SAP NetWeaver – Demo Model: ABAP Demo Enterprise Services

Applies to:
SAP NetWeaver 7.00 (SAP BASIS 7.00)

Summary
The purpose of this article is to describe the definition and usage of Demo Enterprise Services. Furthermore it is explained how to import the definitions of these services into the ESR. Besides it is important to mention that the Demo Enterprise Services are one element of the SAP NetWeaver – Demo Model which has been developed to ensure consistent demos, training material, and documentation across all SAP NetWeaver technologies.

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Company: SAP AG

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Author Bio
Matthias Kretschmer joined SAP in September 2001 as a BA Student (Information Technology). During his studies Matthias had the opportunity to gain an insight into several departments within SAP, e.g. Mobile Infrastructure, Technology Consulting and MaxDB. Matthias successfully completed his studies in September 2004. From 01.10.2004 until 31.07.2006 Matthias worked in the SAP NetWeaver ESI F XPI department (XI Runtime, Monitoring) as a software developer (Java, ABAP). At the moment Matthias works as a product specialist for the SAP NetWeaver Demo Team within SAP NetWeaver Product Management. Here he is mainly responsible for Composition and Process Integration topics.
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ABAP Demo Enterprise Services - Definition

This chapter illustrates the definition of the Demo Enterprise Services which operate on the following 4 Demo Business Objects: Sales Order, Purchase Order, Business Partner, and Product. These Services were e.g. the foundation of the Web Dynpro Hands-On Workshop @ TechEd 2007.

As the Demo Enterprise Services follow the Outside-In Approach they were designed in the Enterprise Service Builder of the Enterprise Services Repository (ESR). This design content consists of the following elements:

- Service Interfaces
- Message Types
- Data Types based on Global Data Types

All these elements are part of the software component version SAP BASIS 7.00 (Namespace http://sap.com/xi/NWDemo):
How to get the Demo Enterprise Service Definitions

(XI CONTENT) SAP BASIS 7.00 can be downloaded from SAP Service Marketplace: http://service.sap.com. Please navigate to the following section:

SAP DEVELOPER NETWORK | sdn.sap.com

**Content PI/XI**

- [ XI CONTENT XI/CONT 7.00 ]
- [ XI CONTENT SAP APA 7.00 ]
- [ XI CONTENT SAP BASIS 7.00 ]

- Database independent

```
| ZIP | SAPBASIS701_7.00.zip | SP08 XI Content for SAP BASIS 7.00 | 0 | Info | 637 | 18.05.2006 |
| ZIP | SAPBASIS702_7.00.zip | SP09 XI Content for SAP BASIS 7.00 | 0 | Info | 653 | 02.06.2006 |
| ZIP | SAPBASIS703_7.00.zip | SP10 XI Content for SAP BASIS 7.00 | 0 | Info | 669 | 30.10.2006 |
| ZIP | SAPBASIS704_7.00.zip | SP11 XI Content for SAP BASIS 7.00 | 0 | Info | 760 | 25.12.2006 |
| ZIP | SAPBASIS705_7.00.zip | SP12 XI Content for SAP BASIS 7.00 | 0 | Info | 846 | 17.04.2007 |
| ZIP | SAPBASIS706_7.00.zip | SP13 XI Content for SAP BASIS 7.00 | 0 | Info | 917 | 06.08.2007 |
| ZIP | SAPBASIS707_7.00.zip | SP14 XI Content for SAP BASIS 7.00 | 0 | Info | 128 | 15.10.2007 |
```

Add to Download Basket  Maintain Download Basket  Select All  Deselect All
After successfully downloading this .zip file you have to extract it and import it into the ESR. This can be done in the Enterprise Service Builder: Tools → Import Design Objects.
ABAP Demo Enterprise Services - Usage

This chapter describes the use of the Demo Enterprise Services which operate on the following 4 Business Objects: Sales Order, Purchase Order, Business Partner, and Product. These services are included in the Package S_NWDEMO which is part of SAP BASIS 7.00 since SP13.

Prerequisites

To be able to use these Demo Enterprise Services you have to execute the following procedure:

1. Logon to any SAP NetWeaver system which contains SAP BASIS 7.00 SP13 or higher.
2. Execute Transaction SE80 - Object Navigator.
3. Choose Package S_NWDEMO.
4. Drill down to Package S_NWDEMO_MODEL_COMMON.
5. Choose Folder Transactions.
6. Execute Transaction S_NWDEMO_DG:

<table>
<thead>
<tr>
<th>Parameters for Data Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delete all Data and recreate</td>
</tr>
<tr>
<td>Delete all Data</td>
</tr>
<tr>
<td>Replication factor Product</td>
</tr>
<tr>
<td>Replication factor Sales Order</td>
</tr>
<tr>
<td>With purchase orders</td>
</tr>
</tbody>
</table>
Sales Order

All elements which belong to the (Demo) Business Object Sales Order are included in the Package **S_NWDEMO_MODEL_SALES_ORDER** which is a sub package of the Package **S_NWDEMO**. It can be divided into 4 main blocks:

**Database Tables**
- **SDEMO_SO**
  SAP NetWeaver Demo Model - Sales Order Header
- **SDEMO_SO_I**
  SAP NetWeaver Demo Model - Sales Order Item
- **SDEMO_SO_SI**
  SAP NetWeaver Demo Model - Sales Order Item Status
- **SDEMO_SO_SL**
  SAP NetWeaver Demo Model - Sales Order Item Schedule Line
- **SDEMO_SO_ST**
  SAP NetWeaver Demo Model - Sales Order Header Status

**Persistence Classes**
Persistence Classes are the tool to store data in database tables.
- **CL_NWDEMO_PERSIST_SO**
  SAP NetWeaver Demo Model - Sales Order Persistence Class
- **CL_NWDEMO_PERSIST_SO_I**
  SAP NetWeaver Demo Model - Sales Order Item Persistence Class
- **CL_NWDEMO_PERSIST_SO_SL**
  SAP NetWeaver Demo Model - Sales Order Item Schedule Line Persistence Class

**Service Classes**
Service Classes offer **“Create Read Update Delete – Methods”**.
- **CL_NWDEMO_SERVICE_SO**
  SAP NetWeaver Demo Model - Services for Sales Order

**Demo Enterprise Services**
- Not yet available
Purchase Order

All elements which belong to the (Demo) Business Object Purchase Order are included in the Package S_NWDEMO_MODEL_PURCHASE_ORDER which is a sub package of the Package S_NWDEMO. It can be divided into 4 main blocks:

Database Tables
- SDEMO_PO
  SAP NetWeaver Demo Model - Purchase Order Header
- SDEMO_PO_I
  SAP NetWeaver Demo Model - Purchase Order Item
- SDEMO_PO_SL
  SAP NetWeaver Demo Model - Purchase Order Item Schedule Line
- SDEMO_PO_ST
  SAP NetWeaver Demo Model - Purchase Order Header Status

Persistence Classes
- Not yet available

Service Classes
- Not yet available

Demo Enterprise Services
- Not yet available
**Business Partner**

All elements which belong to the *(Demo)* Business Object *Business Partner* are included in the **Package S_NWDEMO_MODEL_BUSINESS_P** which is a sub package of the Package S_NWDEMO. It can be divided into 4 main blocks:

**Database Tables**
- **SDEMO_BP**
  SAP NetWeaver Demo Model - Business Partner
- **SDEMO_BP_AD**
  SAP NetWeaver Demo Model - Business Partner Address
- **SDEMO_BP_EM**
  SAP NetWeaver Demo Model - Business Partner E-Mail
- **SDEMO_BP_PH**
  SAP NetWeaver Demo Model - Business Partner Telephone
- **SDEMO_BP_RR**
  SAP NetWeaver Demo Model - Business Partner Role Relation
- **SDEMO_BP_WA**
  SAP NetWeaver Demo Model - Business Partner Web Address

**Persistence Classes**
Persistence Classes are the tool to store data in database tables.
- **CL_NWDEMO_PERSIST_BP**
  SAP NetWeaver Demo Model - Business Partner Persistence Class
- **CL_NWDEMO_PERSIST_BP_AD**
  SAP NetWeaver Demo Model - Business Partner Address Persistence Class
- **CL_NWDEMO_PERSIST_BP_EM**
  SAP NetWeaver Demo Model - Business Partner E-mail Persistence Class
- **CL_NWDEMO_PERSIST_BP_PH**
  SAP NetWeaver Demo Model - Business Partner Telephone Persistence Class
- **CL_NWDEMO_PERSIST_BP_RR**
  SAP NetWeaver Demo Model - Business Partner Role Persistence Class
- **CL_NWDEMO_PERSIST_BP_WA**
  SAP NetWeaver Demo Model - Business Partner Web Address Persistence Class

**Service Classes**
Service Classes offer "Create Read Update Delete – Methods."
- **CL_NWDEMO_SERVICE_BP**
  SAP NetWeaver Demo Model - Services for Business Partner
Demo Enterprise Services

- Business Partner by ID

Technical Data

<table>
<thead>
<tr>
<th>Entity Type</th>
<th>Service interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Name in Enterprise Services Repository (ESR)</td>
<td>BusinessPartnerByIDQueryResponseIn</td>
</tr>
<tr>
<td>Namespace in ESR</td>
<td><a href="http://sap.com/xi/NWDemo">http://sap.com/xi/NWDemo</a></td>
</tr>
<tr>
<td>Software Component Version in ESR</td>
<td>SAP BASIS 7.00</td>
</tr>
<tr>
<td>Category</td>
<td>Inbound</td>
</tr>
<tr>
<td>Mode</td>
<td>Synchronous</td>
</tr>
</tbody>
</table>

WSDL: http://<host>:<port>/sap/bc/srt/xip/sap/BUSINESSPARTNERBYIDQUERYRESPONSE?sap-client=XXX&wsdl=1.1

Definition

Business Partner by ID is a service that reads the (basic) data of a business partner.

Use

The service Business Partner by ID can be used to retrieve business partner details, when the ID is known.

The following value must be supplied:

- BusinessPartnerID – business partner number, range: 1 to 16

Features

This service processes the following message types:

- BusinessPartnerByIDQuery
- BusinessPartnerByIDResponse

Error Handling

The input parameters are checked for consistency and plausibility. If the check returns a negative, the error message is published in the message log.
Product

All elements which belong to the (Demo) Business Object Product are included in the Package S_NWDEMO_MODEL_PRODUCT which is a sub package of the Package S_NWDEMO. It can be divided into 4 main blocks:

Database Tables
- SDEMO_PD
  SAP NetWeaver Demo Model - Product
- SDEMO_PD_NA
  SAP NetWeaver Demo Model - Product Name
- SDEMO_PD_PR
  SAP NetWeaver Demo Model - Product Price
- SDEMO_PD_STOCK
  SAP NetWeaver Demo Model - Stock of Products
- SDEMO_PD_WR
  SAP NetWeaver Demo Model - Product Web Resource

Persistence Classes
Persistence Classes are the tool to store data in database tables.
- CL_NWDEMO_PERSIST_PD
  SAP NetWeaver Demo Model - Product Persistence Class
- CL_NWDEMO_PERSIST_PD_NA
  SAP NetWeaver Demo Model - Product Name Persistence Class
- CL_NWDEMO_PERSIST_PD_WR
  SAP NetWeaver Demo Model - Product Web Resource Persistence Class

Service Classes
Service Classes offer “Create Read Update Delete – Methods”.
- CL_NWDEMO_SERVICE_PD
  SAP NetWeaver Demo Model - Services for Product
Demo Enterprise Services
- Product by ID

Technical Data

<table>
<thead>
<tr>
<th>Entity Type</th>
<th>Service interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Name in Enterprise Services Repository (ESR)</td>
<td>ProductByIDQueryResponseIn</td>
</tr>
<tr>
<td>Namespace in ESR</td>
<td><a href="http://sap.com/xi/NWDemo">http://sap.com/xi/NWDemo</a></td>
</tr>
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<td>Inbound</td>
</tr>
<tr>
<td>Mode</td>
<td>Synchronous</td>
</tr>
<tr>
<td>WSDL</td>
<td>http://&lt;host&gt;:&lt;port&gt;/sap/bc/srt/xip/sap/PRODUCTBYIDQUERYRESPONSEIN?sap-client=XXX&amp;wsdl=1.1</td>
</tr>
</tbody>
</table>

Definition

*Product by ID* is a service that reads the (basic) data of a product.

Use

The service *Product by ID* can be used to retrieve product details, when the ID is known.

The following value must be supplied:
- ProductID – product/material number, range: HT-1000 to HT-1003 & HT-1030 to HT-1032

Features

This service processes the following message types:
- ProductByIDQuery
- ProductByIDResponse

Error Handling

The input parameters are checked for consistency and plausibility. If the check returns a negative, the error message is published in the message log.
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