

Oracle® Healthcare Master Person Index

Quick Start Guide for Deduplicating Source System Objects

Release 2.0.13

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This document is intended for OHMPI consultants on how to quickly take advantage of the new `deduplicateSystemObject` API which is introduced in the OHMPI 2.0.13 patch. The `deduplicateSystemObject` API avoids creating a new source system object for each transaction. It reduces the need for a large database storage and disk I/O for a large volume of input data set with lots of matches from the same source systems. For more information about this feature, see the following OHMPI 2.0.13 documentation:

- [Oracle Healthcare Master Person Index Configuration Reference](#)
- [Oracle Healthcare Master Person Index Message Processing Reference](#)
- [Oracle Healthcare Master Person Index Real-time Loader User's Guide](#)

This document contains the following sections:

- [Prerequisite](#) on page 1-1
- [Configuring OHMPI Application](#) on page 1-1
- [Deduplication Merge and Unmerge Policies](#) on page 1-3
- [Rebuilding and Redeploying OHMPI Application](#) on page 1-4
- [Using `deduplicateSystemObject` EJB and `deduplicateSystemRecord` WS APIs](#) on page 1-4
- [DeduplicationOption](#) on page 1-4
- [Run-time Loader](#) on page 1-4
- [Configuring Run-time Loader](#) on page 1-4
- [Post Process](#) on page 1-5
- [Post Process Sample](#) on page 1-5

Prerequisite

Follow the *Oracle Healthcare Master Person Index Installation Guide* for 2.0.13 patch release to install the patch.

Configuring OHMPI Application

For an existing or a new OHMPI project, you must verify the project settings to make sure it is configured correctly for the use cases.

1. Enable the *MostRecentReceived* option for the global weighted survivor calculator strategy.

See the following sample settings in update.xml:

```
<WeightedCalculator module-name="WeightedSurvivorCalculator"
  parser-class="com.sun.mdm.index.configurator.impl.WeightedCalculatorConfig">
  <default-parameters>
    <parameter>
      <quality>SourceSystem</quality>
      <preference>AAA</preference>
      <utility>100.0</utility>
    </parameter>
    <parameter>
      <quality>SourceSystem</quality>
      <preference>BBB</preference>
      <utility>100.0</utility>
    </parameter>
    <parameter>
      <quality>MostRecentModified</quality>
      <utility>75.0</utility>
    </parameter>
    <parameter>
      <quality>MostRecentReceived</quality>
      <utility>100.0</utility>
    </parameter>
  </default-parameters>
</WeightedCalculator>
```

Weighted Calculator MostRecentReceived Strategy:

This strategy ranks the field values from the most recent received source system based on the last modified timestamp of the objects. The advantage of this strategy is that not all the source system records that are matched are retrieved for updating an enterprise object. Only the most recent modified source system record is retrieved from the MPI database when a match is found for the incoming source system record. It reduces disk I/O especially for the input data set with lots of matches.

If you execute the run-time loader (RTL) against the MPI database with the loaded data, you must enable this flag for executing the deduplicateSystemObject API.

2. Increase *system-assigned-localid-length*.

The deduplicateSystemObject API generates an internal local identifier and assigns it to the source system record. By default, the length of system-assigned local identifier is 10.

```
<MasterControllerConfig module-name="MasterController"
  parser-class="com.sun.mdm.index.configurator.impl.master.MasterControllerConfig
  uration">
  < system-assigned-localid-length >10</ system-assigned-localid-length >
</MasterControllerConfig>
```

When you load a large volume of data, you must increase its value in master.xml.

3. Disable *system-localid-deduplication-enabled*.

If system-localid-deduplication-enabled is true, the local identifier of each source system that you assign and contained in the incoming message will be used combining with the system-assigned local identifier by the deduplicateSystemObject API. If system-localid-deduplication-enabled is false, the local identifier that you assign in the incoming message will always be ignored. By default, system-localid-deduplication-enabled is set to false in master.xml.

```

<MasterControllerConfig module-name="MasterController"
parser-class="com.sun.mdm.index.configurator.impl.master.MasterControllerConfig
uration">

<system-localid-deduplication-enabled>>false</system-localid-deduplication-enabl
ed >
</MasterControllerConfig>

```

4. Enable *sameSystemMatch*.

This parameter indicates whether the MPI matches two records that originated from the same source system whose matching weight falls above the match threshold. If SameSystemMatch is set to true, no assumed matches are made between records associated with the same system. If SameSystemMatch is set to false, assumed matches can be made between records associated with the same system. Set it to false to execute deduplicateSystemObject in master.xml.

```

<DecisionMakerConfig module-name="DecisionMaker"
parser-class="com.sun.mdm.index.configurator.impl.decision.DecisionMakerConfig
uration">
  <parameters>
    <parameter>
      <parameter-name>SameSystemMatch</parameter-name>
      <parameter-type>java.lang.Boolean</parameter-type>
      <parameter-value>>false</parameter-value>
    </parameter>
  </parameters>
</DecisionMakerConfig>

```

5. If you update your existing project using the 2.0.13 patch, you must add a new sequence count in SBYN_SEQ_TABLE by executing the following SQL statement:

```
INSERT INTO SBYN_SEQ_TABLE VALUES ('SYSTEM_ASSIGNED_LOCALID', 0);
```

Deduplication Merge and Unmerge Policies

To merge two enterprise objects and unmerge the merged enterprise object, you must configure the deduplication merge and unmerge policies. You must also configure the local Id validation. Add the following update policies in update.xml:

```

<UpdateManagerConfig module-name="UpdateManager"
parser-class="com.sun.mdm.index.configurator.impl.UpdateManagerConfig">
  <EnterpriseMergePolicy>
    com.sun.mdm.index.update.DeduplicationMergePolicy
  </EnterpriseMergePolicy>
  <EnterpriseUnmergePolicy>
    com.sun.mdm.index.update.DeduplicationUnmergePolicy
  </EnterpriseUnmergePolicy>
</UpdateManagerConfig>

```

Also, replace the local-id validation rule in validation.xml with the following:

```

<rule name="validate-local-id" object-name="SystemObject"
class="com.sun.mdm.index.objects.metadata.validation.SystemAssignedLocalIdValidato
r"/>

```

Rebuilding and Redeploying OHMPI Application

After you modify the OHMPI application configuration, rebuild and redeploy the OHMPI application.

Using deduplicateSystemObject EJB and deduplicateSystemRecord WS APIs

After you redeploy the OHMPI application, you can use the deduplicateSystemObject EJB and deduplicateSystemRecord WS APIs to deduplicate source system records.

DeduplicationOption

You must specify parameters for DeuplicationOption for both deduplicateSystemObject EJB and deduplicateSystemRecord WS APIs. Use the default values.

For more information, see *Oracle Healthcare Master Person Index Message Processing Reference*.

- **matchThreshold:** By default, the deduplication process uses the match threshold configured in master.xml. This parameter takes precedence over the one configured in master.xml. The default is 0.
- **transactionOption:** The following are the valid options:
 - **TRANSACTION_LOG_DELTA_DISABLED:** The delta information (BLOB) of each transaction log is not persisted.
 - **TRANSACTION_LOG_DELTA_ENABLED:** The delta information (BLOB) of each transaction log is persisted.

The default value is TRANSACTION_LOG_DELTA_ENABLED.

- **searchId:** The default value is BLOCKER-SEARCH.
- **weighted:** The default value is true.
- **replaceSO:** The default value is true.

Run-time Loader

Generate and install the run-time loader (RTL). For information, see *Oracle Healthcare Master Person Index Real-time Loader User's Guide*.

Configuring Run-time Loader

1. Enable deduplicateSystemObject.

```
set EXECUTE_MATCH_API=deduplicateSystemObject in run-realttime-loader.bat/  
run-realttime-loader.sh
```

2. Configure config/rtl.properties for deduplicateSystemObject.

Post Process

The post process is used for designing and implementing any business logic and plugin in the RTL. The RTL executes the post process after each source system is deduplicated, if it is enabled. Implement post process interface and enable it whenever you need. By default, no post process is configured.

Post Process Sample

The OHMPI 2.0.13 patch packages an out-of-box post process sample. Unzip the ohmpi-patch.zip file. The artifacts of the post process sample are available under ohmpi-patch\netbeans\ohmpi\modules\ext\mdm\loader\samples\rtl. For information on how to implement the post process interface and execute the sample, see *readme.txt*.

Finding Information and Patches on My Oracle Support

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

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

Creating My Oracle Support Account

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

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.

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

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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.

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Searching by Product and Topic

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- **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.
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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** 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 in the patch Read Me to install the patch.

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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>

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

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1. Go to the following Web page:

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3. Click the link for the documentation you need.

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