Generating Web Services Using MDM Web Service Generator 7.1

Applies to:
MDM 7.1 Support Package 4 for SAP NetWeaver. For more information, visit the Master Data Management homepage.

Summary
This article explains how to use the MDM WS-Generator to generate MDM web services, to create destination, to modify the default java system property, and how to test MDM WS-Generator generated web service through web service navigator.

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Generating web services using the MDM web service generator.

To create a web service from MDM 7.1 ws-generator is easy than creating it manually by hard code EJB projects. It’s effective and accurate also.

1. First we have to log on http://<server>:<Port number>/mdm/WSGenerator. After providing the user id and password for server the following page will be displayed.

2. Here we have to click on new button and then enter the name of the project we want to create on the filter field of first column and press enter, this is a little confusing step because after entering the name of web service there is no button we have to press enter.

3. After creating the project select the newly created project (i.e Test_jeeendra in our case) from the table and click edit.
4. After click on edit the following page will appear and we have to provide the logon credential for MDM server.

As soon as the logon credential for server will be provided and login is done the Logon to MDM repository fields will be activated.
Ater providing logon credential for the repository click on next button.

5. The table configuration page will be opened here we have to specify the MDM table of the repository (material in our case) and the operation we want to perform on particular table.

6. After selecting the table from repository (countries in our case) and Operation (search in our case) for the table click on the next button. This will lead to following page where we have to configure the fields of the table we want to search. For this we have to select the table name from dropdown list (in case we have more than one table selected in previous step.) and remove the unwanted fields from right pane. After this click on next button.
7. After clicking on next the following page will appear where we have to provide the service name and authentication details for transport and authentication.

8. After providing the service name and authentication details click on generate button which will generate the service and lead to following page. Which will confirm the successful service generation by displaying a success message in top. We can download the generated ear file for our use by clicking the link provided for application ear, below of the page.
9. After successfully generating the service click the next button. Following page will appear for deploying the generated web service. Here we can select the server to deploy the web service. Remote host for remote server and local host for local server. In our case we will deploy the service to local host.

10. After selecting the Host click on deploy button which will give the following result after successful deployment.
Creating the MDM logical destination for the MDM Ws-generator generated web services

1. Login into NWA using following link http://<server name>:<port number>/nwa. Provide the "dest" or "destination" as a key word in the search field in SAP NetWeaver Administrator. The following page will appear select the Destinations.

![SAP NetWeaver Administrator](image)

2. selecting the destination link will lead to Destination page. Click the create button on top left corner of the page.

![Destinations: Destinations](image)

3. The Destination wizard page will be opened and here we have to provide the details about the MDM logical destination. Provide the hosting system and destination name (MDM_DEST in our case) and select the MDM from the destination type value help in 3rd field.
4. After Selecting Destination type from value help click on next button which will lead you to following page (Logon Data step). Here you have to choose the authentication type from drop down. (Basic in our case.)
5. As soon as you will select the Basic authentication type the inputs for the basic Type will be visible here you have to provide the user name and password for the repository. These user name and password should match exactly with the repository user name and password.

6. Clicking on Next button will lead you to following page where you have to provide the MDM server name and repository name. After providing server and repository detail click on finish button to finish the process and save the Logical Destination.
7. After successful creation the following page will be opened with a success message at top and the newly created Destination on table.
Changing the default Java System Property for the MDM Ws-generator generated web service applications.

1. Login into NWA using following link http://<server name>：<port number>／nwa. Provide "java" as a key word in the search field in SAP NetWeaver Administrator. The following page will appear select the Java System Property.

2. After Selecting Java System property you will land in the following page where we have to choose CE_development_medium from “Templates table”. From “Details about CE_Development_medium” tab strip choose application tab and from application able choose your deployed application “TEST_jeetendra_ENTAPP” in our case. From Expended details property tab choose “WS.RunTime.Mdm.Password” and click modify.
3. After clicking Modify button following page will appear where we have to give the repository password. By default `WS.RunTime.Mdm.Password` is blank which never works so we have to supply exact matching MDM repository password here.
4. After providing the password click on “Save As” button (Which is actually a save button but by mistake it is labeled as Save As).
5. After successfully saving the Java System Property for the application the following page will appear with a success message for confirmation.
Testing the MDM Ws-generator generated web services in web service navigator

1. Login into wsnavigator using following link http://<server name>:<port number>/wsnavigator and providing the server user credential. The following page will appear. Select provider system and provide the keyword for searching the service (TEST in our case). Select the Service from the table (TEST_jeetendraVi in our case). Click next.

2. The following page will appear where we have to select the operation from the given table (searchCountries in our case). Click next.
3. Provide the invocation parameters here. We must have not leave the criteria null in the parameter list means we have to uncheck the skip check box in front of the criteria field. Otherwise it will give an Exception like this "while trying to invoke the method com.sap.mdm.search.Search.getSearchTableId() of an object loaded from local variable 'search'". The second thing we must provide is the Destination name for the service which we have created in the previous blog of this series (MDM_DEST in our case).
4. Click on next and the service will be executed. After successful execution of the service it will lead you to following pages with a success message on the top. You can explore the result set by expanding the result node.
### Web Services Navigator

#### Service Test

<table>
<thead>
<tr>
<th>Service</th>
<th>Operation</th>
<th>Input Parameters</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Service Information

#### Input Parameters

- searchCriteria:
  - query: 
    - nameSearchCriteria:
      - logicalOperator: (Null)
    - department:
      - logicalOperator: (Null)
    - id:
      - logicalOperator: (Null)
    - role:
      - logicalOperator: (Null)
- criteria:
  - name:
  - id:
  - role:
- rootCriteria:
  - searchCriteria:
  - criteria:
  - rootCriteria:

#### Result

- searchCountriesResponse:
  - executionStatus:
    - status: OK
    - description: SearchRetrieve done successfully
    - fault:
      - faultString: Records 1 to 24 of 240
  - countries [240]:
Related Content

Master Data Management (MDM)

SAP NETWEAVER MASTER DATA MANAGEMENT 7.1

How To Consume MDM Web Dynpro Components

For more information, visit the Master Data Management homepage.

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