How-to Guide
Beginning with SAP NetWeaver 2004s SPS06

How To...
Design a Process from scratch

Example: Time-off Process
Version 2.00 – Jan 2006

Applicable Releases:
Beginning with SAP NetWeaver 2004s SPS06
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2. Business Scenario

This How-to Guide teaches you how to create a process template in Guided Procedures (GP) from scratch. This will be done using the following business scenario:

We are going to build a “leave request” application (Time-off process). The employee creates a request and enters the basic leave information (e.g. begin and end date of the request). Then the request has to be approved by one manager before it is finally handed over to the HR department, where the request is entered into the time management system. Finally the employee receives a summary report.

The steps within the process are the following:

1. Create Request
   Processor: Employee
   Actions: Enter absence information (e.g. absence type, begin date, end date)

2. Approve Request
   Processor: Approver
   Actions: Approve the request (reject and return - not used in this scenario)

3. Book the Request
   Processor: HR Admin
   Action: Create the absence in the time management system

4. Summary
   Processor: Employee
   Action: Review the request status

This process involves the following process roles:

- Employee
- Approver
- HR Admin (time administrator)

3. Introduction

This guide provides a step-by-step explanation of how to create the process templates. You will learn how to create all the relevant objects that make up a process template:

- Callable Objects …
- Actions …
- Blocks …
- Process Template…

Limitations: This How-to Guide only explains how to create the process template and all the related objects. It does not explain how to develop the underlying Web Dynpro applications. It is assumed that these applications already exist prior to creating the process template.

Furthermore this guide will focus only on the Design Time features of which the basic functionality will be explained. The Runtime will be touched on very briefly. Please check separate guides for more specific information on particular topics.
3.1 General prerequisites

- SAP CAF GP configured
- IDE (SAP NWDS) installed
- The Web Dynpro Applications used for this sample process are included in the SAP CAF-GP installation

3.2 Related documents

[1]. How to… My first process
[2]. How to design a block
[3]. How to create a callable object: Web Dynpro Component (GP interface)
[4]. How can I start GP processes
4. The Step By Step Solution

In the following section you will learn how to create callable objects, actions, blocks and the process template itself. First of all we need to create a folder which will contain all the objects to be created.

Note: Set the default language to English throughout the steps when asked.

Note: You can save your complete process at any time using the Save All button.

4.1 Create a new folder for your example

1. Open your Design Time within the portal – for example, http://localhost:53000/irj/index.html

2. Navigate to tab page “Guided Procedures” (if you cannot find it you will have forgotten to add the relevant additional roles to your user authorization in SAP NetWeaver Portal for CAF GP). For additional information, see Portal Roles.
   - Click on “Design Time”
   - Create a new folder named “Time-Off Process”
   - Click on the new folder
3. Enter the folder name and a short description. We will put all newly created objects into this folder.

4.2 Create a Process Template

1. Create the process template by clicking the Create Process link in the contextual panel (left).

2. Enter the basic data for the process template in the bottom pane:
   - **Name**: Time-off Process
   - **Description**: Use this process to create, approve and book a time-off process.
4.3 Create a Block – Basic Data

1. Click on the *Create New* icon (>Create New<) to create a new Sequential Block inside the previously created Process.

   - Click on the row containing the newly created Block.

   - In the bottom pane enter the following basic data:

     **Name:** Time-off Process  
     **Description:** Block for time-off process

4.4 Create Action

1. Click on the row containing the Block, then click *Create New* (<Create New>) to create a new Action inside of the Block.

   - Click on the row containing the newly created action.

   - In the bottom pane enter the following basic data:

     **Name:** Create Request  
     **Description:** Create a time-off request
4.5 Create a Callable Object

1. Click Create New ( ) to create a new Callable Object inside the previously created Block.

2. The Create callable object dialog box will appear where you can enter the basic data for the callable object and can define the type.
   - **Type**: Web Dynpro Component (GP Interface)
   - **Name**: Create Request
   - **Description**: Create a time-off request
   - **Original Language**: English
   - Click Next.

3. It will take a little time before the components will be displayed

4. Select the Web Dynpro application com.sap.caf.eu.gp.example.timeoff.wd.create.CCreate then click Next.
5. Step Define Input and Output

You find information on the input and output parameters of the Web Dynpro Application. No action is required on these screens.

1. Click Next
2. Click Next
3. Click Finish

The parameters for input and output are defined within the Web Dynpro component. The Runtime Framework calls the Web Dynpro application to get their attributes (method getDescription).

6. (Optional) If you like, you can test the callable objects within the design time

1. In the main list select the callable object.
2. Go to the Test tab page in the bottom pane.
3. A screen will be displayed where you can test the behavior of the Web Dynpro Component.

The test environment will ask for the **Input Parameters**, and will execute the functionality of the component (that means the Web Dynpro with the pre-filled Input Parameters). The last step is to display the result which means to display the **result state** and display the **output parameters**.
### 4.6 Create additional Callable Objects and Actions

In order to implement the complete scenario (create, approve, book and review) you have to create three additional Actions with Callable Objects wrapped inside them. In the following you will find the necessary information to create these additional callable objects. Please repeat steps 3.4 and 3.5 using the data provided below.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Type</th>
<th>Name</th>
<th>Description</th>
<th>Original Language</th>
<th>Location</th>
<th>Web Dynpro Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Create Callable Object and Action Approve Request</td>
<td>Web Dynpro Component (GP Interface)</td>
<td>Approve Request</td>
<td>Approve a time-off request</td>
<td>English</td>
<td>Time-off Process</td>
<td>com.sap.caf.eu.jp.example.timeoff.wd.approve.CApprove</td>
</tr>
<tr>
<td>2.</td>
<td>Create Callable Object and Action Book Request</td>
<td>Web Dynpro Component (GP Interface)</td>
<td>Book Request</td>
<td>Book a time-off request in the time management system</td>
<td>English</td>
<td>Time-off Process</td>
<td>com.sap.caf.eu.jp.example.timeoff.wd.complete.CComplete</td>
</tr>
<tr>
<td>3.</td>
<td>Create Callable Object and Action Summary</td>
<td>Web Dynpro Component (GP Interface)</td>
<td>Summary</td>
<td>Summarize the outcome of the time-off process</td>
<td>English</td>
<td>Time-off Process</td>
<td>com.sap.caf.eu.jp.example.timeoff.wd.display.CDisplay</td>
</tr>
</tbody>
</table>

**Operation mode**: **Execution mode**
4.7 Setup Block Roles

The next step will describe the consolidation of roles. We will consolidate 3 roles which could be assigned to 3 different persons.

1. Click on the row containing the Block, then click on the Roles tab in the bottom pane.

2. Block Roles

The Time-off Process has three process roles: Employee, Approver and HR Admin.

Employee Actions: Create Request (Action1), Summary (Action 4)

Approver Actions: Approve Request (Action 2)

HR Admin Actions: Book Request (Action 3)

The assignment of actions to roles will be performed in the following steps.

3. Block Role Employee

- Select entry Processor of Action1 by clicking in the box at the beginning of the row. Also select entry Processor of Action4. Make sure that each entry has the mark (You do not need to use the <CTRL> key).

- Enter the name Employee into field Consolidate To and click the Go Button to finalize the consolidation.
4. Check that the consolidated role Employee is now available

5. Rename the role for Approve Request (Processor of Action 2) to role Approver
   - Select entry Processor of Action 2
   - Click Rename ( Rename ).
   - Enter the new name Approver and click Set

6. Rename role Processor of Book Request to HR Admin in the same way.

### 4.8 Setup Block Context parameters

1. Select the Block in the list in the upper pane, and click the Parameters tab page.

2. Block Parameters

Each action used in this block has its Input and Output Parameters. These parameters can now be consolidated in a block to form ‘logical units’ of information.

Example: During the Create Request action the user enters information (e.g. Time-off data), which will then be displayed or manipulated in the subsequent actions. Therefore the parameter Time-off data has to be consolidated.
3. Parameter *Time-off data*
   - Select all (4) entries, which are labeled with Time-Off data (click the square in front of the parameters)
   - Enter the name of the consolidated parameter in the field *Consolidate To*. Set the name to *Group: Time-off data*
   - Click the *Go* button
   - Verify the existence of the new consolidated parameter. The individual *Time-off parameters* should now disappear from the list.

4. Now perform the Parameter Consolidation in the same way as before for the following Context Parameter:
   - *Employee data*
   - *HR consultant data*
   - *Approver data*

   **Note:** The parameters Processor first approval, Processor second approval, and Processor for HR consultant are not required for this simplified Time-off process. They can be ignored for the time being.

4.9 Setup Process Roles

The next step will describe the consolidation of roles. We will create 3 roles which might be assigned to 3 different persons.
1. Click the row containing the Process, then click the Roles tab page in the bottom pane.

2. Time-off Process: Consolidate Roles
   - In the block you defined the block roles Employee, Approver and HR Admin.
   - Verify that all roles are available and set the type to **Initiation Defined**.

3. Additionally you can find three standard process roles in the Built-in Roles, which exist for every process: Owner, Overseer and Administrator.
4.10 Activate process

1. Now you can activate your process and its parts with one click using the Activate (💧) button.

Note that upon successful completion all elements will be marked as active (💧)
4.11 Execute the Process

1. Change to the Run Time within the portal to test our new view.
   - Click the link **Start a process** in the contextual panel.
   - Navigate to the folder Time-Off Process and start the process
   - Click **Next**.

2. Edit Roles: Assign a user to every process role by following these steps:
   - Select the process role (e.g. Administrator)
   - Click on the **Add User** button

   **Note:** Work items will be generated for the users you choose here. For test purposes you should assign all process roles to your own user ID.
3. **Edit Roles**

- A search UI opens on the right hand side of the screen
- Enter a user ID in the Find field and start the search by clicking the Go button
- Click on **Add** to add the user to the process role
- Continue with the user assignment for every process role

You may use the copy functionality. To do this select the user (e.g. Administrator) and click on the copy button, click a user with no assignment and click on the paste button. If a user is assigned to a role the symbol changes to.

4. **Verify that all process roles have a user assignment, and then click Next.**

5. To initiate the process click **Initiate**.
6. Process Runtime

Congratulations! Now the process is initiated and the process runtime will open.

7. Enter something in the mandatory fields (they are identified with an asterisk)
   - Click Submit.

8. You will recognize that the phase indicator moves to the next activity within the process (here Approve Request)
   - Click Approve.

9. Now the next step will be executed (Book Request)
   - Click Complete.
10. Now the summary activity has been executed and displays the following screen.
   
   - With a click on **Show Details** you will get another view within the summary Web Dynpro Application
   
   - Now you can end the activity with a click on button **Complete**

11. The process is now ended.