

Getting Started With Oracle® Java CAPS Master Patient Index

Copyright © 2008, 2011, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation shall be subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License (December 2007). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information on content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Contents

Getting Started With Oracle Java CAPS Master Patient Index	5
Related Topics	6
About the Default Projects	6
The Server Project	6
The Collaboration Client Project	10
The Business Process Client Project	10
Implementing the Default Projects	11
Install the Required Software	11
Customize the Application	12
Regenerate the Application	13
Create the Database Tables	14
Configure the Connectivity Maps	16
Define the Environment	17
Deploy the Projects	19
Define EDM Security	21
Running the Java CAPS Master Patient Index Projects	22
Run the Sample Files	22
Work With the EDM	23

Getting Started With Oracle Java CAPS Master Patient Index

You can quickly start working with Java CAPS Master Patient Index and learn about the features using the default projects and configuration. While a production environment will require customization, working with the default version is a quick way to better understand how the master index works and how various components of Java CAPS Master Patient Index correlate. This tutorial describes the default projects and then explains how to modify the projects, create the necessary Environment and project components, and process data through the master index using the client projects and the Enterprise Data Manager (EDM).

The topics listed here provide information about the default Java CAPS Master Patient Index projects and provide instructions for getting started with the application.

What You Need to Know

These topics provide information about how the default projects are configured and how they work.

- [“The Server Project” on page 6](#)
- [“The Collaboration Client Project” on page 10](#)
- [“The Business Process Client Project” on page 10](#)

What You Need to Do

These topics provide instructions on how to configure, build, and deploy the default Java CAPS Master Patient Index projects. To get quickly started with the default projects without learning the details, perform the steps in the order listed below.

- [“Install the Required Software” on page 11](#)
- [“Customize the Application” on page 12](#)
- [“Regenerate the Application” on page 13](#)
- [“Create the Database Tables” on page 14](#)
- [“Configure the Connectivity Maps” on page 16](#)
- [“Define the Environment” on page 17](#)
- [“Deploy the Projects” on page 19](#)

- “Define EDM Security” on page 21
- “Run the Sample Files” on page 22
- “Work With the EDM” on page 23

Related Topics

Several topics provide information and instructions for implementing and using a Repository-based master index application. For a complete list of topics related to working with Java CAPS Master Patient Index, see “Related Topics” in *Developing Oracle Java CAPS Master Patient Indexes*.

About the Default Projects

The following topics describe the default projects provided with Java CAPS Master Patient Index. If you want to get started with Java CAPS Master Patient Index right away, you can skip this section and go right to “Implementing the Default Projects” on page 11.

Java CAPS Master Patient Index includes one server project and two client projects, one that processes data through a Collaboration and one that processes data through a Business Process. Two small data files are provided on the Java CAPS sample web site at <http://java.net/projects/javacaps-samples/pages/Home> so you can immediately enter data through either client project. Once Java CAPS Master Patient Index is running, you can create additional data files to enter data through the client projects, and you can create and modify data through the EDM.

The projects are described in the following topics:

- “The Server Project” on page 6
- “The Collaboration Client Project” on page 10
- “The Business Process Client Project” on page 10

The Server Project

The server project defines an enterprise-wide master patient index that processes and stores information about the patients in a healthcare organization. The Java CAPS Match Engine is used to standardize data and provide matching weights. The Connectivity Map defines the Java CAPS Master Patient Index application and also defines the database connection pool using an Oracle Adapter, which is configured to connect to the database using a thin client JDBC connection, or a SQL Server Adapter (depending on which version of Java CAPS Master Patient Index you installed). The server project includes a method OTD that contains the methods used in the client projects’ Java Collaboration and Business Process. It also includes an outbound OTD that you can use with a JMS Topic to broadcast messages processed by Java CAPS Master Patient Index back out to external systems.

JMS Topics are not configured in the default Connectivity Maps and the process is not described in this tutorial. For more information and instructions, see “[Defining Connectivity Components for a Master Index \(Repository\)](#)” in *Configuring Oracle Java CAPS Master Index (Repository) Connectivity and Environments*.

The Object Structure

The object structure for the Java CAPS Master Patient Index application is based on standard patient data and includes information essential to identifying a patient, such as names, date of birth, national identifiers, and so on. The Parent object, named Person, contains demographic and identifying information. Child objects contain address, phone, alias, auxiliary ID, and comment information, including parsed and phonetic versions of the name and street address fields.

Query Configuration

Four different types of queries are defined in the Candidate Select file: a basic alphanumeric query, a phonetic version of the alphanumeric query, a blocking query to use for potential duplicate processing, and a blocking query to use for phonetic searches from the EDM. The blocking queries contain the following data blocks, which you can modify.

- Phonetic first and last names
- Social Security Number
- Phonetic first name, date of birth, and gender
- Phonetic last and maiden names
- Phonetic first and last alias names
- House number and phonetic street name (EDM query only)
- Phonetic street name and phonetic last name (EDM query only)

Standardization and Matching Configuration

The server project is configured to parse, normalize, and phonetically encode person names and street address names. The fields that store the modified data are defined in the database, but do not appear on the EDM. The following sections provide a general overview of how standardization and matching are configured. You can modify the configuration to obtain different results.

Person Names

By default, each name stored in the master index is phonetically encoded, and a patient’s primary and alias names are normalized prior to phonetic encoding. Normalization is based on the United States domain. The following fields are included in the object structure to store the normalized data.

- Person.StdFirstName
- Person.StdMiddleName

- Person.StdLastName
- Alias.StdFirstName
- Alias.StdMiddleName
- Alias.StdLastName

The following fields are included in the object structure to store the phonetic codes for each name.

- Person.FnamePhoneticCode (patient's first name)
- Person.LnamePhoneticCode (patient's last name)
- Person.MnamePhoneticCode (patient's middle name)
- Person.MotherMNPhoneticCode (mother's maiden name)
- Person.MaidenPhoneticCode (patient's maiden name)
- Person.SpousePhoneticCode (spouse's name)
- Person.MotherPhoneticCode (mother's name)
- Person.FatherPhoneticCode (father's name)

Parsing Addresses

Addresses are parsed and standardized based on the United States domain. The default value, used when no domain is specified, is the United States. Addresses are parsed into the following components (with the actual field name in parentheses).

- House number, rural route identifier, P.O. box number (Address.HouseNumber)
- Match street name, rural route descriptor, P.O. box descriptor (Address.StreetName)
- Street direction (Address.StreetDir)
- Street type (Address.StreetType)

After being parsed, the street name is also phonetically encoded. The phonetic version is stored in the Address.StreetNamePhoneticCode field.

The Match String

The default match string consists of the following fields, which are considered standard for matching on person information.

- Person.StdFirstName
- Person.StdLastName
- Person.SSN
- Person.DOB
- Person.Gender

Threshold Configuration

The following table lists the default configuration for the Threshold file of the sample server project. The query builder specified for matching is the query named "BLOCKER-SEARCH" in the Candidate Select file.

TABLE 1 Default Threshold Parameter Configuration

Parameter	Default Configuration
Update Mode	Pessimistic
Merged Record Update	Disabled
One Exact Match	False
Same System Match	True
Duplicate Threshold	7.25
Match Threshold	29.0
EUID Length	10
Checksum Length	0 (checksum values are not used)
Chunk Size	1000

Enterprise Data Manager Configuration

In addition to the standard EUID and System/Local ID lookups, three additional searches are defined for the EDM: an alphanumeric search, a phonetic search, and a Social Security Number lookup. The following criteria fields are defined for alphanumeric searches:

- Last Name
- Middle Name
- DOB, as a range
- SSN
- Category
- Address Line 1
- State
- First Name
- Gender
- Mother's Maiden Name
- Maiden Name
- Address Type
- City
- Postal Code

The following fields are defined for phonetic searches:

- Last Name
- DOB, as a range
- Mother's Maiden Name
- Address Line 1
- First Name
- Gender
- SSN
- Address Line 2

See “[Query Configuration](#)” on page 7 for the possible combinations allowed for the phonetic search.

The DOB field is defined to support range searching and includes a “From” field and a “To” field on the EDM search pages, allowing you to supply the range of values on which to search.

In the default configuration, the Search page is the first to appear when you log on to the EDM, all standard reports are enabled, and the audit log is disabled. If you want to view the audit log for the sample project, be sure to enable it before generating the project. Field masking is enabled for the SSN, Maiden Name, VIP Flag fields as well as certain address and telephone fields.

The Collaboration Client Project

Java CAPS Master Patient Index includes a Collaboration client project that shares information between the Java CAPS Master Patient Index application and two File Adapters (one sending data to Java CAPS Master Patient Index and one receiving data from Java CAPS Master Patient Index). The client reads the sample data from the input file through the inbound File Adapter, unmarshals the data into the Java CAPS Master Patient Index OTD (eIndexInput), and copies each field value of the OTD into the class variable SystemPerson. The variable is then passed to the Java method executeMatch, which processes the new data by comparing it against existing Java CAPS Master Patient Index records, assigning matching weights between records, and determining whether the incoming data is a new record or an update to an existing record.

After the message is processed, the new or updated record is sent to the outbound File Adapter, along with the EUID of the new or updated record and an indicator of whether the record was added, updated, merged, and so on. You can call additional Java CAPS Master Patient Index methods in the Collaboration to customize the processing logic. To view the available methods, right-click Person_1 in the left pane of the Business Rules Designer and then select Browse This Type.

The Business Process Client Project

The Java CAPS Master Patient Index sample provides a Business Process client project that shares information through a Business Process. This project uses the same processing logic as the Collaboration client project, using executeMatch to process messages into the Java CAPS Master Patient Index application and returning the EUID of the affected record as well as the results code.

Standard result codes include the following. Additional results codes can be returned if you are using custom processing for `executeMatch`.

- **1** - A new record was added to Java CAPS Master Patient Index.
- **2** - An update was performed because a matching system and local ID pair exists in Java CAPS Master Patient Index.
- **3** - An assumed match was found.

This project unmarshals the data into the `eIndexBPInput` OTD. You can call additional Java CAPS Master Patient Index methods in the Business Process to customize the processing logic. Available methods are listed under the `Person` node of the Java CAPS Master Patient Index server project.

Implementing the Default Projects

Before continuing, make sure you have access to an Oracle or SQL Server database. The database can be installed on the same computer as Java CAPS Master Patient Index or on any computer that can be accessed over your network.

Sample input files are provided with the Java CAPS Master Patient Index documentation and can be accessed from the Java CAPS sample projects web site (this is described in [“Running the Java CAPS Master Patient Index Projects”](#) on page 22).

Getting started with Java CAPS Master Patient Index includes the following tasks:

- [“Install the Required Software”](#) on page 11
- [“Customize the Application”](#) on page 12
- [“Regenerate the Application”](#) on page 13
- [“Create the Database Tables”](#) on page 14
- [“Configure the Connectivity Maps”](#) on page 16
- [“Define the Environment”](#) on page 17
- [“Deploy the Projects”](#) on page 19
- [“Define EDM Security”](#) on page 21

Install the Required Software

In order to work with the Java CAPS Master Patient Index projects, you must have the following applications installed.

- Java CAPS 6 with Repository NBM (this includes the File, Oracle, and SQL Server Adapters used in the default projects)
- Java CAPS Master Index (Repository)
- Java CAPS Master Patient Index

- Oracle or SQL Server database (this can be installed on your computer or over a network, as long as you can access the database from your computer)

Java CAPS Master Index (Repository) and Java CAPS Master Patient Index are not installed when you install Java CAPS.

▼ **To Install Java CAPS Master Index (Repository) and Java CAPS Master Patient Index**

- 1 **Make sure the Java CAPS Repository is started.**
- 2 **Upload `eview.sar` and `eindex.sar` to the Repository using the Java CAPS Uploader, as described in [“To Install Java CAPS Components Using the Java CAPS Uploader”](#) in *Using the Oracle Java CAPS 6.3 Installation GUI*.
 - To find the location of these files on the installation media, see [“Installation Media”](#) in *Planning for Oracle Java CAPS 6.3 Installation*.
 - Be sure to upload the `eindex.sar` file for the database platform you are using.**
- 3 **Launch NetBeans and connect to the Java CAPS Repository.**
- 4 **Install Master Index in NetBeans, as described in [“To Install Components Using the NetBeans IDE Update Center”](#) in *Using the Oracle Java CAPS 6.3 Installation GUI*. Follow these guidelines:**
 - On the Settings page of the NetBeans Plugins tool, only select CAPS Repository Update Center.
 - If a validation error appears while installing Master Index, click continue on the dialog box to ignore the warning.
 - After the installation is complete, restart the IDE and then reconnect to the Repository. The Java CAPS Master Patient Index projects appear in the Projects window once the IDE starts again.
- 5 **Once all required software is installed, continue to [“Customize the Application”](#) on page 12.**

Customize the Application

The Java CAPS Master Patient Index projects work in their default configuration, but you can customize several attributes of the master index, such as the appearance of the EDM, the queries used by the application, the matching parameters, and so on. In order for the default client projects and sample input files to work with the application, however, you cannot modify the object structure.

One recommended change is to enable audit logging in the Enterprise Data Manager file so you can work with the Audit Log feature. To do this, change the value of the *allow-insert* element at the end of the file to “true”. If this is not enabled, you will not be able to view the audit log on the EDM.

After you modify any of the configuration files, continue to [“Regenerate the Application” on page 13](#).

Regenerate the Application

Before you can work with the application files, you must regenerate the application and then import the regenerated JAR files into the eIndexClient project Collaboration.

Note – When you regenerate, the database scripts are updated to reflect object structure changes with the exception of the Create User Indexes script, which is not an automatically generated file. You can modify the file manually if needed (but this is not required for this tutorial).

▼ To Regenerate the Application

Before You Begin Make sure you have completed the steps under [“Install the Required Software” on page 11](#) and [“Customize the Application” on page 12](#).

- 1 In the Projects window, expand the eIndex project.
- 2 Right-click eView Application - Person.
- 3 On the context menu, click Generate.
- 4 On the confirmation dialog box, click Yes.
- 5 Update the Collaboration as described below.

▼ To Update the Collaboration

- 1 In the Projects window, expand the eIndexClient project.
- 2 Check out and open the ProcessPerson Collaboration.
- 3 In the toolbar, click Import JAR File.
The Add/Remove Jar Files dialog box appears.
- 4 For each Java CAPS Master Patient Index JAR file in the list, highlight the filename and then click Remove.

- 5 For each Java CAPS Master Patient Index JAR file to re-import, do the following:
 - a. Click Add.
 - b. Double-click the eIndex project name in the list that appears.
 - c. Select the name of the JAR file to import.
 - d. Click Import.
- 6 Save the Collaboration.
- 7 Continue to [“Create the Database Tables” on page 14.](#)

Create the Database Tables

To create the database tables, you must have a standard Oracle or SQL Server database installed and running either on your computer or on a network computer accessible to your machine. To run the sample files, modifications are required for the Systems script and the Create User Code Data script. These changes are described below. Do not delete or change any of the existing processing codes or systems.

Before you begin these procedures, complete the steps under [“Regenerate the Application” on page 13.](#)

▼ To Define Systems for the Sample Files

- 1 In the Projects window, expand the eIndex project, expand eView Application - Person, and then expand Database Script.
- 2 Under Database Script, check out and open the Systems file.
- 3 Add the following SQL statements after the existing insert statement and before the end statement.

```
insert into sbyn_systems (systemcode, description, status, id_length, format,
input_mask, value_mask, create_date, create_userid) values ('CBMC', 'CB MED
CENTER', 'A', 9, '[0-9]{9}', 'DDD-DDD-DDD', 'DDD^DDD^DDD', TO_DATE(v_date,
'MM/DD/YYYY'), v_user);
```

```
insert into sbyn_systems (systemcode, description, status, id_length, format,
input_mask, value_mask, create_date, create_userid) values ('WHC', 'WAYFIELD HOME
CARE', 'A', 7, '[0-9]{7}', 'DD-DDD-DD', 'DD^DDD^DD', TO_DATE(v_date, 'MM/DD/YYYY'),
v_user);
```

- 4 Save and close the file.
- 5 Define user codes as described below.

▼ To Define User Codes for the Sample Files

- 1 In the Projects window, expand the eIndex project, expand eView Application - Person, and then expand Database Script.
- 2 Under Database Script, check out and open the Create User Code Data file.
- 3 Add the following SQL statements to the end of the file.


```
insert into sbyn_user_code (code_list, code, descr, format, input_mask,
value_mask) values ('AUXIDDEF', 'ACCT', 'ACCOUNT NUMBER', '[0-9]{8}', 'D-DDD-DDDD',
'D^DDD^DDDD'); commit;
```
- 4 Save and close the file.
- 5 Create the database tables as described below.

▼ To Create the Database Tables

- 1 If you have not done so already, create a standard database using Oracle or SQL Server database tools.
- 2 Use SQL*Plus to create a user for the database. Use the following script as a sample, entering the user name and password of the Java CAPS Master Patient Index user who will create the database files and provide the connection from the EDM and Adapters.


```
create user username identified by password;
grant connect, resource to <username>;
commit;
```
- 3 In the Projects window, expand the eIndex project, expand eView Application - Person, and then expand the Database Script folder.
- 4 Right-click Database Script, and then select Properties.
- 5 On the Properties window, do the following.
 - a. For Oracle: In the Database Server field, change <hostname> to the name of the computer on which the database resides, change the port number if you are not using the default, and

change <SID> to the SID name of the Java CAPS Master Patient Index database. You can enter "localhost" for the hostname if the database is on your local computer.

- b. For SQL Server: In the Database Server field, delete the default value and replace it with `jdbc:sqlserver://server:port;databaseName=database`, where *server* is the name of the computer on which the database resides, *port* is the port number the database is listening on, and *database* is the name of the database.
 - c. In the User field, enter the user ID for the user you created in step 2 above.
 - d. In the Password field, enter the password for the user you created in step 2 above.
 - e. Close the dialog box.
- 6 Under Database Script, right-click Create Person Database, click Run, and then click OK on the Information dialog box.
 - 7 Run Create User Indexes as above.
 - 8 Run Systems as above.
 - 9 Run Code List as above.
 - 10 Run Create User Code Data as above.
 - 11 Continue to ["Configure the Connectivity Maps" on page 16](#).

Configure the Connectivity Maps

The Connectivity Maps for all three Java CAPS Master Patient Index projects are predefined. You only need to configure the Adapter connections for the Collaboration client and Business Process client projects. The database Adapter is already configured for connectivity in the server project.

▼ To Configure the Client Connectivity Maps

Before You Begin Complete the steps under ["Create the Database Tables" on page 14](#).

- 1 In the `eIndexClient` project, check out the Connectivity Map (CMap1), and then open it in the Connectivity Map Editor.
- 2 Double-click the icon between the inbound Adapter and the Service.

- 3 On the Properties dialog box, change the value of the Input File Name property to `inputcollab*.txt` and press Enter.
- 4 Click OK.
- 5 Double-click the icon between the Service and the outbound Adapter.
- 6 On the Properties dialog box, change the value of the Output File Name property to `outputcollab%d.dat`.
- 7 Click OK.
- 8 Save and close the Collaboration client Connectivity Map.
- 9 Repeat the above steps for the Connectivity Map in the `eIndexBPClient` project, verifying that the input file name is `inputbp*.txt` and the output file name is `outputbp%d.dat`.
- 10 Continue to [“Define the Environment” on page 17](#).

Define the Environment

In order to deploy the projects to the application server, you need to create an Environment that maps the project components in the Connectivity Map to the physical components on the domain.

▼ To Define the Environment

Before You Begin Complete the steps under [“Configure the Connectivity Maps” on page 16](#).

- 1 In the Services window, right-click CAPS Environments, and then select New Environment.
- 2 Rename the Environment to `eIndexEnvironment`.
- 3 Right-click `eIndexEnvironment`, point to New, and then select Logical Host.
- 4 Rename the Logical Host `eIndexLH`.
- 5 Right-click `eIndexLH`, point to New, and then select Sun Java System Application Server.
- 6 Rename the server to `eIndexAS`.
- 7 Right-click `eIndexAS`, select Properties, and then define the application server password (this is the Administrator password). Verify the URL, and then click OK to close the Properties window.

- 8 Right-click `eIndexEnvironment`, point to **New**, and then select **File External System**.
- 9 Enter `FileSystem` for the name.
- 10 Right-click `FileSystem`, select **Properties**, and then configure the **File Adapters** as follows.
 - a. For the inbound **File Adapter**, expand **Inbound File Adapter**, select **Parameter Settings**, and then specify the directory in which you will place the sample data files.
 - b. For the outbound **File Adapter**, expand **Outbound File Adapter**, select **Parameter Settings**, and then specify the directory to which you want the Adapter to write the outbound files.
- 11 Right-click `eIndexEnvironment`, point to **New**, and then select **Oracle External System** or **SqlServer External System**, depending on which database you are using. Enter `DatabaseSystem` for the name.
- 12 Configure `DatabaseSystem` as follows.
 - a. Right-click `DatabaseSystem`, and then click **Properties**.
 - b. For Oracle, expand **Outbound Oracle Adapter**; for SQL Server, expand **Outbound SQLServer XA Adapter**.
 - c. Select **JDBC Connector Settings**.
 - d. Define the properties listed in the table below.
 - e. Click **OK** to close the **Properties** window.

Property	Description
ServerName	The name of the database server (you can enter "localhost" if the database is on the same computer as the application server).
PortNumber	The port number on which the database is listening. For Oracle, the default is 1521; for SQL Server, the default is 1433.
DatabaseName	The SID name of the database.
User	The login ID of the administrator user you created when you created the database (under " Create the Database Tables " on page 14).
Password	The database password for the administrator user.

See [Configuring Environment Components for Oracle Java CAPS Database Adapters](#) for more information about configuring the database external system.

- 13 Continue to [“Deploy the Projects” on page 19](#).

Deploy the Projects

For each sample project, you must create a Deployment Profile and build and deploy the project. Be sure to build the server project before creating the client projects' Deployment Profiles. Building the server project creates the Java CAPS Master Patient Index application, which is required in order to deploy the client projects.

Note – Before you begin these steps, make sure the application server is running and you have completed the steps under [“Define the Environment” on page 17](#).

▼ To Deploy the Server Project

This task links the components of the Java CAPS Master Patient Index server Connectivity Map with the physical components defined for the Environment.

- 1 In the **Projects** window, right-click the **eIndex** project.
- 2 Point to **New**, and then click **Deployment Profile**.
- 3 Name the profile **eIndexDep**.
- 4 Select **eIndexEnvironment** for the **Environment**.
- 5 Select only **ServerConnectivityMap** for the **Connectivity Map**.
- 6 Click **OK**.
The **Deployment Editor** appears.
- 7 In the **Deployment Editor** window, click the **Automap** icon.
The project components are automatically mapped to the **Environment** containers.
- 8 On the **Automap Results** dialog box, click **Close**.
- 9 In the **Deployment Editor** toolbar, click **Build**. When the build is complete, click **OK**.
The application EAR file is generated and placed in
`JavaCAPS_Home\.netbeans\caps\builds\exeIndexDep\exeIndexLH\exeIndexIS`.
- 10 After the project builds successfully, click **Deploy** in the **Deployment Editor** toolbar, and then click **Yes** on the **Deploy** dialog box.

- 11 Save and close the Deployment Profile.

▼ To Deploy the Collaboration Client Project

This task links the components of the Collaboration client Connectivity Map with the physical components defined for the Environment.

- 1 In the Projects window, right-click the `eIndexClient` project.
- 2 Point to **New**, and then click **Deployment Profile**.
- 3 Name the profile `CoLLabDep`.
- 4 Select `eIndexEnvironment` for the Environment.
- 5 Select only `CMAP1` as the Connectivity Map to use.
- 6 Click **OK**.
The Deployment Editor appears.
- 7 In the Deployment Editor window, click the **Automap** icon.
The project components are automatically mapped to the Environment containers.
- 8 On the **Automap Results** dialog box, click **Close**.
- 9 In the Deployment Editor toolbar, click **Build**. When the build is complete, click **OK**.
The application EAR file is generated and placed in
`JavaCAPS_Home\.netbeans\caps\builds\eIndexClientCollabDep\eIndexLH\eIndexIS`.
- 10 After the project builds successfully, click **Deploy** in the Deployment Editor toolbar, and then click **Yes** on the Deploy dialog box.
- 11 Save and close the Deployment Profile.

▼ To Deploy the Business Process Client Project

This task links the components of the Business Process client Connectivity Map with the physical components defined for the Environment.

- 1 In the Projects window, right-click the `eIndexBPClient` project.
- 2 Point to **New**, and then click **Deployment Profile**.
- 3 Name the profile `eInsightDep`.

- 4 **Select eIndexEnvironment for the Environment.**
- 5 **Select only CMAP1 as the Connectivity Map to use.**
- 6 **Click OK.**
The Deployment Editor appears.
- 7 **In the Deployment Editor window, click the Automap icon.**
The project components are automatically mapped to the Environment containers.
- 8 **On the Automap Results dialog box, click Close.**
- 9 **In the Deployment Editor toolbar, click Build. When the build is complete, click OK.**
The application EAR file is generated and placed in
JavaCAPS_Home\.netbeans\caps\builds\IndexBPClientInsightDep\IndexLH\IndexIS.
- 10 **After the project builds successfully, click Deploy in the Deployment Editor toolbar. Click Yes on the Deploy dialog box.**
- 11 **Save and close the Deployment Profile.**
- 12 **Continue to “[Define EDM Security](#)” on page 21.**

Define EDM Security

To access the Enterprise Data Manager (EDM), you need to create a user for logging on to the EDM and assign security permissions. Security is defined in the application server.

▼ To Define EDM User Accounts

Before You Begin Complete the steps under “[Deploy the Projects](#)” on page 19.

- 1 **Access the GlassFish Admin Console (on the Services window in NetBeans, expand Servers, right-click the application server, and then select View Admin Console).**
- 2 **In the left panel of the Admin Console, expand Configuration, Security, and then Realms.**
- 3 **Under Realms, click file.**
- 4 **On the Edit Realm page, click Manage Users.**
- 5 **On the File Users page, click New.**

6 On the New File Realm User page, enter the following information:

- In the User ID field, enter a unique login ID for the user.
- In the Group List field, enter **eView.Admin**.

Note – You can enter different user groups to see the affect each has on permissions. Each user must be assigned to either eView.Admin or eView.User. “[Master Index User Roles \(Repository\)](#)” in *Maintaining Oracle Java CAPS Master Indexes (Repository)* lists and describes each Java CAPS Master Patient Index user group.

- In the New Password and Confirm New Password fields, enter a password for the user.

7 Click OK.

8 Enter data into the master index application as described in “[Running the Java CAPS Master Patient Index Projects](#)” on page 22.

Running the Java CAPS Master Patient Index Projects

After you complete all the steps listed under “[Implementing the Default Projects](#)” on page 11, you can work with the Java CAPS Master Patient Index application you created by entering information through the EDM and by sending information to the master patient index through the Collaboration or Business Process using the provided sample files. You can also use these files as a template to create your own data to enter into the system.

The following topics provide information for working with the master patient index application:

- “[Run the Sample Files](#)” on page 22
- “[Work With the EDM](#)” on page 23

Run the Sample Files

Running the sample files inserts patient records into the Java CAPS Master Patient Index database. The data in both sample files is identical, so if you run both files only one record should be created for each entry in the files depending on how the match string and match thresholds have been modified.

▼ To Access and Process the Sample Files

- 1 Access the Java CAPS sample project web site at <http://java.net/projects/javacaps-samples/pages/Home>.**

- 2 Click **Core Products**, and then click the **Patient Master Index** link.
- 3 Save the ZIP file to your computer.
- 4 Extract the file to the directory you specified for the inbound File Adapter in **“Define the Environment” on page 17**.

The inbound File Adapters pick up the files and append “.~in” to the file name so you know that each was picked up. After the data is processed, the outbound File Adapters create an output file for each input file. The files contain the output of `executeMatch`.

Note – For the Collaboration project, the full text of the message along with the EUID is returned in the output file. For the Business Process project, only the EUID and result code are returned. The result codes are 1 (new record), 2 (system and local ID match found), and 3 (assumed match). Both 2 and 3 update existing records. Since the records in both files match, if the Collaboration file is processed first, the Business Process file will return all “2” result codes. If the Business Process file is run first, the result codes should be mostly “1”.

Work With the EDM

Using the EDM, you can view the records created by processing the sample data files. You can also create new records, compare records, merge records, and so on. For detailed instructions on working with the EDM, see [Working With the EDM for Oracle Java CAPS Master Patient Index](#).

▼ To Log in to the EDM

- 1 Open a web browser.
- 2 In the **Address** field, type the following:
`http://localhost:port/Personedm`
 where *port* is the HTTP port number. By default, the port number is 8080. If you changed the port number, you can find it in `\appserver\domains\domain1\config\domain.xml`. Use the port number for `http-listener-1`.
- 3 Enter the user name and password you defined under **“Define EDM Security” on page 21**.

▼ To View the New Records

If you processed the sample files as described under **“Run the Sample Files” on page 22**, you can view the new records from the EDM.

- 1 On the **Search** page, select **Advanced Person Lookup (Alphanumeric)** in the **Search Type** field.

2 Click Search.

The Search Results page appears with a list of all records in the database.

3 To view detailed information about a record, click the EUID of the record you want to view.

4 To compare two records side-by-side, select the check box next to the records you want to compare and then click Compare Records.

5 To view any potential duplicates that were created:

a. Click the Matching Review tab.

b. Enter today's date in the Create Date From field.

c. Click Search for Potential Duplicate.

The results list appears.

6 To view assumed matches, repeat the above steps but click Search for Assumed Match to run the search.

7 To add a new record, click Create System Record.