Oracle® Healthcare Transaction Base

Implementation Guide

Release 11*i*

Part No. B10976-01

September 2003

Oracle Healthcare Transaction Base Implementation Guide, Release 11*i*

Part No. B10976-01

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  Redwood Shores, CA 94065
  USA

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Preface

Intended Audience

Welcome to Release 11*i* of the Oracle Healthcare Transaction Base Implementation Guide.

This guide is intended for users and systems professionals involved with the implementation and configuration of Oracle Healthcare Transaction Base, including the following:

- Implementation Consultants
- System Administrators
- Security Administrators
- Healthcare Application Developers

Note: This guide describes the implementation and configuration procedures for the Oracle Healthcare Transaction Base; refer to the *Oracle HTB Javadoc* package to understand its full functionality.

This guide assumes that you have the following general skill sets:

- Knowledge of the Java Language (J2EE platform), Oracle PL/SQL, and Oracle Relational Database 9*i*.
- Implementation experience with Oracle E-Business Suite Release 11*i* and Oracle Workflow.
- Administration experience with Oracle9*i*AS, and knowledge of Oracle Containers for J2EE (OC4J) and EJB deployment.

- Familiarity with Oracle Healthcare Transaction Base.

See: Other Information Sources for more information about related Oracle Applications.

How To Use This Guide

This document contains information required to implement and configure Oracle Healthcare Transaction Base:

Part I, Getting Started

Chapter 1, Introduction

Introduces Oracle Healthcare Transaction Base and describes its features.

Chapter 2, Before You Begin

Summarizes which applications and Oracle Technology Stack components must be installed, implemented, and verified before implementing Oracle Healthcare Transaction Base.

Part II, Implementing Oracle Healthcare Transaction Base

Chapter 3, Implementation Overview

Provides an overview of the HTB implementation process, including the implementation task sequence, to specific implementation procedures described in Chapter 4.

Chapter 4, Implementation Tasks

Describes each HTB implementation procedure, organized in implementation sequence. These procedures are mapped directly by the implementation task description in Chapter 3.

Part III, Appendixes

Appendix A, Navigation Paths

Describes how to navigate throughout Oracle Healthcare Transaction Base, including navigation paths to HTB functions and windows.

Appendix B, HTB Session Service

Describes the HTB Session Service, which lets users interact with the HTB platform, and provides a call interface to all supported APIs.

Appendix C, ETS Terminology

Lists terminology or vocabulary standards supported by Oracle Healthcare Transaction Base

Appendix D, Seeded Users, Responsibilities, Roles

Lists predefined (seeded) users, responsibilities, roles, menus, grants, and criteria included with Oracle Healthcare Transaction Base.

Appendix E, Seeded Profile OptionsAppendix E

Documents predefined (seeded) profile options and associated lookup codes for the HTB platform, sorted by profile option code.

Appendix F, Seeded Audit Events

Documents predefined (seeded) audit events included with the HTB platform, sorted by audit event type.

Appendix G, Predefined Concept Lists

Documents lookup types that have been predefined but left empty for user entry; included with Oracle Healthcare Transaction Base.

Appendix H, Seeded ID Types

This appendix lists ID Types that are seeded in the `CTB_PI_PARTY_ID_TYPES` table, included with the HTB Platform.

Appendix I, Error Messages

Lists HTB error messages, sorted by message number.

Appendix J, Minimum Implementation Steps

Describes the minimum implementation steps that must be completed before you can start programming with the HTB Platform.

Appendix K, Abbreviations & Acronyms

Defines abbreviations and acronyms used throughout Oracle Healthcare applications.

Glossary

Contains the master glossary for Oracle Healthcare Applications.

Typographic Conventions

This section describes the conventions used in the text and code examples of this implementation guide. It describes:

- Conventions in Text
- Conventions in Code Examples
- Conventions for Windows Operating Systems

Conventions in Text

We use various conventions in text to help you more quickly identify special terms. The following table describes text conventions and provides examples of their use:

Convention	Meaning	Example
Bold	Bold typeface indicates terms that are defined in the text or terms that appear in a glossary, or both.	When you specify this clause, you create an **index-organized table**.
Italics	Italic typeface indicates book titles or emphasis.	*Oracle9i Database Concepts* Ensure that the recovery catalog and target database do *not* reside on the same disk.
`UPPERCASE monospace (fixed-width font)`	Uppercase monospace typeface indicates elements supplied by the system. Such elements include parameters, privileges, datatypes, RMAN keywords, SQL keywords, SQL*Plus or utility commands, packages and methods, as well as system-supplied column names, database objects and structures, user names, and roles.	You can specify this clause only for a `NUMBER` column. You can back up the database by using the `BACKUP` command. Query the `TABLE_NAME` column in the `USER_TABLES` data dictionary view. Use the `DBMS_STATS.GENERATE_STATS` procedure.

Convention	Meaning	Example
`lowercase monospace (fixed-width font)`	Lowercase monospace typeface indicates executables, filenames, directory names, and sample user-supplied elements. Such elements include computer and database names, net service names, and connect identifiers, as well as user-supplied database objects and structures, column names, packages and classes, user names and roles, program units, and parameter values. **Note:** Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter `sqlplus` to open SQL*Plus. The password is specified in the `orapwd` file. Back up the data files and control files in the `/disk1/oracle/dbs` directory. The `department_id`, `department_name`, and `location_id` columns are in the `hr.departments` table. Set the `QUERY_REWRITE_ENABLED` initialization parameter to `true.` Connect as `oe` user. The `JRepUtil` class implements these methods.
`lowercase monospace (fixed-width font) italic`	Lowercase monospace italic font represents placeholders or variables.	You can specify the *`parallel_clause`*. Run `U`*`old_release`*`.SQL` where *`old_release`* refers to the release you installed prior to upgrading.

Conventions in Code Examples

Code examples illustrate SQL, PL/SQL, SQL*Plus, or other command-line statements. They are displayed in a monospace (fixed-width) font and separated from normal text as shown in this example:

```
SELECT username FROM dba_users WHERE username = 'MIGRATE';
```

The following table describes typographic conventions used in code examples and provides examples of their use:

Convention	Meaning	Example
[ ]	Brackets enclose one or more optional items. Do not enter the brackets.	`DECIMAL (digits [ , precision ])`
{ }	Braces enclose two or more items, one of which is required. Do not enter the braces.	`{ENABLE | DISABLE}`
|	A vertical bar represents a choice of two or more options within brackets or braces. Enter one of the options. Do not enter the vertical bar.	`{ENABLE | DISABLE}` `[COMPRESS | NOCOMPRESS]`

...	Horizontal ellipsis points indicate either:
	■ That we have omitted parts of the code that are not directly related to the example
	■ That you can repeat a portion of the code
		`CREATE TABLE ... AS subquery;`
		
		`SELECT col1, col2, ... , coln FROM employees;`

. . .	Vertical ellipsis points indicate that we have omitted several lines of code not directly related to the example.	
Other notation	You must enter symbols other than brackets, braces, vertical bars, and ellipsis points as shown.	`acctbal NUMBER(11,2);` `acct    CONSTANT NUMBER(4) := 3;`
Italics	Italicized text indicates placeholders or variables for which you must supply particular values.	`CONNECT SYSTEM/system_password` `DB_NAME = database_name`

Convention	Meaning	Example

`UPPERCASE`	Uppercase typeface indicates elements supplied by the system. We show these terms in uppercase in order to distinguish them from terms you define. Unless terms appear in brackets, enter them in the order and with the spelling shown. However, because these terms are not case sensitive, you can enter them in lowercase.	`SELECT last_name, employee_id FROM employees;`
		`SELECT * FROM USER_TABLES;`
		`DROP TABLE hr.employees;`

`lowercase`	Lowercase typeface indicates programmatic elements that you supply. For example, lowercase indicates names of tables, columns, or files.
	Note: Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.
		`SELECT last_name, employee_id FROM employees;`
		`sqlplus hr/hr`
		`CREATE USER mjones IDENTIFIED BY ty3MU9;`

Conventions for Windows Operating Systems

The following table describes conventions for Windows operating systems and provides examples of their use:

Convention	Meaning	Example
Choose Start >	How to start a program. For example, to start Oracle Database Configuration Assistant, you must click the Start button on the taskbar and then choose Programs > Oracle - *HOME_NAME* > Database Administration > Database Configuration Assistant.	Choose Start > Programs > Oracle - *HOME_NAME* > Database Administration > Database Configuration Assistant
`C:\>`	Represents the Windows command prompt of the current hard disk drive. Your prompt reflects the subdirectory in which you are working. Referred to as the command prompt in this guide.	`C:\oracle\oradata>`
HOME_NAME	Represents the Oracle home name. The home name can be up to 16 alphanumeric characters. The only special character allowed in the home name is the underscore.	`C:\> net start Oracle`*`HOME_NAME`*`TNSListener`

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`www.oracle.com/accessibility/`

Accessibility of Code Examples in Documentation JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

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Other Information Sources

You can choose from many sources of information, including online documentation, training, and support services, to increase your knowledge and understanding of Oracle Healthcare Transaction Base.

If this guide refers you to other Oracle Applications documentation, use only the Release 11*i* versions of those documents.

Online Documentation

All Oracle Applications documentation is available in online format (HTML or PDF). Online help patches are available on *Oracle MetaLink.*

Related Documentation

Oracle Healthcare Transaction Base shares business and setup information with other Oracle Applications products. You may want to refer to other product documentation when you set up and use Oracle Healthcare Transaction Base.

Documents Related to All Products

Oracle Applications User's Guide

Explains how to enter data, query, run reports, and navigate using the graphical user interface (GUI) available with this release of Oracle Healthcare Transaction Base (and other Oracle Applications products).

Installation and System Administration

Oracle Applications Concepts

Provides an introduction to the concepts, features, technology stack, architecture, and terminology for Oracle Applications Release 11*i*. It provides a useful first book to read before an installation of Oracle Applications. This guide also introduces the concepts behind applications-wide features such as Business Intelligence (BIS), languages and character sets, and Self-Service Web Applications.

Installing Oracle Applications

Provides instructions for managing the installation of Oracle Applications products. In Release 11*i*, much of the installation process is handled using Oracle Rapid Install, which minimizes the time to install Oracle Applications, the Oracle9*i* technology stack, and the Oracle9*i* Server technology stack by automating many of the required steps. This guide contains instructions for using Oracle Rapid Install and lists the tasks you must perform to complete your installation. You should use this guide in conjunction with individual product user guides and implementation guides.

Upgrading Oracle Applications

Refer to this guide if you are upgrading your Oracle Applications Release 10.7 or Release 11.0 products to Release 11*i*. This guide describes the upgrade process and lists database and product-specific upgrade tasks. You must be installed at either Release 10.7 (NCA, SmartClient, or character mode) or Release 11.0, to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to 10.7.

Maintaining Oracle Applications

Use this guide to help you run the various AD utilities, such as AutoUpgrade, AutoPatch, AD Administration, AD Controller, AD Relink, License Manager, and others. It contains how-to steps, screenshots, and other information that you need to run the AD utilities. This guide also provides information on maintaining the Oracle applications file system and database.

Oracle Alert User's Guide

Explains how to define periodic and event alerts to monitor the status of your Oracle Applications data.

Other Implementation Documentation

About Oracle Healthcare Family Pack C

This supplement to the Oracle Healthcare Transaction Base Implementation Guide describes known HTB issues and limitations at the time of release. Intended for HTB installers and developers building HTB-based applications, this document describes Oracle Healthcare Family Pack C. You should review this document before commencing implementation of Oracle Healthcare Transaction Base. Refer to Oracl*eMetaLink* to obtain the most current version.

Oracle Workflow Guide

Describes how to define new **workflow** business processes and how to customize existing Oracle Applications-embedded workflow processes. You should also use this guide to complete the setup steps necessary for any Oracle Applications product that includes workflow-enabled processes.

Oracle eTechnical Reference Manuals

Each eTechnical Reference Manual (eTRM) contains database diagrams and a detailed description of database tables, forms, reports, and programs for a specific Oracle Applications product. This information helps you convert data from your existing applications, integrate Oracle Applications data with non-Oracle applications, and write custom reports for Oracle Applications products. Oracle eTRM for HTB includes logical and physical data models for both ETS and HTB. It is available on Oracl*eMetaLink*.

Other Documentation Related to Oracle Healthcare Transaction Base

Oracle Javadoc for HTB

This HTML document, derived from the HTB source code, describes the public HTB Application Programming Interface (API), including all of the packages, interfaces, classes, and methods available to healthcare application developers using the HTB platform. This supplement to the Oracle Healthcare Transaction Base Implementation Guide is included on the HTB source code CD, and is also available on Oracl*eMetaLink*.

Oracle Healthcare Transaction Base Statement of Direction

The Statement of Direction describes the scope of the HTB Platform, including likely future enhancements, and provides a vision for the future direction and growth of the product. Intended for a general user audience and for those interested in the future direction of the product, it is available on Oracl*eMetaLink*.

HTB White Papers

The following Oracle White Papers describe topics of general interest to the HTB user community, and can be accessed on Oracl*eMetaLink*:

- **HTB Application Development Using Release 1**

  Intended for customers planning projects based on the HTB Platform, this document provides a general description of the types of applications that can be developed using Release 1.

- **HTB and Oracle Workflow**

  Intended for architects or developers interested in building applications with the HTB Platform, this document describes how to use Oracle Workflow in conjunction with HTB APIs.

- **Clinical Act Views**

  Intended for architects or developers designing clinical applications, this document describes how to create and organize clinical data for efficient access in an operational setting.

Support

From on-site support to central support, our team of experienced professionals provides the help and information you need to keep Oracle Healthcare Transaction Base working for you. This team includes your Technical Representative, Account Manager, and Oracle's large staff of consultants and support specialists with expertise in your business area, managing an Oracle9*i* server, and your hardware and software environment.

Oracle*MetaLink*

Oracl*eMetaLink* is your self-service support connection with web, telephone menu, and e-mail alternatives. Oracle supplies these technologies for your convenience, 24 hours a day, 7 days a week. With Oracl*eMetaLin*k, you can obtain information and advice from technical libraries and forums, download patches, download the latest documentation, look at bug details, and create or update TARs. To use MetaLink, register at:

```
http://metalink.oracle.com
```

Alerts: You should check Oracl*eMetaLink* alerts before you begin to install or upgrade any of your Oracle Applications. Use the following path to navigate to the Alerts window:

```
Technical Libraries/ERP Applications/Applications Installation
and Upgrade/Alerts
```

Self-Service Toolkit: You can also find information by navigating to the Self-Service Toolkit window, using the following path:

```
Technical Libraries/ERP Applications/Applications Installation
and Upgrade
```

Related Healthcare Industry Publications

This section describes publications within the Healthcare industry that describe topics conceptually related to Oracle Healthcare Transaction Base—principally those associated with **Health Level Seven** (HL7), a healthcare standard for electronic data exchange developed to establish national standards for electronic healthcare transactions.

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- Non-members can also purchase publications directly from the HL7 Bookstore at:

  `www.hl7.org/library/bookstore`
- See Also: `www.hl7.org`

Unified Service Action Model Version 2.6

This is the complete version of the **Unified Service Action Model** (USAM), which describes the basic structures of the HL7 **Reference Information Model** (RIM).

Of interest to the HTB user community, including both users and application developers, this publication provides background information about the core information model upon which HTB and its APIs are based.

Message Development Framework, 1999

Describes Version 3 methodology, including the v3 meta model, and how the RIM, the datatypes and the vocabulary are created and integrated. It describes how to apply constraints to **Reference Information Model**s to derive **Domain Message Information Model**s, and how to relate DMIMs, **Refined Message Information Model**s, **Hierarchical Message Description**s, and **Message Type**s.

Of interest to the HTB user community, including both users and application developers, this publication provides background information about the core v3 message development methodology within HTB. It also explains how the **Unified Modeling Language** is used to derive serialized information structures, such as messages from an object model, and it describes HL7 use of UML (v3 metamodel).

HL7 Ballots

HL7 ballots describe the Reference Information Model, Message Types, and vocabulary. The ballots contain current version reference material, including the following:

- Introduction / Backbone (how to navigate the ballot).
- Help Guide (general background for the current version).
- Abstract Datatypes Specification.
- RIM Vocabulary.
- XML Implementable Technology Specification.
- The actual ballot content.

Of interest to the HTB user community, including users and application developers, HL7 ballots provide additional background information about the core information model upon which HTB clinical, administrative, and financial application APIs are based. Although there have been some significant changes to the original USAM model over time, HL7 ballots contribute to the conceptual framework for HTB development.

Reference Information Model Composite Zip Files (RIM 0116-0119)

Includes complete RIM versions, with vocabulary, Microsoft Word[1] document forms, and Microsoft Excel[1] files containing UML diagrams. The first HTB release is based on RIM 0116.

---

[1] Microsoft Word and Microsoft Excel are products of Microsoft Corporation.

Of interest to the HTB user community, including users and application developers, this document set provides background information about the core information model upon which HTB and its APIs are based.

Rosetree RIM Browser and Message Development Tool

The Rosetree RIM Browser lets you read the RIM 116 MDB file—used for HTB Release 1.0—which lets you browse the RIM as a UML model, including RIM datatypes and vocabulary.

Of interest to the HTB user community, including users and application developers, this analytical tool is an invaluable aid to understanding the RIM.

Other HL7 Version 3 Model and Message Development Tools

Used with **Rosetree**, these tools let you do the following:

- Create HL7 UML models with the HL7 Visio[1] toolset.
- Validate such models against the RIM, and load them into Rosetree.
- Create **Hierarchical Message Description**s.
- Create **Message Type** and related conformance profiles.
- Create XML XSDs that express message content and structure.
- Generate actual message instances.

Of interest to the HTB user community, including users and application developers, this analytical tool is an invaluable aid to message development.

Do Not Use Database Tools to Modify Oracle Applications Data

Oracle STRONGLY RECOMMENDS that you never use SQL*Plus®, Oracle Data Browser, database triggers, or any other tool to modify Oracle Applications data unless otherwise instructed.

Oracle provides powerful tools that you can use to create, store, change, retrieve, and maintain information in an Oracle database. But if you use Oracle tools such as SQL*Plus to modify Oracle Applications data, you risk destroying the integrity of your data and you may lose the ability to audit changes to your data.

Because Oracle Applications tables are interrelated, any change you make using Oracle Applications can update many tables at once. But when you modify Oracle

[1] Microsoft Visio is a product of Microsoft Corporation.

Applications data using any software tool or process other than Oracle Applications, you may change a row in one table without making corresponding changes in related tables. If your tables get out of synchronization with each other, you risk retrieving erroneous information and you risk unpredictable results throughout Oracle Applications.

When you use Oracle Applications to modify your data, the applications automatically ensure that your changes are valid. Oracle Applications also keep track of who changes information. If you enter information into database tables using database tools, you may store invalid information. You also lose the ability to track who has changed your information because SQL*Plus and other database tools do not keep a record of changes.

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Part I

Getting Started

This part of the Oracle Healthcare Transaction Base Implementation Guide describes how to get started with the implementation process, and contains the following chapters:

- Chapter 1, Introduction
- Chapter 2, Before You Begin

1 Introduction

This chapter introduces Oracle Healthcare Transaction Base and describes its features.

This chapter contains the following topics:

- Section 1.1, Introduction
- Section 1.2, Overview

1.1 Introduction

Oracle Healthcare Transaction Base (HTB) is a comprehensive data repository and service infrastructure that provides Independent Software Vendors, System Integrators, and provider organizations with a state of the art software platform that lets them build robust and scalable healthcare applications.

HTB consists of software components that centralize and consolidate patient, provider and clinical objects and business rules across the enterprise. It overcomes operational challenges faced by healthcare organizations, letting them:

- Manage business transactions consistently in the patient care process, thereby increasing the efficiency, quality and competitive edge of the organization.
- Maximize clinical data reuse and portability through the use of standards, enabling seamless integration and consistent implementation between variant healthcare information systems.
- Enable protocol-based decision support, based on a complete view of patient information.

1.1.1 Consistent Business Transactions

HTB provides a single definition of each business object (encounter, patients, providers, medical acts...) across the healthcare organization. This lets users create and update key patient information in a consistent manner. For example, patient encounter information can be shared by various authorized personnel across a healthcare organization—enabling the creation and maintenance of a consolidated electronic health record.

1.1.2 Clinical Data Reuse and Portability

In many contemporary healthcare organizations, individual departments maintain their own independent information systems. These systems typically operate autonomously and do not synchronize patient data—making it difficult to develop a consistent, integrated view of the patient.

HTB provides a unified data model based on the HL7 v3 **Reference Information Model** (RIM), combined with sophisticated terminology mediation services incorporating standard terminologies that enable caregivers to efficiently manage and synchronize patient information. This approach lets caregivers avoid time-consuming data entry in multiple data sources while integrating patient information.

1.1.3 Comprehensive Community View

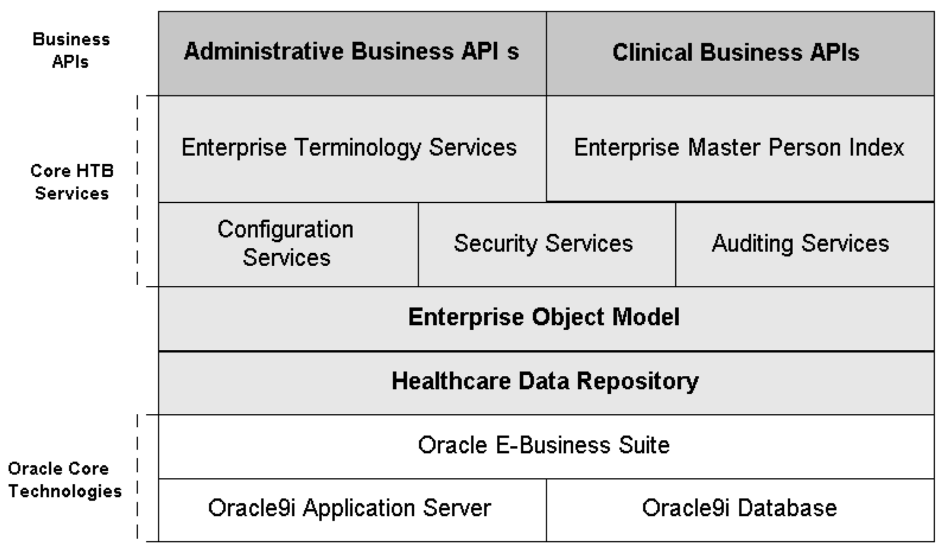
HTB lets multiple departments within a healthcare organization share data while maintaining a high level of autonomy. HTB provides multi-organization functionality that lets healthcare providers consistently manage and update central patient electronic healthcare records. As each department (or patient) touches a patient's specific data, the central patient record is updated accordingly. All organizations in a healthcare community can access relevant patient information (with appropriate patient consent), which translates into improved patient care, safety and reduced costs.

1.2 Overview

HTB consists of a set of services based on a foundation of selected Oracle core technologies. It includes software components that centralize and consolidate patient, provider, and clinical objects across the healthcare enterprise—providing unified access to a comprehensive healthcare infrastructure. The structure is a relational database implementation of the Reference Information Model that was developed for version 3 of the HL7 messaging standard and the corresponding vocabulary sets.

Figure 1–1 displays the HTB architecture:

Figure 1–1 HTB Architecture[1]



Business logic in the functional domains (administrative, clinical) and core services are exposed through a Java-based Applications Programming Interface (API). The underlying HTB business logic can be extended as required for specific application functionality.

[1] Inbound Message Processing (IMP) supported in current release; complete messaging services will be supported in a future release.

The HTB platform supports industry standards, such as HL7, HIPAA privacy regulations, and standard terminology sets such as SNOMED, CPT4, and ICD9. You can use this platform to accelerate your migration to these industry standards while focusing on development of healthcare application functionality.

1.2.1 Business APIs

HTB Business APIs provide access to the content of the HTB data repository. They provide a thin layer of business logic, and depend upon the core HTB services.

For example, an API for ordering a drug issues a call to a security API to verify authorization, and issues a call to an Enterprise Terminology Service API to validate drug codes. The business domains supported in the initial HTB release include basic administrative functionality as well as management of orders and observations.

The core HTB services define a common service infrastructure for the development of functional components in healthcare applications. These services are exposed through a Java-based API. The core HTB service APIs provide the basis for the business functionality. They also support efficient development of secure and scalable applications on a normalized and secure date repository.

1.2.2 System Administration Applications

HTB platform services are managed through the following window-based administrative applications:

- Security Manager lets System Administrators define security policy and manage security services.
- Configuration Manager lets System Administrators manage HTB configuration services.
- ETS Workbench lets System Administrators manage enterprise terminology services.

1.2.3 Leveraging Existing Oracle Core Technologies

HTB uses Oracle core technologies, which provide high performance and scalability characteristics, and ensure seamless integration with other Oracle products that use the same technology foundation.

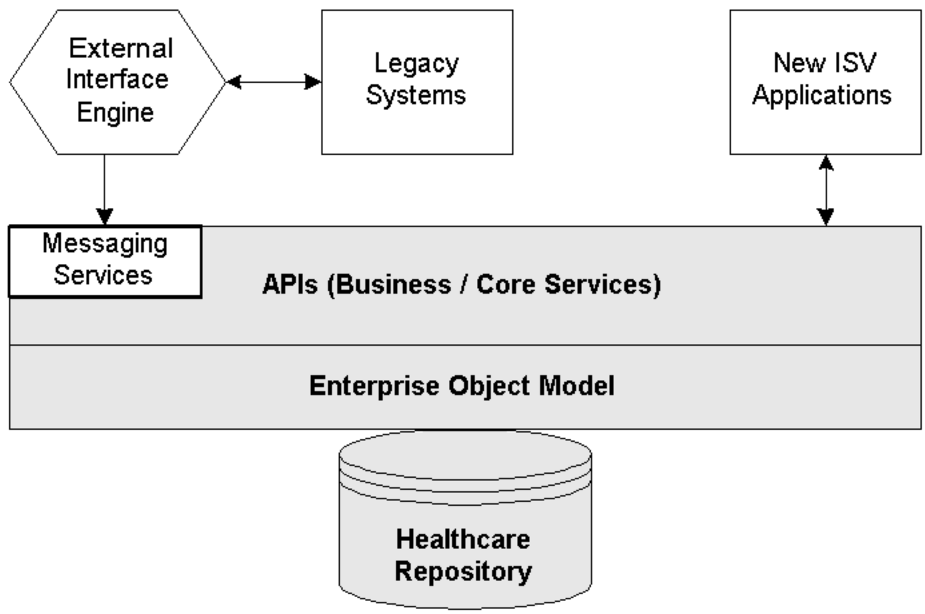
See Also: Section 2.1.1, Core Technology Foundation Components

1.2.4 HTB Usage Model

Figure 1–2 illustrates the usage model for the HTB platform:

- API-based integration for the development of new applications.
- Message-based integration with legacy systems.

Figure 1–2 HTB Usage Model



2

Before You Begin

This chapter summarizes the software components that must be installed, implemented, and verified before implementing the Oracle Healthcare Transaction Base.

This chapter contains the following topics:

- Section 2.1, Software Prerequisites

2.1 Software Prerequisites

Before commencing the HTB implementation process, you must install and verify the software components described in the following sections, in the order listed:

- Section 2.1.1, Core Technology Foundation Components
- Section 2.1.2, Oracle E-Business Suite
- Section 2.1.3, Oracle Containers for J2EE
- Section 2.1.4, HTB EAR File Installation
- Section 2.1.5, Configuring your HTB Installation
- Section 2.1.6, Client Environment Library Requirements

2.1.1 Core Technology Foundation Components

Table 2–1 lists the core technology foundation components required to support implementation of Oracle Healthcare Transaction Base. To install and verify installation of these components, refer to the associated Oracle documentation for each component:

Table 2–1 HTB Technology Foundation Components

Tools	Components	Version
General Java Development	Oracle9*i* JDeveloper ■ BC4J ■ JDBC ■ XML Developer's Kit for Java ■ Enterprise JavaBean (EJB) ■ Java Development Kit (JDK)	9i Production ■ 9i Production ■ Java 2, v1.3, 9.0.1 ■ 9i Production ■ J2EE 1.3, EJB 2.0 ■ v1.3.1
Oracle Enterprise Manager[1]	...	2.2
Oracle Workflow[1]	...	2.6
Oracle9*i* Database[1]	■ SQL ■ PL/SQL	Version that Oracle E-Business Suite certified to.
Oracle9*i*AS	OC4J	9i Release 3

[1] Installed with Oracle E-Business Suite.

See Also:
`http:\\otn.oracle.com/documentation/content.html`

2.1.2 Oracle E-Business Suite

HTB is a product of the Oracle E-Business Suite. To implement HTB, you must first install E-Business Suite 11*i* by performing the following steps:

1. Find the following Metalink documents (`http://metalink.oracle.com`); these documents describe how to install E-Business Suite:

Document ID[1]	Document Title
66926.1	Oracle Applications 11i Info Center
132072.1	SST: Oracle Applications Installation and Upgrade
216550.1	Interoperability Notes

[1] Use Advanced Search on the Document ID.

2. Ensure that your Oracle Applications instance is at Release 11.5.7 *with the Release 11.5.7 mini-pack installed*—before proceeding with the installation of HTB patches.
3. Upgrade your database to Oracle9i Release 2.
4. Apply the HTB patches.

Note: Patch numbers will be provided in a future release of this Implementation Guide.

2.1.3 Oracle Containers for J2EE

After completing the Oracle 11i installation, you must install Oracle9*i*AS *Container*s *for J2EE (OC4J)*, by performing the following steps:

1. Download Oracle9*i*AS *Containers for J2EE* from the Oracle Technology Network web site (`http:\\otn.oracle.com`).
2. After downloading OC4J from Oracle Technet (OTN), unzip the file and record the directory location—referred to as `OC4J_HOME` for ease of reference in this document.
3. At the command line, navigate to your `OC4J_HOME`/j2ee/home directory and run the following command:

```
java -jar oc4j.jar -install
```

4. Enter the Administrator password.

> **Note:** The Administrator password is required to install the HTB EAR file (Enterprise EJBs).

2.1.4 HTB EAR File Installation

To install the HTB EAR file:

1. Change the current directory to `OC4J_HOME/j2ee/home/`.
2. Add the following lines in the library path section of `OC4J_HOME/j2ee/home/config/application.xml:`

   Note: *Replace* `$JAVA_TOP` *with the absolute path of your* `$JAVA_TOP`.

   ```
   <library path="../../../jdbc/lib/classes12dms.jar" />
   <library path="$JAVA_TOP/apps.zip" />
   ```

3. Start the OC4J Container with the following command:

   ```
   java -Xmx512M -Xms512M -jar oc4j.jar
   ```

   Note: *Memory sizes are approximated.*

4. A **message** confirms that the OC4J container has been initialized.
5. Locate the `htb.ear` file on `$APPL_TOP/ctb/11.5.0/java/ear/`.

   Note: *You will need the administrator password you created when installing the OC4J container.*

   Use the following command to install the `htb.ear` file:

   ```
   java -Xmx512M -Xms512M -jar admin.jar ormi://localhost
   admin <password> -deploy -file $APPL_TOP/ctb/11.5.0/java/ear/htb.ear
   -deploymentName htb
   ```

   See Also: About Oracle Healthcare Family Pack C (Preface)

2.1.5 Configuring your HTB Installation

To configure your HTB installation:

1. You now have a directory with the path `OC4J_HOME/j2ee/home/application-deployments/htb.`

   Within this directory, edit the file `orion-application.xml:`

   - Find the section referencing a property `DBC_FILE_PATH.`
   - Change this value to correspond to the DBC file used by your Oracle11*i* instance. Remember this location—it will be referred to as `DBC_FILE_PATH.`

2. Restart the OC4J container using the following commands in your `OC4J/home/j2ee` directory:

   ```
   java -jar admin.jar ormi://localhost admin password -shutdown force
   ```

   Note: *Verify that the process is no longer running before restarting.*

   ```
   java -Xmx512M -Xms128M -Djbo.323.compatible=true -jar oc4j.jar
   ```

3. Your HTB installation is now complete.

   See Also: About Oracle Healthcare Family Pack C (Preface)

2.1.6 Client Environment Library Requirements

Client-side libraries are required to develop and run client programs. You can access most of these libraries on the server, and download the balance from Oracle Technology Network.

Server-side libraries are listed by Table 2–2:

Table 2–2 Server-Side Libraries

Library File Name	Location (Directory Path)
classes12dms.jar	OC4J/HOME/jdbc/lib
ejb.jar	OC4J_HOME/j2ee/home/lib
htbclnt.jar	$APPL_TOP/ctb/11.5.0/java/jar
jaas.jar	OC4J_HOME/j2ee/home/lib
jms.jar	OC4J_HOME/j2ee/home/lib

Table 2–2 (Cont.) Server-Side Libraries

Library File Name	Location (Directory Path)
`jndi.jar`	`OC4J_HOME/2Jee/home/lib`
`jta.jar`	`OC4J_HOME/j2ee/home/lib`
`saxon.jar`	`OC4J/HOME/j2ee/home/lib`

To obtain the balance of the libraries, download Oracle JDeveloper (`jdeveloper.zip`) from Oracle Technology Network (`http:\\otn.oracle.com`) and unzip the following files:

- bc4jct.jar
- bc4jdomorcl.jar
- bc4jmt.jar

Part II

Implementing Oracle Healthcare Transaction Base

This section of the Oracle Healthcare Transaction Base Implementation Guide describes the implementation process, and contains the following chapters:

- Chapter 3, Implementation Overview
- Chapter 4, Implementation Tasks

3 Implementation Overview

This chapter describes the implementation process for the Oracle Healthcare Transaction Base, including the implementation task sequence. It contains the following topics:

- Section 3.1, Implementation Process Description
- Section 3.2, Implementation Tasks

> **See Also:** Chapter 4, Implementation Tasks, for a description of each HTB implementation procedure.

3.1 Implementation Process Description

Oracle Healthcare Transaction Base provides two fundamental interfaces to implement its core services: (i) a **window user interface**, available for selected services, and (ii) the HTB Session Service, which provides an API call interface to all methods supported by HTB. Some implementation procedures incidentally employ a command line interface as well.

To complete the implementation of Oracle Healthcare Transaction Base, you must implement each core service listed by Table 3–1. This table cross-references implementation procedures applicable to each service, and is followed by individual procedure reference tables for each implementation procedure.

To Implement Services Using the Window User Interface:

[Window interface specified by applicable implementation reference table—tables 3–2 through 3–12]

1. Log in to Oracle Applications as `SYSADMIN`.

> **Caution: Although user SYSADMIN is assigned all of the seeded responsibilities, you should avoid routinely using this user name for daily administrative tasks—*create your own System Administrator user names for managing HTB security.***

2. Select the appropriate **responsibility**—indicated separately for each implementation procedure (and by its associated reference table—tables 3–2 through 3–12).
3. Navigate to the applicable window and perform the procedure.

To Implement Services Using the HTB Session Service:

[Session Service interface specified by applicable implementation reference table—tables 3–2 through 3–12]

1. Use the HTB Session Service to initiate a user session, as described by Appendix B, HTB Session Service.
2. Select the appropriate **role—**indicated separately for each implementation procedure (and by the its associated reference table—tables 3–2 through 3–12).
3. Perform the procedure.

See Also: *Oracle Javadoc for HTB*, for information about methods supported by the HTB platform.

3.2 Implementation Tasks

Table 3–1 summarizes the tasks necessary to implement Oracle Healthcare Transaction Base, followed by individual procedure reference tables for each implementation procedure (tables 3–2 through 3–12); Figure 3–1 provides an overview of the implementation process.

The Section Reference column of Table 3–1 cross-references the appropriate implementation procedure section for each task, and the Table Reference column cross-references the individual procedure tables that follow. The actual procedures are described by Chapter 4, Implementation Tasks. You can perform these tasks in the sequence indicated by either Table 3–1 or by Figure 3–1:

Table 3–1 HTB Implementation Tasks Summarized

Task	Description	Yes[1] No	Section Reference	Table Reference
1	Implementing Security Services	Yes	Section 4.1	Table 3–2
2	Implementing Person Services	Yes	Section 4.2	Table 3–3
3	Implementing Organizations	Yes	Section 4.3	Table 3–4
4	Implementing Profile Option Services	No	Section 4.4	Table 3–5
5	Implementing Enterprise Terminology Services	Yes	Section 4.5	Table 3–6
6	Implementing Audit Services	No	Section 4.6	Table 3–7
7	Implementing Administrative Business Services	Yes	Section 4.7	Table 3–8
8	Implementing Clinical Business Services	Yes	Section 4.8	Table 3–9
9	Implementing Inbound Message Processing Services	No	Section 4.9	Table 3–10
10	Implementing ID Type Services	No	Section 4.10	Table 3–11
11	Implementing Cross-Referencing	No	Section 4.11	Table 3–12

[1] Required?

Table 3–2 HTB Implementation Procedures: Security Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
1-1	Creating Administrative Users	Yes	System Administrator	Window	Section 4.1.1
1-2	Assigning Responsibilities to Administrative Users	Yes	System Administrator	Window	Section 4.1.2
1-3	Creating Accounts	Yes	Healthcare Security Administrator	Window	Section 4.1.3
1-4	Creating Security Roles	Yes	Healthcare Security Administrator	Windows	Section 4.1.4
1-5	Assigning Accounts to Roles	Yes	Healthcare Security Administrator	Window	Section 4.1.5
1-6	Defining Protected Functions	No	Healthcare Security Administrator	Session Service	Section 4.1.6
1-7	Defining Security Criteria on Protected Objects	No	Healthcare Security Administrator	Window	Section 4.1.7
1-8	Assigning Functions to Roles Conditioned by Criteria	Yes	Healthcare Security Administrator	Window	Section 4.1.8
1-9	Implementing Break-The-Glass	No	Healthcare Security Administrator	Session Service	Section 4.1.9
1-10	Configuring Login URL for Notification Messages	Yes	Healthcare Configuration Administrator	Window	Section 4.1.10

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–3 HTB Implementation Procedures: Person Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
2-1	Defining Person Services Profile Options for DQM	Yes	Healthcare Configuration Administrator	Window	Section 4.2.1
2-2	Adding Trading Community Manager Responsibility	Yes	System Administrator	Window	Section 4.2.2

Table 3–3 (Cont.) HTB Implementation Procedures: Person Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
2-3	Implementing TCA DQM for HTB	Yes	Trading Community Manager	Window	Section 4.2.3
2-4	Implementing Person Management	Yes	User-defined	Session Service	Section 4.2.4
2-5	Implementing Correlation	Yes	User-defined	Session Service	Section 4.2.5

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–4 HTB Implementation Procedures: Organizations

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
3-1	Creating the Organization Hierarchy	Yes	User-Defined Role	Session Service	Section 4.3.1
3-2	Creating Organizations	Yes	User-Defined Role	Session Service	Section 4.3.2
3-3	Maintaining Organizations and Hierarchies	No	User-Defined Role	Session Service	Section 4.3.3

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–5 HTB Implementation Procedures: Profile Option Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
4-1	Implementing Profile Options	No	Healthcare Application Developer	Window	Section 4.4.1
4-2	Implementing Profile Option Values	Yes	Healthcare Configuration Administrator	Window	Section 4.4.2

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–6 HTB Implementation Procedures: Enterprise Terminology Services (ETS)

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
5-1	Creating New Generic Coding Schemes	Yes	Healthcare ETS Administrator	Window	Section 4.5.1
5-2	Loading and Activating New Terminology Versions	No	Healthcare ETS Administrator	Window/ Command Line	Section 4.5.2
5-3	Searching for a Concept in ETS	Yes	Healthcare ETS Administrator	Window	Section 4.5.3
5-4	Creating and Loading ETS Cross Maps	No	Healthcare ETS Administrator	Command Line/ Window	Section 4.5.4
5-5	Creating Local Descriptions	No	Healthcare ETS Administrator	Window	Section 4.5.5
5-6	Managing Usage Contexts	No	Healthcare ETS Administrator	Window	Section 4.5.6
5-7	Managing Concept Lists	No	Healthcare ETS Administrator	Window	Section 4.5.7
5-8	Running the ETS Maintenance Program	No	Healthcare ETS Administrator	Command Line/ Window	Section 4.5.8

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–7 HTB Implementation Procedures: Audit Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
6-1	Auditing Login Events	No	NA	NA	Section 4.6.1
6-2	Enabling Audit Services	No	Healthcare Configuration Administrator	Window	Section 4.6.2
6-3	Initializing Existing Audit Event Types	No	Healthcare Configuration Administrator	Window	Section 4.6.3

Table 3–7 (Cont.) HTB Implementation Procedures: Audit Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
6-4	Creating New Audit Event Types	Yes	Healthcare Application Developer	Window	Section 4.6.4
6-5	Attribute Values in Audit Events	Yes	Healthcare Application Developer; Healthcare ETS Administrator	Window	Section 4.6.5
6-6	Invoking HTB Audit Services	No	User-Defined	Session Service	Section 4.6.6

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–8 HTB Implementation Procedures: Administrative Business Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
7-1	Implementing Payers and Plans	Yes	User-Defined Role	Session Service	Section 4.7.1
7-2	Implementing Employers	Yes	User-Defined Role	Session Service	Section 4.7.2
7-3	Implementing Care Sites	Yes	User-Defined Role	Session Service	Section 4.7.3
7-4	Implementing Staff Registration	Yes	User-Defined Role	Session Service	Section 4.7.4
7-5	Implementing Workgroups	Yes	User-Defined Role	Session Service	Section 4.7.5
7-6	Implementing Patient Registration	Yes	User-Defined Role	Session Service	Section 4.7.6
7-7	Implementing Wait List Management	No	User-Defined Role	Session Service	Section 4.7.7
7-8	Implementing Patient Scheduling	Yes	User-Defined Role	Session Service	Section 4.7.8
7-9	Implementing Encounter Management	No	User-Defined Role	Session Service	Section 4.7.9
7-10	Implementing Patient List	No	User-Defined Role	Session Service	Section 4.7.10

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–9 HTB Implementation Procedures: Clinical Business Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
8-1	Implementing the Master Catalog	Yes	User-Defined Role	Session Service	Section 4.8.1,
8-2	Implementing the User Catalog and Flow Sheets	Yes	User-Defined Role	Session Service	Section 4.8.2

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–10 HTB Implementation Procedures: Inbound Message Processing Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
9-1	Creating an IMP Administrator Role and Assigning it to an Account	Yes	Healthcare Security Administrator	Window	Section 4.9.1
9-2	Assigning IMP Configuration Functions to the IMP Administrator Role	Yes	Healthcare Security Administrator	Window	Section 4.9.2
9-3	Implementing Senders	Yes	User-Defined Role	Session Service	Section 4.9.3
9-4	Implementing Vocabulary	Yes	User-Defined Role	Session Service	Section 4.9.4
9-5	Implementing IDs	No	User-Defined Role	Session Service	Section 4.9.5
9-6	Invoking Inbound Message Processing Services	Yes	User-Defined Role	Session Service	Section 4.9.6

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–11 HTB Implementation Procedures: ID Type Services

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
10-1	Creating the ID Type	**Yes**	User-Defined Role	Session Service	Section 4.10.1
10-2	Updating ID Type	**No**	User-Defined Role	Session Service	Section 4.10.2
10-3	Deleting ID Type	**No**	User-Defined Role	Session Service	Section 4.10.3
10-4	Getting ID Type	**No**	User-Defined Role	Session Service	Section 4.10.4
10-5	Getting ID type by Name	**No**	User-Defined Role	Session Service	Section 4.10.5
10-6	Getting ID type by Root OID	**No**	User-Defined Role	Session Service	Section 4.10.6
10-7	Getting ID Types	**No**	User-Defined Role	Session Service	Section 4.10.7

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Table 3–12 HTB Implementation Procedures: Cross-Referencing

Task-Step	Description	Yes[1] No	Performed By (Responsibility or Role)	Interface[2]	Procedure Reference
11-1	How Messages Use Cross-Referencing	No	User-Defined Role	Session Service	Section 4.11.1

[1] Required?

[2] There are three user interfaces used for selected implementation procedures: (i) a window interface; (ii) the HTB Session Service, which provides a call interface to HTB APIs; and (iii) a command line interface. See Also: Section 3.1, Implementation Process Description, and Appendix B, HTB Session Service.

Figure 3–1 Implementation Task Process

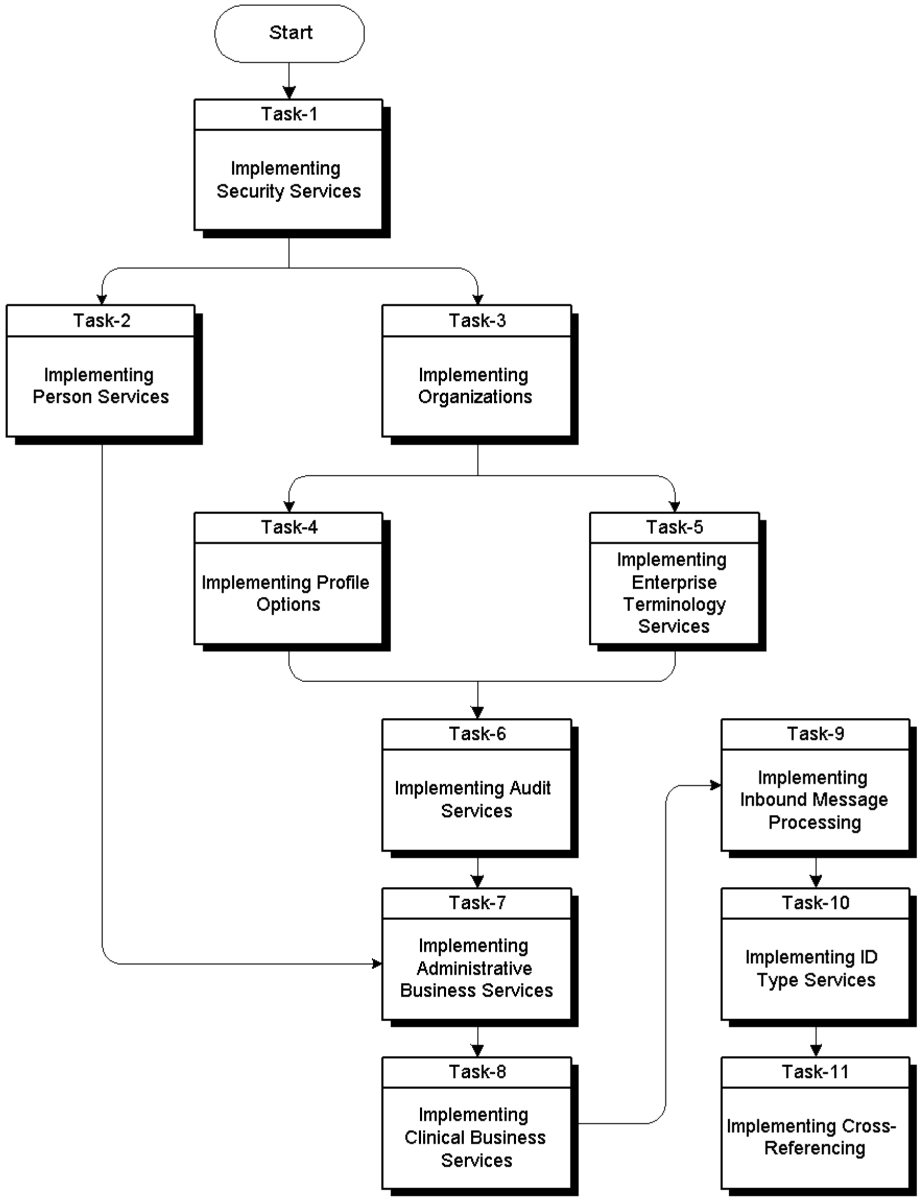


Figure 3–1 **Notes:**

- This chart indicates the implementation task sequence as well as dependency relationships between tasks.
- You can complete tasks sequentially, or in the sequence indicated by this chart.
- You must start with Task-1, and you can then perform tasks 2 and 3 in parallel.
- Following Task-3, you can perform tasks 4 and 5 in parallel, but both must be completed prior to commencing Task-6.
- You must complete tasks 1 through 6 before commencing Task-7
- You must complete all subsequent tasks in sequence.
- Detailed implementation flow charts are included with each procedure section in Chapter 4.

See Also:

- Chapter 4, Implementation Tasks
- Appendix B, HTB Session Service

4

Implementation Tasks

This chapter describes each HTB implementation procedure, organized in implementation sequence. This chapter contains the following topics:

- Section 4.1, Implementing Security Services
- Section 4.2, Implementing Person Services
- Section 4.3, Implementing Organizations
- Section 4.4, Implementing Profile Option Services
- Section 4.5, Implementing Enterprise Terminology Services
- Section 4.6, Implementing Audit Services
- Section 4.7, Implementing Administrative Business Services
- Section 4.8, Implementing Clinical Business Services
- Section 4.9, Implementing Inbound Message Processing Services
- Section 4.10, Implementing ID Type Services
- Section 4.11, Implementing Cross-Referencing

> **See Also:** Chapter 3, Implementation Overview, for an overview of the implementation process, including the implementation task sequence, and a description of the user interface.

4.1 Implementing Security Services

HTB Security Services authenticates users, and lets security administrators define **authorization** policy that specifies which users can invoke which APIs against which HTB objects.

Security administrators and administrative users can use HTB Security Manager, a window-based tool, to define authorization policy, including the following components:

- Accounts
- Security roles
- Assignment of accounts to roles
- Protected functions
- Security criteria associated with protected objects
- Assignment of functions to roles conditioned by criteria

For example, an authorization policy could state that only staff members in the Psychiatry department who are assigned to a patient's care can view clinical data for that patient. This policy includes the following principal components (Table 4–1):

Table 4–1 Sample Security Policy

Account	Security Role	Protected Function	Protected Object	Security Criteria
Dr Patel	PsychiatryStaff	View ClinicalAct	ClinicalAct	User assigned to patient's care

Reference

- Oracle Applications 11*i* System Administrator's Guide
- Oracle Applications 11*i* Installation Guide

Prerequisites

Implementing Person Services (required only for step 1 in Section 4.1.3):

- TCA DQM must be implemented for HTB.
- Person Services profile options must be set.

See Also:

- Section 4.2.3, Implementing TCA DQM for HTB
- Section 4.4, Implementing Profile Option Services
- Table E–1, Profile Options (Appendix E)

Login

Log in to Oracle Applications as `SYSADMIN`.

Caution: Although user SYSADMIN is assigned all of the seeded responsibilities, you should avoid routinely using this user name for daily administrative tasks—*create your own System Administrator user names for managing HTB security. If you create your own System Administrator user names, these users will only have access to Oracle Self Service Applications.*

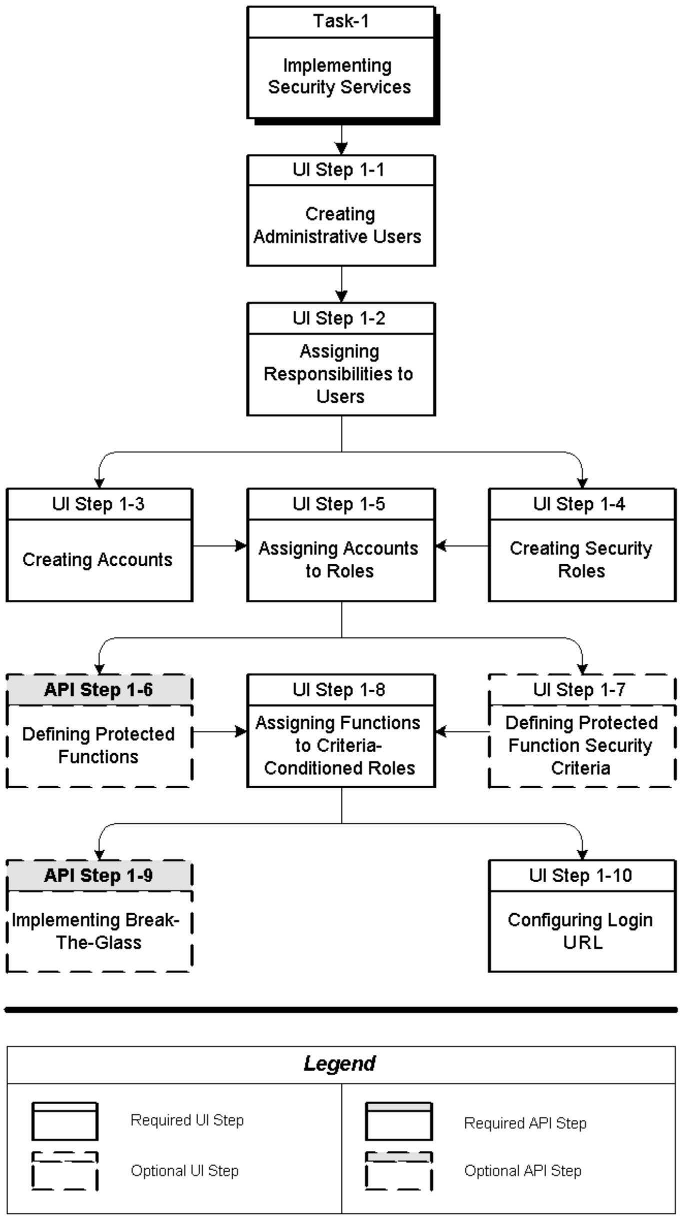
Responsibility

System Administrator

Procedures

Figure 4–1 provides an overview of the implementation process for Security Services:

Figure 4–1 Implementation Process: Security Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–2, HTB Implementation Procedures: Security Services

The following sections describe the implementation procedures for Security Services (referenced by Figure 4–1):

- Section 4.1.1, Creating Administrative Users
- Section 4.1.2, Assigning Responsibilities to Administrative Users
- Section 4.1.3, Creating Accounts
- Section 4.1.4, Creating Security Roles
- Section 4.1.5, Assigning Accounts to Roles
- Section 4.1.6, Defining Protected Functions
- Section 4.1.7, Defining Security Criteria on Protected Objects
- Section 4.1.8, Assigning Functions to Roles Conditioned by Criteria
- Section 4.1.9, Implementing Break-The-Glass
- Section 4.1.10, Configuring Login URL for Notification Messages

4.1.1 Creating Administrative Users

A **system administrator** grants user login access to Oracle Applications (and to HTB) by creating a user account and initializing the user password.

See Also: *Oracle Applications 11i System Administrator's Guide*

This section describes how to create administrative users.

Responsibility

System Administrator

Navigation

Table 4–2 summarizes the navigation paths used by this section:

Table 4–2 Navigation Paths: Creating New Users

Function or Window	Navigation Path
Create User Window	`Navigator > Functions > Users`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Navigator window.
2. Choose the Functions tab.
3. Choose Users from the right panel (Top Ten List) and select Open.
4. Enter the user name and initial password for the new user.
5. Choose File from the task bar and select Save.

Defaults

Both user name and password are required fields, and can contain alphanumeric characters only. Passwords can contain a minimum of five and a maximum of 100 characters.

The following fields are optional:

- Description
- Linking to a person registered in Person Services (the Customer field)
- E-mail address and fax number
- Effective start (defaults to `SYSDATE`) and end dates.
- Password expiration policy (defaults to no expiration)

4.1.2 Assigning Responsibilities to Administrative Users

To enable administrative users to define HTB authorization policies, they must be assigned three seeded responsibilities:

- Healthcare Security Administrator
- Healthcare Configuration Administrator
- Healthcare Application Developer

This section describes how to assign these responsibilites.

Responsibility

System Administrator

Navigation

Table 4–3 summarizes the navigation paths used by this section:

Table 4–3 Navigation Paths: Assigning Responsibilities to Users

Function or Window	Navigation Path
Create User Window	`Navigator > Functions > Users`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Navigator window.
2. Choose the Functions tab.
3. Choose Users from the right panel and select Open.
4. Choose View from the task bar and select Find.
5. Select the user from the Users pop-up window.
6. Choose the Responsibilities tab and select responsibilities from the pop-up window.
7. Choose File from the task bar and select Save.

Defaults

Table 4–4 lists users and responsibilities seeded for HTB use:

Table 4–4 Seeded Users and Responsibilities

Users	Responsibilities
SYSADMIN	Healthcare Application Developer
...	Healthcare Configuration Administrator
...	Healthcare ETS Administrator
...	Healthcare Security Administrator
...	Trading Community Manager

Table 4–4 (Cont.) Seeded Users and Responsibilities

Users	Responsibilities
...	System Administrator

Caution: **Although user SYSADMIN is assigned all of the seeded responsibilities, you should avoid routinely using this user name for daily administrative tasks—*create your own System Administrator user names for managing HTB security using Oracle Self Service Applications.***

4.1.3 Creating Accounts

An active entity must establish its rights to access objects in HTB. An account represents either a human user or a system entity that is registered in and authentic to HTB. Examples of system entities include a root system account for system administrators, and a virtual account used by HTB messaging services to log in to HTB.

Note: Not every person known to a healthcare information system is a user. Patients, for example, are typically not HTB users.

An account has the following attributes:

- Login ID: Identifier for the account
- Password
- Effective date and expiration date: Indicates whether the account is active
- E-mail address: Used to send account change notifications

For accounts that represent human users, an additional attribute, PersonID, identifies the Person object in HTB Person Service that represents the user.

Login

Log in to Oracle Applications as an administrative user.

Responsibility

Healthcare Security Administrator

Navigation

Table 4–5 summarizes the navigation paths used by this section:

Table 4–5 Navigation Paths: Creating Accounts

Function or Window	Navigation Path
Create Person	`Persons > Create Person`
Create System Account	`Accounts > Create System Account`
Create User Account	`Accounts > Create User Account`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps:

Note: Creating user account (step 1) must be performed after Implementing Person Services. You can create a system account first, and change the system account to a user account after implementing Person Services. Alternatively, you can implement Person Services first, and then create a user account directly.

---

1. If the account represents a person:
   - Navigate to the Persons Search page (Simple or Advanced) and search for the person; if the person does not exist, navigate to the Create Person page to create the person.
   - Navigate to the Create User Account page to create an account for the person.
2. If the account does not represent a person, navigate to the Create System Account page to create a system account.
3. When an account is successfully created, a password is automatically generated and sent to the e-mail address of the account through Oracle Workflow. To receive password notification e-mail, you must configure Oracle Workflow with the global notification preference set to *e-mail*.

   See Also: *Oracle Workflow Administrator's Guide*, Chapter 2, for information about setting up and configuring Oracle Workflow

4.1.4 Creating Security Roles

Security **role**s represent job functions that have associated permissions to access HTB. Roles are assigned to users to group users with similar job functions. Examples of roles include Clinician, Admissions Clerk, Nurse...

Login

Log in to Oracle Applications as an administrative user.

Responsibility

Healthcare Security Administrator

Navigation

Table 4–6 summarizes the navigation paths used by this section:

Table 4–6 Navigation Paths: Creating Security Roles

Function or Window	Navigation Path
Add Role	`Roles > Add Role`

Steps

1. Navigate to the Role Search Page to search for the role.
2. Navigate to the Create Role page to create the role.

Default

Table 4–7 lists the roles created at install time:

Table 4–7 Default Security Roles

Role Name	Description
Healthcare Security Administrator	`Users of this role administer accounts and security policies.`
Inbound Message Processor	`Used by Inbound Message Processor to process inbound messages.`

4.1.5 Assigning Accounts to Roles

An account can be assigned to one or more roles—which indicate that the user or system entity associated with the account is authorized to perform the job functions represented by the roles.

Login

Log in to Oracle Applications as an administrative user.

Responsibility

Healthcare Security Administrator

Navigation

Table 4–8 summarizes the navigation paths used by this section:

Table 4–8 Navigation Paths: Assigning Accounts to Roles

Function or Window	Navigation Path
Assign Account to Roles	`Accounts > View Assigned Roles > Assign Account to Roles`
Assign Accounts to Role	`Roles > Roles Search > View Role Details > Assign Accounts to Role`

Steps:

You can search for the *user or system account*, or you can search for the *role*:

- To search for the *user or system account:*
  1. Navigate to the Accounts Search page (Simple or Advanced).
  2. Select the account.
  3. Navigate to the View Assigned Roles page.
  4. Navigate to the Assign Account to Roles page.
  5. Click the torchlight to navigate to the Search and Select page.
  6. Enter a partial role name and click Go.
  7. Click the role name to be selected.
  8. Return to step 5 as necessary.
- To search for the *role*:
  1. Navigate to the Roles Search page.
  2. Click the role name to navigate to the View Role Detail page.
  3. Navigate to the Assign Accounts to Role page.
  4. Click the torchlight to navigate to the Search and Select page.

5. Enter a partial account name and click Go.
6. Click the account name to be selected.
7. Return to step 4 as necessary.

4.1.6 Defining Protected Functions

A protected function represents an HTB API requiring prior authorization. Most HTB service APIs are represented as protected functions.

For example, Find Encounters is a protected function that represents the `findEncounters` method in HTB Encounter Service. A user cannot invoke this method without authorization.

In addition to protected functions that represent HTB service APIs, HTB-based applications can create or delete application-specific protected functions through the following methods in the HTB Authorization Service:

- `createFunction`
- `deleteFunction`

Reference

Oracle Javadoc for HTB

Table 4–9 lists the principal methods that relate to protected functions:

Table 4–9 Service and Methods: Protected Functions

Level	Detail
Package	`oracle.apps.ctb.security`
Class	`AuthorizationService`
Methods	■ `createFunction` ■ `deleteFunction` ■ `findAccessibleFunctions`[1] ■ `findFunction` ■ `isGranted`

[1] Deprecated method

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Roles

- Healthcare Security Administrator for setup
- User-defined role to execute

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Default

Protected functions that represent HTB service APIs are created at install time.

4.1.7 Defining Security Criteria on Protected Objects

4.1.7.1 Protected Objects

Protected **object**s are HTB objects queried or manipulated by protected functions. These objects are related to each other and to other HTB objects through object reference attributes.

For example, encounter objects have an attribute `PatientIdentifier,` which references the associated Patient object. The following charts (Figure 4–2 through Figure 4–6) show how protected objects are related through object references:

Figure 4–2 Protected Objects: Person and Patient Services

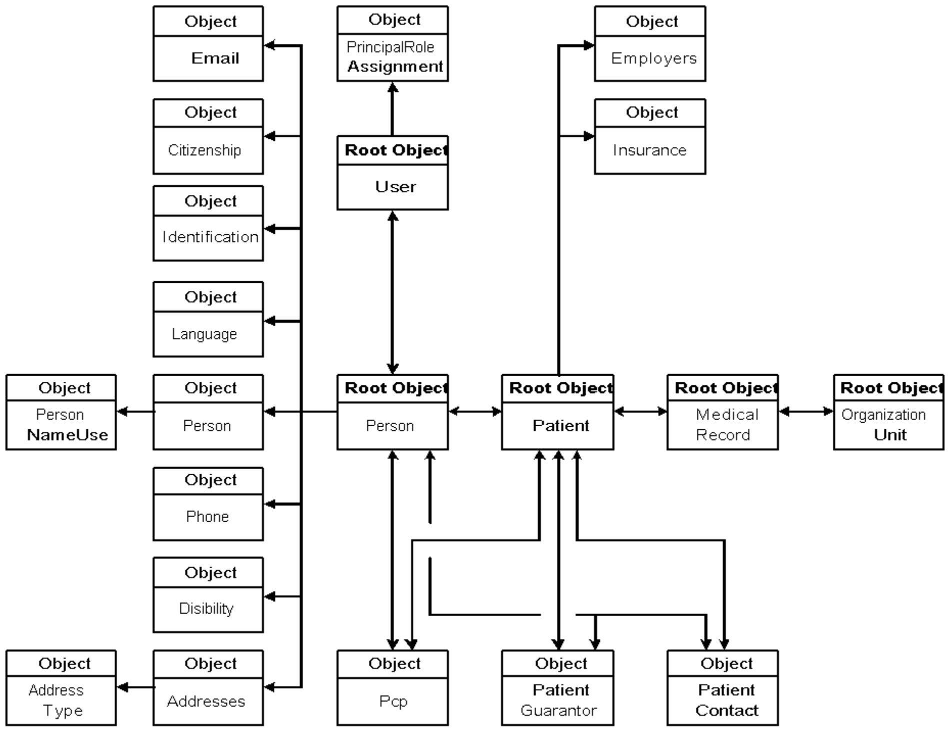


Figure 4–3 Protected Objects: Organization and Staff Services

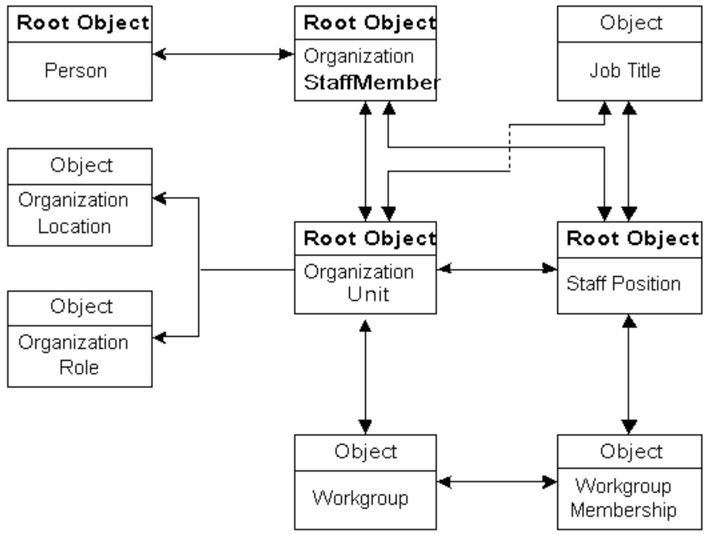


Figure 4–4 Protected Objects: Encounter Service

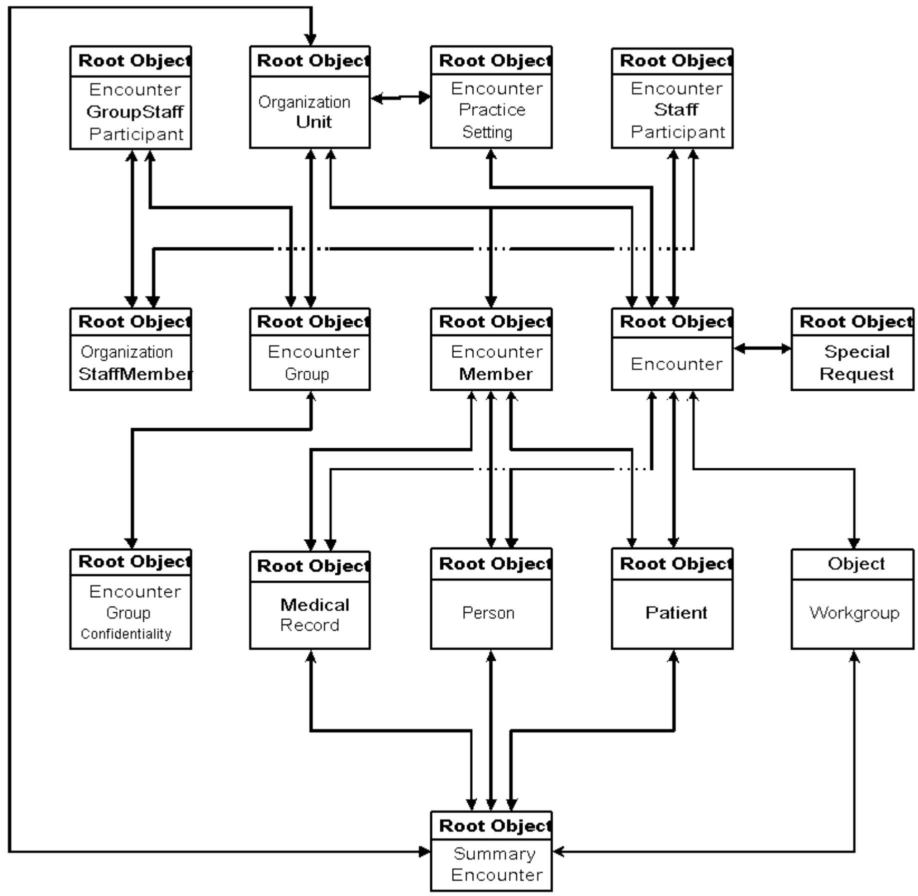


Figure 4–5 Protected Objects: ClinicalAct Service

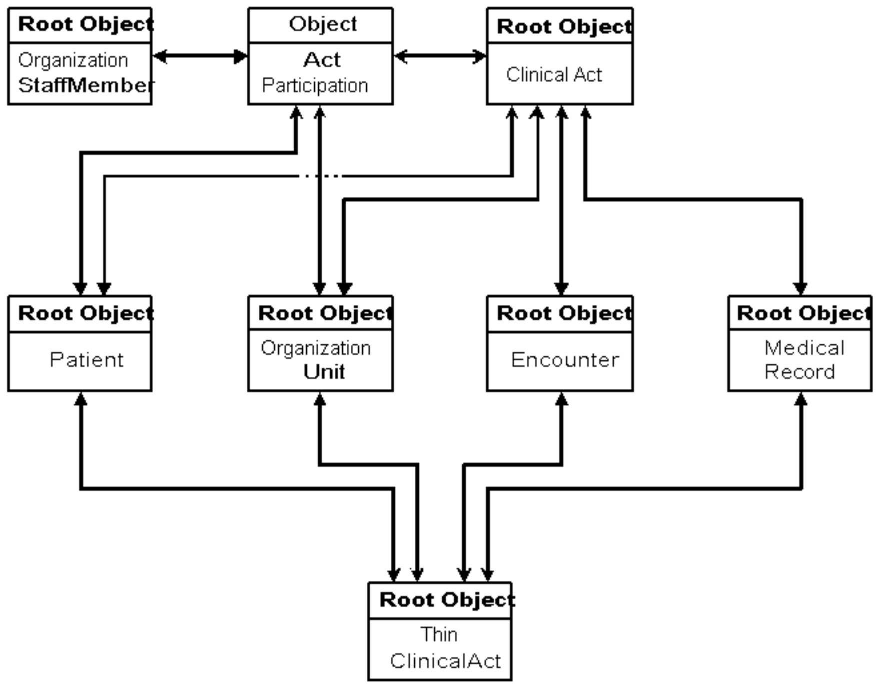
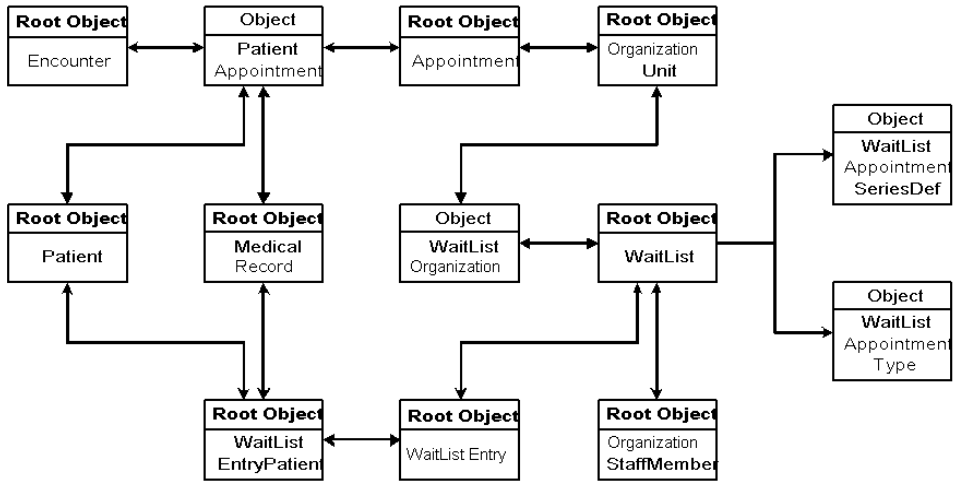


Figure 4–6 Protected Objects: Scheduling and Wait List Services



4.1.7.2 Security Criteria

Security criteria are constraints attached to protected objects, which define a protected object subset. The constraints are applied to attributes of the protected objects.

For example, security criteria for encounter objects can be defined using the `MedicalServiceCode` attribute with the statement:

```
MedicalServiceCode != "PSY"
```

This defines the subset of non-psychiatry encounters.

The constraint can also be applied to attributes of objects related to the protected objects displayed by Figure 4–2 through Figure 4–6.

For example, a security criterion might be applied to encounter objects with the statement:

```
VipCode != "VIP"
```

where `VIPCode` is an attribute of `MedicalRecord` objects. This defines the encounter subset of VIP medical records.

In addition to comparing an attribute with a constant, security criteria can also be defined to compare an object attribute with an attribute in the session context. HTB supports two imbedded context attributes:

- `LoginOrgId:` The identifier of the organization that a user logs in from. The value of this attribute is provided by applications at the commencement of a session.
- `LoginPersonId:` The identifier of the Person object that corresponds to the logged in user. This attribute is automatically derived after authentication, and cannot be set by applications.

For example, security criteria can be defined on encounter objects with the statement:

```
CurrentPracticeSettingIdentifier = :LoginOrgId
```

where `CurrentPracticeSettingIdentifier` is an attribute of encounter objects, and `":"` indicates a context attribute. It defines the subset of encounters at the organization from which the user logged in.

Another example is:

```
PersonIdentifier = :LoginPersonId
```

where `PersonIdentifier` is an attribute of encounter objects. It defines the subset of encounters for which the logged-in user is the patient.

Login

Log in to Oracle Applications as an administrative user.

Responsibility

Healthcare Security Administrator

Navigation

Table 4–10 summarizes the navigation paths used by this section:

Table 4–10 Navigation Paths: Security Criteria

Function or Window	Navigation Path
Add Child	`Criteria > Criteria Search > View Criteria Details > Add Child`
Create Criteria	`Criteria > Create Criteria`

Table 4–10 (Cont.) Navigation Paths: Security Criteria

Function or Window	Navigation Path
Update Criteria Statement	`Criteria > Criteria Search > View Criteria Details > Update Criteria Statement`

Steps:

You can create new criteria or update existing criteria.

- To create criteria:
  1. Navigate to the Create Criteria page.
  2. Enter the criteria name, select the root object, and click Apply.
- To update existing criteria:
  1. Navigate to the Criteria Search page and search for the criteria.
  2. Click the criteria name.
  3. Select a criteria node as the current object:
     – Navigate to the Update Criteria Statement page to add a constraint on an attribute of the current object, *or,*
     – Navigate to the Add Child page to add an object related to the current object in the protected object graphs.
  4. Repeat these steps as necessary.

Note: When adding a constraint on an attribute whose value is derived from a concept list, the concept list must be populated; it cannot be empty.

See Also: Section 4.5.7 for information about adding values to a concept list.

4.1.8 Assigning Functions to Roles Conditioned by Criteria

Protected functions can be assigned to security roles to indicate that accounts assigned to such roles are authorized to invoke APIs represented by the protected functions.

For example, the Find Encounters function can be assigned to the Clerk role, which authorizes clerks to view encounters.

When a protected function represents an API that queries or updates HTB objects, the assignment of the function to a security role could optionally be conditioned by a security criterion rooted on HTB objects. It could state that accounts assigned to the role are authorized to invoke the API to query or update HTB objects that satisfy the criterion.

For example, assume that you have created criteria on encounter objects with the constraint:

```
MedicalServiceCode != "PSY"
```

When you assign the function Find Encounters to the Clerk role conditioned by this criteria, you are authorizing clerks to view non-psychiatry encounters.

Login

Log in to Oracle Applications as an administrative user.

Responsibility

Healthcare Security Administrator

Navigation

Table 4–11 summarizes the navigation paths used by this section:

Table 4–11 Navigation Paths: Assigning Functions to Conditioned Roles

Function or Window	Navigation Path
Assign Functions to Role	`Roles > Role Search > View Role Details > Assign Functions to Role`

Steps

1. Navigate to the Role Search page to find the role.
2. Click the role name to navigate to the View Role Details page.
3. Navigate to the Assign Functions to Role page to grant a function to the role, optionally with a criterion.

Default

Table 4–12 defines assignments created at install time:

Table 4–12 Default Function Assignments

Role Name	Functions
Healthcare Security Administrator	■ `CTB_SA_BREAK_THE_GLASS` ■ `CTB_SA_RESET_PASSWORD`
Inbound Message Processor	■ `CTB_MS_PROCESS_IN_MSG`

4.1.9 Implementing Break-The-Glass

On an exception basis, authorization constraints can be disabled by *breaking the glass*. To break the glass, use the `setBreakTheGlass` method in the HTB Session Service. This method sets an attribute in the session context indicating if authorization is turned off.

When break-the-glass is turned on, authorization checks are bypassed for the rest of the session; calls to protected functions are not validated against security policies.

Not every user is authorized to break the glass. The `setBreakTheGlass()` method is represented as a protected function. A user must be granted this function to invoke the method.

Reference

Oracle Javadoc for HTB

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Roles

- Healthcare Security Administrator for setup
- User-defined role to execute

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

1. Create a role (Section 4.1.4).

2. Assign the BreakTheGlass function to the role (Section 4.1.8).
3. Assign applicable accounts to this role (Section 4.1.5).

4.1.10 Configuring Login URL for Notification Messages

When an account password is reset, a message is sent to the account e-mail address notifying the account owner of the password change. Included in the message is a URL through which the account owner can log in to HTB-based applications.

For example, several HTB-based applications can be accessible from a centralized portal page. The URL of the portal page can be included in password change e-mails.

The value of this login URL is a profile option that can be configured at install time, using the HTB Configuration Manager GUI.

Responsibility

Healthcare Configuration Administrator

Navigation

Table 4–13 summarizes the navigation paths used by this section:

Table 4–13 Navigation Paths: Configuring Login URL

Function or Window	Navigation Path
Create Profile Option Value	`System Profile Option Values > Profile Options > View Profile Option Values > Create Profile Option Value`

Steps

1. Navigate to the Profile Options page and search for `CTB: Login URL.`
2. Select the profile option and navigate to the View Profile Option Values page.
3. Navigate to the Create Profile Option Values page and select `level = Site.`
4. Enter the URL and click Apply.

4.2 Implementing Person Services

Person Services provide a central repository for person records, and facilitate system integration by providing a centralized person registry. It enables efficient identification of persons by providing a single view of a person—with multiple roles across HTB and other external systems.

Person Services affect the following functions within HTB:

- **Security Services:** A user record is created from a person record.
- **Patient Registration:** A patient record is created from a person record.
- **Staff Registration:** A staff record is created from a person record.

Prerequisites

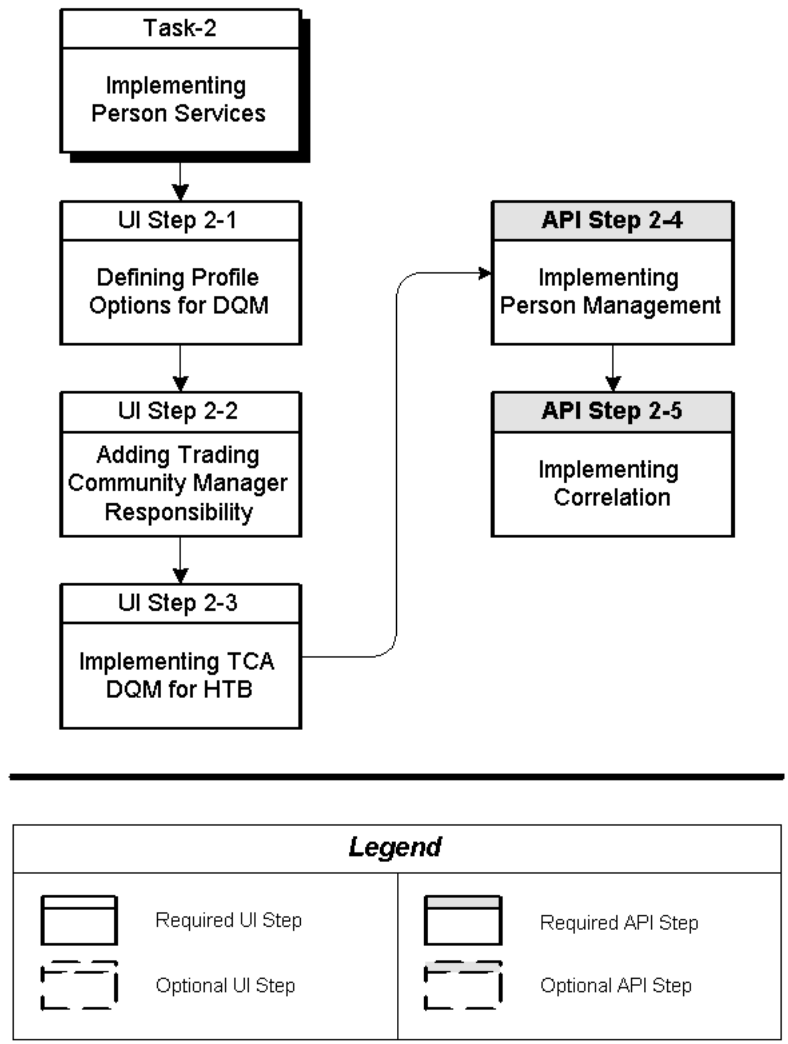
Implementing Security Services:

- An administrative security role should be created and assigned all of the protected functions in Organization Services.
- An administrative account should be created, as a member of the security role.

Procedures

Figure 4–7 provides an overview of the implementation process for Person Services:

Figure 4–7   Implementation Process: Person Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–3, HTB Implementation Procedures: Person Services

The following sections describe the implementation procedures for Person Services (referenced by Figure 4–7):

- Section 4.2.1, Defining Person Services Profile Options for DQM
- Section 4.2.2, Adding Trading Community Manager Responsibility
- Section 4.2.3, Implementing TCA DQM for HTB
- Section 4.2.4, Implementing Person Management
- Section 4.2.5, Implementing Correlation

4.2.1 Defining Person Services Profile Options for DQM

Login

Log in to HTB as SYSADMIN, or use the administrative account created in the Prerequisites section (Section 4.2).

Responsibility

Healthcare Configuration Administrator

Steps

This step precedes the actual TCA DQM setup. Use the Profile Options window user interface to set the Person Services profile option defaults listed by Table 4–14:

Table 4–14 Person Services Profile Options for DQM

Profile Option Name	Value
`Address Status Custom Attribute`	`CUSTOM_ATTRIBUTE2`
`DQM Identification Name`	`U.S. Social Security Card`[1]
`Duplicate Threshold`	`95`
`Identification Custom Attribute`	`CUSTOM_ATTRIBUTE1`
`Phone Status Custom Attribute`	`CUSTOM_ATTRIBUTE4`

Table 4–14 (Cont.) Person Services Profile Options for DQM

Profile Option Name	Value
Phone Usage Type Attribute	CUSTOM_ATTRIBUTE3
Rule Name	HTB_MATCH_RULE

[1] DQM can only match on one identification type. You can select any value defined in CTB_PI_PARTY_ID_TYPES.IDENTIFICATION_NAME (a seeded value).

See Also: Section 4.4.1, Implementing Profile Options

4.2.2 Adding Trading Community Manager Responsibility

Login

Log in to HTB as SYSADMIN, or use the administrative account created in the Prerequisites section (Section 4.2).

Responsibility

System Administrator

Steps

Perform the following steps to add the Trading Community Manager Reponsibility to the `SYSADMIN` user:

> **Note:** You can use either the SYSADMIN user name or the unique administrative account created in the Prerequisites section (Section 4.2); the use of your unique user name is preferred.
>
> Throughout the following steps user SYSADMIN is used for ease of reference.

1. Log in to Oracle Applications as `SYSADMIN` and choose System Administrator responsibility (automatic if only responsibility available); the System Administrator window is displayed by default.
2. Navigate to the Users window:

   `Security > User > Define`

3. Choose Query by Example (View Menu) or use the F11 function key; this lets you edit the form.
4. Enter `SYSADMIN` in the User Name text box and choose View > Query by Example > Run (File Menu). This displays all available responsibilities for the `SYSADMIN` user.
5. If Trading Community Manager is not included in the list, do the following to add it as a new responsibility:
   - Choose New (File Menu); this adds a new editable row in the Responsibilities section.
   - Click the three-dotted icon to the right of the highlighted first cell; this opens a Responsibility window.
   - Enter *Trading* next to the % sign in the Find field and click OK.
   - Select Trading Community Manager and click OK. This adds Trading Community Manager as a valid responsibility for `SYSADMIN`.
   - Select Save (File Menu) to save this change, and exit the application.

   Note: You can continue to the next step in the DQM implementation process as SYSADMIN, or select *File > Log on as Different User* to change your user name for the balance of the process.

4.2.3 Implementing TCA DQM for HTB

Person Services is employed to efficiently identify and correlate person records. It re-engineers person identification data to meet the standards of content and formatting, and associates such data with relevant existing persons at the time of entry on a real-time basis. Such re-engineering involves data cleansing, transformation, standardization and matching which is provided through Oracle Trading Community Architecture's (TCA) Data Quality Management tool (DQM).

Reference

Oracle Trading Community Architecture Data Quality Management User Guide

Prerequisites

- Defining Person Services Profile Options for DQM
- Adding Trading Community Manager Responsibility

See Also:

- Section 4.2.1, Defining Person Services Profile Options for DQM
- Section 4.2.2, Adding Trading Community Manager Responsibility

Responsibility

Trading Community Manager

Navigation

- Table 4–15 summarizes the navigation paths used by this section:

Table 4–15 Navigation Paths: Implementing TCA DQM for HTB

Function or Window	Navigation Path
Attributes and Transformation Functions Window	Data Quality Management > Setup > Attributes and Transformation Functions
Batch Duplicate Identification[1]	■ Data Quality Management > Duplicate Identification > Batch Definition ■ Data Quality Management > Duplicate Identification > Batch Review
Match Rules Window	Data Quality Management > Setup > Match Rules
Monitoring Requests	Data Quality Management > View Requests
Running DQM Staging Program (Submit New Request window)	Data Quality Management > Control > Requests > Run

[1] This function is used for unattended duplicate identification in batch mode. For further information, see: Oracle Trading Community Architecture Data Quality Management Guide, Batch Duplicate Identification section.

See Also: Table A–1, Navigation Paths (Appendix A)

To implement TCA DQM for HTB, you must complete the steps described in the following sections:

- Section 4.2.3.1, Defining Attributes and Transformation Functions
- Section 4.2.3.2, Defining Match Rules

4.2.3.1 Defining Attributes and Transformation Functions

Perform the following steps to define attributes and transformation functions:

Login

Log in to Oracle Applications using the user name you defined in Section 4.1.1.

Responsibility

Trading Community Manager

Steps

1. Open the Define Attributes and Transformation Functions window.
2. Choose the Party subtab (opened by default) and confirm that the following attributes are listed (Table 4–16):

Table 4–16 Party Attributes and Transformation Names

Attribute Name	Transformation Name	PL/SQL Function Name
Date of Birth	■ `EXACT(DATE)`	■ `HZ_TRANS_PKG.EXACT_DATE`
Gender	■ `EXACT`	■ `HZ_TRANS_PKG.EXACT`
Marital Status	■ `EXACT`	■ `HZ_TRANS_PKG.EXACT`
Person First Name	■ `CLEANSE` ■ `EXACT` ■ `SOUNDEX`	■ `HZ_TRANS_PKG.CLEANSE` ■ `HZ_TRANS_PKG.EXACT` ■ `HZ_TRANS_PKG.SOUNDX`
Person Last Name	■ `CLEANSE` ■ `EXACT` ■ `SOUNDEX`	■ `HZ_TRANS_PKG.CLEANSE` ■ `HZ_TRANS_PKG.EXACT` ■ `HZ_TRANS_PKG.SOUNDX`
Place of Birth	■ `CLEANSE` ■ `EXACT`	■ `HZ_TRANS_PKG.CLEANSE` ■ `HZ_TRANS_PKG.EXACT`
Custom Attribute 1	■ `EXACT`	■ `HZ_TRANS_PKG.EXACT`

3. For *each attribute* listed in Table 4–16, complete the following steps:
   - If the attribute is missing, select `File > New (`while in the Attribute Name region)`.` This creates a new row with an LOV icon in the right side of the window. Choose the LOV icon, and select the missing attribute. The attribute now appears under Attribute Name.

- For Custom Attribute 1:

Under Field Name	Enter
User Defined Name	`Identification`
Customer Procedure	`CTB_TRANSFORMATION_FUNCTIONS.get_person_identification`

- If any of the transformations is missing for the corresponding attribute in the Transformation Name region of the window, select `File > New`; a new transformation row appears. Enter the Transformation Name and the corresponding PL/SQL Function Name for each missing transformation.
- Confirm that both the Active and Acquisition check boxes are marked for each of these transformations (for each attribute).
- Save your work.

4. Choose the Address subtab and confirm that the following transformations are listed (Table 4–17):

Table 4–17 Address Attributes and Transformations

Attribute Name	Transformation Name	PL/SQL Function Name
Address 1	■ CLEANSED ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
Address 2	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
Address 3	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
Address 4	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
City	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
Country	■ EXACT	■ HZ_TRANS_PKG.EXACT
County	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
Postal Code	■ EXACT	■ HZ_TRANS_PKG.EXACT

Table 4–17 (Cont.) Address Attributes and Transformations

Attribute Name	Transformation Name	PL/SQL Function Name
Province	▪ CLEANSE ▪ EXACT	▪ HZ_TRANS_PKG.CLEANSE ▪ HZ_TRANS_PKG.EXACT
State	▪ EXACT	▪ HZ_TRANS_PKG.EXACT
Custom Attribute 2	▪ EXACT	▪ HZ_TRANS_PKG.EXACT

5. For *each attribute* listed in Table 4–17, complete the following steps:
   - If the attribute is missing, select `File > New (`while in the Transformations region)`.` This creates a new row with an LOV icon in the right side of the window. Choose the LOV icon, and select the missing attribute. The attribute now appears under Attribute Name.
   - For Custom Attribute 2:

Under Field Name	Enter
User Defined Name	`Address Status`
Customer Procedure	`CTB_TRANSFORMATION_FUNCTIONS.get_address_status`

   - If any of the transformations are missing for the corresponding attribute in the Transformation Name region of the window, select `File > New`; a new transformation row appears. Enter the Transformation Name and the corresponding PL/SQL Function Name for each missing transformation.
   - Confirm that both the Active and the Acquisition check boxes are marked, for each of these transformations.
   - Save your work.
6. Choose the **Contact Point** subtab and confirm that the following attributes are listed (Table 4–18):

Table 4–18 Contact Point Attributes and Transformations

Attribute Name	Transformation Name	PL/SQL Function Name
Phone Area Code	▪ CLEANSE ▪ EXACT	▪ HZ_TRANS_PKG.CLEANSE ▪ HZ_TRANS_PKG.RM_SPLCHAR

Table 4–18 (Cont.) Contact Point Attributes and Transformations

Attribute Name	Transformation Name	PL/SQL Function Name
Phone Country Code	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.RM_SPLCHAR
Phone Extension	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.EXACT
Phone Number	■ CLEANSE ■ EXACT	■ HZ_TRANS_PKG.CLEANSE ■ HZ_TRANS_PKG.SPLCHAR
Phone Line Type	■ EXACT	■ HZ_TRANS_PKG.EXACT
Custom Attribute 3	■ EXACT	■ HZ_TRANS_PKG.EXACT
Custom Attribute 4	■ EXACT	■ HZ_TRANS_PKG.EXACT

7. For each attribute listed in Table 4–18, complete the following steps:
   - If the attribute is missing, select `File > New (`while in the Transformations region of the window`).` This creates a new row with an LOV icon in the right side of the window. Choose the LOV icon, and select the missing attribute. The attribute appears under Attribute Name.
   - For Custom Attribute 3:

Under Field Name	Enter
User Defined Name	`Phone Usage Type`
Customer Procedure	`CTB_TRANSFORMATION_FUNCTIONS.get_phone_usage_type`

   - For Custom Attribute 4:

Under Field Name	Enter
User Defined Name	`Phone Status`
Customer Procedure	`CTB_TRANSFORMATION_FUNCTIONS.get_phone_status`

   - If any transformation is missing for its corresponding attribute in the Transformations region of the window, select `File > New.` A new transformation row appears. Enter the Transformation Name and the corresponding PL/SQL Function Name for each missing transformation.

- Confirm that both the Active and Acquisition check boxes are marked for each of these transformations.
- Save your work.

8. Run the DQM Staging Program.
   - Navigate to `Control > Request > Run.`
   - Select Single `Request > OK`.
   - From the LOV on the right side of the Request Name, select DQM Staging Program and enter the following Parameters:

Parameter	**Enter This Value**
Number of Parallel Staging Workers	1
Staging Command:	Select STAGE_ALL_DATA
Continue Previous Execution?	Choose No.

   - Choose OK for Parameters, and Submit for Request (note the number for your request).

9. To monitor the status of your request, you can select `View > Requests`; the Find Requests window appears. Select All My Requests to view and monitor your specific request as well as children requests it generates. From there, you can view log files if your requests fail to complete successfully. When the DQM Staging Program finishes running, you can define Match Rules.

Note: DQM does not currently provide real time synchronization when new records are created, or existing records are updated. Accordingly, the new data must be explicitly included in the stage schema. Perform this operation manually by submitting the STAGE_MISSING_PARTIES program, to be run at some reasonable frequency—depending upon the database update frequency.

4.2.3.2 Defining Match Rules

Steps

1. Navigate to the Match Rules window.
2. Assign a name to your Rule: *HTB_ALPHA_TEST,* and provide an optional description.
3. Leave Purpose at default value *Search*.
4. Select Attribute Match option: *Match Any Attribute*
5. Choose the Acquisition subtab and complete the following steps *for each attribute* listed in Table 4–19:
   - Click the Attribute Name row; LOV dots appear at the right side. Click the dots and select an attribute.

     Note: Some Attribute Names may appear more than once, for different Entities. Make sure that you select attribute names for the correct Entity.

   - For each attribute, also enter the transformations from Table 4–19 into the Transformations region; LOV dots appear at the right side of the Transformation Name.
   - Save your work.

Table 4–19 Acquisition Attributes and Transformations

Attribute Name	Entity	Transformation Name
Phone Area Code	▪ CONTACT_POINTS	▪ CLEANSE ▪ EXACT
Phone Country Code	▪ CONTACT_POINTS	▪ CLEANSE ▪ EXACT
Phone Extension	▪ CONTACT_POINTS	▪ CLEANSE ▪ EXACT
Phone Number	▪ CONTACT_POINTS	▪ CLEANSE ▪ EXACT

Table 4–19 (Cont.) Acquisition Attributes and Transformations

Attribute Name	Entity	Transformation Name
Phone Line Type	■ CONTACT_POINTS	■ EXACT
Phone Status	■ CONTACT_POINTS	■ EXACT
Phone Usage Type	■ CONTACT_POINTS	■ EXACT
Address Status	■ PARTY_SITES	■ EXACT
Date of Birth	■ PARTY	■ EXACT(DATE)
Gender	■ PARTY	■ EXACT
Identification	■ PARTY	■ EXACT
Marital Status	■ PARTY	■ EXACT
Person First Name	■ PARTY	■ CLEANSE ■ EXACT ■ SOUNDEX
Person Last Name	■ PARTY	■ CLEANSE ■ EXACT ■ SOUNDEX
Place of Birth	■ PARTY	■ CLEANSE ■ EXACT
Address 1	■ PARTY_SITES	■ CLEANSE ■ EXACT
Address 2	■ PARTY_SITES	■ CLEANSE ■ EXACT
Address 3	■ PARTY_SITES	■ CLEANSE ■ EXACT
Address 4	■ PARTY_SITES	■ CLEANSE ■ EXACT
City	■ PARTY_SITES	■ CLEANSE ■ EXACT
Country	■ PARTY_SITES	■ EXACT
County	■ PARTY_SITES	■ CLEANSE ■ EXACT
Postal Code	■ PARTY_SITES	■ EXACT

Table 4–19 (Cont.) Acquisition Attributes and Transformations

Attribute Name	Entity	Transformation Name
Province	■ PARTY_SITES	■ EXACT ■ CLEANSE
State	■ PARTY_SITES	■ EXACT

6. Choose the Scoring subtab and complete the following steps *for each attribute* listed in Table 4–20:

- Click an Attribute Name row; LOV dots appear at the right side. Click the dots and choose an attribute; enter the corresponding score.
- Enter the transformations from Table 4–20 in the Transformations region. LOV dots appear at the right side of the Transformation Name.
- Save your work.

Table 4–20 Scoring Attributes and Transformations

Attribute Name	Entity	Transformation Name	Score[1]	Weight %	Similarity (Exact)	%
Phone Area Code	CONTACT_POINTS	CLEANSE	5	99	Unchecked	90
Phone Area Code	CONTACT_POINTS	EXACT	5	100	Checked	na
Phone Country Code	CONTACT_POINTS	CLEANSE	2	99	Unchecked	90
Phone Country Code	CONTACT_POINTS	EXACT	2	100	Checked	na
Phone Extension	CONTACT_POINTS	CLEANSE	3	99	Unchecked	90
Phone Extension	CONTACT_POINTS	EXACT	3	100	Checked	90
Phone Number	CONTACT_POINTS	CLEANSE	10	99	Unchecked	90
Phone Number	CONTACT_POINTS	EXACT	10	100	Checked	na
Date of Birth	PARTY	EXACT(DATE)	7	100	Checked	na
Gender	PARTY	EXACT	1	100	Checked	na
Identification	PARTY	EXACT	10	100	Checked	na
Marital Status	PARTY	EXACT	1	100	Checked	na
Person First Name	PARTY	CLEANSE	4	99	Unchecked	90
Person First Name	PARTY	EXACT	4	100	Checked	na
Person First Name	PARTY	SOUNDEX	4	98	Checked	na

Table 4–20 (Cont.) Scoring Attributes and Transformations

Attribute Name	Entity	Transformation Name	Score[1]	Weight %	Similarity (Exact)	%
Person Last Name	PARTY	CLEANSE	12	99	Unchecked	90
Person Last Name	PARTY	EXACT	12	100	Checked	na
Person Last Name	PARTY	SOUNDEX	12	98	Checked	na
Place of Birth	PARTY	CLEANSE	7	99	Unchecked	90
Place of Birth	PARTY	EXACT	7	100	Checked	na
Address 1	PARTY_SITES	CLEANSE	10	99	Unchecked	90
Address 1	PARTY_SITES	EXACT	10	100	Checked	na
Address 2	PARTY_SITES	CLEANSE	5	99	Unchecked	90
Address 2	PARTY_SITES	EXACT	5	100	Checked	na
Address 3	PARTY_SITES	CLEANSE	5	99	Unchecked	90
Address 3	PARTY_SITES	EXACT	5	100	Checked	na
Address 4	PARTY_SITES	CLEANSE	1	99	Unchecked	90
Address 4	PARTY_SITES	EXACT	1	100	Checked	na
City	PARTY_SITES	CLEANSE	7	99	Unchecked	90
City	PARTY_SITES	EXACT	7	100	Checked	na
Country	PARTY_SITES	EXACT	2	100	Checked	na
County	PARTY_SITES	CLEANSE	1	99	Unchecked	90
County	PARTY_SITES	EXACT	1	100	Checked	na
Postal Code	PARTY_SITES	EXACT	5	100	Checked	na
Province	PARTY_SITES	CLEANSE	1	99	Unchecked	90
Province	PARTY_SITES	EXACT	1	100	Checked	na
State	PARTY_SITES	EXACT	1	100	Checked	na

[1] The sum of the Score column should equal 75.

7. Enter Match Threshold = 75.

Note: The Match Threshold value defines the system minimum threshold. DQM returns all records that are matched above this value. The records that score above the `DUPLICATE_THRESHOLD` value are considered duplicates. Records that score between the Match Threshold value and the `DUPLICATE_THRESHOLD` value are considered potential matches. *Note that even though both of these values are not defined in percentage terms, this setting makes them equivalent to percentages, corresponding to 75% and 95% thresholds respectively.*

---

8. Save your work.
9. Choose Compile. A message indicates that your Match Rule has been compiled successfully.

4.2.4 Implementing Person Management

Person Management provides complete person edit functions including create, update, inactivate, and delete. To facilitate access to all person attributes, Person Management maintains a consistent and duplicate-free person repository. The repository contains demographic attributes and maintains internal links to the specific data necessary for management of all records associated with a person, including user, staff, patient, and encounter records. This enables centralized management of personal data to ensure duplicates resolution, and eliminates data redundancy while providing secure and efficient storage of sensitive information—such as employment and medical records.

Person Management also supports management of incomplete person records. It may be necessary to create incomplete person records in situations where a person record must exist, but insufficient data is available to fully qualify that person as a unique individual. Examples of situations where this may occur are in the emergency room or in communications where there are language barriers. In such cases, the system does not check whether the user provided the required information to create a person record.

Reference

Oracle Javadoc for HTB

Table 4–21 lists the principal person service methods:

Table 4–21 Implementing Person Management

Level	Detail
Package	`oracle.apps.ctb.admin.person`
Class	`ManagePersonService`
Methods	■ `activatePerson`[1] ■ `createPerson` ■ `createTemporaryPerson`[1] ■ `inactivatePerson`[1] ■ `updatePerson` ■ `updateTemporaryPerson`[1]

[1] This method has been deprecated in Patchset C.

Prerequisites

- TCA DQM must be implemented for HTB.
- Person Services Profile Options must be set.

See Also:

- Section 4.4, Implementing Profile Option Services
- Section 4.2.3, Implementing TCA DQM for HTB

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.2.4.1 Creating Persons

Use the `createPerson` method to create new person records. A person record is the foundation for creating a staff member, patient, or user. Basic information such as legal name and address and demographic information such as gender, date of birth, birthplace, and identifier are specified in the creation of a person record. This method initially checks if sufficient minimum demographic data is specified. This is a requirement for duplicate identification in the person repository. If this requirement is not met, the newly created person record is marked as incomplete.

The `createPerson` method ensures that the new person record is not a duplicate of an existing person record, unless you explicitly request no duplicate matching by setting the Run Match flag to *No*. In this case matching is skipped, and the newly created person record is marked as not matched. Otherwise, the matching process searches for potential duplicates in the repository and the system restricts the creation of a new record if a duplicate person record does exist. To override this restriction, you can set the Allow Duplicates flag to *Yes*.

Optionally, you can set the Distinct Threshold to filter further on matching results. The Distinct Threshold must be an integer between the System Minimal Threshold (specified in the DQM Match Rule Threshold, for the Match Rule specified under Profile Option `RULE_NAME`) and the Duplicate Threshold (specified in the HTB Profile Option `DUPLICATE_THRESHOLD`).[1]

4.2.4.2 Updating Persons

Use the `updatePerson` method to update existing person records. The business rules governing the creation of persons also apply to the updating of persons.

4.2.4.3 Activating Persons

Use the `activatePerson`[1] method to activate existing person records. If the person status has been changed to Inactive, you can use the `activatePerson` method to reactivate it back to Active status. Merged records cannot be activated.

4.2.4.4 Inactivating Persons

Use the `inactivatePerson`[1] method to inactivate existing person records via a status change to Inactive. The person record is not removed from Person Services. However, it can be filtered out by the status, so that inactive records are not returned in searches. Merged records cannot be inactivated.

---

1 This option is for future use.

4.2.4.5 Creating Temporary Persons

Use the `createTemporaryPerson`[1] method to create new temporary persons. Temporary persons may need to be created in situations where limited information is available, such as in an emergency room or when there are language barriers. Creating a temporary person does not have the same requirements for data completeness as the creation of a permanent person—there is no duplicate checking of temporary persons.

4.2.4.6 Updating Temporary Persons

Use the `updateTemporaryPerson`[1] method to update existing temporary persons. The business rules governing the creation of temporary persons also apply to the updating of temporary persons. If during an update of a temporary person, enough demographic data is entered to qualify as a permanent person, the record is automatically converted into a permanent person and a duplicate check is performed. The distinct threshold can optionally be set.

See Also:

- Section 4.1, Implementing Security Services
- Section 4.7.4, Implementing Staff Registration
- Section 4.7.6, Implementing Patient Registration

4.2.5 Implementing Correlation

HTB Correlation maintains a cross-index of person identifiers across all source systems. Through cross-referencing capabilities, person records in disparate systems are correlated and synchronized. The use of correlated person data can range from completely centralized management of person attributes in a master index serving multiple feeder systems to loosely coupled persons cross-referenced between source systems. Person repositories batch loaded from other systems can also be correlated, generating internal identifiers and cross-referencing external identifiers as needed.

Reference

- *Oracle Javadoc for HTB*
- *TCA User Guide, Customer Import*

Table 4–22 lists the principal correlation service methods:

---
[1] This method has been deprecated in Patchset C.

Table 4–22 Service and Methods: Implementing Correlation

Level	Detail
Package	`oracle.apps.ctb.admin.person`
Methods	■ `batchCorrelate` ■ `correlatePerson` ■ `createCorrelationData` ■ `crossReferenceCheck` ■ `deleteExternalPerson` ■ `externalMergeCrossReference` ■ `findCrossRefPerson` ■ `transferCorrelationData`

Prerequisites

- TCA DQM must be implemented for HTB.
- Person Services profile options must be set.

See Also:

- Section 4.2.3, Implementing TCA DQM for HTB
- Section 4.4, Implementing Profile Option Services

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.2.5.1 Correlating Persons

Use the `correlatePerson` method to correlate an external person record with a record in Person Services. If a matching Person Services record does not exist, a new record is created and correlated with the external system record

Specify the person attributes, the external system, the external system person identifier, and the distinct threshold.

> **See Also:** Section 4.2.4, Implementing Person Management, for more information about the matching process and the distinct threshold.

4.2.5.2 Creating Correlation Data

Use the `createCorrelateData` method to correlate an existing person record (registered in Person Services) with an external person record. Note that no matching process is invoked here. Specify an external system, an external system identifier for the person, and the Person Services identifier for the person. An entry is created in the HTB cross reference registry to represent this correlation.

4.2.5.3 Correlating Persons in Batch

Use the `batchCorrelate` method to correlate a batch or set of person records. When external person records are loaded into the system, they are compared with existing Person Services records to identify duplicates. The records are subject to the match and *deduplication* process, as for the normal creation of person records. Any non-duplicate records are created as person records in Person Services, and they are correlated with the external person identifiers via the creation of entries in the cross reference registry.

Processing the batch data includes two components: DQM, and the `batchCorrelate` method. In addition, you can optionally use the `crossReferenceCheck` method to perform a cross reference check on the external data—after entering the batch data, but before calling `CorrelateBatch`, to filter out any records that have previously been correlated.

Both the uncorrelated person data that has been imported into TCA and the current active person data reside in the TCA repository. However, the uncorrelated person data should be excluded from processing by other applications until it has been processed through DQM and Person Services APIs. Accordingly, the batch data should be marked for exclusion by using the combination of the application ID and the TCA classification for each uncorrelated record. A null TCA classification in combination with the CTB application ID labels a record as *unavailable*. After the record has been correlated, the TCA classification is updated to *available*.

Upon completion of the classification and data sharing steps, the DQM batch identification process can be defined and processed. After processing the batch data through DQM, the client calls `CorrelateBatch`, passing in the batch ID and the optional distinct threshold[1] as parameters.

The following profile options must be defined for batch correlation:

- `EXTERNAL_SYSTEM_ID_ATTRIBUTE`

  Defines which `ATTRIBUTEXX` is used for external person system in `HZ_PARTIES (CUSTOM_ATTRIBUTE5)`.

- `EXTERNAL_PERSON_ID_ATTRIBUTE`

  Identifies which `ATTRIBUTEXX` is used for external person id in `HZ_PARTIES (CUSTOM_ATTRIBUTE6)`.

> **See Also:**
>
> - Section 4.2.4, Implementing Person Management
> - Section 4.2.5.3, Correlating Persons in Batch
> - *Oracle TCA Data Quality Management User Guide*, Chapter 5

4.2.5.4 Finding Person Record with Cross Reference Data

Use the `findCrossRefPerson` method to find a person record with cross reference data. Given the external system and external person identifier, the cross reference registry is queried to retrieve the Person Services person identifier, which in turn is used to return the Person Services person record associated with that identifier.

4.2.5.5 Checking Cross Reference Registry for Batch Records

Use the `crossReferenceCheck` method to check a batch of external person records against the cross reference registry, to determine if any of the records have been previously correlated. The status of any records from the batch with entries in the cross-reference registry is updated to *Previously Correlated*. This optimizes the correlation process, so that the previously-correlated records do not need to be resubmitted for correlation.

---

[1] This option is for future use.

4.2.5.6 Responding to External Merge of Person Records

Use the `externalMergeCrossRefPerson` method to update and verify the cross reference registry as a result of a merge between two persons in an external system. Specify the identifiers of the external merge candidates, the external system, and the identifier of the resulting external merged record. The external merge candidate identifiers are used to check the cross reference registry and locate their associated Person Services person identifiers. In the case where both external merge candidates are found to be correlated with two different internal Person Services records, an error is raised (due to potential internal duplicates). You can further resolve this by using other `CorrelatePersonService` methods:

- `createCorrelateData`
- `transferCorrelationData`
- `deleteExternalPerson`

4.2.5.7 Transferring Correlation Data

Use the `transferCorrelationData` method to transfer the correlation for a Person Services person from one external person identifier to another external person identifier. Specify the external system, the current external system identifier, and the new external system identifier to which to transfer the correlation.

4.2.5.8 Deleting Cross Reference Entry

Use the `deleteExternalPerson` method to delete an entry in the cross reference registry. This may be necessary as a response to a merge or deletion of an external person record. Specify the external system and the external system identifier to locate the associated Person Services identifier.

4.3 Implementing Organizations

Organization Management lets you create and maintain an infrastructure to model healthcare organization structures and the relationships between organization units within such structures. This HTB component lets Oracle users define organization units, classify such organization units, and associate locations with organization units as appropriate.

Organization Management affects the following administrative business functions:

- **Security:** The affiliated organization of a user is a key security attribute.
- **Staff Registration:** Staff members are registered and granted admitting privileges at healthcare enterprises.
- **Workgroup Management:** Workgroups are associated with organizations and grant staff members access to specific functions and data within such organizations—through membership in workgroups.
- **Care Site Management:** Care sites are associated with physical locations of a **facility**, such as the rooms within a hospital. When care sites are assigned to one or more practice settings within a facility, a patient can be located at the care site during an **encounter**.
- **Patient Registration:** Persons are registered as patients of a healthcare enterprise. When a patient receives treatment, a medical record is created for that patient at the facility where treatment is provided.
- **Encounter Management:** Encounters are interactions between patients and healthcare organizations. Patients are treated at facilities and care sites during encounters.
- **Patient List Management:** Patient lists display patients and patient data by organization.

Reference

Oracle Javadoc for HTB

Table 4–23 summarizes the Organization service and methods:

Table 4–23 Service and Methods: Organizations

Level	Detail
Package	`oracle.apps.ctb.admin.organization`
Class	`OrganizationUnitService`

Table 4–23 (Cont.) Service and Methods: Organizations

Level	Detail
Methods	■ `addOrganizationUnit` ■ `createHierarchyType` ■ `createAddOrganizationUnit` ■ `createOrganizationUnit` ■ `moveOrganizationUnit` ■ `removeOrganizationUnit` ■ `terminateOrganizationUnit` ■ `updateOrganizationUnit`

Prerequisites

Implementing Security Services:

- An administrative security role should be created and assigned all of the protected functions in Organization Services.
- An administrative account should be created, as a member of the security role.

Login

This is an API-based implementation procedure. Log in to HTB using the administrative account created in the Prerequisites section.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

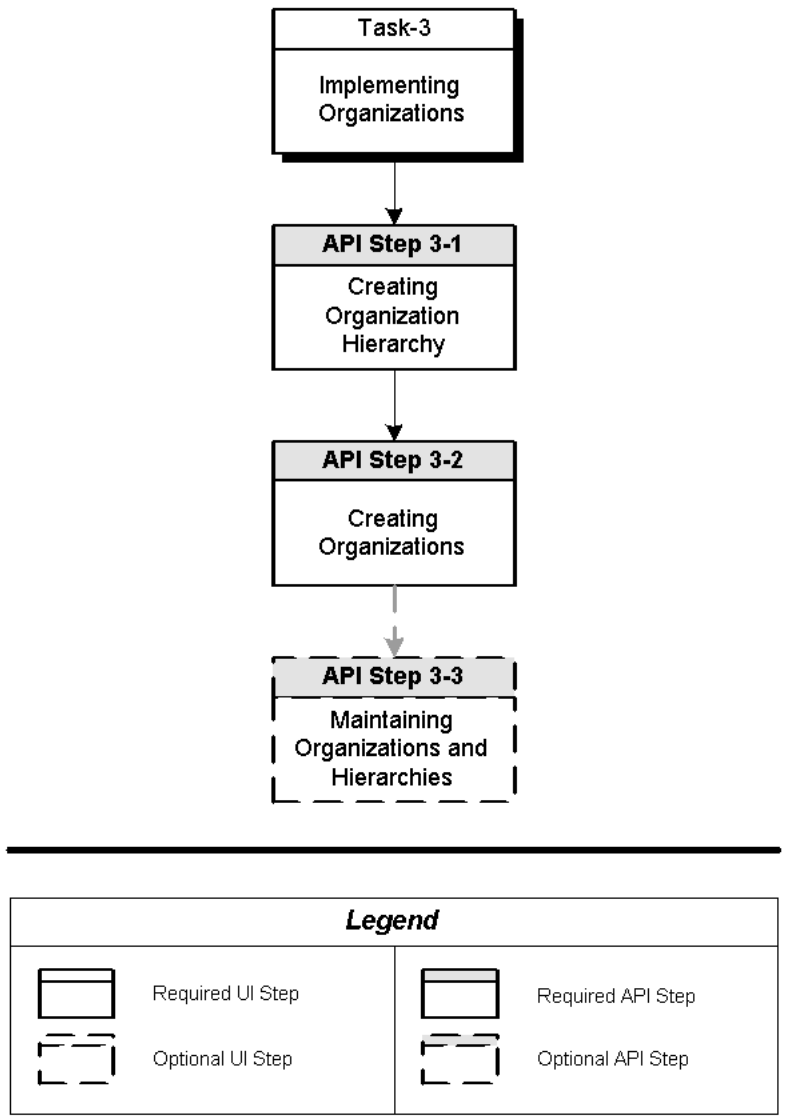
This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Procedures

Figure 4–8 provides an overview of the implementation process for Organizations:

Figure 4–8 Implementation Process: Organizations



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–4, HTB Implementation Procedures: Organizations

The following sections describe the implementation procedures for Organizations (referenced by Figure 4–8):

- Section 4.3.1, Creating the Organization Hierarchy
- Section 4.3.2, Creating Organizations
- Section 4.3.3, Maintaining Organizations and Hierarchies

4.3.1 Creating the Organization Hierarchy

Use the `createAddOrganizationUnit` method to create an organization hierarchy and add organizations to the hierarchy. The default hierarchy type is Healthcare Enterprise Hierarchy or `CTB_ENTERPRISE_HIER.` This hierarchy type is used to build an **enterprise** hierarchy, with specific naming conventions and business logic for parent/child relationships within the hierarchy.

An enterprise organization is the root **node** of a hierarchy. A new hierarchy is thus created when an enterprise organization is created. The hierarchy is dynamic through time, meaning that its structure can change—by moving nodes within the hierarchy or removing organizations from the hierarchy. The hierarchy structure is always viewed or modified as at a specific date, called the As of Date.

Use the `createHierarchyType` method to create additional hierarchy types in addition to the seeded enterprise hierarchy type. These additional hierarchy types are user-defined, and therefore have no restrictions on parent/child organization type compatibility, effective dates, or name uniqueness. These may be used to model alternate views of a healthcare institution; for example, for reporting or budgeting purposes.

4.3.2 Creating Organizations

Use the `createAddOrganizationUnit` method to create new organization units and add them to the enterprise hierarchy. Use the `createOrganizationUnit` method to create a free-standing organization unit that is not added to a hierarchy. Creating an organization unit involves specifying attributes such as name, type, effective date, parent organization unit, and location.

4.3.2.1 Organization Types

Each organization unit has a type, which defines its place in the enterprise hierarchy, its role within the enterprise, and its relationship with other business units. The current release supports the following organization types:

- An *enterprise* is the principal business entity that defines a healthcare organization. It is the business group under which all other organizational units reside. It maintains a **patient** registry, a staff registry, a user registry, and user roles. This organization type must be given to the highest organization unit in the enterprise hierarchy.
- A *facility* is an organization unit that manages a physical building or set of buildings that provide medical care. It holds a license, has a location, and contracts with payers.
- A *practice setting* is a sub-division of a facility that is classified as a clinical setting (for example, primary care clinic, rehabilitation, skilled nursing facility), in which patient care is delivered. A practice setting organization must be associated with a facility. When an organization unit has this organization type, care sites can be assigned to it.
- A *business unit* is a division or department of a healthcare facility or enterprise that supports a specific business, non-clinical function.
- An *intermediate node* is an organization unit with a generic type, which can be used flexibly throughout the hierarchy for user-defined groupings.

An organization type dictates its place within the enterprise hierarchy structure. Table 4–24 lists the possible valid parent/child organization type combinations:

Table 4–24 Parent/Child Organization Types in Hierarchy

Parent Organization Type	Valid Child Organization Types
Enterprise	■ Business Unit ■ Facility ■ Intermediate Node
Facility	■ Business Unit ■ Intermediate Node ■ Practice Setting

Table 4–24 (Cont.) Parent/Child Organization Types in Hierarchy

Parent Organization Type	Valid Child Organization Types
Business Unit	▪ Business Unit ▪ Intermediate Node ▪ Facility
Practice Setting	▪ No children allowed
Intermediate Node	▪ Business Unit ▪ Intermediate Node ▪ Facility

> **Note:** Because the intermediate node organization type is generic, its only restrictions are that (i) it cannot be the parent of a practice setting (only a facility can be), and (ii) it cannot be the parent of an enterprise (which is the root node of the hierarchy). While there are few restrictions on an intermediate node set up as the intermediate parent of a child organization, the validation of parent/child organization types still applies for indirect parents above the intermediate node.

4.3.2.2 Organization Names

An organization unit has both a long name and a short name. These names must be unique, compared to other organizations, within two namespaces of the enterprise hierarchy.

Within an enterprise, names of child organization units must be unique among child units, up to and including a facility node, and including the parent enterprise itself.

Within a facility hierarchy node, the names of the child organization units must be unique among child units, including the parent facility itself.

4.3.2.3 Organization Dates

An organization unit is available for use in an organization hierarchy, or for referencing by other HTB business entities, in accordance with two sets of dates: its effective and termination dates (equivalent to the start and end dates of the life of an organization), and its relationship start and end dates (equivalent to the effective period of its membership in the enterprise hierarchy). The relationship effective start and end dates default to the organization effective and termination dates during creation of an organization unit.

HTB enforces several rules on date validation. An organization unit's effective date must be earlier than its termination date. This is generally applicable to any business entity with dates. A child organization unit's effective date must be greater than or equal to its parent's effective date, and its termination date must be less than or equal to its parent's termination date. An organization unit's relationship start and end dates follow the same convention. Organization subcomponents that have start and end date attributes also follow this convention.

The as of date plays a role in the creation of an organization unit and its placement in the hierarchy. When specifying a parent for a new organization unit, the as of date limits the available parent organizations to those that are active as of the date indicated. The as of date must therefore fall within the effective and termination dates of an organization unit for it to be considered a valid potential parent. If you are creating new organizations under a parent that is currently active, the as of date defaults to the current date. If you are setting up your organization hierarchy to be effective in the future, you must specify a future as of date.

4.3.2.4 Required Organization Subcomponents

- **Locations and Location Uses:** An organization must have at least one location/location use. The location represents the physical address of the organization, while the location use indicates the context of that address, such as a bill-to address. Locations are not shared among organizations.
- **Contact Points:** An organization must have at least one contact point, which can be a phone number, e-mail address, or Web address.
- **Practice Setting Classifications:** A practice setting organization must have at least one classification, which serves as a subtype for the practice setting.

4.3.2.5 Optional Organization Subcomponents

- Roles
- Identifications
- Hours of Operation
- Practice Setting Features

4.3.3 Maintaining Organizations and Hierarchies

4.3.3.1 Updating Organizations

Use the `updateOrganizationUnit` method to update existing organization units. The same business rules associated with organization types and valid parent types, name uniqueness, dates, and subcomponents governing the creation of organization units also apply during the update of organization units.

4.3.3.2 Adding Organizations to the Hierarchy

Use the `addOrganizationUnit` method to add an organization to an existing hierarchy. This method can be used when assigning free standing organizations to a hierarchy or for assigning hierarchically attached organizations to other hierarchies. When adding organizations to the enterprise hierarchy, the same validation on parent/child organization type compatibility and effective/termination dates apply as creating and adding organizations to the hierarchy.

See Also: Section 4.3.2, Creating Organizations

4.3.3.3 Moving Organizations Within the Hierarchy

Use the `moveOrganizationUnit` method to move organization units and their children within a hierarchy. Moving organization units reflects business processes such as the transferring of practice settings to another facility. When moving an organization unit from one parent to another within the enterprise hierarchy, the validation rules relating to effective and termination dates apply equally for creating a new organization unit under an existing parent. If the organization unit has children, the entire node of the hierarchy is moved to the new parent.

The move date represents the end of an organization unit's relationship to its former parent and the beginning of its relationship to a new parent within the enterprise hierarchy. During a move, the relationship end date to the former parent is set to one second before the specified move date, and the relationship start date to the new parent is set as the specified move date—because hierarchy rules preclude an organization unit from belonging to multiple parents.

Because the organization hierarchy is dynamic over time due to the creation, move, and removal of organization units, setting the as of date lets you specify moves in the future. Otherwise, the as of date defaults to the current date, which assumes that you intend to modify the organization hierarchy in its current state.

4.3.3.4 Removing Organizations from the Hierarchy

Use the `removeOrganizationUnit` method to remove organizations and their children from a hierarchy when they are no longer in use. Similar to moving organizations, removing organizations sets the relationship end date between an organization and its parent to the specified remove date. As for moving organizations, the as of date captures the hierarchy structure as of a specified date and time, whether current or future.

During removal of an organization, the remove date cascades down to the children of the organization unit to be removed, so that their relationship end dates are set to the same remove date. This cascading in effect removes an organization unit as well as its children from the hierarchy.

If a **facility** or **practice setting** unit has care sites associated with it, the organization cannot be removed. You must end the **care site** association before you can remove the unit.

If you have previously specified a remove date for an organization, you can use the `removeOrganizationUnit` method to update the remove date (to an earlier or later date), as long as the previous remove date has not yet occurred. This includes cancelling the removal, by setting the remove date to *null*. You cannot cancel an organization removal if the parent of the organization has a remove date. In such a case, setting the organization remove date to *null* changes it to the same date as the remove date of its parent.

4.3.3.5 Terminating Organizations

Use the `terminateOrganization`Unit method to end date an organization. The organization must first be removed from all associated hierarchies. The user specifies a termination date that is greater than or equal to the current date. The termination date may be updated if it has not yet occurred. Once an organization unit is terminated, it should no longer be used in any HTB transactions.

4.4 Implementing Profile Option Services

Profile options are configurable preferences that affect the way an Oracle application looks and behaves. System administrators can control HTB behavior by setting profile option values. Application developers can control application behavior by programming their applications to perform in accordance with customized profile option values.

Examples of typical profile options include the following:

- **Language:** Determines the language in which the application is displayed to users.
- **Date Format:** Determines the format (mmddyyyy, ddmmyy...) for date displays.

System administrators can set profile options at the following five levels—listed from the highest level to the lowest:

- User
- Practice Setting
- Facility
- Enterprise
- Site

The profile option values set at each level define runtime values for each user’s profile options. An option’s runtime value is the highest level setting for that option.

When a profile option can be set at more than one level, an order of precedence applies: Site has the lowest priority, superseded by *Enterprise* which is superseded by *Facility*, which is superseded by *Practice Setting*, which is superseded by *User*. A profile option value entered at the Site level can thus be overridden by values entered at any other level, while a value entered at the User level has the highest priority.

For example, if the printer option is set only at the Facility and Practice Setting levels, the value set at the Practice Setting level applies, because it is the highest level setting for that option.

Seeded HTB profile options and default values are listed by Appendix E.

Prerequisites

The following tasks must be completed before setting profile options:

- **Implementing Organizations:** Organization Units of Enterprise, Facility and Practice Setting Organization Types must exist.
- **Implementing Security Services:** User Accounts must exist. The seeded responsibilities Healthcare Configuration Administrator and Healthcare Application Developer must also exist.

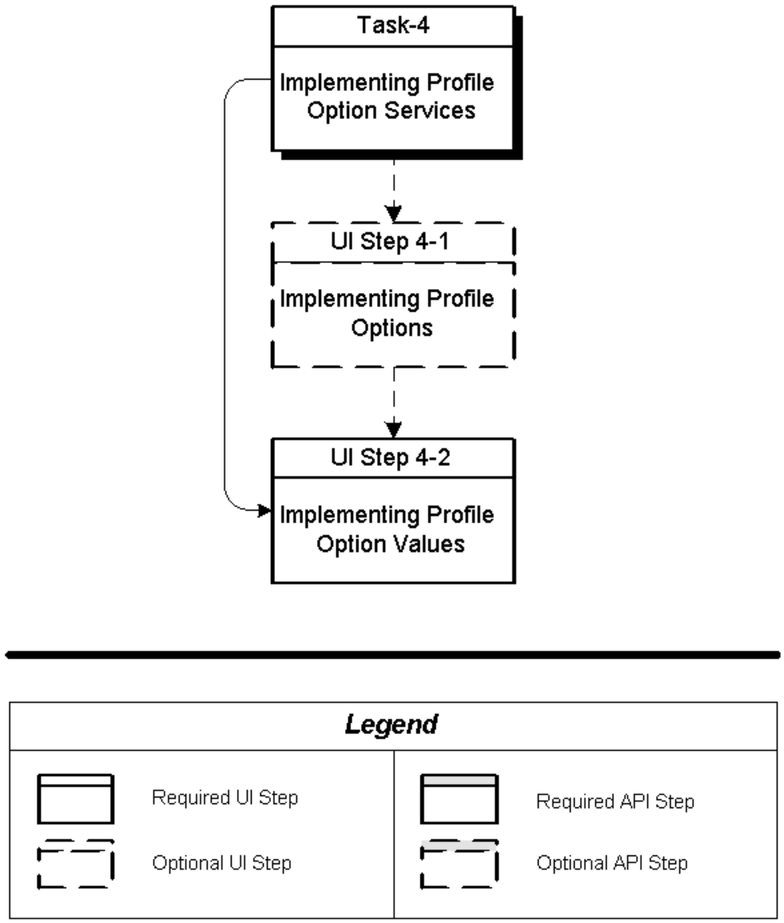
See Also:

- Section 4.3, Implementing Organizations
- **Section 4.1, Implementing Security Services**

Procedures

Figure 4–9 provides an overview of the implementation process for Profile Option Services:

Figure 4–9 Implementation Process: Profile Option Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–5, HTB Implementation Procedures: Profile Option Services

The following sections describe the implementation procedures for Profile Option Services (referenced by Figure 4–9):

- Section 4.4.1, Implementing Profile Options
- Section 4.4.2, Implementing Profile Option Values

4.4.1 Implementing Profile Options

Login

Log in to Oracle Applications using the user name you defined in Section 4.1.1.

Responsibility

Healthcare Application Developer

4.4.1.1 Creating Profile Options

The Healthcare Application Developer responsibility lets you create profile options using the window user interface. HTB applications can use the values defined for such profile options to customize behavior.

For example, a physician order entry application could define a profile option that defines the default sort order of patient problem lists (by date, severity,...).

Use this optional step to create custom profile options to drive customer application behavior.

Navigation

Table 4–25 summarizes the navigation paths used by this section:

Table 4–25 Navigation Paths: Creating Profile Options

Function or Window	Navigation Path
Create Profile Options Window	`Profile Options > Create Profile Option`

See Also:

- Table A–1, Navigation Paths (Appendix A)
- Appendix E, Seeded Profile Options

Steps

1. Complete the following sections of the Create Profile Option window:

   - **General Properties:** Complete the following fields:

Field	Description
Code	Unique code for the profile option.
Name	Name of the profile option.
Description	Description of the profile option.
Default Value	This value is returned if there is no value set at a level declared as required.
External Application Code	A reference to the application that uses the profile option.
Start Date	The first date the profile option is effective.
End Date	the date the profile option terminates.

   - **System Administrator Access:** You can define if values for the profile option are (i) updatable by, or (ii) visible to the Healthcare Configuration Administrator responsibility—at each of the five available levels.

     For example, if System Administrator access at the User level is set to *Not Updatable but Visible,* the administrator can view the values set at the User level but cannot update or create them.

     See Also: Section 4.4.2, Implementing Profile Option Values

   - **User Access:** Applications developed with HTB should use this setting to determine which user level profile option values are visible to, or can be updated by individual users.

   - **Required Levels:** It is possible to optionally select any combination of the five profile option levels (User, Practice Setting, Facility, Enterprise, Site) as required levels. If a level is declared as *Required*, the profile option APIs do not inspect levels lower than the required level when returning values. They return either the value set at the required level or the default value—if a value is not set at the required level.

- **Value Type:** You can use the drop-down box to define one of the following value types, and you can also define certain constraints depending on the type:

Value Type	Description
Lookup Value	When you select this type, you must specify which lookup type (concept list) to validate against when a value is set. The window user interface signals an error condition if you attempt to set a value for a profile option that does not belong to the specified lookup type.
Number	The value must be a number; you can also specify a numeric range.
Text	The value must be text; you can specify a range for the text length.
Date	The value must be a valid date.

2. Choose the Apply button to create the profile option; control returns to the Profile Options window, with the new profile option listed if it was successfully created.

4.4.1.2 Updating Profile Options

The Healthcare Application Developer responsibility lets you update profile options using the window user interface, including all properties of a profile option except its code.

Navigation

Click Profile Options in any Profile Options window to display currently defined profile options. Choose the Update row-level icon to update the properties of a profile option.

Table 4–26 summarizes the navigation paths used by this section:

Table 4–26 Navigation Paths: Updating Profile Options

Function or Window	Navigation Path
Updating Profile Options	`Profile Options > Click update icon for the profile option to be modified`

See Also:

- Table A–1, Navigation Paths (Appendix A)
- Appendix E, Seeded Profile Options

Steps

1. You can modify the General Properties section of the Update Profile Option window:

Field Name	Description
Name	Change the name of the profile option.
Description	Change the description.
Default Value	Change the value returned if there is no value set at a required level.
External Application Code	Change the application reference.
Start Date	Change the effective date.
End Date	Change the termination date.
System Administrator Access	Change the updatable and visible settings for the healthcare Configuration Administrator responsibility—at each of the five available levels (User, Practice Setting, Facility, Enterprise).
User Access	Change the updatable and visible settings that determine if users of HTB-based applications can view or update their user level values for this profile option.
Required Levels	Change the required levels.
Value Type	Change the value type and corresponding constraints.

2. Choose the Apply button to update the profile option; control returns to the Profile Options window.

4.4.2 Implementing Profile Option Values

Login

Log in to Oracle Applications using the user name you defined in Section 4.1.1.

Responsibility

Healthcare Configuration Administrator

4.4.2.1 Creating Profile Option Values

The Healthcare Configuration Administrator responsibility lets you create values for a profile option using the window user interface. System Administrator access settings for the profile option determine if this responsibility lets you create values at each of the five available levels.

See Also: Appendix E, Seeded Profile Options, for seeded profile options included with the HTB platform.

Navigation

- Click System Profile Option values to display currently defined profile options:
- Choose the View Profile Option Values icon to view the values of a profile option.
- Choose the Create Profile Option Value button to create a new profile option value.
- Table 4–27 summarizes the navigation paths used by this section:

Table 4–27 Navigation Paths: Creating Profile Option Values

Function or Window	Navigation Path
Creating Profile Option Values	`Main Menu > System Profile Option Values > Click View Profile Option Values icon > Create Profile Option Button`
Viewing Profile Option Values	`Main Menu > System Profile Option Values`

See Also:

- Table A–1, Navigation Paths (Appendix A)
- Appendix E, Seeded Profile Options

Steps

1. Complete the following fields of the Create Profile Option Value window (Table 4–28):

Table 4–28 Create Profile Option Value Window Fields

Field Name	Description
Level	Select the level from the drop-down list; you can only select those levels that can be updated by a System Administrator.

Table 4–28 (Cont.) Create Profile Option Value Window Fields

Field Name	Description
Level Name	Select a specific instance of the chosen level using the Lookup function. The searchlight icon opens a lookup dialog for the chosen level. For example, if Facility is the chosen level, the lookup displays all of the facilities set up in HTB. Select one from the list. The Level Name field does not appear if the chosen level is *Site* (there is only one site in any installation).
Profile Option Value	Enter a value or select it from a lookup dialog—if the value type is specified as *Lookup Value* for this profile option.

2. Choose the Apply button to create the profile option value. This returns control to the Profile Option Values window, with the newly created value listed if it was successfully created.

4.4.2.2 Updating Profile Option Values

The Healthcare Configuration Administrator responsibility lets you update values that have been set for a profile option using the window user interface. System Administrator access settings for the profile option determine if this responsibility lets you update values at each of the five available levels.

Navigation

- Click System Profile Option values to display currently defined profile options:
- Choose the View Profile Option Values icon to view the values of a Profile Option.
- Choose the Update icon to update an existing profile option value.
- Table 4–29 summarizes the navigation paths used by this section:

Table 4–29 Navigation Paths: Updating Profile Option Values

Function or Window	Navigation Path
Updating Profile Option Values	`Main Menu > System Profile Option Values > View Profile Option > Click Update icon`
Viewing Profile Option Values	`Main Menu > System Profile Option Values`

See Also:

- Table A–1, Navigation Paths (Appendix A)
- Appendix E, Seeded Profile Options

Steps

1. You can modify the following field in the Update Profile Option Value window:

Field Name	Description
Profile Option Value	Change the value directly, or choose the searchlight icon to display the lookup dialog and select a value—if the value type is specified as *Lookup Value*.

2. Choose the Apply button to submit the changes to the profile option value. This returns control to the Profile Option Values window, with the modified value listed if the update operation was successful.

4.4.2.3 Deleting Profile Option Values

The Healthcare Configuration Administrator responsibility lets you delete values that have been set for a profile option using the window user interface. System Administrator access settings for the profile option determine if this responsibility lets you delete values at each of the five available levels.

Navigation

- Click System Profile Option values to display currently defined profile options.
- Choose the View Profile Option Values icon to view the values of a Profile Option.
- Table 4–30 summarizes the navigation paths used in this section:

Table 4–30 Navigation Paths: Deleting Profile Option Values

Function or Window	Navigation Path
Deleting Profile Option Values	`Main Menu > System Profile Option Values > Choose View Profile Option Values > Click Delete icon`

See Also:

- Table A–1, Navigation Paths (Appendix A)
- Appendix E, Seeded Profile Options

Steps

1. You can delete existing values by choosing the row-level Delete icon.
2. If the deletion is successful, the window is refreshed with the deleted row omitted.

4.5 Implementing Enterprise Terminology Services

The Enterprise Terminology System (ETS) lets you maintain coded values and their meanings within HTB. It provides support for:

- Concept orientation of terminologies
- Versioning of terminologies
- Mapping between terminologies
- Navigation of relationships between terminological concepts
- Concept Lists

ETS provides support for both a generic terminology model, capable of hosting a variety of user terminology needs, and special support for a core set of terminologies that are standards in the industry. An API interface lets HTB-based applications access the features of the generic and **Core Terminologies**, thus enabling interoperability based on standard terminology.

An ETS **coding scheme** is a structured system of terms or concepts used to maintain coded meanings. The *International Classification of Diseases, 9th Edition*, *Clinical Modification (ICD-9-CM)* and University Hospital's Laboratory Codes are two examples of coding schemes.

ETS provides support for a special set of coding schemes, called Core ETS Terminologies, or core terminologies. The support takes the form of terminology-specific loaders and APIs. Currently supported core terminologies include the following:

- International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)
- International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10)
- SNOMED CT
- HCFA Common Procedure Coding System (HCPCS)(alpha-numeric codes, excluding the *D* dental codes)
- Logical Observation Identifier of Names and Codes (LOINC)
- Current Procedural Terminology (CPT4)
- Health Level 7 (HL7) version 3 vocabulary domains
- US Diagnosis Related Groups (DRG)

- US Major Diagnostic Categories (MDC)

A **coding scheme version** is a particular instance of a coding scheme. Examples include *ICD-9-CM for the year 2000*, *ICD-9-CM for the year 2001*, and the *University Hospital's Laboratory Codes, Updated September 2001*.

HTB uses terminology codes in two areas:

- HTB Coded Attributes (using concept list functionality; See: *Oracle Javadoc Lookup Type Index (concept lists)* for seeded concept lists and values).
- HTB Master Catalog.

Terminologies must be set up in ETS to support these requirements.

ETS supports cross mappings between different coding scheme versions (SNOMED CT v1.1, ICD-9-CM 2001,...). Each cross mapping is a unidirectional mapping between a source concept and one or more target concepts. A map set contains all the cross maps between concepts in two particular versions.

ETS also supports concept lists—arbitrary lists of ETS concepts that can be used for a variety of purposes, including validation and user interface controls (See: *Oracle Javadoc Lookup Type Index (concept lists)* for seeded concept lists and values). These concept lists represent the valid sets of coded values used by HTB APIs and by HTB message processing.

See Also:

- Section 4.5.4, Creating and Loading ETS Cross Maps
- Section 4.8, Implementing Clinical Business Services
- Section 4.8.1, Implementing the Master Catalog
- Appendix C, ETS Terminology
- Appendix G, Predefined Concept Lists
- Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

Prerequisites

- Implementing Organizations: Organization Units of Enterprise, Facility and Practice Setting Organization Types must exist.
- Implementing Security Services: User accounts must exist.

See Also:

- Section 4.3,
- Section 4.1, Implementing Security Services

Login

Log in to Oracle Applications using the user name you defined in Section 4.1.1.

Responsibility

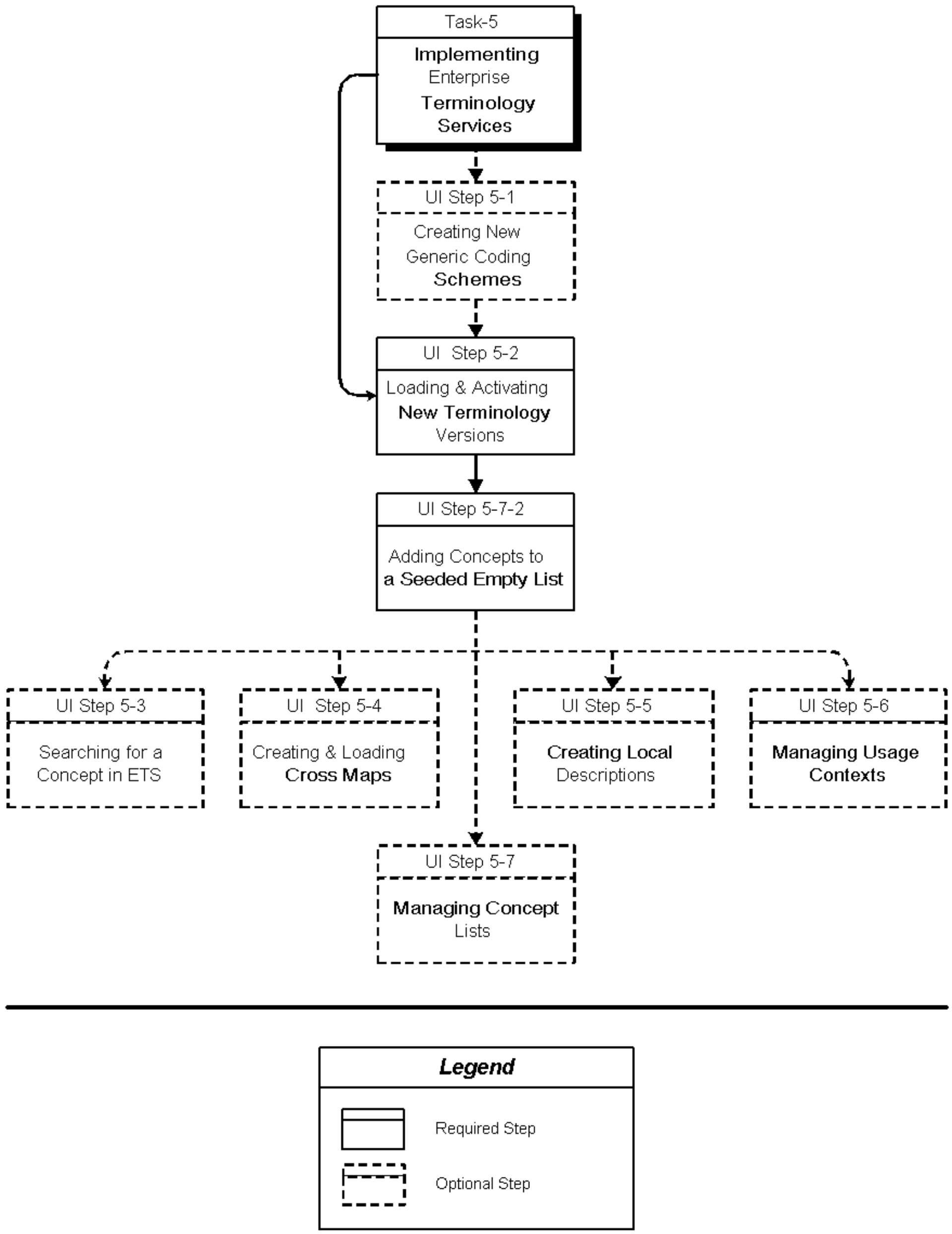
Healthcare ETS Administrator

Procedures

This section describes ETS implementation procedures, independent of the intended use of ETS constructs (for concept lists or the **master catalog**).

Figure 4–10 provides an overview of the implementation process for ETS:

Figure 4–10 Implementation Process: ETS



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–6, HTB Implementation Procedures: Enterprise Terminology Services (ETS)

The following sections describe the implementation procedures for ETS (referenced by Figure 4–10):

- Section 4.5.1, Creating New Generic Coding Schemes
- Section 4.5.2, Loading and Activating New Terminology Versions
- Section 4.5.3, Searching for a Concept in ETS
- Section 4.5.4, Creating and Loading ETS Cross Maps
- Section 4.5.5, Creating Local Descriptions
- Section 4.5.6, Managing Usage Contexts
- Section 4.5.7, Managing Concept Lists
- Section 4.5.8, Running the ETS Maintenance Program

4.5.1 Creating New Generic Coding Schemes

Coding schemes must be created before they can be loaded. Coding schemes for the core set of ETS terminologies have been created prior to shipment for customer use. In addition, you can create and name generic coding schemes as needed.

Navigation

Table 4–31 summarizes the navigation paths used by this section:

Table 4–31 Navigation Paths: Creating Generic Coding Schemes

Function or Window	Navigation Path
Create Coding Scheme window	`Terminologies > Create Coding Scheme`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Create Coding Scheme window:
   - Click the Terminologies tab.
   - Click the Create Coding Scheme button.
2. Enter a name and description for the coding scheme in the text boxes.

   > **Note:** The coding scheme name must be unique across coding schemes, and cannot be changed once created. Make the coding scheme name as descriptive as possible to avoid conflicts with other names subsequently created.

3. Choose Apply to create a new generic coding scheme.

4.5.2 Loading and Activating New Terminology Versions

The process for loading and activating a new terminology version in ETS is the same for generic terminologies and for those in the ETS core set. Differences between loading a generic terminology version or a core set version only exist in the terminology file formats and the contents of the control file.

> **Note:** Do not load versions of terminologies that are seeded in HTB, including the following:
>
> - HL7
> - IETF RFC 1766
> - ISO 3166-1 alpha-2
> - NUBC-UB92
> - ANSI ASC X12 Healthcare Provider Taxonomy
> - HTB Supplemental
>
> If you have already loaded such versions, mark them as retired and non-default.

> **See Also:** `HCT_TOP/patch/115/readme`, for details regarding file formats for ETS terminologies and loaders.

The process for loading and activating a new terminology version is also the same for the initial version of a coding scheme or for subsequent versions:

1. Prepare the files.
2. Load the version.
3. Import the version.
4. Activate the version.

There are two ways to load and import terminology versions in ETS: (i) using the ETS window user interface (which calls the Concurrent Manager), and (ii) using the Concurrent Manager and its interface directly. Both procedures are described below.

Navigation

Table 4–32 summarizes the navigation paths used by this section (applicable to the window user interface only):

Table 4–32 Navigation Paths: Loading and Activating New Terminology Versions

Function or Window	Navigation Path
Activate the version	`Terminologies > View Versions > Update > Apply`
Importing Terminologies	`Terminologies > View Versions > Publish`
Importing the staged version into the active space	`Terminologies > View Versions > Publish`
Initiating concept import process	`Terminologies > Versions > Publish`
Load Version Window	`Terminologies > View Versions > Load Version`
Loading and Activating new terminology versions [Start load]	`Terminologies > View Versions > Load Staged Version > Apply`
Loading and Activating New Terminology Versions [Activate version]	`Terminologies > View Versions > Update > Apply`
Loading and Activating New Terminology Versions [Start import]	`Terminologies > View Versions > Publish`
Loading coding scheme versions	`Terminologies > View Versions > Load Staged Version`

Table 4–32 (Cont.) Navigation Paths: Loading and Activating New Terminology

Function or Window	Navigation Path
Loading data and creating a new coding scheme version	`Terminologies > View Versions > Load Staged Version`
Terminologies Window	`Terminologies`
Update a published version	`Terminologies > View Versions > Update > Apply`
Update Published Version window	`Terminologies > Versions > Update Published Version`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

Loading and Activating a Version

Using the ETS Window User Interface[1] for Loading and Importing:

1. Prepare the terminology content and control files (this step is the same regardless of the loading or importing method used).
   - If the version to be loaded is a generic terminology version of your own creation:
     – Create new terminology files in the format expected by the ETS generic loader.

   See Also: `HCT_TOP/patch/115/readme,` for details regarding file formats for ETS terminologies and loaders

     – Move the terminology files into a directory located in the same file system as the Applications instance—a directory that is accessible by the Concurrent Manager.

     – Create a control file that reflects the locations of the terminology files and move it into a directory located in the same file system as the Applications instance—a directory that is accessible by the Concurrent Manager.

[1] Calls the Concurrent Manager

- If the version to be loaded is a generic version obtained from a third party terminology support organization, adjust the files to correspond to the appropriate loader format.

See Also: `HCT_TOP/patch/115/readme`, for details regarding file formats for ETS terminologies and loaders

- Move the terminology files into a directory into a directory located in the same file system as the Applications instance—a directory that is accessible by the Concurrent Manager.
- Create a control file that reflects the locations of the terminology files and move it into a directory located in the same file system as the Applications instance—a directory that is accessible by the Concurrent Manager.
- Load data and create a new coding scheme version:

- Navigate to the Terminologies window by clicking the Terminologies tab.
- Select the coding scheme for the version to be created.

Examples:

- To load a version of an ETS core terminology such as SNOMED CT, locate SNOMED CT in the Coding Schemes table in the Terminologies window. Appendix C lists core terminologies that are supported by ETS. *Note that SNOMED CT is an extensive terminology, requiring significant processing time to load and import.*
- To load a user-defined generic terminology version, locate the user-defined name of the coding scheme.

- For the selected coding scheme, view its versions by clicking its View Versions icon.
- From the Versions window, load the new version:
  - Initiate the load process by selecting Load Staged Versions.
  - In the Load Version window, assign a name to the new version; *in future releases, the description text box will accept a description.*

– Specify the location of the control file.

See Also: `HCT_TOP/patch/115/readme,` for information about control files.

– Choose Apply. The browser returns to the Versions window. A confirmation banner displays the request ID of the ETS Terminology Loader request, in the Concurrent Manager schedule. Step 3 describes how to monitor the process.

– When the loading process is complete, the new staged version is displayed in the Versions window. *Do not reload the Versions window to view the staged version—the browser Reload button is not supported in Oracle Applications*. To view the updated Versions window, navigate to the Terminologies window and select the appropriate coding scheme.

2. Monitor the progress of the concurrent process (optional step):

   - In a separate browser window, open another session as Healthcare ETS Administrator (Responsibility).
   - Under Concurrent Manager, choose Monitor Requests.
   - In the Requests window:

     – Select a Show parameter (All, Completed, Pending, Running, Search).

     – Choose Go.

     If Search was selected as the Show parameter, enter the search criteria and then choose Go.

   - In the new Requests window:

     Find the Request ID of the load request (in the rightmost column of the grid) to view the status of the ETS Terminology load or ETS Terminology import.

3. After completion of the load, import the coding scheme version:

   - Return to the Terminologies window, and view the versions of the coding scheme for which a new version is being created.
   - The recently loaded version appears in the Staged Version section of the window, with status *Loaded*. Import the staged version into the active space:

     – Initiate the import process by finding the recently loaded version in the Staged Versions area of the window and choosing its Publish icon. The browser updates the Versions window and a confirmation banner displays the request ID of the ETS Terminology Importer request, in the Concurrent Manager schedule.

- You can monitor the process as described in (optional) step 2.
- Upon completion of the import process, the new published version appears in the Versions window. *Do not reload the Versions window to view the published version—the browser Reload button is not supported in Oracle Applications.* To view the updated Versions Window, navigate to the Terminologies window and select the appropriate coding scheme.

4. Activate the version—this step is the same regardless of the loading or importing method used. Upon completion of the import process (publishing), the import version status is *quarantined*; activate the version and optionally set it as the default.
   - Return to the Terminologies window and view the versions of the coding scheme for which the new version is being created. The recently imported (published) version appears in the Published Versions section of the window; update its properties by clicking its Update icon.
   - In the Update Published Version window:
     - Set a description (optional).
     - Set the Default status (optional).
     - Set Status to Active.
   - Click Apply.
   - The browser returns to the Versions window, and confirms completion of the update.

Using the Concurrent Manager directly for loading and importing:

1. Prepare the terminology content and control files (this step is the same regardless of the loading or importing method used).
   - If the version to be loaded is a generic terminology version of your own creation:
     - Create new terminology files in the format expected by the ETS generic loader.

   See Also: `HCT_TOP/patch/115/readme,` for details regarding file formats for ETS terminologies and loaders

- Move the terminology files into a directory that is accessible by the Concurrent Manager.
- Create a control file that reflects the locations of the terminology files and move the control file into a directory that is accessible by the Concurrent Manager.
- If the version to be loaded is a version obtained from a third party terminology maintenance organization, adjust them to correspond to the appropriate loader format.

See Also: `HCT_TOP/patch/115/readme,` for details regarding the formats for ETS terminologies and loaders

- Move the terminology files into a directory that is accessible by the Concurrent Manager.
- Create a control file that reflects the locations of the terminology files and move the control file into a directory that is accessible by the Concurrent Manager.

2. Schedule the load manager to run:
   - Open a session using the Healthcare ETS Administrator responsibility.
   - Under the Concurrent Manager, choose Schedule Requests. This launches a process that lets you schedule a job.
   - In the Name window:
     - The name of the program is chosen in the Schedule Request For field. Use the list of values to select the program called Healthcare ETS Terminology Loader.
     - Enter a name for the request in the Name field.
     - Choose Next.
   - In the Parameters window:
     - In the Control File (absolute path) field, enter the path in which the control file is found.
     - In the Coding Scheme Name field, use the list of values to find and select the name of the coding scheme for which a version is to be loaded.

- In the Coding Scheme Version Name field, enter a name for the coding scheme version.
- Choose Next.

- Complete the scheduling by performing tasks in the Schedule, Notifications, and Printing windows (under normal circumstances, accept the defaults).

See Also: *Oracle Applications System Administrator's Guide*, Concurrent Manager section

- In the Summary window, review your selections and choose Submit.
- In the Information window, note the load sequence number (it will be used in step 4) and choose OK.

3. Monitor the progress of the concurrent process:
   - In the Requests window:
     - Select a Show parameter (All, Completed, Pending, running, Search).
     - Choose Go (if Search was selected as the Show parameter, enter search criteria and then choose Go).
   - In the new Requests window:
     - Find the Request ID of the load request (step 2) to view the status of the ETS terminology load or ETS terminology report (shown in the Phase column).
     - Repeat the process until the phase shows *Completed*.
     - Upon completion, choose the Details icon for the request; choose View Log from the Details window.
     - Find the following line in the View Log and note the `LOADSEQ` (load sequence number)—it will be used in step 4:

       ```
       LOAD_HEADER_LOAD_SEQ (LOADSEQ=XXX)
       ```

4. After completion of the load, schedule the Import Manager to run:
   - Open a session using the Healthcare ETS Administrator responsibility.
   - Under the Concurrent Manager, choose Schedule Requests. This launches a process that lets you schedule a job.
   - In the Name window:

- The name of the program is chosen in the Schedule Request For field; use the list of values to select the program called Healthcare ETS Terminology Importer.
- Enter a name for the request in the Name field.
- Choose Next.

■ In the Parameters window:

- In the Load Sequence Number field, enter the load sequence number.
- In the Dry Run Mode field, select *Off* from the list of values.
- Choose Next.

■ Complete the scheduling by performing tasks in the Schedule, Notifications, and Printing windows (under normal circumstances, accept the defaults).

See Also: *Oracle Applications System Administrator's Guide,* Concurrent Manager section

■ In the Summary window, review your selections and choose Submit.

See Also: `HCT_TOP/patch/115/readme`, for details regarding file formats for ETS terminologies and loaders

5. Activate the version (this step is the same regardless of the loading or importing method used). After completion of the import (publishing), the import version status is *quarantined*; activate the version and optionally set it as the default.

■ Navigate to the Terminologies window and view the versions of the coding scheme for which a new version is being created. The recently imported (published) version appears in the Published Versions section of the window; update its properties.

■ In the Update Published Version window:

- Set a description (optional).
- Set the Default status (optional).
- Set Status to Active.

■ The browser returns to the Versions window and confirms completion of the update.

4.5.3 Searching for a Concept in ETS

Navigation

Table 4–33 summarizes the navigation paths used by this section:

Table 4–33 Navigation Paths: Searching for a Concept in ETS

Function or Window	Navigation Path
Searching for a concept in ETS	`Terminologies > View Versions > View Concepts > Go`
Searching for a term	`Terminologies > View Versions > View Concepts > Go`
Version (search) Window	`Terminologies > Versions > Concepts`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Select a terminology to search:
   - Navigate to the Terminologies window by clicking the Terminologies tab.
   - Select a terminology to search, and click the selected terminology's View Versions icon.
2. Select a terminology version to search:
   - In the Versions window, select a version to be searched and click its View Concepts icon.
3. Perform the search:
   - In the Concepts window, select a search type and enter a search value.
   - If you know the ConceptCode of the concept, select Concept Code in the Search Type box and enter the code in the Search Value box; the search only returns an exact match.
   - If you are searching for a term, select Descriptions in the Search Type box and enter text in the Search Value box. All concepts with any description (not just the preferred description) that contain a specified pattern are returned.
   - Submit the search.

- The search results are returned in the Search Results table.

4. Repeat these steps for each coding scheme and version in which the concept may be found.

Guidelines

Cross-terminology, cross-version searching is not supported in the ETS window user interface. The concepts displayed for each terminology (by performing a View Concepts, or by performing a search) are limited to 200 concepts.

Guidelines for Finding an ETS Concept:

- All concepts with any description (not just the preferred description) that contain a specified pattern are returned.
- Concept descriptions have been indexed using Oracle Text, Oracle's integrated full-text retrieval technology.
- The search performs pattern matching. Patterns are always case insensitive, and accept a number of boolean operators.

  For example, the following patterns match the description *Wheelchair*:

  ```
  wheelchair
  wheel% and $chair
  wheel
  %wheel%
  ```

  The following patterns *do not match* the description *Wheelchair*:

  ```
  %wheel% NOT %chair%
  wheel chair
  ```

  Searching with an Oracle Text operator or *wildcard* alone will cause an error. For example, an error results when the following patterns are entered as search terms:

  ```
  %
  *
  ```

  Oracle Text maintains a list of *stopwords* called a *stoplist*. Stopwords are those for which Oracle Text does not create an index entry. *This* and *was* are typical stopwords. In the search term

  Jack was big

the word *was* is ignored, and phrases such as *Jack is big* and *Jack grew big* are both returned.

Searching on stopwords alone does not return any results—such as the following example:

```
this%
this was
```

In addition, the following search term returns an error:

```
this %
```

The word *this* is a stopword, so it is ignored, leaving only the symbol %, which is an invalid search term because it is a wildcard.

> **See Also:** *Oracle Text Application Developer's Guide, Text Reference* (within the Oracle9*i* Database documentation set), for more information about Oracle Text searching, Oracle Text operators and wildcards, and the Oracle Text default stoplist.

4.5.4 Creating and Loading ETS Cross Maps

Steps

1. Create a cross map file and a control file in ETS format, and move them into a directory located in the same file system as the Applications instance—a directory that is accessible by the Concurrent Manager.

   See Also:

   - Guidelines: Cross Maps
   - `HCT_TOP/patch/115/readme`, for details about Cross Map file formats.

2. Schedule the load manager to run:
   - Open a session using the Healthcare ETS Administrator responsibility.
   - Under Concurrent Manager, choose Schedule Requests. This launches a process for scheduling a job.
   - In the Name window:

  - The name of the program is chosen in the Schedule Request For field. Use the list of values to select the program called *Healthcare ETS Terminology Loader.*
  - Enter a name for the request in the Name field.
  - Choose Next.
- In the Parameters window:
  - In the Control File (absolute path) field, enter the path in which the control file is found.
  - Use the list of values in the Coding Scheme Name field to find and select the coding scheme name called *Map Set Loader* (this is a dummy value ignored by the loader).
  - Enter text in the Coding Scheme Version Name field. The contents of this field are also ignored.
  - Choose Next.
- Complete the scheduling by performing tasks in the Schedule, Notifications, and Printing windows (under normal circumstances, accept the defaults).

  See Also: *Oracle Applications System Administrator's Guide,* Concurrent Manager section

- In the Summary window, review your selections and choose Submit.
- In the Information window, note the load sequence number (it will be used in step 3) and choose OK.

3. Monitor the progress of the concurrent process:
   - In the Requests window:
     - Select a Show parameter (All, Completed, Pending, Running, Search).
     - Choose Go (if Search was selected as the Show parameter, enter the search criteria and choose Go).
   - In the new Requests window:
     - Find the Request ID of the load request (step 2) to view the status of the ETS terminology load or ETS terminology import (shown in the Phase column).

- Repeat the process until the phase shows *Completed*.
- Upon completion, choose the Details icon for the request; choose View Log from the Details window.
- Find the following line in the View Log and note the `LOADSEQ` (load sequence number)—it will be used in step 4:

  ```
  LOAD_HEADER_LOAD_SEQ (LOADSEQ=XXX)
  ```

4. After completion of the load, schedule the import manager to run:
   - Open a session using the Healthcare ETS Administrator responsibility.
   - Under Concurrent Manager, choose Schedule Requests. This launches a process for scheduling a job.
   - In the Name window:
     - The name of the program is chosen in the Schedule Request For field. Use the list of values to select the program called *Healthcare ETS Terminology Importer.*
     - Enter a name for the request in the Name field.
     - Choose Next.
   - In the Parameters window:
     - In the Load Sequence Number field, enter the load sequence number (step 3).
     - In the Dry Run Mode field, use the list of values to select *Off*.
     - Choose Next.
   - Complete the scheduling by performing tasks in the Schedule, Notifications, and Printing windows (under normal circumstances, accept the defaults).

     See Also: *Oracle Applications System Administrator's Guide*, Concurrent Manager section

   - In the Summary window, review your selections and choose Submit.
   - In the Information window, note the load sequence number (to be used if the task progress is monitored) and choose OK.
   - You can monitor the task progress as described in step 3.

Guidelines

Cross Maps

The ETS Cross mapping model is based on the SNOMED CT cross mapping model. Cross-mapping mechanisms provide support for:

- Mapping a single concept to a target code (a one-to-one mapping).
- Mapping *to* a set of Target codes (a one-to-many mapping).

The current structure does *not* support:

- Mapping a set of Concepts to a Target.

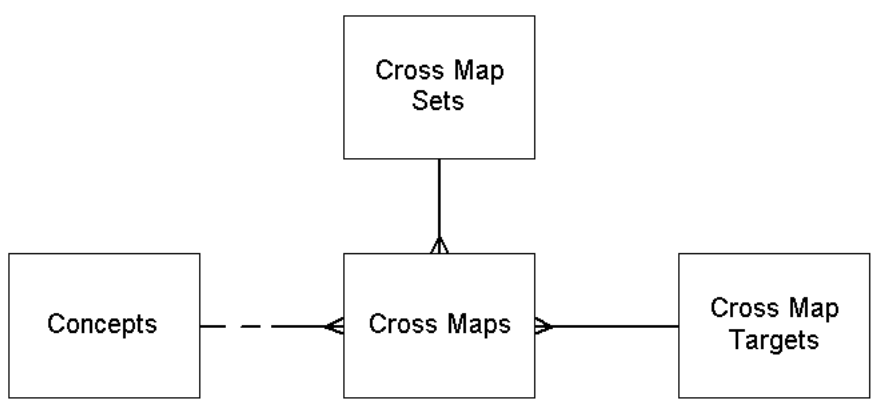
The ETS cross-map mechanism consists of the following tables:

- The Cross-Map Sets Table
- The Cross-Map Targets Table
- The Cross-Maps Table

> **See Also:** `HCT_TOP/patch/115/readme,` for the cross-map table structures.

The relationship between these tables is shown by Figure 4–11:

Figure 4–11 ETS Cross Mapping Relationship



A map set defines a mapping between two coding scheme versions, such as Terminology A and Terminology B. Each map set is composed of multiple cross maps. Each cross map consists of a source concept and one or more target concepts, such as a source concept from Terminology A and one or more target concepts from Terminology B—to which it maps.

Loading Cross Maps Provided by the College of American Pathologists[1]

The principal difference between cross map files distributed by the College of American Pathologists (with SNOMED CT) and those expected by ETS loaders is that the SNOMED CT files could contain data regarding multiple map sets in a single file. The map set file may contain multiple rows, each pertaining to a different map set. The cross map file may contain cross maps relating to multiple map sets, and the map targets file may contain targets used by multiple map sets (targets related to multiple coding schemes).

To make the SNOMED CT files suitable for ETS loading, split the files into map sets. The map set file should contain only one row, representing one map set. The cross maps file should contain only rows containing the map set ID of the chosen map set. The map targets file should contain only targets related to the target coding scheme specific to the map set.

4.5.5 Creating Local Descriptions

Navigation

Table 4–34 summarizes the navigation paths used by this section:

Table 4–34 Navigation Paths: Creating Local Descriptions

Function or Window	Navigation Path
Creating local concept description	`Terminologies > View Versions > View Concepts > Update > Create Local Description > Apply`
Create Local Description Window	`Terminologies > Versions > Concepts > Concept > Create Local Description`

See Also: Table A–1, Navigation Paths (Appendix A)

1 SNOMED CT Cross Mappings

Steps

1. Select the concept for which a locally defined description is to be created and navigate to its Create Local Description window.
   - Select a coding scheme from the Terminologies window and view its versions by clicking the View Versions link.
   - Select a version from the Versions window and view its concepts by clicking the View Concepts link.
   - Find the concept:
     – By paging through available concepts in the version (note: only the first 200 concepts in a terminology are returned), or
     – By searching for the concept.

     See Also: Section 4.5.3, Searching for a Concept in ETS.

   - Navigate to the Concept window by choosing its Update icon.
   - Navigate to the Create Local Description window by clicking the Create Local Description button.
2. Create the Local Description.
   - Provide a term (required).
   - Assign a preferred status (optional; defaults to No).
   - Assign a usage context (optional).
   - Choose Apply to create the local description.

Guidelines

You can specify local descriptions for any ETS concept. These descriptions can be used by applications for display purposes, in place of terminology-specified descriptions. You can assign a single usage context to each local description.

> **See Also:** Section 4.5.6, Managing Usage Contexts

The usage context for each local description must be unique; no two concept local descriptions can have the same usage context.

You can create local descriptions for retired or active concepts, but the typical procedure is to create a description for the concept in the active default version of the terminology.

4.5.6 Managing Usage Contexts

4.5.6.1 Creating a Usage Context

Navigation

Table 4–35 summarizes the navigation paths used by this section:

Table 4–35 Navigation Paths: Creating a Usage Context

Function or Window	Navigation Path
Creating a usage context	`Usage Contexts > Create Usage Context`
Create Usage Context Window	`Usage Contexts > Create Usage Context`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Create Usage Context window.
   - Click the Usage Contexts tab.
   - In the Usage Contexts window, click *Create Usage Context*.
2. Assign a name and description to the new usage context.
3. Choose Apply to create the new usage context.

See Also: Guidelines

4.5.6.2 Deleting a Usage Context

Navigation

Table 4–36 summarizes the navigation paths used by this section:

Table 4–36 Navigation Paths: Deleting a Usage Context

Function or Window	Navigation Path
Deleting a usage context	`Usage Contexts > Delete`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Usage Context window by clicking the Usage Contexts tab.
2. Find the usage context to be deleted, select it using the Select box, and choose the Delete button.
3. Choose Yes at the Warning window to delete the usage context.

4.5.6.3 Assigning a usage context to a local description

Navigation

Table 4–37 summarizes the navigation paths used by this section:

Table 4–37 Navigation Paths: Assigning a Usage Context to a Local Description

Function or Window	Navigation Path
Assigning usage context to a local description (during creation of a local description from the Concept Update window)	`Terminologies > View Versions > View Concepts > Update > Create Local Description > Apply`
Assigning usage context to a local description (during creation of a local description from the Update Membership Properties window)	`Concept Lists > View concepts > Update Membership Properties > Create Local Description > Apply`
Assigning usage context to a local description (existing local description)	`Terminologies > View Versions > View Concepts > Update > Update > Apply`
Create Local Description window (from Concept Lists)	`Concept Lists > View Concepts > Update Membership Properties > Create Local Description`
Create Local Description window (from Terminologies)	`Terminologies > Versions > Concepts > Concept > Create Local Description`
Update Local Description window	`Terminologies > Versions > Concepts > Concept > Update Local`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

Assigning a Usage Context During Creation of a Local Description

If you are assigning a usage context during the process of creating the local description, see Section 4.5.5, Creating Local Descriptions.

Assigning a Usage Context to an Existing Local Description

1. If you are assigning a usage context to an existing local description, navigate to the concept and its local description:
   - Select the coding scheme from the Terminologies window and view its versions by clicking its View Versions link.
   - Select the appropriate version from the Versions window and view its Concepts by clicking its View Concepts link.
   - Find the concept by paging through available concepts in the version (only the first 200 concepts in a terminology are returned), or by searching for the concept.

     See Also: Section 4.5.3, Searching for a Concept in ETS

   - Click the concept's Update icon. In the Concept window, the local description is shown under Local Descriptions.
2. Choose the Update icon of the target description.
3. In the Update Local Description window, assign or change the usage context and choose Apply.

Note: If another description for the concept is associated with the selected usage context, the existing association is dropped in favor of the new association.

4.5.6.4 Associating a Usage Context with an Organization

Steps

A usage context can be associated with an organization, using the method:

`associateUsageContextWithExternalOwner`

The usage context can subsequently be associated with a concept list (Section 4.5.6.5), resulting in a concept list-organization association, or with a local description (step 3, Section 4.5.6.3), resulting in a local description-organization association.

See Also: *Oracle Javadoc for HTB*

4.5.6.5 Associating a Usage Context with a Concept List

A usage context can be associated with a concept list at the time of concept list creation, or subsequently, by updating the concept list properties. Both processes are described in the following section (Steps).

Navigation

Table 4–38 summarizes the navigation paths used by this section:

Table 4–38 Navigation Paths: Associating a Usage Context with a Concept List

Function or Window	Navigation Path
Associate a usage context with a concept list at concept list creation	`Concept Lists > Create Concept List > Apply`
Associate a usage context with an existing concept list	`Concept Lists > Update Properties > Apply`
Create Concept List window	`Concept Lists > Create Concept List`
Update Concept List window	`Concept Lists > Update Concept List`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

Associating a Usage Context at the time of Concept List Creation

1. Navigate to the Create Concept List window:

- Choose the Concept Lists tab.
- In the Concept Lists window, select Create Concept List.

2. In the Create Concept list window:
   - Set the properties of the concept list.

     See Also: Section 4.5.7.1, Creating a Concept List

   - Select a usage context from the drop-down list.
3. Click Apply.

Associating the Usage Context by Updating the Concept List Properties

1. Navigate to the Update concept List window.
   - From either the Concept Lists window or a Specializations window, select a concept list and click its *Update Properties* icon.
2. In the Update Concept List window, select a usage context from the drop-down list.
3. Click Apply.

Guidelines

A usage context is used by applications to control the display of ETS concept local descriptions. When local descriptions are created (Section 4.5.5), they can be assigned a usage context. That local description is displayed by an application whenever the application specifies use of its usage context.

For example, the Utilization Review department might be accustomed to using short names or abbreviations for various diagnoses. Accordingly, a usage context called *Utilization Review* might be created. Local Descriptions can then be created for the appropriate concepts, and assigned the usage context of *Utilization Review*. Subsequently, applications the department uses to display or report information can use the ETS API to present descriptions with the usage context of Utilization Review.

A unique, single usage context is permitted for each local description; multiple concept local descriptions cannot have the same usage context. Accordingly, if a local description is assigned a usage context and a local description for the concept already exists with that usage context, the operation succeeds—but the usage context is removed from the first local description.

A concept list associated with an organization (through a usage context) can similarly be used by an application. For example, the enterprise might have a concept list of medical services, entitled *ENT_MED_SERVICES*. Fair Oaks Community Hospital may require a specialization of that concept list that only contains a subset of the enterprise values. A usage context called *Fair Oaks* can be created and associated with Fair Oaks Community Hospital. A specialization of the `ENT_MED_SERVICES` concept list can subsequently be created, named `FAIR_OAKS_MED_SERVICES`, and associated with the Fair Oaks usage context. The following method lets you use the concept list specialization associated with a specific organization:

```
getConceptListIdForOrganization
```

4.5.7 Managing Concept Lists

Concept lists provide a mechanism to group ETS concepts for a variety of purposes, such as user interface drop-down lists and other controls, or constraining values of an attribute to a certain set of coded values.

Concept lists provide additional features useful to applications. Concept list member concepts can possess activation and retirement dates; members can have active, retired, or pending statuses within a list. Each member concept in a concept list has a code by which it is known in the list. The code can be used by an application. It is unique among active or pending members of the concept list.

This section describes several tasks related to concept lists:

- Section 4.5.7.1, Creating a Concept List
- Section 4.5.7.2, Adding Concepts to a Concept List
- Section 4.5.7.3, Updating Concept List Properties
- Section 4.5.7.4, Updating Concept List Member Properties
- Section 4.5.7.5, Specializing a Concept List
- Section 4.5.7.6, Subsetting a Concept List
- Section 4.5.7.7, Defining New ETS-Based Concept List Concepts

HTB is shipped with a set of pre-defined concept lists. These concept lists are used within HTB to validate coded values in APIs and message processing:

- *Do not use these lists for other purposes*.

- The names of the pre-defined concept lists begin with `CTB_`—*do not use this prefix for concept lists that you create.*

Certain concept lists have been seeded empty (the concept list has been created before shipment, but no concepts have been added to it). These lists are shown in Appendix G —they must be filled by concepts during implementation. Sections 4.5.7.2 and 4.5.7.7 provide implementation instructions.

Note that you can add concepts to any seeded list that is defined as `EXTENSIBLE`, and you can create specializations of concept lists. Specializations are child concept lists that initially inherit parent concepts. In addition, specializations can possess the following inheritance types that permit various types of synchronization with concepts in the parent list:

- **Restricted:** Only concepts that are active in the parent list can be added to the child list.
- **Addition:** Concepts added to the parent list are added to the child list.
- **Deletion:** Concepts retired in the parent list are retired in the child list.

See Also:

- *Oracle Javadoc for HTB*
- Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

A Specialization can be associated with a usage context, which may in turn be associated with a particular HTB organization. Section 4.5.7.5 provides specialization instructions.

You can also subset seeded lists, if only a subset of the seeded values are applicable. Because HTB seeded lists are of the type `SYSTEM` or `EXTENSIBLE`, and only lists designated `USER` can be subsetted directly, you must employ indirect methods to subset seeded lists. Section 4.5.7.6 provides subsetting instructions.

4.5.7.1 Creating a Concept List

Navigation

Table 4–39 summarizes the navigation paths used by this section:

Table 4–39 Navigation Paths: Creating a Concept List

Function or Window	Navigation Path
Creating a concept list	`Concept Lists > Create Concept List > Apply`
Create Concept List window	`Concept Lists > Create Concept List`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Create Concept List window:
   - Choose the Concept Lists tab.
   - In the Concept Lists window, select Create Concept List.
2. In the Create Concept List window:
   - Enter a name for the concept list. The name must be unique across lists, and will be permanent (unchangeable).
   - Enter a description for the list.
   - Enter a status for the list (Active or Retired).
   - Enter a group name for the list:
     – A group name serves to categorize the proposed use of the list
     – You can select an existing group name from the drop-down list.
     – Alternatively, you can enter a new group name by entering text in the text box.
   - Enter inheritance information for the concept list:
     – The list can be a top-level list (no parent list), or the list can be a child, or specialization.
     – If a specialization, (i) select the name of the parent list from the list of values, and (ii) specify the inheritance types the specialization should possess (optional).
   - Specify a usage context by selecting from the drop-down list (optional).
3. Choose Apply to create a **concept list**.

4.5.7.2 Adding Concepts to a Concept List

This section describes how to add *existing* ETS concepts to concept lists. The process for defining *new* ETS concepts is described by Section 4.5.7.7.

Note: Certain HTB concept lists have been predefined but left empty—*these concept lists must be populated.*

See: Appendix G, Predefined Concept Lists

Navigation

Table 4–40 summarizes the navigation paths used by this section:

Table 4–40 Navigation Paths: Adding Concepts to a Concept List

Function or Window	Navigation Path
Add to concept list train (from viewing Coding Scheme Versions)	`Terminologies > Versions > Concepts > Add to Concept List train`
Add to concept list train (from viewing concepts in another concept list)	`Concept Lists > View Concepts > Add to Concept List train`
Add to concept list train (from viewing Related Concepts)	`Terminologies > Versions > Concepts > Related Concepts > Add to Concept List train`
Adding concepts to a concept list (from viewing concepts in another concept list)	`Concept Lists > View Concepts > Add to Another Concept List > Next > Next > Next > Finish`
Adding concepts to a concept list (from viewing Related Concepts)	`Terminologies > View Viersions > View Concepts > Go > View Related Concepts > Add to Concept List > Next > Next > Next > Finish`
Adding concepts to a concept list (from viewing search results or coding scheme versions)	`Terminologies > View Versions > View Concepts > Go > Add to Concept List > Next > Next > Next > Finish`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Select the concepts:

   - Generate a display of the concepts to be added. The displayed concepts can be any of the following:

  - The result of a Search (Section 4.5.3):
  - The result of viewing concepts in a coding scheme version.
  - The result of viewing related concepts.
  - The result of viewing concepts in another concept list.
- Select the concepts from the display.

2. Launch the *Add to Concept List* train by clicking *Add to Another Concept List* or *Add to Concept List*.
3. Proceed with the *Add to Concept List* train:
   - In the List Selection window, select the concept list to which the concepts will be added; click Next.
   - A concept cannot be added under the following conditions:
     - The concept is already active or pending in the selected list.
     - The selected list is the parent of an additive child specialization and the concept is already active or pending on the child.
     - The selected list is a SYSTEM list.
     - The selected list is a restricted child specialization and the concept is not active or pending on the parent lists.
   - If any (but not all) concepts chosen for addition are not addable, a warning dialog appears, listing the concepts that will not be added. You can elect to continue or return to list selection.
   - If all concepts selected for addition are not addable, the List Selection window is reloaded with an information box listing these concepts. To continue, you must select another list.
   - In the Membership Properties window, for each concept to be added, do the following:
     - Set the membership code: This string must be unique across all active or pending members of a concept list; it cannot be subsequently modified.

Note: *We strongly recommend that you use* `USER-` *as a prefix for any membership codes you add to Oracle-defined concept lists.* Other codes run the risk of being overwritten by Oracle-created content in subsequent releases.

- Set the activation date and time for the concept (optional); the format is `DD-MMM-YYYY HH:MM:SS`, assuming the time zone of the installation. The entered activation date and time must be later than the current date and time plus one hour. A blank box defaults to the current date and time.
- Click Next.

Note: The Set Membership Properties page is reloaded with an error in any of the following conditions:

- You have entered the same membership code for multiple concepts.
- You have entered a membership code that is already associated with an active or pending concept on the list being updated.
- Activation dates precede the current time plus one hour.
- The list being updated is a restricted list and the activation date entered is earlier than the activation date of the corresponding concept in the parent list.

If any of these conditions occur, choose a new membership code or activation date as appropriate, and click Next. Alternatively, choose Back to return to the List Selection page, or click Cancel to exist the addition process.

- In the Review window, verify the concepts to be added, including their properties.
- Click Finish to complete the process. Following a confirming dialog, you are returned to the window viewed prior to launching the Add to Concept List train.

Note:

- If the concept is being added to a restricted specialization, and the selected activation date would cause the concept's active period to exceed that of the corresponding concept in the parent list, an exception occurs; a dialog appears, warning you that the concept has not been added.
- See Also: *Oracle Javadoc for HTB*

Caution:

We strongly recommend that wherever possible, you only add concepts from the same terminology to a single concept list. Concept meanings can be sensitive to the context in which they are included in a terminology; mixing them with concepts from other terminologies may distort those meanings.

4.5.7.3 Updating Concept List Properties

Navigation

Table 4–41 summarizes the navigation paths used by this section:

Table 4–41 Navigation Paths: Updating Concept List Properties

Function or Window	Navigation Path
Update Concept List window	`concept Lists > Update Concept List`
Updating Concept List Properties	`Concept Lists > (Specializations) > Update Properties > Apply`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. From the Concept Lists window, select the concept list whose properties are to be updated and click its *Update Properties* icon.
2. In the Update Concept List window, update the following:
   - Description (enter text in the text box).

- Status (Active, Retired).
- Inheritance Type (for specializations only; Additive and Subtractive types are updatable.
- Usage Context (select from entries in the drop-down list).

3. Click Apply to complete the process.

See Also: *Oracle Javadoc for HTB*

4.5.7.4 Updating Concept List Member Properties

Navigation

Table 4–42 summarizes the navigation paths used by this section:

Table 4–42 Navigation Paths: Updating Concept List Member Properties

Function or Window	Navigation Path
Update Concept List Member Properties window	`Concept Lists > (Specializations) > Concepts > Update Membership Properties`
Updating Concept List Member Properties	`Concept Lists > (Specializations) > View Concepts > Update membership Properties > Apply`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. From the View Concepts window for a concept list, select the concept whose properties are to be updated and click its *Update Membership Properties* icon.
2. In the Update Membership Properties window, update properties of the concept:
   - Core member setting: Indicates if the member should be included in the *core set* for this concept list. The members of the core set can be used by applications, for drop-down lists or other display controls.
   - Default setting: Indicates if the member is the default concept in the list. Only one concept can be designated as the default in a list. If it is set when another member is designated as the default, the other member loses default status.
   - Activation date and time: The date and time at which the member status should change to *Active*. The format is `DD-MMM-YYY HH:MM:SS`, assuming

the time zone of the installation. A blank defaults to the current date and time.

Notes:

- The activation date of a concept in a restricted child list cannot be changed so as to cause the active period of the concept in the *child list* to grow beyond the active period of the concept in the *parent list*.
- Modifying the activation date of a concept in a list that is the parent of a restricted child list may affect the corresponding concept in the child list.
- See: *Oracle Javadoc for HTB* for further details.

- Retirement date: The date and time at which member status changes from *Active* to *Retired*. The retirement date does not have to be specified for an active concept.

Notes:

- The retirement date of a concept in a restricted *child list* cannot be changed so as to cause the active period of the concept in the child list to grow beyond the active period of the concept in the *parent list*.
- Modifying the retirement date of a concept in a list that is the parent of a restricted child list may affect the corresponding concept in the child list.
- Retiring concepts from the parent of a restricted or deletion inheritance child may affect the child list.
- See: *Oracle Javadoc for HTB* for further details.

---

3. Click Apply to complete the update.

4.5.7.5 Specializing a Concept List

Concept lists can be *specialized*. A specialization of a concept list is a child concept list that initially inherits the active members of the parent list. It is a separate concept list, distinct from the parent list. Subsequent behavior of the specialization (a child concept list) with respect to the parent concept list depends upon the setting of its inheritance type:

- Addition inheritance: Any concept added to the parent list is added to the child list.
- Deletion inheritance: Any concept retired from the parent list is retired from the child list.
- Restricted inheritance: A child list cannot contain any concept not contained in its parent list; before a concept is added to the child list it must first either exist in the parent list or be added to the parent list. A concept in a restricted child list also inherits certain changes to the activation and retirement dates of the corresponding concept in the parent list.

The inheritance types are not mutually exclusive.

A specialization can be associated with a usage context, as can a concept local description. A usage context can in turn be associated with an organization. Accordingly, a concept list can have multiple specializations, each associated with a particular organization.

A specialization can be associated with a usage context (Section 4.5.6.5). A specialization can be associated with an organization by associating it with a usage context that has first been associated with an organization (Section 4.5.6.4). The specialization can then be retrieved using the method:

```
getConceptListIdForOrganization
```

A concept list specialization is created in the same manner as any other concept list (Steps).

Values in a concept list specialization can be added or retired as for any concept list, in accordance with Sections 4.5.7.2 and 4.5.7.6.

See Also: *Oracle Javadoc for HTB* for further details.

Navigation

Table 4–43 summarizes the navigation paths used by this section:

Table 4–43 Navigation Paths: Specializing a Concept List

Function or Window	Navigation Path
Create Concept List window	`Concept Lists > Create concept List`
Specializing a concept list	`Concept Lists > Create Concept List > Apply`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Choose the Concept Lists tab and select Create Concept List.
2. In the Create Concept List window:
   - Enter a name for the concept list. The name must be unique across lists, and will be permanent (unchangeable).
   - Enter a description for the list.
   - Enter a status for the list (Active or Retired).
   - Enter a group name for the list:
     – A group name serves to categorize the proposed use of the list
     – You can select an existing group name from the drop-down list.
     – Alternatively, you can enter a new group name by entering text in the text box.
   - Enter inheritance information for the concept list:
     – Select the name of the parent list from the list of values.
     – Specify the inheritance types the specialization should possess (optional).
   - Specify a usage context by choosing from the drop-down list (optional).
3. Choose Apply to create the specialization.

4.5.7.6 Subsetting a Concept List

It may be desirable to subset a concept list—using only a subset of a concept list’s members, for UI display purposes, or for validating data to be stored by an application. The following sections describe how to subset a concept list:

- Section 4.5.7.6.1, Subsetting a User Concept List

- Section 4.5.7.6.2, Subsetting a Concept List of any Extensibility Type

4.5.7.6.1 Subsetting a User Concept List

A concept list of extensibility type *User* can be subsetted by retiring unwanted members from the list. A member is retired by updating its retirement date and time.

> **Note:** This subsetting procedure does not apply to System or System extensible concept lists.

Navigation

Table 4–44 summarizes the navigation paths used by this section:

Table 4–44 Navigation Paths: Specializing a User Concept List

Function or Window	Navigation Path
Subsetting a user concept list	`Concept Lists > (Specializations) > View Concepts > Update Membership Properties > Apply`
Update Concept List Member Properties window	`Concept Lists > (Specializations) > Concepts > Update Membership Properties`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. From the View Concepts window for a concept list, select the concept whose properties are to be updated and click its *Update Membership Properties* icon.
2. In the Update Membership Properties window, update the retirement date and time of the concept.

Notes:

- The retirement date of a concept in a restricted child list cannot be changed so as to cause the active period of the concept in the *child list* to grow beyond the active period of the concept in the *parent list.*
- Modifying the retirement date of a concept in a list that is the parent of a restricted child list may affect the corresponding concept in the child list.
- Retiring concepts from the parent of a restricted or deletion inheritance child may affect the child list.
- See: *Oracle Javadoc for HTB* for further details.

---

3. Click Apply to complete the update.

4.5.7.6.2 Subsetting a Concept List of any Extensibility Type

A concept list of any extensibility type (including *user*) can be subsetted using either of two additional procedures. These procedures are especially useful if the list to be subsetted is a *System* or *System Extensible* list, from which members cannot be retired:

Using the Core Member Setting of List Members

Navigation

Table 4–45 summarizes the navigation paths used by this section:

Table 4–45 Navigation Paths: Using Core Member Setting to Subset a Concept List

Function or Window	Navigation Path
Subsetting a concept list of any extensibility type: Using the core member setting of list members	`Concept Lists > (Specializations) > View Concepts > Update Membership Properties > Apply`
Update Concept List Member Properties window	`Concept Lists > (Specializations ) > Concepts > Update Membership Properties`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. From the View Concepts window for a concept list, select a concept to be designated as a core member and click its *Update Membership Properties* icon.
2. In the Update Membership Properties window, set the core member property of the concept to *Yes*.
3. Click Apply to complete the update.
4. Repeat these steps for each member to be designated as a core member.

The core set of members in the list can then be retrieved using the method:

`getCoreSet`

Checks of individual members of the list can be performed using the method:

`isCoreMember`

> **See Also:** *Oracle Javadoc for HTB*

Using a Specialization of the Concept List and Retiring Members

You can create a specialization of the concept list (Section 4.5.7.5), and specify a usage context for the child list. You can then subset the child concept list (Section 4.5.7.6.1), and you can use the subsetted list as required by your application.

Access the specialization using the method:

`getChildconceptList`

> **See Also:** *Oracle Javadoc for HTB*

4.5.7.7 Defining New ETS-Based Concept List Concepts

This section describes the addition of concepts to concept lists where the concepts do not already exist in an ETS terminology. This contracts with Section 4.5.7.2, which assumes that the concepts to be added are already loaded in ETS.

Navigation

See the following sections for navigation guidelines:

- Section 4.5.3, Navigation
- Section 4.5.7.2, Navigation

Steps

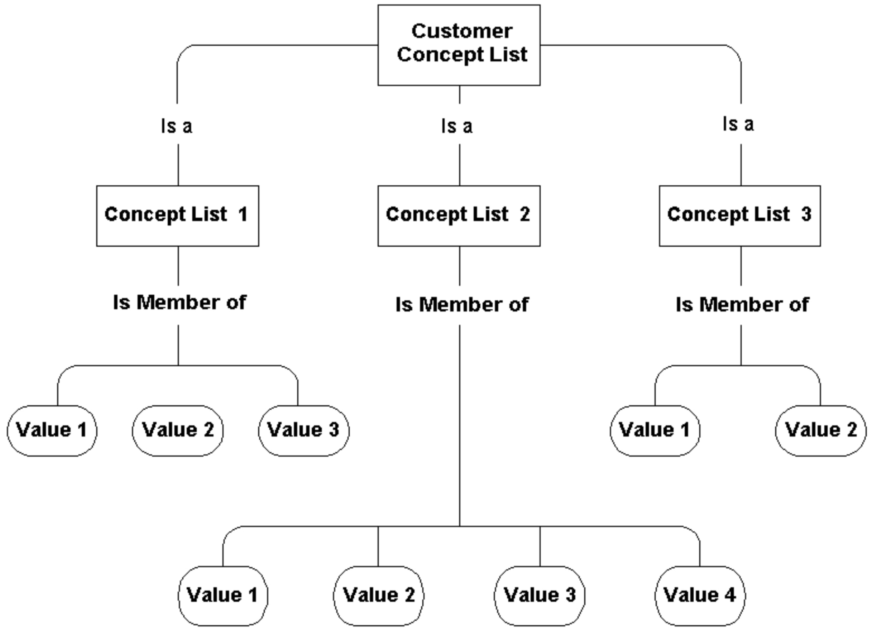
1. Determine if the target concepts for concept list values are already loaded in ETS (Section 4.5.3).
2. For those concepts not found in ETS:
   - Create a new generic terminology containing the concepts, or amend an existing terminology (Guidelines).
   - The data is activated in ETS:
     - If this is a new generic terminology, the applicable procedure is described by Section 4.5.1.
     - If this is an update to an existing generic terminology, the applicable procedure is described by Section 4.5.2.
3. Add the new concepts to the concept list; use the procedure described by Section 4.5.7.2.

Guidelines

Recommendations for Creating Concept List Concepts

We recommend that you load all concepts used in your enterprise concept lists into a single generic terminology—for ease of maintenance, and to facilitate future migration. If you are loading the generic terminology into ETS for the first time, you can create a new generic terminology (Section 4.5.1). Figure 4–12 displays a conceptual model for a generic terminology for concept list concepts:

Figure 4–12 Conceptual View of Generic Terminology for Concept List Concepts



You can load the concepts into the three files of the generic full model—the Concepts file, the Descriptions file, and the Relationships file. The associated file content and structures are listed by the following tables:

- Table 4–46, Concepts File Content
- Table 4–47, Descriptions File Content
- Table 4–48, Relationships File Example

Table 4–46 Concepts File Content

Concept Code	Relationship Type Flag	Extended Type Code	Status Flag	Date Retired	Reassigned To	Attribute Name	Attribute Value
001	N	ROOT	A	...	...	Compo-nent	N
002	N	...	A	...	...	Compo-nent	Y
003	N	...	A	...	...	Compo-nent	Y

Table 4–46 (Cont.) Concepts File Content

Concept Code	Relationship Type Flag	Extended Type Code	Status Flag	Date Retired	Reassigned To	Attribute Name	Attribute Value
004	N	...	A	...	...	Compo-nent	Y
005	N	...	A	...	...	Compo-nent	Y
006	N	...	A	...	...	Compo-nent	Y
007	N	...	A	...	...	Compo-nent	Y
008	N	...	A	...	...	Compo-nent	Y
009	N	...	A	...	...	Compo-nent	Y
010	N	...	A	...	...	Compo-nent	Y
012	N	...	A	...	...	Compo-nent	Y
013	N	...	A	...	...	Compo-nent	Y
100	N	...	A	...	...	...	Y

Table 4–47 Descriptions File Content

Concept Code	Preferred Flag	Extended Type Code	Description Text	Status Flag	Date Retired	Attribute Name
001	Y	...	Customer X Lookups	A	...	...
002	Y	...	Concept List 1	A	...	...
003	Y	...	Concept List 2	A	...	...
004	Y	...	Concept List 3	A	...	...
005	Y	...	List 1 Value 1	A	...	...
006	Y	...	List 1 Value 2	A	...	...
007	Y	...	List 1 Value 3	A	...	...
008	Y	...	List 2 Value 1	A	...	...
009	Y	...	List 2 Value 2	A	...	...
010	Y	...	List 2 Value 3	A	...	...
011	Y	...	List 2 Value 4	A	...	...

Table 4–47 (Cont.) Descriptions File Content

Concept Code	Preferred Flag	Extended Type Code	Description Text	Status Flag	Date Retired	Attribute Name
012	Y	...	List 3 Value 1	A	...	...
013	Y	...	List 3 Value 2	A	...	...
100	Y	LONG	is a component of	A	...	...

Table 4–48 Relationships File Example

Source Concept Code	Relationship Type Concept Code	Target Concept Code	Status Flag	Date Retired	Attribute Name
002	100	001	A	...	...
003	100	001	A	...	...
004	100	001	A	...	...
005	100	002	A	...	...
006	100	002	A	...	...
007	100	002	A	...	...
008	100	003	A	...	...
009	100	003	A	...	...
010	100	003	A	...	...
011	100	003	A	...	...
012	100	004	A	...	...
013	100	004	A	...	...

These files are loaded as a coding scheme version. The steps described by Section 4.5.7.1 and Section 4.5.7.2 are used to create each concept and add concepts from the newly created terminology to the concept lists.

Subsequent additions to the concept lists are performed by following the procedures of this section or Section 4.5.7.2, depending upon whether or not the concepts to be added already exist in a loaded ETS coding scheme version.

Note: *We strongly recommend that wherever possible, you only add concepts from the same terminology to a single concept list.* Concept meanings can be sensitive to the context in which they are included in a terminology; mixing them with concepts from other terminologies may distort those meanings.

4.5.8 Running the ETS Maintenance Program

The maintenance program performs several database tasks, including cleanup of orphan data, building and synchronizing interMedia indexes, and gathering statistics for the Cost-based Optimizer. In general, it is a good idea to run the maintenance program periodically to keep ETS running optimally.

Steps

To schedule the maintenance program to run:

1. Open a session using the Healthcare ETS Administrator responsibility.
2. Under Concurrent Manager, choose Schedule Requests. This launches a process for scheduling a job.
3. Use the list of values in the Name window to select the program called *Healthcare ETS Maintenance Program.*
4. Enter a name for the request in the Name field.
5. Choose Next.
6. Complete the scheduling by performing tasks in the Parameters, Schedule, Notifications, and Printing windows.
7. Review your selections in the Summary window and choose Submit.
8. Note the Request ID in the Information window and choose OK.

See Also: *Oracle Applications System Administrator's Guide,* Concurrent Manager section

4.6 Implementing Audit Services

HTB Auditing Services let you log and monitor all HTB activities, to enforce security rules and ensure policy and regulation compliance—by recording which APIs a user has invoked during a session.

HTB Configuration Manager, a GUI tool, lets security administrators define auditing policies. Implementation of HTB Audit Services includes the following steps:

- Implementing auditing of login events
- Enabling HTB Audit Services
- Initializing existing audit event types
- Creating new audit event types
- Invoking HTB Audit Services

Reference

Oracle Applications 11i System Administrator's Guide

Prerequisites

- Implementing Profile Option Services
- Implementing Enterprise Terminology Services

See Also:

- Section 4.4, Implementing Profile Option Services
- Section 4.5, Implementing Enterprise Terminology Services

Login

Log in to Oracle Applications as an administrative user.

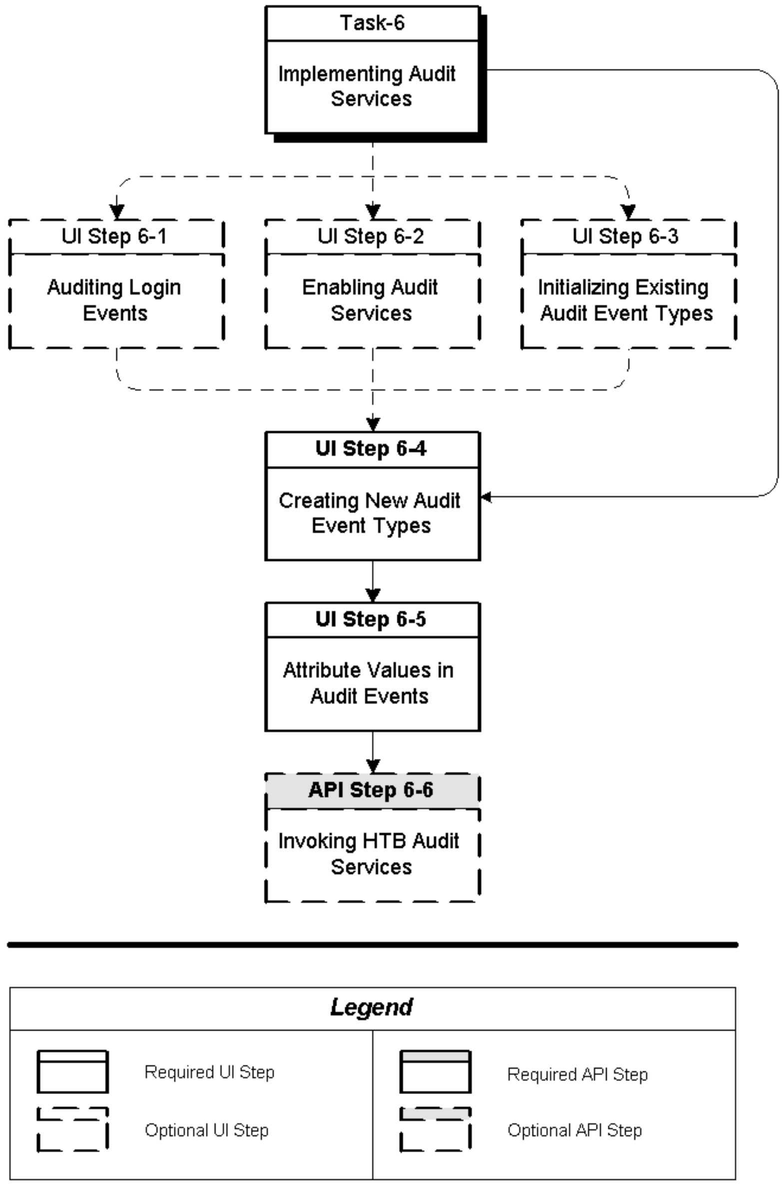
Responsibility

Healthcare Configuration Administrator

Procedures

Figure 4–13 provides an overview of the implementation process for Audit Services:

Figure 4–13 Implementation Process: Audit Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–7, HTB Implementation Procedures: Audit Services

The following sections describe the implementation procedures for Audit Services (referenced by Figure 4–13):

- Section 4.6.1, Auditing Login Events
- Section 4.6.2, Enabling Audit Services
- Section 4.6.3, Initializing Existing Audit Event Types
- Section 4.6.4, Creating New Audit Event Types
- Section 4.6.5, Attribute Values in Audit Events
- Section 4.6.6, Invoking HTB Audit Services

4.6.1 Auditing Login Events

Login events are audited by Oracle E-Business Suite applications. Login events can be configured in two ways:

- By defining which users' login events are audited:
  - Which user logs in or out.
  - What time each user logs in or out.
- By defining which responsibilities these users log in with:
  - The responsibility selected by the user.
  - How much time the user spends in the responsibility.

See Also: *Oracle Applications 11i System Administrator's Guide*, for details about how to configure auditing login events.

4.6.2 Enabling Audit Services

HTB Audit Services can be enabled (turned on) or disabled (turned off) globally. When enabled, audit events of all the seeded and user-defined audit event types can be audited. When disabled, Audit Services is not operative.

Login

Log in to Oracle Applications (Self Service Applications) using the user name you defined in Section 4.1.1.

Responsibility

Healthcare Configuration Administrator

Navigation

Table 4–49 summarizes the navigation paths used by this section:

Table 4–49 Navigation Paths: Enabling Audit Services

Function or Window	Navigation Path
Configuring existing Audit Event types	`System Profile Option Values > View Profile Option Values > Update`
Profile Options Values Window	`System Profile Option Values > View Profile Option Values`
Profile Options Window	`System Profile Option Values`
Updating Audit Event Types	`System Profile Option Values > View Profile Option Values > Update`

> **See Also:** Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Profile Options window and select the profile option named `CTB: Auditing ON.`
2. Navigate to the View Profile Option Values window by clicking the glasses icon.
3. Navigate to the Update Profile Option Value window by clicking the pencil icon and select one of the values [Y, N] from the drop-down list.

Default

The `CTB: Auditing ON` profile option defaults to `Y.`

4.6.3 Initializing Existing Audit Event Types

Audit event types can selectively be turned on or off. When both the global auditing flag and a particular audit event type are turned on, events of this particular type are audited by HTB Audit Services.

Login

Log in to Oracle Applications using the user name you defined in Section 4.1.1.

Responsibility

Healthcare Configuration Administrator

Navigation

Table 4–50 summarizes the navigation paths used by this section:

Table 4–50 Navigation Paths: Initializing Existing Audit Event Types

Function or Window	Navigation Path
Configuring existing Audit Event Types	`System Profile Option Values > View Profile Option Values > Update`
Profile Options Values Window	`System Profile Option Values > View Profile Option Values`
Profile Options Window	`System Profile Option Values`
Updating Audit Event Types	`System Profile Options > View Profile Option Values > Update`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Profile Options window and select the audit event type.
2. Navigate to the View Profile Option Values window by clicking the glasses icon.
3. Navigate to the Update Profile Option Value window by clicking the pencil icon and select one of the values [Yes, No] from the drop-down list.

Default

A list of HTB audit event types is seeded for HTB use. By default these event types are turned on.

See Also:

- Table F–1, Seeded Audit Events (Appendix F)
- Table E–1, Profile Options (Appendix E)

4.6.4 Creating New Audit Event Types

Applications developed on the HTB platform can define business audit event types in addition to the seeded event types listed by Table F–1 (Appendix F).

For example, an Admitting application might define an audit event type as *Admit Patient,* and monitor events of this type.

> **Note:** Although HTB provides the mechanism to audit business events, it is your responsibility to implement the appropriate audit calls to log such events.

Login

Log in to Oracle Applications using the user name you defined in Section 4.1.1.

Responsibility

Healthcare Application Developer

Navigation

Table 4–51 summarizes the navigation paths used by this section:

Table 4–51 Navigation Paths: Creating New Audit Event Types

Function or Window	Navigation Path
Create Profile Option	`Profile Options > Create Profile Option`

See Also: Table A–1, Navigation Paths (Appendix A)

Steps

1. Navigate to the Profile Options page.
2. Navigate to the Create Profile Option page and create the event type with site-level view and update permissions.

4.6.5 Attribute Values in Audit Events

Every entry in the audit trail has the attributes listed by Table 4–52:

Table 4–52 Attribute Values in Audit Events

Attribute Category	Attribute Name	Description
Access Point Identification	`AccessPointId`	The identifier of the physical device from which the event is logged.
Access Point Identification	`AccessPointSiteId`	The identifier of the enterprise from which the event is logged.
Access Point Identification	`AccessPointType`	The type of access point from which the event originates (IP address, telephone #,...).
Audit Source Identification	`AuditSourceType`	The type of server that logs the event (web server, interface engine, HTB server...).
Event Identification	`EventID`	Automatically generated unique identifier.
Event Identification	`EventOutcome`	Success or failure codes of the event.
Event Identification	`EventTimestamp`	Automatically generated from system time.
Event Identification	`EventType`	The registered type of event.
Object Identification	`ObjectId`	The object identifier.
Object Identification	`ObjectIdType`	The type of the object identifier being logged (MRN, SSN,...).
Object Identification	`ObjectLifecycle`	The object lifecycle stage of the event.
Object Identification	`ObjectType`	The type of HTB objects being queried or updated.
User Identification	`ApplicationId`	The identifier of the HTB-based application from which the event is logged.
User Identification	`AuthorId`	The identifier of the person who authored the event, which might be different from the logged in user.
User Identification	`LoginId`	Automatically generated from session context.
User Identification	`Purpose`	The purpose to access HTB (treatment, payment...).
User Identification	`RoleId`	Automatically generated from session context.
User Identification	`TransactionId`	The identifier of the HTB transaction from which the event is logged.

The audit event attributes listed by Table 4–53 have values defined by concept lists:

Table 4–53 Audit Event Attributes: Values Defined by Concept Lists

Attribute Name	Seeded Values	Extensible?
`AccessPointType`	Machine, IPAddress, Telephone	Yes
`AuditSourceType`	End User, Web Server, Application Server, Database Server, Security Server, Network Component, Interface Engine, HTB Server	No
`EventOutcome`	Success, Failure	Yes
`ObjectLifecycle`	Origination, Verification, Translation, Access, Identification, Aggregation, Report, Disclosure, Receipt, Archiving, Destruction	No
`Purpose`	Treatment, Payment, Operation	Yes

For extensible attributes with values from concept lists, new values can be added to their concept lists.

For example, applications could add new values to the Purpose concept list, such as Research or Law Enforcement.

> **See Also:** Section 4.5.7.2, Adding Concepts to a Concept List, for details about adding values to concept lists.

4.6.6 Invoking HTB Audit Services

After defining new audit event types, applications can log audit events of these types by calling the Audit Services interface.

Reference

Oracle Javadoc for HTB

Table 4–54 lists the principal methods that relate to Audit Services:

Table 4–54 Service and Methods: Audit Services

Level	Detail
`Package`	`oracle.apps.ctb.auditing`
`Class`	`AuditService`
`Methods`	`createEventLog`

Prerequisite

Creating New Audit Event Types

See Also: Section 4.6.4, Creating New Audit Event Types

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Any role.

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

1. Create an audit event type (Section 4.6.4).
2. Turn on HTB Audit Services (Section 4.6.2) and the audit event type (Section 4.6.3).
3. In the application code, call the `createEventLog` method with the new event type as the value of the `EventType` attribute.

See Also: *Oracle Javadoc for HTB*, for more information about Audit Services APIs.

4.7 Implementing Administrative Business Services

Administrative Business Services is a set of API services that provide structured access to the HTB data repository for healthcare administration activities. A fundamental goal of HTB is to support the development of applications and the processing of incoming HL7 messages for use in healthcare environments.

Prerequisites

- Implementing Security Services:
  - An administrative security role should be created and assigned all of the protected functions in Organization Services.
  - An administrative account should be created, as a member of the security role.
- Implementing Person Services
- Implementing Organizations
- Implementing Profile Option Services
- Implementing Enterprise Terminology Services
- Implementing Audit Services

See Also:

- Section 4.1, Implementing Security Services
- Section 4.2, Implementing Person Services
- Section 4.3, Implementing Organizations
- Section 4.4, Implementing Profile Option Services
- Section 4.5, Implementing Enterprise Terminology Services
- Section 4.6, Implementing Audit Services

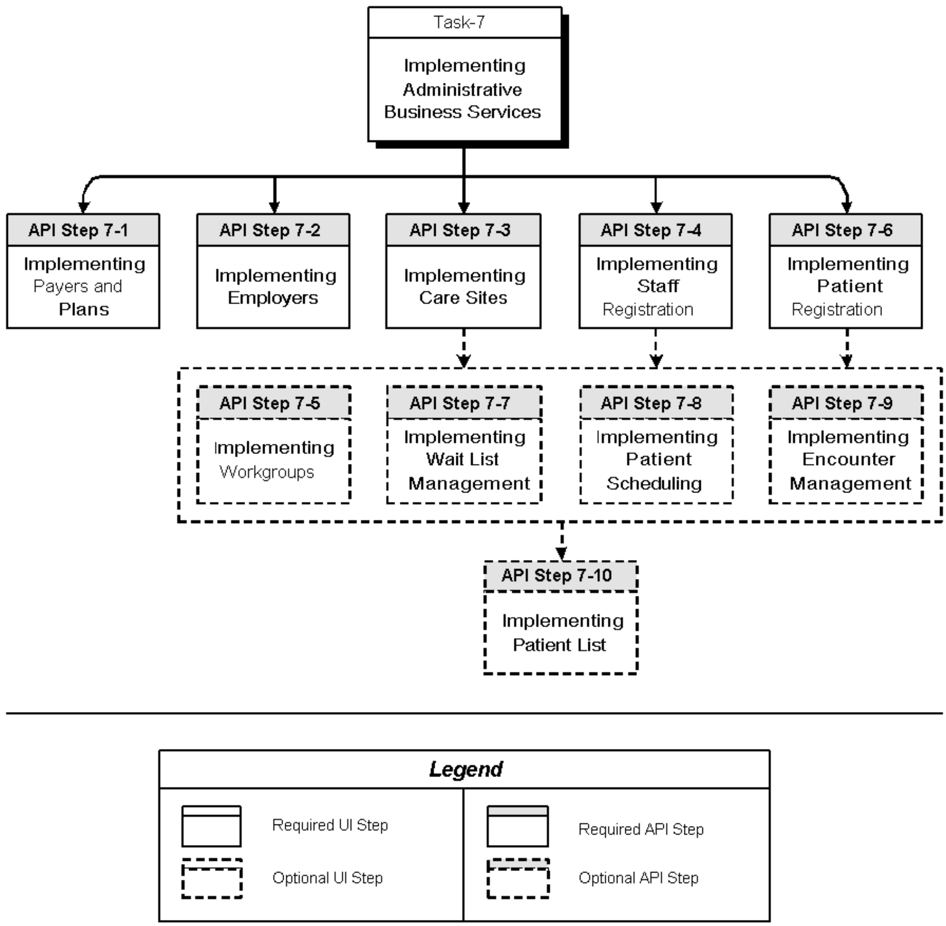
Login

Log in to HTB using the administrative account created in the Prerequisites section (Implementing Security Services).

Procedures

Figure 4–14 provides an overview of the implementation process for Administrative Business Services:

Figure 4–14 Implementation Process: Administrative Business Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–8, HTB Implementation Procedures: Administrative Business Services

The following sections describe the implementation procedures for Administrative Business Services (referenced by Figure 4–14):

- Section 4.7.1, Implementing Payers and Plans
- Section 4.7.2, Implementing Employers
- Section 4.7.3, Implementing Care Sites
- Section 4.7.4, Implementing Staff Registration
- Section 4.7.5, Implementing Workgroups
- Section 4.7.6, Implementing Patient Registration
- Section 4.7.7, Implementing Wait List Management
- Section 4.7.8, Implementing Patient Scheduling
- Section 4.7.9, Implementing Encounter Management
- Section 4.7.10, Implementing Patient List

4.7.1 Implementing Payers and Plans

Payers and Plans represent insurance carriers and the coverage that they offer. Payer and plan information is referenced during the patient registration process, where an existing payer and plan are associated with the patient registration record, or a new payer and plan are created.

Reference

Oracle Javadoc for HTB

Table 4–55 lists the principal Payer And Plan service and methods:

Table 4–55 Service and Methods: Payers and Plans

Level	Detail
Package	`oracle.apps.ctb.configuration`
Class	`PayerService`

Table 4–55 (Cont.) Service and Methods: Payers and Plans

Level	Detail
Methods	■ `addCopays` ■ `addPayerContacts` ■ `addPlanContacts` ■ `addPlans` ■ `createPayer` ■ `deleteCopay` ■ `updateCopays` ■ `updatePayer` ■ `updatePayerContacts` ■ `updatePlanContacts` ■ `updatePlans`

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.1.1 Creating Payers

Use the `createPayer` method to create payer organizations. Creating payers involves specifying attributes such as names, dates, and verification status. The following sections describe the business rules governing the creation of payers:

- Names
- Dates
- Verification Status

Names

A payer has a long name and a short name. If there is no short name specified, it defaults to the long name. Payer names must be unique. The payer long name must be unique when compared to other payer long names. The payer short name must also be unique when compared to other payer short names. This business logic ensures that duplicate payers are not created.

Dates

A payer has effective start and end dates. The effective start date defaults to the current date, and the effective end date defaults to *null* (this behavior is typical for most HTB entities).

Verification Status

When creating a payer, you can specify its verification status as Y (Yes) or N (No), indicating if it has been verified. If no value is specified, the verification status defaults to N (No), indicating that this record has not been verified. A payer can be created during initial setup, and as new payers are added by the system administrator. Typically, these records are considered valid and thus verified. When a payer is created during the patient registration process, this data may be less reliable due to variations on names, addresses, and other attributes. The verification status defaults to N (No) during patient registration. The payer record can subsequently be updated to a verification status of Y (Yes), once it has been verified by a system administrator.

4.7.1.2 Updating Payers

Use the `updatePayer` method to update existing payer records. The business rules for payer names, dates, and verification status governing the creation of payers apply to the update of payers as well.

4.7.1.3 Creating Payer Contacts

Use the `addPayerContacts` method to create contact information such as electronic mail address, telephone number, or mailing address associated with a payer. A contact has a contact type attribute, which provides more information about the use of the contact, such as primary (payer), claims, eligibility. If no contact type is specified, the default contact type is Primary.

Payer, plan, and employer contact information contain identical attributes. The difference is that by using different interfaces, the contact information is associated with either a payer, plan, or employer. Contact types are specific for payers, plans, and employers.

See Also: ▪ Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

4.7.1.4 Updating Payer Contacts

Use the `updatePayerContacts` method to update existing contacts and addresses. The business rules governing the creation of payer contacts also apply to the update of payer contacts.

4.7.1.5 Creating Plans

Use the `addPlans` method to create plans under an existing payer. Plan creation has similar information and business logic to payer creation, such as long name, short name, effective dates, contact information, and verification status. Note that plans have benefit and copay information that are specific to insurance plans. During the patient registration process, a plan is selected as part of the patient insurance information collected.

See Also: Section 4.7.1.1, Creating Payers

4.7.1.6 Updating Plans

Use the `updatePlan` method to update existing plans. The business rules governing the creation of plans also apply to the update of plans.

4.7.1.7 Creating Plan Contacts

Use the `addPlanContacts` method to create new contacts for a plan.

See Also: Section 4.7.1.3, Creating Payer Contacts

4.7.1.8 Updating Plan Contacts

Use the `updatePlanContacts` method to modify existing contacts for a plan.

See Also: Section 4.7.1.4, Updating Payer Contacts

4.7.1.9 Creating Copays

Use the `addCopays` method to create copay information under a plan. Copays indicate the copay type and amount for which a patient is responsible. The copay amount must be greater than or equal to zero. A plan can only have one of each copay type. For example, a plan can only have one copay type and corresponding copay amount per office visit. The exception to this rule is if the copay type is *Other*.

4.7.1.10 Updating Copays

Use the `updateCopay` method to update existing copay information. The business rules governing the creation of copays also apply to updating copays.

4.7.1.11 Deleting Copays

Use the `deleteCopay` method to delete an existing copay from a plan. This method changes the specified copay status to Inactive to indicate that it has been deleted. A deleted copay cannot be reactivated.

4.7.2 Implementing Employers

Employers are associated with patient records during the patient registration process, and are handled similarly to payers in HTB—they both have similar attributes, contact information, and business rules regarding name uniqueness, dates, and verification status.

Reference

Oracle Javadoc for HTB

Table 4–56 lists the principal Employer service and methods:

Table 4–56 Service and Methods: Employers

Level	Detail
Package	`oracle.apps.ctb.configuration`
Class	`EmployerService`
Methods:	▪ `addContacts` ▪ `createEmployer` ▪ `updateContacts` ▪ `updateEmployer`

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.2.1 Creating Employers

Use the `createEmployer` method to create new employers. Employer creation is similar to payer creation. Business rules for payers and plans similarly apply to creating employers.

> **See Also:** Section 4.7.1, Implementing Payers and Plans, for information about business rules regarding name uniqueness, effective dates, and verification status.

4.7.2.2 Updating Employers

Use the `updateEmployer` method to update existing employers. The business rules governing the creation of employers also apply to the update of employers.

4.7.2.3 Creating Employer Contacts

Use the `addContacts` method to add contact information for an employer. Creating employer contacts is similar to payer creation. Business rules for payer and plan contacts similarly apply to creating employer contacts. Contact types are specific to payers, plans, and employers.

> **See Also:**
> - Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

4.7.2.4 Updating Employer Contacts

Use the `updateContacts` method to update existing contact information for an employer. The business rules governing the creation of employer contacts also apply to the update of employer contacts.

> **See Also:** Section 4.7.1, Implementing Payers and Plans

4.7.3 Implementing Care Sites

Care Site Management models physical locations within a **facility** such as rooms and beds. Rooms are classified as practice rooms (**outpatient**) or patient rooms (**inpatient**), and both are care sites. Patient rooms can also contain patient beds. Care sites can be independently defined, and later associated with a facility location or assigned to a **practice setting**.

Care Site Management and Encounter Management are directly dependent on each other. Care Site Management includes setup and removal of rooms and beds, while Encounter Management generates activity involving care sites, such as placing patients within a **care site**.

Reference

Oracle Javadoc for HTB

Table 4–57 lists the principal Care Site service and methods:

Table 4–57 Service and Methods: Care Sites

Level	Detail
Package	`oracle.apps.ctb.admin.caresite`
Class	`CareSiteService`
Methods	▪ `assignCareSiteToPracticeSetting` ▪ `cancelRemoveCareSite` ▪ `createCareSite (Patient Bed)` ▪ `createCareSite (Patient Room)` ▪ `createCareSite (Practice Room)` ▪ `inactivateCareSite` ▪ `removeCareSite` ▪ `updateCareSite` ▪ `updateCareSiteAssignment` ▪ `updateInactivePeriod`

Prerequisites

Implementing Organizations:

- An active facility location must exist.
- An active practice setting must exist.

See Also: Section 4.3, Implementing Organizations

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.3.1 Creating Care Sites

Use the `createCareSite` method to create new care sites. There are three different methods within the `CareSiteService` that each create one type of **care site**:

- Practice Room: Classifies care site as **outpatient**.
- Patient Room: Classifies care site as **inpatient**.
- Patient Bed: Classifies care site as belonging to a patient room.

There are different attributes associated with the care site depending upon the care site type. Each care site type has a unique subclass associated with it. For example, a practice room type can be an exam room, clinic room, or waiting room. A care site of type patient bed is created under a care site of type patient room. Other attributes dependent upon care site type include:

- Bed Accommodation Codes: Applicable to patient beds.
- Medical Equipment: Applicable to practice rooms and patient rooms.

These additional attributes have start and end dates to indicate the effective period during which they are associated with a particular care site.

The business rules governing the creation of care sites follow:

- The care site room number must be unique; the care site name is for display purposes. If the care site is a patient bed, the bed number must be unique within the patient room.

- A care site of type patient room or practice room is located within a facility. The care site must therefore be associated with a facility location, which is created during organization setup. The care site effective and termination dates must fall within the facility location effective start and end dates. The care site effective date must precede the termination date.
- If the care site shared flag is set to Y (Yes), the care site can be assigned to more than one practice setting.

See Also: Section 4.7.3.7, Assigning Care Sites to Practice Settings

4.7.3.2 Updating Care Sites

Use the `updateCareSite` method to update existing care sites. Because a care site has different attributes that are determined at the time of creation by its type, you cannot update the care site type. You can only update the care site shared flag from Y (Yes) to N (No) if there is only one practice setting assigned to the care site; the care site cannot be currently shared.

4.7.3.3 Removing Care Sites

Use the `removeCareSite` method to remove or set an end date for existing care sites. This method sets the termination date of the care site to the specified date. The care site cannot be removed if it has active assignments to practice settings, inactive periods, or patient beds associated with it (if the care site is a patient room). An *annulled* care site is one that has its termination date set to its effective date (to correct mistakes); it is not considered a valid care site.

4.7.3.4 Cancelling Care Site Removal

Use the `cancelRemoveCareSite` method to cancel a care site removal. This sets the termination date to *null*.

4.7.3.5 Inactivating Care Sites

Use the `inactivateCareSite` method to temporarily close a care site, such as for renovation. During an inactive period, a care site is considered out of commission. You can specify the inactivation and reactivation dates, which must fall within the care site effective and termination dates. A care site can only have one future inactivate period specified at a time.

4.7.3.6 Updating Care Site Inactive Periods

Use the `updateInactivePeriod` method to update a care site inactive period, such as to shorten or extend a planned inactive period. Past Inactive periods cannot be updated.

4.7.3.7 Assigning Care Sites to Practice Settings

Use the `assignCareSiteToPracticeSetting` method to assign a care site to a practice setting, so that it can be used by an encounter. You can assign a care site to a practice setting by specifying assignment start and end dates to indicate when the association is in effect. The assignment start and end dates must fall within the practice setting and care site effective and termination dates; both the practice setting and care site must be active during the assignment. Like other date pairs, the assignment end date must be greater than or equal to the assignment start date.

The practice setting and care site must fall under the same facility organization; the practice setting must be a child organization of the facility where the care site is located.

A care site can be assigned to more than one practice setting if the care site shared flag is set to Y (Yes). If the care site shared flag is set to N (No), then the care site can only be assigned to one practice setting.

Regardless of the shared flag value, a care site can only be assigned to a practice setting once; it cannot have multiple assignments to the same practice setting at the same time. Use the `updateCareSiteAssignment` method to specify separate assignments to the same practice setting—for example, if the care site is assigned to a practice setting during multiple time intervals.

4.7.3.8 Updating Care Site Assignments to Practice Settings

Use the `updateCareSiteAssignment` method to update a care site assignment to a practice setting. For example, you may choose to shorten or extend an assignment.

4.7.4 Implementing Staff Registration

Staff Registration lets you create and manage information about each staff member within a healthcare **enterprise**. It supports the creation and activation of both staff members and staff positions as well as the assignment of staff members to staff positions.

Staff Registration is referenced by the following HTB services:

- **Encounter Management:** Staff members are participants in encounters with patients.
- **Workgroup Management:** Staff members have access to certain functions and data through staff position membership in certain workgroups.

Reference

Oracle Javadoc for HTB

Table 4–58 lists the principal Staff Registration service and methods:

Table 4–58 Service and Methods: Staff Registration

Level	Detail
Package	`oracle.apps.ctb.admin.staff`
Class	`PositionService`
Methods	■ `CreatePosition` ■ `createStaffMembers` ■ `updatePosition` ■ `UpdateStaffMembers`

Prerequisites

- **Implementing Person Services: A person record must exist.**
- **Implementing Organizations: An enterprise and an optional facility must exist.**

See Also:

- Section 4.2, Implementing Person Services
- Section 4.3, Implementing Organizations

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.4.1 Creating Positions

Use the `createPosition` method to create a new position, and optionally assign a staff member. For each position, you must specify the following:

- The associated enterprise or facility.
- The position status.
- The medical staff status.
- Position activation and inactivation dates; the activation date must precede the inactivation date.
- The position job title.

4.7.4.2 Creating Staff Members

Use the `createStaffMembers` method to create new staff members. For each staff member, you must specify the following:

- The person (must exist in Person Services, or be created within Person Services) for whom to create a staff member record.
- The associated enterprise.

4.7.4.3 Updating Positions

Use the `updatePosition` method to update an existing position, and optionally assign a staff member. Business rules governing the creation of positions also apply to the updating of positions.

4.7.4.4 Updating Staff Members

Use the `updateStaffMembers` method to update existing staff members. Business rules governing the creation of staff members also apply to the update of staff members.

4.7.5 Implementing Workgroups

Membership in a workgroup provides healthcare organization staff members with common access to certain business functions and data elements within a clinical software system. Staff members can belong to different workgroups, depending upon their staff positions.

Reference

Oracle Javadoc for HTB

Table 4–59 lists the principal Workgroup service and methods:

Table 4–59 Service and Methods: Workgroups

Level	Detail
Package	`oracle.apps.ctb.admin.staff.workgroups`
Class	`WorkgroupService`
Methods	▪ `addWorkgroup` ▪ `inactivateWorkgroup` ▪ `updateWorkgroup`

Prerequisites

Implementing Staff Registration: Staff member and staff position records must exist.

> **See Also:** Section 4.7.4, Implementing Staff Registration

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.5.1 Creating Workgroups

Use the `addWorkgroup` method to create new workgroups. This method creates a workgroup within an organization to which workgroup members can be added.

Business rules governing creation of workgroups are described in the following sections:

- Organizations
- Workgroup Membership
- Workgroup Type
- Dates

Organizations

A workgroup must be associated with an enterprise or facility organization, which lets members of the workgroup access functions or data associated with that organization. A workgroup can only be associated with one organization unit. The workgroup name is mandatory and must be unique within the organization. However, the same workgroup name can be used at another organization, such as the enterprise itself, or another facility within the same enterprise.

Workgroup Membership

Healthcare staff members acquire membership in workgroups through their staff positions. This membership lets staff members access certain functions and data sets, depending upon the particular positions they hold. The workgroup and staff position can belong to either an enterprise organization or to a facility organization. In either case, the workgroup and staff position organizations must exist within the same enterprise or roll up to the same enterprise. If one belongs to an enterprise and the other belongs to a facility, the facility must be subordinate to the enterprise. If both belong to the same or different facilities, the facilities must be subordinate to the same enterprise.

A single staff position cannot have overlapping membership dates in the workgroup. Use the `updateWorkgroup` method to change or extend a position membership.

Workgroup Type

The workgroup type is mandatory and categorizes the workgroup into a functional classification. The customer is responsible for populating the `CTB_EM_MEDICAL_SERVICE_CODE` concept list with the desired values for workgroup type.

See Also:

- Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*
- Section 4.5, Implementing Enterprise Terminology Services, for information about registering specific lookup values.

1 Lookup Types are synonymous with concept lists.

Dates

The workgroup has a set of effective start and end dates. In addition to the requirement that the start date must precede the end date, these dates must be consistent with the workgroup membership start and end dates and the organization effective and termination dates. The workgroup effective start date defaults to the organization effective date or the current date, whichever is greater. If the organization has a future termination date, the workgroup effective end date defaults to that date, or can be set to an earlier date.

Similarly, when assigning members to a workgroup, the workgroup membership effective start date defaults to the workgroup effective date or current date, whichever is greater. If the workgroup has an effective end date in the future, the membership effective end date defaults to that date, or can be set to an earlier date.

4.7.5.2 Updating Workgroups

Use the `updateWorkgroup` method to update an existing workgroup. Business rules governing the creation of workgroups also apply to the update of workgroups, although there are some additional business rules regarding retroactive date changes and the update of the effective end date of a workgroup.

Retroactive changes to start and end dates that precede the current date are not allowed. A workgroup cannot be created with its effective start and end dates set to a prior period. If a workgroup is active, its effective start date cannot be updated. If a workgroup has expired, its effective end date cannot be updated.

Use the `updateWorkgroup` method to inactivate a workgroup on a future date.

See Also: Section 4.7.5.3, Inactivating Workgroups

4.7.5.3 Inactivating Workgroups

Use the `inactivateWorkgroup` method to inactivate a workgroup by setting its effective end date. This date must be within the organization termination date. Consistent with restrictions on retroactive changes, the workgroup's effective end date cannot precede the current date. If the workgroup is currently active, the effective end date defaults to the current date. If the workgroup has a future effective start date, the effective end date defaults to the same date.

To inactivate the workgroup on a specific date, use the `updateWorkgroup` method to set the effective end date to a future date.

Note that neither the `inactivateWorkgroup` method nor the `updateWorkgroup` method can inactivate a workgroup containing active memberships. If active memberships do exist, you must set their end dates before inactivating the workgroup.

4.7.6 Implementing Patient Registration

Patient Registration maintains the foundational data set necessary to support encounter management and patient accounting activities within a healthcare organization. The patient registration process includes the capture of patient demographic, medical, insurance, and employer information.

Patient Registration is integrated within the following HTB services:

- **Person Services:** Provides a single repository for all patient data. Patient data can be masked (using patient pseudonym) for privacy or business reasons, while maintaining a single identifying record for the person.
- **Encounter Management:** Patients participate in and are subjects of encounters.
- **Patient List:** Patient census data is displayed in patient lists.

Reference

Oracle Javadoc for HTB

Table 4–60 lists the principal Patient Registration service and methods:

Table 4–60 Service and Methods: Patient Registration

Level	Detail
Package	`oracle.apps.ctb.admin.patient.registration`
Class	`PatientService`

Table 4–60 (Cont.) Service and Methods: Patient Registration

Level	Detail
Methods	■ `assignEmployers` ■ `assignInsurances` ■ `assignPcps` ■ `createMedicalRecords` ■ `createPatient` ■ `createPatientContacts` ■ `createPatientGuarantors` ■ `findEmployers` ■ `findInsurances` ■ `findPatientContacts` ■ `findPatientGuarantors` ■ `getMedicalRecordByExternalid` ■ `getMedicalRecordByMedicalRecordNumber` ■ `getMedicalRecords` ■ `getPatient` ■ `getPcps` ■ `updateEmployers` ■ `updateInsurances` ■ `updateMedicalRecords` ■ `updatePatient` ■ `updatePatientContacts` ■ `updatePatientGuarantors` ■ `updatePcps`

Prerequisites

- **Implementing Organizations:**
  - An enterprise must exist to create a patient record.
  - An enterprise or facility organization must exist—with the role of MRI (Medical Record Issuer), indicating the ability to create medical records.
- **Implementing Person Management: A** person record must exist.

- **Implementing Payers and Plans:** A payer record and a plan record must exist to assign a patient to an existing payer or plan; otherwise, you can create a new payer or plan.
- **Implementing Employers:** An employer record must exist to assign a patient to an existing employer; otherwise, you can create a new employer.
- **Implementing Staff Registration:** A staff member record must exist to assign a patient to an existing primary care provider; otherwise, you can specify a non-registered provider.

See Also:

- Section 4.3, Implementing Organizations
- Section 4.2.4, Implementing Person Management
- Section 4.7.1, Implementing Payers and Plans
- Section 4.7.2, Implementing Employers
- Section 4.7.4, Implementing Staff Registration

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.6.1 Creating Patients

Use the `createPatient` method to create new patients from an existing person record and associate them with an enterprise organization. You can specify the following optional information for the patient:

- **Religious:** Place of worship.

- **Tribal Membership:** Tribal Affiliation (a more specific classification of ethnicity; for example, if ethnicity is Native American, tribal membership might be Cherokee Nation, Oklahoma).
- **Medical:** Primary care physician.
- **Insurance:** Insurance carrier, plan, and dates of coverage.
- **Employment:** Employer and dates of employment.

Use the `createPatient` method to create a temporary patient from an existing temporary person record.

See Also:

- Section 4.2.4, Implementing Person Management
- Section 4.2.4.5, Creating Temporary Persons

The following sections describe additional HTB methods that let you associate patients with existing payers, plans, employers, and staff members, contacts, and guarantors—or let you create new ones:

- Section 4.7.6.2, Updating Patients
- Section 4.7.6.3, Assigning Insurance Information to Patients
- Section 4.7.6.4, Updating Insurance Information Assigned to Patients
- Section 4.7.6.5, Assigning Employer Information to Patients
- Section 4.7.6.6, Updating Employer Information Assigned to Patients
- Section 4.7.6.7, Assigning Primary Care Physician Information to Patients
- Section 4.7.6.8, Updating Primary Care Physician Information Assigned to Patients
- Section 4.7.6.9, Creating Patient Medical Records
- Section 4.7.6.10, Updating Patient Medical Records
- Section 4.7.6.11, Creating Patient Contacts
- Section 4.7.6.12, Updating Patient Contacts
- Section 4.7.6.13, Creating Patient Guarantors
- Section 4.7.6.14, Updating Patient Guarantors

4.7.6.2 Updating Patients

Use the `updatePatient` method to update information for an existing patient. Business rules governing the creation of patients also apply to updating patients.

4.7.6.3 Assigning Insurance Information to Patients

Use the `assignInsurances` method to assign insurance information to a patient. This includes payer, plan, and policy holder employer information to be associated with a patient, as well as claim, copay, and eligibility information. Note that this method creates new employer records if necessary. Insurance claim filing order must be in numerical sequence. The copay amount must be greater than or equal to zero.

4.7.6.4 Updating Insurance Information Assigned to Patients

Use the `updateInsurances` method to update information for an existing patient. Business rules governing the creation of patient insurance information also apply to updating such information.

4.7.6.5 Assigning Employer Information to Patients

Use the `assignEmployers` method to assign employer information to patients, including the policy holder employer, patient dates of employment, and patient job title.

You can assign the patient to an existing policy holder employer by specifying an existing employer identifier. Or you can create a new employer record to assign to the patient, by specifying the employer attributes (such as name, address, phone number). You cannot specify both. If you do, only the employer identifier is accepted, and the other attribute information is ignored.

The employment start date must precede the employment end date. Multiple assignments to the same employer are allowed, as long as the employment start and end dates of each assignment do not overlap. Multiple assignments with overlapping dates are not allowed.

> **See Also:** Section 4.7.2, Implementing Employers, to create a new employer record with unverified status.

4.7.6.6 Updating Employer Information Assigned to Patients

Use the `updateEmployers` method to update employment assignment information for a patient. Do not confuse this method with the (`EmployerService`) `updateEmployer` interface, which is used to update existing employer records created with the (`EmployerService`) `createEmployer` interface.

The (`PatientService`) `updateEmployers` interface lets you update the patient job title and effective dates of employment only, but not the employer information.

4.7.6.7 Assigning Primary Care Physician Information to Patients

Use the `assignPcps` method to assign a primary care physician (PCP) to a patient. You can specify an existing staff member, but you cannot create a new staff member record during this process (as you can with assigning a payer or employer to the patient). If the PCP does not exist as a staff member, you can specify a non-registered provider name and telephone number as the PCP. These two options are mutually exclusive.

The PCP-to-patient assignment has effective start and end dates, where the effective start date must precede the end date. Multiple assignments of the same PCP to the same patient are permitted, as long as the assignment effective dates do not overlap.

4.7.6.8 Updating Primary Care Physician Information Assigned to Patients

Use the `updatePcps` method to update existing primary care provider information assigned to a patient. Business rules governing the creation of PCP information assigned to patients also apply for updating such information.

4.7.6.9 Creating Patient Medical Records

Use the `createMedicalRecords` method to create a medical record for a patient at an enterprise or facility organization, once a patient receives treatment at the organization (this is usually a facility, such as a hospital or clinic). The organization must have a role of MRI (Medical Record Issuer), indicating the ability to create medical records. This process generates a unique **medical record number** for the patient at that organization. You can optionally flag the medical record as VIP, indicating that the patient should receive special treatment.

4.7.6.10 Updating Patient Medical Records

Use the `updateMedicalRecords` method to update existing medical records for a patient. Business rules governing the creation of patient medical records also apply to updating such records.

4.7.6.11 Creating Patient Contacts

Use the `createPatientContacts` method to create contact records for a patient. The type of contact must be emergency contact or next of kin. The record can include the following information:

- Contact person relationship to the patient
- Contact name
- Contact address
- Contact telephone number
- Contact e-mail address
- Effective dates of the information

A patient can have multiple contact records.

4.7.6.12 Updating Patient Contacts

Use the `updatePatientContacts` method to update existing contact records for a patient. Business rules governing the creation of patient contacts also apply to updating such records.

4.7.6.13 Creating Patient Guarantors

Use the `createPatientPersonGuarantors` method to create guarantor records for a patient. The record can include the following information:

- Guarantor relationship to the patient
- Guarantor name
- Guarantor address
- Guarantor telephone number
- Guarantor e-mail address
- Guarantor employer
- Effective dates of the information

A patient can have multiple guarantor records.

4.7.6.14 Updating Patient Guarantors

Use the updatePatientPersonGuarantors method to update existing guarantor records for a patient. Business rules governing the creation of patient guarantors also apply to updating such records.

4.7.7 Implementing Wait List Management

Wait List Management lets you create and manage wait lists and their entries. Organized by staff member, care site, appointment type, appointment series, or organization unit, wait lists are composed of entries, representing patients waiting for appointments.

Reference

Oracle Javadoc for HTB

Table 4–61 lists the principal Wait List Management service and methods:

Table 4–61 Service and Methods: Wait List Management

Level	Detail
Package	`oracle.apps.ctb.admin.waitlist`
Class	`WaitListService`
Methods	■ `createWaitList` ■ `createWaitListEntry` ■ `deleteWaitList` ■ `deleteWaitListEntry` ■ `findWaitList (Advanced Mode)` ■ `findWaitList (Basic Mode)` ■ `findWaitListEntry (Advanced Mode)` ■ `findWaitListEntry (Basic Mode)` ■ `getWaitList` ■ `getWaitListEntry` ■ `moveWaitListEntries` ■ `updateWaitList` ■ `updateWaitListEntry`

Prerequisites

- Implementing Organizations: An organization unit must exist to be associated with a wait list.
- Implementing Care Sites: a Care site must exist to be associated with a wait list.
- Implementing Staff Registration: A staff member must exist to be associated with a wait list.
- Implementing Patient Registration: A patient with a medical record must exist for a wait list entry to be created.
- Implementing Patient Scheduling: An appointment type and an appointment series must exist to be associated with a wait list.
- Creating a Concept List: Values for extensible Wait List Management concept lists should be created as required.
- Creating Action Reason Code Values: Values for action reason codes must exist (*Oracle Javadoc Lookup Type Index (concept lists)*).

See Also:

- Section 4.3, Implementing Organizations
- Section 4.7.3, Implementing Care Sites
- Section 4.7.4, Implementing Staff Registration
- Section 4.7.6, Implementing Patient Registration
- Section 4.7.8, Implementing Patient Scheduling
- Section 4.5.7.1, Creating a Concept List
- Appendix G, Predefined Concept Lists
- Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.7.1 Creating Wait Lists

Use the `createWaitList` method to create new wait lists. You can create wait lists of the following appointment classes:

- Inpatient
- Ambulatory (outpatient)
- Emergency

Wait lists must be associated with at least one of the following:

- One or more organization units
- One resource (staff member, care site)
- One or more appointment types or appointment series

Appointment types associated with a wait list must have valid organization appointment types defined at each wait list organization unit specified.

Applications can define a sort order among the following weighting factors to help determine the sequence of entries within a wait list:

- Severity
- Date added to wait list
- Referral date
- Date referral received

4.7.7.2 Creating Wait List Entries

Use the `createWaitListEntry` method to create new wait list entries. For each entry, you must specify:

- One or more patients
- Wait list

- Severity (extensible lookup—seeded values are urgent, soon, routine)
- Referral date, if applicable
- Date referral received, if applicable

If an appointment type and more than one patient are specified, the appointment type setting controls the maximum number of patients that can participate in the type of appointment.

Organization units, staff member, care site, appointment types and appointment series are not stored at the entry level, but are associated (when present) through the wait list linked to the entry.

Wait List Management stores the date an entry is added to a wait list, along with the start and end effective dates for the wait list entry object. Actions, action dates and action reasons are stored when an entry is altered. Most recent action attributes are available in this release. Versioning of entries, which captures all actions and action attributes, will be available in a subsequent release.

4.7.7.3 Deleting Wait Lists

Use the `deleteWaitList` method to inactivate wait lists by changing their status to inactive. If the effective end date is specified, the wait list remains active until the specified date. The effective end date must be greater than or equal to the current system date. Wait lists that contain active wait list entries cannot be inactivated; the entries must first be transferred or removed.

4.7.7.4 Deleting Wait List Entries

Use the `deleteWaitListEntry` method to inactivate wait list entries by changing their status to removed. If the effective end date is specified, the wait list entry remains active until the specified date. The effective end date must be greater than or equal to the current system date. You can select an action reason from a list of values.

4.7.7.5 Finding Wait Lists

Use the `findWaitList` method to find wait lists that match the input search criteria, or have wait list entries that match the criteria. Use *basic mode* to search by a single value of a search parameter; use *advanced mode* to search by multiple values or multiple search parameters.

4.7.7.6 Finding Wait List Entries

Use the `findWaitListEntry` method to find wait list entries that match the input search criteria. Use *basic mode* to search by a single value of a search parameter; use *advanced mode* to search by multiple values or multiple search parameters.

4.7.7.7 Getting Wait Lists

Use the `getWaitList` method to get a single wait list and its entries by its wait list identifier.

4.7.7.8 Getting Wait List Entries

Use the `getWaitListEntry` method to get a single wait list entry by its wait list entry identifier.

4.7.7.9 Moving Wait List Entries

Use the `moveWaitListEntries` method to transfer specified entries from their current wait list to the target wait list.

4.7.7.10 Updating Wait Lists

Use the `updateWaitList` method to update an existing wait list. Business rules governing the creation of wait lists also apply to the updating of wait lists. All wait list attributes can be edited at any time, regardless of wait list status. To reactivate a wait list that has been inactivated, you can update the status to *active*. This action will only affect the wait list status and will not re-establish any entries that have been transferred or removed.

4.7.7.11 Updating Wait List Entries

Use the `updateWaitListEntry` method to update existing wait list entries. Business rules governing the creation of wait list entries also apply to the updating of wait list entries. All wait list entry attributes can be edited; edits can be made to entries of any status except *removed*. To suspend, reactivate, complete, or nullify a wait list entry, you can change the wait list entry status. You can select an action reason from the list of values each time an action is initiated. You can add patients to or remove them from an entry.

4.7.8 Implementing Patient Scheduling

Patient Scheduling lets you create and manage appointments. Appointments specify the time to perform an examination or procedure, and the care site and the staff requirements to carry it out. Patient Scheduling provides the mechanism to create, reschedule and cancel single and multiple resource appointments.

> **Note:** Patient Scheduling is a beta release. It relies heavily upon Resource Management, which is not included in this release.

Reference

Oracle Javadoc for HTB

Table 4–62 lists the principal Patient Scheduling service and methods:

Table 4–62 Service and Methods: Patient Scheduling

Level	Detail
`Package`	`oracle.apps.ctb.admin.scheduling`
`Class`	`AppointmentService`
`Methods`	■ `cancelAppointment` ■ `cancelAppointmentCollection` ■ `checkInAppointment` ■ `createAppointment` ■ `createAppointmentCollection` ■ `createQuestionAnswer` ■ `findAppointmentCollections(Advanced Mode)` ■ `findAppointmentCollections(Basic Mode)` ■ `findAppointments(Advanced Mode)` ■ `findAppointments(Basic Mode)` ■ `findQuestionAnswers` ■ `getAppointment` ■ `getAppointmentCollection` ■ `getQuestionAnswer` ■ `rescheduleAppointment` ■ `updateAppointment` ■ `updateQuestionAnswer`
`Class`	`AppointmentTypeService`

Table 4–62 (Cont.) Service and Methods: Patient Scheduling

Level	Detail
Methods	■ createAppointmentType ■ deleteAppointmentType ■ findAppointmentTypes(AdvancedMode) ■ findAppointmenttypes(Basic Mode) ■ getAppointmentType ■ updateAppointmentType
Class	AppointmentSeriesService
Methods	■ createSeriesDefinition ■ deleteSeriesDefinition ■ findSeriesDefinitions ■ getSeriesDefinition ■ updateSeriesDefinition
Class	AppointmentQuestionService
Methods	■ createQuestion ■ deleteQuestion ■ findQuestions ■ getQuestion ■ updateQuestion

Prerequisites

- Implementing Organizations: An organization unit must exist for an appointment or organization appointment type to be created.
- Implementing Resource Management: A resource or resource group must exist to be associated with an appointment, organization appointment type or appointment question.

> **Note:** Resource Management is not available in this release.

- Implementing Patient Registration: A patient with a medical record must exist for appointment of status *booked* to be created.

- Implementing Enterprise Terminology Services: ETS must be implemented, to facilitate creation of concept lists.
- Creating a Concept List: Values for extensible Patient Scheduling concept lists should be created as required.
- Defining Concept List Values: Values for appointment type names must be defined for organization appointment types to be created. Values for codes (such as ICD-9, CPT-4, others) and procedure categories must exist to be associated with appointment types.

See Also:

- Section 4.3, Implementing Organizations
- Section 4.5, Implementing Enterprise Terminology Services
- Section 4.5.7, Managing Concept Lists
- Section 4.7.6, Implementing Patient Registration
- Appendix G, Predefined Concept Lists
- Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.8.1 Managing Appointment Types

Use the `createAppointmentType` method to create appointment types. Appointment types describe the duration, description, and resource requirements of the appointment, and the actions to be performed. The appointment type name is defined using Enterprise Terminology Services. This method (i) associates the name, procedure category (category code), and appointment codes with the appointment type, and (ii) associates organization-specific attributes with the organization appointment type. Organization appointment types contain attributes unique to each organization.

Use the `deleteAppointmentType` method to render an appointment type inactive on the effective end date specified.

Use the `findAppointmentTypes` method to find appointment types that match the input search criteria, or have appointment types that match the criteria. Use *basic mode* to search by a single value of a search parameter; use *advanced mode* to search by multiple values or multiple search parameters. Appointment type identifiers are returned.

Use the `getAppointmentType` method to get a single appointment type by its appointment type identifier. All attributes are returned.

Use the `updateAppointmentType` method to update the appointment type with any changed attributes.

4.7.8.2 Managing Appointment Series Definitions

Use the `createSeriesDefinition` method to create a new appointment series definition. Appointment series let a user schedule a set of predefined, related appointments, including specified appointment types, with just a few steps.

For example, anemic patients may be scheduled for an initial consultation followed by an optional diagnostic blood test on the same day, followed by a blood transfusion within twenty-four hours, followed by a fifteen minute follow-up within 7 days.

Prior to the creation of any sequential appointments, the system administrator must configure the appointment series definition along with the appropriate rules that the system must follow in order for the appointment series to be valid.

For example, if there is a minimum or maximum amount of time that can occur between each appointment in the series, these time constraints can be configured.

Use the `deleteSeriesDefinition` method to delete an appointment series definition on the effective end date specified.

Use the `findSeriesDefinitions` method to find appointment series definitions based on appointment series name or short name.

Use the `getSeriesDefinition` method to get a single appointment series definition by its appointment series definition identifier.

Use the `updateSeriesDefinition` method to update the appointment series definition with any modified information.

4.7.8.3 Managing Appointment Questions

Use the `createQuestion` method to create a new appointment question definition and map the question to organization appointment types, organization units or resources. For questions that have answers of type LOV, LOVs can be added at the time of question creation.

Use the `deleteQuestion` method to inactivate an appointment question definition on the effective end date.

Use the `findQuestions` method to find appointment question definitions. Note that no mappings or LOV answers are returned with this method.

Use the `getQuestion` method to get a question by its appointment question definition identifier. All attributes, LOV answers and mappings are returned.

Use the `updateQuestion` method to update an appointment question. If it is past the start date of the appointment question, the definition of the questions, such as name, text, LOVs, cannot be changed. However, question mappings to appointment types, resources and organization units can be added and deleted. For questions that have answers of type LOV, LOVs are added, removed and updated using this method. The list contained in `getQuestionLOVs` array becomes the new LOV list after the update method call.

4.7.8.4 Managing Appointments

Use the `createAppointment` method to create a new appointment. Time, duration, and resources must be specified. If no patient is associated with the appointment, the appointment status is set to *reserved*. A successfully created appointment that contains a patient has a status of *booked*. Application search availability methods can be used to first determine appointment availability prior to using this method.

Use the `cancelAppointment` method to cancel the appointment. Select from the lookup values to provide required values for cancel reason and cancel initiator. Only appointments that have not yet been checked in can be cancelled.

Use the `findAppointments` method to find appointments that match the input search criteria. Use `basic mode` to search by a single value of a search parameter; use `advanced mode` to search by multiple values or multiple search parameters.

Use the `getAppointment` method to get a single appointment by its appointment identifier. All existing attributes for the appointment are returned.

Use the `rescheduleAppointment` method to reschedule the appointment with a new date, time, appointment type, or resource. Only appointments that have not yet been checked in can be rescheduled.

Use the `updateAppointment` method to add and remove patients, and to update any of the following appointment attributes:

- Chief complaint
- Referral provider
- Insurance information
- Appointment codes
- Special requests
- Notes

Only appointments that have not yet been checked in can be updated.

Use the `checkInAppointment` method to update the appointment with the status of *completed*. Encounter Service APIs can be used to manage the associated encounters for completed appointments. Appointments with status *reserved* must first have a patient associated before being checked in.

Use the `createQuestionAnswer` method to create an answer to a question associated with a patient appointment.

Use the `findQuestionAnswers` method to find answers to all questions based on the patient appointment identifier.

Use the `getQuestionAnswer` method to get a single answer to a question by its appointment answer identifier.

Use the `updateQuestionAnswer` method to update the answers to a question associated with a patient appointment.

Use the `createAppointmentCollection` method to create a new appointment collection. Collections can be of type *repeating series* or *appointment series.* Repeating series are not defined in advance. The application can create appointments based on repeating intervals and use this method to group them as a series. Appointment series collections are groupings of appointments that are created using appointment series definitions.

Use the `cancelAppointmentCollection` method to cancel all appointments in the collection. Individual appointments in the collection can alternatively be cancelled one at a time, using the `cancelAppointment` method.

Use the `findAppointmentCollections` method to find appointment collections that match the input search criteria. Use *basic mode* to search by a single value of a search parameter; use *advanced mode* to search by multiple values or multiple search parameters.

Use the `getAppointmentCollection` method to get a single appointment collection by its appointment collection identifier.

4.7.8.5 Workflow Setup Recommendations

You can configure Oracle Workflow to use the `cancelAppointment` method to automatically cancel an appointment and notify any associated resources, if no patients are scheduled within a configurable amount of time from the appointment start time. The workflow administrator can configure the timeout process by indicating the number of minutes (positive if before, negative if after) relative to the appointment start time. You can also define the frequency and start time for the work flow.

4.7.9 Implementing Encounter Management

Encounter Management provides a mechanism for creating and managing an **encounter** between a practitioner and a patient, at a specific location for a specified time period. Encounter records contain administrative, financial, and clinical data related to one or more encounters for each patient.

Encounters can be organized by **encounter group**, which can contain individual encounters or other encounter groups. Examples of encounter groups include:

- Clinical studies
- Episodes of care
- Group therapy
- Recurring treatment

Two encounters, for the same or different patients, can be linked when they have a specific relationship (clinical, administrative, financial...). Examples of encounter links include:

- Donor to recipient
- Mother to newborn

- Pre-admit testing in advance of a planned procedure
- Emergency visit to subsequent inpatient admission

Reference

Oracle Javadoc for HTB

Table 4–63 lists the principal Encounter Management service and methods:

Table 4–63 Service and Methods: Encounter Management

Level	Detail
Package	`oracle.apps.ctb.admin.encounter`
Class	`EncounterService`
`Methods`	▪ `createEncounter` ▪ `CreateEncounterGroup` ▪ `findDependents` ▪ `findEncounters` ▪ `findEncounters (Summary Encounter)` ▪ `findEncounterXRefByInstanceIdentifier` ▪ `findEncounterGroups` ▪ `getEncounter` ▪ `getEncounter (Summary Encounter)` ▪ `getEncounterByExternalIdentifier` ▪ `getEncounterGroup` ▪ `performAction` ▪ `performActions` ▪ `updateEncounter` ▪ `updateEncounterGroup`

Prerequisites

- **Implementing Organizations:** A practice setting and facility must exist.
- **Implementing Care Sites:** A care site must exist and be assigned to a practice setting.
- **Implementing Staff Registration:** A staff member must exist.

- **Implementing Patient Registration:** A patient with a medical record must exist.

  See Also:

  - Section 4.3, Implementing Organizations
  - Section 4.7.3, Implementing Care Sites
  - Section 4.7.4, Implementing Staff Registration
  - Section 4.7.6, Implementing Patient Registration

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.9.1 Creating Encounters

Use the `createEncounter` method to create new encounters. The following class of encounters can be created:

- Inpatient (Inpatient stay)
- Ambulatory (Outpatient visit)
- Emergency (Emergency visit)

4.7.9.2 Finding Encounters

User the `findEncounters` method to find encounters of a single class or all classes. For single class searches there are difference search criteria for inpatient stays, outpatient visits, and emergency visits. For searches across encounter classes there are summary encounter search criteria.

Given an encounter identifier or other search criteria, use the `findDependents` method to find the following associated encounter objects:

- Accompanying persons

- Care sites
- Insurance coverage
- Links
- Notes
- Practice settings
- Staff participations
- Cross references
- Leaves of absence
- Special requests

You can also use the `findEncounterXRefsByInstanceIdentifier` method to find a CTB encounter identifier based on an external identifier.

4.7.9.3 Getting Encounters

Use the `getEncounterByExternalIdentifier` method to get an externally identified encounter.

4.7.9.4 Performing Actions

Use the `performAction` method to perform a specific action on an encounter. use the `performActions` method to perform more than one action on an encounter. With both methods either the encounter or encounter ID is used as a parameter.

The following actions are supported:

- Assign location
- Cancel
- Entered in error
- Inpatient stay
  - Admit
  - Decease Patient
  - Discharge
  - Leave
  - Pending Admit

  - Preadmit
  - Return From Leave
  - Swap Care Site
  - Transfer Attending Physician
  - Transfer Location
  - Transfer Medical Service
  - Transfer Type
- Visit
  - Checkin
  - Checkout

4.7.9.5 Updating Encounters

Use the `updateEncounter` method to update existing encounters. Business rules governing the creation of encounters also apply to the updating of encounters.

4.7.9.6 Grouping Encounters

Use the `createEncounterGroup` method to create a new encounter group. Encounter groups contain many of the same attributes that can be applied at the individual encounter level. Encounters or other encounter groups can participate as members of an encounter group, thereby supporting a hierarchy of encounters. A single encounter group's members can include a combination of individual encounters and encounter groups.

4.7.9.7 Finding Encounter Groups

Encounter groups can be searched using the attributes in the `EncounterGroupSearchCriteria`, using the `findEncounterGroups` method.

For searches of group members or confidentiality codes associated with a group, use the `findDependents` method.

4.7.9.8 Updating Encounter Groups

Use the `updateEncounterGroup` method to update an encounter group, including its members.

4.7.9.9 Linking Encounters

Encounter links are created within the `updateEncounter` method.

4.7.9.10 Encounter Bed Management

Encounter Management and Care Site Management jointly provide the bed management mechanism with a healthcare organization.The `CareSiteService` interface provides some of the methods.

However, the daily operations of bed management are distinguished from the administrative creation and maintenance of care sites. Patient movements in and out of care sites are consequences of encounter actions, and subsequent activities such as housekeeping and maintenance are thus handled as part of bed management. Such activities include the following:

- Reserving Care Sites
- Cancelling Care Site Reservations
- Requesting Care Site Housekeeping or Maintenance Activity
- Updating Care Site Housekeeping or Maintenance Activity

Reserving Care Sites

Use the `reserveCareSite` method to reserve a care site from the current date forward. The care site can be reserved in anticipation of a pending encounter, or for a specific encounter. The care site status changes to `STATUS_RESERVED.`

Cancelling Care Site Reservations

Use the `cancelCareSiteReservation` method to cancel an existing care site reservation. This clears out the reserved reason and reserved from date. The care site status changes to `STATUS_EMPTY`.

Requesting Care Site Housekeeping or Maintenance Activity

Use the `requestCareSiteActivity` method to request housekeeping or maintenance for a care site (for example, after a patient has checked out). Specify whether the activity type is Housekeeping or Maintenance and a comment. The activity request date defaults to the current date and time, and the Housekeeping/Maintenance flag is set to Yes.

Updating Care Site Housekeeping or Maintenance Activity

Use the `careSiteActivityComplete` method to indicate that a requested care site activity is complete. Specify the care site identifier and whether the activity type is Housekeeping or Maintenance. The activity request date and comment are reset to *null*.

4.7.10 Implementing Patient List

Patient List maintains the foundational data set necessary to support creation and retrieval of patient lists within a healthcare organization. Patient lists are routinely viewed by organization staff members on a daily basis. Access to patient lists is based on workgroups, to which the staff members must belong to view the patient list data. Patient lists are location-based, encounter-based, service-based or manual.

Patient List interfaces let you perform the following functions:

- Creation, updating and retrieval of location, service, and encounter-based patients lists.
- Creation, updating and retrieval of manual patient lists.
- Addition and removal of patients to and from manual patient lists.
- Addition and removal of columns from patient lists.

Reference

Oracle Javadoc for HTB

Table 4–64 lists the principal Patient List service and methods:

Table 4–64 Service and Methods: Patient List

Level	Detail
Package	`oracle.apps.ctb.admin.patient.list`
Class	`PatientListService`
Methods	■ `createList` ■ `deleteList` ■ `populateList` ■ `updateList`

Prerequisites

Implementing Administrative Business Services (generates records upon which patient lists are based).

> **See Also:** Section 4.7, Implementing Administrative Business Services

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.7.10.1 Creating Lists

Use the `createList` method to create a new patient list. The list can be of type Location, Appointment, Service, or Custom. The main patient list interface consists of attributes common to all list types, such as columns, name of list, patients on the list, start and end dates. The list types extend the main patient list interface and provide additional attributes on which to base the patient list:

- **Appointment List:** Provides patient list based on practice setting and appointment time.
- **Location List:** Provides patient list based on practice setting.
- **Service List:** Provides patient list based on medical service.
- **Custom List:** Provides **m**anual patient list.

Specifying the workgroup identifier lets staff members of the workgroup view the data on the list.

> **See Also:** Section 4.7.5, Implementing Workgroups

4.7.10.2 Updating Lists

Use the `updateList` method to update an existing patient list. Business rules governing the creation of patient lists also apply to the updating of patient lists.

4.7.10.3 Populating Lists

Use the `populateList` method to return the patient records on a given list. The person-related demographic information for each patient on the list is returned.

4.7.10.4 Deleting Lists

Use the `deleteList` method to delete a specified list from the system.

4.8 Implementing Clinical Business Services

Clinical Business Services is a set of API services that provide structured access to the HTB data repository for healthcare clinical management activities. A fundamental goal of HTB is to support the development of healthcare applications, including clinical terminology requirements.

Prerequisites

- Implementing Security Services:
  - An administrative security role should be created and assigned all of the protected functions in Organization Services.
  - An administrative account should be created, as a member of the security role.
- Implementing Audit Services
- Implementing Administrative Business Services

See Also:

- Section 4.6, Implementing Audit Services
- Section 4.7, Implementing Administrative Business Services

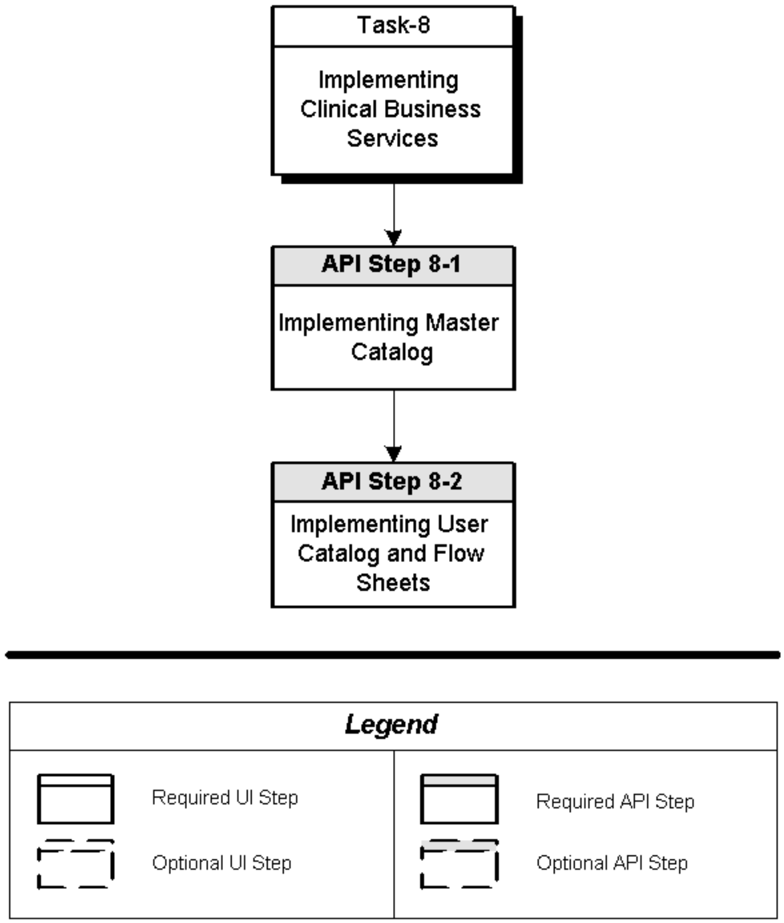
Login

Log in to HTB using the administrative account created in the Prerequisites section (Implementing Security Services).

Procedures

Figure 4–15 provides an overview of the implementation process for Clinical Business Services:

Figure 4–15 Implementation Process: Clinical Business Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–9, HTB Implementation Procedures: Clinical Business Services

The following sections describe the implementation of the procedures for Clinical Business Services (referenced in Figure 4–15):

- Section 4.8.1, Implementing the Master Catalog
- Section 4.8.2, Implementing the User Catalog and Flow Sheets

See Also: Section 4.5, Implementing Enterprise Terminology Services

4.8.1 Implementing the Master Catalog

The Enterprise Terminology System (ETS) provides a mechanism to maintain coded values and their meanings within HTB. It contains the terminology schemes and the concepts for each scheme. These concepts are used to support the Master Catalog. The ETS vocabulary schemes are structured systems of codes, IDs, terms and concepts used to maintain coded meanings.

HTB lets enterprises or independent service vendors identify a collection of ETS concepts used to address clinical application or ancillary system terminology requirements. This collection of concepts is called the Master Catalog. The ETS concepts included in the Master Catalog are **clinical act**s. ETS concepts used as attributes of clinical acts are not part of the Master Catalog. The Master Catalog is a required HTB component.

The Master Catalog is organized into **Act Type**s that represent logical clinical groupings of clinical acts, such as the substance administration order, problem event, or observation event. Each Act Type has a predefined **mood**, class, state transitions and set of attributes. ETS concepts assigned to an Act Type adopt the mood, class, allowable state transitions and allowable attributes. Any ETS concept that is added to the Master Catalog is referred to as an **Act Definition**.

Penicillin is an example of an Act Definition. It would be included in the Act Type substance administration order and would have attributes such as dose, route, and frequency. The Act Definition *rash* would be included in the Act Type observation event and would have attributes such as body site, onset, and severity.

It is important to carefully consider which vocabulary schemes should be loaded into ETS, and to determine if standard terminology should be used. Mapping the local terminology to a standard terminology or using the standard terminology directly is preferable. This approach provides a common conceptual basis for all clinical data within the enterprise. It also facilitates clinical data exchange with other internal and external systems. *Note that an important part of this analysis is the evaluation of resources available to perform this mapping.*

Options for loading vocabulary schemes include:

- Load one or more local sets of concepts and codes without mapping the concepts to standard concepts. Messages sent to HTB will include the local codes, and the clinical acts in the Master Catalog will be identified by the ETS code for the local **clinical act**.
- Load local sets of concepts and codes that have been mapped to standard vocabularies. Messages sent to HTB will include the local codes, and the clinical acts in the Master Catalog will be identified by the ETS code for the clinical concept from the standardized vocabulary.
- Load the standardized vocabulary schemes only. Messages sent to HTB will use standard concept codes, and the clinical acts in the Master Catalog will be the ETS code for these concepts.

You will probably need to use a combination of the above options to fully implement the Master Catalog.

To develop the Master Catalog content, you must understand the predefined act types (Table 4–65):

Table 4–65 Predefined Act Types

Act Type	Description
Allergy Event	Allergies
Clinical Report Event	Reports such as EKG, Radiology, Pathology, consultation.
Diet Order	Dietary order such as clear liquid diet, low sodium diet, 1200-calorie diet.
Education Event	Educational courses attended by the patient or teaching done to the patient.
Observation Event	Results or observations such as Lab, I&O, blood gases, vital signs.
Observation Order	Observation orders such as labs, radiology, vital signs.
Problem Event	Problems, diagnoses.
Procedure Event	Procedure history such as appendectomy or thyroidectomy.
Substance Admin Event	Medications, infusions, transfusions administered to or taken by the patient, dispensed medications.
Substance Admin Order	Medication, infusion, transfusion, tube feeding order.

Table 4–65 (Cont.) Predefined Act Types

Act Type	Description
Supply Event	Dispensed medications, durable medical equipment, other medical supplies.

Reference

Oracle Javadoc for HTB

Table 4–66 lists the principal methods used to implement the Master Catalog:

Table 4–66 Service and Methods: Implementing the Master Catalog

Package	Detail
Package	`oracle.apps.ctb.clinical.mastercatalog`
Class	`ActDefinitionService`
Methods	■ `createActDefinition` ■ `deleteActDefinition` ■ `deleteActType` ■ `getActDefinitions` ■ `updateActDefinition`

Prerequisites

- Analyzing terminology, to support organization clinical data.
- Implementing Organizations.
- Implementing Enterprise Terminology Services: All terminologies needed to support the enterprise must be loaded. These include vocabularies supported by HTB but not already seeded, plus any local vocabularies, mapped or not mapped.
- Implementing Concept Lists: HTB coded attributes required to support associated act types must exist within ETS, such as units of measure, frequencies, routes of administration, act statuses.
- Defining HTB act types and their attributes: Table 4–65 includes a complete list of act types.

See Also:

- Section 4.3, Implementing Organizations
- Section 4.5, Implementing Enterprise Terminology Services
- Section 4.5.7, Managing Concept Lists
- Appendix C, ETS Terminology

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

The steps used to implement the Master Catalog are also used to update it:

1. Create a comprehensive list of clinical acts that must be supported for the enterprise. Table 4–67 provides a sample data collection template.
2. Analyze the best approach to meet enterprise vocabulary requirements. In some cases use of a single vocabulary scheme will be sufficient to represent all concepts for a logical group. For example, LOINC could be used for all lab results, LOINC + a local vocabulary could be used for lab orders, and an unmapped local vocabulary scheme could be used for patient education.
3. Map the individual clinical acts to standard concepts as appropriate.
4. For each concept, document the Act Type or those act types with which the concept will be associated. Note that a single concept can be associated with more than one Act Type. For example, Penicillin can be associated with an allergy event, a substance administration event, and a substance administration order.
5. For each concept, document the organization in which the concept will be used. If the organization ID is the enterprise, the clinical act is used throughout the

enterprise. If the organization ID is the facility, the concept is used only within the facility. This lets an enterprise control the use of certain clinical acts at an organization level. For example, an enterprise may have two pharmacies, each for a separate facility and each having different formularies.

6. For each concept, document the act definition display category (optional), the effective start date, and the effective end date (optional). The display category can be helpful in organizing the clinical acts within Act Type. For example, each allergy could be organized by drug, food and environment.

7. Load core and mapped or unmapped vocabulary schemes into ETS that are required to support the creation of the enterprise Master Catalog.

8. Build the content for each Act Type in the Master Catalog using clinical and ETS APIs. An ETS concept defined as a clinical act in the Master Catalog is called an **Act Definition**. Act Definitions are used to create flow sheets in the User Catalog (Section 4.8.2). *Note that all Act Definitions in the Master Catalog are ETS concepts, but not all concepts in ETS should be included in the Master Catalog.*

Note:

- Clinical APIs that support retrieving and updating existing act definitions are also included in the HTB API library.
- See Also: Table 4–66

Table 4–67 Act Definitions: Minimum Information Required

Concept Name	Act Type Definition Text	Concept Code	Schema	Schema Version	Organization ID	Display Category	Start Date	End Date
CBC	Observation Event	ccbc	Generic	V1.0	123	...	...	...
Glucose, Serum	Observation Event	2339-0	LINC	2.05	123	...	...	...
Penicillin	Allergy Event	323388008	SNOMED Clinical Terms	200201Q	123	Drug	...	...

Table 4–67 (Cont.) Act Definitions: Minimum Information Required

Concept Name	Act Type Definition Text	Concept Code	Schema	Schema Version	Organization ID	Display Category	Start Date	End Date
Penicillin	Substance Admin Event	323388008	SNOMED Clinical Terms	200201Q	123	...	...	...
Penicillin	Substance Admin Order	323388008	SNOMED Clinical Terms	200201Q	123	...	...	...
Penicillin	Substance Admin Order	323388008	SNOMED Clinical Terms	200201Q	45687	...	...	...

4.8.2 Implementing the User Catalog and Flow Sheets

The user catalog is a container for flow sheet templates, act definitions, and organizational folders. Flow sheet templates are defined for the purpose of displaying meaningful collections of clinical data.

User catalogs are created and deleted by the role you defined in task-1, step 4 (Section 4.1.4), managed by user catalog owners, and used by user catalog owners and user catalog viewers (members of work groups). User catalog contents are defined by a this role, or by a clinician or other knowledge worker.

User catalogs can contain the following:

- Folders used to organize access to flow sheet templates.
- Flow sheet templates.
- Folders within the flow sheet template that organize the clinical data to be retrieved.
- Specific clinical act definitions that are displayed in the patient flow sheet.

Although individual user catalogs are optional, they are required for users to construct personal flow sheets. User catalogs do not store individual patient information. Flow sheet templates define the data to be displayed, category headers that can be displayed, and the order in which patient data is displayed.

There are two phases to the implementation of user catalogs: (i) creation of the user catalog container, and (ii) creation of the user catalog content. The latter is a continuous process in which flow sheet templates are modified, deleted and created.

Table 4–68 User Catalogs

Construct	Definition
User Catalog Folders (optional)	A `UserCatalogFolder` is a `UserCatalogItem` that represents a folder within the User Catalog. A `UserCatalogFolder` can contain other `UserCatalogFolders` and flow sheets, and be contained within a `UserCatalog` (*null* parent), or another `UserCatalogFolder` Named constructs that contain flow sheet definitions or nested folders of flow sheet definitions. Used to organize content in the User Catalog.
User Catalog Container	The `UserCatalog` object represents a single catalog of `UserCatalogFolders` and flow sheets. A catalog is owned by one or more staff members, and can be viewed by members of zero or more workgroups.
Flow Sheet Folder (optional)	`FlowSheetFolders` exist within a flow sheet or within another flow sheet folder (nested). Named constructs that can optionally be displayed in the flow sheet. Used to organize the content of the individual flow sheet.
Flow Sheet	A `FlowSheet` is a `UserCatalogItem` object that represents a flow sheet template in the user catalog. Flow sheets can exist within a `UserCatalog` (meaning they have no parent), or within a `UserCatalogFolder`. Named constructs that are used to query the patient data and construct a flow sheet display.
Act Definition Link	The `ActDefinitionLink` is a `UserCatalogItem` that links an Act Definition to a specific flow sheet. Act Definition Links can exist within a flow sheet or a flow sheet folder. The order in which they display is specified by the owner. The owner also determines if the Act Definition displays if the patient data is *null*.

The User Catalog drives the following business functions:

- Creation of Flow Sheets for the purpose of organizing and displaying collections of clinical data.
- Creation of flow sheet displays to support individual, group or organization preferences.

Reference

Oracle Javadoc for HTB

Table 4–69 lists the principal user catalog methods:

Table 4–69 Service and Methods: Implementing User Catalogs and Flow Sheets

Level	Detail
Package	`oracle.apps.ctb.clinical.usercatalog`
Class	`UserCatalogService`
Methods	■ `CreateActDefinitionLink` ■ `CreateFlowsheet` ■ `CreateFlowsheetFolder` ■ `CreateUserCatalog` ■ `CreateUserCatalogFolder` ■ `findUserCatalogItems` ■ `GetUserCatalog` ■ `UpdateActDefinitionLink` ■ `UpdateFlowSheet` ■ `UpdateFlowSheetFolder` ■ `UpdateUser Catalog` ■ `UpdateUserCatalogFolder`

Prerequisites

- Implementing Organizations.
- Implementing Staff Registration.
- Implementing Workgroups if viewers are required.
- Implementing the Master Catalog.

See Also:

- Section 4.3, Implementing Organizations
- Section 4.7.4, Implementing Staff Registration
- Section 4.7.5, Implementing Workgroups
- Section 4.8.1, Implementing the Master Catalog

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Roles

- Use the role you defined in task-1, step 4 (Section 4.1.4).
- User Catalog Owner – staff user

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

4.8.2.1 Implementing the User Catalog Container

Steps

Use the following steps to create the user catalog:

1. Use the `CreateUserCatalog` method to create the user catalog ID.
2. Use the `CreateUserCatalog` method to name the user catalog.
3. Use the `CreateUserCatalog` method to assign Owners from the list of staff users.
4. Use the `CreateUserCatalog` method to assign workgroups from the list of workgroups. This lets members of the workgroup view the user catalog and copy some or all of the contents of the user catalog.
5. Use `GetUserCatalog` and `UpdateUserCatalog` methods to update the user catalog.

4.8.2.2 Implementing User Catalog Contents

The the role you defined in task-1, step 4 (Section 4.1.4) or catalog owners can specify the contents of the user catalog, including user catalog folders, flow sheets, and `ActDefinitionLinks`. The user catalog folders are used to organize logical access to the Flow Sheet templates. These folders are not required in cases where a list of Flow Sheet templates suffices. Conversely, a complex hierarchy of user catalog folders can be constructed if required. User catalog owners also specify (i) the order in which the clinical acts are displayed, (ii) whether or not a *null* clinical act is displayed, and (iii) the Flow Sheet subheading (the name of the Flow Sheet folder) that is displayed in the Flow Sheet.

Steps

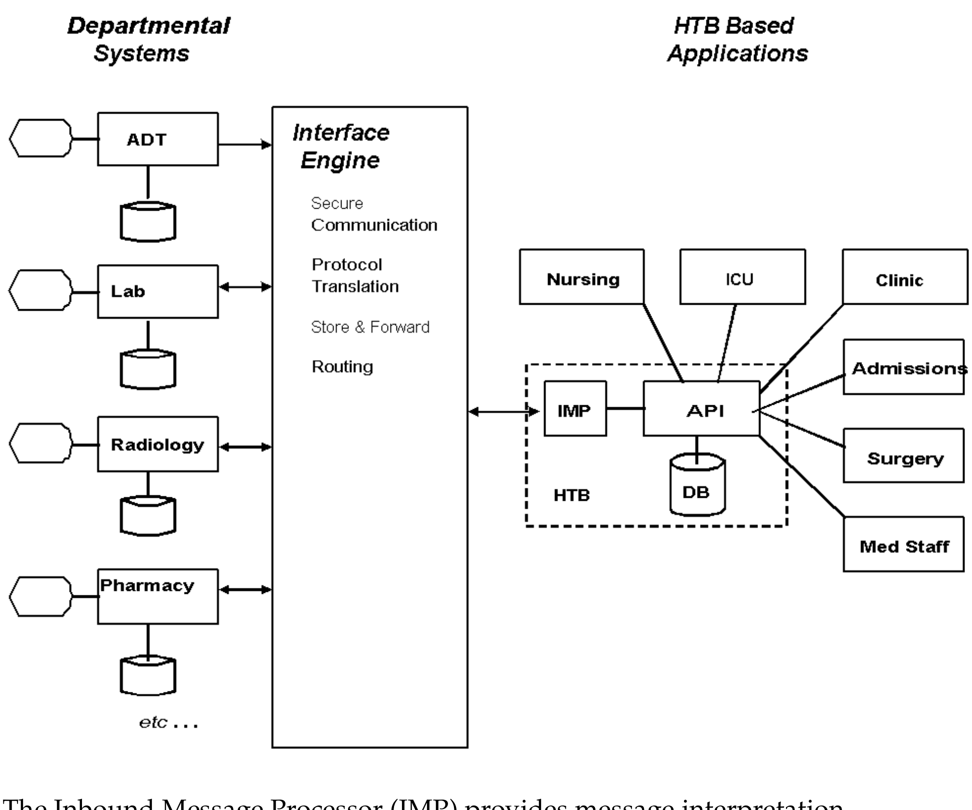
1. Use the `GetUserCatalog` method to access the user catalog.

2. Use the `CreateUserCatalogFolder` method to create and name user catalog folders (optional).
3. Use the `CreateUserCatalogFolder` method to create a sub-user catalog folder (optional). Select the existing User Catalog folder and create and name the sub-user catalog folders.
4. Use the `CreateFlowsheet` method to create a flow sheet template (optional). Select the user catalog folder or user catalog container in which the flow sheet template will be located. Create and name the flow sheet template.
5. Use the `CreateFlowSheetFolder` method to create a flow sheet folder (optional). Select an existing flow sheet, create and name the flow sheet folder; indicate if the flow sheet folder name should be displayed in the flow sheet.
6. Use `CreateFlowSheetFolder` method to create a flow sheet (sub)folder (optional). Select an existing flow sheet folder, create and name the flow sheet folder; indicate if the flow sheet folder name should be displayed in the flow sheet.
7. Use the `CreateActDefinitionLink` method to add Act Definitions to the flow sheet template (optional). Select the flow sheet or flow sheet folder in which the Act Definitions will be used. Select the Act Definition to be added, arrange it in display order, and specify if the Act Definition should be displayed even if the patient data is *null*.
8. To update a user catalog item use `findUserCatalogItem` method and then the appropriate update method: `UpdateActDefinitionLink`, `UpdateFlowSheet`, `UpdateFlowSheetFolder`, and `UpdateUserCatalogFolder`.

4.9 Implementing Inbound Message Processing Services

Healthcare enterprises typically have a number of departmental systems such as ADT, diagnostic departments, pharmacy, and other systems that are often acquired from multiple vendors. In Figure 4–16, the ADT system might be responsible for registering and admitting patients. After updating its own database, the ADT system sends an HL7 message to the interface engine that in turn routes the message to other systems in the enterprise including HTB. HTB maintains this patient data in a clinical data repository, available to applications written against the HTB platform.

Figure 4–16 Typical Application Topology



The Inbound Message Processor (IMP) provides message interpretation, persistence, and acknowledgement services to HTB applications that receive inbound messages from external systems. Currently, IMP supports XML formatted inbound messages that conform to the HL7 version 3 messaging standard.

For details about integrating IMP services with an interface engine, refer to documentation from your interface engine vendor.

See Also: *HTB-HL7 Version 3 Conformance Specification*

Reference

Oracle JavaDoc for HTB

Prerequisites

- Implementing Person Services**:** Persons that are referenced by inbound messages must exist, and cross references for such persons must also exist. Note that persons may also be created via messaging using Person Registry messages or as side effects of non-Person Registry messages (Section 4.9.3).
- Implementing Organizations**:** Organization units of the following organization types—that are referenced by inbound messages—must exist:
  - Enterprise
  - Facility
  - Practice Setting

  Cross references for these organizations must also exist. Note that organizations cannot be created by messages. Accordingly, all Organization must be created using the HTB application program interface prior to implementing IMP.
- Implementing Administrative Business Services:
  - Implementing Care Sites**:** Care Sites that are referenced by inbound messages must exist, and cross references for such care sites must also exist. Note that care sites cannot be created by messages. Accordingly, all care sites must be created using the HTB application program interface prior to implementing Inbound Message Processing.
  - Implementing Patient Registration**:** Patients and medical records that are referenced by inbound messages must exist, and cross references for such medical records must also exist. Note that patients and medical records may also be created via messaging using Patient Administration messages or as side effects of non-Patient Administration messages (Section 4.9.3).

- Implementing Staff Registration: Staff members that are referenced by inbound messages must exist, and cross references for such staff members must also exist. Note that staff members may also be created via messaging using Staff Registry messages.

- Implementing the Master Catalog: Act Definitions that are referenced by clinical acts in inbound messages must exist. Note that act definitions cannot be created by messages. Accordingly, all Act Definitions must be created using the HTB application program interface prior to implementing Inbound Message Processing.

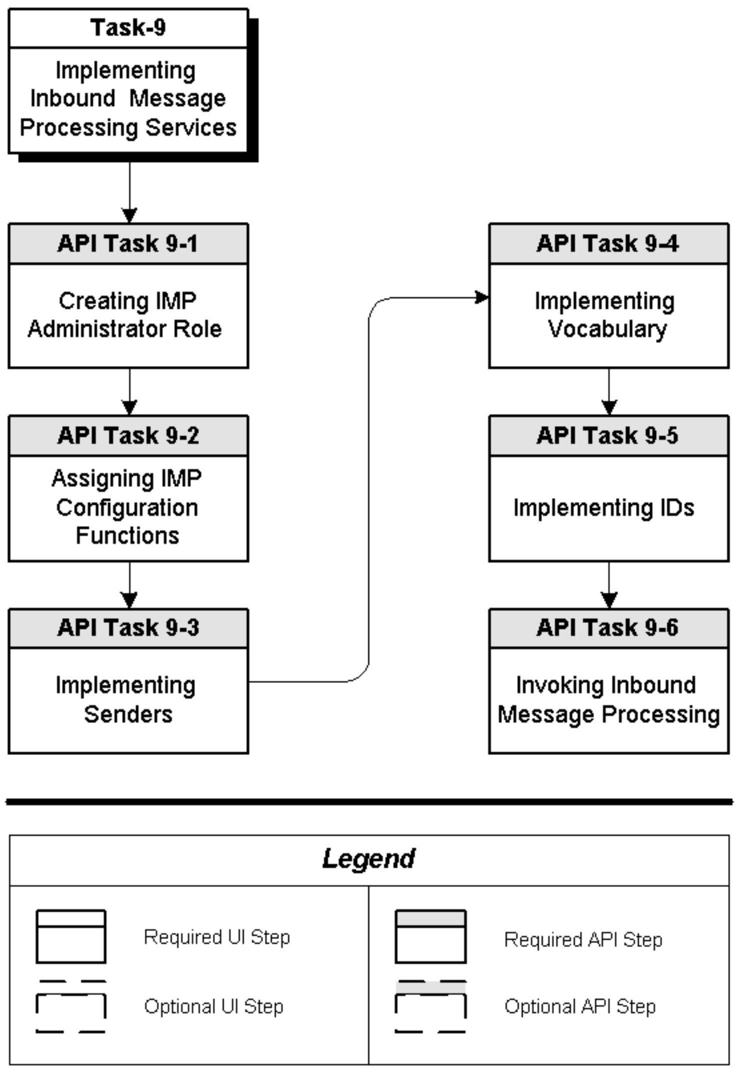
See Also:

- Section 4.2, Implementing Person Services
- Section 4.3, Implementing Organizations
- Section 4.7.3, Implementing Care Sites
- Section 4.7.4, Implementing Staff Registration
- Section 4.7.6, Implementing Patient Registration
- Section 4.8.1, Implementing the Master Catalog

Procedures

Figure 4–17 provides an overview of the implementation process for Inbound Message Processing Services:

Figure 4–17 Implementation Process: Inbound Message Processing Services



See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–10, HTB Implementation Procedures: Inbound Message Processing Services

The following sections describe the implementation procedures for Inbound Message Processing Services (referenced by Figure 4–17):

- Section 4.9.1, Creating an IMP Administrator Role and Assigning it to an Account
- Section 4.9.2, Assigning IMP Configuration Functions to the IMP Administrator Role
- Section 4.9.3, Implementing Senders
- Section 4.9.4, Implementing Vocabulary
- Section 4.9.5, Implementing IDs
- Section 4.9.6, Invoking Inbound Message Processing Services

4.9.1 Creating an IMP Administrator Role and Assigning it to an Account

An *IMP Administrator Role* should be created and assigned to the account that will be used to implement IMP. To perform this task, refer to the following sections:

- Section 4.1.4, Creating Security Roles
- Section 4.1.5, Assigning Accounts to Roles

4.9.2 Assigning IMP Configuration Functions to the IMP Administrator Role

Table 4–70 lists functions that must be granted to the IMP Administrator Role:

Table 4–70 IMP Configuration Functions

Function Name	Description
`CTB_MS_CREATE_ID_CFG`	Create ID configuration
`CTB_MS_CREATE_SND_CFG`	Create sender configuration
`CTB_MS_CREATE_VOCAB_CFG`	Create vocabulary configuration

Table 4–70 (Cont.) IMP Configuration Functions

Function Name	Description
CTB_MS_GET_ID_CFG	Get ID configuration
CTB_MS_GET_SND_CFG	Get Sender configuration
CTB_MS_GET_VOCAB_CFG	Get vocabulary configuration
CTB_MS_REMOVE_ID_CFG	Remove ID configuration
CTB_MS_REMOVE_SND_CFG	Remove sender configuration
CTB_MS_REMOVE_VOCAB_CFG	Remove vocabulary configuration
CTB_MS_UPDATE_ID_CFG	Update ID configuration
CTB_MS_UPDATE_SND_CFG	Update sender configuration
CTB_MS_UPDATE_VOCAB_CFG	Update vocabulary configuration

To assign IMP configuration functions to the IMP Administrator role, refer to the following section:

Section 4.1.8, Assigning Functions to Roles Conditioned by Criteria

4.9.3 Implementing Senders

HL7 messages have a single focal object that deals with the creation or update of a single HTB object type, such as a person, staff member, encounter, or a clinical service. Using associations to the focal object, these messages can include other objects.

For example, a staff registry message references a person who is being assigned a staff role.

For a message to be successfully processed, all such references should be resolved to objects existing within HTB in the state described by the message. IMP can create or update such referenced objects if the enterprise business practice permits it, and the message carries adequate information. IMP's sender configuration lets the administrator define objects that should be created, updated, or replaced, based on the identity of the sending system and trigger event.

Reference

Oracle Javadoc for HTB

Table 4–71 lists the principal service and methods for implementing senders:

Table 4–71 Service and Methods: Senders

Level	Detail
Package	oracle.apps.ctb.message.configuration
Class	IMPConfigurationAdministrationService
Methods	▪ CreateSenderConfiguration ▪ removeSenderConfiguration ▪ updateSenderConfiguration
Class	SenderConfiguration
Methods	▪ setSenderTriggerConfiguration
Class	SenderTriggerConfiguration
Methods	▪ setSenderReferenceConfiguration

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role created in Section 4.9.1, with the functions described in Section 4.9.2.

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

1. **Create accounts for sending systems:** Accounts must exist for sending systems. During sender configuration, each sending system is assigned one of these accounts. When a message arrives for processing, IMP is invoked with the security context of the account configured for the sending system that originated the message.

    See Also: Section 4.1.3, Creating Accounts

2. **Assign the Inbound Message Processor Role to accounts representing sending systems**: This role is a seeded security role that provides the functions necessary to use the IMP Service to process a message. The IMP Role must be assigned to each user account created in step 1.

   See Also: Section 4.1.5, Assigning Accounts to Roles

3. **Create Sender Configuration:** Use the following method to configure the sending systems that are recognized by the receiving enterprise:

   `CreateSender.Configuration`

   For each sender, assign one of the users created in step 1.

4. **Create Sender Trigger Configuration:** Use the following method to configure the trigger events that IMP will recognize and process from each sending system configured in step 2:

   `setSenderTriggerConfiguration`

   Trigger Event Example:

   `POXX_TE000001: Specimen Received; Create New Observation Event`

5. **Create Sender Reference Configuration:** Use the following method to configure create, update, and replace permissions for each object that can arrive in a message:

   `setSenderReferenceConfiguration`

   Each trigger event configured in step 4 will have a separate Sender Reference Configuration:

   - **Create Permission :** Specifies if the object should be created in HTB if it does not already exist, when it arrives as a non-focal class in a message. The default is do not create.
   - **Update Permission:** Specifies if the object should be updated in HTB if it already exists, when it arrives as a non-focal class in a message. The default is do not update.
   - **Replace Permission:** Specifies if the objects arriving in a message should replace existing occurrences of objects of their respective types on the parent in the database. The default is do not replace.

Example:

Trigger Event: `POXX_TE000001`

Referenced Object: Patient

Create Permission: Yes

Update Permission: No

According to this configuration, when a message with trigger event *Specimen Received; Create New Observation Event* is received, if the patient reference in the message is not found in HTB, the patient is created using the data in the message. If the referenced patient is found, the patient's data in HTB is not updated with the data in the message—the patient data in the message is treated purely as a reference to an existing patient.

The following exceptions should be noted for sender reference configuration:

- Sender Reference Configuration is only applicable to objects that are distal to the focal class in the XML tree; it is not applicable to the message wrapper, control act wrapper, objects that occur proximal to the focal class in the message payload, and the focal class itself.
- In patient administration messages, if the focal encounter has a `CoverageMother` act relationship, sender reference configuration is not applicable to the message tree at the target end of this act relationship. This means that the mother's encounter, the mother's patient role, and the mother person should all exist prior to receiving the message.
- In patient administration messages, the sender reference configuration for the patient object is only used for the participant of the `SubjectPatient` participation of the focal encounter. When `SubjectPatient` participations occur in other parts of the message, they identify the same patient as the `SubjectPatient` participation of the focal encounter.
- In observation event messages, sender reference configuration is not applicable to the message tree at the target end of `Appendage and ReplacementOf act` relationships. This means that the observations representing the recipient of the appendage and the replaced act must exist in HTB prior to receiving the appendage or replacement.
- Sender replace configuration is only applicable to the Person object. The replace permissions determine if contacts, guarantors, and PCPs sent for a person in a message should replace the existing ones for the person in HTB.

See Also: *HTB-HL7 Version 3 Conformance Specification*

6. **Edit Sender Configuration:** Use the following methods to edit sender configuration:
   - `updateSender.Configuration`
   - `removeSender.Configuration`

4.9.4 Implementing Vocabulary

In accordance with the HL7 Version 3 standard, a vocabulary domain is the set of all concepts that can be taken as valid values in an instance of a coded field or attribute.

For example, the `Living_subject` class has a coded attribute called `Administrative_gender_cd.` If this attribute is received as part of an inbound message, it would be expected to convey male or female gender. In this example, `AdministrativeGender` is the vocabulary domain, and male and female are concepts that comprise that domain.

Vocabulary configuration defines the exact set of concepts that correspond to each vocabulary domain used by IMP. Upon receipt of an inbound message, IMP checks to see if the coded value of an attribute or an equivalent concept is a member of the concept list configured for that attribute's vocabulary domain.

Reference

Oracle Javadoc for HTB

Table 4–72 lists the principal Vocabulary service and methods:

Table 4–72 Service and Methods: Vocabulary

Level	Detail
`Package`	`oracle.apps.ctb.message.configuration`
`Class`	`IMPConfigurationAdministrationService`
`Methods`	■ `createVocabularyConfiguration` ■ `removeVocabularyConfiguration` ■ `updateVocabularyConfiguration`
`Class`	`VocabularyConfigurationItem`
`Methods`	■ `setVocabularyDomain` ■ `setLookupType` ■ `setReceiverIdentifier`

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role created in Section 4.9.1, with the functions described in Section 4.9.2.

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

1. **Create Vocabulary Configuration:** Use the `createVocabularyConfiguration` method to create a vocabulary configuration with the values specified in Table 4–73. This method expects an object implementing the `VocabularyConfigurationItem` interface. Use the `setVocabularyDomain` method to input a value from the Vocabulary Domain column of the table. Use the `setLookupType` method to input the corresponding value from the Concept List of the table. Use the `setReceiverIdentifier` method to specify the receiving organization.

   Note: Please note that the vocabulary configuration should be created with the exact values specified in Table 4–73, for each organization that is to receive inbound messages. All mandatory rows must be populated for IMP to function properly.

   See Also: *HTB - HL7 Version 3 Vocabulary Confrmance Specifications*

Table 4–73 Vocabulary Domain Concept Lists

Vocabulary Domain	Concept List	Mandatory?
ACT_REASON	CTB_CL_ACT_REASON	No
ACT_SITE	CTB_CL_TARG_SITE	No
ADDRESS_TYPE	CTB_IMP_PARTY_SITE_USE_CODE	Yes
ADMINISTRATIVE_GENDER	CTB_GENDER	Yes

Table 4–73 Vocabulary Domain Concept Lists

Vocabulary Domain	Concept List	Mandatory?
ADMISSION_TYPE	CTB_EM_URGENCY_CODE	Yes
AMBULATORY_STATUS	CTB_EM_AMBULATORY_STATUS_CODE	Yes
CONFIDENTIALITY	CTB_EM_CONF_CODE	Yes
CONTACT_TYPE	CTB_CONTACT_TYPE	Yes
EMAILUSAGE_TYPE	CTB_COMMUNICATION_TYPE	Yes
ENCOUNTER_DISCHRG_DISPOSITION	CTB_EM_DISCHARGE_DISPOS_CODE	Yes
ENCOUNTER_REFERRAL_SOURCE	CTB_EM_REFERRAL_SOURCE_CODE	Yes
ENCOUNTER_SPECIAL_COURTESY	CTB_EM_SPECIAL_COURTESY_CODE	Yes
ENCOUNTER_STATUS	CTB_EM_ENC_STATUS_CODE	Yes
ENCOUNTER_TYPE	CTB_EM_ENC_CLASS	Yes
ETHNICITY	CTB_ETHNICITY	Yes
HOSPITAL_SERVICE	CTB_EM_MEDICAL_SERVICE_CODE	Yes
HUMAN_LANGUAGE	CTB_LANGUAGE_CODE	Yes
LIVING_ARRANGEMENT	CTB_PI_LIVING_ARRANGEMENT_CODE	Yes
MARITAL_STATUS	CTB_MARITAL_STATUS	Yes
MODE_OF_ARRIVAL	CTB_EM_ARRIVAL_MODE_CODE	Yes
OBSERVATION_INTERPRETATION	CTB_CL_OBS_INTERPRET	No
OBSERVATION_METHOD	CTB_CL_OBS_METHOD	No
PARTICIPATION_FUNCTION	CTB_CL_PRTCPTN_FUNCTION	Yes
PARTICIPATION_TYPE	CTB_EM_STAFF_ROLE_CODE	Yes
PATIENT_IMPORTANCE	CTB_PR_VIP_CODE	Yes
PERSON_DISABILITY_TYPE	CTB_DISABILITY	Yes
PHONE_TYPE	CTB_PHONE_LINE_TYPE	Yes
PHONEUSAGE_TYPE	CTB_CONTACT_POINT_PURPOSE	Yes
PROCEDURE_METHOD	CTB_CL_PROC_METHOD	No
RACE	CTB_RACE	Yes
RELIGIOUS_AFFILIATION	CTB_RELIGION_CODE	Yes
ROLE_STATUS	CTB_STAFF_POS_STATUS	Yes
STAFFROLE_STATUS	CTB_STAFF_POS_STATUS	Yes

2. **Add Concepts to Concept Lists (Optional):** The concept lists specified in Table 4–73 are seeded with a minimum set of concepts that are essential for HTB operation. However, some of these lists are extensible and you can choose to add more concepts to support a specific implementation. Some of the lists are seeded empty and must be populated before they are associated with a domain.

   See Also:

   - Table G–1, Predefined Concept Lists [No Seeded Values]
   - Section 4.5.7, Managing Concept Lists

   ...for information about selecting values from ETS and adding to concept lists.

3. **Edit Vocabulary Configuration:** If there is an error during entry of values specified in Table 4–73, use the `updateVocabularyConfiguration` and `removeVocabularyConfiguration` methods to edit vocabulary configuration.

4.9.5 Implementing IDs

Objects in HTB are uniquely identifiable, based on internal identifiers that are assigned to them at the time of their creation. When external systems send messages, they will typically use a different set of identifiers to refer to the same objects. Each such identifier space is identified by a root—an ISO Object Identifier or OID. HTB provides cross reference services to translate an external ID to an internal ID. IMP needs to know the set of external roots for each object type that are recognized by the enterprise in order to accept or reject an external reference. IMP also needs a token internal root for each such object type. When a sender uses the configured internal root, IMP interprets this to mean that the reference being sent is an internal (HTB) identifier and can be used without any cross referencing. IMP ID configuration lets the administrator configure these internal and external roots for each identified object that can be included in a message.

Reference

Oracle Javadoc for HTB

Table 4–74 lists the principal ID service and methods (for IMP implementation):

Table 4–74 Service and Methods: IDs (IMP)

Level	Detail
Package	oracle.apps.ctb.message.configuration
Class	IMPConfigurationAdministrationService
Methods	■ createIdConfiguration ■ removeIdConfiguration ■ updateIdConfiguration
Class	IDConfigurationItem
Methods	■ setIsInternalRoot

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role created in Section 4.9.1, with the functions described in Section 4.9.2.

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

1. **Create ID Configuration:** Use the following method to define the set of roots that will be recognized by the IMP for each identified object that can be referenced by a message:

   `createIdConfiguration`

   The roots are used by IMP for cross referencing the object to an HTB internal identifier. One root may be designated as *Internal* using the following method:

   `setIsInternalRoot`

   If IMP receives a reference using a root that has been configured as Internal for that object, it uses the extension directly as an HTB internal identifier without performing any cross referencing. Roots must be formatted as ISO OIDs.

2. **Edit ID Configuration:** Use the following methods to edit ID configuration:
   - `updateId.Configuration`
   - `removeId.Configuration`

   See Also: *HTB-HL7 Version 3 Conformance Specification*

4.9.6 Invoking Inbound Message Processing Services

Reference

Oracle Javadoc for HTB

Table 4–75 lists the principal IMP service and methods:

Table 4–75 Service and Methods: IMP

Level	Detail
`Package`	`oracle.apps.ctb.message.improcessor`
`Class`	`IMPService`
`Methods`	■ `processMessage`
`Class`	■ `Result`
`Methods`	■ `getResponseXML` ■ `getStatus`

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the seeded Inbound Message Processor Role.

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Steps

1. Use the IMP Service Locator to access the IMP Service.

   See: Sample Java Code:

2. Use the following method with the XML message instance as a parameter to invoke message processing services:

   `processMessage`

   A Result object is returned.

3. Use the following methods to inspect the result of processing the message passed in step 1:

   - `getResponseXML`
   - `getStatus`

Sample Java Code:

```
public String invokeIMPService(String payload) throws Exception{
String appAck = null;
try{
        mIMPServiceLocator = IMPServiceLocator.getInstance();
        mIMPServiceLocator.login(mIdentity,mCredential);
        System.out.println("Logged into CTB");
        // Read the IMPServiceSystemTest.properties files..
        loadProperties();
        for (Enumeration e = mProperties.propertyNames(); e.hasMoreElements();)(
        try{
              String URL = (String) e.nextElement();
              String jndiName = (String)mProperties.getProperty(URL);
              if((URL.equalsIgnoreCase("defaultURL")) ||
                 (URL.equalsIgnoreCase("null"))){
                  URL = null;
              }
              System.out.println("URL : " + URL + " jndiName : " +  jndiName);
              impSvc = mIMPServiceLocator.getIMPService(URL,jndiName);
              if(impSvc != null)
                 System.out.println("Got the IMP service ");
              // authenticate with username/password
              //   mIMPSessionService = impSvc.getSessionService("sysadmin",
            "sysadmin");
```

```
                // // create a session and store the cookie for the session, so it
              can be
                // // used to retrieve services.
                // mIMPSessionCookie = mIMPSessionService.createSession();
                // // Bypass security checks by "breaking the glass"
                // mIMPSessionContext = mIMPSessionService.getCTBSessionContext();
                // mIMPSessionContext.setBreakTheGlass("broken");
                // // ??
                // mIMPSessionContext.setSessionAttribute("BreakThGlass",
              "broken");
                // mIMPSessionService.updateSessionContext(mIMPSessionContext);
                // impSvc = getIMPSvc();

                Result applicationAckResult = impSvc.processMessage(payload);
                appAck = applicationAckResult.getResponseXML();
                Integer statusId = applicationAckResult.getStatus();
                System.out.println("The XML reponse is=" + appAck);
                System.out.println("The status id=" + statusId);

          }catch(Exception ex){
                 ex.printStackTrace();
                 continue;
          }
      }
  }finally{
      System.out.println("I am logging out");
      mIMPServiceLocator.logout();
  }
      return appAck;
  }
```

4.10 Implementing ID Type Services

ID types and their use in cross-referencing and storing identifications are required to support several functional areas, each with different requirements:

- **Person Services:** Storing legal identification information for persons.
- **Organization Management:** Storing identifiers for organizations.
- **Staff Management**[1]**:** Storing licenses and other professional identifications.
- **Messaging Services:** Storing cross-references between Root IDs and identification types or identification issuing authorities.

ID Type Services provide complete ID type edit functions, including create, update, and delete, and several `find` methods.

The ID Type value object includes the following attributes:

- Identification Type Code (required)
- Identification Name (required)
- Organization ID
- Organization Name
- Identification Description
- Root OID

Identification Type Code

Required to determine the type of identifier. The U.S. Social Security Card, driver's license, and passport are all examples of identification types.

Organization ID

The organization ID, or identification assigning or issuing organization represents a relationship to an organization party for the organization that administers the assigning authority or system, and is used for both internal and external organizations.

For example, the U.S. Social Security Administration is the organization using Social Security Cards; U.S. States are the issuers of U.S. driver licenses.

[1] Supported in a future release.

Identification Name

Represents the unique combination of the identification type and the corresponding assigning or issuing organization.

For example, the California Driver's License or Australian passport.

Root ID

Root ID is a unique number sequence that identifies an identification assigning organization. This attribute is principally used for messaging services.

Reference

- *Oracle Javadoc for HTB* (`IdType`, `IdTypeService` interfaces)
- Appendix H, Seeded ID Types
- Table 4–76 lists the principal ID Type service and methods:

Table 4–76 Service and Methods: ID Type Services

Level	Detail
`Package`	`oracle.apps.ctb.configuration`
`Class`	`IdTypeService`
`Methods`	■ `createIdType` ■ `deleteIdType` ■ `getIdType` ■ `getIdTypeByName` ■ `getIdTypeByRootOid` ■ `getIdTypes` ■ `updateIdType`

Prerequisites

The following prerequisites are optional:

- Implementing Person Services: To store legal identification information for persons.
- Implementing Organizations: To store identifiers for organizations.
- Implementing Staff Registration: To store licenses and other professional identifications.

- Implementing Inbound Message Processing Services: To store cross-references between Root IDs and identification types or identification issuing authorities.

  See Also:

  - Section 4.2, Implementing Person Services
  - Section 4.3, Implementing Organizations
  - Section 4.7.4, Implementing Staff Registration
  - Section 4.9, Implementing Inbound Message Processing Services

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Procedures

The following sections describe the implementation of ID Type Services:

- Section 4.10.1, Creating the ID Type
- Section 4.10.2, Updating ID Type
- Section 4.10.3, Deleting ID Type
- Section 4.10.4, Getting ID Type
- Section 4.10.5, Getting ID type by Name
- Section 4.10.6, Getting ID type by Root OID
- Section 4.10.7, Getting ID Types

See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–11, HTB Implementation Procedures: ID Type Services

4.10.1 Creating the ID Type

Use the createIdType method to create a new ID type. Either the organization ID or organization name must be provided. If no organization ID is provided, but the organization name is provided and the organization with such name exists, the organization ID of this organization is pulled to populate the organization ID field. Otherwise, a new organization is automatically created, and the newly generated organization ID is entered into this field.

4.10.2 Updating ID Type

Use the `updateIdType` method to update an existing ID type.

4.10.3 Deleting ID Type

Use the `deleteIdType` method to delete an existing ID type.

4.10.4 Getting ID Type

Use the `getIdType` method to find an existing ID type, given its type code and ID-issuing authority's organization identifier.

4.10.5 Getting ID type by Name

Use the `getIdTypeByName` method to find an existing ID type, given its name.

4.10.6 Getting ID type by Root OID

Use the `getIdTypeByRootOid` method to find an existing ID type, given its root OID.

4.10.7 Getting ID Types

Use the `getIdTypes` method to find all existing ID types.

4.11 Implementing Cross-Referencing

Cross-referencing generally refers to the association of related objects across systems, so that the same object found in multiple repositories can be consistently identified. In message processing, cross-referencing refers to mapping externally assigned identifiers to HTB-assigned (internal) identifiers. It lets an application display relevant identifiers, such as encounter numbers or **medical record number**s.

An **instance identifier** is used to identify the entity or data component represented in an HL7 message. Messages are used for the electronic interchange of clinical, financial and administrative information between independent healthcare systems.

A cross-reference is created when an entity or data component is persisted in HTB through a **message**. HTB does a lookup for the cross-reference when the entity is updated by a message. Each cross-reference contains the attribute internal ID, root, extension, valid start time and valid end time.

HTB cross-referencing applies to the following identifiers:

- Clinical Act ID
- Encounter ID
- Material ID
- Medical Record Number
- Staff At ID
- Care Site ID
- Organization ID
- Person ID

See Also:

- Section 4.2, Implementing Person Services
- Section 4.2.4, Implementing Person Management
- Section 4.2.5, Implementing Correlation

...for more information about person cross-referencing.

Reference

Oracle Javadoc for HTB

Table 4–77 lists the principal cross-referencing service and methods:

Table 4–77 Service and Methods: Cross-Referencing

Level	Detail
Package	`Several...search Javadoc for method name`
Class	`Several...search Javadoc for method name`
Methods	■ `findCareSiteXRefByII` ■ `findClinicalActXRefByII` ■ `findEncounterXRefsByInstanceIdentifier` ■ `findMaterialXRefByII` ■ `findMedicalRecordXRefByII` ■ `findStaffMemberXRefByII` ■ `findStaffPositionXRefByII` ■ `getCareSiteByExternalId` ■ `getClinicalActByExternalId` ■ `getEncounterByExternalIdentifier` ■ `getMaterialByExternalId` ■ `getMedicalRecordByExternalId` ■ `getOrganizationUnitByExternalId` ■ `getStaffMemberByExternalId` ■ `getStaffPositionByExternalId`

Prerequisites

The following prerequisite is optional:

Implementing ID Type Services: ID types must be defined if they are to be used in cross-referencing.

> **See Also:** Section 4.10, Implementing ID Type Services

Login

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Role

Use the role you defined in task-1, step 4 (Section 4.1.4).

Navigation

This is an API-based implementation procedure.

See: Appendix B, HTB Session Service

Procedures

The following section describes the implementation of Cross-Referencing:

- Section 4.11.1, How Messages Use Cross-Referencing

See Also:

- Figure 3–1, Implementation Task Process
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–12, HTB Implementation Procedures: Cross-Referencing

4.11.1 How Messages Use Cross-Referencing

Inbound Messages

An external system can generate a record with an identifier and send a message to HTB, which is processed through Inbound Message Processing (IMP). HTB calls APIs to store the data and assigns an external ID for the message record. HTB keeps a cross-reference between the internal and external IDs for that record.

The external system updates the record and sends an update message to HTB. HTB looks up the external ID in cross-reference to find the internal ID. HTB finds the record using the internal ID. Figure 4–16 displays the typical application topology associated with inbound message processing.

Outbound Message

When HTB formulates messages to be sent to an external system, it includes its internal ID and all known external system IDs in the message.

Guidelines:

- HTB includes an OID (**object identifier**) registry that is maintained separately; the registry stores the OID and the assigning authority name. Both the root and the extension are mandatory attributes.

- An external identifier can be associated with multiple internal identifiers, but the valid times cannot overlap; an internal identifier can be associated with multiple external identifiers.
- The combination of root, extension, and internal identifier must be unique.
- Only the valid start time and valid end time can be updated in an existing cross-reference.
- A single entity can have multiple **instance identifier**s.
- When additional instance identifiers for a single entity are encountered, there can be no automatic changes to the timestamps or any existing cross-references. The valid end time of any cross-reference must be explicitly updated.
- Outbound messages can incorporate an internal ID or an instance identifier. The cross-referencing APIs deal with valid instance identifiers only.
- The valid start time is inclusive; the valid end time is exclusive. A null value for valid end time indicates that the instance identifier cross-reference is valid indefinitely. A null valid start time may indicate that it is indeterminate.
- HTB entities must have instance identifiers.

Part III

Appendixes

This section contains the following Appendixes:

- Appendix A, Navigation Paths
- Appendix B, HTB Session Service
- Appendix C, ETS Terminology
- Appendix D, Seeded Users, Responsibilities, Roles
- Appendix E, Seeded Profile Options
- Appendix F, Seeded Audit Events
- Appendix G, Predefined Concept Lists
- Appendix H, Seeded ID Types
- Appendix I, Error Messages
- Appendix J, Minimum Implementation Steps
- Appendix K, Abbreviations & Acronyms
- Glossary

A

Navigation Paths

This Appendix describes how to navigate throughout the Oracle Healthcare Transaction Base.

Table A–1, Navigation Paths, displays the navigation path for each HTB function and its associated window, including figure and page references.

To Navigate to the Oracle Healthcare Transaction Base:

- Run Oracle Applications from your desktop.
- Enter the HTB database user name and password.
- In the Responsibilities window, select your responsibility and choose OK.
- In the Navigator window, select Oracle Healthcare Transaction Base. All HTB windows can be accessed from this menu, using the navigation paths indicated by Table A–1.

To use Table A–1, Navigation Paths:

Find the function or window name, within one of the following window-based implementation procedures:

- Implementing Audit Services
- Implementing ETS Services
- Implementing Person Services
- Implementing Profile Option Services
- Implementing Security Services

Table A–1 Navigation Paths

Function or Window	Navigation Path	Section Reference
Implementing Audit Services	...	...
Configuring existing audit event types	`System Profile Option Values > View Profile Option Values > Update`	`Section 4.6.2, Section 4.6.3`
Create profile option	`Profile Options > Create Profile Option`	`Section 4.6.4`
Profile Options Values window	`System Profile Option Values > View Profile Option Values`	`Section 4.6.2, Section 4.6.3`
Profile Options window	`System Profile Option Values`	`Section 4.6.2, Section 4.6.3`
Updating audit event types	`System Profile Option Values > View Profile Option Values > Update`	`Section 4.6.2, Section 4.6.3`
Implementing ETS Services	...	...
Activate the version	`Terminologies > View Versions > Update > Apply`	`Section 4.5.2`
Add to concept list train (from viewing coding scheme versions)	`Terminologies > Versions > Concepts > Add to Concept List train`	`Section 4.5.7.2`
Add to concept list train (from viewing concepts in another concept list)	`Concept Lists > View Concepts > Add to Concept List train`	`Section 4.5.7.2`
Add to concept list train (from viewing related concepts)	`Terminologies > Versions > Concepts > Related Concepts > Add to Concept List train`	`Section 4.5.7.2`
Adding concepts to a concept list (from viewing concepts in another concept list)	`Concept Lists > View Concepts > Add to Another Concept List > Next > Next > Next > Finish`	`Section 4.5.7.2`
Adding concepts to a concept list (from viewing related concepts)	`Terminologies > View Versions > View Concepts > Go > View Related Concepts > Add to Concept List > Next > Next > Next > Finish`	`Section 4.5.7.2`
Adding concepts to a concept list (from viewing search results or coding scheme versions)	`Terminologies > View Versions > View Concepts > Go > Add to Concept List > Next > Next > Next > Finish`	`Section 4.5.7.2`
Assigning usage context to a local description (during creation of a local description from the Concept Update window)	`Terminologies > View Versions > View Concepts > Update > Create Local Description > Apply`	`Section 4.5.6.3`
Assigning usage context to a local description (during creation of a local description from the Update Membership Properties window)	`Concept Lists > View concepts > Update Membership Properties > Create Local Description > Apply`	`Section 4.5.6.3`

Table A–1 (Cont.) Navigation Paths

Function or Window	Navigation Path	Section Reference
Assigning usage context to a local description (existing local description)	`Terminologies > View Versions > View Concepts > Update > Update > Apply`	`Section 4.5.6.3`
Associate a usage context with a concept list at concept list creation	`Concept Lists > Create Concept List > Apply`	`Section 4.5.6.5`
Associate a usage context with an existing concept list	`Concept Lists > Update Properties > Apply`	`Section 4.5.6.5`
Create Coding Scheme window	`Terminologies > Create Coding Scheme`	`Section 4.5.1`
Create Concept List window	`Concept Lists > Create Concept List`	`Section 4.5.6.5, Section 4.5.7.1, Section 4.5.7.5`
Create Local Description window	`Terminologies > Versions > Concepts > Concept > Create Local Description`	`Section 4.5.5`
Create Local Description window (from concept lists)	`Concept Lists > View Concepts > Update Membership Properties > Create Local Description`	`Section 4.5.6.3`
Create Local Description window (from terminologies)	`Terminologies > Versions > Concepts > Concept > Create Local Description`	`Section 4.5.6.3`
Create Usage Context window	`Usage Contexts > Create Usage Context`	`Section 4.5.6.1`
Creating a concept list	`Concept Lists > Create Concept List > Apply`	`Section 4.5.7.1`
Creating a usage context	`Usage Contexts > Create Usage Context`	`Section 4.5.6.1`
Creating local concept description	`Terminologies > View Versions > View Concepts > Update > Create Local Description > Apply`	`Section 4.5.5`
Deleting a usage context	`Usage Contexts > Delete`	`Section 4.5.6.2`
Importing terminologies	`Terminologies > View Versions > Publish`	`Section 4.5.2`
Importing the staged version into the active space	`Terminologies > View Versions > Publish`	`Section 4.5.2`
Initiating concept import process	`Terminologies > Versions > Publish`	`Section 4.5.2`
Load Version window	`Terminologies > View Versions > Load Version`	`Section 4.5.2`
Loading and activating new terminology versions [start load]	`Terminologies > View Versions > Load Staged Version > Apply`	`Section 4.5.2`
Loading and activating new terminology versions [activate version]	`Terminologies > View Versions > Update > Apply`	`Section 4.5.2`

Table A–1 (Cont.) Navigation Paths

Function or Window	Navigation Path	Section Reference
Loading and activating new terminology versions [start import]	`Terminologies > View Versions > Publish`	`Section 4.5.2`
Loading coding scheme versions	`Terminologies > View Versions > Load Staged Version`	`Section 4.5.2`
Loading data and creating a new coding scheme version	`Terminologies > View Versions > Load Staged Version`	`Section 4.5.2`
Searching for a concept in ETS	`Terminologies > View Versions > View Concepts > Go`	`Section 4.5.3`
Searching for a term	`Terminologies > View Versions > View Concepts > Go`	`Section 4.5.3`
Specializing a concept list	`Concept Lists > Create Concept List > Apply`	`Section 4.5.7.5`
Subsetting a concept list of any extensibility type: using the core member setting of list members	`Concept Lists > (Specializations) > View Concepts > Update Membership Properties > Apply`	`Section 4.5.7.6.2`
Subsetting a user concept list	`Concept Lists > (Specializations) > View Concepts > Update Membership Properties > Apply`	`Section 4.5.7.6.1`
Terminologies window	`Terminologies`	`Section 4.5.2`
Update a published version	`Terminologies > View Versions > Update > Apply`	`Section 4.5.2`
Update Concept List Member Properties window	`Concept Lists > (Specializations) > Concepts > Update Membership Properties`	`Section 4.5.7.4, Section 4.5.7.6.1 Section 4.5.7.6.2`
Update Concept List window	`Concept Lists > Update Concept List`	`Section 4.5.6.5, Section 4.5.7.3`
Update Local Description window	`Terminologies > Versions > Concepts > Concept > Update Local`	`Section 4.5.6.3`
Update Published Version window	`Terminologies > Versions > Update Published Version`	`Section 4.5.2`
Updating concept list member properties	`Concept Lists > (Specializations) > View Concepts > Update membership Properties > Apply`	`Section 4.5.7.4`
Updating concept list properties	`Concept Lists > (Specializations) > Update Properties > Apply`	`Section 4.5.7.3`
Version (search) window	`Terminologies > Versions > Concepts`	`Section 4.5.3`
Implementing Person Services	...	...

Table A–1 (Cont.) Navigation Paths

Function or Window	Navigation Path	Section Reference
Attributes and Transformation Functions window	Data Quality Management > Setup > Attributes and Transformation Functions	Section 4.2.3
Batch duplicate Identification[1]	■ Data Quality Management > Duplicate Identification > Batch Definition ■ Data Quality Management > Duplicate Identification > Batch Review	Section 4.2.3
Match Rules window	Data Quality Management > Setup > Match Rules	Section 4.2.3
Monitoring requests	Data Quality Management > View Requests	Section 4.2.3
Running DQM Staging Program (Submit New Request window)	Data Quality Management > Control > Requests > Run	Section 4.2.3
Implementing Profile Option Services	...	...
Create Profile Options window	Profile Options > Create Profile Option	Section 4.4.1.1
Creating profile option values	Main Menu > System Profile Option Values > Click View Profile Option Values icon > Create Profile Option button	Section 4.4.2.1
Deleting profile option values	Main Menu > System Profile Option Values > View Profile Option Values > Click Delete icon	Section 4.4.2.3
Updating profile option values	Main Menu > System Profile Option Values > View Profile Option > Click Update icon	Section 4.4.2.2
Updating profile options	Profile Options > Click update icon for the profile option to be modified	Section 4.4.1.2
Viewing profile option values	Main Menu > System Profile Option Values	Section 4.4.2.1, Section 4.4.2.2
Implementing Security Services	...	...
Add child	Criteria > Criteria Search > View Criteria Details > Add Child	Section 4.1.7.2
Assign account to roles	Accounts > View Assigned Roles > Assign Account to Roles	Section 4.1.5

Table A–1 (Cont.) Navigation Paths

Function or Window	Navigation Path	Section Reference
Assign accounts to role	Roles > Roles Search > View Role Details > Assign Accounts to Role	Section 4.1.5
Assign functions to role	Roles > Role Search > View Role Details > Assign Functions to Role	Section 4.1.8
Create criteria	Criteria > Create Criteria	Section 4.1.7.2
Create person	Persons > Create Person	Section 4.1.3
Create profile option value	System Profile Option Values > Profile Options > View Profile Option Values > Create Profile Option Value	Section 4.1.10
Create role	Roles > Add Role	Section 4.1.4
Create system account	Accounts > Create System Account	Section 4.1.3
Create user account	Accounts > Create User Account	Section 4.1.3
Create User window	Navigator > Functions > Users	Section 4.1.1, Section 4.1.2
Update criteria statement	Criteria > Criteria Search > View Criteria Details > Update Criteria Statement	Section 4.1.7.2

[1] This function is used for unattended duplicate identification in batch mode. For further information, see: Oracle Trading Community Architecture Data Quality Management Guide, Batch Duplicate Identification section.

B

HTB Session Service

HTB Session Service lets users interact with the HTB platform, and provides a call interface to all supported interfaces. It lets users initiate authenticated sessions, while maintaining context information. The session service has the following built-in context attributes (Table B–1):

Table B–1 Session Service Attributes[1]

Attribute Name	Description	Value
`Break-the-glass`	Whether to bypass authorization	'Y' or 'N'
`Enterprise Org ID`	The enterprise where user logs in	A valid org ID
`Language ID`	For localization purpose	`CTB_LANGUAGE_CODE`
`LoginOrg ID`	The organization where users logs in	A valid org ID
`LoginPersonId`	Person identifier of the user	A valid person ID
`User`	The authenticated user object	User

[1] Note that users can also define their own session attributes.

To initiate a user session you must execute a Java program, coded in substantial conformance with the following sample, and customized to the unique requirements of your installation:

Sample Java Code to Create a Session

```
package sample;

import oracle.apps.ctb.fwk.serviceLocator.common.ServiceLocator;
import oracle.apps.ctb.security.SessionService;
import oracle.apps.ctb.security.SessionContext;
import oracle.apps.ctb.admin.staff.PositionService;

//add other imports as necessary

public class Session
{
  public static void main(String [] args)
  {
    try
    {
      //using remote mode
      System.setProperty("ClientMode", "remote");
      ServiceLocator serviceLocator;
      serviceLocator = ServiceLocator.getInstance();

      // authenticate with user name/password
      SessionService sessionService =
      serviceLocator.getSessionService("sysadmin", "sysadmin");
```

```
      String cookie = sessionService.createSession(  );
      System.out.println("Created session. cookie: " + cookie);

      SessionContext sessionContext = sessionService.getCTBSessionContext(  );
      System.out.println("Retrieved SessionContext ");

      sessionContext.setBreakTheGlass("broken");
      sessionService.updateSessionContext(sessionContext);
      System.out.println("Updated context - broke the glass");

      // now authenticate with only ICX_COOKIE
      // any service acquired using ICX_COOKIE will have the glass broken, and
      hence
      // all functional security disabled.

      PositionService positionService = serviceLocator.getPositionService("ICX
      _COOKIE", cookie);
      System.out.println("PositionService acquired using cookie.");

      //Place your code here

    }
    catch(Throwable ex)
    {
      ex.printStackTrace();
    }
  }
}
```

HTB Session Timeout

An HTB session is created when a user logs in to HTB (when `login` is called on the `ServiceLocator`).

HTB session timeout is controlled by the following E-Business Suite profile options:

- **ICX: Session Timeout:** The amount of time between session validations. A session is validated each time an HTB API is called. The default is no inactivity timeout.
- **ICX: Limit time:** The total amount of time in hours since a session was created. Defines the amount of time that a session is valid. The default is four hours.
- **ICX: Limit Connect:** The number of times a session is validated. A session is validated each time an HTB API is called. The default is 1,000.

See Also: *Oracle Self-Service Web Applications Implementation Guide* for more information about setting these profile options.

C

ETS Terminology

Table C–1 defines terminology or vocabulary standards supported by Oracle Healthcare Transaction Base:

Table C–1 ETS Terminology

Terminology	Core ETS Terminology?	Seeded in ETS?
CPT4	Yes	No
DRG	Yes	No
HCPCS Level II	Yes	No
HL7	Yes	Yes
HTB Supplemental	No (supported as generic terminology)	Yes
ICD-9-CM[1]	Yes	No
ICD-10	Yes	No
IETF 1766[1,2]	No (supported as generic terminology)	Yes
ISO 3166-1[1]	No (supported as generic terminology)	Yes
LOINC	Yes	No
MDC	Yes	No
SNOMED CT	Yes	No
UB92[1,3]	No (supported as generic terminology)	Yes

[1] Referenced by HL7 as an external vocabulary domain.

[2] IETF 1766 references ISO 639-1. A subset of ISO 639-1 codes is loaded into ETS.

[3] A subset is loaded into ETS.

D

Seeded Users, Responsibilities, Roles

This Appendix lists predefined (seeded) users, responsibilities, roles, menus, grants, and criteria included with the HTB Platform, in the following tables:

- Table D–1, Seeded Users
- Table D–2, Seeded Responsibilities
- Table D–3, Seeded Roles
- Table D–4, Seeded Grants

Table D–1 Seeded Users

User Name	Description
SYSADMIN	Only user name seeded in HTB. This user name also provides access to all functions within the E-Business Suite.

Table D–2 Seeded Responsibilities

Responsibility Name	Description
Healthcare Application Developer	Creates and updates Profile Options. See: Section 4.4, Implementing Profile Option Services
Healthcare Configuration Administrator	Creates and updates Profile Option values, including those for Lookup and Audit Services. See: ■ Section 4.4, Implementing Profile Option Services ■ Section 4.6, Implementing Audit Services
Healthcare ETS Administrator	Implements Enterprise Terminology Services. See: Section 4.5, Implementing Enterprise Terminology Services
Healthcare Security Administrator	Seeded in current release, but to be implemented for use by HTB Security Services in subsequent release.
Trading Community Manager	Implementing Person Services (TCA Responsibility)

Table D–3 Seeded Roles

Role Name	Description
Healthcare Security Administrator	Users of this role administer accounts and security policies.
Inbound Message Processor	Used by Inbound Message Processor to process inbound messages.

Table D–4 Seeded Grants

Grant Name	Role Name	Function Name
GlobalGrant[1]	**Healthcare Application Developer**[1]	■ <All Functions> ■ <Person Services Service Functions> ■ <ProfileOption Service Functions> ■ <Security Service Functions>

[1] Seeded in current release, but to be implemented to support HTB Security Services in subsequent release.

E

Seeded Profile Options

Table E–1 lists predefined (seeded) profile options and associated lookup codes included with the HTB platform, sorted by Profile Option Code:

Table E–1 Profile Options

Code	Name	Description	Value Type Code	Default Value[1]
ADDRESS_STATUS_ ATTRIBUTE	Address Status Custom Attribute	Identifies which CUSTOM_ ATTRIBUTEXXX is used for Identification Number.	TEXT	N
CTB_AU_ADD_PRINCIPAL	CTB: Audit Add Principal	Audit events of this type represent attempts to create system or user accounts.	CTB_YES_NO	Y
CTB_AU_ADD_ROLE	CTB: Audit Add Role	Audit events of this type represent attempts to create security roles.	CTB_YES_NO	Y
CTB_AU_ADD_RULE	CTB: Audit Add Rule	Audit events of this type represent attempts to create security rules.	CTB_YES_NO	Y
CTB_AU_AUDIT_FLAG	CTB: Auditing On	When set to YES, Auditing Service is enabled; all defined audit events can be audited.	CTB_YES_NO	Y
CTB_AU_BREAK_THE_ GLASS	CTB: Audit Break the Glass	Audit events of this type represent attempts to break-the-glass.	CTB_YES_NO	Y
CTB_AU_DELETE_ PRINCIPAL	CTB: Audit Delete Principal	Audit events of this type represent attempts to delete system or user accounts.	CTB_YES_NO	Y
CTB_AU_DELETE_ROLE	CTB: Audit Delete Role	Audit events of this type represent attempts to delete security roles.	CTB_YES_NO	Y
CTB_AU_DELETE_RULE	CTB: Audit Delete Rule	Audit events of this type represent attempts to delete security rules.	CTB_YES_NO	Y
CTB_AU_GRANT	CTB: Audit Grant	Audit events of this type represent requests for authorization.	CTB_YES_NO	Y
CTB_AU_MERGE_ PRINCIPAL	CTB: Audit Merge Principal	Audit events of this type represent attempts to merge system or user accounts.	CTB_YES_NO	Y
CTB_AU_READ_ PRINCIPAL	CTB: Audit Read Principal	Audit events of this type represent attempts to view system or user accounts.	CTB_YES_NO	Y
CTB_AU_READ_ROLE	CTB: Audit Read Role	Audit events of this type represent attempts to view security roles.	CTB_YES_NO	Y
CTB_AU_READ_RULE	CTB: Audit Read Rule	Audit events of this type represent attempts to view security rules.	CTB_YES_NO	Y
CTB_AU_RECEIVE_ACK	CTB: Audit Receive Acknowledgement	Audit events of this type represent attempt to receive an acknowledgement.	CTB_YES_NO	Y

Table E–1 (Cont.) Profile Options

Code	Name	Description	Value Type Code	Default Value[1]
CTB_AU_RECEIVE_MSG	CTB: Audit Receive Message	Audit events of this type represent attempt to receive a message.	CTB_YES_NO	Y
CTB_AU_SEND_ACK	CTB: Audit Send Acknowledgement	Audit events of this type represent attempt to send an acknowledgement.	CTB_YES_NO	Y
CTB_AU_SEND_MSG	CTB: Audit Send Message	Audit events of this type represent attempt to send a message.	CTB_YES_NO	Y
CTB_AU_SUBMIT_TRANS	CTB: Audit Submit Transaction	Audit events of this type represent attempt to submit a transaction.	CTB_YES_NO	Y
CTB_AU_UPDATE_ PRINCIPAL	CTB: Audit Update Principal	Audit events of this type represent attempts to update system or user accounts.	CTB_YES_NO	Y
CTB_AU_UPDATE_ROLE	CTB: Audit Update Role	Audit events of this type represent attempts to update security roles.	CTB_YES_NO	Y
CTB_AU_UPDATE_RULE	CTB: Audit Update Rule	Audit events of this type represent attempts to update security rules.	CTB_YES_NO	Y
CTB_LOGIN_URL	CTB: Login URL	URL to log in to HTB.	TEXT	N
DQM_ IDENTIFICATION_ NAME	DQM Identification Name	Identifies which Identification Type/Issuing Authority combination is passed to DQM for matching.	CTB_PI_ PARTY_ID_ TYPES	N
DUPLICATE_THRESHOLD	Duplicate Threshold	Identifies Duplicate Threshold for matching.	NUMBER	N
EXTERNAL_PERSON_ID_ ATTRIBUTE	External Person ID Custom Attribute	Identifies which ATTRIBUTEXXX is used for external person id in HZ_ PARTIES (used in batch correlation for temporary storage of external IDs)	TEXT	N
EXTERNAL_SYSTEM_ID_ ATTRIBUTE	External System ID Custom Attribute	Identifies which ATTRIBUTEXXX is used for external person system in HZ_PARTIES (used in batch correlation for temporary storage of external IDs).	TEXT	N
IDENTIFICATION_ ATTRIBUTE	Identification Custom Attribute	Identifies which CUSTOM_ ATTRIBUTEXXX is used for Identification Number.	TEXT	N

Table E–1 (Cont.) Profile Options

Code	Name	Description	Value Type Code	Default Value[1]
PHONE_STATUS_ATTRIBUTE	Phone Status Custom Attribute	Identifies which CUSTOM_ATTRIBUTEXXX is used for HZ_CONTACT_POINTS.STATUS.	TEXT	N
PHONE_USAGE_TYPE_ATTRIBUTE	Phone Usage Type Custom Attribute	Identifies which CUSTOM_ATTRIBUTEXXX is used for HZ_CONTACT_POINTS.CONTACT_POINT_PURPOSE.	TEXT	N
RULE_NAME	Rule Name	Identifies which Rules set to use for auto-matching within Create and Correlate interfaces.	TEXT	N

[1] Values not seeded; must be set by System Administrator during initial implementation.

F

Seeded Audit Events

Table F–1 lists predefined (seeded) audit events included with the HTB platform, sorted by Audit Event Type:

Table F–1 Seeded Audit Events

Event Type	Description
Security Services	...
CTB_AU_ADD_PRINCIPAL	Add Principal Event
CTB_AU_ADD_ROLE	Add Role Event
CTB_AU_ADD_RULE	Add Rule Event
CTB_AU_BREAK_THE_GLASS	Set Context Attribute Event
CTB_AU_DELETE_PRINCIPAL	Delete Principal Event
CTB_AU_DELETE_ROLE	Delete Role Event
CTB_AU_DELETE_RULE	Delete Rule Event
CTB_AU_GRANT	Grant Event
CTB_AU_MERGE_PRINCIPAL	Merge Principal Event
CTB_AU_READ_PRINCIPAL	Read Principal Event
CTB_AU_READ_ROLE	Read Role Event
CTB_AU_READ_RULE	Read Rule Event
CTB_AU_UPDATE_PRINCIPAL	Update Principal Event
CTB_AU_UPDATE_ROLE	Update Role Event
CTB_AU_UPDATE_RULE	Update Rule Event
Messaging Services	...
CTB_AU_RECEIVE_ACK	Receive Acknowledgement Event
CTB_AU_RECEIVE_MSG	Receive Message Event
CTB_AU_SEND_ACK	Send Acknowledgement Event
CTB_AU_SEND_MSG	Send Message Event
CTB_AU_SUBMIT_TRANS	Submit Transaction Event

G

Predefined Concept Lists

This Appendix contains the following reference table that documents predefined concept lists—*with no seeded values:*

- Table G–1, Predefined Concept Lists [No Seeded Values]

See Also:

Lookup Type Index[1], linked from `LookupService` Interface, *Oracle Javadoc for HTB*

[1] Lookup Types are synonymous with concept lists.

Table G–1 Predefined Concept Lists [No Seeded Values]

Subject Area	HTB Lookup (ETS Concept List)	Concept Suggestions
Clinical	CTB_ACT_REASON_CODE[1]	HL7 ActReason codes or other locally defined concepts
Clinical	CTB_CL_ACT_REASON_CNTRL_ACT[2]	Reason for the trigger event, for example, why the order was cancelled. The values are customer defined and could be things like: patient condition changed (cancel); allergy (obsolete); waiting for test results (suspend), others.
Clinical	CTB_CL_ACT_REASON_ENC_EVENT[2]	SNOMED CT procedure or disease concepts
Clinical	CTB_CL_ACT_REASON_OBS_EVENT[2]	SNOMED CT procedure or disease concepts
Clinical	CTB_CL_ACT_REASON_OBS_ORDER[2]	SNOMED CT procedure or disease concepts
Clinical	CTB_CL_APPROACH_SITE[1]	...
Clinical	CTB_CL_MATRL_CLASS_TYPE[3]	...
Clinical	CTB_CL_PROC_METHOD[1]	SNOMED CT procedure concepts
Clinical	CTB_CL_TARG_SITE[1]	SNOMED CT procedural approach concepts
Clinical	CTB_PH_DETECT_METHOD_CODE[3]	...
Clinical	CTB_PH_IMPT_DISEASE_CODE[3]	...
Clinical	CTB_PH_TRANS_METHOD_CODE[3]	...
Clinical	CTB_SBAM_POTNCY_UNIT_CODE[3]	...
Clinical	CTB_SBAM_QTY_UNIT_CODE[3]	...
Clinical	CTB_SBAM_RATE_UNIT_CODE[3]	...
Encounter Management	CTB_EM_ACUITY_LEVEL_CODE[1]	...
Encounter Management	CTB_EM_ENC_TYPE_CODE[1]	...
Encounter Management	CTB_EM_FINANCIAL_CLASS_CODE[1]	...
Encounter Management	CTB_EM_GROUP_SUBTYPE_CODE[1]	...
Encounter Management	CTB_EM_GROUP_TYPE_CODE[1]	...
Encounter Management	CTB_EM_MEDICAL_SERVICE_CODE[1]	...
Encounter Management	CTB_EM_PUBLICITY_CODE[4,1]	...
Patient Registration	CTB_PR_VIP_CODE[1]	...
Patient Registration	CTB_WORSHIP_PLACE[1]	...
Scheduling	CTB_PS_APPT_CODE[1]	Procedure or diagnostic code associated with appointment and/or appointment type (for example, 0012T). From ICD-9, ICD-10, CPT.

Table G–1 (Cont.) Predefined Concept Lists [No Seeded Values]

Subject Area	HTB Lookup (ETS Concept List)	Concept Suggestions
Scheduling	CTB_PS_APPT_TYPE[1]	Configured by customer; examples include consultation, allergy shot and echocardiogram.
Scheduling	CTB_PS_PROC_CATEGORY[1]	Configured by customer, examples include Arthroscopy, Exam, Ultrasound, Immunization.
Staff Registration	CTB_ST_PROVIDER_CLASS_CODE[3]	X12N Provider Taxonomy Classification codes
Staff Registration	CTB_ST_PROVIDER_SPECIAL_CODE[3]	X12N Provider Taxonomy Specialization codes
Wait List Management	CTB_WL_ACTION_REASON[1]	...

[1] Must be filled in by customer during implementation.

[2] Concept list has been created as a convenience, to assist customers in organizing and maintaining concepts to be used as act reasons. The concept list is not used by messaging validation.

[3] Not supported by this Release.

[4] All values present in Release 1.0 have been retired, leaving the list empty, to be filled in by customer entry.

H

Seeded ID Types

Table H–1 lists ID Types that are seeded in the `CTB_PI_PARTY_ID_TYPES` table, included with the HTB Platform:

Table H–1 Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Afghanistan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Albania Birth Certificate
BIRTH CERTFCT	Birth Certificate	Algeria Birth Certificate
BIRTH CERTFCT	Birth Certificate	American Samoa Birth Certificate
BIRTH CERTFCT	Birth Certificate	Andorra Birth Certificate
BIRTH CERTFCT	Birth Certificate	Angola Birth Certificate
BIRTH CERTFCT	Birth Certificate	Anguilla Birth Certificate
BIRTH CERTFCT	Birth Certificate	Antarctica Birth Certificate
BIRTH CERTFCT	Birth Certificate	Antigua and Barbuda Birth Certificate
BIRTH CERTFCT	Birth Certificate	Argentina Birth Certificate
BIRTH CERTFCT	Birth Certificate	Armenia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Aruba Birth Certificate
BIRTH CERTFCT	Birth Certificate	Australia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Austria Birth Certificate
BIRTH CERTFCT	Birth Certificate	Azerbaijan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bahamas Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bahrain Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bangladesh Birth Certificate
BIRTH CERTFCT	Birth Certificate	Barbados Birth Certificate
BIRTH CERTFCT	Birth Certificate	Belarus Birth Certificate
BIRTH CERTFCT	Birth Certificate	Belgium Birth Certificate
BIRTH CERTFCT	Birth Certificate	Belize Birth Certificate
BIRTH CERTFCT	Birth Certificate	Benin Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bermuda Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bhutan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bolivia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bosnia and Herzegovina Birth Certificate
BIRTH CERTFCT	Birth Certificate	Botswana Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bouvet Island Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Brazil Birth Certificate
BIRTH CERTFCT	Birth Certificate	British Indian Ocean Territory Birth Certificate
BIRTH CERTFCT	Birth Certificate	Brunei Darussalam Birth Certificate
BIRTH CERTFCT	Birth Certificate	Bulgaria Birth Certificate
BIRTH CERTFCT	Birth Certificate	Burkina Faso Birth Certificate
BIRTH CERTFCT	Birth Certificate	Burundi Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cambodia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cameroon Birth Certificate
BIRTH CERTFCT	Birth Certificate	Canada Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cape Verde Birth Certificate
BIRTH CERTFCT	Birth Certificate	Catalonia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cayman Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Central African Republic Birth Certificate
BIRTH CERTFCT	Birth Certificate	Chad Birth Certificate
BIRTH CERTFCT	Birth Certificate	Chile Birth Certificate
BIRTH CERTFCT	Birth Certificate	China Birth Certificate
BIRTH CERTFCT	Birth Certificate	Christmas Island Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cocos (Keeling) Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Colombia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Comoros Birth Certificate
BIRTH CERTFCT	Birth Certificate	Congo Birth Certificate
BIRTH CERTFCT	Birth Certificate	Congo, (The Democratic Republic of the) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cook Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Costa Rica Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cote d'Ivoire Birth Certificate
BIRTH CERTFCT	Birth Certificate	Croatia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cuba Birth Certificate
BIRTH CERTFCT	Birth Certificate	Cyprus Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Czech Republic Birth Certificate
BIRTH CERTFCT	Birth Certificate	Denmark Birth Certificate
BIRTH CERTFCT	Birth Certificate	Djibouti Birth Certificate
BIRTH CERTFCT	Birth Certificate	Dominica Birth Certificate
BIRTH CERTFCT	Birth Certificate	Dominican Republic Birth Certificate
BIRTH CERTFCT	Birth Certificate	East Timor Birth Certificate
BIRTH CERTFCT	Birth Certificate	Ecuador Birth Certificate
BIRTH CERTFCT	Birth Certificate	Egypt Birth Certificate
BIRTH CERTFCT	Birth Certificate	El Salvador Birth Certificate
BIRTH CERTFCT	Birth Certificate	Equatorial Guinea Birth Certificate
BIRTH CERTFCT	Birth Certificate	Eritrea Birth Certificate
BIRTH CERTFCT	Birth Certificate	Estonia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Ethiopia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Falkland Islands (Malvinas) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Faroe Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Fiji Birth Certificate
BIRTH CERTFCT	Birth Certificate	Finland Birth Certificate
BIRTH CERTFCT	Birth Certificate	France Birth Certificate
BIRTH CERTFCT	Birth Certificate	French Guiana Birth Certificate
BIRTH CERTFCT	Birth Certificate	French Polynesia Birth Certificate
BIRTH CERTFCT	Birth Certificate	French Southern Territories Birth Certificate
BIRTH CERTFCT	Birth Certificate	Gabon Birth Certificate
BIRTH CERTFCT	Birth Certificate	Gambia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Georgia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Germany Birth Certificate
BIRTH CERTFCT	Birth Certificate	Ghana Birth Certificate
BIRTH CERTFCT	Birth Certificate	Gibraltar Birth Certificate
BIRTH CERTFCT	Birth Certificate	Greece Birth Certificate
BIRTH CERTFCT	Birth Certificate	Greenland Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Grenada Birth Certificate
BIRTH CERTFCT	Birth Certificate	Guadeloupe Birth Certificate
BIRTH CERTFCT	Birth Certificate	Guam Birth Certificate
BIRTH CERTFCT	Birth Certificate	Guatemala Birth Certificate
BIRTH CERTFCT	Birth Certificate	Guinea Birth Certificate
BIRTH CERTFCT	Birth Certificate	Guinea-Bissau Birth Certificate
BIRTH CERTFCT	Birth Certificate	Guyana Birth Certificate
BIRTH CERTFCT	Birth Certificate	Haiti Birth Certificate
BIRTH CERTFCT	Birth Certificate	Heard Island and McDonald Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Holy See (Vatican City State) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Honduras Birth Certificate
BIRTH CERTFCT	Birth Certificate	Hong Kong Birth Certificate
BIRTH CERTFCT	Birth Certificate	Hungary Birth Certificate
BIRTH CERTFCT	Birth Certificate	Iceland Birth Certificate
BIRTH CERTFCT	Birth Certificate	India Birth Certificate
BIRTH CERTFCT	Birth Certificate	Indonesia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Iran (Islamic Republic of) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Iraq Birth Certificate
BIRTH CERTFCT	Birth Certificate	Ireland Birth Certificate
BIRTH CERTFCT	Birth Certificate	Israel Birth Certificate
BIRTH CERTFCT	Birth Certificate	Italy Birth Certificate
BIRTH CERTFCT	Birth Certificate	Jamaica Birth Certificate
BIRTH CERTFCT	Birth Certificate	Japan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Jordan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Kazakhstan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Kenya Birth Certificate
BIRTH CERTFCT	Birth Certificate	Kiribati Birth Certificate
BIRTH CERTFCT	Birth Certificate	Korea, Democratic People's Republic of Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Korea, Republic of Birth Certificate
BIRTH CERTFCT	Birth Certificate	Kuwait Birth Certificate
BIRTH CERTFCT	Birth Certificate	Kyrgyzstan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Lao People's Democratic Republic Birth Certificate
BIRTH CERTFCT	Birth Certificate	Latvia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Lebanon Birth Certificate
BIRTH CERTFCT	Birth Certificate	Lesotho Birth Certificate
BIRTH CERTFCT	Birth Certificate	Liberia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Libyan Arab Jamahiriya Birth Certificate
BIRTH CERTFCT	Birth Certificate	Liechtenstein Birth Certificate
BIRTH CERTFCT	Birth Certificate	Lithuania Birth Certificate
BIRTH CERTFCT	Birth Certificate	Luxembourg Birth Certificate
BIRTH CERTFCT	Birth Certificate	Macau Birth Certificate
BIRTH CERTFCT	Birth Certificate	Macedonia, (The Former Yugoslav Republic of) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Madagascar Birth Certificate
BIRTH CERTFCT	Birth Certificate	Malawi Birth Certificate
BIRTH CERTFCT	Birth Certificate	Malaysia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Maldives Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mali Birth Certificate
BIRTH CERTFCT	Birth Certificate	Malta Birth Certificate
BIRTH CERTFCT	Birth Certificate	Marshall Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Martinique Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mauritania Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mauritius Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mayotte Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mexico Birth Certificate
BIRTH CERTFCT	Birth Certificate	Micronesia (Federated States of) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Moldova, (Republic of) Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Monaco Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mongolia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Montserrat Birth Certificate
BIRTH CERTFCT	Birth Certificate	Morocco Birth Certificate
BIRTH CERTFCT	Birth Certificate	Mozambique Birth Certificate
BIRTH CERTFCT	Birth Certificate	Myanmar Birth Certificate
BIRTH CERTFCT	Birth Certificate	Namibia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Nauru Birth Certificate
BIRTH CERTFCT	Birth Certificate	Nepal Birth Certificate
BIRTH CERTFCT	Birth Certificate	Netherlands Antilles Birth Certificate
BIRTH CERTFCT	Birth Certificate	Netherlands Birth Certificate
BIRTH CERTFCT	Birth Certificate	New Caledonia Birth Certificate
BIRTH CERTFCT	Birth Certificate	New Zealand Birth Certificate
BIRTH CERTFCT	Birth Certificate	Nicaragua Birth Certificate
BIRTH CERTFCT	Birth Certificate	Niger Birth Certificate
BIRTH CERTFCT	Birth Certificate	Nigeria Birth Certificate
BIRTH CERTFCT	Birth Certificate	Niue Birth Certificate
BIRTH CERTFCT	Birth Certificate	Norfolk Island Birth Certificate
BIRTH CERTFCT	Birth Certificate	Northern Mariana Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Norway Birth Certificate
BIRTH CERTFCT	Birth Certificate	Obsolete see CD territory Birth Certificate
BIRTH CERTFCT	Birth Certificate	Obsolete see FR territory Birth Certificate
BIRTH CERTFCT	Birth Certificate	Obsolete see LT territory Birth Certificate
BIRTH CERTFCT	Birth Certificate	Oman Birth Certificate
BIRTH CERTFCT	Birth Certificate	Pakistan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Palau Birth Certificate
BIRTH CERTFCT	Birth Certificate	Palestinian Territory, (Occupied) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Panama Birth Certificate
BIRTH CERTFCT	Birth Certificate	Papua New Guinea Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	Paraguay Birth Certificate
BIRTH CERTFCT	Birth Certificate	Peru Birth Certificate
BIRTH CERTFCT	Birth Certificate	Philippines Birth Certificate
BIRTH CERTFCT	Birth Certificate	Pitcairn Birth Certificate
BIRTH CERTFCT	Birth Certificate	Poland Birth Certificate
BIRTH CERTFCT	Birth Certificate	Portugal Birth Certificate
BIRTH CERTFCT	Birth Certificate	Puerto Rico Birth Certificate
BIRTH CERTFCT	Birth Certificate	Qatar Birth Certificate
BIRTH CERTFCT	Birth Certificate	Reunion Birth Certificate
BIRTH CERTFCT	Birth Certificate	Romania Birth Certificate
BIRTH CERTFCT	Birth Certificate	Russian Federation Birth Certificate
BIRTH CERTFCT	Birth Certificate	Rwanda Birth Certificate
BIRTH CERTFCT	Birth Certificate	Saint Helena Birth Certificate
BIRTH CERTFCT	Birth Certificate	Saint Kitts and Nevis Birth Certificate
BIRTH CERTFCT	Birth Certificate	Saint Lucia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Saint Pierre and Miquelon Birth Certificate
BIRTH CERTFCT	Birth Certificate	Saint Vincent and the Grenadines Birth Certificate
BIRTH CERTFCT	Birth Certificate	Samoa Birth Certificate
BIRTH CERTFCT	Birth Certificate	San Marino Birth Certificate
BIRTH CERTFCT	Birth Certificate	Sao Tome and Principe Birth Certificate
BIRTH CERTFCT	Birth Certificate	Saudi Arabia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Senegal Birth Certificate
BIRTH CERTFCT	Birth Certificate	Seychelles Birth Certificate
BIRTH CERTFCT	Birth Certificate	Sierra Leone Birth Certificate
BIRTH CERTFCT	Birth Certificate	Singapore Birth Certificate
BIRTH CERTFCT	Birth Certificate	Slovakia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Slovenia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Solomon Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Somalia Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	South Africa Birth Certificate
BIRTH CERTFCT	Birth Certificate	South Georgia and the South Sandwich Island Birth Certificate
BIRTH CERTFCT	Birth Certificate	Spain Birth Certificate
BIRTH CERTFCT	Birth Certificate	Sri Lanka Birth Certificate
BIRTH CERTFCT	Birth Certificate	Sudan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Suriname Birth Certificate
BIRTH CERTFCT	Birth Certificate	Svalbard and Jan Mayen Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Swaziland Birth Certificate
BIRTH CERTFCT	Birth Certificate	Sweden Birth Certificate
BIRTH CERTFCT	Birth Certificate	Switzerland Birth Certificate
BIRTH CERTFCT	Birth Certificate	Syrian Arab Republic Birth Certificate
BIRTH CERTFCT	Birth Certificate	Taiwan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Tajikistan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Tanzania, (United Republic of) Birth Certificate
BIRTH CERTFCT	Birth Certificate	Thailand Birth Certificate
BIRTH CERTFCT	Birth Certificate	Togo Birth Certificate
BIRTH CERTFCT	Birth Certificate	Tokelau Birth Certificate
BIRTH CERTFCT	Birth Certificate	Tonga Birth Certificate
BIRTH CERTFCT	Birth Certificate	Trinidad and Tobago Birth Certificate
BIRTH CERTFCT	Birth Certificate	Tunisia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Turkey Birth Certificate
BIRTH CERTFCT	Birth Certificate	Turkmenistan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Turks and Caicos Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Tuvalu Birth Certificate
BIRTH CERTFCT	Birth Certificate	Uganda Birth Certificate
BIRTH CERTFCT	Birth Certificate	Ukraine Birth Certificate
BIRTH CERTFCT	Birth Certificate	United Arab Emirates Birth Certificate
BIRTH CERTFCT	Birth Certificate	United Kingdom Birth Certificate

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
BIRTH CERTFCT	Birth Certificate	United States Birth Certificate
BIRTH CERTFCT	Birth Certificate	United States Minor Outlying Islands Birth Certificate
BIRTH CERTFCT	Birth Certificate	Uruguay Birth Certificate
BIRTH CERTFCT	Birth Certificate	Uzbekistan Birth Certificate
BIRTH CERTFCT	Birth Certificate	Vanuatu Birth Certificate
BIRTH CERTFCT	Birth Certificate	Venezuela Birth Certificate
BIRTH CERTFCT	Birth Certificate	Viet Nam Birth Certificate
BIRTH CERTFCT	Birth Certificate	Virgin Islands, British Birth Certificate
BIRTH CERTFCT	Birth Certificate	Virgin Islands, U.S. Birth Certificate
BIRTH CERTFCT	Birth Certificate	Wallis and Futuna Birth Certificate
BIRTH CERTFCT	Birth Certificate	Western Sahara Birth Certificate
BIRTH CERTFCT	Birth Certificate	Yemen Birth Certificate
BIRTH CERTFCT	Birth Certificate	Yugoslavia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Zambia Birth Certificate
BIRTH CERTFCT	Birth Certificate	Zimbabwe Birth Certificate
CANADA DRIVER LCNS	Canada Driver's License	Alberta Driver's License
CANADA DRIVER LCNS	Canada Driver's License	British Columbia Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Manitoba Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Nanavut Driver's License
CANADA DRIVER LCNS	Canada Driver's License	New Brunswick Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Newfoundland Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Northwest Territories Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Nova Scotia Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Ontario Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Prince Edward Island Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Quebec Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Saskatchewan Driver's License
CANADA DRIVER LCNS	Canada Driver's License	Yukon Territories Driver's License

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
CITIZENSHIP CARD	US Citizenship Card	US Citizenship Card
MILITARY IDNTFCTN CARD	U.S. Military Identification Card	U.S. Military Identification Card
MILITARY SEPARATION CARD	U.S. Military Separation Document	U.S. Military Separation Document
NATURALIZATION CERTFCT	U.S. Certificate of Naturalization	U.S. Certificate of Naturalization
PASSPORT	Passport	Afghanistan Passport
PASSPORT	Passport	Albania Passport
PASSPORT	Passport	Algeria Passport
PASSPORT	Passport	American Samoa Passport
PASSPORT	Passport	Andorra Passport
PASSPORT	Passport	Angola Passport
PASSPORT	Passport	Anguilla Passport
PASSPORT	Passport	Antarctica Passport
PASSPORT	Passport	Antigua and Barbuda Passport
PASSPORT	Passport	Argentina Passport
PASSPORT	Passport	Armenia Passport
PASSPORT	Passport	Aruba Passport
PASSPORT	Passport	Australia Passport
PASSPORT	Passport	Austria Passport
PASSPORT	Passport	Azerbaijan Passport
PASSPORT	Passport	Bahamas Passport
PASSPORT	Passport	Bahrain Passport
PASSPORT	Passport	Bangladesh Passport
PASSPORT	Passport	Barbados Passport
PASSPORT	Passport	Belarus Passport
PASSPORT	Passport	Belgium Passport
PASSPORT	Passport	Belize Passport
PASSPORT	Passport	Benin Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Bermuda Passport
PASSPORT	Passport	Bhutan Passport
PASSPORT	Passport	Bolivia Passport
PASSPORT	Passport	Bosnia and Herzegovina Passport
PASSPORT	Passport	Botswana Passport
PASSPORT	Passport	Bouvet Island Passport
PASSPORT	Passport	Brazil Passport
PASSPORT	Passport	British Indian Ocean Territory Passport
PASSPORT	Passport	Brunei Darussalam Passport
PASSPORT	Passport	Bulgaria Passport
PASSPORT	Passport	Burkina Faso Passport
PASSPORT	Passport	Burundi Passport
PASSPORT	Passport	Cambodia Passport
PASSPORT	Passport	Cameroon Passport
PASSPORT	Passport	Canada Passport
PASSPORT	Passport	Cape Verde Passport
PASSPORT	Passport	Catalonia Passport
PASSPORT	Passport	Cayman Islands Passport
PASSPORT	Passport	Central African Republic Passport
PASSPORT	Passport	Chad Passport
PASSPORT	Passport	Chile Passport
PASSPORT	Passport	China Passport
PASSPORT	Passport	Christmas Island Passport
PASSPORT	Passport	Cocos (Keeling) Islands Passport
PASSPORT	Passport	Colombia Passport
PASSPORT	Passport	Comoros Passport
PASSPORT	Passport	Congo Passport
PASSPORT	Passport	Congo, (The Democratic Republic of the) Passport
PASSPORT	Passport	Cook Islands Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Costa Rica Passport
PASSPORT	Passport	Cote d'Ivoire Passport
PASSPORT	Passport	Croatia Passport
PASSPORT	Passport	Cuba Passport
PASSPORT	Passport	Cyprus Passport
PASSPORT	Passport	Czech Republic Passport
PASSPORT	Passport	Denmark Passport
PASSPORT	Passport	Djibouti Passport
PASSPORT	Passport	Dominica Passport
PASSPORT	Passport	Dominican Republic Passport
PASSPORT	Passport	East Timor Passport
PASSPORT	Passport	Ecuador Passport
PASSPORT	Passport	Egypt Passport
PASSPORT	Passport	El Salvador Passport
PASSPORT	Passport	Equatorial Guinea Passport
PASSPORT	Passport	Eritrea Passport
PASSPORT	Passport	Estonia Passport
PASSPORT	Passport	Ethiopia Passport
PASSPORT	Passport	Falkland Islands (Malvinas) Passport
PASSPORT	Passport	Faroe Islands Passport
PASSPORT	Passport	Fiji Passport
PASSPORT	Passport	Finland Passport
PASSPORT	Passport	France Passport
PASSPORT	Passport	French Guiana Passport
PASSPORT	Passport	French Polynesia Passport
PASSPORT	Passport	French Southern Territories Passport
PASSPORT	Passport	Gabon Passport
PASSPORT	Passport	Gambia Passport
PASSPORT	Passport	Georgia Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Germany Passport
PASSPORT	Passport	Ghana Passport
PASSPORT	Passport	Gibraltar Passport
PASSPORT	Passport	Greece Passport
PASSPORT	Passport	Greenland Passport
PASSPORT	Passport	Grenada Passport
PASSPORT	Passport	Guadeloupe Passport
PASSPORT	Passport	Guam Passport
PASSPORT	Passport	Guatemala Passport
PASSPORT	Passport	Guinea Passport
PASSPORT	Passport	Guinea-Bissau Passport
PASSPORT	Passport	Guyana Passport
PASSPORT	Passport	Haiti Passport
PASSPORT	Passport	Heard Island and McDonald Islands Passport
PASSPORT	Passport	Holy See (Vatican City State) Passport
PASSPORT	Passport	Honduras Passport
PASSPORT	Passport	Hong Kong Passport
PASSPORT	Passport	Hungary Passport
PASSPORT	Passport	Iceland Passport
PASSPORT	Passport	India Passport
PASSPORT	Passport	Indonesia Passport
PASSPORT	Passport	Iran (Islamic Republic of) Passport
PASSPORT	Passport	Iraq Passport
PASSPORT	Passport	Ireland Passport
PASSPORT	Passport	Israel Passport
PASSPORT	Passport	Italy Passport
PASSPORT	Passport	Jamaica Passport
PASSPORT	Passport	Japan Passport
PASSPORT	Passport	Jordan Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Kazakhstan Passport
PASSPORT	Passport	Kenya Passport
PASSPORT	Passport	Kiribati Passport
PASSPORT	Passport	Korea, Democratic People's Republic of Passport
PASSPORT	Passport	Korea, Republic of Passport
PASSPORT	Passport	Kuwait Passport
PASSPORT	Passport	Kyrgyzstan Passport
PASSPORT	Passport	Lao People's Democratic Republic Passport
PASSPORT	Passport	Latvia Passport
PASSPORT	Passport	Lebanon Passport
PASSPORT	Passport	Lesotho Passport
PASSPORT	Passport	Liberia Passport
PASSPORT	Passport	Libyan Arab Jamahiriya Passport
PASSPORT	Passport	Liechtenstein Passport
PASSPORT	Passport	Lithuania Passport
PASSPORT	Passport	Luxembourg Passport
PASSPORT	Passport	Macau Passport
PASSPORT	Passport	Macedonia, (The Former Yugoslav Republic of) Passport
PASSPORT	Passport	Madagascar Passport
PASSPORT	Passport	Malawi Passport
PASSPORT	Passport	Malaysia Passport
PASSPORT	Passport	Maldives Passport
PASSPORT	Passport	Mali Passport
PASSPORT	Passport	Malta Passport
PASSPORT	Passport	Marshall Islands Passport
PASSPORT	Passport	Martinique Passport
PASSPORT	Passport	Mauritania Passport
PASSPORT	Passport	Mauritius Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Mayotte Passport
PASSPORT	Passport	Mexico Passport
PASSPORT	Passport	Micronesia (Federated States of) Passport
PASSPORT	Passport	Moldova, (Republic of) Passport
PASSPORT	Passport	Monaco Passport
PASSPORT	Passport	Mongolia Passport
PASSPORT	Passport	Montserrat Passport
PASSPORT	Passport	Morocco Passport
PASSPORT	Passport	Mozambique Passport
PASSPORT	Passport	Myanmar Passport
PASSPORT	Passport	Namibia Passport
PASSPORT	Passport	Nauru Passport
PASSPORT	Passport	Nepal Passport
PASSPORT	Passport	Netherlands Antilles Passport
PASSPORT	Passport	Netherlands Passport
PASSPORT	Passport	New Caledonia Passport
PASSPORT	Passport	New Zealand Passport
PASSPORT	Passport	Nicaragua Passport
PASSPORT	Passport	Niger Passport
PASSPORT	Passport	Nigeria Passport
PASSPORT	Passport	Niue Passport
PASSPORT	Passport	Norfolk Island Passport
PASSPORT	Passport	Northern Mariana Islands Passport
PASSPORT	Passport	Norway Passport
PASSPORT	Passport	Obsolete see CD territory Passport
PASSPORT	Passport	Obsolete see FR territory Passport
PASSPORT	Passport	Obsolete see LT territory Passport
PASSPORT	Passport	Oman Passport
PASSPORT	Passport	Pakistan Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Palau Passport
PASSPORT	Passport	Palestinian Territory, (Occupied) Passport
PASSPORT	Passport	Panama Passport
PASSPORT	Passport	Papua New Guinea Passport
PASSPORT	Passport	Paraguay Passport
PASSPORT	Passport	Peru Passport
PASSPORT	Passport	Philippines Passport
PASSPORT	Passport	Pitcairn Passport
PASSPORT	Passport	Poland Passport
PASSPORT	Passport	Portugal Passport
PASSPORT	Passport	Puerto Rico Passport
PASSPORT	Passport	Qatar Passport
PASSPORT	Passport	Reunion Passport
PASSPORT	Passport	Romania Passport
PASSPORT	Passport	Russian Federation Passport
PASSPORT	Passport	Rwanda Passport
PASSPORT	Passport	Saint Helena Passport
PASSPORT	Passport	Saint Kitts and Nevis Passport
PASSPORT	Passport	Saint Lucia Passport
PASSPORT	Passport	Saint Pierre and Miquelon Passport
PASSPORT	Passport	Saint Vincent and the Grenadines Passport
PASSPORT	Passport	Samoa Passport
PASSPORT	Passport	San Marino Passport
PASSPORT	Passport	Sao Tome and Principe Passport
PASSPORT	Passport	Saudi Arabia Passport
PASSPORT	Passport	Senegal Passport
PASSPORT	Passport	Seychelles Passport
PASSPORT	Passport	Sierra Leone Passport
PASSPORT	Passport	Singapore Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Slovakia Passport
PASSPORT	Passport	Slovenia Passport
PASSPORT	Passport	Solomon Islands Passport
PASSPORT	Passport	Somalia Passport
PASSPORT	Passport	South Africa Passport
PASSPORT	Passport	South Georgia and the South Sandwich Island Passport
PASSPORT	Passport	Spain Passport
PASSPORT	Passport	Sri Lanka Passport
PASSPORT	Passport	Sudan Passport
PASSPORT	Passport	Suriname Passport
PASSPORT	Passport	Svalbard and Jan Mayen Islands Passport
PASSPORT	Passport	Swaziland Passport
PASSPORT	Passport	Sweden Passport
PASSPORT	Passport	Switzerland Passport
PASSPORT	Passport	Syrian Arab Republic Passport
PASSPORT	Passport	Taiwan Passport
PASSPORT	Passport	Tajikistan Passport
PASSPORT	Passport	Tanzania, (United Republic of) Passport
PASSPORT	Passport	Thailand Passport
PASSPORT	Passport	Togo Passport
PASSPORT	Passport	Tokelau Passport
PASSPORT	Passport	Tonga Passport
PASSPORT	Passport	Trinidad and Tobago Passport
PASSPORT	Passport	Tunisia Passport
PASSPORT	Passport	Turkey Passport
PASSPORT	Passport	Turkmenistan Passport
PASSPORT	Passport	Turks and Caicos Islands Passport
PASSPORT	Passport	Tuvalu Passport

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
PASSPORT	Passport	Uganda Passport
PASSPORT	Passport	Ukraine Passport
PASSPORT	Passport	United Arab Emirates Passport
PASSPORT	Passport	United Kingdom Passport
PASSPORT	Passport	United States Minor Outlying Islands Passport
PASSPORT	Passport	United States Passport
PASSPORT	Passport	Uruguay Passport
PASSPORT	Passport	Uzbekistan Passport
PASSPORT	Passport	Vanuatu Passport
PASSPORT	Passport	Venezuela Passport
PASSPORT	Passport	Viet Nam Passport
PASSPORT	Passport	Virgin Islands, British Passport
PASSPORT	Passport	Virgin Islands, U.S. Passport
PASSPORT	Passport	Wallis and Futuna Passport
PASSPORT	Passport	Western Sahara Passport
PASSPORT	Passport	Yemen Passport
PASSPORT	Passport	Yugoslavia Passport
PASSPORT	Passport	Zambia Passport
PASSPORT	Passport	Zimbabwe Passport
RESIDENT ALIEN CARD	U.S. Resident Alien Card	U.S. Resident Alien Card
SOCIAL SECURITY NUM	U.S. Social Security Card	U.S. Social Security Card
TEMP RESIDENT ID CARD	U.S. Temporary Resident Identification Card	U.S. Temporary Resident Identification Card
US DRIVER LCNS	US Driver's License	Alabama Driver's License
US DRIVER LCNS	US Driver's License	Alaska Driver's License
US DRIVER LCNS	US Driver's License	Arizona Driver's License
US DRIVER LCNS	US Driver's License	Arkansas Driver's License
US DRIVER LCNS	US Driver's License	California Driver's License
US DRIVER LCNS	US Driver's License	Colorado Driver's License

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
US DRIVER LCNS	US Driver's License	Connecticut Driver's License
US DRIVER LCNS	US Driver's License	Delaware Driver's License
US DRIVER LCNS	US Driver's License	Florida Driver's License
US DRIVER LCNS	US Driver's License	Georgia Driver's License
US DRIVER LCNS	US Driver's License	Hawaii Driver's License
US DRIVER LCNS	US Driver's License	Idaho Driver's License
US DRIVER LCNS	US Driver's License	Illinois Driver's License
US DRIVER LCNS	US Driver's License	Indiana Driver's License
US DRIVER LCNS	US Driver's License	Iowa Driver's License
US DRIVER LCNS	US Driver's License	Kansas Driver's License
US DRIVER LCNS	US Driver's License	Kentucky Driver's License
US DRIVER LCNS	US Driver's License	Louisiana Driver's License
US DRIVER LCNS	US Driver's License	Maine Driver's License
US DRIVER LCNS	US Driver's License	Maryland Driver's License
US DRIVER LCNS	US Driver's License	Massachusetts Driver's License
US DRIVER LCNS	US Driver's License	Michigan Driver's License
US DRIVER LCNS	US Driver's License	Minnesota Driver's License
US DRIVER LCNS	US Driver's License	Mississippi Driver's License
US DRIVER LCNS	US Driver's License	Missouri Driver's License
US DRIVER LCNS	US Driver's License	Montana Driver's License
US DRIVER LCNS	US Driver's License	Nebraska Driver's License
US DRIVER LCNS	US Driver's License	Nevada Driver's License
US DRIVER LCNS	US Driver's License	New Hampshire Driver's License
US DRIVER LCNS	US Driver's License	New Jersey Driver's License
US DRIVER LCNS	US Driver's License	New Mexico Driver's License
US DRIVER LCNS	US Driver's License	New York Driver's License
US DRIVER LCNS	US Driver's License	North Carolina Driver's License
US DRIVER LCNS	US Driver's License	North Dakota Driver's License
US DRIVER LCNS	US Driver's License	Ohio Driver's License

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
US DRIVER LCNS	US Driver's License	Oklahoma Driver's License
US DRIVER LCNS	US Driver's License	Oregon Driver's License
US DRIVER LCNS	US Driver's License	Pennsylvania Driver's License
US DRIVER LCNS	US Driver's License	Rhode Island Driver's License
US DRIVER LCNS	US Driver's License	South Carolina Driver's License
US DRIVER LCNS	US Driver's License	South Dakota Driver's License
US DRIVER LCNS	US Driver's License	Tennessee Driver's License
US DRIVER LCNS	US Driver's License	Texas Driver's License
US DRIVER LCNS	US Driver's License	Utah Driver's License
US DRIVER LCNS	US Driver's License	Vermont Driver's License
US DRIVER LCNS	US Driver's License	Virginia Driver's License
US DRIVER LCNS	US Driver's License	Washington Driver's License
US DRIVER LCNS	US Driver's License	West Virginia Driver's License
US DRIVER LCNS	US Driver's License	Wisconsin Driver's License
US DRIVER LCNS	US Driver's License	Wyoming Driver's License
US IDNTFCTN CARD	Identification Card	Alabama Identification Card
US IDNTFCTN CARD	Identification Card	Alaska Identification Card
US IDNTFCTN CARD	Identification Card	Arizona Identification Card
US IDNTFCTN CARD	Identification Card	Arkansas Identification Card
US IDNTFCTN CARD	Identification Card	California Identification Card
US IDNTFCTN CARD	Identification Card	Colorado Identification Card
US IDNTFCTN CARD	Identification Card	Connecticut Identification Card
US IDNTFCTN CARD	Identification Card	Delaware Identification Card
US IDNTFCTN CARD	Identification Card	Florida Identification Card
US IDNTFCTN CARD	Identification Card	Georgia Identification Card
US IDNTFCTN CARD	Identification Card	Hawaii Identification Card
US IDNTFCTN CARD	Identification Card	Idaho Identification Card
US IDNTFCTN CARD	Identification Card	Illinois Identification Card
US IDNTFCTN CARD	Identification Card	Indiana Identification Card

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
US IDNTFCTN CARD	Identification Card	Iowa Identification Card
US IDNTFCTN CARD	Identification Card	Kansas Identification Card
US IDNTFCTN CARD	Identification Card	Kentucky Identification Card
US IDNTFCTN CARD	Identification Card	Louisiana Identification Card
US IDNTFCTN CARD	Identification Card	Maine Identification Card
US IDNTFCTN CARD	Identification Card	Maryland Identification Card
US IDNTFCTN CARD	Identification Card	Massachusetts Identification Card
US IDNTFCTN CARD	Identification Card	Michigan Identification Card
US IDNTFCTN CARD	Identification Card	Minnesota Identification Card
US IDNTFCTN CARD	Identification Card	Mississippi Identification Card
US IDNTFCTN CARD	Identification Card	Missouri Identification Card
US IDNTFCTN CARD	Identification Card	Montana Identification Card
US IDNTFCTN CARD	Identification Card	Nebraska Identification Card
US IDNTFCTN CARD	Identification Card	Nevada Identification Card
US IDNTFCTN CARD	Identification Card	New Hampshire Identification Card
US IDNTFCTN CARD	Identification Card	New Jersey Identification Card
US IDNTFCTN CARD	Identification Card	New Mexico Identification Card
US IDNTFCTN CARD	Identification Card	New York Identification Card
US IDNTFCTN CARD	Identification Card	North Carolina Identification Card
US IDNTFCTN CARD	Identification Card	North Dakota Identification Card
US IDNTFCTN CARD	Identification Card	Ohio Driver’s Identification Card
US IDNTFCTN CARD	Identification Card	Oklahoma Identification Card
US IDNTFCTN CARD	Identification Card	Oregon Identification Card
US IDNTFCTN CARD	Identification Card	Pennsylvania Identification Card
US IDNTFCTN CARD	Identification Card	Rhode Island Identification Card
US IDNTFCTN CARD	Identification Card	South Carolina Identification Card
US IDNTFCTN CARD	Identification Card	South Dakota Identification Card
US IDNTFCTN CARD	Identification Card	Tennessee Identification Card
US IDNTFCTN CARD	Identification Card	Texas Identification Card

Table H–1 (Cont.) Seeded ID Types

Identification Type Code	ID Type	Identification Name/Description
US IDNTFCTN CARD	Identification Card	Utah Identification Card
US IDNTFCTN CARD	Identification Card	Vermont Identification Card
US IDNTFCTN CARD	Identification Card	Virginia Identification Card
US IDNTFCTN CARD	Identification Card	Washington Identification Card
US IDNTFCTN CARD	Identification Card	West Virginia Identification Card
US IDNTFCTN CARD	Identification Card	Wisconsin Identification Card
US IDNTFCTN CARD	Identification Card	Wyoming Identification Card

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Error Messages

Table I–1 lists HTB error messages, sorted by Message Number. To use this table, search the Message Number column:

Table I–1 HTB Error Messages

Message Number	Message Name	Message Text	Description
288274	CTB_PL_NULL_PRACSET_ERR	Practice setting cannot be null.	Error
322220	CTB_WG_ORG_UNIT_INVALID_ FORMAT	The organization unit identifier is in an incorrect format.	Error
388024	CTB_ACCOUNT_SEARCH_ INSTRUCTION	To search for an account, enter the account name and choose the Go button:	Simple Accounts Search Instruction.
388025	CTB_ACCT_S_RESULT_INSTRUCTION	To create a System Account that is used by several different users, choose the Create System Account button. To create a User Account that is used by only one user, choose the Create User Account. If a person does not exist, go to the Persons sub tab and create a person.	Accounts Search Result Instruction.
388026	CTB_NEW_SYS_ACCT_INSTRUCTION	To create a new system account, enter the following information and choose the Apply button; system accounts are accessed by multiple users to perform system level tasks:	New System Account Instruction.
388027	CTB_ADV_ACCT_SEARCH_INSTRUC	To search for an account, enter any of the following information and choose the Go button:	Advanced Accounts Search Instruction.
388028	CTB_UPDT_CRTA_STMT_HDR_LBL	Update Criteria Statements:	Select Create Criteria label on HGRID control bar.
388029	CTB_UPDT_CRTA_STMT_ INSTRUCTION	To create new criteria statements or update current statements, enter the following information and choose the Apply button:	Update Criteria Instruction
388030	CTB_UPD_SYS_ACCT_INSTRUCTION	To update the system account, modify the following information and choose the Apply button:	Update System Account Instruction
388031	CTB_UPD_USER_ACCT_INSTRUCTION	To update the user account, enter the following information and choose the Apply button:	Update User Account Instruction.
388032	CTB_ADD_PERSON_INSTRUCTION	To create a new person, enter the following information and choose the Apply button:	Add Person Instruction.
388033	CTB_UPDATE_PERSON_INSTRUCTION	To update this person, enter the following information and choose the Apply button:	Update Person Instruction.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388034	CTB_PERSON_HAS_ACCOUNT_ERROR	The selected person already has an account in the system. Please select another person.	The selected person already has an account.
388035	CTB_SEC_CRTA_ADDED_CONFIRM	Criteria &CRITERIA_NAME is created.	Criteria added confirmation
388036	CTB_MEMBER_ROLE_INSTRUCTION	To assign this account to a role, choose the Assign Account To Roles button.	View Member's Role Instruction.
388037	CTB_ADD_MEMBER_ROLE_ INSTRUCTIO	To assign new roles to this account, enter the following information for each role and choose the Apply button:	Assign new roles to a member instruction.
388038	CTB_UPD_MEMBERSHIP_ INSTRUCTION	To update role membership, enter the date information and choose the Apply button:	Update role membership instruction.
388039	CTB_SEC_CRTA_CREATE_CHLD_ INSTR	To include a child relationship, enter the following instruction and choose the Apply button:	Create Child Criteria Instruction
388040	CTB_DEL_MEMBERSHIP_ INSTRUCTION	Do you want to permanently unassign the account from the following roles?	Delete membership instruction.
388041	CTB_ACCT_PERSON_NAME_TIP	Associating a Person with this Account will change the account type to User Account.	Person entry tip in update system account.
388042	CTB_PERSON_CREATE_INSTRUCTION	Choose the Yes button to create the person but not the user account. the No button to cancel without creating the person or user account.	Account creation cancellation confirmation message.
388043	CTB_CREATE_ROLE_INSTRUCTION	To create a new role, enter the following information and choose the Apply button:	Create new role instruction.
388044	CTB_SEARCH_PERSON_NAME_TIP	Last Name, First Name	Person entry tip in account advance search.
388045	CTB_DELETE_ROLE_WARNING	Deleting this role is permanent and cannot be reversed. Do you want to delete this role?	Delete role warning message.
388046	CTB_ADD_MEMBERS_INSTRUCTION	To assign new accounts to this role, enter the Account Name for each account and choose the Apply button:	Add new members to a role instruction.
388048	CTB_DELETE_MEMBERS_WARNING	Unassign the following accounts from the named role?	Delete members from a role warning message.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388050	CTB_ADD_CRITERIA_S2_ INSTRUCTIO	To add constraints to the criteria choose the Update Criteria Statements button; to include an object relationship for this criteria choose the Add Child button; to delete any node, select the node and choose the Delete button:	Add Criteria Step 2 Instruction
388055	CTB_ACCOUNT_CREATED_ CONFIRMATI	Account &ACCOUNT_NAME is created.	Account Created Confirmation
388056	CTB_SELECT_ACCOUNT_LABEL	Select an Account and...	Label that appears on the table control bar - Select a Account and proceed
388058	CTB_ACCOUNT_UPDATED_CONFIRM	Account &ACCOUNT_NAME is updated.	Account updated confirmation message.
388059	CTB_NO_SELECTED_ACCOUNT_ERROR	Select at least one account before proceeding.	No account selected error message
388060	CTB_MEMBERSHIP_UPDATED_ CONFIRM	Selected memberships updated.	Membership updated confirmation.
388061	CTB_NO_SELECTED_MEMBERSHIP_ ERR	Select at least one membership before proceeding.	No membership is selected error message.
388062	CTB_MEMBERSHIP_DELETED_ CONFIRM	Roles unassigned successfully.	Memberships deleted confirmation.
388063	CTB_MEMBERSHIP_CREATED_ CONFIRM	Account assigned to roles successfully.	New membership created confirmation message.
388065	CTB_INVALID_ROLE_ENTRY_ERROR	Invalid Role Name. The Role Name either does not exist or the user is already a member of this role. Use the torch light to select a valid Role Name.	Invalid role name entries error message
388066	CTB_INVALID_PERSON_ENTRY_ ERROR	Invalid Person Name. Use the torch light to select a person.	Invalid person name entries error message.
388067	CTB_SELECT_ROLES_LABEL	Select Role and...	Label that appears on the table control bar - Select roles and proceed
388068	CTB_ROLE_CREATED_CONFIRM	Role &ROLE_NAME is created.	Confirmation message telling the user that the new role was successfully created.
388069	CTB_ADD_5_ROWS	Add 5 Rows	Label for table column footer button - Add 5 Rows
388070	CTB_SELECT_MEMBERS_LABEL	Select Assigned Accounts and…	Select members label on table control bar

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388071	CTB_SELECT_SEC_FUNCTIONS_ LABEL	Select Functions and...	Select functions label on table control bar.
388072	CTB_PR_DUPLICATE_PCP	The provider is already a primary care provider for overlapping period.	...
388073	CTB_PR_INVALID_DISABILITY_ CODE	Disability code is not valid.	Validation error message
388074	CTB_PR_INVALID_EMP_STATUS	Employment status code is not valid.	Validation error message
388075	CTB_PR_INVALID_EMPLOYER_ID	Employer ID is not valid.	Validation error message
388076	CTB_PR_INVALID_END_DATE	Effective start date should be before effective end date.	Validation error message
388077	CTB_PR_INVALID_FILING_ORDER	Insurance claim filing order is not valid.	Validation error message
388078	CTB_PR_INVALID_FLAG	Flag can be either 'Y' for yes or 'N' for no.	Validation error message
388079	CTB_PR_INVALID_INSURANCE_TYPE	Insurance type code is not valid.	Validation error message
388080	CTB_PR_INVALID_MED_COND_TYPE	Medical condition type code is not valid.	Validation error message
388082	CTB_PR_INVALID_ORG_ID	Organization's party ID is not valid.	Validation error message
388083	CTB_PR_INVALID_PAYER_ID	Payer ID is not valid.	Validation error message
388084	CTB_PR_INVALID_PERSON_ID	Person's party ID is not valid.	Validation error message
388085	CTB_PR_INVALID_PLAN_ID	Insurance plan ID is not valid.	Validation error message
388086	CTB_PR_INVALID_PROVIDER_ID	Provider's ID is not valid.	Validation error message
388087	CTB_PR_INVALID_REL_PERSON_ TYPE	Related person type code is not valid.	Validation error message
388088	CTB_PR_INVALID_RELATIONSHIP	Relationship code is not valid.	Validation error message
388089	CTB_PR_DUPLICATE_EMPLOYER	There is already an employment record with the same employer in overlapping effective date.	Validation error message
388090	CTB_PR_REG_PCP_DATA_NOT_REQ	Name and phone number are not required for registered provider.	Validation error message
388091	CTB_PR_NON_REG_PROV_DATA_REQ	Name and phone number are required for non registered provider.	Validation error message
388092	CTB_PR_INVALID_VERIF_SOURCE	Insurance verification source code is invalid.	Validation error message
388093	CTB_PR_POLICY_HOLDER_ID_REQ	Either person party ID or related person ID must have a value.	Validation error message

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388094	CTB_PR_UPDATE_NOT_ALLOWED	Update is not allowed for this attribute.	Validation error message
388095	CTB_INVALID_AUDIT_LEVEL	Audit Level Profile option should have a value between 1 - 99.	Audit Service has not been setup correctly.
388098	CTB_PERMISSION_NOT_GRANTED	You have not been granted permissions to access this function.	You have not been granted permissions to access this function
388099	CTB_USER_UPDATE_NOT_GRANTED	You have not been granted permissions to update this User.	You have not been granted permissions to update this User.
388100	CTB_INVALID_SECURITY_IDENTITY	You have not been granted permissions to update this User.	Invalid Security Identity
388101	CTB_USER_DELETE_NOT_GRANTED	You have not been granted permissions to delete this User.	You have not been granted permissions to delete this User.
388102	CTB_ROLE_DELETE_NOT_GRANTED	You have not been granted permissions to delete this SecurityRole.	You have not been granted permissions to delete this SecurityRole.
388103	CTB_INVALID_ROLE_NAME	Role Name cannot be null.	Role Name cannot be null.
388104	CTB_ROLE_UPDATE_NOT_GRANTED	You have not been granted permissions to update this SecurityRole.	You have not been granted permissions to update this SecurityRole.
388105	CTB_USER_INVALID_PRIMARY_KEYS	Primary keys are not set in Principal Role Assignments	Primary keys aren't set in Principal Role Assignments
388151	CTB_PROF_UPD_NOT_VIS	A profile option cannot be updatable at a certain level if it is not visible at that level.	Error
388152	CTB_REQ_FLAG_INVALID_VALUE	Invalid value for Required.	Error
388153	CTB_VIS_FLAG_INVALID_VALUE	Invalid value for Visible.	Error
388154	CTB_UPD_FLAG_INVALID_VALUE	Invalid value for Updatable	Error
388155	CTB_MIN_VAL_GREATER_MAX_VAL	Minimum value cannot be greater than the maximum value	Error
388156	CTB_VALUE_TYPE_INVALID	Value Type Invalid.	Error
388157	CTB_INV_API_OPERATION	Invalid Operation for API.	Error
388158	CTB_START_DATE_AFTER_END_DATE	Start date cannot be after the end date.	Error
388159	CTB_APP_ID_INVALID	Invalid application id.	Error
388160	CTB_PROF_OPT_NAME_NOT_UNIQUE	Profile Option Code not unique.	Error

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388161	CTB_PROF_USER_NAME_NOT_UNIQUE	Profile Option Name not unique.	Error
388162	CTB_ORG_ID_INVALID	Organization Id invalid.	Error
388163	CTB_COPAY_CODE_INVALID	Insurance Copay Code Invalid	Error
388164	CTB_COPAY_UNIQUE_IN_OBJ	This copay type already exists within this Insurance Plan	Error
388165	CTB_INS_PLAN_ID_INVALID	Insurance Plan Id invalid	Error
388166	CTB_COPAY_AMT_INVALID	Insurance Plan copay amount invalid	Error
388167	CTB_START_DATE_MISSING	Start date is missing.	Error
388168	CTB_PLAN_L_NAME_NOT_UNIQUE	Insurance Plan long name must be unique	Error
388169	CTB_PLAN_S_NAME_NOT_UNIQUE	Insurance Plan short name must be unique	Error
388170	CTB_VERIFIED_FLAG_INVALID	Verified Flag invalid	Error
388171	CTB_PARTY_SITE_INVALID	Party Site Id invalid.	Error
388172	CTB_ACTIVE_FLAG_INVALID	Active Flag Invalid	Error
388173	CTB_CONTACT_TYPE_NULL	Master Contact Type cannot be null.	Error
388174	CTB_CONTACT_TYPE_INVALID	Master Contact Type code invalid.	Error
388175	CTB_MISSING_CONTACT_ATTR	Missing master contact attribute.	Error
388176	CTB_PARTY_NAME_MISSING	Organization name cannot be null.	Error
388177	CTB_PAYER_LONG_NAME_INVALID	Payer long name invalid.	Error
388178	CTB_PAYER_SHORT_NAME_INVALID	Payer short name invalid.	Error
388179	CTB_EMP_LONG_NAME_INVALID	Employer long name invalid	Error
388180	CTB_EMP_SHORT_NAME_INVALID	Employer short name invalid.	Error
388181	CTB_PAYER_CLASS_INVALID	Payer class invalid.	Error
388182	CTB_PROF_OPT_DEF_VAL_REQUIRED	Default value is required for a profile option if the profile option is required at any level.	Error
388183	CTB_PROF_OPT_NOT_FOUND	Invalid Profile Option: &PROFILE_ OPTION_CODE	Error
388184	CTB_PROF_OPT_INVACTIVE	Profile Option Inactive: &PROFILE_ OPTION_CODE	Error
388185	CTB_PROF_OPT_MISSING_PARAM	Profile Option Level Code and Profile Option Level value must not be null.	Error

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388186	CTB_INVALID_PROF_OPT_VALUE	Profile Option Value Invalid	Error
388187	CTB_USER_ID_NULL	Login User Id is null	Error
388188	CTB_ENTERPRISE_ID_NULL	Login Enterprise Id is null	Error
388189	CTB_LOGIN_ORG_ID_NULL	Login Org Id is null	Error
388190	CTB_PROF_OPT_ID_NULL	Profile Option Id is a required parameter.	Error
388191	CTB_PROF_LEVEL_CODE_NULL	Profile Option Level Code is a required parameter.	Error
388192	CTB_PROF_LEVEL_VALUE_NULL	Profile Option Level Name is a required parameter.	Error
388193	CTB_PROF_LEVEL_NAME_INV	Profile Option Level Name invalid	Error
388194	CTB_LOOKUP_TYPE_NAME_REQ	Lookup Type Name Required	Error
388195	CTB_LOOKUP_TYPE_INV	Lookup Type Invalid	Error
388196	CTB_PERSON_NAME_NOT_FOUND	Person Name Invalid	Error
388197	CTB_VIEW_PROFILE_OPTION_ VALUES	View Profile Option Values: &PROFILE_OPTION_NAME	Title
388198	CTB_RETURN_TO_PROFILE_OPTIONS	Return to Profile Options	Title
388199	CTB_ALL	All	Title
388200	CTB_CREATE_PROFILE_OPTION	Create Profile Option	Title
388201	CTB_PROFILE_OPTION_PROPERTIES	Profile Option Properties: &PROFILE_OPTION_NAME	Title
388202	CTB_UPDATE_PROFILE_OPTION	Update Profile Option	Title
388203	CTB_GO	Go	Title
388204	CTB_CREATE_PROFILE_OPT_VALUE	Create Profile Option Value	Title
388205	CTB_UPDATE_PROFILE_OPT_VALUE	Update Profile Option Value: &PROFILE_OPTION_NAME	Title
388206	CTB_CONCEPT_DESC_LOV_TIP	Select the search icon to pick from the concept's descriptions	Tip
388207	CTB_DATASEC_PROT_OBJ_NOT_ FOUND	Object was not found.	Object was not found.
388208	CTB_DATASEC_JOIN_SQL_NOT_ FOUND	Join SQL for related objects could not be found.	Join SQL for related objects could not be found.
388209	CTB_RULEMGMT_INVALID_FS_RULE	Invalid function security rule.	Invalid function security rule.
388210	CTB_RULEMGMT_INVALID_DS_RULE	Invalid data security rule.	Invalid data security rule.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388211	CTB_RULEMGMT_OBJECT_NOT_FOUND	Object not found.	Object not found.
388212	CTB_RULEMGMT_FUNC_NOT_FOUND	Function not found.	Function not found.
388213	CTB_RULEMGMT_INVALID_FUNCTION	Invalid Function.	Invalid Function.
388214	CTB_RULEMGMT_FUNCTIONS_REQD	Functions must be specified for a rule.	Functions must be specified for a rule.
388215	CTB_AUTH_INVALID_USER_KEY	User grantee key cannot be null.	User grantee key cannot be null.
388216	CTB_WG_ORG_UNIT_DOES_NOT_EXIST	The organization unit identifier associated with the workgroup does not exist.	Error
388217	CTB_WG_ORG_UNIT_LEVEL_INVALID	The organization unit identifier associated with the workgroup must be a facility or enterprise level organization unit.	Error
388218	CTB_WG_ORG_UNIT_REQUIRED	An organization unit identifier must be specified for the workgroup.	Error
388219	CTB_WG_ORG_UNIT_NOT_UPDATABLE	The workgroup cannot be associated with another organization unit.	Error
388221	CTB_WG_ED_LESS_THAN_SD	The workgroups effective end date must be greater than or equal to the workgroups effective start date.	Error
388222	CTB_WG_ED_LESS_THAN_TODAY	The workgroups effective end date must be greater than or equal to today.	Error
388223	CTB_WG_SD_LESS_THAN_TODAY	The workgroups effective start date cannot be prior to today.	Error
388224	CTB_WG_SD_LESS_THAN_ORG_SD	The workgroups effective start date cannot be prior to the organization units effective start date.	Error
388225	CTB_WG_ED_GREATER_THAN_ORG_ED	The workgroups effective end date cannot be later than the organization units effective end date.	Error
388226	CTB_WG_SD_GREATER_THAN_ORG_ED	The workgroups effective start date cannot be greater than the organization units effective end date.	Error
388227	CTB_WG_SD_NOT_UPDATEABLE	The workgroups effective start date cannot be modified for an active or expired workgroup.	Error

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388228	CTB_WG_ED_GREATER_THAN_ORG_SD	The workgroups effective start date cannot be prior to the organization units effective start date.	Error
388229	CTB_WG_ED_NOT_UPDATEABLE	The workgroups effective end date cannot be modified for an expired workgroup.	Error
388230	CTB_WG_TYPE_REQUIRED	A medical service code must be specified for the workgroup.	Error
388231	CTB_WG_TYPE_INVALID_FOR_WG_ORG	The medical service code associated with the workgroup does not exist for the workgroups organization unit.	Error
388232	CTB_WG_TYPE_VALUE_INACTIVE	The medical service code is not active during the workgroups active lifetime.	Error
388233	CTB_WG_NAME_REQUIRED	A name must be specified for the workgroup.	Error
388234	CTB_WG_DUPLICATE	There exists a duplicate active workgroup during this time period.	Error
388235	CTB_WG_NOT_CREATED	The workgroup has not been created yet.	Error
388236	CTB_WG_ESD_REQUIRED	The workgroups effective start date cannot be empty.	Error
388237	CTB_WG_HAS_EXPIRED	The workgroup has already expired.	Error
388238	CTB_WG_HAS_BEEN_CREATED	You cannot create a workgroup using a workgroup that has already been persisted.	Error
388239	CTB_WG_ID_INVALID_FORMAT	The workgroup identifier is in an incorrect format.	Error
388240	CTB_WG_MBR_ORG_INVALID	The staff position identifier associated with the workgroup membership does not belong to the same organization unit as the workgroup does.	Error
388241	CTB_WG_MBR_SD_NOT_UPDATEABLE	The workgroup members effective start date cannot be modified for an active or expired workgroup member.	Error
388242	CTB_WG_MBR_SD_LESS_THAN_WG_SD	The workgroup memberships effective start date cannot be prior to the workgroups effective start date.	Error

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388243	CTB_WG_MBR_SD_GRTR_THAN_WG_ED	The workgroup memberships effective start date cannot be later than the workgroups effective end date.	Error
388244	CTB_WG_MBR_ED_LESS_THAN_SD	The workgroup memberships effective end date must be greater than or equal to their effective start date.	Error
388245	CTB_WG_MBR_ED_GRTR_THAN_WG_ED	The workgroup memberships effective end date cannot be later than the workgroups effective end date.	Error
388246	CTB_WG_MBR_ED_NOT_UPDATEABLE	The workgroup members effective end date cannot be modified for an expired workgroup member.	Error
388247	CTB_WG_MBR_INVALID_ACTIVE_TIME	The workgroup memberships effective start and/or end date is invalid. Staff position identifier:	Error
388248	CTB_WG_MBR_DUPLICATE	There exists a duplicate workgroup membership.	Error
388249	CTB_WG_POS_ID_INVALID_FORMAT	The staff position identifier is in an incorrect format.	Error
388250	CTB_WG_POS_ID_NOT_UPDATEABLE	The workgroup membership cannot be associated with another staff position identifier.	Error
388251	CTB_WG_POS_ID_REQUIRED	A staff position identifier must be specified for the workgroup membership.	Error
388252	CTB_WG_POS_ID_DOES_NOT_EXIST	The staff position identifier associated with the workgroup membership does not exist.	Error
388254	CTB_PL_CREATE_LIST_ERR	The list could not be created.	Error
388255	CTB_PL_SD_LESSTHAN_CRRDATE_ERR	The list could not be created as the start date is before the current date.	Error
388256	CTB_PL_ED_LESSTHAN_SD_ERR	The list could not be created as the end date is before the start date.	Error
388257	CTB_PL_CLMN_NOT_FOUND_ERR	An invalid column was specified.	Error
388258	CTB_PL_CANT_DEL_CORE_CLMN_ERR	Core columns cannot be deleted.	Error
388259	CTB_PL_PROCESS_COLUMN_ERR	Errors were encountered while processing columns.	Error

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388260	CTB_PL_SAME_SORT_ORDER_ERR	Invalid sort order. Columns must be sorted sequentially. No two columns may have the same sort order.	Error
388261	CTB_PL_SORT_ORDER_ERR	An invalid sort order was specified.	Error
388262	CTB_PL_SAME_DISP_SEQ_ERR	Invalid display sequence. Column display sequence must be sequential. No two columns may have the same display sequence number.	Error
388263	CTB_PL_DISP_SEQ_ERR	An invalid display sequence was specified.	Error
388264	CTB_PL_TYPE_MATCH_ERR	Failed to add column to list. Invalid column for this list type.	Error
388265	CTB_PL_VALIDATE_COLUMN_ERR	Errors were encountered while validating columns.	Error
388266	CTB_PL_DUPLICATE_COLUMN_ERR	There is more than one occurrence of this column. A column may only appear on a list once.	Error
388267	CTB_PL_DELETE_LIST_ERR	An error was encountered while deleting this list.	Error
388268	CTB_PL_FIND_LIST_ERR	An error was encountered while finding this list.	Error
388269	CTB_PL_FIND_APPT_LIST_ERR	An error was encountered while finding this appointment list.	Error
388270	CTB_PL_FIND_CUSTOM_LIST_ERR	An error was encountered while finding this custom list.	Error
388271	CTB_PL_FIND_LOCATION_LIST_ERR	An error was encountered while finding this location list.	Error
388272	CTB_PL_FIND_SERVICE_LIST_ERR	An error was encountered while finding this service list.	Error
388273	CTB_PL_POPULATING_CSTM_LST_ ERR	Errors were encountered while populating this custom list.	Error
388275	CTB_PL_NULL_APPTMENT_TIME_ERR	Appointment time cannot be null.	Error
388276	CTB_PL_NULL_SERVICE_ERR	Medical service cannot be null.	Error
388277	CTB_PL_POPULATE_LIST_ERR	Errors were encountered while populating the list.	Error
388278	CTB_PL_INVALID_LIST_TYPE_ERR	An invalid list type was specified.	Error
388279	CTB_PL_INVALID_WKGRP_SRVC_ERR	An invalid list type was specified.	Error

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388280	CTB_PL_WKGRP_SVC_LST_ERR	The specified service and the workgroup service do not match.	Error
388303	CTB_CS_INVALID_VALUE	You have passed an invalid value.	...
388304	CTB_CS_UPDATE_AFTER_ENTITY_EFF	You cannot update the entity once it is Effective.	...
388305	CTB_CS_ASSIGNMENT_EXISTS	An Assignment exists between the specified Care Site and Practice Setting. The same Assignment has to be updated using the updateCareSiteAssignment(...) API.	...
388306	CTB_CS_CANNOT_BE_BEF_CURR_DT	The specified date cannot be before the Current Date.	...
388307	CTB_CS_CARE_SITE_CREATE_ERROR	Error has occurred while creating the Care Site.	...
388308	CTB_CS_INVALID_PARENT_PAT_ROOM	The Patient Room that is parent of the Patient Bed is invalid.	...
388309	CTB_CS_PARENT_PAT_RM_NOT_FOUND	The Patient Room that is parent of the Patient Bed is not found.	...
388310	CTB_CS_TERM_DT_BEFORE_EFF_DT	The Termination Date has to be on or after the Effective Date.	...
388311	CTB_CS_NULL_VALUE	You have passed a null value.	...
388312	CTB_CS_VALUE_NOT_UNIQUE	You have entered a non-unique value.	...
388313	CTB_CS_PATIENT_ROOM_NOT_BARE	The Patient Room contains Beds that are Effective.	...
388314	CTB_CS_CARE_SITE_IS_OCCUPIED	The Care Site is occupied.	...
388315	CTB_CS_CSTE_ASGNED_TO_MULT_PS	The Care Site is assigned to multiple Practice Settings.	...
388316	CTB_CS_PARENT_ROOM_NOT_EFF	The Patient Room that is parent of the Patient Bed is not Effective.	...
388317	CTB_CS_PARTY_SITE_ID_REQD	The Party Site number has to be passed.	...
388318	CTB_CS_PRACTICE_ROOM_REQD	The Practice Room object has to be passed.	...
388319	CTB_CS_PATIENT_ROOM_REQD	The Patient Room object has to be passed.	...
388320	CTB_CS_PARENT_ROOM_ID_REQD	The Patient Room number has to be passed.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388321	CTB_CS_PATIENT_BED_REQD	The Patient Bed object has to be passed.	...
388322	CTB_CS_CARE_SITE_REQD	The Care Site object has to be passed.	...
388323	CTB_CS_CARE_SITE_ID_REQD	The Care Site number has to be passed.	...
388325	CTB_CS_TERM_DATE_REQD	The Termination Date has to be passed.	...
388326	CTB_CS_CARE_SITE_IS_TERMINATED	The Care Site is terminated.	...
388327	CTB_CS_CSTE_INACTIVE_PD_EXISTS	Care Site Inactive Period exists.	...
388328	CTB_CS_HAS_CSTE_ASSIGNMENTS	The Care Site is assigned to one or more Practice Settings.	...
388329	CTB_CS_CSTE_ASGNED_TO_DIFF_PS	The Care Site is assigned to a different Practice Setting.	...
388330	CTB_CS_INACTIVE_PERIOD_REQD	The Care Site Inactive Period object has to be passed.	...
388331	CTB_CS_INAC_DT_BEFORE_CURR_DT	The Inactive Date should be on or after the Current Date.	...
388332	CTB_CS_OBJECT_NOT_FOUND	The search did not find any entity.	...
388333	CTB_CS_INACTIVE_DATE_IS_NULL	The Care Site Inactive Date cannot be null.	...
388334	CTB_CS_REAC_DT_BEFORE_INAC_DT	The Reactivation Date has to be on or after the Inactive Date.	...
388335	CTB_CS_PRAC_SETTING_ID_REQD	The Practice Setting number has to be passed.	...
388336	CTB_CS_START_DATE_REQD	The Start Date has to be passed.	...
388337	CTB_CS_START_DT_BEFORE_CURR_DT	The Start Date has to be on or after the Current Date.	...
388338	CTB_CS_END_DT_BEFORE_START_DT	The End Date has to be on or after the Start Date.	...
388339	CTB_CS_PRAC_RM_OR_PAT_RM_REQD	Practice Room or Patient Room has to be passed.	...
388340	CTB_CS_CSTE_OR_PRAC_ST_ID_REQD	At least one of Care Site number or Practice Setting number has to be passed.	...
388341	CTB_CS_PATIENT_COUNT_INVALID	The number of Patients cannot be negative.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388342	CTB_CS_CARE_SITE_NOT_FOUND	The Care Site object is not found.	...
388343	CTB_CS_CARE_SITE_TYPE_INVALID	The Care Site Type is invalid.	...
388344	CTB_CS_ORG_TYPE_INVALID	The Organization Unit Type is invalid.	...
388345	CTB_CS_PATIENT_COUNT_NEGATIVE	The Patient count is made negative.	...
388346	CTB_CS_INVALID_ASGN_DATES	The Assignment Start Date and Assignment End Date are invalid. dates have to be on or after the Current Date.	...
388347	CTB_CS_ACTIVITY_TYPE_INVALID	You have passed an invalid activity type.	...
388348	CTB_CS_UPD_PRIOR_INACTIVE_PD	A prior Inactive Period cannot be updated.	...
388349	CTB_CS_UPD_PRIOR_ASSIGNMENT_DT	An Assignment Start Date that is current or in the past cannot be updated.	...
388350	CTB_CS_UPD_PRIOR_INACTIVE_DATE	An Inactive Date that is current or in the past cannot be updated.	...
388351	CTB_CS_CURR_OR_FTRE_INAC_EXSTS	An new Inactive Period cannot be created as a current or future Inactive Period exists.	...
388352	CTB_CS_CURR_OR_FTRE_ASGN_EXSTS	An new Care Site Assignment cannot be created as the Care Site is assigned to a Practice Setting or has been assigned to a Practice Setting for a future period.	...
388353	CTB_CS_CARE_SITE_NOT_EFFECTIVE	The Care Site is not Effective.	...
388354	CTB_CS_START_DT_BEF_ORG_EFF_DT	The Start Date has to be on or after the Practice Setting’s Effective Date.	...
388355	CTB_CS_OBJECT_INVALID	The object is invalid.	...
388356	CTB_CS_END_DT_AFT_CSTE_TERM_DT	The End Date has to be on or before the Care Site Termination Date.	...
388357	CTB_CS_END_DT_AFT_ORG_TERM_DT	The End Date has to be on or before the Practice Setting Termination Date.	...
388358	CTB_CS_AFTER_CARE_SITE_TERM_DT	The date cannot be after the Care Site Termination Date.	...
388359	CTB_CS_BEFORE_CARE_SITE_EFF_DT	The date cannot be before the Care Site Effective Date.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388360	CTB_CS_FROM_DATE_REQD	The From Date has to be passed.	...
388361	CTB_CS_CHECK_DATE_REQD	The Check Date has to be passed.	...
388362	CTB_CS_TO_DT_EQ_BEFORE_FROM_DT	The To Date has to be after the From Date.	...
388363	CTB_CS_ATTRIBUTE_NAME_REQD	The attribute name has to be passed.	...
388364	CTB_CS_PARTY_SITE_NOT_FOUND	The Party Site (Facility Location) is not found.	...
388365	CTB_CS_PARTY_SITE_NOT_IN_FAC	The given Party Site (Facility Location) not in facility.	...
388366	CTB_CS_EFF_DT_BEF_PSITE_EFF_DT	Effective Date is before Party Site (Facility Location) Effective Date.	...
388367	CTB_CS_TERM_DT_AFT_PSITE_TERM	Termination Date is after Party Site (Facility Location) Termination Date.	...
388368	CTB_CS_PRAC_ST_NOT_IN_SAME_FAC	Practice Setting is not in same facility as Care Site.	...
388369	CTB_CS_CREATE_ERROR	Error while creating entity.	...
388370	CTB_CS_REAC_DT_AFT_CSTE_TERM	Reactivation Date is after Care Site Termination Date.	...
388371	CTB_CS_INAC_DT_BEF_CSTE_EFF	Inactive Date is before Care Site Effective Date.	...
388372	CTB_CS_TO_DT_BEFORE_FROM_DT	To Date is before From Date.	...
388373	CTB_CS_CARE_SITE_EFFECTIVE	Care Site is Effective.	...
388374	CTB_CS_PARENT_TERM_DT_FIXED	Parent Termination Date is fixed.	...
388375	CTB_CS_UPD_PRIOR_TERM_DT	A Termination Date that is current or in the past cannot be cancelled.	...
388376	CTB_PROFILE_OPTION_TIP	Select the name of a Profile Option to view its properties	...
388377	CTB_LOOKUP_TYPE_CODE_REQUIRED	Lookup Type code is either null or an empty string	...
388378	CTB_LOOKUP_TYPE_DESCRIPTION	Description is either null or an empty string	...
388379	CTB_SYSTEM_DEFINED_LOOKUP_TYPE	Lookup Type is a system defined type – no modifications allowed	...
388380	CTB_FND_LOOKUP_TYPE_API	FND register/deleteLookup Type() API called failed	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388381	CTB_INVALID_LOOKUP_TYPE_ OBJECT	LookupType VAO passed into update API has not been retrieved from the DB (using getLookupType())	...
388382	CTB_INVALID_LOOKUP_TYPE	Lookup Type does not exist	...
388383	CTB_LOOKUP_VALUE_CODE_ REQUIRED	Lookup Value code is either null or an empty string	...
388384	CTB_LOOKUP_VALUE_DESCRIPTION_ REQUIRED	Lookup Type description is either null or an empty string	...
388385	CTB_LOOKUP_VALUE_PRINT_NAME_ REQUIRED	Lookup Type print name is either null or an empty string	...
388386	CTB_LOOKUP_VALUE_SHORT_NAME_ REQUIRED	Lookup Type short name is either null or an empty string	...
388387	CTB_LOOKUP_VALUE_LONG_NAME_ REQUIRED	Lookup Type long name is either null or an empty string	...
388388	CTB_INVALID_LOOKUP_VALUE_ OBJECT	LookupValue VAO passed into update API has not been retrieved from the DB (using findLookupValueByXXX())	...
388389	CTB_INVALID_LOOKUP_VALUE	Lookup Value does not exist	...
388390	CTB_FND_LOOKUP_VALUE_API_ CALL_FAILED	FND register/deleteLookup Value() API called failed	...
388391	CTB_DEFAULT_LOOKUP_VALUE_ EXISTS	A default lookup value has already been specified and the user is trying to create another default	...
388392	CTB_LOOKUP_VALUE_START_DATE_ NOT_UPDATEABLE	The user has tried to update the start date of the lookup value	...
388393	CTB_ INVALID_LOOKUP_VALUE_ END_DATE	The updated end date is before an existing facility level value end date	...
388394	CTB_INVALID_LOOKUP_VALUE_ DATE_RANGE	The start and/or end date specified in value creation is/are illegal for 1 of the following reasons:	...
388395	...	· endDate <= startDate	...
388396	...	· startDate > END_OF_TIME	...
388397	...	· endDate < TODAY	...
388399	CTB_INVALID_FACILITY	The specified facility does not exist in hz_parties	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388400	CTB_ INVALID_ENTERPRISE_ LOOKUP_VALUE	the facility specific lookup value being created does not exist at the enterprise level (master entry)	...
388401	CTB_INVALID_FACILITY_LOOKUP_ VALUE_START_DATE	the start date for the facility lookup value must be after the enterprise value start date and before the enterprise value end date	...
388402	CTB_INVALID_FACILITY_LOOKUP_ VALUE_END_DATE	the end date for the facility lookup value must be before the enterprise value end date and after the enterprise value start date	...
388403	CTB_INVALID_FACILITY_LOOKUP_ VALUE	the facility lookup value does not exist when the user calls the delete API	...
388404	CTB_FACILITY_LOOKUP_VALUE_ LIST_NOT_DEFINED	an entry in the ctb_cs_faclty_lkup_ types table for the given lookup value code does not exist.	...
388405	CTB_FACILITY_LOOKUP_VALUE_ LONG_NAME_NOT_UPDATEABLE	this field is not updatable for facility values	...
388406	CTB_FACILITY_LOOKUP_VALUE_ DESCRIPTION_NOT_UPDATEABLE	this field is not updatable for facility values	...
388407	CTB_LOOKUP_TYPES_UI_TABLE_ SELECTION_TEXT	The text that appears in the table selection control in the first lookup types page (in the bar where the poplist is)	...
388408	CTB_LOOKUP_TYPES_UI_POP_LIST_ LABEL	The text that appears to the left of the poplist in the table selection control on the first lookup types page	...
388409	CTB_SR_ORG_ID_INVALID	Invalid Organization Identifier	...
388410	CTB_SR_STAFF_TCODE_INVALID	Invalid Job Classification Staff Record Type Code	...
388411	CTB_SR_JOB_CLASS_ID_INVALID	Invalid Job Classification Identifier	...
388412	CTB_SR_MED_ST_CODE_INVALID	Invalid Staff Position Medical Status Code	...
388413	CTB_SR_POS_ST_CODE_INVALID	Invalid Staff Position Status Code	...
388414	CTB_SR_JOB_TITLE_ID_INVALID	Invalid Job Title Identifier	...
388415	CTB_SESSION_NOT_CREATED	Session could not be created.	Session could not be created.
388416	CTB_SESSION_CTX_NULL	Session context is invalid.	Session context is invalid.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388420	CTB_ATTR_MAX_LEN_OVER	&ATTR_NAME is too long. It has a maximum length of &MAX_LEN and the specified value has a length of &ATTR_LEN.	Generic attribute value too long -b
388421	CTB_DATE_NOT_GE	&ORIG_DATE_NAME &ORIG_DATE_VALUE must be greater than or equal to &COMP_DATE_NAME &COMP_DATE_VALUE.	Generic error for date comparison -b
388422	CTB_DATE_NOT_GT	&ORIG_DATE_NAME &ORIG_DATE_VALUE must be greater than &COMP_DATE_NAME &COMP_DATE_VALUE.	Generic error for date comparison -b
388423	CTB_DATE_NOT_LE	&ORIG_DATE_NAME &ORIG_DATE_VALUE must be less than or equal to &COMP_DATE_NAME &COMP_DATE_VALUE.	Generic error for date comparison -b
388424	CTB_DATE_NOT_LT	&ORIG_DATE_NAME &ORIG_DATE_VALUE must be less than &COMP_DATE_NAME &COMP_DATE_VALUE.	Generic error for date comparison -b
388425	CTB_FCN_NOT_AUTH	Function not authorized: &FUNCTION_NAME. Contact your system administrator.	Generic error for unauthorized function access. -b
388426	CTB_FCN_NOT_AUTH_UPD	Function not authorized for update: &FUNCTION_NAME. Contact your system administrator.	Generic error for unauthorized function access. -b
388427	CTB_INVALID_LOOKUP	Invalid &LOOKUP_TYPE value '&LOOKUP_CODE'.	Generic error message for bad CTB Lookup code value -b
388428	CTB_NA_ATTR_NOT_NULL	Attribute &ATTR is not applicable in this context.	Generic error for specified notapplicableattribute-b
388429	CTB_NA_OBJ_NOT_NULL	&OBJisnotapplicableinthiscontext.	Generic error for specified not applicable object (document mode sub object) -b
388430	CTB_NA_PARM_NOT_NULL	Program error: Parameter &PARM is not applicable.	Generic error for specified not applicable parm. Note &PARM does not need translation. -b
388431	CTB_OBJ_DUP	&OBJ_NAME &OBJ_VALUE already exists.	Genericduplicateobject-b

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388432	CTB_PARM_INVALID	Program error: Parameter &PARM_ NAMEisinvalid:&PARM_VALUE.	Generic error for invalid parm. Note - tokens do not require translation. -b
388433	CTB_PROG_ERROR	Programerror:&MESSAGE	Generic program error message. Note - does not require translation? -b
388434	CTB_REQ_ATTR_NULL	Required attribute &ATTR is not provided.	Generic error for missing attribute -b
388435	CTB_REQ_OBJ_NULL	At least one &OBJ must be provided.	Generic error for missing object (document mode sub object) -b
388436	CTB_REQ_PARM_NULL	Program error: Required parameter &PARM is null.	Generic error for missing parm. Note &PARM does not need translation. -b
388450	CTB_OS_ORG_TYPE_ATTR_NA	Attribute &ATTR_CODE is not applicable to Organization Unit of type &TYPE_CODE.	Searchcriteriavalidation-b
388451	CTB_OS_ORG_TYPE_PARENT_ INVALID	Organization Type &ORG_TYPE is incompatible with parent Organization Type &PARENT_ORG_ TYPE.	Hierarchical OrgType validation -b
388452	CTB_OS_SRCH_CRIT_INVALID	Search Criteria must include at least one value to match (e.g. Name, TypeCode, etc.).	Used in search criteria validation -b
388453	CTB_OS_ROOT_NAMESPACE_DUP	An organization of type &ORG_TYPE with long name &LONG_NAME or short name &SHORT_NAME already exists within the system.	Namespacevalidation-b
388454	CTB_OS_SUB_NAMESPACE_DUP	An organization of type &ORG_TYPE with long name &LONG_NAME or short name &SHORT_NAME already exists within &NAMESPACE_TYPE organization &NAMESPACE_NAME.	Namespacevalidation-b
388455	CTB_TYPE_OR_LIST_NOT_SELECTED	A Lookup Type and Concept List were not selected	...
388456	CTB_LOOKUP_TYPE_PAGE_INIT_ERR	An error occurred while loading the current page	...
388457	CTB_DUPLICATE_LOOKUP_TYPE	There exists a duplicate Lookup Type	...
388458	CTB_DUPLICATE_LOOKUP_VALUE	There exists a duplicate Lookup Value	...
388459	CTB_DUPLICATE_FAC_ VALUE	There exists a duplicate Facility Level Lookup Value	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
388460	CTB_DUPLICATE_FAC_ VALUE_LIST	There exists a duplicate Facility Lookup Type List	...
388461	CTB_DUPLICATE_PARTCPTNG_APPS	There exists a duplicate Participating Application	...
388462	CTB_DUPLICATE_TYPE_MEANING	There exists a Lookup Type with the same meaning	...
388463	CTB_DUPLICATE_VALUE_PRINT_ NAME	There exists a Lookup Value with the same print name	...
388464	CTB_FACILITY_ID_REQUIRED	Facility Id is either null or an empty string	...
388465	CTB_EXT_APP_REQUIRED	External application name is either null or an empty string	...
388466	CTB_PL_ED_LESSTHAN_CRRDATE_ ERR	The list could not be created as the end date is before the current date.	...
388467	CTB_PL_UPDATE_LIST_ERR	An error was encountered while updating the list.	...
388468	CTB_PL_LIST_INACTIVE_ERR	The list is not currently active.	...
388469	CTB_PL_DUPLICATE_WKGRP_ERR	A list with the specified name already exists for this workgroup	...
388470	CTB_PL_INVALID_WKGROUP_ERR	Invalid workgroup id specified. Workgroup does not exist.	...
388471	CTB_PL_INVALID_ED_ERR	Invalid end date specified. End date must be either equal to or after the start date and/or current date.	...
388472	CTB_PL_INVALID_SD_ERR	Invalid start date. Start date must be equal to or after current date and before or equal to end date.	...
388473	CTB_PL_INVALID_PRAC_SET_ERR	An invalid practice setting was specified.	...
388474	CTB_PL_INVALID_APPT_TIME_ERR	Invalid appointment time. Time must be after or equal to current date.	...
399475	CTB_PL_DUPLICATE_LIST_ERR	List already exists with given name and workgroup	...
399476	CTB_PI_ACTIVATE_FAILED	The activate operation failed	...
399477	CTB_PI_ALLOW_DUP_NOT_GRANTED	You do not have the proper security privileges to allow duplicates. Please consult your administrator	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399478	CTB_PI_CANNOT_ACTIVATE	Cannot activate an active, merged or deleted person	...
399479	CTB_PI_CANNOT_INACTIVATE	Cannot inactivate an inactive, merged or deleted person	...
399480	CTB_PI_CITIZENSHIP	One or more of the supplied citizenships are invalid	...
399481	CTB_PI_CREATE_FAILED	The create operation failed	...
399482	CTB_PI_DATABASE_UNAVAILABLE	The specified database is currently unavailable. Please retry the operation at a later time	...
399483	CTB_PI_DUPLICATE_PERSON	The new person already exists and the 'allow duplicates flag' is not set. Please review and retry the operation. Alternatively set the 'allow duplicates' flag if you have the proper security privileges	...
399484	CTB_PI_DUPLICATES_EXIST	Creation of this person record will cause duplicates	...
399485	CTB_PI_EMPTY_ADDRESS_ID	The address identifier is empty	...
399486	CTB_PI_EMPTY_PERSON_ID	The person identifier is empty	...
399487	CTB_PI_FIND_BY_ID_FAILED	The find person by identifier operation failed	...
399488	CTB_PI_INACTIVATE_FAILED	The inactivate operation failed	...
399489	CTB_PI_INCOMPLETE_DATA	The following required attributes have not been entered: X, X, X, X and X.	...
399490	CTB_PI_INCORRECT_FORMAT	Some attributes are of incorrect format	...
399491	CTB_PI_INVALID_ADDRESS	The address data is invalid	...
399492	CTB_PI_INVALID_ADDRESS_STATUS	An address status must be either null, 'A', 'I', 'M' or 'D'	...
399493	CTB_PI_INVALID_ALIAS	One or more of the supplied aliases are invalid	...
399494	CTB_PI_INVALID_DATE_OF_BIRTH	The person's date of birth cannot be a future date	...
399495	CTB_PI_INVALID_EMAIL	One or more of the supplied e-mail addresses are invalid	...
399496	CTB_PI_INVALID_ETHNICITY	An ethnicity must have a valid ethnicity code	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399497	CTB_PI_INVALID_FORMAT	The following data is invalid: XXXX. Please enter a value in the proper format. <Attribute_Name> must be in format XXX-XX-XXXX. Please correct your entry.	...
399498	CTB_PI_INVALID_IDENTIFICATION	A valid identification must have a person identifier, identification number, issuing authority and type	...
399499	CTB_PI_INVALID_LANGUAGE	One or more of the supplied languages are invalid	...
399500	CTB_PI_INVALID_NAME	A name, other than a legal name, cannot have an effective start date or an effective end date	...
399501	CTB_PI_INVALID_NAME	One or more of the supplied names are invalid	...
399502	CTB_PI_INVALID_PARAMETER	An invalid parameter was passed, please check documentation for valid parameters	...
399503	CTB_PI_INVALID_PERSON	One or more of the person attributes are invalid	...
399504	CTB_PI_INVALID_PERSON_STATUS	A person status must be either null, ’A’, ’I’, ’M’ or ’D’	...
399505	CTB_PI_INVALID_PHONE	The phone data is invalid	...
399506	CTB_PI_INVALID_RACE	A race must have a valid race code	...
399507	CTB_PI_INVALID_THRESHOLD	The Distinct Threshold is greater than or equal to the Duplicate Threshold. The Distinct Threshold must be less than or equal to the Duplicate Threshold and greater that or equal to the System Minimum Threshold	...
399508	CTB_PI_LEGAL_NAME	A person must have exactly one legal name	...
399509	CTB_PI_LEGAL_NAME_NO_DATE	A legal name must have an effective start date	...
399510	CTB_PI_LEGAL_NAME_NO_NAMES	A legal name must have both a first and last name	...
399511	CTB_PI_LEGAL_TEMP_NAME	A temporary person must have no more than one legal name	...
399512	CTB_PI_MISSING_ADDRESS	A person must have one or more addresses	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399513	CTB_PI_MISSING_DATE_OF_BIRTH	A person must have a date of birth	...
399514	CTB_PI_MISSING_GENDER	A person must have a gender	...
399515	CTB_PI_MISSING_IDENTIFICATION	A person must have at least one identification	...
399516	CTB_PI_MISSING_MANDATORY_ATTR	Some mandatory attributes are missing	...
399517	CTB_PI_MISSING_NAME	A person must have at least one name	...
399518	CTB_PI_MISSING_PERSON	Person cannot be null	...
399519	CTB_PI_MISSING_PLACE_OF_BIRTH	A person must have a place of birth	...
399520	CTB_PI_NO_PERSON_IDENTIFIER	Cannot perform operation with a null person identifier	...
399521	CTB_PI_PERSON_INACTIVE	The person record is marked as inactive and will have to be activated before the operation can be performed	...
399522	CTB_PI_PERSON_IS_DELETED	Person record cannot be updated because it is deleted	...
399523	CTB_PI_PERSON_IS_MERGED	The person record is marked as merged and will have to be un-merged before the operation can be performed	...
399524	CTB_PI_PERSON_NOT_EXIST	The person does not exist with person identifier	...
399525	CTB_PI_PERSON_NOT_PERMANENT	Person passed to updatePerson is marked as temporary	...
399526	CTB_PI_PERSON_NOT_TEMPORARY	Person passed to updateTemporaryPerson is not marked as temporary	...
399527	CTB_PI_PREFERRED_NAME	A person must have exactly one preferred name	...
399528	CTB_PI_PREFERRED_TEMP_NAME	A temporary person must have no more than one preferred name	...
399529	CTB_PI_SECURITY_NOT_GRANTED	You do not have the proper security privileges to perform this operation. Please consult your administrator	...
399530	CTB_PI_UPDATE_ACTIVE_PERSON	Cannot update an inactive, merged or deleted person	...
399531	CTB_PI_UPDATE_FAILED	The update operation failed	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399532	CTB_PI_INVALID_SPECIAL_CHARS	Text must not contain illegal non-alphabetical special characters	...
399533	CTB_PI_INVALID_LENGTH	Text size must not exceed maximum limit	...
399534	CTB_PI_INVALID_DATE_FORMAT	Date fields must be in legal date format	...
399535	CTB_PS_FIND_PATIENT_ERR	Errors were encountered while searching for patients.	...
399536	CTB_PS_ID_TYPE_ERR	The supplied identifier type is not valid.	...
399537	CTB_PS_ORG_ID_ERR	The supplied organization ID is not valid.	...
399538	CTB_PS_ID_ERR	No identifier has been supplied.	...
399539	CTB_PS_ENT_ORG_ID_ERR	No enterprise organization was found.	...
399540	CTB_PS_ACTIVE_STATUS_ERR	Active status must be Y or N.	...
399541	CTB_PL_SET_PATIENT_ERR	A patient cannot be set on a non-custom list.	...
399542	CTB_CS_EFF_DT_ON_AFT_PSITE_TER	Effective Date is on or after Party Site (Facility Location) Termination Date.	...
399543	CTB_PL_INVALID_WKGRP_SRVC_ERR	Workgroup Service is Not Valid	...
399544	CTB_AUTH_GRANT_PREDICATE_ERROR	Failure while searching rules for user.	Failure while searching rules for user.
399545	CTB_RULEMGMT_INVALID_CRITERIA	Invalid criteria.	Invalid criteria.
399546	CTB_RULEMGMT_INVALID_OBJECT	Invalid object.	Invalid object.
399547	CTB_AUTH_NOT_AUTHORIZED_ERROR	Not authorized to access this function.	Not authorized to access this function.
399548	CTB_NO_SELECTED_CRTA_CHILD_ERR	Select at least one criteria level before proceeding.	No criteria level selected error message.
399549	CTB_SEC_DEL_CRTA_INSTR	Deleting this criteria is permanent. Do you want to delete this criteria?	Delete Criteria Instruction.
399550	CTB_SEC_DEL_CRTA_ERROR	You must delete all the associated roles before deleting this criteria.	Delete Criteria Error
399551	CTB_PERSON_CREATED_CONFIRM	Person created.	Person Created Confirmation Message
399552	CTB_PERSON_UPDATED_CONFIRM	Person updated.	Person information updated confirmation message

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399553	CTB_PERSON_PHONE_NUMBER_FORMAT	Example: (999) 999 9999	Person's phone number input format hint.
399554	CTB_INVALID_PHONE_FORMAT_ERROR	Invalid phone number format.	Invalid phone number input format.
399555	CTB_FAILED_SENDING_WORKFLOW	Failed to send a workflow notification to the account. Please contact your System Administrator.	Failed to send workflow notification.
399556	CTB_FAILED_AUDITING_WARNING	Failed to audit. Please contact your System Administrator.	Failed to do auditing.
399557	CTB_ADD_ROLE_FUNCS_INSTRUCTION	To assign new functions to this role, enter the Function and choose the Apply button:	Instruction text for adding new functions to an existing role
399558	CTB_ROLE_FUNCS_CREATED_CONFIRM	Functions assigned to role successfully.	Confirmation message for functions being assigned to roles
399559	CTB_ROLE_FUNCS_DELETED_CONFIRM	Function &FUNCTION_NAME is unassigned.	Confirmation message for functions being deleted from a role.
399560	CTB_INVALID_SEC_CRITERIA_ENTRY	Invalid Criteria Name. Use the torch light to select a valid Criteria Name.	Invalid security criteria entry error message.
399561	CTB_INVALID_SEC_FUNCS_ENTIRY	Invalid Function Name. Use the torch light to select a valid Function Name.	Invalid security functions entry error message.
399562	CTB_FAILED_ADD_FUNC_WARNING	Failed to add &Function_Name function.	Failed to add a function.
399563	CTB_INVALID_GRANT_WARNING	The criteria applied to &FUNCTION_NAME function is inappropriate because the function was previously granted with	...
399564	CTB_DUPLICATE_ROLE_ENTRY_ERROR	Duplicate Role Name entries.	Duplicate role name entries.
399565	CTB_SELECT_MEMBER_ROLES_LABEL	Select Assigned Roles and …	Label that appears on the table control bar.
399566	CTB_DUPLICATE_ROLE_ERROR	Role already exists	User tried to create a role name which
399567	CTB_INVALID_MEMBER_ENTRY_ERROR	Account name is not valid. Use the flashlight to select a valid account name.	Member entered does not exist as a username

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399568	CTB_DUPLICATE_MEMBER_LST_ ERROR	Account name is a duplicate entry within the new account memberships list. You should find and remove all duplicate entries.	User has created a list of usernames and duplicate names exist
399569	CTB_NO_ENTERPRISE_SETUP_ERROR	No Enterprise Organization setup exists. Contact your System Administrator.	No Enterprise Organization setup in the system.
399570	CTB_WG_ORG_UNIT_IS_INACTIVE	The organization unit identifier associated with the workgroup is inactive.	The organization unit identifier associated with the workgroup is inactive.
399588	CTB_FAIL_OBJ_INSTANTIATION	An instance of an object [&PARAM1] or the implementation of an interface could not be instantiated.	...
399589	CTB_FAIL_API_AUTHORIZATION	Access to the API [&PARAM1] has been denied due to insufficient security credentials.	...
399590	CTB_FAIL_ID_GENERATION	A new identifier or autosequence [&PARAM1] could not be generated.	...
399591	CTB_FAIL_FK_VALIDATION	Referential integrity violated for the attribute [&PARAM1]	...
399592	CTB_NULL_MANDATORY_ATTR	A mandatory attribute [&PARAM1] has not been set	...
399593	CTB_NULL_PARAMETER	A required parameter [&PARAM1] for an API was not provided or is null	...
399594	CTB_NULL_ARRAY_ELEMENT	An element in the array [&PARAM1] was null	...
399595	CTB_INVALID_API_UPDATE	The object [&PARAM1] being updated does not have an identifier. Try to create the object first.	...
399596	CTB_INVALID_API_CREATE	The object [&PARAM1] already has an identifier and cannot be created. Use an update API instead to modify this existing object	...
399597	CTB_INVALID_ATTRIBUTE	The attribute [&PARAM1] set on the object [&PARAM2] is considered invalid.	...
399598	CTB_INVALID_RANGE	The range is considered invalid. [&PARAM1] should be less than or equal to [&PARAM2]	...
399599	CTB_INVALID_INTEGER	The attribute [&PARAM1] must be a valid integer.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399600	CTB_INVALID_NON_NEG_NUM	The attribute [&PARAM1] must be greater than or equal to zero	...
399601	CTB_RECORD_NOT_FOUND	The record [&PARAM1] could not be found	...
399602	CTB_INVALID_ETS_CODE	The ETS concept [&PARAM1] is not a valid ETS concept id	...
399603	CTB_CL_HISTORY_NOT_FOUND	The history records for the act [&PARAM1] cannot be found	...
399604	CTB_CL_INVLD_ATTR_SET	Invalid attributes have been set that are not relevant to the [&PARAM1] class	...
399605	CTB_CL_NO_HL7_CLS_CD	No HL7 class code has been specified for this act	...
399606	CTB_CL_MATP_NO_MAT_REF	You must specify either a materialId or material object in the material participation	...
399607	CTB_CL_MATP_CFLT_MAT_ID	The materialId specified in the participation does not match that of the material object	...
399608	CTB_CL_MATP_DUPLICATE	A participation with a material has been duplicated	...
399609	CTB_CL_ACTP_NO_PART	No participations have been specified	...
399610	CTB_CL_ACTP_TOO_MANY	There are too many participations on the participation object	...
399611	CTB_CL_ACTP_PATIENT_ERR	The patientID set on a participation does not match that on the act	...
399612	CTB_CL_ACTP_PATIENT_DUP	There is a duplicated patient participation	...
399613	CTB_CL_ACTP_STAFF_DUP	There is a duplicated staff participation	...
399614	CTB_CL_ACTP_INVALID_ORGID	The organization set on a participation is not a valid organization	...
399615	CTB_CL_ED_DUP_CODES	Duplicate teleAddressUseCodes has been set on an ED	...
399616	CTB_CL_INVALID_ENC_ID	The encounterId is not a valid encounter	...
399617	CTB_CL_INVALID_PAT_ENC_ID	The patient ID does not match the record in encounter.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399618	CTB_CL_ED_UNKNOWN_CODE	The encapsulated type code [&PARAM1] is unknown	...
399619	CTB_CL_XREF_TMPLT_INVALID	The template is invalid - cannot search for the IDXrefs	...
399620	CTB_CL_XREF_MAT_INVALID	Invalid Material IDXref: External ID maps to more than one material	...
399621	CTB_CL_XREF_ACT_INVALID	Invalid IDXref: The external ID maps to more than one act	...
399622	CTB_CL_INVALID_MOOD_CODE	The mood code set for this act does not match the one specified in the act type	...
399623	CTB_CL_ACT_RSLV_CLS_CD_FAIL	HL7 class code not found for corresponding ETS class code [&PARAM1]	...
399624	CTB_CL_ACT_VCOPY_FAIL	Cannot make value copy [&PARAM1]	...
399625	CTB_CL_ACTR_MISSING_ID	targetActId or targetActVersionNumber has not been provided on an actRelationship	...
399626	CTB_CL_ACTR_SAME_ACT	The target and source acts are same on an actRelationship	...
399627	CTB_CL_ACTR_INVALID_ORG	The target act belongs to a different organization.	...
399628	CTB_CL_ACTR_CFLT_ACT	The targetActId and/or targetActVersionNumber is not consistent with those specified on the targetAct	...
399629	CTB_CL_ACTR_LOOP_IN_REL	A loop was found in relationships or multiple updates in one transaction.	...
399630	CTB_CL_ACTR_LOOP_IN_ARRAY	A loop was found in the act array	...
399631	CTB_CL_ACT_DOC_ORG_ERR	updateClinicalActDocuments(): input is not about the same organization	...
399632	CTB_CL_ACT_UPDTM_NEW	The updateMode must be set to NEW for a new act	...
399633	CTB_CL_ACT_UPDTM_FOCUS_ERR	The updateMode of the focus act cannot be VALID	...
399634	CTB_CL_ACTS_INVALID_ORG	Related act uses different organizationId	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399635	CTB_CL_ETS_SCHEME_UNAVAIL	Coding Scheme Version unavailable. Unable to find ETS concept id for HL7 code [&PARAM1]	...
399636	CTB_CL_ETS_ETS_CONS_NOT_FOUND	Unable to find ETS concept id for HL7 code [&PARAM1]	...
399637	CTB_UCAT_BAD_FLD_CODE	UserCatalogFolder must have a type code of UCF	...
399638	CTB_UCAT_PARENT_ERROR	Parent cannot be null or must have a valid code	...
399639	CTB_UCAT_BAD_FS_CODE	FlowSheet objects must have a type code of FS	...
399640	CTB_UCAT_BAD_FSF_CODE	FlowSheetFolder objects must have a type code of FSF	...
399641	CTB_UCAT_FS_PARENT_ERROR	The parentId must reference a valid FlowSheet or FlowSheetFolder within the same UserCatalog	...
399642	CTB_UCAT_ITEM_NO_CHILD	The userCatalogItem does not have any children	...
399643	CTB_UCAT_BAD_ADL_CODE	ActDefinitionLink objects must have a type code of ADL	...
399739	CTB_WG_MBR_SD_LESS_THAN_POS_SD	The workgroup memberships effective start date cannot be prior to the workgroup membership's staff position's effective start date.	...
399740	CTB_WG_MBR_SD_GRTR_THAN_POS_ED	The workgroup memberships effective start date cannot be later than the membership's staff position's effective end date.	...
399741	CTB_WG_MBR_ED_GRTR_THAN_POS_ED	The workgroup memberships effective end date cannot be later than the membership's staff position's effective end date.	...
399742	CTB_CONCEPT_LIST_SHUTTLE	Concept List: &CONCEPT_LIST_NAME	...
399743	CTB_LOOKUP_TYPE_SHUTTLE	Lookup Type: &LOOKUP_TYPE_NAME	...
399744	CTB_PI_INVALID_TRIBAL_MSHIP	Invalid Input: tribal membership code does not exist	...
399747	CTB_PI_INVALID_DATE_OF_BIRTH	Date of birth cannot be in the future	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399748	CTB_PI_ALIAS_MISSING_NAMES	An alias must have at least a first or last name	...
399755	CTB_PI_CREATE_PERSON_ERRORS	tpp level exception message for create Person	...
399756	CTB_SR_ACT_DT_EQ_BEF_INACT_DT	Staff position activation date must be on or before inactivation date.	...
399757	CTB_SR_ACT_DT_NULL	Staff position activation date must be specified if inactivation date is specified.	...
399758	CTB_SR_ACT_DT_NOT_IN_ORG_ RANGE	Staff position activation date must be on or after Organization Unit assignment effective date and before termination date.	...
399759	CTB_SR_INACT_DT_NOT_IN_ORG_ RGE	Staff position inactivation date must be on or after Organization Unit assignment effective date and before or equal to termination date.	...
399760	CTB_INVALID_USER_NAME	User Name cannot be null.	User Name cannot be null.
399762	CTB_PI_CANNOT_ACTIVATE	Record is either active, merged, or deleted. Cannot activate the record.	...
399763	CTB_PI_CANNOT_INACTIVATE	This record is either inactive, merged, or deleted. Cannot activate the record.	...
399764	CTB_PI_DUPLICATE_PERSON	Duplicate person record exists.	...
399765	CTB_PI_PERSON_IS_INACTIVE	Record is deleted.	...
399766	CTB_PI_INVALID_BIRTH_ORDER	Invalid birth order code	...
399767	CTB_PI_LEGAL_NAME_NO_DATE	Effective Date is missing on Legal Name	...
399768	CTB_PI_LEGAL_NAME_NO_NAMES	Missing Required Input: &LastName, & FirstName.	...
399769	CTB_PI_INVALID_MULTI_BIRTH_ FLG	Invalid multiple birth flag	...
399770	CTB_PI_INVALID_ALIAS	Invalid Alias	...
399771	CTB_PI_INVALID_NAMES	Invalid Names	...
399772	CTB_PI_INVALID_PARAMETER	Invalid Input: parameter not recognized.	...
399773	CTB_PI_INVALID_PLACE_OF_ WORSHP	Invaid place of worship	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399774	CTB_PI_INVALID_TRIBAL_MSHIP	Invalid Input: tribal membership code does not exist	...
399775	CTB_PI_LEGAL_NAME	Invalid Input: more than one Legal Name.	...
399776	CTB_PI_PERSON_IS_MERGED	Record is merged.	...
399777	CTB_PI_MISSING_ADDRESS	Missing address	...
399778	CTB_PI_MISSING_DATE_OF_BIRTH	Missing Required Input: Date of Birth.	...
399779	CTB_PI_MISSING_GENDER	Missing Required Input: Gender.	...
399780	CTB_PI_MISSING_IDENTIFICATION	Missing Identification	...
399781	CTB_PI_MISSING_PLACE_OF_BIRTH	Missing Required Input: Place of Birth.	...
399782	CTB_PI_MISSING_NAME	Missing Required Input: Name data.	...
399783	CTB_PI_NO_PERSON	Person Identifier cannot be NULL	...
399784	CTB_PI_NULL_PERSON_IDENTIFIER	Person Identifier cannot be NULL	...
399785	CTB_PI_PERSON_NOT_TEMPORARY	Invalid Input: cannot update Permanent Person.	...
399786	CTB_PI_PERSON_NOT_EXIST	Person does not exist	...
399787	CTB_PI_PREFERRED_NAME	Invalid Input: more than one Preferred Name.	...
399788	CTB_PI_SECURITY_NOT_GRANTED	You have not been granted permissions to perform this operation. Please contact your system administrator.	...
399789	CTB_PI_LEGAL_TEMP_NAME	A temporary person must have no more than one legal name	...
399790	CTB_PI_PREFERRED_TEMP_NAME	A temporary person must have no more than one preferred name	...
399791	CTB_PI_UNEXPECTED_ERROR	Some unexpected error occured	...
399792	CTB_PI_UPDATE_TEMP_PERSON	Cannot update a temp person	...
399793	CTB_PI_INVALID_GENDER	Invalid Input: Invalid gender code	...
399794	CTB_PI_ALIAS_MISSING_NAMES	An alias must have at least a first or last name	...
399795	CTB_PI_BIRTH_AFTER_DEATH	The birth date cannot be after the deceased date	...
399796	CTB_PI_FUTURE_DATE_OF_BIRTH	The date of birth cannot be in the future	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399797	CTB_PI_FUTURE_DECEASED_DATE	The deceased date cannot be in the future	...
399798	CTB_PI_INVALID_RELIGION	The religion code must match a seeded lookup value	...
399799	CTB_PI_INVALID_IDENTITY	Invalid issuing Authority or Identification Type	...
399800	CTB_PI_CREATE_PERSON_ERRORS	top level exception message for create Person	...
399801	CTB_PI_ID_ISSUE_AFTR_EXPIRATIN	Identification issue date cannot be after expiration date	...
399802	CTB_PI_INVALID_CITIZENSHP_CODE	The citizenship code must match a seeded lookup value	...
399803	CTB_PI_ADRS_STRT_AFTR_END_DATE	Address start date cannot be after end date	...
399804	CTB_PI_ADRS_STRT_WOUT_END_DATE	Address cannot have an end date without a start date	...
399805	CTB_PI_CITIZ_STRT_AFTR_END_DTE	Citizenship start date cannot be after the end date	...
399806	CTB_PI_CITIZ_END_WOUT_STRT_DTE	Citizenship cannot have an end date without a start date	...
399807	CTB_PI_NAME_STRT_AFTR_END_DTE	A name start date cannot be after the end date	...
399808	CTB_PI_NAME_INVALID_PREF_IND	The preferred name indicator can only be null, 'Y' or 'N'	...
399809	CTB_PI_IDENT_FUTURE_ISSUE_DATE	Identification issue date cannot be in the future	...
399810	CTB_PI_INVALID_PRSN_IDENTIFIER	A person identifier has to be in the correct numerical format	...
399811	CTB_PI_MISSING_ADDRESS_LINE_1	Address line 1 is a mandatory address attribute	...
399812	CTB_PI_MISSING_ADDRESS_CITY	City is a mandatory address attribute	...
399813	CTB_PI_MISSING_ADDRESS_STATE	State is a mandatory address attribute	...
399814	CTB_PI_MISSING_ADDRESS_COUNTRY	Country is a mandatory address attribute	...
399815	CTB_PI_MISSING_ADDRESS_POSTAL	postal code is a mandatory address attribute	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399816	CTB_PI_MAN_PERS_SERVICE_ ERRORS	top level exception message for person service	...
399817	CTB_PI_INVALID_ETHNICITY_CODE	Invalid Input: Ethnicity data.	...
399818	CTB_PI_INVALID_RACE_CODE	Invalid Input: Race data.	...
399819	CTB_PI_INVALID_PER_CHR_TYPE	Internal Error: Invalid Person Characteristic Code	...
399820	CTB_PI_IDENT_NO_UPDATE_PERS_ ID	Internal Error: Cannot update a identification's person id	...
399821	CTB_PI_IDENT_NO_UPDATE_ISS_ ORG	Cannot update a identification's issuing organisation (it is part of the primary key)	...
399822	CTB_PI_IDENT_NO_UPDATE_ID_ TYPE	Cannot update a identification's identification type (it is part of the primary key)	...
399823	CTB_PI_INVALID_THRESHOLD_ VALUE	Threshold value is invalid	...
399824	CTB_PI_INVALID_DSTNCT_THRSHLD	DistinctThreshold value should be greater than Match Score.	...
399825	CTB_PI_INVALID_PERSON_INDCTR	Person Indicator is invalid	...
399826	CTB_PI_INVALID_ADDRESS_STATUS	Address status is invalid	...
399827	CTB_PI_INVALID_COUNTRY	Country is invalid	...
399828	CTB_PI_INVALID_PHONE_USG_TYPE	Phone usage type is invalid	...
399829	CTB_PI_INVALID_PHONE_STAT_OPR	Only EQUAL and NOT EQUAL Operators are allowed	...
399830	CTB_PI_INVALID_PHONE_STATUS	Phone status is invalid	...
399831	CTB_PI_INVALID_PHONE_TYPE	Phone type is invalid	...
399832	CTB_PI_INVALID_MARITAL_STATUS	Marital status is invalid	...
399833	CTB_PI_INVALID_PERSON_STAT_ OPR	Only EQUAL and NOT EQUAL Operators are allowed	...
399834	CTB_PI_INVALID_BIRTH_DATE	Invalid birth date	...
399835	CTB_PI_INVALID_AGE	Invalid Age	...
399836	CTB_PI_NO_SEARCH_ATTR	No search attribute is set. At least one search attribute should be defined.	...
399837	CTB_PI_AGE_DOB_FOUND	Date of birth and Age Term can not be defined simultaneously	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399838	CTB_MISSING_EXT_COL_NAMES	The columns names that contain the external IDs were not defined in the Profile Options	...
399839	CTB_MISSING_EXT_ID	The external person and/or system IDs are not specified	...
399840	CTB_CREATE_CROSS_REF_ERR	Unable to create an entry in the CTB_PI_CROSS_REF table	...
399841	CTB_CREATE_PERSON_NULL	The createPerson method returned a NULL person object	...
399842	CTB_DELETE_CROSS_REF_ERR	Unable to delete an entry in the CTB_PI_CROSS_REF table	...
399843	CTB_NO_MATCH_INT_PERSON	One or more external person IDs do not have corresponding internal person IDs	...
399844	CTB_POSSIBLE_INTERNAL_DUPE	A potential internal duplicate person record was detected in the Person Registry	...
399845	CTB_EXT_RECORD_ALREADY_EXISTS	The external person record already exists in the Person Registry	...
399846	CTB_LOG_NO_ROWS_FOUND	No log records matching the given BATCH_ID were found in the Person Registry Log table	...
399847	CTB_DUPE_THRESHOLD_NOT_FOUND	The Profile Option DUPLICATE_THRESHOLD has not been set	...
399848	CTB_ALPHA_CHAR_IN_PARTY_ID	An alphanumeric character was found in the PartyId parameter. The PartyId must be comprised of numeric values	...
399849	CTB_EXT_PERSON_COL_NOT_FOUND	The Profile Option EXTERNAL_PERSON_ID_ATTRIBUTE has not been set	...
399850	CTB_EXT_SYSTEM_COL_NOT_FOUND	The Profile Option EXTERNAL_SYSTEM_ID_ATTRIBUTE has not been set	...
399851	CTB_NO_INT_PERSON_FOUND	The internal person ID that was provided was not found in the Person Service registry	...
399852	CTB_NO_ID_PROFILE_SETUP_TIP	You must set up the DQM Identification Name profile option prior to creating or updating a person.	Hint to ask the user to setup DQM Identification Name profile option.
399853	CTB_PI_MISSING_PROFILE_OPTION	Profile Option was not found	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399854	CTB_PI_NAME_INVALID_LEGAL_IND	The legal name indicator can only be null, 'Y' or 'N'	...
399855	CTB_PI_INVALID_READ_LEVEL	The language read level is incorrect	...
399856	CTB_PI_INVALID_WRITE_LEVEL	The language write level is incorrect	...
399857	CTB_PI_INVALID_SPEAK_LEVEL	The language speak level is incorrect	...
399858	CTB_PI_MISSING_IDENT_NUMBER	The identification number is a mandatory attribute	...
399859	CTB_PI_MISSING_IDENT_TYPE	The identification type is a mandatory attribute	...
399860	CTB_PI_MISSING_ISSUE_ AUTHORITY	The issuing authority is a mandatory attribute	...
399861	CTB_PI_MISSING_ADDRESS_ ATTRIBS	Missing either city and state	...
399862	CTB_PR_DUPLICATE_FILING_ORDER	You can not enter a duplicate filing order.	Validation error message
399862	CTB_DUPLICATE_ROLE_FUNC_ENTRY	Duplicate Function Name.	Duplicate security functions entry error message.
399863	CTB_PR_DUPLICATE_MRN	Medical Record with medical record number &MRN already exists for this patient in the given organization.	Validation error message
399863	CTB_NO_SELECTED_CRITERIA_ ERROR	Select at least one criteria before proceeding.	No criteria selected error message
399864	CTB_PR_FUTURE_DATE	You can not enter a future date.	Validation error message
399864	CTB_ROLE_SEC_FUNCTION_EXISTS	Function has already granted to the role.	Function has already granted to the role error message.
399865	CTB_NON_UNIQUE_CRITERIA_NAME	Criteria already exists.	Non unique criteria name error message.
399866	CTB_SA_INVALID_ACCT_EFF_DATE	Effective Date must be before or equal to the Expiration Date.	Invalid account effective data. Account effective is after expiration date.
399867	CTB_PROF_OPT_NAME_REQ	Profile Option Code is required.	...
399868	CTB_PROF_OPT_CODE_NO_UPDATE	Update of Profile Option Code is not allowed.	...
399869	CTB_INV_NUMBER	Invalid Number for Minimum or Maximum Value.	...
399870	CTB_PROF_OPT_USER_NAME_REQ	Profile Option Name is required.	...
399871	CTB_INVALID_PERSON_ID	Invalid Person Id	Invalid Person Id

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399872	CTB_NO_CONCEPT_SELECTED	Please select at least one concept to add to the lookup type.	
399873	CTB_INVALID_ROLE	Invalid Role	Invalid Role
399874	CTB_PROF_REQ_NOT_UPD	A profile option cannot be required at a certain level if it is not updateable at that level.	...
399875	CTB_INVALID_NUMBER	The attribute [&PARAM1] must be a valid number	Used when a string must be a valid number (integer or decimal)
399876	CTB_ETS_SCHEME_NOT_FOUND	Coding Scheme [&PARAM1] is unknown	...
399877	CTB_PI_ORGAN_DONOR_INVALID	Invalid Input: Organ Donor Code	...
399878	CTB_PI_LIVING_ARGMENT_INVALID	Invalid input: Living Arrangement Code	...
399879	CTB_PI_RISK_CODE_INVALID	Invalid input: Risk Code	...
399880	CTB_PI_EDUCATION_LEVEL_ INVALID	Invalid input: Education Level Code	...
399881	CTB_SR_STAFF_MEMBER_NULL	Please specify the staff member(s) to create/update.	...
399882	CTB_SR_STAFF_MEMBER_EXISTS	The person is already a staff member.	...
399883	CTB_AU_CREATE_ERROR	Error ocurred while logging Audit Event.	Audit Event Log creation error.
399884	CTB_PR_INVALID_GUARANTOR_ID	Guarantor Person Identifier is invalid.	Guarantor Person Identifier is invalid.
399885	CTB_PR_INVALID_NEXTOFKIN_ID	Contact Person Identifier in invalid.	Contact Person Identifier in invalid.
399886	CTB_PR_INVALID_CAREGIVER_ID	Caregiver Identifier is invalid.	Caregiver Identifier is invalid.
399887	CTB_PR_INVALID_VIP_CODE	VIP code is invalid.	VIP code is invalid.
399888	CTB_PR_INVALID_CONF_CODE	Confidentiality Code is Invalid.	Confidentiality Code is Invalid.
399889	CTB_PR_INVALID_CONTACT_TYPE	Contact Type is Invalid.	Contact Type is Invalid.
399900	CTB_XR_INVALID_VALUE	You have passed an invalid value.	Currently applies when the InstanceIdRoot is not found in the Root Master.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399901	CTB_XR_END_TM_LT_START_TM	The Validity End Time cannot be lesser than the Validity Start Time, for the cross-reference.	...
399902	CTB_XR_VALID_INTERVAL_OVERLAP	A given Instance Identifier (Root + Extension) cannot be valid for more than one entity.	The entities being Care Site / Staff member / Staff Position / …
399903	CTB_XR_ROOT_REQD	Root is a required parameter.	...
399904	CTB_XR_EXTENSION_REQD	Extension is a required parameter.	...
399905	CTB_XR_DATE_VALID_REQD	The instanceIdValidAsOf timestamp is a required parameter.	...
399906	CTB_XR_VALUE_NOT_UNIQUE	You have passed a non-unique value.	For the ExternalOrgId / OID
399907	CTB_XR_OID_REQD	The OID value is a required parameter.	...
399908	CTB_XR_INVALID_OID	The value is not a valid OID, that is, numbers separated by dots.	...
399909	CTB_XR_ROOT_OID_REQD	The modified RootOID object is a required parameter.	...
399910	CTB_CL_SEARCH_PATIENTID_NULL	The PatientId is mandatory within the search criteria when retrieving act information	Error when PatientId not provided in Clinical Act search template
399911	CTB_ACCTS_ASSIGNED_CONFIRM	Accounts assigned to role successfully.	Accounts assigned to role successfully confirmation message.
399912	CTB_ACCT_UNASSIGNED_CONFIRM	Accounts unassigned successfully.	Account unassigned successfully confirmation message.
399913	CTB_CRITERIA_CHILD_ADD_ CONFIRM	Child &CHILD_NAME is added.	Child criteria is created confirmation message.
399914	CTB_CRITERIA_CHILD_DEL_ CONFIRM	Criteria level &LEVEL_NAME is deleted.	Criteria level deleted confirmation message.
399915	CTB_CRITERIA_DELETED_CONFIRM	Criteria &CRITERIA_NAME is deleted.	Criteria deleted confirmation message.
399916	CTB_CRITERIA_UPDATED_CONFIRM	Criteria level &LEVEL_NAME is updated.	Criteria statement updated confirmation message.
399917	CTB_CL_ACT_CURR_VER_FAIL	No act found with ActId [&PARAM1] and current version flag set.	Error when updating an act where a record with the given act id and current version flag set is not found.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399918	CTB_PERSON_ACCT_CREATED_MSG	Account &ACCOUNT_NAME is created for &PERSON_NAME	Account created for a person confirmation.
399919	CTB_ROLE_FUNC_CRITERIA_ DELETED	Function &FUNCTION_NAME with Criteria &CRITERIA_NAME is unassigned.	Confirmation message for functions with a specify criteria is being deleted from a role.
399920	CTB_CL_ACTP_PERSON_DUP	There is a duplicated person participation	Error when a person participates in a clinical act with the same participationTypeCode more than once.
399921	CTB_CL_ENCVER_WITHOUT_ENCID	The clinical act has an encounter version set without an encounter ID.	Error when an act has an encounter version set without the encounter ID.
399922	CTB_RETURN_TO_SEARCH_CRITERIA	Return to Criteria Search Results	Return to criteria search page link text.
399923	CTB_RETURN_TO_SEARCH_ACCTS	Return to Accounts Search	Return to accounts search page link text.
399924	CTB_RETURN_TO_SEARCH_ROLES	Return to Roles Search	Return to roles search page link text.
399925	CTB_RETURN_TO_ROLE_DTL	Return to View Role Details	Return to role details page link text.
399926	CTB_RETURN_TO_SEARCH_PERSONS	Return to Persons Search	Return link to Person search page.
399976	CTB_FWK_INVALID_STATE_MODEL	The state model [&PARAM1] specified for this entity object is not valid.	The state model in not valid.
399977	CTB_FWK_INVALID_STARTING_ STATE	The start state [&PARAM1] is not a valid start state for the state model [&PARAM2].	The start state is not valid.
399978	CTB_FWK_INVALID_END_STATE	The end state[&PARAM1] is not a valid start state for the state model [&PARAM2].	The end state is not valid.
399979	CTB_FWK_INVALID_TRANSITION	The transition from state [&PARAM1] to state [&PARAM2] is not defined in the state model [&PARAM3].	The attempted transition does not exist.
399979	CTB_FWK_INVALID_TRANSITION	The transition from state [&PARAM1] to state [&PARAM2] is not defined in the state model [&PARAM3].	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399980	CTB_SR_JOB_CLASS_ETSID_NULL	An ETS concept ID corresponding to the Job Classification must be specified.	Null ETS concept ID
399981	CTB_SR_JOB_CLASS_ETSID_ INVALID	[&PARAM] is not a valid ETS concept ID.	Invalid ETS concept ID
399982	CTB_SR_JOB_CLASS_ETSID_ DUPLICATE	A Job Classification with the ETS concept ID [&PARAM] already exists.	Duplicate ETS concept ID
399983	CTB_SR_JOB_TITLE_ETSID_ DUPLICATE	A Job Title with the ETS concept ID [&PARAM] already exists.	Duplicate ETS concept ID
399984	CTB_SR_JOB_TITLE_ETSID_ INVALID	[&PARAM] is not a valid ETS concept ID.	Invalid ETS concept ID
399985	CTB_SR_JOB_TITLE_ETSID_NULL	An ETS concept ID corresponding to the Job Title must be specified.	Null ETS concept ID
399986	CTB_FWK_VERS_NO_CURRENT_ RECORD	No current record could be found in the version table for [&THIS_EO_ NAME]. CTB Versioning cannot update a version record that does not exist.	No current record could be found in the version table.
399987	CTB_FWK_VERS_NO_AM_PROPERTY	No VERSION_AM property was defined in the Entity Object Definition file for [&THIS_EO_NAME]. CTB versioning cannot function without it.	No VERSION_AM property was defined in the Entity Object Definition file.
399988	CTB_FWK_VERS_NO_VO_PROPERTY	No VERSION_VO property was defined in the Entity Object Definition file for [&THIS_EO_NAME]. CTB versioning cannot function without it.	No VERSION_VO property was defined in the Entity Object Definition file.
399989	CTB_FWK_VERS_NO_PK_PROPERTY	No PRIMARY_KEY_ATTRIBUTES property was defined in the Entity Object Definition file for [&THIS_EO_ NAME]. CTB versioning cannot function without it.	No PRIMARY_KEY_ ATTRIBUTES property was defined in the Entity Object Definition file.
399990	CTB_EM_ORG_ID_INVALID	The organization identifier specified is either invalid or has expired.	...
399991	CTB_EM_LOOKUP_VALUE_ERROR	The lookup validation failed. The following attribute(s) were invalid: &INVALID_ATTRIBUTES.	...
399992	CTB_EM_ENCOUNTER_NOT_FOUND	The encounter specified was not found.	...
399993	CTB_EM_BAD_PARAMETER	The following parameter(s) passed into the encounter operation were null: &NULL_PARAMETERS.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
399994	CTB_EM_BAD_ACTION_PARAMETER	The following parameter(s) for the &ACTION_NAME were not provided: &NULL_PARAMETERS. These parameters are required to perform the action.	...
399995	CTB_EM_CONFIGURATION_ERROR	The operation being attempted cannot be completed because of an encounter configuration error. (&CONFIG_ERROR)	...
399996	CTB_EM_ENCOUNTER_ERROR	The encounter validation has failed. Please see the exception details for more information.	...
399997	CTB_EM_PATIENT_ID_INVALID	The patient identifier provided does not match the patient identifier for the medical record number.	...
399998	CTB_EM_PERSON_ID_INVALID	The person identifier provided does not match the person identifier for the medical record number.	...
399999	CTB_EM_MRN_INVALID	The medical record number provided is invalid.	...
400000	CTB_EM_MRN_ORG_INVALID	The organization identifier specified for the medical record number is invalid.	...
400001	CTB_EM_ENC_ORG_ID_MISMATCH	The medical record specified is not able to be used because it was not created by the same facility as the encounter.	...
400002	CTB_EM_ENC_STATE_INVALID	The encounter state specified is invalid.	...
400003	CTB_EM_ENC_STATE_TRANS_ERR	The encounter is not able to transition from its current state to the state provided.	...
400004	CTB_EM_ORG_EXPIRED	The healthcare facility provided is unable to be used as it has expired.	...
400005	CTB_EM_ACCOM_PERSON_ERROR	An accompanying person record is invalid for this encounter. Please see the exception details for more information.	...
400006	CTB_EM_CARE_SITE_ERROR	A care site record is invalid for this encounter. Please see the exception details for more information.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400007	`CTB_EM_CS_TYPE_INVALID`	The type of care site specified is invalid.	...
400008	`CTB_EM_CS_INVALID`	The care site specified is invalid.	...
400009	`CTB_EM_CS_INACTIVE`	The care site specified is inactive.	...
400010	`CTB_EM_CS_UNAVAILABLE`	The care site provided is unavailable for the time specified.	...
400011	`CTB_EM_CS_INVALID_ASSIGNMENT`	The care site is not assigned to the practice setting.	...
400012	`CTB_EM_CS_END_BEFORE_START`	The effective end date of the care site record is before the effective start date.	...
400013	`CTB_EM_PRACTICE_SETTING_ERROR`	A practice setting record is invalid for this encounter. Please see the exception details for more information.	...
400014	`CTB_EM_PS_INVALID`	The practice setting specified is invalid.	...
400015	`CTB_EM_PS_UNAVAILABLE`	The practice setting provided is unavailable for the time specified.	...
400016	`CTB_EM_PS_INVALID_FACILITY`	The healthcare facility that the practice setting is assigned to is not the same as the encounter's healthcare facility.	...
400017	`CTB_EM_PS_END_BEFORE_START`	The effective end date of the practice setting record is before the effective start date.	...
400018	`CTB_EM_INSURANCE_CVRG_ERROR`	An insurance coverage record is invalid for this encounter. Please see the exception details for more information.	...
400019	`CTB_EM_IC_POL_MEMBER_INVALID`	The insurance policy member identifier specified is invalid.	...
400020	`CTB_EM_INSURANCE_COPAY_ERROR`	An insurance copay record is invalid for this encounter. Please see the exception details for more information.	...
400021	`CTB_EM_STAFF_PART_ERROR`	A staff participation record is invalid for this encounter. Please see the exception details for more information.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400022	CTB_EM_SP_INVALID	The organization staff member specified is invalid.	...
400023	CTB_EM_SP_END_BEFORE_START	The effective end date of the staff participation record is before the effective start date.	...
400024	CTB_EM_PATIENT_VAL_ERROR	A patient valuable record is invalid for this encounter. Please see the exception details for more information.	...
400025	CTB_EM_PATIENT_NOTES_ERROR	A patient note record is invalid for this encounter. Please see the exception details for more information.	...
400026	CTB_EM_ENCOUNTER_LINK_ERROR	An encounter link record is invalid for this encounter. Please see the exception details for more information.	...
400027	CTB_EM_ENCOUNTER_REASON_ERROR	An encounter reason record is invalid for this encounter. Please see the exception details for more information.	...
400028	CTB_EM_SPECIAL_REQUEST_ERROR	An encounter special request record is invalid for this encounter. Please see the exception details for more information.	...
400029	CTB_EM_CS_SWAP_DIFF_PS	The care sites are unable to be swapped as the patients do not belong to the same practice setting.	...
400030	CTB_EM_CS_SWAP_NO_ACTIVE_CS	The care sites are unable to be swapped as one of the encounters does not have an active care site.	...
400031	CTB_EM_CANNOT_PERFORM_ACTION	The action is unable to be performed on this class of encounter.	...
400032	CTB_EM_PA_INVALID_STATE	The action is unable to be performed in the encounter's current state.	...
400033	CTB_EM_MULTIPLE_PS_WITH_END_DT	There is currently multiple practice settings without an end date. Only one practice setting is able to be active at any one time.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400034	CTB_EM_PS_NOT_CONTINUOUS	The practice settings for this encounter are not continuous. The practice settings are sorted in effective start date order. One of the practice setting's effective start date is before the previous practice setting's effective end date.	...
400035	CTB_EM_MULTIPLE_CS_WITH_END_DT	There is currently multiple care sites without an end date. Only one care site is able to be active at any one time.	...
400036	CTB_EM_CS_NOT_CONTINUOUS	The care sites for this encounter are not continuous. The care sites are sorted in effective start date order. One of the care site's effective start date is before the previous care site's effective end date.	...
400037	CTB_EM_MULTIPLE_LOA_END_DATES	There is currently multiple leaves of absence without an end date. Only one leave of absence is able to be active at any one time.	...
400038	CTB_EM_LOA_NOT_CONTINUOUS	The leaves of absence records for this encounter are not continuous. The leaves of absence are sorted in leave start date order. One of the leaves of absence leave start date is before the previous leave of absence leave end date.	...
400039	CTB_EM_MULTIPLE_SP_END_DATES	There is currently multiple attending staff participant records without an end date. Only one attending staff participant record is able to be active at any one time.	...
400040	CTB_EM_SP_NOT_CONTINUOUS	The attending staff participant records for this encounter are not continuous. The attending staff participants are sorted in effective start date order. One of the attending staff participant's effective start date is before the previous attending staff participant's effective end date.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400041	CTB_EM_CANNOT_ADD_PS_AND_CS	Unable to perform the assign location action as only a practice setting or a care site can be added via the action. It is not possible to add both a practice setting and care site in the same action.	...
400042	CTB_EM_CANNOT_TFR_PS_AND_CS	Unable to perform the inpatient stay transfer location action as only the practice setting or the care site can be transferred via the action. It is not possible to transfer both the practice setting and the care site in the same action.	...
400043	CTB_EM_ACTIVE_LOA_EXISTS	Unable to perform the inpatient stay leave of absence action as there is currently an active leave of absence on the encounter. Only one leave of absence can be active at any one time.	...
400044	CTB_EM_NO_ACTIVE_LOA	Unable to perform the inpatient stay return from leave action as there is no active leave of absence on the encounter.	...
400045	CTB_EM_IS_DSCG_ORG_ID_INVALID	The organization identifier the patient is being discharged to is invalid.	...
400046	CTB_EM_LINK_CONF_ERROR	An encounter link confidentiality record is invalid for this encounter. Please see the exception details for more information.	...
400047	CTB_EM_ENCOUNTER_ID_NOT_FOUND	The encounter(s) with the following identifiers were not able to be added to the group as they were not found: &INVALID_ATTRIBUTES.	...
400048	CTB_EM_ENC_GRP_NOT_FOUND	The encounter group specified was not found.	...
400049	CTB_EM_GROUP_ID_NOT_FOUND	The group(s) with the following identifiers were not able to be added to the group as they were not found:	...
400050	CTB_EM_GROUP_ERROR	The encounter group validation has failed. Please see the exception details for more information.	...
400051	CTB_EM_GROUP_LOOKUP_VALUE_ERR	The group lookup validation failed. The following attribute(s) were invalid: &INVALID_ATTRIBUTES.	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400052	CTB_EM_GRP_RESP_ORG_ID_ INVALID	The organization identifier specified as the responsible organization for the group is invalid.	...
400053	CTB_EM_ENC_GRP_STATE_TRANS_ ERR	The encounter group is not able to transition from its current state to the state provided.	...
400054	CTB_EM_GROUP_STATE_INVALID	The state specified for the group is invalid.	...
400055	CTB_EM_GROUP_CONF_ERROR	An encounter group confidentiality record is invalid for this encounter group. Please see the exception details for more information.	...
400056	CTB_EM_ENC_UPDATE_ERROR	The update operation cannot be performed on the encounter as updates cannot occur when it is in the following state: &INVALID_ ATTRIBUTES.	...
400057	CTB_EM_GROUP_UPDATE_ERROR	The update operation cannot be performed on the group as updates cannot occur when it is in the following state: &INVALID_ ATTRIBUTES.	...
400058	CTB_FWK_INVALID_STATE_MODEL	The state model [&PARAM1] specified for this entity object is not valid.	...
400059	CTB_FWK_INVALID_STARTING_ STATE	The start state [&PARAM1] is not a valid start state for the state model [&PARAM2].	...
400060	CTB_FWK_INVALID_END_STATE	The end state[&PARAM1] is not a valid start state for the state model [&PARAM2].	...
400061	CTB_PI_INVALID_NAME_USE_CODE	The given name use code is not a valid code.	Invalid name use code.
400062	CTB_PI_NO_NAME_USE_CODE	At least one valid name use code must be assigned to the PersonName.	No name use code has been assigned.
400063	CTB_PI_TOO_MANY_LEGAL_CODES	More than one Legal use code has been assigned. One and only one Legal use code can be associated with a given Person.	More than one Legal use code has been assigned to the Person object.

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400064	CTB_PI_NO_LEGAL_CODE	No Legal use code has been assigned to the Person. Exactly one use code of type Legal (L) must be associated with the Person object.	No Legal use code has been assigned to the Person object.
400065	CTB_MS_ACT_CODE_MISSING	No act code was supplied by the message	...
400066	CTB_MS_CANT_CREATE_CONFIG_SVC	IMPConfigurationServiceAMImpl cannot be found nor created	...
400067	CTB_MS_CANT_CREATE_STAFFPOS	The sender does not have permission to create a staff position	...
400068	CTB_MS_CANT_INVOKE_METHOD	The specified method could not be invoked for the object specified	...
400069	CTB_MS_CANT_PARSE_MESSAGE	The message cannot be parsed	...
400070	CTB_MS_CANT_PROCESS_MESSAGE	The message cannot be processed	...
400071	CTB_MS_CARE_SITE_ID_NULL	The care site id is null	...
400072	CTB_MS_CARE_SITE_NOT_FOUND	The care site specified was not found	...
400073	CTB_MS_CLASS_CODE_MISSING	No class code was supplied by the message	...
400074	CTB_MS_CREATE_CONFIG	An error has been encountered when creating a configuration object	...
400075	CTB_MS_DELETE_CONFIG	An error has been encountered when deleting a configuration object	...
400076	CTB_MS_ENCOUNTER_DOESNT_EXIST	The encounter should already ex	...
400077	CTB_MS_ENTITY_NAME_NULL	Entity name is null: &PARAMETER	...
400078	CTB_MS_EVENT_CODE_NULL	The event code is null	...
400079	CTB_MS_EVENT_CODE_NULL	An invalid identification object type has been specified	...
400080	CTB_MS_ID_CONFIG_NOT_FOUND	No id configuration objects could be found	...
400081	CTB_MS_ID_MISSING	No identifier was supplied by the message	...
400082	CTB_MS_ID_TYPE_INVALID	An invalid id type has been specified	...
400083	CTB_MS_ID_TYPE_NULL	The id type is null	...
400084	CTB_MS_ID_VALIDATION	Id validation has failed	...
400085	CTB_MS_INCORRECT_ID_MAPPING	The external identifier maps to a different existing internal identifier	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400086	`CTB_MS_INCORRECT_OBJECT`	An incorrect object has been specified	...
400087	`CTB_MS_INTERNAL_FLAG_INVALID`	An invalid internal flag has been specified	...
400088	`CTB_MS_INVALID_ADDR_USE_CODE`	An invalid address usage type was specified	...
400089	`CTB_MS_INVALID_CLASS_CD`	An invalid class code has been specified	...
400090	`CTB_MS_INVALID_CODE`	An invalid code has been specified	...
400091	`CTB_MS_INVALID_CODE_SYSTEM`	An invalid coding system has been specified	...
400092	`CTB_MS_INVALID_DETER_CD`	An invalid determiner code has been specified	...
400093	`CTB_MS_INVALID_INTERACT_ TARGET`	An invalid interaction target was specified	...
400094	`CTB_MS_INVALID_MOOD_CD`	An invalid mood code has been specified	...
400095	`CTB_MS_INVALID_TRIGGER_VALUE`	An invalid trigger value was specified	...
400096	`CTB_MS_INVALID_TYPE_CD`	An invalid type code has been specified	...
400097	`CTB_MS_INVALID_VOCAB_DOMAIN`	An invalid vocabulary domain has been specified	...
400098	`CTB_MS_LOOKUP_TYPE_NULL`	The lookup type is null	...
400099	`CTB_MS_MED_REC_EXISTS_WOUT_ PAT`	A medical record exists for a patient that does not exist	...
400100	`CTB_MS_METHOD_NOT_FOUND`	The specified method could not be found	...
400101	`CTB_MS_MOOD_CODE_MISSING`	No mood code was supplied by the message	...
400102	`CTB_MS_MULTIPLE_INT_IDS`	Multiple internal identifiers have been found	...
400103	`CTB_MS_NULL_PATIENT_ID`	The patient id is null	...
400104	`CTB_MS_ORGSTAFFMEM_NOT_FOUND`	The organization staff member specified was not found	...
400105	`CTB_MS_ORG_NOT_FOUND`	The specified organization could not be found	...
400106	`CTB_MS_PARAMETER_NULL`	The specified parameter should not be null: &PARAMETER	...

Table I–1 (Cont.) HTB Error Messages

Message Number	Message Name	Message Text	Description
400107	CTB_MS_PATIENT_NOT_FOUND	The patient specified was not found	...
400108	CTB_MS_PERMISSION_CODE_NULL	The permission code is null	...
400109	CTB_MS_PERSON_NOT_FOUND	The person specified was not found	...
400110	CTB_MS_RECEIVER_ORG_ID_NULL	The receiver organization id is null	...
400111	CTB_MS_REC_ORG_EXT_NULL	The receiver organization extension is null	...
400112	CTB_MS_REC_ORG_ID_NOT_ENT	The receiver organization id specified is not for an organization of type Enterprise	...
400113	CTB_MS_ROOT_OID_NULL	The root oid is null	...
400114	CTB_MS_SENDER_CONFIG_NOT_ FOUND	No sender configuration objects could be found	...
400115	CTB_MS_SENDER_ID_NULL	The sender organization id is null	...
400116	CTB_MS_SENDER_ORG_ID_NULL	The sender organization id is null	...
400117	CTB_MS_STAFFPOS_NOT_FOUND	The staff position specified was not found	...
400118	CTB_MS_TRANSACTION	A general transaction error has occurred	...
400119	CTB_MS_TYPE_CODE_MISSING	No type code was supplied by the message	...
400120	CTB_MS_TYPE_CODE_NULL	The type code is null	...
400121	CTB_MS_UPDATE_CONFIG	An error has been encountered when updating a configuration object	...
400122	CTB_MS_VOCAB_CONFIG_NOT_FOUN	No vocabulary configuration objects could be found	...
400123	CTB_MS_VOCAB_DOMAIN_NULL	The vocabulary domain is null	...
400124	CTB_CL_DEP_ACT_NO_RELS	The act marked as not being independent does not have any relationships to other acts. Any dependent act must be related to at least one other act.	...

J

Minimum Implementation Steps

Table J–1 describes the minimum implementation steps that must be completed before you can start programming with the HTB Platform, listed in implementation sequence.

Table J–1 provides two fundamental mechanisms to implement its core services: (i) a window user interface, available for selected services, and (ii) the HTB Session Service, which provides a call interface to all APIs supported by HTB (some implementation procedures also employ a command line interface).

Table J–1 Minimum Implementation Steps for HTB

Task-Step	Title	Description	Interface	Procedure Reference
1-1	Creating Administrative Users	Lets non-SYSADMIN users log in to HTB.	Window	Section 4.1.1
1-2	Assigning Responsibilities to Administrative Users	Lets non-SYSADMIN users select Responsibilities upon login.	Window	Section 4.1.2
2-3	Implementing TCA DQM for HTB	Enables creation of non-duplicate persons.	Window	Section 4.2.3
3-1	Creating the Organization Hierarchy	Required to execute any HTB API.	Session Service	Section 4.3.1
3-2	Creating Organizations	Required to execute any API that uses or references organizations.	Session Service	Section 4.3.2
5-2	Loading and Activating New Terminology Versions	Required to execute any clinical APIs.	Window	Section 4.5.2

See Also:

- Chapter 3, Implementation Overview
- Table 3–1, HTB Implementation Tasks Summarized
- Table 3–2, HTB Implementation Procedures: Security Services
- Table 3–3, HTB Implementation Procedures: Person Services
- Table 3–4, HTB Implementation Procedures: Organizations
- Table 3–6, HTB Implementation Procedures: Enterprise Terminology Services (ETS)
- Appendix B, HTB Session Service

K

Abbreviations & Acronyms

This appendix defines abbreviations and acronyms used in the Oracle Healthcare Transaction Base Implementation Guide (Table K–1):

Table K–1 Abbreviations and Acronyms

Abbreviation / Acronym	Description
ABG	Arterial blood gasses
ADT	Admit, discharge and transfer
AGS	Administrative grouping of services; encounter group
AMA	American Medical Association
API	Applications Programming Interface
B2B	Business to Business
B2C	Business to Customer
CA	Certificate Authority
CAT	Computer-Assisted Tomography; See also: CT
CBC	Complete blood count
CDT	Current Dental Terminology
CDT-2	Current Dental Terminology, 2nd Revision
CLIA	Clinical Laboratories Improvement Act
CMS	Centers for Medicare & Medicaid Services; was HCFA
CPT	Current Procedural Terminology
CPT4	Current Procedural Terminology, 4th Revision
CT	Computerized Tomography; See also: CAT
CTB	Clinical Transaction Base; now HTB
DBEV	Database Entry Vehicle
DES	Data Encryption Standard (U.S.)
DMIM	Domain Message Information Model
DN	Distinguished Name
DNS	Domain Naming Service
DRG	US Diagnosis Related Group
E&M	Evaluation and Management Guidelines
ECG	Electrocardiogram; electrocardiography
EEG	Electroencephalogram; Electroencephalography

Table K–1 (Cont.) Abbreviations and Acronyms

Abbreviation / Acronym	Description
EHR	Electronic health record
EMS	Emergency Medical Services
EPS	Enterprise Patient Scheduling
ER	Emergency Room
ETS	Oracle Enterprise Terminology Services
GTS	General Timing Specification
GUI	Graphic User Interface
HCFA	Health Care Financing Administration; now CMS
HCPCS	Healthcare Financing Administration Common Procedural Coding System
HCPCS Level II	Healthcare Financing Administration Common Procedural Coding System, Level II
HCSM	Oracle Healthcare Staff Management
HHS	U.S. Department of Health and Human Services
HIPAA	Health Insurance Portability and Accountability Act of 1996
HL7	Health Level 7
HMD	Hierarchical Message Description
HPI	History of present illness
HSS	U.S. Department of Health and Human Services
HTB	Healthcare Transaction Base; was CTB
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
HTTPS	HTTP combined with underlying SSL layer
ICD-9-CM	International Classification of Diseases—9th Revision, Clinical Modification
ICD-10	International Statistical Classification of Diseases and Health-related problems, 10th Revision
ICU	Intensive Care Unit
IETF	Internet Engineering Task Force

Table K–1 (Cont.) Abbreviations and Acronyms

Abbreviation / Acronym	Description
IETF RFC 1766	Internet Engineering Task Force Request for Comments 1766: Tags for the Identification of Languages
II	Instance Identifier
ISO	International Standards Organization
ISO 3166-1	International Standards Organization 3166-1: Country Codes
ISP	Internet Service Provider
ISV	Independent Software Vendor; Independent Service Vendor
JAR	Java archive file; contains compressed Java classes
JDBC	Java Database Connectivity
JDK	Java Development Kit
JRE	Java Runtime Environment
JSP	Java Server Pages
JVM	Java Virtual Machine
LAN	Local Area Network
LOINC	Logical Observation Identifier of Names and Codes
LOV	List of Values
MDC	US Major Diagnostic Categories
MDF	Message Development Framework (RIM)
MRI	Magnetic Resonance Imaging; Medical Records Information
MRN	Medical Record Number
MT	Message Type
OID	Object Identifier; Oracle Internet Directory
PCP	Primary Care Provider; Primary Care Physician
PE	Physical Exam
PIN	Personal Identification Number
PKE	Public Key Encoding
PKI	Public Key Infrastructure
RIM	Reference Information Model (HL7)

Table K–1 (Cont.) Abbreviations and Acronyms

Abbreviation / Acronym	Description
RMIM	Refined Message Information Model
SCHIP	State Children's Health Insurance Program (U.S.)
SDO	Standards Developing Organization
SNOMED	Systematized Nomenclature of Medicine
SNOMED CT	Systematized Nomenclature of Medicine Clinical Terms
SQL	Structured Query Language
SSL	Secure Sockets Layer
SSO	Single Sign-on
TCP/IP	Transmission Control Protocol / Internet Protocol
UB92	Universal Billing Document [1992]
UML	Unified Modeling Language
USAM	Unified Service Action Model
WAN	Wide Area Network
XML	Extensible Markup Language

Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

Act Definition

An ETS concept that has been added to the Master Catalog.

Act Relationship

An association between a pair of acts. This includes act-to-act associations such as collector/component, predecessor/successor, and cause/outcome. An HL7 version 3 concept.

Act Type

The intersection of an act mood and an act class, used to define logical groupings of clinical act definitions.

admission

The arrival of a new **inpatient**. May follow **pending admission** or optional **pre-admission**.

admitting physician

The physician who authorizes a patient admission; a physician authorized to admit patients.

adverse reaction

Response to a drug or substance, administered at typical dosage levels, that is noxious and unintended.

ambulatory encounter

An **encounter** that does not result in the hospitalization or institutionalization of the patient in the facility providing the service.

attending physician

The physician who has primary responsibility for the care of a specific patient for the duration of an encounter. See also: **Primary care provider** (PCP).

authentication

The process of verifying the identity of a user, device, or other entity in a computer system or network, typically as a prerequisite to granting access to resources in a system. A recipient of an authenticated message can be certain of the message's origin (its sender). Authentication is presumed to preclude the possibility that another party has impersonated the party being authenticated.

authorization

Permission given to a user, program, or process to access an object or set of objects. The set of privileges available to an authenticated user or entity.

B

C

care site

Specific location of an **encounter** within a facility, such as a bed or room. There can be multiple care sites within a **practice setting**, and multiple **practice setting**s can use the same care site. Multiple patients can also be assigned to the same care site.

Centers for Medicare & Medicaid Services

Was the **Health Care Financing Administration** (HCFA). An agency of the **U.S. Department of Health and Human Services**, HCFA administers Medicare, Medicaid, and SCHIP. The agency also performs a number of quality-focused activities, including regulation of laboratory testing (CLIA), and development of coverage policies.

chief complaint

Brief description of the **patient**'s principal symptoms, such as a headache.

ciphertext

Text (or a message) that has been encrypted.

clinical act

An instance of a clinical event, stored in the HTB repository; also known as an instantiated act associated with a patient.

clinical attribute

A characteristic of a **clinical act** that provides descriptive information; an attribute associated with a clinical act.

clinical view

A collection of clinical data defined for rapid retrieval, for purposes of display or data entry.

clinician

See: **practitioner**.

coding

A mechanism for identifying and defining physician and hospital services, coding is a function of billing. Coding provides universal definition and recognition of diagnoses, procedures and level of care. A national certification exists for coding professionals and many compliance programs are currently raising standards of quality for their coding procedures.

coding scheme

Within ETS, a particular structured system of terms or concepts used to maintain coded meanings. Examples include The International Classification of Diseases, 9th Edition, Clinical Modification (ICD-9-CM), and University Hospital's Laboratory Codes.

coding scheme version

A particular instance of a **coding scheme**. For example: ICD-9-CM for the year 2000; ICD-9-CM for the year 2001; the University Hospital's Laboratory Codes, Updated September 2001.

compliance

Consistently and accurately conforming to U.S. government rules for Medicare billing system requirements and other regulations. A compliance program is a self-monitoring system of checks and balances intended to ensure that an organization consistently complies with applicable laws relating to its business activities or healthcare delivery services.

concept

Cognitive construct (or abstraction) formed by using the characteristics of objects; unit of thought. A concept should not be confused with a linguistic or symbolic scheme used to represent it. Objects can be thought of as instances of concepts. Example: the concept of viral hepatitis.

concept list

Within ETS, user-defined groupings of ETS concepts that can be used by other applications; for example, lookup types are ETS concepts.

consulting physician

Any physician providing a **patient** consult who is not the **primary care physician**. See also: **Primary care provider** (PCP).

Core ETS Terminologies

See: **Core Terminologies**.

Core Terminologies

A specific set of **coding scheme**s employed by ETS.

core terminology

A **coding scheme** for which ETS has provided special support, in terms of loaders, APIs, and a predefined ETS coding scheme.

CPT code

Coding convention defined by the **Health Care Financing Administration** (HCFA), now the **Centers for Medicare & Medicaid Services**, to identify medical or psychiatric procedures. Used to determine reimbursement amounts to providers by Medicare carriers. A growing number of managed care and other insurance companies also base their reimbursements to their commercial members using this coding convention.

cross-referencing

Generally refers to the association of related objects across systems. In message processing, the mapping of externally assigned identifiers to HTB-assigned (internal) identifiers.

Current Procedural Terminology

A classification of procedures used for Medicare reimbursement.

D

data integrity

The guarantee that the contents of the message received were not altered from the contents of the original message sent.

decryption

The process of converting the contents of an encrypted message (**ciphertext**) back into its original readable format (**plaintext**).

Diagnosis-Related Group

A classification system developed by the U.S. Department of Health and Human Services. Patients with similar ICD--9-CM diagnoses who undergo similar procedures are included in the same Diagnosis Related Group. DRGs are used by the United States Medicare system to reimburse hospitals for their treatment of patients, reimbursing a fixed amount for all patients in a DRG regardless of their lengths of stay. DRGs are also widely used in health data analysis.

discharge

Release of an **inpatient**; termination of an inpatient's residence at a medical facility. Changes **patient** status from **pending discharge** to *discharged*.

Domain Message Information Model

A form of the **Refined Message Information Model** constructed to represent the totality of concepts embodied in the individual RMIMs needed to support the communication requirements of a domain. An HL7 version 3 concept.

E

electronic health record

Patient medical record stored in electronic format.

emergency medical services

Medical transportation (ambulance service).

emergency room

Hospital facility staffed and equipped to receive and treat persons with emergent health conditions (illness, trauma...).

emergency room encounter

An encounter that occurs at the emergency room.

encounter

Any contact between **patient** and provider where medical or related services are provided; includes consults. Defined by patient, **practitioner** or **clinician**, location, date, and time. Encounters can be related by either **encounter group**s or **encounter link**s.

encounter group

An association between two or more **encounter**s—belonging to the same **patient** or different patients. A group contains attributes and zero to many encounters. Groups can be created to relate a series of encounters for a particular diagnosis or referral—some times called an **episode of care**. A group can also be created to relate different patient encounters for a clinical study.

encounter link

An association between two related encounters, belonging to the same patient or different patients. For example, links can be made between mother and newborn encounters. Links can also be used to associate pre-admit testing with an inpatient stay.

encounter list

List of encounters by patient.

Encounter Management

A principal service of Oracle Healthcare that manages the interactions between patients and healthcare providers for the purpose of delivering healthcare services.

encrypted person record

A person record that has been encoded to hide the identity of the person associated with the record.

encrypted text

Text that has been encrypted, using an encryption algorithm; the output stream of an encryption process. On its face, it is not readable or decipherable, without first being decrypted. Also called **ciphertext**. Encrypted text ultimately originates as **plaintext**.

encryption

The process of disguising text (or a message), rendering it unreadable to any but the intended recipient.

enterprise

A healthcare organization that consists of one or more facilities and employs multiple practitioners and other employees to deliver healthcare services. Oracle Healthcare customers are enterprises by definition.

episode of care

A series of **encounter**s for a particular diagnosis or referral.

Evaluation and Management Guidelines

Identify separate services or procedures beyond the scope of those normally required by **CPT code**d service or procedure; used for billing purposes. Also called E&M Guidelines.

F

facility

Physical site of a healthcare organization, where healthcare services are delivered.

family history

Describes health history of **patient**'s relatives. See also: **social history**.

G

General Timing Specification

Defines the complex timing of events and actions in orders and scheduling systems. GTS supports the cyclical validity patterns that may exist for particular types of information, such as telephone numbers (evening, daytime), addresses, office hours. An HL7 version 3 concept.

Graphic User Interface

An interface used with personal computers and workstations that lets users access window fields and regions with a pointing device, typically a mouse. Also called a **window user interface**, or a GUI.

guarantor

An individual (or other entity) who assumes financial responsibility for the healthcare received by another party (a **patient**). The guarantor guarantees payment for healthcare services provided to the patient.

H

Health Care Financing Administration

An agency of the **U.S. Department of Health and Human Services**, HCFA administers Medicare, Medicaid, and SCHIP. The agency also performs a number of quality-focused activities, including regulation of laboratory testing (CLIA), and development of coverage policies. Name changed to **Centers for Medicare & Medicaid Services** as at July 1, 2001.

Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act of 1996 (HIPAA). Title I of the act provides health insurance coverage for workers and their families when they change or lose their jobs. Title II of the act requires the U.S. Department of Health and Human Services (HHS) to establish national standards for electronic healthcare transactions and national identifiers for providers, health plans, and employers. The act also addresses security and privacy of healthcare data.

Health Level Seven

A healthcare application protocol for electronic data exchange. A set of standard formats that specify interfaces between computer applications from different vendors; lets healthcare institutions exchange key sets of data from different applications. Also called HL7.

Health Level Seven, Inc.

One of several ANSI-accredited Standards Developing Organizations (SDOs) operating within healthcare; emphasizes clinical and administrative data. Headquartered in Ann Arbor, Michigan, this organization asserts and retains copyright in all works contributed by members and non-members relating to all versions of the Health Level Seven (HL7) standards and related materials. To contact this organization:

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Healthcare professional

See: **practitioner**.

Hierarchical Message Description

The specification of the fields of a message and their grouping, sequence, optionality, and cardinality. Contains message types for one or more interactions, or that represent one or more common message element types. The primary normative structure for HL7 messages.

History of Present Illness

Description of events or symptoms preceding the **chief complaint**.

Hypertext Markup Language

A markup language used to format documents, predominantly for viewing with a web browser. Portions of text or images, called hypertext, can be associated with other documents. Also called HTML.

Hypertext Transfer Protocol

The TCP/IP-based network protocol used to transmit requests and documents between an HTTP server and a web browser. Also called HTTP.

I

inpatient

A **patient** that has been admitted to a medical facility for treatment; a resident patient (for more than 23 hours).

inpatient encounter

An **encounter** involving an inpatient.

instance

A case or an occurrence. For example, an object is an instance of a class.

instance identifier

Used to uniquely identify an **instance** or **object**.

Integrity

See: **data integrity**.

J

Java class

Java Classes are components of a Java program that define objects and operations performed on objects. A Java class also identifies an operating system file that contains a program or part of a program written in Java.

Java Server Pages

Java Server Pages (JSP) are an extension to the Java servlet technology that was developed by Sun Microsystems as an alternative to Microsoft ASPs (Active Server Pages). JSPs support dynamic scripting capability that works in tandem with HTML code, separating the page logic from the static elements—the actual design and display of the page.

JInitiator

Oracle JInitiator lets end users run Oracle Developer server applications directly within Netscape Navigator or Microsoft Internet Explorer on the Windows 95, 98, 2000, and NT4.0 platforms. Implemented as a plug-in (Netscape Navigator) or ActiveX component (Microsoft Internet Explorer), Oracle JInitiator lets you specify the use of Oracle's Java Virtual Machine (JVM) on web clients in lieu of the browser's default JVM.

K

L

location

The healthcare facility, clinic, hospital unit, room, and bed; the location of an **encounter**.

M

Major Diagnostic Category

Grouping by admitting diagnosis. Assignment of the MDC is the first step in the process of formulating the **Diagnosis-Related Group**, necessary for reimbursement of a healthcare claim.

master catalog

The organization of **clinical act**s by type. Ties a particular organization's clinical data to Oracle Enterprise Terminology Services (ETS).

medical record number

A reference number that uniquely identifies a **patient** medical record or a patient.

medical record review

Periodic review of the patient's medical record for quality improvement studies, research projects, billing compliance auditing, and claims review. See also: **electronic health record** (EHR).

medication history

Describes medications and dosages prescribed for a patient

message

A unit of data transferred between systems or applications.

Message Type

A three-character code imbedded in a **message** that defines the purpose of the message. Example: ADT; indicates that the purpose of the message is to transmit ADT data.

mood

A code specifying whether an act is an activity that has happened, can happen, is happening, is intended to happen, or is requested or demanded to happen. An HL7 version 3 concept.

N

network service

A network resource used by clients; for example, an Oracle database server.

node

See: **organization node**.

O

object

A programming construct that contains both data and procedure to access, update, or use such data by performing a service. An object exists within a class (*an instance of a class*), which defines common characteristics and behaviors for all objects within the class. Objects are abstractions that can represent real-world items, such as a motor vehicle, or a process, such as transferring a **patient**.

object identifier

A globally unique string (example: 2.16.840.1.113883.3.1) that expresses a tree data structure; an ISO concept.

organization node

A group, practice, department, or other unit within an organization. An organization may have several **care site practice setting**s across multiple organization nodes.

outpatient

A patient that has not been admitted to a medical facility for treatment (for more than 23 hours); a non-resident patient; one who visits a hospital, clinic, or associated medical facility for diagnosis or treatment but is not admitted. See also: **inpatient**.

outpatient encounter

An **encounter** involving an outpatient. Examples include visits to the ER, other physician visits or checkups, day surgery, blood donation.

P

participation

An association between a **role** and an act. Represents the involvement of the entity playing the role with regard to the associated act. A single role may participate in multiple acts and a single act may have multiple participating roles. A single participation is always an association between a particular role and a particular act. An HL7 version 3 concept.

patient

A person who receives professional services from a **practitioner** of the healing arts toward the maintenance, improvement, or protection of health, or lessening of illness, disability or pain.

payor

A third-party purchaser of healthcare services. A payor may be an insurance company or a governmental program, such as Medicare or Medicaid.

pending admission

The first step in admitting an **inpatient**, it alerts a designated **practice setting** to the imminent arrival of a new patient and collects required encounter data prior to the actual admission; defines the commencement of a new **encounter**.

pending discharge

The first step in discharging an **inpatient**, it alerts the appropriate ancillary departments to the **patient**'s imminent discharge. This enables them to schedule the termination of services to that patient upon the patient's departure.

performer

A person participating in delivery of a service. A **participation** type code depicting the kind of participation or involvement the actor (the entity playing the **role** associated with the participation) has with regard to the associated act.

Person Services

A service of Oracle Healthcare. Includes a directory that uniquely identifies persons, who may be patients, providers, payers, other medical staff, or all of these. It can exist within a single domain or an enterprise with multiple domains, and can be employed at the organization, community, state, national, or international level.

physical exam

Physical (medical) examination of a **patient** by a **practitioner**.

PL/SQL

PL/SQL is a procedural extension of SQL that provides programming constructs such as blocks, conditionals, and functions.

plaintext

Message or other text that has not been encrypted.

port

In TCP/IP and UDP networks, a port is an endpoint to a logical connection. The port number identifies what type of port it is. For example, port 80 is used for HTTP traffic.

practice setting

A categorization of the clinical setting (cardiology clinic, primary care clinic, rehabilitation hospital, skilled nursing facility...) in which care is delivered. (Note that there is a many-to-many relationship between practice setting and the physical location where care is delivered. Thus, a particular room can provide the location for cardiology clinic one day, and for primary care clinic another day; and cardiology clinic might be held at one physical location on one day, but at another physical location on another day.) Practice settings are **node**s in an organization hierarchy. Examples of practice settings include *MedSurg*, *ICU3*, or *Physical Therapy*. Practice settings are typically part of larger organizational units.

practitioner

A medical professional or technician licensed or otherwise authorized or permitted by law to provide healthcare services. A practitioner may be a physician, nurse, or other type of licensed healthcare professional. Also called healthcare professional, **clinician**.

pre-admission

An optional process conducted in addition to **pending admission**, this process is conducted when episode related procedures must be performed in preparation for a **patient**'s prospective admission to a healthcare facility. Examples include diagnostic tests, blood typing, radiology studies, x-rays.

pre-registration

A service of Oracle Healthcare that lets a prospective **patient** enter all required information and complete all required **admission** forms prior to admission.

primary care physician

See: primary care provider. Note that these terms are often used interchangeably. Also called PCP.

Primary care provider

The principal **practitioner** providing or coordinating the delivery of healthcare services to a particular patient. May also be called primary care physician, if the practitioner is a physician. Also called PCP.

procedure type

Describes actions to be performed, associated **CPT code**s, and optional resources required.

profile option

A profile option is a set of changeable attributes that affect the way Oracle applications appear and how they function.

provider

An individual or organization that is licensed to deliver medical care. All **clinician**s, hospitals, clinics, and other types of healthcare organizations are providers.

proxy server

An intermediate server positioned between a client application, such as a Web browser, and another target server. It intercepts all requests to the target server to see if it can fulfill the requests itself. If not, it forwards the request to the target server.

Q

R

read-only

Read-only access lets you access data without changing it.

Reference Information Model

An object model created as part of the HL7 version 3 methodology, RIM is a pictorial representation of the clinical data (domains) and identifies the life cycle of events that a message or groups of related messages will carry.

Refined Message Information Model

An information structure that represents the requirements for a set of messages. A constrained subset of the **Reference Information Model**. May contain additional classes that are cloned from RIM classes. Contains those classes, attributes, associations, and data types that are needed to support one or more **Hierarchical Message Description**s. A single message can be shown as a particular pathway through the classes within an RMIM. An HL7 version 3concept.

registration

A service of Oracle Healthcare that captures information (demographic, financial, other) necessary to establish a new **patient** in the system. The submitted information is received by the medical facility's admitting department and processed daily.

responsibility

A level of authority within Oracle Applications that lets users access those application functions and data that are consistent with their assigned **role**s within an organization.

role

Roles are groupings of permissions, which are window level and function level granular privileges used to maintain application security.

Rosetree

An HL7 version 3 tool used to develop **Hierarchical Message Description**s and **Message Type**s from **Refined Message Information Model**s.

Rosetree RIM Browser

An HL7 tool that lets you browse (read) the **Reference Information Model** as a UML model, including RIM datatypes and vocabulary.

S

server

A computer that is accessed by and serves other client or server computers in a network. Examples include mail servers, database servers, and applications servers (Oracle9*i*AS).

service

A network resource used by clients; for example, an Oracle database server.

servlet

A servlet is a Java program called or triggered by a client computer, executed on an HTTP server.

social history

Describes **patient**'s smoking, alcohol, and drug use history, and that of patient's relatives. See also: **family history**.

SQL

Structured Query Language. An internationally standardized language used to access data in a relational database.

SQL*Plus

An Oracle language superset of SQL used to submit SQL statements to an Oracle database server for execution. SQL*Plus has its own command language.

SQL script

A SQL script is a file containing SQL statements that you run with a tool such as SQL*Plus to query or update an Oracle Relational Database.

substance administration

An act using a material as a therapeutic agent. The effect of the therapeutic substance is typically established on a biochemical basis, but that is not a requirement. An HL7 version 3 concept.

system administrator

The person who manages administrative tasks in Oracle Applications, such as registering new users and defining system printers, or using the system administrator responsibility.

T

TCP/IP

Transmission Control Protocol/Internet Protocol. A widely used industry-standard networking protocol used for communication among computers. The communication standard of the Internet.

tier

A set of machines that perform similar tasks. Client/server is a two-tier architecture, with machines on the client tier connecting to machines on the server tier. Internet Computing Architecture consists of three tiers. In Oracle Applications Release 11*i*, machines on the desktop client tier communicate with machines on the application tier, which in turn communicate with each other and with machines on the database tier.

transfer

Movement of a **patient** from one **practice setting** to another. May imply change in patient's level of care.

Transmission Control Protocol / Internet Protocol

See: TCP/IP.

U

Unified Modeling Language

An industry standard tool for object-oriented analysis and design. Used to create domain models, UML was originally created to unify several well known object-oriented modeling methodologies, principally including those of Grady Booch, Jim Rumbaugh, and Ivar Jacobson.

Unified Service Action Model

Describes of the basic structures of the HL7 **Reference Information Model** (RIM); the clinical part of the RIM.

U.S. Department of Health and Human Services

Administers Health Insurance Portability and Accountability Act (HIPAA), among other functions relating to the regulation of the healthcare industry in the United States. Also called HHS.

user

A user is any person requiring access to any application, including various types of customers, partners, suppliers, and employees.

user name

A unique name that grants access to a secure environment or program, such as an Oracle database or Oracle applications. A user name is typically associated with a collection of privileges and data available to a particular user (*responsibilities* in Oracle Applications). User names are normally associated with a password.

V

W

window user interface

An interface used with personal computers and workstations that let users access window fields and regions with a pointing device, typically a mouse. Also called a **Graphic User Interface**.

workflow

Oracle Workflow automates business processes, routing information of any type according to business rules. Oracle Workflow manages business processes according to rules that you define. The rules, called a *workflow process definition*, include the activities that occur in the process and the relationship between those activities. An activity in a process definition can be an automated function defined by:

- A PL/SQL stored procedure or an external function.
- A notification to a user or role that they may request a response.a business event
- A subflow that itself is made up of multiple activities.

workflow attributes

Workflow attributes control the behavior of the workflow.

workflow monitor

The workflow monitor is a Java based tool used for administering and viewing workflow processes.

X

Y

Z