Creating a Callable Object: Business Server Page
## Typographic Conventions

<table>
<thead>
<tr>
<th>Type Style</th>
<th>Represents</th>
<th>Icon</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example Text</strong></td>
<td>Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Cross-references to other documentation.</td>
<td><img src="image" alt="Caution" /></td>
<td>Caution</td>
</tr>
<tr>
<td><strong>Example text</strong></td>
<td>Emphasized words or phrases in body text, graphic titles, and table titles.</td>
<td><img src="image" alt="Example" /></td>
<td>Example</td>
</tr>
<tr>
<td>EXAMPLE TEXT</td>
<td>Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.</td>
<td><img src="image" alt="Note" /></td>
<td>Note</td>
</tr>
<tr>
<td><strong>Example text</strong></td>
<td>Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.</td>
<td><img src="image" alt="Recommendation" /></td>
<td>Recommendation</td>
</tr>
<tr>
<td><strong>Example text</strong></td>
<td>Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
<td><img src="image" alt="Syntax" /></td>
<td>Syntax</td>
</tr>
<tr>
<td>&lt;Example text&gt;</td>
<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
<td><img src="image" alt="Syntax" /></td>
<td>Syntax</td>
</tr>
<tr>
<td>EXAMPLE TEXT</td>
<td>Keys on the keyboard, for example, F2 or ENTER.</td>
<td><img src="image" alt="Syntax" /></td>
<td>Syntax</td>
</tr>
</tbody>
</table>
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**Business Scenario**

The purpose of Business Server Page type callable objects is to allow services provided by the Business Server Page (BSP) to be used.

**Introduction**

**General Prerequisites**

- To be able to work with the GP design time, you must be assigned to portal role *GP Business Expert*, or have the relevant permissions.

- You have access to an ABAP system where you will create the BSP application. An example BSP is shown in the Appendix of this How-to.

- You are familiar with the basics of BSP application programming.

- *As there will occasionally be the need to create an Endpoint Alias for Remote Function Call (RFC) you are recommended to be familiar with this as shown in [3].*

- *Knowledge of System Administration and User Administration in the SAP Netweaver Portal.*

**Applicable Releases**

This tutorial is compatible with the following releases: Beginning with SAP NetWeaver '04s SPS06'.

**Disclaimer**

Any software coding and/or code lines / strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended better explain and visualize the syntax and phrasing rules of certain coding. SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code, except if such damages were caused by SAP intentionally or grossly negligent.
The Step By Step Solution

We first describe how to configure an endpoint for your SAP System. After that we describe how to create a BSP callable object.

How to Configure Endpoint for the BSP Callable Objects

Description of the Scenario

1. Login into Guided Procedures Administration. Select the Configure End Point menu item in the SAP System submenu.

2. Select the Endpoint Alias Type: Endpoint Alias for Remote Function Call (RFC). Choose Go.
3. The list of existing endpoint aliases is displayed. Check if an endpoint alias for your RFC has already been defined. If not, please refer to [3].

4. Specify the connection data. Check the specified connection data by clicking Test. If the connection is OK, the message Connection has been tested will appear. Finally save your connection data.

Note that you can use the Server Logon server mode as well. If you have to specify a SAP router for your correct connection configuration which means that the Logon Group server mode is not working, then try to use the Server Logon server mode.
How to Create a Callable Object of Type Business Server Page (BSP)

Prerequisites

The endpoint and portal alias for the system where your BSP application resides must be configured. For more information about endpoint connectivity, see section 0.

Description of the Scenario

1. Login to Guided Procedures Design Time. Choose Create Callable Object.

2. Select Business Server Page (BSP) from the Type list and specify a unique name and a description for your callable object. Specify the Original Language and the Folder, if needed. With Choose you can select one of the exiting folders or you can create a new one, where your callable object should to be stored. Finally, click Next.
3. (Optional) If you click **Choose**, the **Choose location** dialog will appear. Here you can choose one of the existing folders. By choosing **Create Folder**, you can also create a new folder.

4. Enter the required parameters as follows referring to the example shown in the Appendix or to an other existing BSP:

   - **Portal System Alias** – select the portal alias for the system where application EUP_BSP_CO resides
   - **Start Page** – enter tutorial.htm
     
     For more information on how to create a start page, see “Appendix.”
   - **Customer Namespace** – enter the reserved customer namespace for your applications, or leave the default
   - **Application Namespace** – enter the namespace for the BSP application (if any)
   - **Business Server Page (BSP) Application** – enter EUP_BSP_CO
   - **Endpoint Alias** – select the endpoint alias for the system where the BSP application resides
   - Finally, choose **Next**
5. Define the input parameters of your BSP.

In the example we do not define any input parameters.

Choose **Next**.

6. Define the output parameters of your BSP.

In our example we only have a single output parameter with the technical name *double*.

7. Define the result states and the process exceptions.

In our example we have a result state named **COMPLETED**. The result state should correspond to the result state specified in the **OnInputProcessing Event Handler** of the BSP.

Choose **Next**.
8. Define the configuration parameters as “name–value” pairs. Choose Next.

9. Choose Finish or Finish and Open.

Note that Business Server Page callable objects cannot be executed in test mode, so you cannot test them by clicking Finish and Open and opening the Test tab.

See “Appendix” for more information on testing.
Appendix

Creating a Start Page for the BSP (Example)

Use

This procedure describes how to create the layout of the start page for the application. The start page is a simple page that displays the retrieved image. With the Complete button, the application notifies the Guided Procedures framework that the task should be completed.

Prerequisites

You are in the ABAP Workbench.

You have created a BSP application named EUP_BSP_CO.

Procedure

1) Create the Page Layout

Add a new BSP page to application EUP_BSP_CO. Enter the following values for the page parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>tutorial.htm</td>
</tr>
<tr>
<td>Page type</td>
<td>Page with Flow Logic</td>
</tr>
</tbody>
</table>

2) Edit the page layout as follows:

```html
<%@page language="abap" %>
<html>
<head>
    <link rel="stylesheet" href="../../sap/public/bc/bsp/styles/sapbsp.css">
    <title> SAP Web Application Server </title>
</head>
<body class="bspBody1">
    <center>
        <p>
            <img src="../../../../PUBLIC/BC/Pictograms/<%= pictogram_name %>">
            <form method="POST">
                <input type="submit" name="onInputProcessing(update)" value="Complete">
            </form>
        </p>
    </center>
</body>
</html>
```
Figure 1: Tutorial.htm

The most important tags are explained in the table below:

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;img src=&quot;.../.../PUBLIC/BC/Pictograms/\% pictogram_name \%&quot;&gt;</code></td>
<td>Defines the location where the pictogram is displayed. The name of the image is dynamically specified by variable <code>pictogram_name</code>.</td>
</tr>
<tr>
<td><code>&lt;form method=&quot;POST&quot;&gt;</code></td>
<td>This form defines a button that invokes the <code>OnInputProcessing</code> event handler.</td>
</tr>
<tr>
<td><code>&lt;input type=&quot;submit&quot; name=&quot;onInputProcessing(update)&quot; value=&quot;Complete&quot;&gt;</code></td>
<td></td>
</tr>
</tbody>
</table>

Creating a GP Process to Test BSP Callable Objects

As mentioned in section 0, step 9, the Business Server Page callable objects cannot be tested as standalone callable objects. You have to create a simple GP process containing a sequential block and an action for you callable object.
The following shows such a simple process:

Figure 2: GP process for the BSP callable object

After creating the process you can start it from Guided Procedures Runtime.

Note that the process containing BSP callable objects cannot be started from the Instantiation tab of the process.

Figure 3: Instantiation of the GP process