How to Access Images of SAP Netweaver Demo Model JAVA

Applies to:
SAP Netweaver Composition Environment 7.2
For more information, visit the User Interface Technology homepage.

Summary
Up to Netweaver 7.2 the demo model data only contained urls to images for products and business partners. But since SAP Netweaver 7.2 the SAP NW Demo Model is shipped together with these images. This article addresses how these images can be accessed from WebDynpro JAVA. Therefore a demo application based on the demo model and images is presented here.

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Author Bio
Carl Heckmann joined SAP in July 2008 as an intern during his Bachelor studies of Wirtschaftsinformatik at the University of Mannheim. He worked within the SAP Netweaver Product Management Early Demo Team where he worked with Netweaver CE 7.1 and Web Dynpro JAVA and got an insight into upcoming technologies such as Flash Islands or the NetWeaver Widget Foundation. Since October 2008 he is a working student and has been involved in the development of the SAP Netweaver Demo Model JAVA.
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How to Access the Images

Scenario Description

This documentation describes how to build a simple Web Dynpro Application based on the SAP Netweaver Demo Model JAVA and how to access the included images for products and business partner. The images are provided together with the SAP Netweaver Demo Model.

Technical Description (optional)

The images are stored within the WebContent folder of a specialized DC of type J2EE/WebModule and only referenced by an url. If the data of the demo model is generated and inserted into the database, the WebResource attribute of the entity product is only stored as an URL within the database. An example would be:

```
sap.com~bc~nwdemo~sm~util~img/EarlyDemo/NWDemoDataModel/Data/Product/Pictures/HT-1000.jpg
```

This is the path relative to the application server on which the demo model is running. If the picture should be used within a Web Dynpro application the absolute path is needed. This would look like the following:

```
http://<hostname>:<port>/sap.com~bc~nwdemo~sm~util~img/EarlyDemo/NWDemoDataModel/Data/Product/Pictures/HT-1000.jpg
```

This means, that it is necessary to determine the hostname and port of the system on which the demo model is deployed.

Note: But this also means, that developers, who want to enable users to change images, have to implement this carefully.

Prerequisites

It is assumed, that you have

- a SAP Netweaver 7.2 CE System up and running with deploy rights
- the latest version of the SAP Netweaver Demo Model JAVA. (included with NW 7.2)
- deployed The SAP Netweaver Demo Model JAVA. (included with NW 7.2)
- a version of the SAP Netweaver Development Studio (NWDS)

Building a Simple Web Dynpro

Open your Netweaver Developer Studio and switch to the WebDynpro View. Then select File → New → Create Web Dynpro Component. In the following dialog choose LocalDevelopment → MyComponents. Enter “modelimages” as name and finish the creation with a click on the finish button.

Importing the Web Service

1. Right click on Models and select “Create Model”.

![Create Model](image)
2. Then choose **Adaptive Web Service Model**. In the next step you have to provide the web service description. Enter **Product** as name and select **Remote Location / File System**, as shown on the image below.

3. The next step requires you to enter the url, where the service description is located. Enter `http://<hostname>:<port>/QueryProduct_In_Service/QueryProductInImplBean?wsdl&mode=ws_policy` as url. Replace `<hostname>` and `<port>` with the corresponding values of your system. Then click on the finish button.
Create the Component and Context

1. Right click on **ProductListView** ➔ **Template** ➔ **Apply** and select **ServiceController**

2. Select the "**Request_ProductQueryResponse_In**" service. In the next step select exactly the same nodes and attributes as shown in the screenshot below.

3. Right click on **WebResource** and change the property **Singleton** to **false**

4. The attribute address of node **WebResource** contains the path, where the images are located relatively to the application at the Netweaver application server. To enable the images to be accessed from anywhere this url has to be made absolute. Therefore we need the path to the application. To achieve this task we add a calculated attribute to the **WebResource** node. Right click on the **WebResource** node and select **New ➔ Attribute**.
5. The added attribute has to be created manually. Enter **AbsoluteAddress** as name of the attribute and check the **Calculated** checkbox. Click on finish to proceed.

![Create a Context Attribute](image1)

6. Save the file (CTRL + S) and select the newly added attribute. Then click on “GO” on the right side of property “**Calculated Getter**”.

![Property Table](image2)
7. Now replace the body of the method `getWebresourceAbsoluteAddress` with the following code. This code is responsible for adding the system specific parts to the relative URLs, thus building an absolute URL.

```java
WDDeployableObjectPart d = wdComponentAPI.getDeployableObjectPart();
String url = "";
try {
    url = wdComponentAPI.getURLService().getGeneralService().
getAbsoluteWebResourceURL(d);
} catch (WDURLException e) {
}

int posWD = url.indexOf("webdynpro");
if(posWD < 0)
posWD = 0;

String cuttedUrl = url.substring(0, posWD);

String fqUrl = cuttedUrl + element.getAddress();
return fqUrl;
```

8. Go to the `wdDoInit()` method and add the following code to the end of this methods body:

```java
executeProductQueryResponse_In();
```

9. To import the missing classes just perform keystroke `CTRL+SHIFT+O`

Create the Layout

1. Now we can switch back to the "Layout"-Tab. Then right click on the "RootElement" within the "Outline" view, select "Apply Template" and choose Table.

2. Select the attributes and nodes from the context, which are shown on the next image.
3. Now right click on the Table entry within the **Outline** view as shown in Step 1 of the image below and select **AddGroupedColumn**.

![Outline view of SAP Netweaver Demo Model JAVA](image)

Step 1 | Step 2
--- | ---
- RootElement
- Table_0
  - ProductID
  - TypeCode
  - MeasureUnitCode
- RootElement
- Table_0
  - ProductID
  - TypeCode
  - MeasureUnitCode
  - TableColumn1

4. Then right click on the newly created **TableColumn** entry and select **InsertTableCellEditor**. Select Image in the following menu as shown in the next screenshot.

![Image selection menu](image)

5. Now you only have to bind the **source** property of the newly created image object to the **AbsoluteAddress** attribute of the context.
Create, Deploy and Launch the Application

1. Finally perform a right click on “Applications” within the WebDynpro navigation and select “Create Application”.

2. Right click on the created application and select “Deploy new Archive and Run”. After a few seconds your internet browser should show up showing the application. The result should look similar to the screenshot provided below.

3. If the browser doesn’t start, just go to the following url:
   
   http://<hostname>:<port>/webdynpro/dispatcher/demo.sap.com/modelimages/Products

**Note:** This demonstration application assumes, that the used web service does not require authentication. If your application server is configured in a way, that authentication is required the table will stay empty. Then go to the NWA (http://<host>:<port>/nwa --> SOA --> Single Service Administration and remove the authentication.
Related Content

SAP Netweaver Demo Model

Description of the Demo Model Web Services JAVA

For more information, visit the Composition homepage.

For more information, visit the User Interface Technology homepage.