

BSOA Orchestra

Zenflow Standalone User's
Guide

BULL SERVICE-ORIENTED
ARCHITECTURE (BSOA)



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BSOA Orchestra

Zenflow Standalone User's Guide

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Software

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Preface

This document provides an overview of and essential information about using the standalone version of the Zenflow BPEL Editor. See Chapter 11 for references to information about the Eclipse plug-in version of Zenflow.

Chapter 1. Introduction to the Zenflow BPEL Editor

The Zenflow BPEL Editor is a tool designed to help create, update, and visualize BPEL processes.

BPEL is an XML language proposed by the [Oasis Consortium](#). This tool helps with designing processes and generates the corresponding BPEL code.

This version of the tool allows only the generation of BPEL files. This means that WSDL files must be created manually. This feature will be added in a future version of the package.

Zenflow is a BPEL designer compliant with the [Oasis BPEL4WS 1.1 standard](#). It also has some features that are BPEL 2.0 and BPELJ compliant.

Chapter 2. Starting the BPEL Editor

Once the BSOA BPEL Package is installed, a Zenflow directory will be available. This directory contains the BPEL Editor.

To start Zenflow, in the Orchestra installation directory, run:

On Linux

```
./zenflow.sh
```

On Windows

```
zenflow.bat
```


It can also be started from the Windows® Start menu (Start\Programs\BSOA\BPEL Designer\Zenflow).

Two options will display in the following window: create a new process or load an existing process.

Figure 2-1. BPEL Designer Initial Screen



Note:

Clicking on the close button  is the same as choosing Create a new process.

Chapter 3. Creating a New BPEL Process

When a new BPEL process is created, the following screen will be displayed.

Figure 3-1. Process Attributes Window for Creating a New BPEL Process

The screenshot shows a window titled "Process attributes" with a close button in the top right corner. Below the title bar, a message states: "The fields marked with * are required". The form contains the following fields and controls:

- BPEL Version**: A dropdown menu currently showing "1.1".
- name ***: A text input field.
- targetNamespace ***: A text input field.
- Enable BPELJ**: A checkbox, currently unchecked.
- BPELJ Package Name**: A text input field.
- queryLanguage**: A text input field containing the URL "http://www.w3.org/TR/1999/REC-xpath-19991116".
- expressionLanguage**: A text input field containing the URL "http://www.w3.org/TR/1999/REC-xpath-19991116".
- suppressJoinFailure**: A checkbox, currently unchecked.
- enableInstanceCompensation**: A checkbox, currently unchecked.
- abstractProcess**: A checkbox, currently unchecked.

A "Create" button is located at the bottom right of the form area.

- Enter the required items, the name of the process and the associated targetNamespace.
- Specify the following characteristics of the process (optional): suppressJoinFailure, enableInstanceCompensation and AbstractProcess.
- Choose the BPEL version to use (2.0 allows use of new BPEL 2.0 features), and whether BPELJ is to be enabled (enabling allows use of BPELJ features like the Snippet activity).

For more information about these characteristics, refer to the [Oasis BPEL4WS 1.1 standard](#).

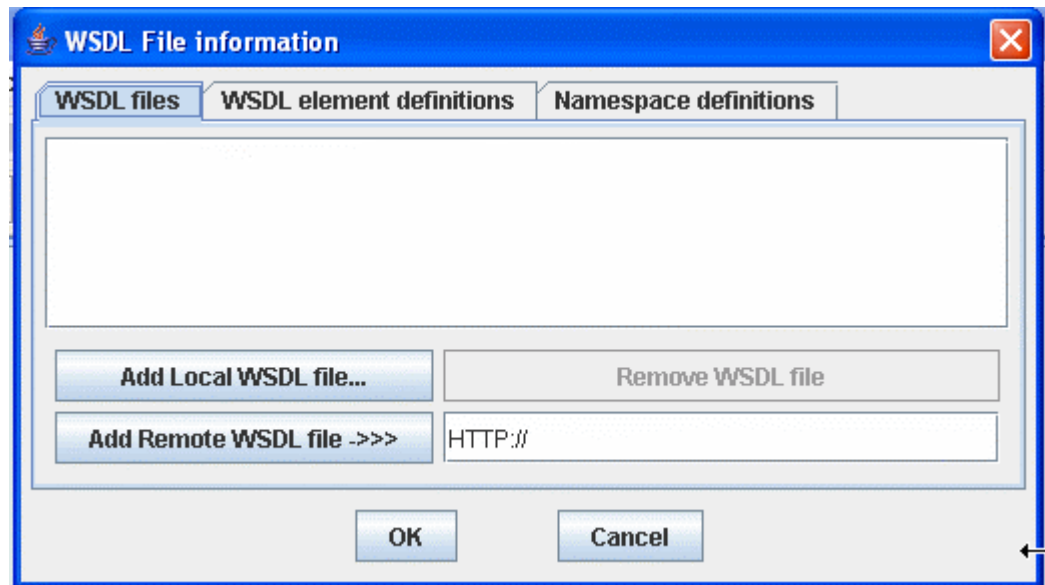
The following screen is then displayed after clicking on Create.



Note:

The close button is inactive on this dialog, and the Create button will not succeed unless the required fields have been filled in.

Figure 3-2. Screen for Specifying the WSDL Files To Link To a Process



- Specify the WSDL of the Web Services orchestrated by this process.
- Click on **"Add file"** and select the WSDL file.
The corresponding namespace is automatically added to the process definition.
- When all the WSDL files of the process have been added, click on the "OK" button.

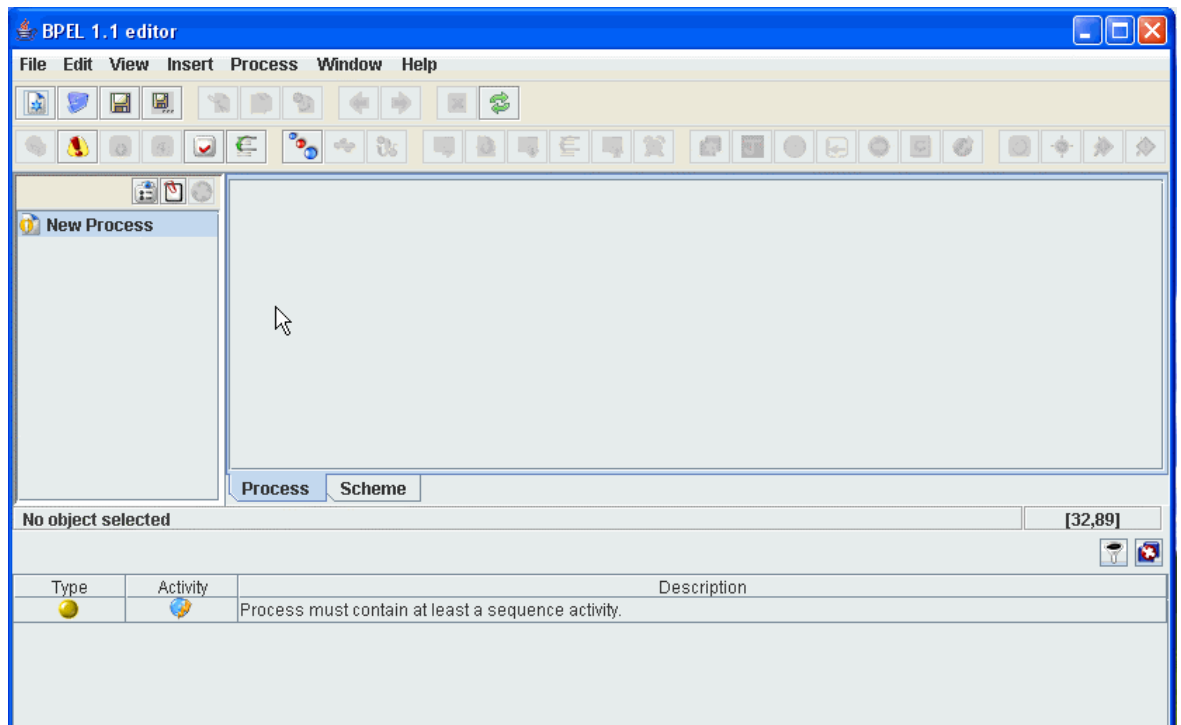


Note:

Clicking on Cancel will discard any information gathered by Add File actions.

Zenflow's main screen is then displayed.

Figure 3-3. Zenflow's Main Screen



This screen is divided into the following parts:

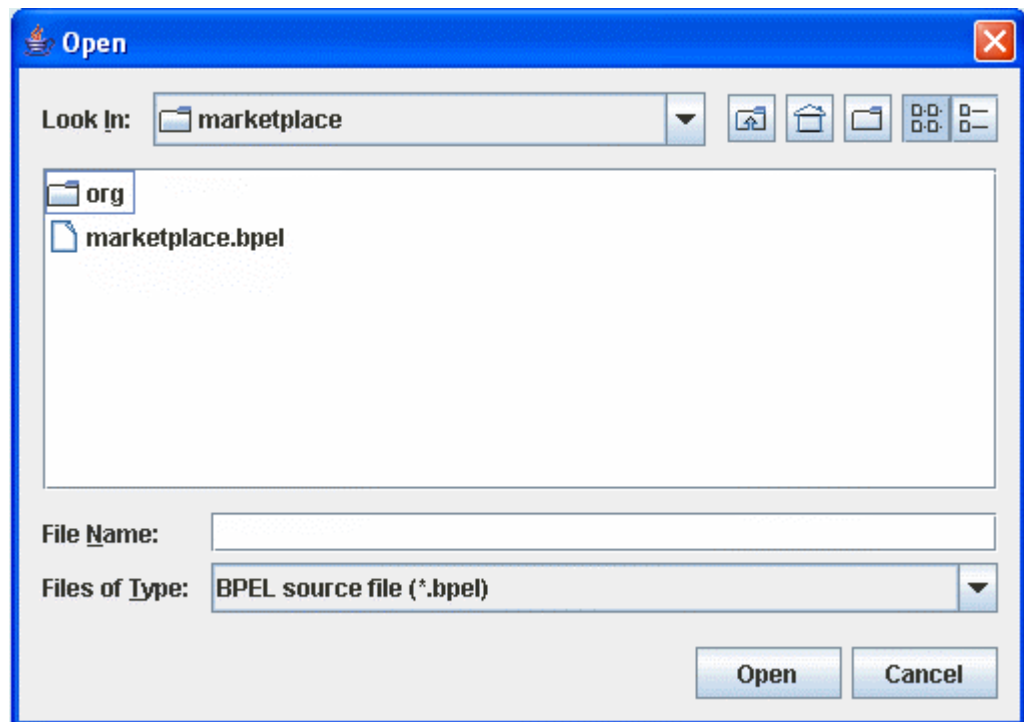
- Menus
- Buttons
- File View
- Process View
- Error View

At this point, it is now possible to start specifying processes.

Chapter 4. Loading an Existing BPEL Process

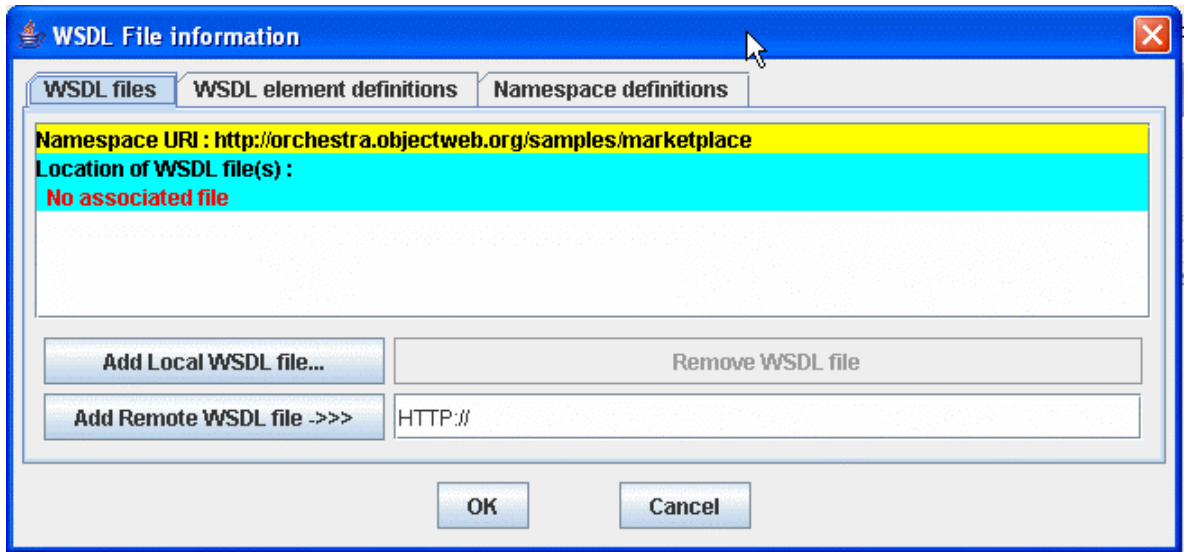
When loading an existing process, the following dialog box will be displayed.

Figure 4-1. Screen for Loading an Existing Process



Browse for a BPEL file: a dialog box will appear asking for the corresponding WSDL files.

Figure 4-2. Linked WSDL Files Dialog Box



Click on **"Add file"** and select the WSDL file.

The corresponding namespace is automatically added to the process definition.

When all the WSDL files of the process have been added, click on the "OK" button.

Note that Zenflow remembers the WSDL files that the user has already loaded in the system and will automatically propose them if the namespace is the same.

The main screen of the tool is now displayed. See the following sections for instructions on how to use it.

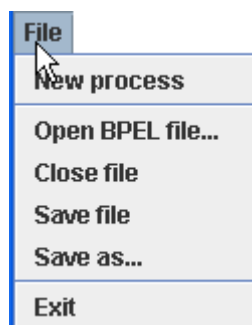
Chapter 5. Menus

This section provides a description of the menu options available in the BPEL editor.

5.1 File Menu

The File menu offers the standard choices.

Figure 5-1. File Menu



The following table describes these options.

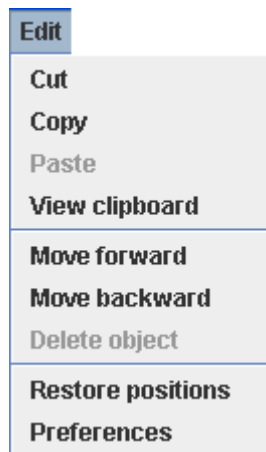
Table 5-1. File Menu Options

Menu Option	Description
New process	Creates a new process. See Creating a New BPEL Process.
Open BPEL file	Loads a new process. See Loading an Existing BPEL Process.
Close File	Closes the current process (only if it is not the only one open).
Save	Saves the current process design as a BPEL file.
Save as	Saves the current process design as a BPEL File using the supplied name.
Exit	Quits Zenflow.

5.2 Edit Menu

This menu contains the usual edit functions: copy, cut, paste, move, delete, and the capability of editing the tool's preferences.

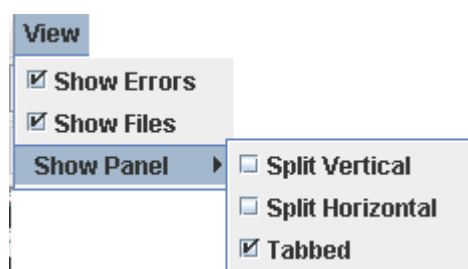
Figure 5-2. Edit Menu



5.3 View Menu

This menu allows the user to change the view.

Figure 5-3. View Menu



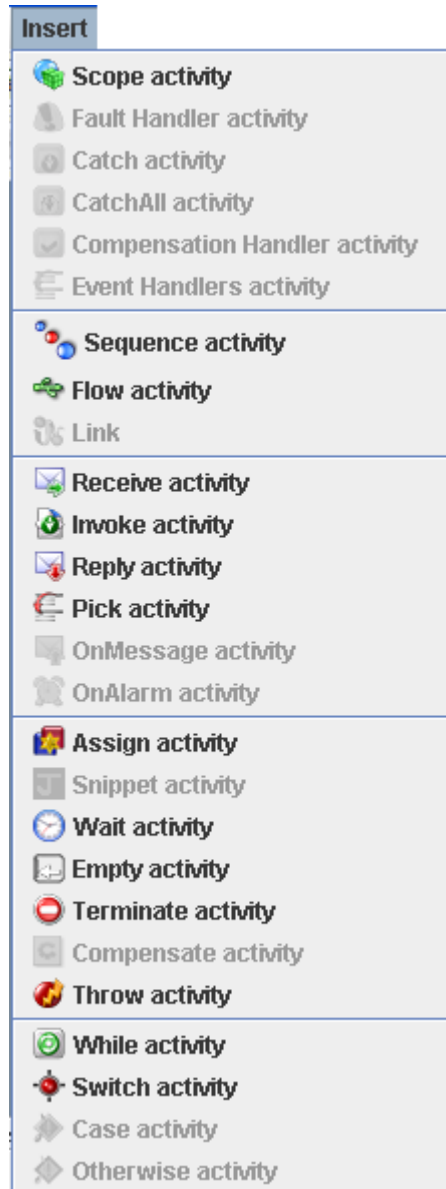
- Display or not display the file view.
- Display or not display the error view.
- Display the source and process view either tabbed, or split vertically or horizontally.

5.4 Insert Menu

This menu allows the user to insert various types of activities into the process.

Only the items that are valid to add, based on the current graph selection, are enabled.

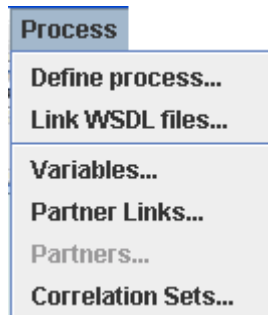
Figure 5-4. Insert Menu



5.5 Process Menu

The Process menu is used to define the characteristics of the process.

Figure 5-5. Process Menu



The following table describes these options.

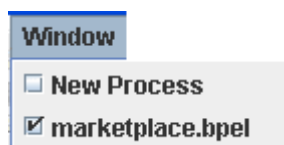
Table 5-2. Process Menu Options

Menu Option	Description
Define process	opens the screen to define the process name, target namespace, etc.
Link WSDL file	opens the screen to add WSDL files related to this process.
Variables	opens a screen to define the variables of the process.
PartnerLinks	opens a screen to define the Partner Links of the process.
Partners	opens a screen to define the Partners of the process.
CorrelationSets	opens a screen to define the Correlation Sets of the process.

5.6 Window Menu

The Window menu provides the ability to switch from one open process to another.

Figure 5-6. Window Menu



Chapter 6. Buttons

The BPEL Editor window provides the following two rows of toolbar buttons.

The first row offers the same options as the “file” and “edit” menus: create, open, save, saveas, copy, cut, paste, move, delete and restore positions.

Figure 6-1. BPEL Editor Window Toolbar (Top Toolbar)



The second row offers a button for each BPEL statement. The buttons are activated depending on the location in the design of the process.

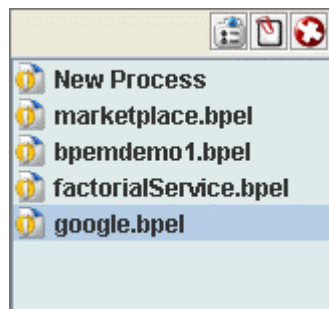
Figure 6-2. BPEL Editor Window Toolbar (Lower Toolbar)



Chapter 7. File View

File view displays the processes that are currently loaded in Zenflow.

Figure 7-1. File View Display of Currently Loaded Processes



- To switch from one process to another, click on the chosen process.
- A process can also be closed by clicking on a button.

Chapter 8. Process View

Process view is the main part of the BPEL designer.

Two viewing modes are available to view the process: the "Process View" and the "Scheme view".

Figure 8-1. Process View

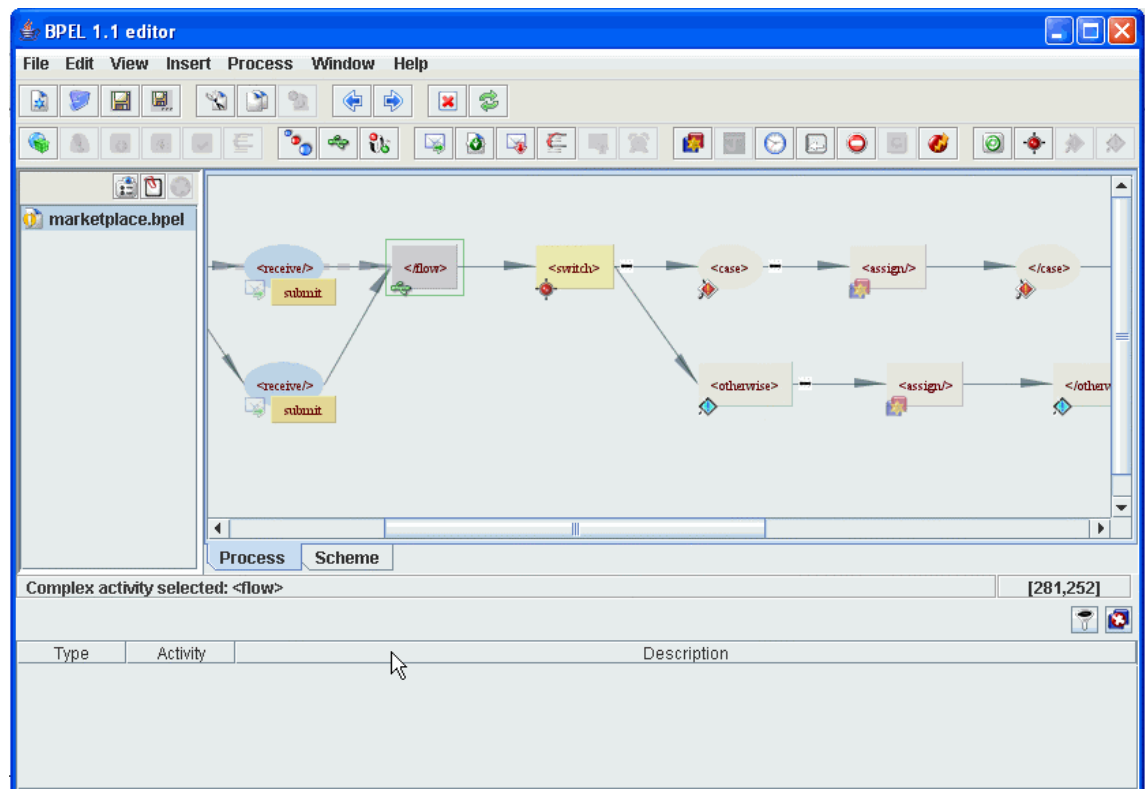
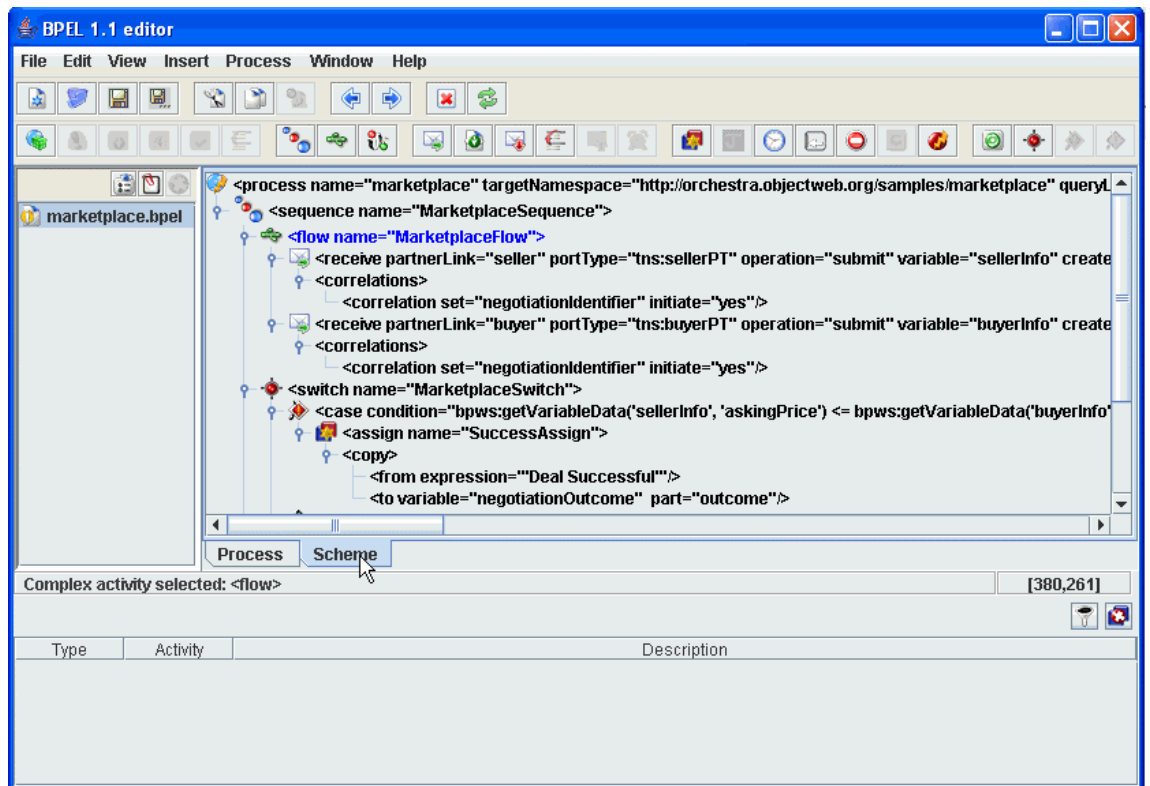


Figure 8-2. Source View

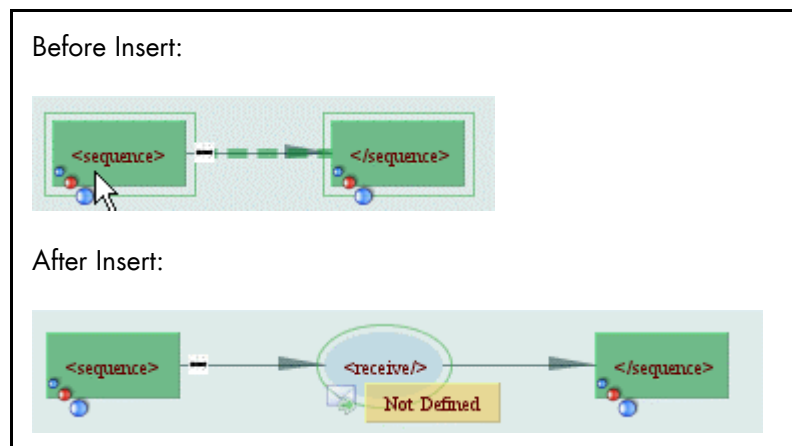


Chapter 9. Inserting, Deleting, and Modifying Activities

Activities can be operated on in several ways:

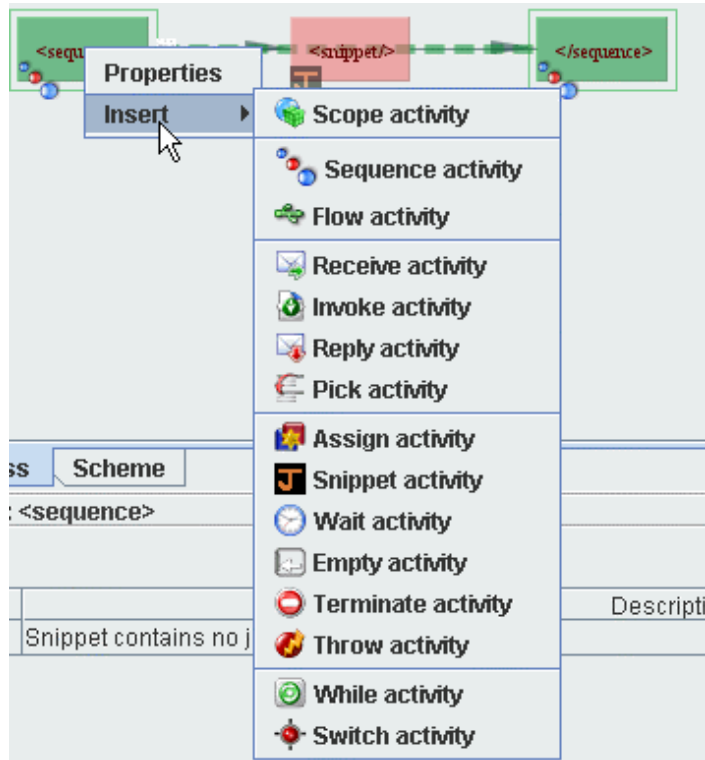
- Insert an activity by selecting an activity node and then using the main toolbar icons or the "insert" menu to add new activities or delete the current activity. To insert a new activity, click on the "parent" statement of the desired activity then insert it with the corresponding button or the right-click context menu item. For instance, to insert a "receive" statement in a sequence, click on the sequence statement block. The **"receive"** button will then be activated and the statement can be inserted.

Figure 9-1. Toolbar Icons Before and After Inserting and Activity



- An activity can also be inserted by selecting a node and using the right-click, context menu and selecting "Insert", which will display menu items for valid operations.

Figure 9-2. Valid Operations for Inserting an Activity



- To move an activity to the right position in the process using the "arrows" buttons. Alternatively, drag and drop can be used.

- Double clicking on a node, or right clicking and selecting the “Properties” menu, will display the properties dialog box for that node. Then its characteristics or properties can be specified: name, value, etc. The following is an example definition dialog for an Invoke activity:

Figure 9-3. Definition Dialog for Invoke Activity

Invoke definition

Name: Not Defined

Join coindition: Not Defined ☐ Suppress join failure?

Partner Link: Not Defined

Port type: Not Defined

Operation: Not Defined

Input: Not Defined

Output: Not Defined

Correlation name	Initiate	Pattern

Remove selected

Add this --->

Select a correlation:

☐ Initiate ?

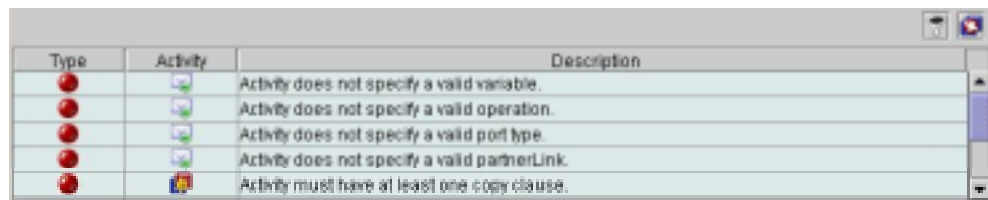
Patterns: in

OK Cancel

Chapter 10. Error View

This view displays the errors of the process that is currently being designed.

Figure 10-1. Error View



The screenshot shows a window titled 'Error View' with a table containing five rows of error information. Each row has a red circle icon in the 'Type' column, an activity icon in the 'Activity' column, and a text description in the 'Description' column. The table is scrollable, as indicated by the scrollbar on the right.

Type	Activity	Description
		Activity does not specify a valid variable.
		Activity does not specify a valid operation.
		Activity does not specify a valid port type.
		Activity does not specify a valid partnerLink.
		Activity must have at least one copy clause.

- Clicking on a particular error will highlight the corresponding activity.
- Double clicking on a particular error will bring up that activities properties dialog.

Chapter 11. Tutorials and Reference

Refer to the tutorials and other documents developed for the Eclipse plugin version of Zenflow for further information on how to use Zenflow. The plugin version uses an Eclipse properties window instead of dialog boxes to handle activity properties, and the Eclipse problems view is used instead of the standalone versions Error View. Other than that, most operations are similar.

[Zenflow Plugin User's Guide](#)

[Quickstart Tutorial - View an Existing BPEL File](#)

[Quickstart Tutorial - Create a New BPEL File](#)

[Zenflow Weather2 Tutorial](#)

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