

Oracle® Healthcare Master Person Index

Installation Guide

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Oracle Healthcare Master Person Index Installation Guide, Release 4.0.2

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Preface

This document introduces users to the Oracle Healthcare Master Person Index (OHMPI) and the OHMPI Installer. It provides important information on design-time and runtime application servers and operating systems, and supplies procedures for installing OHMPI and the Java Development Kit (JDK). You must install the JDK and set JAVA_HOME prior to installing OHMPI.

Audience

This document is intended for integration developers and system administrators.

About This Book

This document provides an overview of the OHMPI installation process, and includes the following chapters:

- [Chapter 1, "Introducing the Oracle Healthcare Master Person Index,"](#) provides an overview of the OHMPI.
- [Chapter 2, "Oracle Healthcare Master Person Index Installation Requirements,"](#) introduces you to the Oracle Healthcare Master Person Index and describes the requirements which must be met before installing OHMPI.
- [Chapter 3, "Oracle Healthcare Master Person Index Installation,"](#) provides instructions for installing OHMPI.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

For more information and instructions for implementing and using a master person index application, see the following documents in the Oracle Healthcare Master Person Index documentation set:

- *Oracle Healthcare Master Person Index Analyzing and Cleansing Data User's Guide*
- *Oracle Healthcare Master Person Index Australia Patient Solution User's Guide*
- *Oracle Healthcare Master Person Index Command Line Reports and Database Management User's Guide*
- *Oracle Healthcare Master Person Index Configuration Guide*
- *Oracle Healthcare Master Person Index Configuration Reference*
- *Oracle Healthcare Master Person Index Data Manager User's Guide*
- *Oracle Healthcare Master Person Index Installation Guide*
- *Oracle Healthcare Master Person Index Loading the Initial Data Set User's Guide*
- *Oracle Healthcare Master Person Index Match Engine Reference*
- *Oracle Healthcare Master Person Index Message Processing Reference*
- *Oracle Healthcare Master Person Index Provider Index User's Guide*
- *Oracle Healthcare Master Person Index Real-time Loader User's Guide*
- *Oracle Healthcare Master Person Index Relationship Management Data Manager User's Guide*
- *Oracle Healthcare Master Person Index Relationship Management REST APIs Reference Guide*
- *Oracle Healthcare Master Person Index Relationship Management User's Guide*
- *Oracle Healthcare Master Person Index Release Notes*
- *Oracle Healthcare Master Person Index Security Guide*
- *Oracle Healthcare Master Person Index Standardization Engine Reference*
- *Oracle Healthcare Master Person Index Third Party Licenses and Notices*
- *Oracle Healthcare Master Person Index United Kingdom Patient Solution User's Guide*
- *Oracle Healthcare Master Person Index United States Patient Solution User's Guide*
- *Oracle Healthcare Master Person Index User's Guide*
- *Oracle Healthcare Master Person Index Working With HPD Profile Application User's Guide*
- *Oracle Healthcare Master Person Index Working With IHE Profiles User's Guide*

Note: These documents are designed to be used together when implementing a master index application.

Finding Information and Patches on My Oracle Support

Your source for the latest information about Oracle Healthcare Master Person Index is Oracle Support's self-service Web site My Oracle Support (formerly MetaLink).

Before you install and use Oracle Healthcare Master Person Index, always visit the My Oracle Support Web site for the latest information, including alerts, White Papers, installation verification (smoke) tests, bulletins, and patches.

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You must register at My Oracle Support to obtain a user name and password account before you can enter the Web site.

To register for My Oracle Support:

1. Open a Web browser to <https://support.oracle.com>.
2. Click the **Register here** link to create a My Oracle Support account. The registration page opens.
3. Follow the instructions on the registration page.

Signing In to My Oracle Support

To sign in to My Oracle Support:

1. Open a Web browser to <https://support.oracle.com>.
2. Click **Sign In**.
3. Enter your user name and password.
4. Click **Go** to open the My Oracle Support home page.

Finding Information on My Oracle Support

There are many ways to find information on My Oracle Support.

Searching by Article ID

The fastest way to search for information, including alerts, White Papers, installation verification (smoke) tests, and bulletins is by the article ID number, if you know it.

To search by article ID:

1. Sign in to My Oracle Support at <https://support.oracle.com>.
2. Locate the Search box in the upper right corner of the My Oracle Support page.
3. Click the sources icon to the left of the search box, and then select **Article ID** from the list.
4. Enter the article ID number in the text box.
5. Click the magnifying glass icon to the right of the search box (or press the Enter key) to execute your search.

The Knowledge page displays the results of your search. If the article is found, click the link to view the abstract, text, attachments, and related products.

Searching by Product and Topic

You can use the following My Oracle Support tools to browse and search the knowledge base:

- **Product Focus** — On the Knowledge page under Select Product, type part of the product name and the system immediately filters the product list by the letters you have typed. (You do not need to type "Oracle.") Select the product you want from the filtered list and then use other search or browse tools to find the information you need.

- **Advanced Search** — You can specify one or more search criteria, such as source, exact phrase, and related product, to find information. This option is available from the **Advanced** link on almost all pages.

Finding Patches on My Oracle Support

Be sure to check My Oracle Support for the latest patches, if any, for your product. You can search for patches by patch ID or number, or by product or family.

To locate and download a patch:

1. Sign in to My Oracle Support at <https://support.oracle.com>.
2. Click the **Patches & Updates** tab. The Patches & Updates page opens and displays the Patch Search region. You have the following options:
 - In the **Patch ID or Number is** field, enter the number of the patch you want. (This number is the same as the primary bug number fixed by the patch.) This option is useful if you already know the patch number.
 - To find a patch by product name, release, and platform, click the **Product or Family** link to enter one or more search criteria.
3. Click **Search** to execute your query. The Patch Search Results page opens.
4. Click the patch ID number. The system displays details about the patch. In addition, you can view the Read Me file before downloading the patch.
5. Click **Download**. Follow the instructions on the screen to download, save, and install the patch files.

Finding Oracle Documentation

The Oracle Web site contains links to all Oracle user and reference documentation. You can view or download a single document or an entire product library.

Finding Oracle Health Sciences Documentation

To get user documentation for Oracle Health Sciences applications, go to the Oracle Health Sciences documentation page at:

<http://www.oracle.com/technetwork/documentation/hsgbu-154445.html>

Note: Always check the Oracle Health Sciences Documentation page to ensure you have the latest updates to the documentation.

Finding Other Oracle Documentation

To get user documentation for other Oracle products:

1. Go to the following Web page:
<http://www.oracle.com/technology/documentation/index.html>
Alternatively, you can go to <http://www.oracle.com>, point to the Support tab, and then click **Documentation**.
2. Scroll to the product you need and click the link.
3. Click the link for the documentation you need.

Conventions

The following text conventions are used in this document:

| Convention | Meaning |
|-------------------|--|
| boldface | Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary. |
| <i>italic</i> | Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values. |
| monospace | Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter. |

Introducing the Oracle Healthcare Master Person Index

Oracle Healthcare Master Person Index (OHMPI) is a person identity resolution solution. It provides a flexible framework for you to design and create custom single-view applications, or master person indexes, which cleanse, match, and cross-reference healthcare objects across an enterprise. A master person index that contains the most current and accurate data about each healthcare object ensures availability of unified, trusted data to all systems in the enterprise.

Before installing OHMPI, Oracle recommends that you review the information in *Oracle Healthcare Master Person Index Security Guide*.

1.1 Software Included With the OHMPI Installer

The OHMPI Installer includes the following software:

- NetBeans IDE v8.0.2

Note: IDE is an acronym for an Integrated Development Environment. It consists of a number of components for object-oriented software development and building graphical user interfaces. It includes compiler, source code editor, build tools, debugger, browser, object inspector, and class a hierarchy diagram.

- Master Person Index Plug-in
- IHE Plug-in
- HPD Plug-in
- Relationship Management Plug-in
- Uninstallation software

1.2 Features of OHMPI

Oracle Healthcare Master Person Index includes the following features:

- [Design-time Wizard and Editor](#)
- [Data Quality and Load Tools](#)
- [Master Index Data Manager](#)
- [Healthcare Provider Directory](#)

- [Integrating the Healthcare Enterprise](#)
- [Relationship Management](#)

1.2.1 Design-time Wizard and Editor

OHMPI provides a wizard that takes you through all the steps of creating a master person index application. Using the wizard, you can define a custom master person index with a data structure, processing logic, and matching and standardization logic that are completely geared to the type of data you are indexing. OHMPI provides a graphical editor so you can further customize the business logic, including matching, standardization, queries, match weight thresholds, and so on.

1.2.2 Data Quality and Load Tools

By default, Master Person Index uses the OHMPI Match Engine and OHMPI Standardization Engine to standardize and match incoming data. Additional tools are generated directly from the master person index application and use the object structure defined for the master person index. These tools include the Data Profiler, Data Cleanser, and the Initial Bulk Match and Load (IBML) tool.

- **OHMPI Standardization Engine**

The OHMPI Standardization Engine is built on a highly configurable and extensible framework to enable standardization of multiple types of data originating in various languages and countries. It performs parsing, normalization, and phonetic encoding of the data being sent to the master person index or being loaded in bulk to the master person index database. Parsing is the process of separating a field into individual components, such as separating a street address into a street name, house number, street type, and street direction. Normalization changes a field value to its common form, such as changing a nickname like Bob to its standard version, Robert. Phonetic encoding allows queries to account for spelling and input errors. The standardization process cleanses the data prior to matching, providing data to the match engine in a common form to help provide a more accurate match weight.

- **OHMPI Match Engine**

The OHMPI Match Engine provides the basis for deduplication with its record matching capabilities. The OHMPI Match Engine compares the match fields in two records and calculates a match weight for each match field. It then totals the weights for all match fields to provide a composite match weight between records. This weight indicates how likely it is that two records represent the same entity. The OHMPI Match Engine is a high-performance engine, using proven algorithms and methodologies based on research at the U.S. Census Bureau. The engine is built on an extensible and configurable framework, allowing you to customize existing comparison functions and to create and plug in custom functions.

- **Data Profiler**

When gathering data from various sources, the quality of the data sets is unknown. You need a tool to analyze, or profile, legacy data in order to determine how it needs to be cleansed prior to being loaded into a master person index database. It uses a subset of the Data Cleanser rules to analyze the frequency of data values and patterns in bulk data. The Data Profiler performs a variety of frequency analyses. You can profile data prior to cleansing in order to determine how to define cleansing rules, and you can profile data after cleansing in order to fine-tune query blocking definitions, standardization rules, and matching rules.

- **Data Cleanser**

Once you know the quality of the data to be loaded to a master person index database, you can clean up data anomalies and errors as well as standardize and validate the data. The Data Cleanser validates, standardizes, and transforms bulk data prior to loading the initial data set into a master person index database. The rules for the cleansing process are highly customizable and can easily be configured for specific data requirements. Any records that fail validation or are rejected can be fixed and put through the cleanser again. The output of the Data Cleanser is a file that can be used by the Data Profiler for analysis and by the Initial Bulk Match and Load Tool. Standardizing data using the Data Cleanser aids the matching process.

- **Initial Bulk Match and Load Tool (IBML Tool)**

Before your Master Data Manager (MDM) solution can begin to cleanse data in real time, you need to seed the master person index database with the data that currently exists in the systems that will share information with the master person index. The IBML tool can match bulk data outside of the master person index environment and then load the matched data into the master person index database, greatly reducing the amount of time it would normally take to match and load bulk data. This tool is highly scalable and can handle very large volumes of data when used in a distributed computing environment. The IBML Tool loads a complete image of processed data, including potential duplicate flags, assumed matches, and transaction information.

1.2.3 Master Index Data Manager

The Master Index Data Manager (MIDM) is your primary tool to view and maintain the data stored in a master person index database and cross-referenced by a master person index application. The web-based interface allows you to access, monitor, and maintain the data stored by the master person index applications you create using OHMPI. The MIDM provides the ability to search for, add, update, deactivate, merge, unmerge, and compare object profiles. It also enables you to view and correct potential duplicate profiles, view transaction histories, view an audit log (if configured), and print reports.

1.2.4 Healthcare Provider Directory

The Healthcare Provider Directory (HPD) supports management (persistence and access) of healthcare provider information in a directory structure. HPD directory structure is a listing of the following two categories of healthcare providers that are classified by provider type, specialties, credentials, demographics, and service locations:

- **Individual Provider:** A person who provides healthcare services, such as a physician, nurse, or pharmacist.
- **Organizational Provider:** Organization that provides or supports healthcare services, such as hospital, Healthcare Information Exchange (HIE), Managed Care, Integrated Delivery Network (IDN), and Association.

OHMPI's HPD Application serves as the Provider Information Directory actor defined by IHE's HPD Profile and provides a flexible solution to healthcare integration needs. It uses processing logic based on the guidelines and standards put forth by IHE to assure compatibility with other vendors and healthcare organizations. A Provider Information Source interfaces with the Provider Information Directory to send new and updated provider information. A Provider Information Consumer interfaces with

the Provider Information Directory to query provider information. Provider Information Directory can rely on other external Provider Information Directories for federation.

OHMPI's HPD support leverages the advanced standardization and matching algorithms of Master Person Index to cross-reference and uniquely identify the individual providers and organizational providers. Master Person Index provides a single complete view of the participants in the healthcare system and is able to quickly reconcile which information is associated with which provider.

1.2.5 Integrating the Healthcare Enterprise

Integrating the Healthcare Enterprise (IHE) has created a number of standards and profiles that help create, process, and manage electronic health records in secure patient cross-reference applications. They work in conjunction with native Health Level 7 (HL7) v2 and v3 messaging and transport standards, which define how the information is packaged and shared between systems. OHMPI has incorporated a number of the IHE profiles (listed below), as they increase the efficiency of sharing trusted cross-references of healthcare person entities. A number of the IHE profiles function with HL7 v2 and v3 encoding standards to integrate healthcare networks.

With OHMPI, you have the capability to create an IHE project that contains a pre-configured master person index project. For more information, see *Oracle Healthcare Master Person Index Working With IHE Profiles User's Guide*.

- **Patient Identifier Cross Referencing (PIX)** allows cross-referencing of patient identifiers across a network of healthcare sites.
- **Patient Demographics Query (PDQ)** queries and retrieves patient demographics.
- **Audit Record Repository (ARR)** includes an audit server and an audit repository. It also supports ATNA (see below).
- **Audit Trail and Node Authentication (ATNA)** uses certificates and transmits and receives audit events to a secure repository to maintain patient confidentiality, and is built on top of **Security Audit and Access Accountability Message XML Data Definitions for Healthcare Applications**, the **Syslog Protocol, Transmission of Syslog Messages over Transport Layer Security (TLS)**, and **Transmission of Syslog Messages over User Datagram Protocol (UDP)**.
- **Consistent Time (CT)** synchronizes time stamps and system clocks on computers functioning within a healthcare network.
- **Patient Identity Management (PIM)** under Patient Administration Management (PAM) creates a patient record, updates the record, links the record to another patient record, and if the records represent the same patient, merges the records (these records can be unlinked if the records do not represent the same patient).
- **Patient Encounter Management (PEM)** is part of Patient Administration Management (PAM), which specifies two transactions (Patient Encounter Management, and the previously implemented Patient Identity Feed). For this release PEM supports the following:
 - **Basic mandatory subset**, which creates, updates, or closes inpatient and outpatient encounters. It also updates patient information and merges patient records.
 - **Inpatient/outpatient encounter management option**, which includes pre-admitting an inpatient and changing a patient's classification.

- **Patient Demographics Visit Query (PDVQ)** accesses user-defined search criteria and visit criteria to provide multiple distributed applications the capability to query a patient information server for a list of patients.
- **Patient Identifier Cross-Reference** and **Patient Demographics Query for HL7v3 (PIX/PDQ v3)** leverages HL7 version 3 to extend the capability of these profiles.

1.2.6 Relationship Management

OHMPI relationship management manages the complex relationships between providers and patients, among providers and among patients based on dynamic property changes in today's healthcare setting. Also, allows you to apply relationship inferring rules for advanced auto relationship computation. OHMPI relationship management is built upon metadata-driven and open architecture for offering flexible relationship data modeling and customization.

Oracle Healthcare Master Person Index Installation Requirements

This chapter introduces the OHMPI Installer. It also lists requirements prior to installing OHMPI, including design-time and runtime application servers, the operating systems on which they run, and a procedure for installing the Java Development Kit (JDK) and setting JAVA_HOME.

This chapter includes the following sections:

- [Section 2.1, "Hardware Requirements"](#)
- [Section 2.2, "Software Requirements"](#)
- [Section 2.3, "Time Synchronization Across Nodes"](#)

2.1 Hardware Requirements

Oracle Healthcare Master Person Index requires that the computer on which you plan to install it already has an appropriate Java Development Kit with JAVA_HOME set prior to beginning the process. See [Section 2.2.1.1, "Installing JDK Software and Setting JAVA_HOME"](#).

You can install OHMPI on PC and UNIX computers. For information on the supported platforms, see [Section 2.1.2, "Supported IDE, Application Servers, and Operating Systems"](#).

2.1.1 Hardware Installation Requirements

Installation requirement vary depending upon the operating system on which you are installing. For example:

- On Microsoft Windows, you need 1.5 GB of free storage space
- On Solaris, you need 1.5 GB of free storage space

Note: The OHMPI Installer informs you how much free storage space is required.

2.1.2 Supported IDE, Application Servers, and Operating Systems

OHMPI supports the following application servers:

- Integrated Design-time Environment (IDE)

NetBeans IDE is a design-time application used to create, generate, and build OHMPI applications.

Note: [Table 2–1](#) lists the design-time operating systems that are compatible with Master Person Index design-time components and NetBeans IDE v8.0.2.

- Runtime Application Server

Oracle WebLogic Server 12cR3 (12.1.3) or higher (including cluster environment deployments on these versions) runtime application server supports the IHE interface and runs an OHMPI application after it has been created and built. Oracle WebLogic 12.2.1.2 is supported starting with OHMPI release 4.0.2.

Note: OHMPI is supported on any edition of WebLogic Server, such as Standard, Enterprise, or WL Suite. Oracle WebLogic Server 12.1.3 and higher bring in newer operating system versions: Windows 2008 SP1 64 bit, and Solaris 11 x64.

[Table 2–1](#) lists operating systems that are compatible with Master Person Index runtime components and the Oracle WebLogic Server 12cR3 (12.1.3) or higher.

Table 2–1 Design-Time and Runtime Supported Platforms

| Platform ¹ | Design-time NetBeans IDE | Runtime WebLogic | Runtime JVM |
|------------------------------------|--------------------------|------------------|-------------|
| Microsoft Windows 2008 SP1 | - | 64 bit | 64 bit |
| Microsoft Windows 2008 R2 | - | 64 bit | 64 bit |
| Microsoft Windows 7 Professional | 64 bit | 64 bit | 64 bit |
| Microsoft Windows 10 | 64 bit | 64 bit | 64 bit |
| Oracle Enterprise Linux 6 (UL 5+) | 64 bit | 64 bit | 64 bit |
| Red Hat Enterprise Linux 6 (UL 5+) | 64 bit | 64 bit | 64 bit |
| Solaris 11 SPARC | 64 bit | 64 bit | 64 bit |
| Solaris 11 x64 | 64 bit | - | 64 bit |

¹ The supported bits for the platforms are noted in the table.

2.2 Software Requirements

OHMPI requires the following software:

- [Section 2.2.1, "Java Development Kit"](#)

OHMPI also requires a web browser to view the Master Index Data Manager (MIDM) and a database.

- [Section 2.2.2, "Supported Web Browsers"](#)
- [Section 2.2.3, "Supported Databases"](#)

2.2.1 Java Development Kit

OHMPI requires that a Java Development Kit is installed, and on UNIX systems the JAVA_HOME environment variable set, on the computer on which you install a Master Person Index prior to beginning the installation.

For OHMPI Release 4.0, the supported JDK is the minimum required to run the OHMPI Installer and install the program.

- JDK 1.7.0_75
- JDK 1.8.0_102 (only on WebLogic 12.2.1.2)

2.2.1.1 Installing JDK Software and Setting JAVA_HOME

If you do not already have the JDK software installed or if JAVA_HOME is not set, the Master Person Index installation will not be successful. The following tasks provide the information you need to install the JDK software on Windows and UNIX systems. Set JAVA_HOME on UNIX systems.

Caution: NetBeans IDE requires JDK 1.7 Update 75 or later for installation. If you select a Java Runtime Environment (JRE) instead of a JDK, you cannot install or configure NetBeans IDE.

Oracle WebLogic Server, which is a separate installation, automatically installs JRockit JDK. However, if you intend to use Oracle JDK, it must be installed before you install the WebLogic Server.

2.2.1.1.1 To Install JDK Software on a Windows System

1. Go to <http://java.sun.com/javase/downloads/index.jsp>.
2. Select the appropriate JDK version and click **Download**. The JDK software is installed on your computer (for example, at C:\Program Files\Java\jdk1.7.0_75).

Note: You can change this location.

2.2.1.1.2 To Install JDK Software and Set JAVA_HOME on a UNIX System

1. Install the JDK software.
 - Go to <http://java.sun.com/javase/downloads/index.jsp>.
 - Select the appropriate JDK version and click **Download**. The JDK software is installed on your computer. For example, at /usr/jdk/jdk1.7.0_75.

Note: You can change this location.

2. Set JAVA_HOME

- Korn and bash shells:
 - export JAVA_HOME=*jdk-install-dir*
 - export PATH=\$JAVA_HOME/bin:\$PATH
- Bourne shell:
 - JAVA_HOME=*jdk-install-dir*

- export JAVA_HOME
- PATH=\$JAVA_HOME/bin:\$PATH
- export PATH
- C shell:
 - setenv JAVA_HOME *jdk-install-dir*
 - setenv PATH \$JAVA_HOME/bin:\$PATH

2.2.2 Supported Web Browsers

OHMPI supports the following web browsers:

- Firefox: All versions; v. 3.5x and newer are recommended
- Internet Explorer (IE): Full support in version 7 and compatibility mode in version 8

Some of the pages in the MIDM application report HTML errors for IE 8. This is because of the difference in the DOM implementation in IE8. You can ignore these errors.

- Google Chrome

Oracle recommends that you use Internet Explorer or Mozilla Firefox to access the MIDM application in the WebLogic Clustering environment.

2.2.3 Supported Databases

OHMPI supports Oracle Database 12cR1 (12.1.0.2.0) and Oracle Database 11gR2 (11.2.0.1.0) Enterprise Editions.

Note: You must have at least the Standard edition for OHMPI.

2.3 Time Synchronization Across Nodes

When multiple OHMPI nodes are deployed for load balancing or redundancy, synchronize the time on all the nodes, including the database node, before routing any requests.

Oracle Healthcare Master Person Index Installation

This chapter provides conceptual and mandatory information, as well as a procedure for installing the Oracle Healthcare Master Person Index.

This chapter includes the following sections:

- [Section 3.1, "Preparing for an OHMPI Installation"](#)
- [Section 3.2, "Installing Using the OHMPI Installer GUI"](#)

If you want to upgrade the existing 3.x master index application (created by the 3.x OHMPI release) to the 4.0 release, see *Oracle Healthcare Master Person Index User's Guide* for instructions.

3.1 Preparing for an OHMPI Installation

Before beginning the installation, read the *Oracle Healthcare Master Person Index Release Notes*, as it contains important information such as what is in the release package, a listing of new features, and known issues. This information may be pertinent for you to complete a successful installation of the Oracle Healthcare Master Person Index.

Important installation information:

- Master Person Index does not support spaces in the installation directory path.
- You must have the JDK software installed and JAVA_HOME set prior to installing Master Person Index or the OHMPI Installer will halt the installation. If you have not installed the JDK yet, see [Section 2.2.1.1, "Installing JDK Software and Setting JAVA_HOME"](#).

3.2 Installing Using the OHMPI Installer GUI

Although you can change the default installation values, accepting most of them is a good practice, especially the port numbers.

Caution: Master Person Index does not support spaces in the installation directory path.

Before You Begin

When installing Master Person Index on UNIX systems, such as Solaris computers, set the DISPLAY variable to install in GUI mode. How you do this depends on how you connect to your system.

- If you receive the error message "No X11 DISPLAY variable was set, but this program performed an operation which requires it" and you use the SSH command to connect to your system from another UNIX machine, you need to set the DISPLAY variable.
- C shell with localhost the host name: `setenv DISPLAY localhost:0.0`
- Korn shell with localhost the host name: `DISPLAY=localhost:0.0; export DISPLAY`
- Bash shell with localhost the host name: `DISPLAY=localhost:0.0; export DISPLAY`
- Bourne shell with localhost the host name: `DISPLAY=localhost:0.0; export DISPLAY`
- If you use X Windows software, such as Exceed, the DISPLAY variable is set for you automatically and can be referenced as a macro, `@d&&`, when issuing the `xterm` command.

3.2.1 Installing OHMPI Components Using the OHMPI Installer

Follow the instructions in this section to run the OHMPI Installer:

1. Download the installation executable file for your platform from the link supplied to you through eDelivery.
2. Extract the installer file for your platform to a temporary directory.

| Platform | Installer File |
|---------------|---|
| Windows | OracleHealthcareMPlv4_0-full-installer-windows.exe |
| Solaris SPARC | OracleHealthcareMPlv4_0-full-installer-solaris-sparc.sh |
| Solaris x86 | OracleHealthcareMPlv4_0-full-installer-solaris-x86.sh |
| Linux | OracleHealthcareMPlv4_0-full-installer-linus.sh |

3. Exit from all programs prior to beginning the installation.

Note: You can cancel the installation at any time during the process.

4. To start the installation, initiate one of the following executable file:
 - For Linux or Solaris, change the execution mode with the command, `chmod a+x installer-file.sh`; and then start the installation with the command, `./installer-file.sh`.
 - For Windows, double-click the file, `installer-file.exe`.

The OHMPI Installer dialog box appears.

5. On the NetBeans IDE Installation dialog box, perform the following:
 - a. Verify or modify the location for the NetBeans IDE.
 - b. Verify or modify the location of the associated JDK.
 - c. Click **Next**.

Note: NetBeans IDE requires the JDK 1.7 Update 75 or later for installation.

6. Click **Install**.
7. Click **Finish**.

OHMPI is configured for your system. For additional details about the installation, see the installation logs.

3.2.2 Installing OHMPI Components on Solaris SPARC Platform

Perform the following steps:

1. Install OHMPI. For information, see [Section 3.2.1, "Installing OHMPI Components Using the OHMPI Installer"](#).
2. Install OHMPI plugin.
 - a. Start NetBeans.
 - b. From menu, select **Tools > Plugins**.

The Plugins dialog box appears.
 - c. Select the **Downloaded** tab.
 - d. Click **Add Plugins**.
 - e. Navigate to the <NetBeans_Install>/netbeans/ohmpi/update/download/ directory and select the following *nbm* files:
 - *ohmpi-mpi-netbeans-plugin.nbm*
 - *ohmpi-ihe-netbeans-plugin.nbm*
 - *ohmpi-hpd-netbeans-plugin.nbm*
 - *ohmpi-rm-netbeans-plugin.nbm*
 - f. Click **Open**.

The selected *nbm* files appear in the Plugins dialog box.
 - g. Select the check box against all *nbm* files.
 - h. Click **Install**.

