_26_ESR_U02	ESR/ACK - Automated equipment status request
HL7_26_MFK_M04	MFN/MFK - Master files charge description
HL7_26_RDE_O25	RDE - Pharmacy/treatment refill authorization request
HL7_26_RPA_I11	RQA/RPA - Request for cancellation of an authorization
HL7_26_RTB_Z78	Tabular Patient List (Response)
HL7_26_MFK_M08	MFN/MFK - Test/observation (numeric) master file
HL7_26_ORU_R30	ORU - Unsolicited Point-Of-Care Observation Message Without Existing Order - Placed
HL7_26_SRR_S04	SRM/SRR - Request appointment cancellation
HL7_26_SSU_U03	SSU/ACK - Specimen status update

TABLE 1–4 HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_SIU_S14	SIU/ACK - Notification of appointment modification
HL7_26_PGL_PC8	PGL - PC/ goal delete
HL7_26_VXX_V02	VXX - Response to vaccination query returning multiple PID matches
HL7_26_MFN_M04	MFN/MFK - Master files charge description
HL7_26_RSP_Znn	null
HL7_26_SIU_S15	SIU/ACK - Notification of appointment cancellation
HL7_26_PPP_PCB	PPP - PC/ pathway (problem-oriented) add
HL7_26_QBP_Z91	Who Am I
HL7_26_MDM_T11	MDM/ACK - Document cancel notification
HL7_26_OMS_O05	OMS - Stock requisition order
HL7_26_MFN_M10	MFN/MFK - Test /observation batteries master file
HL7_26_PPG_PCH	PPG - PC/ pathway (goal-oriented) update
HL7_26_QBP_Z97	Dispense History
HL7_26_NMD_N02	NMD/ACK - Application management data message (unsolicited)
HL7_26_SIU_S16	SIU/ACK - Notification of appointment discontinuation
HL7_26_QBP_Q25	QBP - Personnel Information by Segment Query
HL7_26_QBP_Z95	Tabular Dispense History
HL7_26_SRR_S11	SRM/SRR - Request deletion of service/resource on appointment
HL7_26_MFN_M08	MFN/MFK - Test/observation (numeric) master file
HL7_26_QRY_Q27	RAR - Pharmacy/treatment administration information
HL7_26_QBP_Znn	null
HL7_26_ADT_A14	ADT/ACK - Pending admit
HL7_26_MFK_M02	MFN/MFK - Master file - staff practitioner
HL7_26_MFN_M17	DRG Master File Message
HL7_26_MFK_M09	MFN/MFK - Test/observation (categorical) master file
HL7_26_LSU_U12	LSU/ACK - Automated equipment log/service update
HL7_26_QRY_Q28	RDR - Pharmacy/treatment dispense information
HL7_26_RSP_Z90	Lab Results History (Response)

TABLE 1–4   HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_CSU_C09	CSU - Automated time intervals for reporting, like monthly
HL7_26_BTS_O31	BTS - Blood product transfusion/disposition
HL7_26_RQI_I01	RQI/RPI - Request for insurance information
HL7_26_VXQ_V01	VXQ - Query for vaccination record
HL7_26_ADT_A40	ADT/ACK - Merge patient - patient identifier list
HL7_26_DOC_T12	QRY/DOC - Document query
HL7_26_BAR_P06	BAR/ACK - End account
HL7_26_EHC_E02	Cancel HealthCare Services Invoice
HL7_26_RQI_I03	RQI/RPR - Request/receipt of patient selection list
HL7_26_ADT_A13	ADT/ACK - Cancel discharge/end visit
HL7_26_STI_S30	STI/STS - Request item
HL7_26_OML_O35	OML - Laboratory order for multiple orders related to a single container
HL7_26_PGL_PC7	PGL - PC/ goal update
HL7_26_ESU_U01	ESU/ACK - Automated equipment status update
HL7_26_PPR_PC3	PPR - PC/ problem delete
HL7_26_RPA_I08	RQA/RPA - Request for treatment authorization information
HL7_26_QCN_J01	QCN/ACK - Cancel query/acknowledge message
HL7_26_SQR_S25	SQM/SQR - Schedule query message and response
HL7_26_SIU_S21	SIU/ACK - Notification of discontinuation of service/resource on appointment
HL7_26_ADT_A62	ADT/ACK - Cancel change consulting doctor
HL7_26_OUL_R22	OUL - Unsolicited Specimen Oriented Observation Message
HL7_26_SLR_S28	SLR/SLS - Request new sterilization lot
HL7_26_ADT_A18	ADT/ACK - Merge patient information (for backward compatibility only)
HL7_26_QBP_Z87	Dispense Information
HL7_26_ORU_R31	ORU - Unsolicited New Point-Of-Care Observation Message - Search For An Order
HL7_26_QBP_Z85	Pharmacy Information Comprehensive

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_SRM_S01	SRM/SRR - Request new appointment booking
HL7_26_SRM_S08	SRM/SRR - Request modification of service/resource on appointment
HL7_26_RTB_Z96	Tabular Dispense History (Response)
HL7_26_QRY_PCK	QRY - PC/ pathway (goal-oriented) query
HL7_26_SLR_S29	SLR/SLS - Request Sterilization lot deletion
HL7_26_RQA_I08	RQA/RPA - Request for treatment authorization information
HL7_26_OMP_O09	OMP - Pharmacy/treatment order
HL7_26_ORL_O22	ORL - General laboratory order response message to any OML
HL7_26_MFN_M15	MFN/MFK - Inventory item master file notification
HL7_26_SRM_S10	SRM/SRR - Request discontinuation of service/resource on appointment
HL7_26_PPP_PCC	PPP - PC/ pathway (problem-oriented) update
HL7_26_EHC_E01	Submit HealthCare Services Invoice
HL7_26_RQI_I02	RQI/RPL - Request/receipt of patient selection display list
HL7_26_CSU_C10	CSU - Patient completes the clinical trial
HL7_26_QBP_Z99	Who Am I
HL7_26_TCU_U10	TCU/ACK - Automated equipment test code settings update
HL7_26_RPA_I10	RQA/RPA - Request for re-submission of an authorization
HL7_26_PMU_B01	PMU/ACK - Add personnel record
HL7_26_RQC_I06	RQC/RCL - Request/receipt of clinical data listing
HL7_26_SRR_S09	SRM/SRR - Request cancellation of service/resource on appointment
HL7_26_QRY_T12	QRY/DOC - Document query
HL7_26_SDR_S31	SDR/SDS - Request anti-microbial device data
HL7_26_MFK_M06	MFN/MFK - Clinical study with phases and schedules master file
HL7_26_SRM_S02	SRM/SRR - Request appointment rescheduling
HL7_26_SQM_S25	SQM/SQR - Schedule query message and response
HL7_26_PPV_PCA	PPV - PC/ goal response
HL7_26_ADT_A27	ADT/ACK - Cancel pending admit
HL7_26_RRI_I12	REF/RRI - Patient referral

TABLE 1–4 HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_RDY_K15	RDY - Display response in response to QBP^Q15
HL7_26_ADT_A33	ADT/ACK - Cancel patient departing - tracking
HL7_26_RQC_I05	RQC/RCI - Request for patient clinical information
HL7_26_ADT_A51	ADT/ACK - Change alternate visit ID
HL7_26_STC_S33	STC/ACK - Notification of sterilization configuration
HL7_26_MDM_T01	MDM/ACK - Original document notification
HL7_26_QSB_Q16	QSB - Create subscription
HL7_26_BRP_O30	BRP - Blood product dispense status acknowledgment
HL7_26_LSR_U13	LSR/ACK - Automated equipment log/service request
HL7_26_CRM_C04	CRM - Patient has gone off a clinical trial
HL7_26_RDY_Z98	Dispense History (Response)
HL7_26_OMG_O19	OMG - General clinical order
HL7_26_ADT_A29	ADT/ACK - Delete person information
HL7_26_ADT_A32	ADT/ACK - Cancel patient arriving - tracking
HL7_26_QBP_Z73	Information about Phone Calls
HL7_26_PMU_B06	PMU/ACK - Terminate practicing person
HL7_26_MFN_M03	MFN/MFK - Master file - test/observation (for backward compatibility only)
HL7_26_ORM_O01	ORM - Order message (also RDE, RDS, RGV, RAS)
HL7_26_RTB_Z74	Information about Phone Calls (Response)
HL7_26_QRY_Q30	RGR - Pharmacy/treatment dose information
HL7_26_PGL_PC6	PGL - PC/ goal add
HL7_26_OMD_O03	OMD - Diet order
HL7_26_ADT_A17	ADT/ACK - Swap patients
HL7_26_BAR_P02	BAR/ACK - Purge patient accounts
HL7_26_MFK_M16	MFN/MFK - Master File Notification Inventory Item Enhanced
HL7_26_ADT_A28	ADT/ACK - Add person information
HL7_26_ADT_A02	ADT/ACK - Transfer a patient

TABLE 1–4 HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_MDM_T07	MDM/ACK - Document edit notification
HL7_26_ADT_A47	ADT/ACK - Change patient identifier list
HL7_26_QBP_Z75	Tabular Patient List
HL7_26_NMR_N01	NMQ/NMR - Application management query message
HL7_26_SRM_S11	SRM/SRR - Request deletion of service/resource on appointment
HL7_26_QBP_Z77	Tabular Patient List
HL7_26_SIU_S26	SIU/ACK Notification that patient did not show up for schedule appointment
HL7_26_MFK_M01	MFN/MFK - Master file not otherwise specified (for backward compatibility only)
HL7_26_ADT_A10	ADT/ACK - Patient arriving - tracking
HL7_26_PPG_PCG	PPG - PC/ pathway (goal-oriented) add
HL7_26_ADT_A44	ADT/ACK - Move account information - patient account number
HL7_26_QRY_PC4	QRY - PC/ problem query
HL7_26_SMD_S32	SMD/SMS - Request anti-microbial device cycle data
HL7_26_ADT_A11	ADT/ACK - Cancel admit/visit notification
HL7_26_ADT_A20	ADT/ACK - Bed status update
HL7_26_CRM_C06	CRM - Cancel patient entering a phase (clerical mistake)
HL7_26_SRR_S01	SRM/SRR - Request new appointment booking
HL7_26_ORP_O10	ORP - Pharmacy/treatment order acknowledgment
HL7_26_ORF_R04	ORF - Response to query; transmission of requested observation
HL7_26_QSB_Z83	ORU Subscription
HL7_26_RPI_I01	RQI/RPI - Request for insurance information
HL7_26_SIU_S19	SIU/ACK - Notification of modification of service/resource on appointment
HL7_26_ORS_O06	ORS - Stock requisition acknowledgment
HL7_26_QBP_Z79	Dispense Information
HL7_26_ADT_A25	ADT/ACK - Cancel pending discharge
HL7_26_MDM_T02	MDM/ACK - Original document notification and content

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_QVR_Q17	QVR - Query for previous events
HL7_26_RSP_K11	RSP - Segment pattern response in response to QBP^Q11
HL7_26_OPL_O37	OPL - Population/Location-Based Laboratory Order Message
HL7_26_QBP_Q31	QBP Query Dispense history
HL7_26_SIU_S20	SIU/ACK - Notification of cancellation of service/resource on appointment
HL7_26_MFK_M03	MFN/MFK - Master file - test/observation (for backward compatibility only)
HL7_26_QRY_PC9	QRY - PC/ goal query
HL7_26_SIU_S23	SIU/ACK - Notification of blocked schedule time slot(s)
HL7_26_PPP_PCD	PPP - PC/ pathway (problem-oriented) delete
HL7_26_PPR_PC1	PPR - PC/ problem add
HL7_26_QBP_Q23	QBP - Get corresponding identifiers
HL7_26_RRG_O16	RRG - Pharmacy/treatment give acknowledgment
HL7_26_RCI_I05	RQC/RCI - Request for patient clinical information
HL7_26_EHC_E04	Re-Assess HealthCare Services Invoice Request
HL7_26_ADR_A19	QRY/ADR - Patient query
HL7_26_SUR_P09	SUR - Summary product experience report
HL7_26_QBP_Q22	QBP - Find candidates
HL7_26_SRM_S03	SRM/SRR - Request appointment modification
HL7_26_CRM_C01	CRM - Register a patient on a clinical trial
HL7_26_MFK_M11	MFN/MFK - Test/calculated observations master file
HL7_26_SRR_S06	SRM/SRR - Request appointment deletion
HL7_26_ADT_A31	ADT/ACK - Update person information
HL7_26_QBP_Q11	QBP - Query by parameter requesting an RSP segment pattern response
HL7_26_CRM_C07	CRM - Correct/update phase information
HL7_26_ORB_O28	ORB - Blood product order acknowledgment
HL7_26_SRR_S02	SRM/SRR - Request appointment rescheduling

TABLE 1–4 HL7 Version 2.6 OTD Library   *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_PPG_PCJ	PPG - PC/ pathway (goal-oriented) delete
HL7_26_ADT_A61	ADT/ACK - Change consulting doctor
HL7_26_SLN_S34	SLN/ACK - Notification of sterilization lot
HL7_26_OSR_Q06	OSQ/OSR - Query for order status
HL7_26_MFN_M09	MFN/MFK - Test/observation (categorical) master file
HL7_26_MDM_T05	MDM/ACK - Document addendum notification
HL7_26_OSQ_Q06	OSQ/OSR - Query for order status
HL7_26_ADT_A36	ADT/ACK - Merge patient information - patient ID and account number (for backwards)
HL7_26_MFN_M12	MFN/MFK - Master file notification message
HL7_26_RER_RER	Pharmacy/Treatment Encoded Order Information
HL7_26_SDN_S36	SDN/ACK - Notification of anti-microbial device data
HL7_26_PTR_PCF	PTR - PC/ pathway (problem-oriented) query response
HL7_26_QRY_R02	QRY - Query for results of observation
HL7_26_ORD_O04	ORD - Diet order acknowledgment
HL7_26_ORG_O20	ORG/ORL - General clinical order response
HL7_26_MFN_M07	MFN/MFK - Clinical study without phases but with schedules master file
HL7_26_RSP_K23	RSP - Get corresponding identifiers response
HL7_26_ADT_A09	ADT/ACK - Patient departing - tracking
HL7_26_EHC_E10	Edit/Adjudication Results
HL7_26_RAS_O17	RAS - Pharmacy/treatment administration
HL7_26_ADT_A49	ADT/ACK - Change patient account number
HL7_26_EHC_E24	Authorization Response
HL7_26_RSP_Z84	Who Am I (Response)
HL7_26_ADT_A07	ADT/ACK - Change an inpatient to an outpatient
HL7_26_OUL_R21	OUL - Unsolicited laboratory observation
HL7_26_QRY_PCE	QRY - PC/ pathway (problem-oriented) query
HL7_26_REF_I12	REF/RRI - Patient referral

TABLE 1–4 HL7 Version 2.6 OTD Library *(Continued)*

HL7 2.6 OTD	HL7 Description
HL7_26_SRM_S09	SRM/SRR - Request cancellation of service/resource on appointment
HL7_26_EHC_E12	Request Additional Information
HL7_26_SRM_S07	SRM/SRR - Request addition of service/resource on appointment
HL7_26_BAR_P05	BAR/ACK - Update account
HL7_26_SIU_S12	SIU/ACK - Notification of new appointment booking
HL7_26_BAR_P12	BAR/ACK - Update Diagnosis/Procedure
HL7_26_MFN_M16	MFN/MFK - Master File Notification Inventory Item Enhanced
HL7_26_QBP_Z89	Lab Results History
HL7_26_QRY_A19	QRY/ADR - Patient query
HL7_26_ORR_O02	ORR - Order response (also RRE, RRD, RRG, RRA)
HL7_26_ADT_A21	ADT/ACK - Patient goes on a "leave of absence"

HL7 Version 2.5.1 OTD Library

The table describes HL7 Version 2.5.1 OTD Library.

TABLE 1–5 HL7 Version 2.5.1 OTD Library

HL7 2.5.1. OTD	HL7 Description
HL7_251_ABS	Abstract
HL7_251_ACC	Accident
HL7_251_ACK	General Acknowledgment Message
HL7_251_ADR_A19	QRY/ADR - Patient query
HL7_251_ADT_A01	ADT/ACK - Admit/visit notification
HL7_251_ADT_A02	ADT/ACK - Transfer a patient
HL7_251_ADT_A03	ADT/ACK - Discharge/end visit
HL7_251_ADT_A04	ADT/ACK - Register a patient
HL7_251_ADT_A05	ADT/ACK - Pre-admit a patient
HL7_251_ADT_A06	ADT/ACK - Change an outpatient to an inpatient
HL7_251_ADT_A07	ADT/ACK - Change an inpatient to an outpatient

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_ADT_A08	ADT/ACK - Update patient information
HL7_251_ADT_A09	ADT/ACK - Patient departing - tracking
HL7_251_ADT_A10	ADT/ACK - Patient arriving - tracking
HL7_251_ADT_A11	ADT/ACK - Cancel admit/visit notification
HL7_251_ADT_A12	ADT/ACK - Cancel transfer
HL7_251_ADT_A13	ADT/ACK - Cancel discharge/end visit
HL7_251_ADT_A14	ADT/ACK - Pending admit
HL7_251_ADT_A15	ADT/ACK - Pending transfer
HL7_251_ADT_A16	ADT/ACK - Pending discharge
HL7_251_ADT_A17	ADT/ACK - Swap patients
HL7_251_ADT_A18	ADT/ACK - Merge patient information (for backward compatibility only)
HL7_251_ADT_A20	ADT/ACK - Bed status update
HL7_251_ADT_A21	ADT/ACK - Patient goes on a leave of absence
HL7_251_ADT_A22	ADT/ACK - Patient returns from a leave of absence
HL7_251_ADT_A23	ADT/ACK - Delete a patient record
HL7_251_ADT_A24	ADT/ACK - Link patient information
HL7_251_ADT_A25	ADT/ACK - Cancel pending discharge
HL7_251_ADT_A26	ADT/ACK - Cancel pending transfer
HL7_251_ADT_A27	ADT/ACK - Cancel pending admit
HL7_251_ADT_A28	ADT/ACK - Add person information
HL7_251_ADT_A29	ADT/ACK - Delete person information
HL7_251_ADT_A30	ADT/ACK - Merge person information (for backward compatibility only)
HL7_251_ADT_A31	ADT/ACK - Update person information
HL7_251_ADT_A32	ADT/ACK - Cancel patient arriving - tracking
HL7_251_ADT_A33	ADT/ACK - Cancel patient departing - tracking
HL7_251_ADT_A34	ADT/ACK - Merge patient information - patient ID only (for backward compatibility

TABLE 1–5 HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_ADT_A35	ADT/ACK - Merge patient information - account number only (for backward compatibility
HL7_251_ADT_A36	ADT/ACK - Merge patient information - patient ID and account number (for backwards)
HL7_251_ADT_A37	ADT/ACK - Unlink patient information
HL7_251_ADT_A38	ADT/ACK - Cancel pre-admit
HL7_251_ADT_A39	ADT/ACK - Merge person - patient ID (for backward compatibility only)
HL7_251_ADT_A40	ADT/ACK - Merge patient - patient identifier list
HL7_251_ADT_A41	ADT/ACK - Merge account - patient account number
HL7_251_ADT_A42	ADT/ACK - Merge visit - visit number
HL7_251_ADT_A43	ADT/ACK - Move patient information - patient identifier list
HL7_251_ADT_A44	ADT/ACK - Move account information - patient account number
HL7_251_ADT_A45	ADT/ACK - Move visit information - visit number
HL7_251_ADT_A46	ADT/ACK - Change patient ID (for backward compatibility only)
HL7_251_ADT_A47	ADT/ACK - Change patient identifier list
HL7_251_ADT_A48	ADT/ACK - Change alternate patient ID (for backward compatibility only)
HL7_251_ADT_A49	ADT/ACK - Change patient account number
HL7_251_ADT_A50	ADT/ACK - Change visit number
HL7_251_ADT_A51	ADT/ACK - Change alternate visit ID
HL7_251_ADT_A52	ADT/ACK - Cancel leave of absence for a patient
HL7_251_ADT_A53	ADT/ACK - Cancel patient returns from a leave of absence
HL7_251_ADT_A54	ADT/ACK - Change attending doctor
HL7_251_ADT_A55	ADT/ACK - Cancel change attending doctor
HL7_251_ADT_A60	ADT/ACK - Update allergy information
HL7_251_ADT_A61	ADT/ACK - Change consulting doctor
HL7_251_ADT_A62	ADT/ACK - Cancel change consulting doctor
HL7_251_AFF	Professional Affiliation
HL7_251_AIG	Appointment Information_General Resource

TABLE 1–5 HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_AIL	Appointment Information_Location Resource
HL7_251_AIP	Appointment Information_Personnel Resource
HL7_251_AIS	Appointment Information
HL7_251_AL1	Patient Allergy Information
HL7_251_APR	Appointment Preferences
HL7_251_ARQ	Appointment Request
HL7_251_AUT	Authorization Information
HL7_251_BAR_P01	BAR/ACK - Add patient accounts
HL7_251_BAR_P02	BAR/ACK - Purge patient accounts
HL7_251_BAR_P05	BAR/ACK - Update account
HL7_251_BAR_P06	BAR/ACK - End account
HL7_251_BAR_P10	BAR/ACK - Transmit Ambulatory Payment Classification (APC)
HL7_251_BAR_P12	BAR/ACK - Update Diagnosis/Procedure
HL7_251_BLC	Blood Code
HL7_251_BLG	Billing
HL7_251_BPO	Blood product order
HL7_251_BPS_O29	BPS - Blood product dispense status
HL7_251_BPX	Blood Product Dispense Status
HL7_251_BRP_O30	BRP - Blood product dispense status acknowledgment
HL7_251_BRT_O32	BRT - Blood product transfusion/disposition acknowledgment
HL7_251_BTS_O31	BTS - Blood product transfusion/disposition
HL7_251_BTX	Batch Trailer
HL7_251_CDM	Charge Description Master
HL7_251_CER	Certificate Detail
HL7_251_CM0	Clinical Study Master
HL7_251_CM1	Clinical Study Phase Master
HL7_251_CM2	Clinical Study Schedule Master
HL7_251_CNS	Clear Notification

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_CRM_C01	CRM - Register a patient on a clinical trial
HL7_251_CRM_C02	CRM - Cancel a patient registration on clinical trial (for clerical mistakes online)
HL7_251_CRM_C03	CRM - Correct/update registration information
HL7_251_CRM_C04	CRM - Patient has gone off a clinical trial
HL7_251_CRM_C05	CRM - Patient enters phase of clinical trial
HL7_251_CRM_C06	CRM - Cancel patient entering a phase (clerical mistake)
HL7_251_CRM_C07	CRM - Correct/update phase information
HL7_251_CRM_C08	CRM - Patient has gone off phase of clinical trial
HL7_251_CSP	Clinical Study Phase
HL7_251_CSR	Clinical Study Registration
HL7_251_CSS	Clinical Study Data Schedule Segment
HL7_251_CSU_C09	CSU - Automated time intervals for reporting, like monthly
HL7_251_CSU_C10	CSU - Patient completes the clinical trial
HL7_251_CSU_C11	CSU - Patient completes a phase of the clinical trial
HL7_251_CSU_C12	CSU - Update/correction of patient order/result information
HL7_251_CTD	Contact Data
HL7_251_CTI	Clinical Trial Identification
HL7_251_DB1	Disability
HL7_251_DFT_P03	DFT/ACK - Post detail financial transaction
HL7_251_DFT_P11	DFT/ACK - Post Detail Financial Transactions - New
HL7_251_DG1	Diagnosis
HL7_251_DOC_T12	QRY/DOC - Document query
HL7_251_DRG	Diagnosis Related Group
HL7_251_DSC	Continuation Pointer
HL7_251_DSP	Display Data
HL7_251_EAC_U07	EAC/ACK - Automated equipment command
HL7_251_EAN_U09	EAN/ACK - Automated equipment notification

TABLE 1–5 HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_EAR_U08	EAR/ACK - Automated equipment response
HL7_251_ECD	Equipment Command
HL7_251_ECR	Equipment Command Response
HL7_251_EDU	Educational Detail
HL7_251_EQP	Equipment/log Service
HL7_251_EQU	Equipment Detail
HL7_251_ERR	Error
HL7_251_ESR_U02	ESR/ACK - Automated equipment status request
HL7_251_ESU_U01	ESU/ACK - Automated equipment status update
HL7_251_EVN	Event Type
HL7_251_FAC	-
HL7_251_FT1	Financial Transaction
HL7_251_GOL	Goal Detail
HL7_251_GP1	Grouping/Reimbursement - Visit
HL7_251_GP2	Grouping/Reimbursement - Procedure Line Item
HL7_251_GT1	Guarantor
HL7_251_IAM	Patient Adverse Reaction Information
HL7_251_IIM	Inventory Item Master
HL7_251_IN1	Insurance
HL7_251_IN2	Insurance Additional Information
HL7_251_IN3	Insurance Additional Information, Certification
HL7_251_INR_U06	INR/ACK - Automated equipment inventory request
HL7_251_INU_U05	INU/ACK - Automated equipment inventory update
HL7_251_INV	Inventory Detail
HL7_251_IPC	Imaging Procedure Control Segment
HL7_251_ISD	Interaction Status Detail
HL7_251_LAN	Language Detail
HL7_251_LCC	Location Charge Code

TABLE 1–5   HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_LCH	Location Characteristic
HL7_251_LDP	Location Department
HL7_251_LOC	Location Identification
HL7_251_LRL	Location Relationship
HL7_251_LSR_U13	LSR/ACK - Automated equipment log/service request
HL7_251_LSU_U12	LSU/ACK - Automated equipment log/service update
HL7_251_MDM_T01	MDM/ACK - Original document notification
HL7_251_MDM_T02	MDM/ACK - Original document notification and content
HL7_251_MDM_T03	MDM/ACK - Document status change notification
HL7_251_MDM_T04	MDM/ACK - Document status change notification and content
HL7_251_MDM_T05	MDM/ACK - Document addendum notification
HL7_251_MDM_T06	MDM/ACK - Document addendum notification and content
HL7_251_MDM_T07	MDM/ACK - Document edit notification
HL7_251_MDM_T08	MDM/ACK - Document edit notification and content
HL7_251_MDM_T09	MDM/ACK - Document replacement notification
HL7_251_MDM_T10	MDM/ACK - Document replacement notification and content
HL7_251_MDM_T11	MDM/ACK - Document cancel notification
HL7_251_MFA	Master File Acknowledgment
HL7_251_MFE	Master File Entry
HL7_251_MFI	Master File Identification
HL7_251_MFK_M01	MFN/MFK - Master file not otherwise specified (for backward compatibility only)
HL7_251_MFK_M02	MFN/MFK - Master file - staff practitioner
HL7_251_MFK_M03	MFN/MFK - Master file - test/observation (for backward compatibility only)
HL7_251_MFK_M04	MFN/MFK - Master files charge description
HL7_251_MFK_M05	MFN/MFK - Patient location master file
HL7_251_MFK_M06	MFN/MFK - Clinical study with phases and schedules master file

TABLE 1–5 HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_MFK_M07	MFN/MFK - Clinical study without phases but with schedules master file
HL7_251_MFK_M08	MFN/MFK - Test/observation (numeric) master file
HL7_251_MFK_M09	MFN/MFK - Test/observation (categorical) master file
HL7_251_MFK_M10	MFN/MFK - Test /observation batteries master file
HL7_251_MFK_M11	MFN/MFK - Test/calculated observations master file
HL7_251_MFK_M12	MFN/MFK - Master file notification message
HL7_251_MFK_M13	MFN/MFK - Master file notification - general
HL7_251_MFK_M14	MFN/MFK - Master file notification - site defined
HL7_251_MFK_M15	MFN/MFK - Inventory item master file notification
HL7_251_MFN_M01	MFN/MFK - Master file not otherwise specified (for backward compatibility only)
HL7_251_MFN_M02	MFN/MFK - Master file - staff practitioner
HL7_251_MFN_M03	MFN/MFK - Master file - test/observation (for backward compatibility only)
HL7_251_MFN_M04	MFN/MFK - Master files charge description
HL7_251_MFN_M05	MFN/MFK - Patient location master file
HL7_251_MFN_M06	MFN/MFK - Clinical study with phases and schedules master file
HL7_251_MFN_M07	MFN/MFK - Clinical study without phases but with schedules master file
HL7_251_MFN_M08	MFN/MFK - Test/observation (numeric) master file
HL7_251_MFN_M09	MFN/MFK - Test/observation (categorical) master file
HL7_251_MFN_M10	MFN/MFK - Test /observation batteries master file
HL7_251_MFN_M11	MFN/MFK - Test/calculated observations master file
HL7_251_MFN_M12	MFN/MFK - Master file notification message
HL7_251_MFN_M13	MFN/MFK - Master file notification - general
HL7_251_MFN_M14	MFN/MFK - Master file notification - site defined
HL7_251_MFN_M15	MFN/MFK - Inventory item master file notification
HL7_251_MFQ_M01	MFN/MFK - Master file not otherwise specified (for backward compatibility only)
HL7_251_MFQ_M02	MFN/MFK - Master file - staff practitioner

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_MFQ_M03	MFN/MFK - Master file - test/observation (for backward compatibility only)
HL7_251_MFQ_M04	MFN/MFK - Master files charge description
HL7_251_MFQ_M05	MFN/MFK - Patient location master file
HL7_251_MFQ_M06	MFN/MFK - Clinical study with phases and schedules master file
HL7_251_MFQ_M07	MFN/MFK - Clinical study without phases but with schedules master file
HL7_251_MFQ_M08	MFN/MFK - Test/observation (numeric) master file
HL7_251_MFQ_M09	MFN/MFK - Test/observation (categorical) master file
HL7_251_MFQ_M10	MFN/MFK - Test /observation batteries master file
HL7_251_MFQ_M11	MFN/MFK - Test/calculated observations master file
HL7_251_MFQ_M12	MFN/MFK - Master file notification message
HL7_251_MFQ_M13	MFN/MFK - Master file notification - general
HL7_251_MFQ_M14	MFN/MFK - Master file notification - site defined
HL7_251_MFR_M01	MFN/MFK - Master file not otherwise specified (for backward compatibility only)
HL7_251_MFR_M02	MFN/MFK - Master file - staff practitioner
HL7_251_MFR_M03	MFN/MFK - Master file - test/observation (for backward compatibility only)
HL7_251_MFR_M04	MFN/MFK - Master files charge description
HL7_251_MFR_M05	MFN/MFK - Patient location master file
HL7_251_MFR_M06	MFN/MFK - Clinical study with phases and schedules master file
HL7_251_MFR_M07	MFN/MFK - Clinical study without phases but with schedules master file
HL7_251_MFR_M08	MFN/MFK - Test/observation (numeric) master file
HL7_251_MFR_M09	MFN/MFK - Test/observation (categorical) master file
HL7_251_MFR_M10	MFN/MFK - Test /observation batteries master file
HL7_251_MFR_M11	MFN/MFK - Test/calculated observations master file
HL7_251_MFR_M12	MFN/MFK - Master file notification message
HL7_251_MFR_M13	MFN/MFK - Master file notification - general
HL7_251_MFR_M14	MFN/MFK - Master file notification - site defined

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_MRG	Merge Patient Information
HL7_251_MSA	Message Acknowledgment
HL7_251_MSH	Message Header
HL7_251_NCK	System Clock
HL7_251_NDS	Notification Detail
HL7_251_NK1	Next of Kin/Associated Parties
HL7_251_NMD_N02	NMD/ACK - Application management data message (unsolicited)
HL7_251_NMQ_N01	NMQ/NMR - Application management query message
HL7_251_NMR_N01	NMQ/NMR - Application management query message
HL7_251_NPU	Bed Status Update
HL7_251_NSC	Application Status Update
HL7_251_NST	Application Control Level Statistics
HL7_251_NTE	Notes and Comments
HL7_251_OBR	Observation Request
HL7_251_OBX	Observation Result
HL7_251_ODS	Dietary Orders, Supplements, and Preferences
HL7_251_ODT	Diet Tray Instructions
HL7_251_OM1	General Segment
HL7_251_OM2	Numeric Observation
HL7_251_OM3	Categorical Service/Test/Observation
HL7_251_OM4	Observations that Require Specimens
HL7_251_OM5	Observation Batteries (Sets)
HL7_251_OM6	Observations that are Calculated from Other Observations
HL7_251_OM7	Additional Basic Attributes
HL7_251_OMB_O27	OMB - Blood product order
HL7_251_OMD_O03	OMD - Diet order
HL7_251_OMG_O19	OMG - General clinical order
HL7_251_OMI_O23	OMI - Imaging order

TABLE 1–5 HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_OML_O21	OML - Laboratory order
HL7_251_OML_O33	OML - Laboratory order for multiple orders related to a single specimen
HL7_251_OML_O35	OML - Laboratory order for multiple orders related to a single container of a species
HL7_251_OMN_O07	OMN - Non-stock requisition order
HL7_251_OMP_O09	OMP - Pharmacy/treatment order
HL7_251_OMS_O05	OMS - Stock requisition order
HL7_251_ORB_O28	ORB - Blood product order acknowledgment
HL7_251_ORC	Common Order
HL7_251_ORD_O04	ORD - Diet order acknowledgment
HL7_251_ORF_R04	ORF - Response to query; transmission of requested observation
HL7_251_ORG	General Clinical Order Acknowledgment Message
HL7_251_ORG_O20	ORG/ORL - General clinical order response
HL7_251_ORI_O24	ORI - Imaging order response message to any OMI
HL7_251_ORL_O22	ORL - General laboratory order response message to any OML
HL7_251_ORL_O34	ORL - Laboratory order response message to a multiple order related to single species
HL7_251_ORL_O36	ORL - Laboratory order response message to a single container of a specimen OML
HL7_251_ORM_O01	ORM - Order message (also RDE, RDS, RGV, RAS)
HL7_251_ORN_O08	ORN - Non-stock requisition acknowledgment
HL7_251_ORP_O10	ORP - Pharmacy/treatment order acknowledgment
HL7_251_ORR_O02	ORR - Order response (also RRE, RRD, RRG, RRA)
HL7_251_ORS_O06	ORS - Stock requisition acknowledgment
HL7_251_ORU_R01	ORU/ACK - Unsolicited transmission of an observation message
HL7_251_ORU_R30	ORU - Unsolicited Point-Of-Care Observation Message Without Existing Order
HL7_251_ORU_R31	ORU - Unsolicited New Point-Of-Care Observation Message - Search For An Order
HL7_251_ORU_R32	ORU - Unsolicited Pre-Ordered Point-Of-Care Observation

TABLE 1–5 HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_OSQ_Q06	OSQ/OSR - Query for order status
HL7_251_OSR_Q06	OSQ/OSR - Query for order status
HL7_251_OUL_R21	OUL - Unsolicited laboratory observation
HL7_251_OUL_R22	OUL - Unsolicited Specimen Oriented Observation Message
HL7_251_OUL_R23	OUL - Unsolicited Specimen Container Oriented Observation Message
HL7_251_OUL_R24	OUL - Unsolicited Order Oriented Observation Message
HL7_251_PCR	Possible Causal Relationship
HL7_251_PD1	Patient Additional Demographic
HL7_251_PDA	Patient Death and Autopsy
HL7_251_PDC	-
HL7_251_PEO	Product Experience Observation
HL7_251_PES	Product Experience Sender
HL7_251_PEX_P07	PEX - Unsolicited initial individual product experience report
HL7_251_PEX_P08	PEX - Unsolicited update individual product experience report
HL7_251_PGL_PC6	PGL - PC/ goal address
HL7_251_PGL_PC7	PGL - PC/ goal update
HL7_251_PGL_PC8	PGL - PC/ goal delete
HL7_251_PID	Patient Identification
HL7_251_PIN_I07	PIN/ACK - Unsolicited insurance information
HL7_251_PMU_B01	PMU/ACK - Add personnel record
HL7_251_PMU_B02	PMU/ACK - Update personnel record
HL7_251_PMU_B03	PMU/ACK - Delete personnel record
HL7_251_PMU_B04	PMU/ACK - Active practicing person
HL7_251_PMU_B05	PMU/ACK - Deactivate practicing person
HL7_251_PMU_B06	PMU/ACK - Terminate practicing person
HL7_251_PMU_B07	PMU/ACK - Grant Certificate/Permission
HL7_251_PMU_B08	PMU/ACK - Revoke Certificate/Permission
HL7_251_PPG_PCG	PPG - PC/ pathway (goal-oriented) address

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_PPG_PCH	PPG - PC/ pathway (goal-oriented) update
HL7_251_PPG_PCJ	PPG - PC/ pathway (goal-oriented) delete
HL7_251_PPP_PCB	PPP - PC/ pathway (problem-oriented) address
HL7_251_PPP_PCC	PPP - PC/ pathway (problem-oriented) update
HL7_251_PPP_PCD	PPP - PC/ pathway (problem-oriented) delete
HL7_251_PPR_PC1	PPR - PC/ problem address
HL7_251_PPR_PC2	PPR - PC/ problem update
HL7_251_PPR_PC3	PPR - PC/ problem delete
HL7_251_PPT_PCL	PPT - PC/ pathway (goal-oriented) query response
HL7_251_PPV_PCA	PPV - PC/ goal response
HL7_251_PR1	Procedures
HL7_251_PRA	Practitioner Detail
HL7_251_PRB	Problem Details
HL7_251_PRC	Pricing
HL7_251_PRD	Provider Data
HL7_251_PRR_PC5	PRR - PC/ problem response
HL7_251_PTH	Pathway
HL7_251_PTR_PCF	PTR - PC/ pathway (problem-oriented) query response
HL7_251_PV1	Patient Visit
HL7_251_PV2	Patient Visit - Additional Information
HL7_251_QAK	Query Acknowledgment
HL7_251_QBP_Q11	QBP - Query by parameter requesting an RSP segment pattern response
HL7_251_QBP_Q13	QBP - Query by parameter requesting an RTB - tabular response
HL7_251_QBP_Q15	QBP - Query by parameter requesting an RDY display response
HL7_251_QBP_Q21	QBP - Get person demographics
HL7_251_QBP_Q22	QBP - Find candidates
HL7_251_QBP_Q23	QBP - Get corresponding identifiers
HL7_251_QBP_Q24	QBP - Allocate identifiers

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_QBP_Q25	QBP - Personnel Information by Segment Query
HL7_251_QBP_Q31	DBP - Dispense History
HL7_251_QBP_Z73	Information about Phone Calls
HL7_251_QBP_Z75	Tabular Patient List
HL7_251_QBP_Z77	Tabular Patient List
HL7_251_QBP_Z79	Dispense Information
HL7_251_QBP_Z81	Dispense History
HL7_251_QBP_Z85	Pharmacy Information Comprehensive
HL7_251_QBP_Z87	Dispense Information
HL7_251_QBP_Z89	Lab Results History
HL7_251_QBP_Z91	Who Am I
HL7_251_QBP_Z93	Tabular Dispense History
HL7_251_QBP_Z95	Tabular Dispense History
HL7_251_QBP_Z97	Dispense History
HL7_251_QBP_Z99	Who Am I
HL7_251_QCN_J01	QCN/ACK - Cancel query/acknowledge message
HL7_251_QID	Query Identification
HL7_251_QPD	Query Parameter Definition
HL7_251_QRD	Original-Style Query Definition
HL7_251_QRF	Original style query filter
HL7_251_QRI	Query Response Instance
HL7_251_QRY_A19	QRY/ADR - Patient query
HL7_251_QRY_PC4	QRY - PC/ problem query
HL7_251_QRY_PC9	QRY - PC/ goal query
HL7_251_QRY_PCE	QRY - PC/ pathway (problem-oriented) query
HL7_251_QRY_PCK	QRY - PC/ pathway (goal-oriented) query
HL7_251_QRY_Q26	ROR - Pharmacy/treatment order response
HL7_251_QRY_Q27	RAR - Pharmacy/treatment administration information

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_QRY_Q28	RDR - Pharmacy/treatment dispense information
HL7_251_QRY_Q29	RER - Pharmacy/treatment encoded order information
HL7_251_QRY_Q30	RGR - Pharmacy/treatment dose information
HL7_251_QRY_R02	QRY - Query for results of observation
HL7_251_QRY_T12	QRY/DOC - Document query
HL7_251_QSB_Q16	QSB - Create subscription
HL7_251_QSB_Z83	ORU Subscription
HL7_251_QSX_J02	QSX/ACK - Cancel subscription/acknowledge message
HL7_251_QVR_Q17	QVR - Query for previous events
HL7_251_RAR_RAR	Pharmacy/Treatment Administration Information
HL7_251_RAS_O17	RAS - Pharmacy/treatment administration
HL7_251_RCI_I05	RQC/RCI - Request for patient clinical information
HL7_251_RCL_I06	RQC/RCL - Request/receipt of clinical data listing
HL7_251_RCP	Response Control Parameter
HL7_251_RDE_O11	RDE - Pharmacy/treatment encoded order
HL7_251_RDE_O25	RDE - Pharmacy/treatment refill authorization request
HL7_251_RDF	Table Row Definition
HL7_251_RDR_RDR	Pharmacy/treatment Dispense Information
HL7_251_RDS_O13	RDS - Pharmacy/treatment dispense
HL7_251_RDT	Table Row Data
HL7_251_RDY_K15	RDY - Display response in response to QBP^Q15
HL7_251_RDY_Z80	Dispense Information (Response)
HL7_251_RDY_Z98	Dispense History (Response)
HL7_251_REF_I12	REF/RRI - Patient referral
HL7_251_REF_I13	REF/RRI - Modify patient referral
HL7_251_REF_I14	REF/RRI - Cancel patient referral
HL7_251_REF_I15	REF/RRI - Request patient referral status
HL7_251_RER_RER	Pharmacy/Treatment Encoded Order Information

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_RF1	Referral Information
HL7_251_RGR_RGR	Pharmacy/Treatment Dose Information
HL7_251_RGS	Resource Group
HL7_251_RGV_O15	RGV - Pharmacy/treatment given
HL7_251_RMI	Risk Management Incident
HL7_251_ROL	Role
HL7_251_ROR_ROR	ROR - Pharmacy prescription order query response
HL7_251_RPA_I08	RQA/RPA - Request for treatment authorization information
HL7_251_RPA_I09	RQA/RPA - Request for modification to an authorization
HL7_251_RPA_I10	RQA/RPA - Request for re-submission of an authorization
HL7_251_RPA_I11	RQA/RPA - Request for cancellation of an authorization
HL7_251_RPI_I01	RQI/RPI - Request for insurance information
HL7_251_RPI_I04	RQD/RPI - Request for patient demographic data
HL7_251_RPL_I02	RQI/RPL - Request/receipt of patient selection display list
HL7_251_RPR_I03	RQI/RPR - Request/receipt of patient selection list
HL7_251_RQ1	Requisition Detail-1
HL7_251_RQA_I08	RQA/RPA - Request for treatment authorization information
HL7_251_RQA_I09	RQA/RPA - Request for modification to an authorization
HL7_251_RQA_I10	RQA/RPA - Request for re-submission of an authorization
HL7_251_RQA_I11	RQA/RPA - Request for cancellation of an authorization
HL7_251_RQC_I05	RQC/RCI - Request for patient clinical information
HL7_251_RQC_I06	RQC/RCL - Request/receipt of clinical data listing
HL7_251_RQD	Requisition Detail
HL7_251_RQI_I01	RQI/RPI - Request for insurance information
HL7_251_RQI_I02	RQI/RPL - Request/receipt of patient selection display list
HL7_251_RQI_I03	RQI/RPR - Request/receipt of patient selection list
HL7_251_RQP_I04	RQD/RPI - Request for patient demographic data
HL7_251_RRA_O18	RRA - Pharmacy/treatment administration acknowledgment

TABLE 1–5   HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_RRD_O14	RRD - Pharmacy/treatment dispense acknowledgment
HL7_251_RRE_O12	RRE - Pharmacy/treatment encoded order acknowledgment
HL7_251_RRE_O26	RRE - Pharmacy/Treatment Refill Authorization Acknowledgement
HL7_251_RRG_O16	RRG - Pharmacy/treatment give acknowledgment
HL7_251_RRI_I12	REF/RRI - Patient referral
HL7_251_RRI_I13	REF/RRI - Modify patient referral
HL7_251_RRI_I14	REF/RRI - Cancel patient referral
HL7_251_RRI_I15	REF/RRI - Request patient referral status
HL7_251_RSP_K11	RSP - Segment pattern response in response to QBP^Q11
HL7_251_RSP_K21	RSP - Get person demographics response
HL7_251_RSP_K22	RSP - Find candidates response
HL7_251_RSP_K23	RSP - Get corresponding identifiers response
HL7_251_RSP_K24	RSP - Allocate identifiers response
HL7_251_RSP_K25	RSP - Personnel Information by Segment Response
HL7_251_RSP_K31	RSP - Dispense History
HL7_251_RSP_Z82	Dispense History (Response)
HL7_251_RSP_Z84	Who Am I (Response)
HL7_251_RSP_Z86	Pharmacy Information Comprehensive (Response)
HL7_251_RSP_Z88	Dispense Information (Response)
HL7_251_RSP_Z90	Lab Results History (Response)
HL7_251_RTB_K13	RTB - Tabular response in response to QBP^Q13
HL7_251_RTB_Z74	Information about Phone Calls (Response)
HL7_251_RTB_Z76	Tabular Patient List (Response)
HL7_251_RTB_Z78	Tabular Patient List (Response)
HL7_251_RTB_Z92	Who Am I (Response)
HL7_251_RTB_Z94	Tabular Dispense History (Response)
HL7_251_RTB_Z96	Tabular Dispense History (Response)
HL7_251_RXA	Pharmacy/Treatment Administration

TABLE 1–5   HL7 Version 2.5.1 OTD Library   *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_RXC	Pharmacy/Treatment Component Order
HL7_251_RXD	Pharmacy/Treatment Dispense
HL7_251_RXE	Pharmacy/Treatment Encoded Order
HL7_251_RXG	Pharmacy/Treatment Give
HL7_251_RXO	Pharmacy/Treatment Order
HL7_251_RXR	Pharmacy/Treatment Route
HL7_251_SAC	Specimen Container detail
HL7_251_SCH	Scheduling Activity Information
HL7_251_SFT	Software Segment
HL7_251_SID	Substance Identifier
HL7_251_SIU_S12	SIU/ACK - Notification of new appointment booking
HL7_251_SIU_S13	SIU/ACK - Notification of appointment rescheduling
HL7_251_SIU_S14	SIU/ACK - Notification of appointment modification
HL7_251_SIU_S15	SIU/ACK - Notification of appointment cancellation
HL7_251_SIU_S16	SIU/ACK - Notification of appointment discontinuation
HL7_251_SIU_S17	SIU/ACK - Notification of appointment deletion
HL7_251_SIU_S18	SIU/ACK - Notification of addition of service/resource on appointment
HL7_251_SIU_S19	SIU/ACK - Notification of modification of service/resource on appointment
HL7_251_SIU_S20	SIU/ACK - Notification of cancellation of service/resource on appointment
HL7_251_SIU_S21	SIU/ACK - Notification of discontinuation of service/resource on appointment
HL7_251_SIU_S22	SIU/ACK - Notification of deletion of service/resource on appointment
HL7_251_SIU_S23	SIU/ACK - Notification of blocked schedule time slot(s)
HL7_251_SIU_S24	SIU/ACK - Notification of opened ("unblocked") schedule time slot(s)
HL7_251_SIU_S26	SIU/ACK Notification that patient did not show up for schedule appointment
HL7_251_SPM	Specimen

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_SQM_S25	SQM/SQR - Schedule query message and response
HL7_251_SQR_S25	SQM/SQR - Schedule query message and response
HL7_251_SRM_S01	SRM/SRR - Request new appointment booking
HL7_251_SRM_S02	SRM/SRR - Request appointment rescheduling
HL7_251_SRM_S03	SRM/SRR - Request appointment modification
HL7_251_SRM_S04	SRM/SRR - Request appointment cancellation
HL7_251_SRM_S05	SRM/SRR - Request appointment discontinuation
HL7_251_SRM_S06	SRM/SRR - Request appointment deletion
HL7_251_SRM_S07	SRM/SRR - Request addition of service/resource on appointment
HL7_251_SRM_S08	SRM/SRR - Request modification of service/resource on appointment
HL7_251_SRM_S09	SRM/SRR - Request cancellation of service/resource on appointment
HL7_251_SRM_S10	SRM/SRR - Request discontinuation of service/resource on appointment
HL7_251_SRM_S11	SRM/SRR - Request deletion of service/resource on appointment
HL7_251_SRR_S01	SRM/SRR - Request new appointment booking
HL7_251_SRR_S02	SRM/SRR - Request appointment rescheduling
HL7_251_SRR_S03	SRM/SRR - Request appointment modification
HL7_251_SRR_S04	SRM/SRR - Request appointment cancellation
HL7_251_SRR_S05	SRM/SRR - Request appointment discontinuation
HL7_251_SRR_S06	SRM/SRR - Request appointment deletion
HL7_251_SRR_S07	SRM/SRR - Request addition of service/resource on appointment
HL7_251_SRR_S08	SRM/SRR - Request modification of service/resource on appointment
HL7_251_SRR_S09	SRM/SRR - Request cancellation of service/resource on appointment
HL7_251_SRR_S10	SRM/SRR - Request discontinuation of service/resource on appointment
HL7_251_SRR_S11	SRM/SRR - Request deletion of service/resource on appointment
HL7_251_SSR_U04	SSR/ACK - specimen status request
HL7_251_SSU_U03	SSU/ACK - Specimen status update
HL7_251_STF	Staff Identification - Segment
HL7_251_SUR_P09	SUR - Summary product experience report

TABLE 1–5 HL7 Version 2.5.1 OTD Library *(Continued)*

HL7 2.5.1. OTD	HL7 Description
HL7_251_TCC	Test Code Configuration - Segment
HL7_251_TCD	Test Code Detail
HL7_251_TCR_U11	TCR/ACK - Automated equipment test code settings request
HL7_251_TCU_U10	TCU/ACK - Automated equipment test code settings update
HL7_251_TQ1	-
HL7_251_TQ2	Timing/Quantity Relationship
HL7_251_TXA	Transcription Document Header
HL7_251_UB1	UB82
HL7_251_UB2	UB92 Data
HL7_251_VAR	Unknown/Variance
HL7_251_VXQ_V01	VXQ - Query for vaccination record
HL7_251_VXR_V03	VXR - Vaccination record response
HL7_251_VXU_V04	VXU - Unsolicited vaccination record update
HL7_251_VXX_V02	VXX - Response to vaccination query returning multiple PID matches

HL7 Version 2.5 OTD Library

The table describes HL7 Version 2.5 OTD Library.

TABLE 1–6 HL7 Version 2.5 OTD Library

HL7 2.5 OTD	HL7 Description
HL7_25_ABS	Abstract
HL7_25_ACC	Accident
HL7_25_ACK	General Acknowledgment Message
HL7_25_ADR_A19	ADT Response
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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
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_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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
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_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	Professional Affiliation
HL7_25_AIG	Appointment Information_General Resource
HL7_25_AIL	Appointment Information_Location Resource

TABLE 1–6 HL7 Version 2.5 OTD Library   *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_AIP	Appointment Information_Personnel Resource
HL7_25_AIS	Appointment Information
HL7_25_AL1	Patient Allergy Information
HL7_25_APR	Appointment Preferences
HL7_25_ARQ	Appointment Request
HL7_25_AUT	Authorization Information
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	Blood Code
HL7_25_BLG	Billing
HL7_25_BPO	Blood product order
HL7_25_BPS_O29	Blood Product Dispense Status Message
HL7_25_BPX	Blood Product Dispense Status
HL7_25_BRP_O30	Blood Product Dispense Status Acknowledgment
HL7_25_BRT_O32	Blood Product Transfusion/Disposition Acknowledgement
HL7_25_BTS_O31	Blood Product Transfusion/Disposition Message
HL7_25_BTX	Batch Trailer
HL7_25_CDM	Charge Description Master
HL7_25_CER	Certificate Detail
HL7_25_CM0	Clinical Study Master
HL7_25_CM1	Clinical Study Phase Master
HL7_25_CM2	Clinical Study Schedule Master
HL7_25_CNS	Clear Notification
HL7_25_CRM_C01	Register a Patient on a Clinical Trial

TABLE 1–6 HL7 Version 2.5 OTD Library   *(Continued)*

HL7 2.5 OTD	HL7 Description
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	Clinical Study Phase
HL7_25_CSR	Clinical Study Registration
HL7_25_CSS	Clinical Study Data Schedule Segment
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	Contact Data
HL7_25_CTI	Clinical Trial Identification
HL7_25_DB1	Disability
HL7_25_DFT_P03	Post Detail Financial Transactions
HL7_25_DFT_P11	Post Detail Financial Transactions - Expanded
HL7_25_DG1	Diagnosis
HL7_25_DOC_T12	Document Query
HL7_25_DRG	Diagnosis Related Group
HL7_25_DSC	Continuation Pointer
HL7_25_DSP	Display Data
HL7_25_EAC_U07	Automated Equipment Command
HL7_25_EAN_U09	Automated Equipment Notification
HL7_25_EAR_U08	Automated Equipment Response
HL7_25_ECD	Equipment Command

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_ECR	Equipment Command Response
HL7_25_EDU	Educational Detail
HL7_25_EQP	Equipment/log Service
HL7_25_EQU	Equipment Detail
HL7_25_ERR	Error
HL7_25_ESR_U02	Automated Equipment Status Request
HL7_25_ESU_U01	Automated Equipment Status Update
HL7_25_EVN	Event Type
HL7_25_FT1	Financial Transaction
HL7_25_GOL	Goal Detail
HL7_25_GP1	Grouping/Reimbursement - Visit
HL7_25_GP2	Grouping/Reimbursement - Procedure Line Item
HL7_25_GT1	Guarantor
HL7_25_IAM	Patient Adverse Reaction Information
HL7_25_IIM	Inventory Item Master
HL7_25_IN1	Insurance
HL7_25_IN2	Insurance Additional Information
HL7_25_IN3	Insurance Additional Information, Certification
HL7_25_INR_U06	Automated Equipment Inventory Request
HL7_25_INU_U05	Automated Equipment Inventory Update
HL7_25_INV	Inventory Detail
HL7_25_IPC	Imaging Procedure Control Segment
HL7_25_ISD	Interaction Status Detail
HL7_25_LAN	Language Detail
HL7_25_LCC	Location Charge Code
HL7_25_LCH	Location Characteristic
HL7_25_LDP	Location Department
HL7_25_LOC	Location Identification

TABLE 1–6 HL7 Version 2.5 OTD Library   *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_LRL	Location Relationship
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_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	Master File Acknowledgment
HL7_25_MFE	Master File Entry
HL7_25_MFI	Master File Identification
HL7_25_MFK_M01	Master FFile Not Otherwise Specified
HL7_25_MFK_M02	Master File - Staff Practitioner
HL7_25_MFK_M03	Master File - Test/Observation (Backward Compatibility)
HL7_25_MFK_M04	Master Files Charge Description
HL7_25_MFK_M05	Patient Location Master File
HL7_25_MFK_M06	Clinical Study with Phases and Schedules Master File
HL7_25_MFK_M07	Clinical Study without Phases but with Schedules Master File
HL7_25_MFK_M08	Test/Observation (Numeric) Master File
HL7_25_MFK_M09	Test/Observation (Categorical) Master File
HL7_25_MFK_M10	Test /Observation Batteries Master File
HL7_25_MFK_M11	Test/Calculated Observations Master File

TABLE 1–6 HL7 Version 2.5 OTD Library   *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_MFK_M12	Master File Notification Message
HL7_25_MFK_M13	Master File Notification - General
HL7_25_MFK_M14	Master File Notification_Site Defined
HL7_25_MFK_M15	Inventory Item Master File Notification
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_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 (backward compatibility)
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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
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	Master Files Response - Not Otherwise Specified (Backward Compatibility)
HL7_25_MFR_M02	Master Files Response - Staff Practitioner
HL7_25_MFR_M03	Master Files Response - Test/Observation (Backward Compatibility)
HL7_25_MFR_M04	Master Files Response - Charge Description
HL7_25_MFR_M05	Master Files Response - Patient Location
HL7_25_MFR_M06	Master Files Response - Clinical Study with Phases and Schedules
HL7_25_MFR_M07	Master Files Response - Clinical Study without Phases but with Schedules
HL7_25_MFR_M08	Master Files Response - Test/Observation (Numeric)
HL7_25_MFR_M09	Master Files Response - Test/Observation (Categorical) Master File
HL7_25_MFR_M10	Master Files Response - Test /Observation Batteries Master File
HL7_25_MFR_M11	Master Files Response - Test/Calculated Observations Master File
HL7_25_MFR_M12	Master Files Response - Master File Notification Message
HL7_25_MFR_M13	Master Files Response - Master File Notification - General
HL7_25_MFR_M14	Master Files Response - Master File Notification - Site Defined
HL7_25_MRG	Merge Patient Information
HL7_25_MSA	Message Acknowledgment
HL7_25_MSH	Message Header
HL7_25_NCK	System Clock
HL7_25_NDS	Notification Detail

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_NK1	Next of Kin/Associated Parties
HL7_25_NMD_N02	Application Management Data Message
HL7_25_NMQ_N01	Application Management Query Message
HL7_25_NMR_N01	Application management response message
HL7_25_NPU	Bed Status Update
HL7_25_NSC	Application Status Update
HL7_25_NST	Application Control Level Statistics
HL7_25_NTE	Notes and Comments
HL7_25_OBR	Observation Request
HL7_25_OBX	Observation Result
HL7_25_ODS	Dietary Orders, Supplements, and Preferences
HL7_25_ODT	Diet Tray Instructions
HL7_25_OM1	General Segment
HL7_25_OM2	Numeric Observation
HL7_25_OM3	Categorical Service/Test/Observation
HL7_25_OM4	Observations that Require Specimens
HL7_25_OM5	Observation Batteries (Sets)
HL7_25_OM6	Observations that are Calculated from Other Observations
HL7_25_OM7	Additional Basic Attributes
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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_OMP_O09	Pharmacy/Treatment Order
HL7_25_OMS_O05	Stock Requisition Order
HL7_25_ORB_O28	Blood Product Order Acknowledgment
HL7_25_ORC	Common Order
HL7_25_ORD_O04	Diet Order Acknowledgment
HL7_25_ORF_R04	Response to Query; Transmission of Requested Observation
HL7_25_ORG	General Clinical Order Acknowledgment Message
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	Query Response for Order Status
HL7_25_OUL_R21	Unsolicited Laboratory Observation
HL7_25_OUL_R22	Unsolicited Specimen Oriented Observation Message

TABLE 1–6 HL7 Version 2.5 OTD Library   *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_OUL_R23	Unsolicited Specimen Container Oriented Observation Message
HL7_25_OUL_R24	Unsolicited Order Oriented Observation Message
HL7_25_PCR	Possible Causal Relationship
HL7_25_PD1	Patient Additional Demographic
HL7_25_PDA	Patient Death and Autopsy
HL7_25_PEO	Product Experience Observation
HL7_25_PES	Product Experience Sender
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_25_PID	Patient Identification
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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
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	Procedures
HL7_25_PRA	Practitioner Detail
HL7_25_PRB	Problem Details
HL7_25_PRC	Pricing
HL7_25_PRD	Provider Data
HL7_25_PRR_PC5	Patient Problem Response
HL7_25_PTH	Pathway
HL7_25_PTR_PCF	Patient Pathway Problem - Oriented Response
HL7_25_PV1	Patient Visit
HL7_25_PV2	Patient Visit - Additional Information
HL7_25_QAK	Query Acknowledgment
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_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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
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	Query Identification
HL7_25_QPD	Query Parameter Definition
HL7_25_QRD	Original-Style Query Definition
HL7_25_QRF	Original style query filter
HL7_25_QRI	Query Response Instance
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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

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	Pharmacy/treatment administration information
HL7_25_RAS_O17	Pharmacy/Treatment Administration
HL7_25_RCI_I05	Return Clinical Information
HL7_25_RCL_I06	Return Clinical List
HL7_25_RCP	Response Control Parameter
HL7_25_RDE_O11	Pharmacy/Treatment Encoded Order
HL7_25_RDE_O25	Pharmacy/Treatment Refill Authorization Request
HL7_25_RDF	Table Row Definition
HL7_25_RDR_RDR	Pharmacy/treatment dispense information
HL7_25_RDS_O13	Pharmacy/Treatment Dispense
HL7_25_RDT	Table Row Data
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	Pharmacy/treatment encoded order information
HL7_25_RF1	Referral Information
HL7_25_RGR_RGR	Pharmacy/treatment dose information
HL7_25_RGS	Resource Group

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_RGV_O15	Pharmacy/Treatment Give
HL7_25_RMI	Risk Management Incident
HL7_25_ROL	Role
HL7_25_ROR_ROR	Pharmacy prescription order query response
HL7_25_RPA_I08	Request for treatment authorization
HL7_25_RPA_I10	Request for resubmission of an authorization
HL7_25_RPA_I11	Request for cancellation of an authorization
HL7_25_RPI_I01	Request for insurance information
HL7_25_RPI_I04	Request for patient demographic data
HL7_25_RPL_I02	Request/receipt of patient selection display list
HL7_25_RPR_I03	Request/receipt of patient selection list
HL7_25_RQ1	Requisition Detail-1
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	Requisition Detail
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

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_RRI_I12	Patient referral
HL7_25_RRI_I13	Modify patient referral
HL7_25_RRI_I14	Cancel patient referral
HL7_25_RRI_I15	Request patient referral status
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_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	Tabular response
HL7_25_RTB_Z94	Tabular Response - Dispense History
HL7_25_RTB_Z96	Tabular Response - Dispense History
HL7_25_RXA	Pharmacy/Treatment Administration
HL7_25_RXC	Pharmacy/Treatment Component Order
HL7_25_RXD	Pharmacy/Treatment Dispense
HL7_25_RXE	Pharmacy/Treatment Encoded Order
HL7_25_RXG	Pharmacy/Treatment Give

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_RXO	Pharmacy/Treatment Order
HL7_25_RXR	Pharmacy/Treatment Route
HL7_25_SAC	Specimen Container detail
HL7_25_SCH	Scheduling Activity Information
HL7_25_SFT	Software Segment
HL7_25_SID	Substance Identifier
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_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

TABLE 1–6 HL7 Version 2.5 OTD Library   *(Continued)*

HL7 2.5 OTD	HL7 Description
HL7_25_SPM	Specimen
HL7_25_SQM_S25	Schedule Query Message - Schedule Query Message and Response
HL7_25_SQR_S25	Schedule Query Message and Response
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	Request New Appointment Response
HL7_25_SRR_S02	Request Appointment Rescheduling Response
HL7_25_SRR_S03	Request Appointment Modification Response
HL7_25_SRR_S04	Request Appointment Cancellation Response
HL7_25_SRR_S05	Request Appointment Discontinuation Response
HL7_25_SRR_S06	Request Appointment Deletion Response
HL7_25_SRR_S07	Request Addition of Service/resource on Appointment Response
HL7_25_SRR_S08	Request Modification of Service/resource on Appointment Response
HL7_25_SRR_S09	Request Cancellation of Service/resource on Appointment Response
HL7_25_SRR_S10	Request Discontinuation of Service/Resource on Appointment Response
HL7_25_SRR_S11	Request Deletion of Service/Resource on Appointment Response

TABLE 1–6 HL7 Version 2.5 OTD Library *(Continued)*

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	Staff Identification - Segment
HL7_25_TCC	Test Code Configuration - Segment
HL7_25_TCD	Test Code Detail
HL7_25_TCR_U11	Automated Equipment Test Code Settings Request
HL7_25_TCU_U10	Automated Equipment Test Code Settings Update
HL7_25_TQ2	Timing/Quantity Relationship
HL7_25_TXA	Transcription Document Header
HL7_25_UB1	UB82
HL7_25_UB2	UB92 Data
HL7_25_VAR	Unknown/Variance
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

HL7 Version 2.4 OTD Library

The table describes HL7 Version 2.4 OTD Library.

TABLE 1–7 HL7 Version 2.4 OTD 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

TABLE 1–7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
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_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

TABLE 1–7   HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
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_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	Professional Affiliation Additional Information

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_AIG	Appointment Information _General Resource
HL7_24_AIL	Appointment Information_Location Resource
HL7_24_AIP	Appointment Information_Personnel Resource
HL7_24_AIS	Appointment Information
HL7_24_AL1	Patient Allergy Information
HL7_24_APR	Appointment Preferences
HL7_24_ARQ	Appointment Request
HL7_24_AUT	Authorization Information
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	Blood Code HL7_24_BLG Billing
HL7_24_CDM	Charge Description Master
HL7_24_CM0	Clinical Study Master
HL7_24_CM1	Clinical Study Phase Master
HL7_24_CM2	Clinical Study Schedule Master
HL7_24_CNS	Clear Notification
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_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	Clinical Study Phase

TABLE 1–7   HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_CSR	Clinical Study Registration
HL7_24_CSS	Clinical Study Data Schedule Segment
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	Contact Data
HL7_24_CTI	Clinical Trial Identification
HL7_24_DB1	Disability
HL7_24_DFT_P03	Post Detail Financial Transactions
HL7_24_DFT_P11	Post Detail Financial Transactions - Expanded
HL7_24_DG1	Diagnosis
HL7_24_DOC	Document response
HL7_24_DRG	Diagnosis Related Group
HL7_24_DSC	Continuation Pointer
HL7_24_DSP	Display Data
HL7_24_DSR_Q01	Segment
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	Equipment Command
HL7_24_ECR	Equipment Command Response
HL7_24_EDR	Enhanced display response
HL7_24_EDU	Educational Detail
HL7_24_EQL	Embedded Query Language
HL7_24_EQP	Equipment/log Service
HL7_24_EQQ_Q04	Embedded query language query

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_EQU	Equipment Detail
HL7_24_ERP	Event Replay Response
HL7_24_ERQ	Event replay query
HL7_24_ERR	Error
HL7_24_ESR_U02	Automated Equipment Status Request
HL7_24_ESU_U01	Automated Equipment Status Update
HL7_24_EVN	Event Type
HL7_24_FAC	Facility
HL7_24_FTI	Financial Transaction
HL7_24_GOL	Goal Detail
HL7_24_GP1	Grouping/Reimbursement - Visit
HL7_24_GP2	Grouping/Reimbursement - Procedure Line ItemSegment
HL7_24_GT1	Guarantor
HL7_24_IAM	Patient Adverse Reaction Information
HL7_24_IN1	Insurance
HL7_24_IN2	Insurance Additional Information
HL7_24_IN3	Insurance Additional Information, Certification
HL7_24_INR_U06	Automated Equipment Inventory Request
HL7_24_INU_U05	Automated Equipment Inventory Update
HL7_24_INV	Inventory Detail
HL7_24_ISD	Interaction Status Detail
HL7_24_LAN	Language Detail
HL7_24_LCC	Location Charge Code
HL7_24_LCH	Location Characteristic
HL7_24_LDP	Location Department
HL7_24_LOC	Location Identification
HL7_24_LRL	Location Relationship
HL7_24_LSR_U13	Automated Equipment Log Service Request

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
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_24_MFA	Master File Acknowledgment
HL7_24_MFE	Master File Entry
HL7_24_MFI	Master File Identification
HL7_24_MFK_M01	Master files application acknowledgment - Not Otherwise Specified (Backward Compatibility)
HL7_24_MFK_M02	Master files Application Acknowledgment - Staff Practitioner
HL7_24_MFK_M03	Master files Application Acknowledgment - Test/Observation (Backward Compatibility)
HL7_24_MFK_M04	Master files Application Acknowledgment - Charge Description
HL7_24_MFK_M05	Master files Application Acknowledgment - Patient Location Master File
HL7_24_MFK_M06	Master files Application Acknowledgment - Clinical Study with Phases and Schedules
HL7_24_MFK_M07	Master files Application Acknowledgment - Clinical Study without Phases but with Schedules
HL7_24_MFN_M01	Master File Notification - Not Otherwise Specified (Backward Compatibility)
HL7_24_MFN_M02	Master File Notification - Staff/Practitioner
HL7_24_MFN_M03	Master File Notification - Test/Observation

TABLE 1–7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_MFN_M04	Master File Notification - Charge Description
HL7_24_MFN_M05	Master File Notification - Patient Location
HL7_24_MFN_M06	Master File Notification - Clinical Study with Phases and Schedules
HL7_24_MFN_M07	Master File Notification - Clinical Study without Phases but with Schedules
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 (Backward Compatibility)
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	Master File Response - Not Otherwise Specified (Backward Compatibility)
HL7_24_MFR_M02	Master File Response - Staff/Practitioner
HL7_24_MFR_M03	Master File Response - Test/Observation
HL7_24_MFR_M04	Master File Response - Charge Description
HL7_24_MFR_M05	Master File Response - Patient Location
HL7_24_MFR_M06	Master File Response - Clinical Study with Phases and Schedules
HL7_24_MRG	Merge Patient Information
HL7_24_MSA	Message Acknowledgment
HL7_24_MSH	Message Header
HL7_24_NCK	System Clock
HL7_24_NDS	Notification Detail
HL7_24_NK1	Next of Kin / Associated Parties
HL7_24_NMD_N02	Application Management Data Message (unsolicited)

TABLE 1–7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_NMQ_N01	Application Management Query Message
HL7_24_NMR_N01	Application management response message
HL7_24_NPU	Bed Status Update
HL7_24_NSC	Application Status Change
HL7_24_NST	Application control level statistics
HL7_24_NTE	Notes and Comments
HL7_24_OBR	Observation Request
HL7_24_OBX	Observation/Result
HL7_24_ODS	Dietary Orders, Supplements, and Preferences
HL7_24_ODT	Diet Tray Instructions
HL7_24_OM1	General Segment
HL7_24_OM2	Numeric Observation
HL7_24_OM3	Categorical Service/Test/Observation
HL7_24_OM4	Observations that Require Specimens
HL7_24_OM5	Observation Batteries (Sets)
HL7_24_OM6	Observations that are Calculated from Other Observations
HL7_24_OM7	Additional Basic Attributes
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	Common Order
HL7_24_ORD_O05	Dietary order acknowledgment message
HL7_24_ORF_R04	Response to query; transmission of requested observation
HL7_24_ORG	General clinical order acknowledgment message
HL7_24_ORG_O20	General clinical order response

TABLE 1–7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_ORL_O02	General laboratory order response
HL7_24_ORM_O01	Pharmacy/Treatment Order Message
HL7_24_ORN-O08	Non-Stock Requisition Acknowledgment
HL7_24_ORP_O10	Pharmacy/treatment order acknowledgment
HL7_24_ORR_O02	Pharmacy/Treatment Order Message - Order Response
HL7_24_ORS_O06	Stock requisition acknowledgment
HL7_24_ORU_R01	Unsolicited Transmission of an Observation Message
HL7_24_OSQ_Q06	Query for Order Status
HL7_24_OSR_Q06	Query for Order Status Response
HL7_24_OUL_R21	Unsolicited Laboratory Observation
HL7_24_PCR	Possible Causal Relationship
HL7_24_PD1	Patient Additional Demographic
HL7_24_PDA	Patient Death and Autopsy
HL7_24_PDC	Product Detail Country
HL7_24_PEO	Product Experience Observation
HL7_24_PES	Product Experience Sender
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	Patient Identification
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

TABLE 1–7 HL7 Version 2.4 OTD Library　　*(Continued)*

HL7 2.4 OTD	HL7 Description
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_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

TABLE 1-7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
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_24_QBP_Z99	Query by Parameter - Who Am I
HL7_24_QCK_Q02	Segment
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

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
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_24_RDY_K15	Segment OTD
HL7_24_RDY_Z80	Segment OTD
HL7_24_RDY_Z98	Segment OTD

TABLE 1–7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
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

TABLE 1–7 HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
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_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

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
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_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

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
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_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	Request New Appointment Response
HL7_24_SRR_S02	Request Appointment Rescheduling Response

TABLE 1–7 HL7 Version 2.4 OTD Library *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_SRR_S03	Request Appointment Modification Response
HL7_24_SRR_S04	Request Appointment Cancellation Response
HL7_24_SRR_S05	Request Appointment Discontinuation Response
HL7_24_SRR_S06	Request Appointment Deletion Response
HL7_24_SRR_S07	Request Addition of Service/resource on Appointment Response
HL7_24_SRR_S08	Request Modification of Service/resource on Appointment Response
HL7_24_SRR_S09	Request Cancellation of Service/resource on Appointment Response
HL7_24_SRR_S10	Request Discontinuation of Service/Resource on Appointment Response
HL7_24_SRR_S11	Request Deletion of Service/Resource on Appointment Response
HL7_24_SSR_U04	Specimen Status Request
HL7_24_SSU_U03	Specimen Status Update
HL7_24_STF	Staff Identification
HL7_24_SUR_P09	Summary Product Experience Report
HL7_24_TBR_R08	Tabular Data Response
HL7_24_TCC	Test Code Configuration
HL7_24_TCD	Test Code Detail
HL7_24_TCR_U11	Automated Equipment Test Code Settings Request
HL7_24_TCU_U10	Automated Equipment Test Code Settings Update
HL7_24_TXA	Transcription Document Header
HL7_24_UB1	UB82
HL7_24_UB2	UB92 Data
HL7_24_UDM_Q05	Unsolicited Display Update Message
HL7_24_URD	Results/update Definition
HL7_24_URS	Unsolicited Selection
HL7_24_VAR	Variance
HL7_24_VQQ_Q07	Virtual Table Query
HL7_24_VTQ	Virtual Table Query Request
HL7_24_VXQ_V01	Query for Vaccination Record

TABLE 1–7   HL7 Version 2.4 OTD Library   *(Continued)*

HL7 2.4 OTD	HL7 Description
HL7_24_VXR_V03	Vaccination Record Response
HL7_24_VXU_V04	Unsolicited Vaccination Record Update
HL7_24_VXX_V02	Response to Vaccination Query Returning Multiple PID Matches

HL7 Version 2.3.1 OTD Library

The table describes HL7 Version 2.3.1 OTD Library.

TABLE 1–8   HL7 Version 2.3.1 OTD 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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_231_GOL	Segment OTD
HL7_231_GT1	Segment OTD

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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

TABLE 1–8 HL7 Version 2.3.1 OTD Library   *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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
HL7_231_ORD_O02	Dietary Order Acknowledgment Message
HL7_231_ORF_R04	Segment
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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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

TABLE 1–8 HL7 Version 2.3.1 OTD Library   *(Continued)*

HL7 2.3.1 OTD	HL7 Description
HL7_231_RDS_O01	Pharmacy/Treatment Dispense Order Message
HL7_231_RDT	Segment OTD
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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_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

TABLE 1–8 HL7 Version 2.3.1 OTD Library   *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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_231_URD	Segment OTD
HL7_231_URS	Segment OTD
HL7_231_VAR	Segment OTD

TABLE 1–8 HL7 Version 2.3.1 OTD Library *(Continued)*

HL7 2.3.1 OTD	HL7 Description
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

HL7 Version 2.3 OTD Library

The table describes HL7 Version 2.3 OTD Library

TABLE 1–9 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

TABLE 1–9   HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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 OTD	Segment OTD HL7_23_MFE Segment
HL7_23_MFI	Segment OTD

TABLE 1–9 HL7 Version 2.3 OTD Library *(Continued)*

HL7 2.3 OTD	HL7 Description
HL7_23_MFK_M01	Segment OTD
HL7_23_MFK_M02	Segment OTD
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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_23_REF_I15	Request Patient Referral Status
HL7_23_RER_RER	Pharmacy/Treatment Encoded Order Information

TABLE 1–9 HL7 Version 2.3 OTD Library *(Continued)*

HL7 2.3 OTD	HL7 Description
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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library *(Continued)*

HL7 2.3 OTD	HL7 Description
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_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

TABLE 1–9 HL7 Version 2.3 OTD Library   *(Continued)*

HL7 2.3 OTD	HL7 Description
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_23_VQQ_Q01	Virtual Table Query
HL7_23_VTQ H	Segment OTD
L7_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

HL7 Version 2.2 OTD Library

The table describes HL7 Version 2.2 OTD Library

TABLE 1–10 HL7 Version 2.2 OTD Library

HL7 2.2 OTD	HL7 Description
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

TABLE 1–10 HL7 Version 2.2 OTD Library *(Continued)*

HL7 2.2 OTD	HL7 Description
HL7_22_ADT_A23	Delete a Patient Record
HL7_22_ADT_A24	Link Patient Information
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)

TABLE 1–10 HL7 Version 2.2 OTD Library *(Continued)*

HL7 2.2 OTD	HL7 Description
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_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

TABLE 1–10 HL7 Version 2.2 OTD Library *(Continued)*

HL7 2.2 OTD	HL7 Description
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_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

TABLE 1–10 HL7 Version 2.2 OTD Library *(Continued)*

HL7 2.2 OTD	HL7 Description
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

HL7 Version 2.1 OTD Library

The table describes the HL7 Version 2.1 OTD Library

TABLE 1–11 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_21_ADT_A11	Cancel Admit/Visit Notification

TABLE 1–11 HL7 Version 2.1 OTD Library *(Continued)*

HL7 2.1 OTD	HL7 Description
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

TABLE 1–11 HL7 Version 2.1 OTD Library *(Continued)*

HL7 2.1 OTD	HL7 Description
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_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

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 Enterprise Service Bus User's Guide*. The Sun Enterprise Service Bus User's Guide defines all available OTD properties and provides a description of all of the OTD Editor's features.

The following section 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.

-
-

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 an OTD

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

1 Expand the Sun OTD Library directory, the HL7 directory, and the folder for the appropriate HL7 Library version from the Project tree in Java CAPS.

Only the version or versions you install will be displayed in your build.

Note – The OTDs available under OTD Library in the Project Editor are protected (read-only).

---

2 Double-click the OTD in its current location to view the OTD in read-only mode.

▼ To Copy an OTD to the Project

1 Copy and paste the OTD to your Project to view the OTD in an editable mode.

**2 Right-click the OTD and select Copy from the shortcut menu.**

3 Right-click your Project and select Paste from the shortcut menu.

The OTD is added to your Project on the Project Explorer tree.

4   Double-click the copied OTD to view 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.
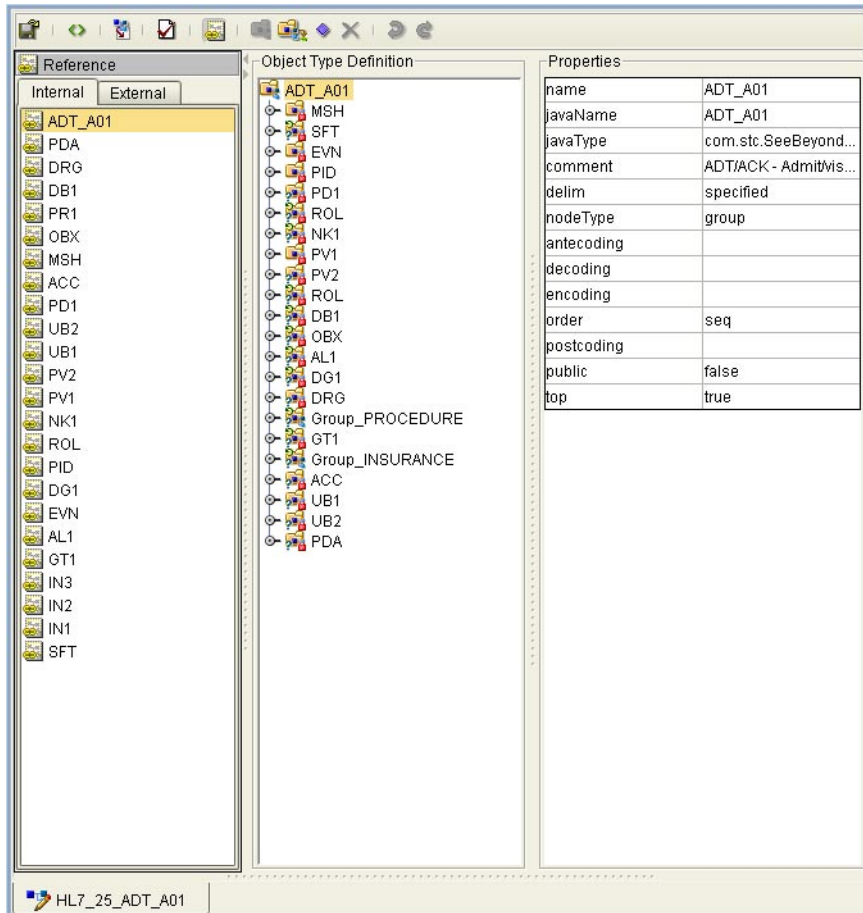
5   Select any of the OTDs nodes or sub-nodes to see the nodes properties displayed in the editor's Properties pane from the editor's Object Type Definition pane.

For an overview of Object Type Definitions, OTD structure, and the OTD Editor, see the *Sun Enterprise Service Bus User's Guide.*

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** 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 ⇒ 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).

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 164. For more information regarding OTD properties, see "OTD Properties" on page 167.

Root Node Properties

The set of properties associated with Root nodes is shown in the following table.

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 the Sun Enterprise Service Bus.
javaType	Java type; automatically assigned, not editable.
comment	Free-form text (no run-time effect).
delim	Specified delimiter. See "Specifying Delimiters" on page 160.
nodeType	Governs the marshal/unmarshal format. See "Specifying the Node Type" on page 172.
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**.

Node Property Descriptions	
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 164. .

▼ To Edit an HL7 OTD's Root Node Properties

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   **Select the Root node of the OTD from the editor's Object Type Definition pane.**

    The Root properties and displayed in the editor's Properties pane.

4   **Click on any property field to edit the property from the Properties pane.**

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 164. .

▼ To Edit the Delimiters From the Root Node

1 **Select the Root node in the Object Type Definition pane (for this example ADT_A02) from the OTD Editor.**

2 **Double-click the delim properties field from the Properties pane.**

   An ellipsis (...) button appears in the field.

3 **Click the ellipsis button.**

   The **Delimiter List Editor** appears.
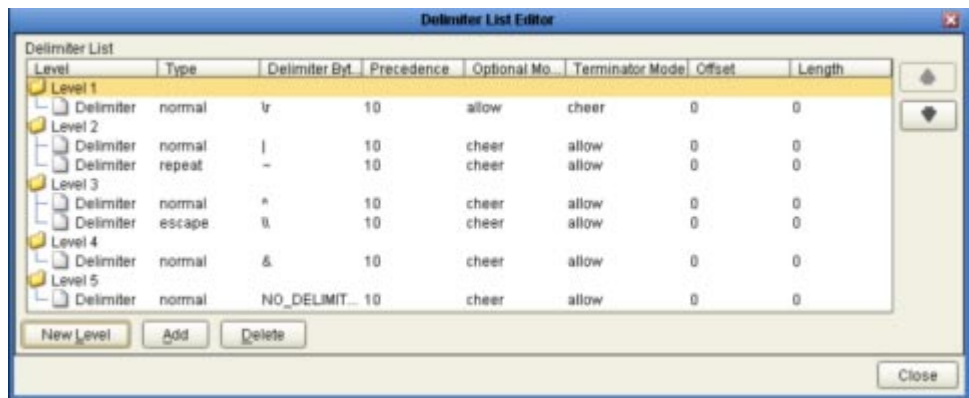
4 **Double-click any field in the OTD Editor's Properties field, for any level, make the field editable or displays a list of options.**

5 **Double-click the Delimiter Bytes field for level 3. 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. The figure displays an example of various levels in the Object Type Definition tree, from the Root node.
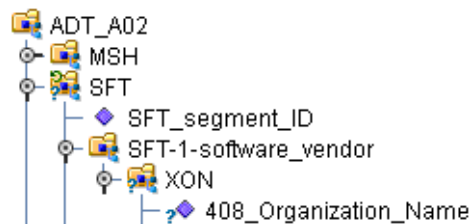
Changing HL7 Standard Encoding Characters

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" );
```

```
}
```

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 157 for a description of the procedure for creating a Delimiter List.

Delimiter Properties

Delimiters are defined using the Delimiter List Editor.

The Delimiter properties and values are displayed in Table 1–12.

TABLE 1–12   Delimiter Properties

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).

TABLE 1–12 Delimiter Properties   *(Continued)*

Delimiter Properties and Value Options		
Property	**Option**	**Description**
Precedence		See Precedence.
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.
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 the previous example, 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.

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 the figures, 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.)

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*.

Option	Input	Output
never	**b|**	**b|**
allow	**b|**, **b*|**, or **b**|**	**b|**
cheer	**b|**, **b*|**, or **b**|**	**b**|**
force	**b**|**	**b**|**

Precedence

Precedence 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'**.

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, perform the following:

1. Edit, copy and paste the segment OTD from the Project Explorer's Sun ⇒ OTD Library ⇒ HL7 folder to your Project.

> **Note –** 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 as illustrated in the figure.
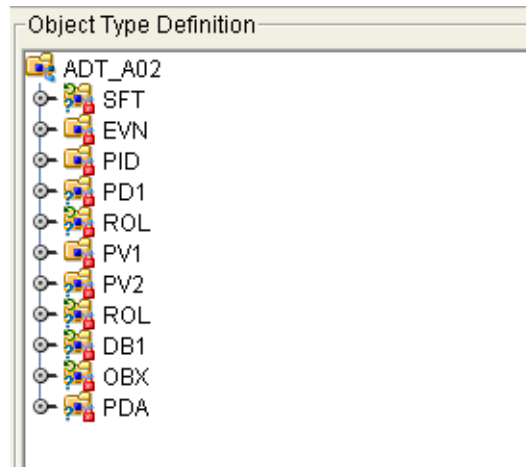
2. Right-click to delete the SFT segment the segment from the Internal tab of the Reference pane. Select **Delete**.

3. Delete the SFT segment from the OTD tree in the Object Type Definition pane. Right-click the segment and select **Delete** from the shortcut menu.

4. Delete any one reference of the segment OTD from the External tab of the Reference pane.

   This removes all other references to the segment OTD.

5. Click the **Import OTD to External Template** icon to import the segment OTD to your main OTD.

   The **Import** dialog box appears.

6. Locate and select the OTD you want to import from your Project file from the **Import** dialog box.

7. 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.
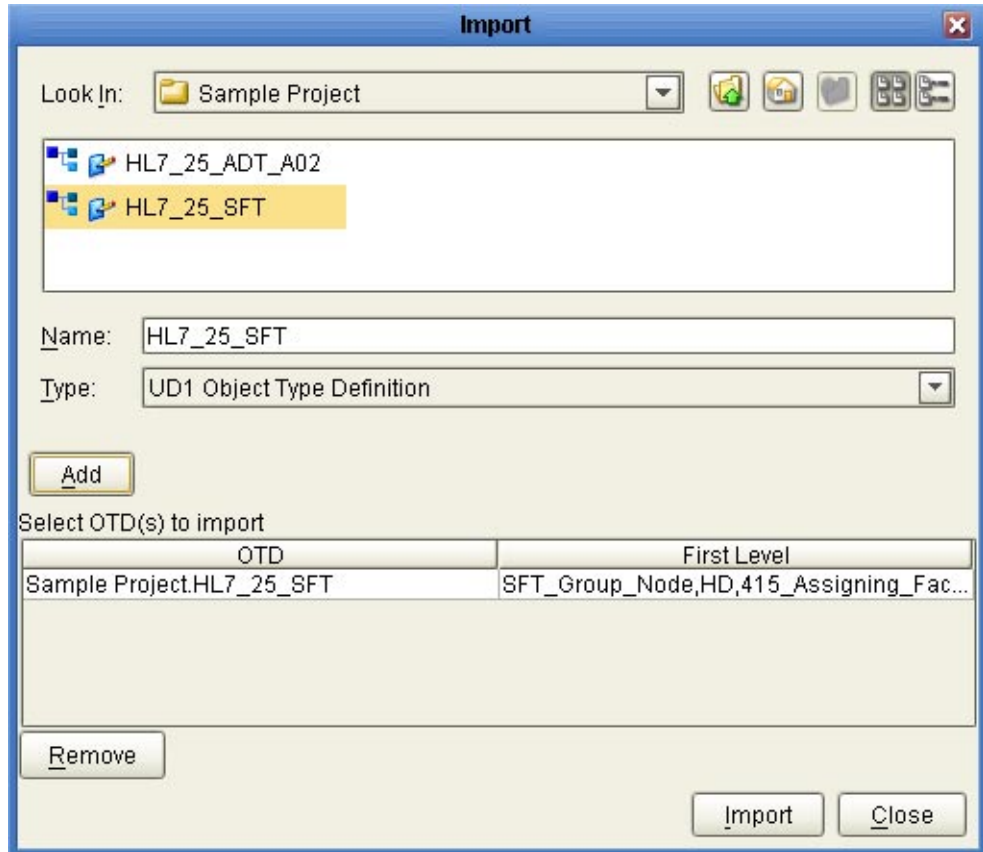
8. Drag and drop the imported segment reference (for this example **HL7_25_SFT/SFT**) onto the Root Node of the Object Type Definition pane from the External tab of the Reference pane.

   The segment is added to the Object Type Definition tree.

9. Right click the segment and select **Level Up** from the shortcut menu to move the segment up the tree from the Object Type Definition tree.

   Repeat this step until the new segment is in the same position as that of the segment being replaced.

10. Save the 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.

   This opens the OTD in the OTD Editor.

2. Click the **Import OTD to External Template** icon from the OTD Editor toolbar.

   The **Import** dialog box appears.

3. Locate and select the OTDs you want to import from your Project file from the **Import** dialog box.

4. Click the **Add** button to add the OTD to the **Select OTD(s) to import** field.

5. Click **Import**.

   The OTD is added to the editor's External tab of the Reference pane.

6. Drag and drop the segment OTD reference onto the Root Node in the Object Type Definition pane from the External tab of the Reference pane.

   The segment OTD is added to the Object Type Definition tree.

7. Save the changes to the Repository.

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 the table.

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 the Sun Enterprise Service Bus.
javaType	Java type; automatically assigned, not editable.
comment	Free-form text (no run-time effect).
delim	Specified delimiter. See "Specifying Delimiters" on page 160.
nodeType	Governs the marshal/unmarshal format. See "Specifying the Node Type" on page 172.
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**.

Node Property Descriptions	
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. 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
showDelim	If nodeType is delimited.
top	Flag on Root node: support marshal/unmarshal (T/F).

Note – Do not modify the javaName property.

Element Properties

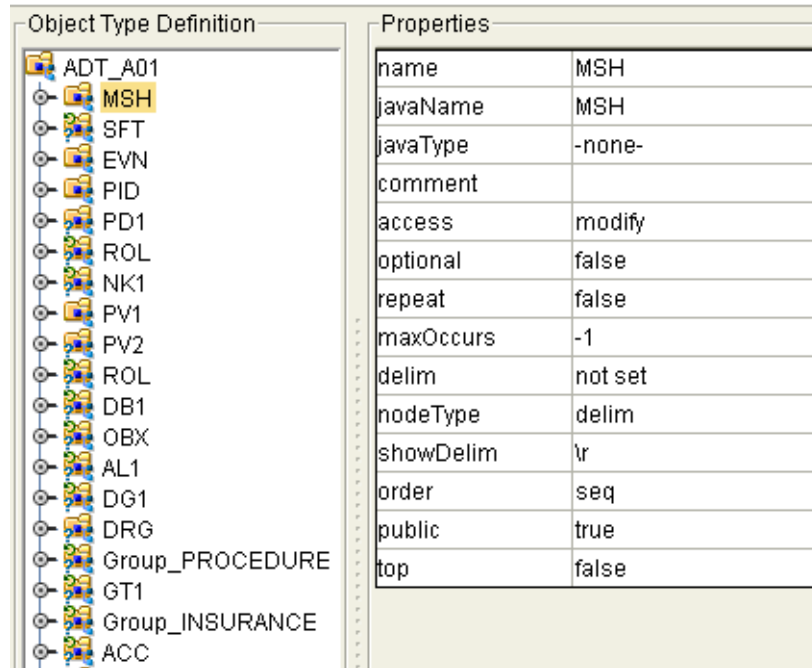The set of properties associated with the element level is shown in the following figure.

FIGURE 1–14   OTD Editor - OTD Element Properties

The configurable element properties are displayed in the table.

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.
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 160).

Element Property Descriptions	
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.

Note – Do not modify the javaName property.

Field Properties

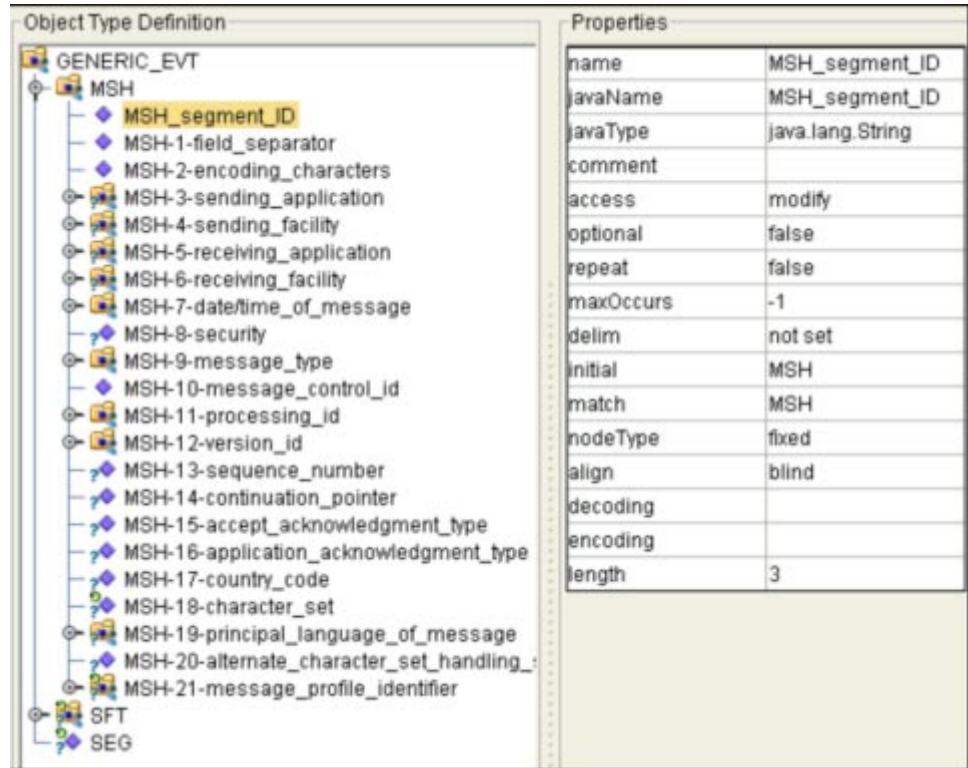The set of properties associated with the field level is shown in the following figure.

FIGURE 1–15 OTD Editor - OTD Field Properties

The configurable field properties are displayed in the table.

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.

Field Property Descriptions	
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 160).
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.

Note – Do not modify the javaName property.

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 the table.

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

Node Type Property Options				
Option	Description	Element	Field	Internal
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.

SNA Object Type Definitions (OTDs)

Unlike most other eWays, the SNA eWay does not consist of an OTD wizard. OTD wizards typically facilitate the creation of a Collaborations that are used with eWay projects. When an OTD wizard is available, a skeleton Collaboration is created to provide minimal funtionality that you must modify to suit your application's needs. Without the OTD wizard, as in the case of the SNA eWay, you must create your Collaborations completely from scratch.

▼ To associate the standard SNA eWay OTD to a new Java Collaboration:

1 From the Project Explorer, right-click the targeted project.

2 Select New > Collaboration Definition (Java)

3 Complete steps 1 and 2 of the Collaboration Definition Wizard (Java).

4 Select the OTD to use in the new Collaboration by traversing the Look In drop-down box: SeeBeyond.eWays.SNALU62.

5 Highlight the desired OTD name and click the Add button.

6 Optionally, modify the instance name of the OTD that will be used in the Collaboration.

7 Click the Finish button.

The new Collaboration that implements the SNA eWay OTD is created. For details about the SNA eWay methods that may be used with Collaborations for the, refer to the associated Javadoc.