BPS 1131 - BIRT General Designer Usability Improvements Specification

Feature Specification

Abstract

This is the feature specification for BIRT general designer usability improvements.

Revisions

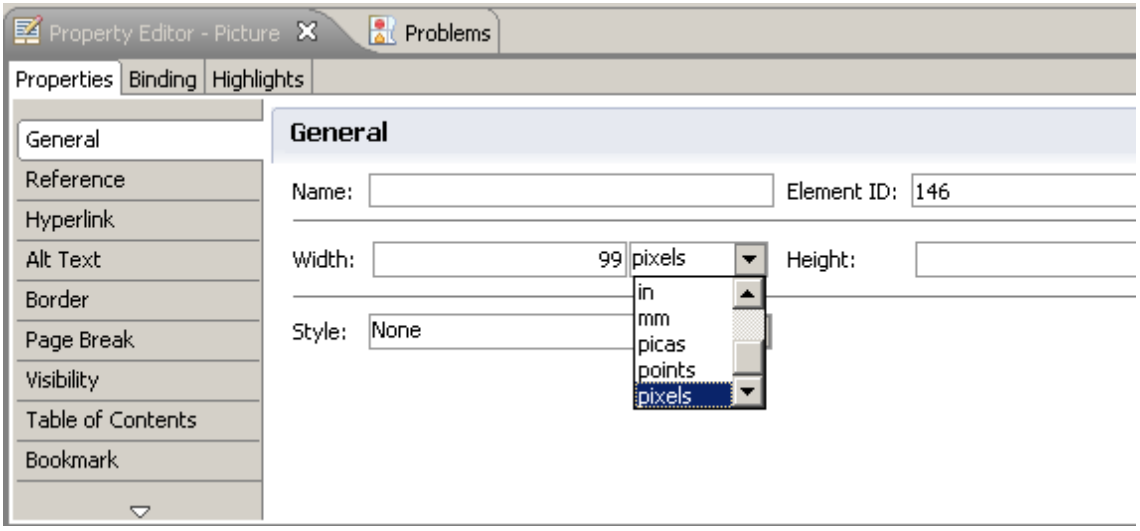
Version	Author	Date	Description of Changes
Draft 1	Zhiqiang Qian	May 5 2009	Initial Draft

New Widget for Dimension Properties

Introduction

Currently in the Property Editor, the dimension property editing UI consists of two widgets: a text control plus a combo box control. They are used to edit the dimension measure and unit value respectively. As the two widgets are managed separately, when user change the focus from the text control to the combo box control or vice versa, it will always trigger the property change event, while at this moment user may not have completed the editing yet.

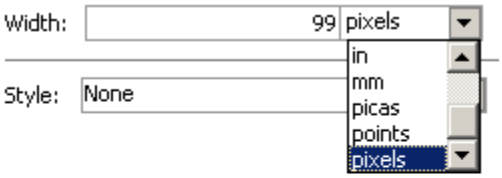
For example, user wants to change the dimension value from "1 in" to "100 pixels", currently he must be careful to change the unit first, otherwise, when he changed the measure value to "100" and attempt to change the unit, the dimension value will temporarily be changed to "100 in", which will then cause an unnecessary re-layout. For certain report item like Image, this may also trigger a creation of a very large image instance, which may cause an OutOfMemory error.



Goals

Our goal is to merge the two widgets into one and change the event handling, so it can avoid the unnecessary event.

Basically, when the focus is changed inside the container widget, it will not file the property change event, only when the focus is set to outside the container widget, the event is filed.



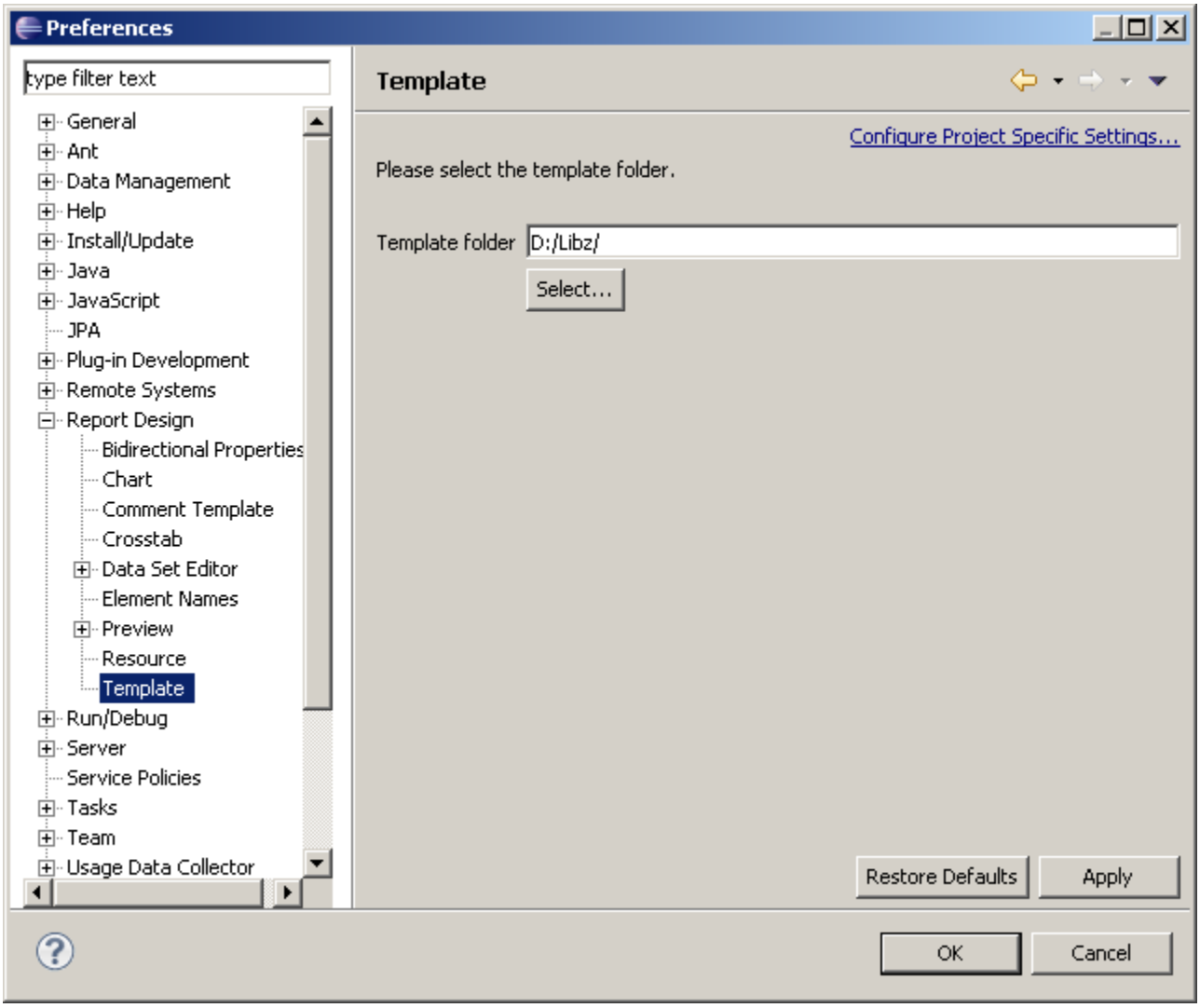
Features

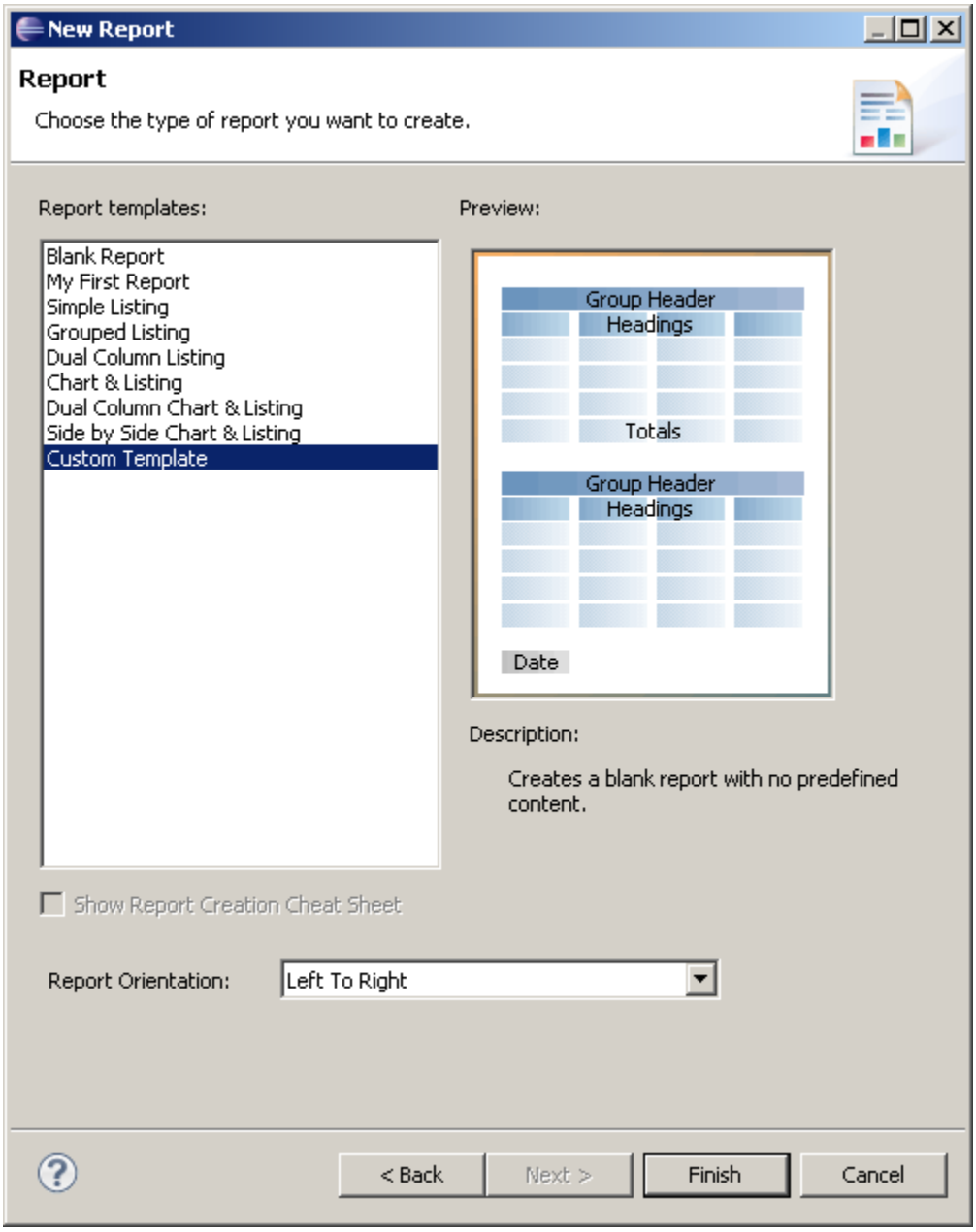
The new custom widget has the same functions as the existing one.

Custom Report Template Extension

Introduction

Currently BIRT designer provides a template folder setting to allow user to register custom report templates. When user creates a report, the new report wizard will list all the registered report templates reside in this folder.





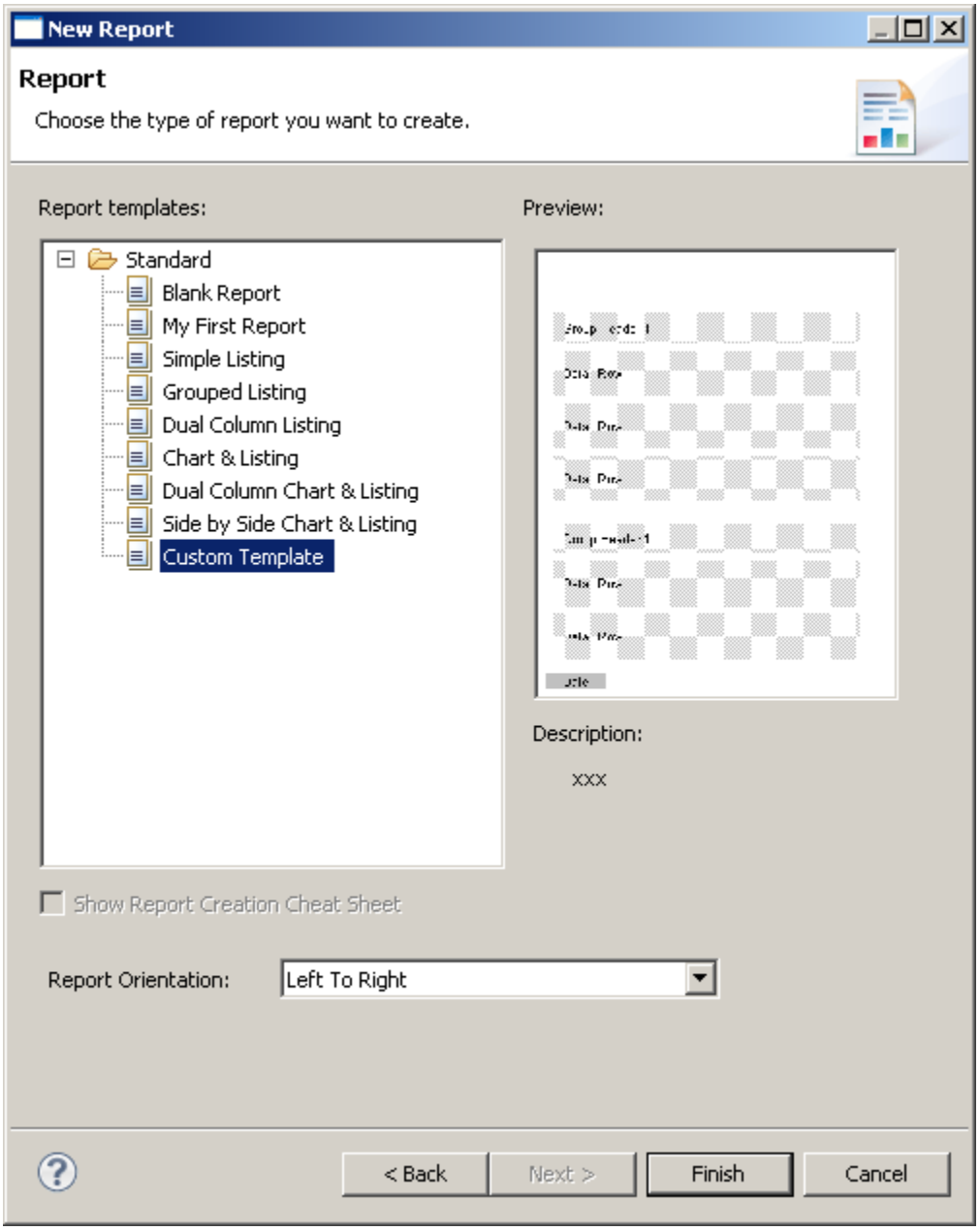
However, there's some limitation of current solution as described below.

Use Cases

- User want to have a structured view for all the report template so they can be better organized and understood. But currently the template list only supports one level.
- User want to put report templates in multiple folders in the file system but currently there's only one template folder setting.
- User want to access report templates that are not stored as local disk files, e.g. from server using custom communication protocols.

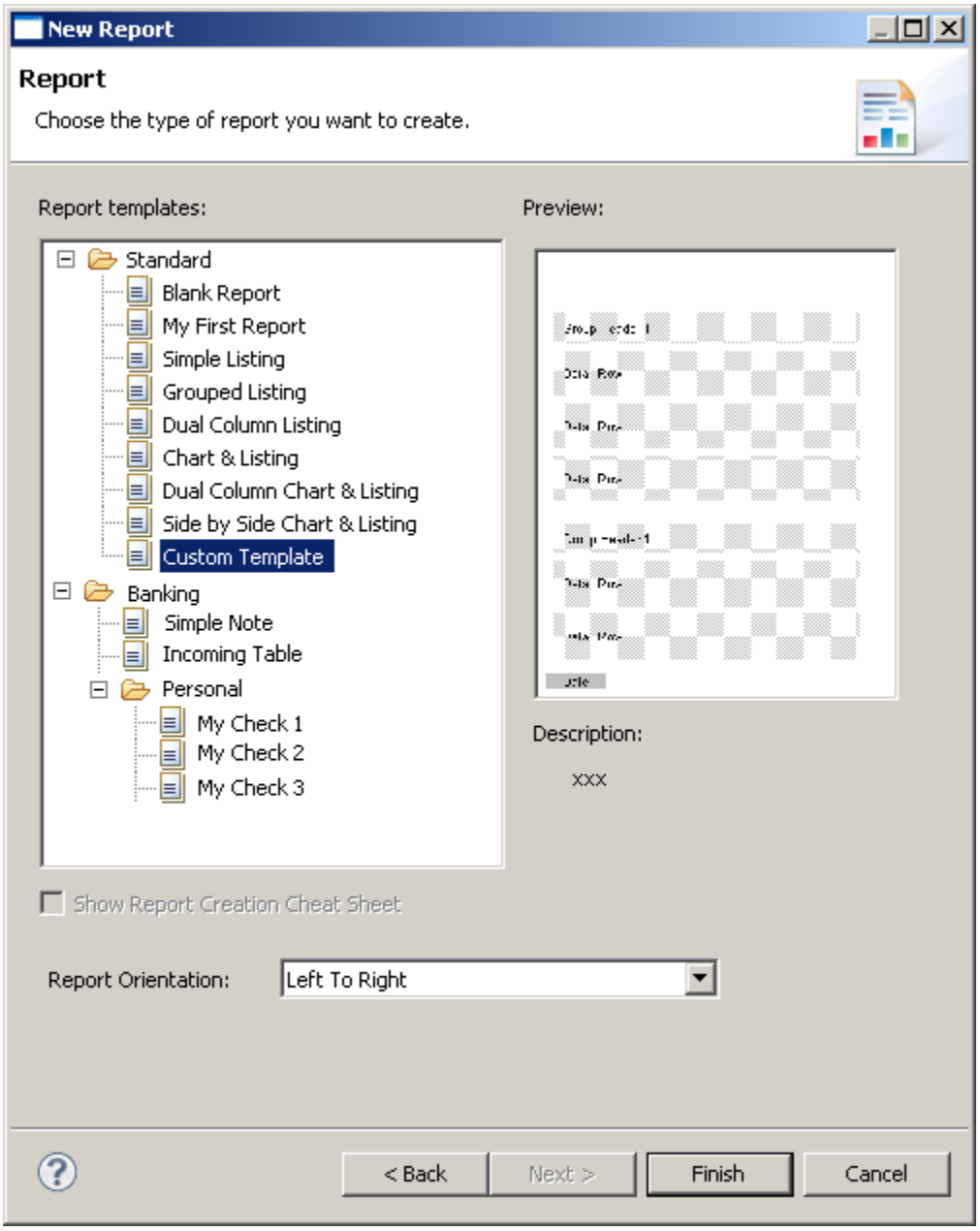
Feature Overview

A new wizard template extension will be introduced to resolve these issues. The default template wizard UI now will look like this:



The original built-in templates and legacy custom templates will be grouped under a "Standard" node.

If user has registered some template extensions, the wizard UI may look like this:



Extensions

The report template provider extension is achieved through the existing designer Element Adpater extension point.

A typical extension registration is like this:

```
<extension point="org.eclipse.birt.report.designer.ui.elementAdapters">
   <adaptable
class="org.eclipse.birt.report.designer.internal.ui.wizards.ExtensionTemplateListProvi
der">
      <adapter class="test.TemplateTest1"
            id="TestPlug.adapter1"
```

```
            priority="10"
            type="org.eclipse.birt.report.designer.ui.templates.ITemplateProvider">
      </adapter>
   </adaptable>
</extension>
```

User must implement a provider class which implements *org.eclipse.birt.report.designer.ui.templates.ITemplateProvider* interface. The Element Adapter extension point further provides some optional control like priority, enablement, etc. User can always refine these setting according to custom requirements.

The *ITemplateProvider* interface do not restrict the user to read report templates from disk file, so it can easily adapt the custom report template storage cases.

Note this template provider extension only extends the capability of reading report templates. For custom writing(or publishing) capability, user should implement their own management logic and register standard Eclipse UI extensions if needed.

Interfaces

Following are the related java interfaces that for user to implement a template extension provider:

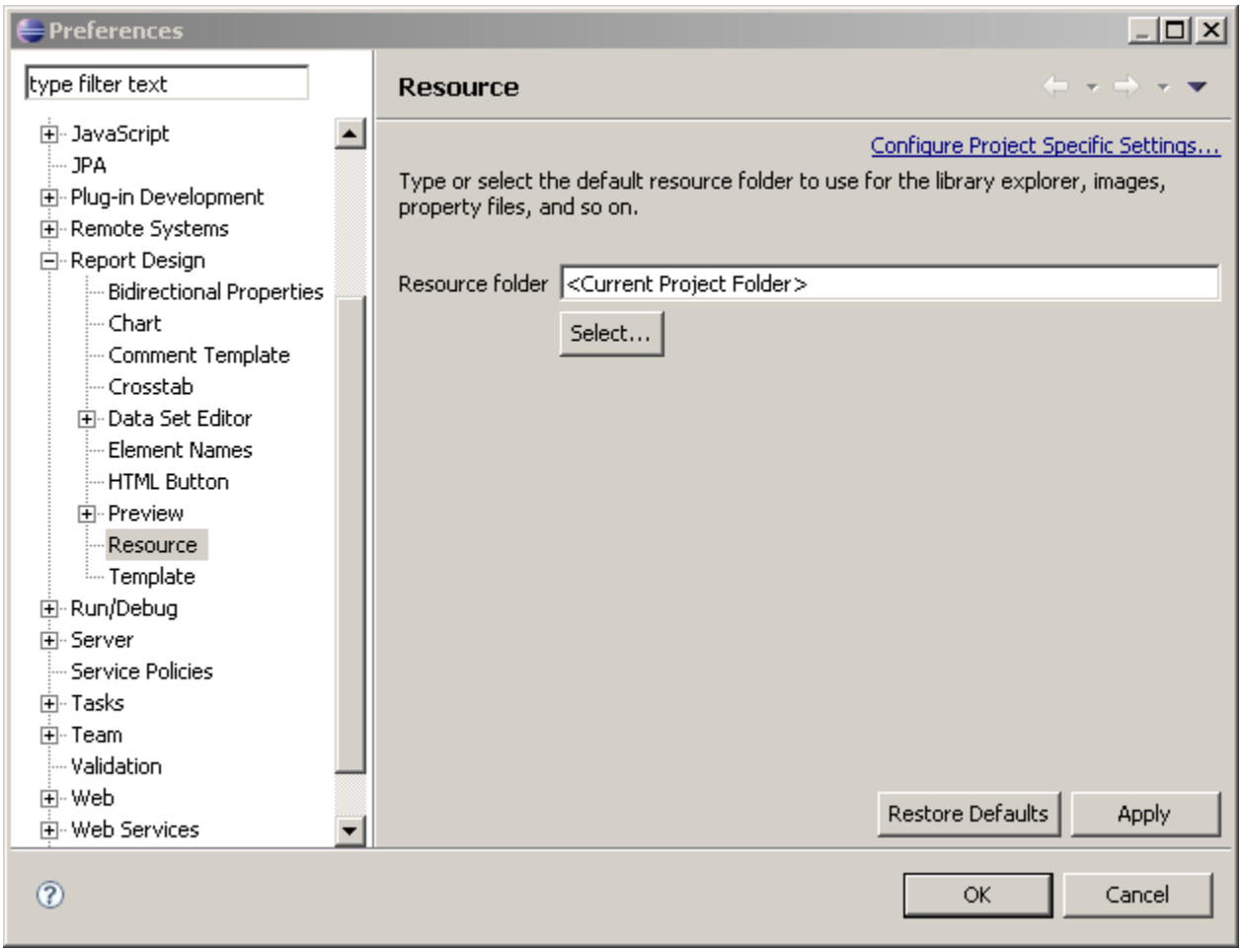
```
public interface ITemplateProvider
{

   /**Gets the provider ID.
    * @return
    */
   String getParentBaseName( );

   /**Gets the entries.
    * @return
    */
   ITemplateEntry[] getTemplates( );

   /**
    * Release the resources allocated if applicable.
    */
   void release();
}

public interface ITemplateEntry
{

   /**Gets the name to display.
    * @return
    */
   String getName( );

   /**Gets the image to show in the tree.
```

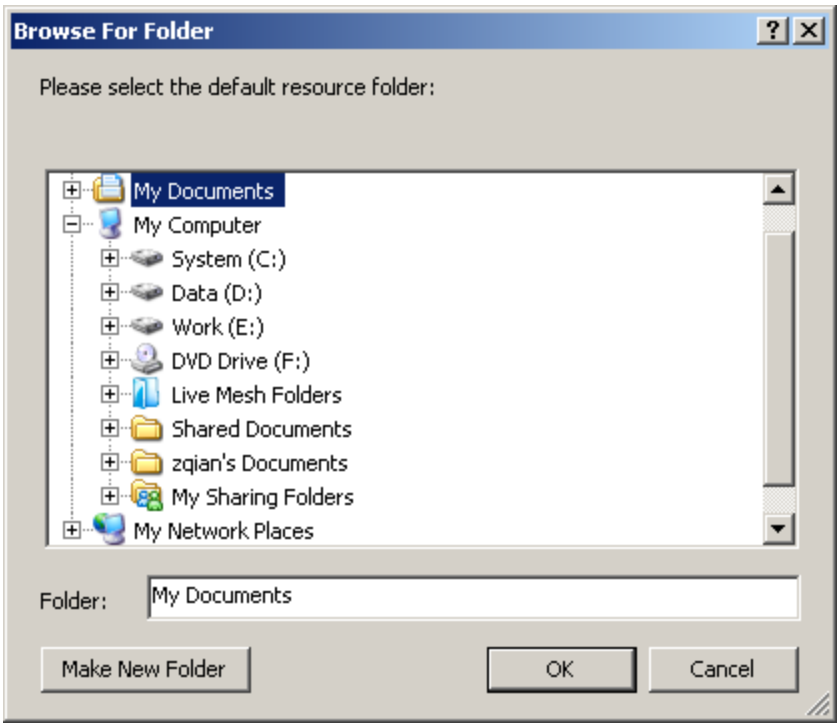
```
     * @return
     */
    Image getImage( );
}

public interface ITemplateFolder extends ITemplateEntry
{

    /**Gets the ID to decide the location on the tree.
     * @return
     */
    String getBaseName( );

    /**Gets the children.
     * @return
     */
    ITemplateEntry[] getChildren( );
}

public interface ITemplateFile extends ITemplateEntry
{

    /**Gets the Template
     * @return
     */
    ReportDesignHandle getReportHandle( );
}
```

Resource Folder Setting Enhancement

Introduction

In current BIRT designer, the Resource Folder setting only supports two kinds of notations: "<Current Project Folder>" or an absolute local path. The "<Current Project Folder>" refers to the project root path for current opened report design if applicable; the absolute local path points to a fixed local file system directory path. Although we already support project-wise setting for Resource Folder, in some cases, it is still not very convenient for user to specify a preferable setting.





Use Cases

- User want to specify the resource folder path to "<Current Project Folder>/resources". The path points to a fixed "resources" sub folder under the project which contains current report design. This is convenient when multiple report projects all contain a "resources" sub folder and user will frequently move the report design between projects.

- User want to specify the resource folder path to the root of a specific resource project in the workspace like "resource-project". All the report design in current workspace will reference the resources from this resource project. So when user switch to another workspace, it will automatically refer to the resources under the same resource project path, or user can simply import or copy the old resource project to the new workspace.

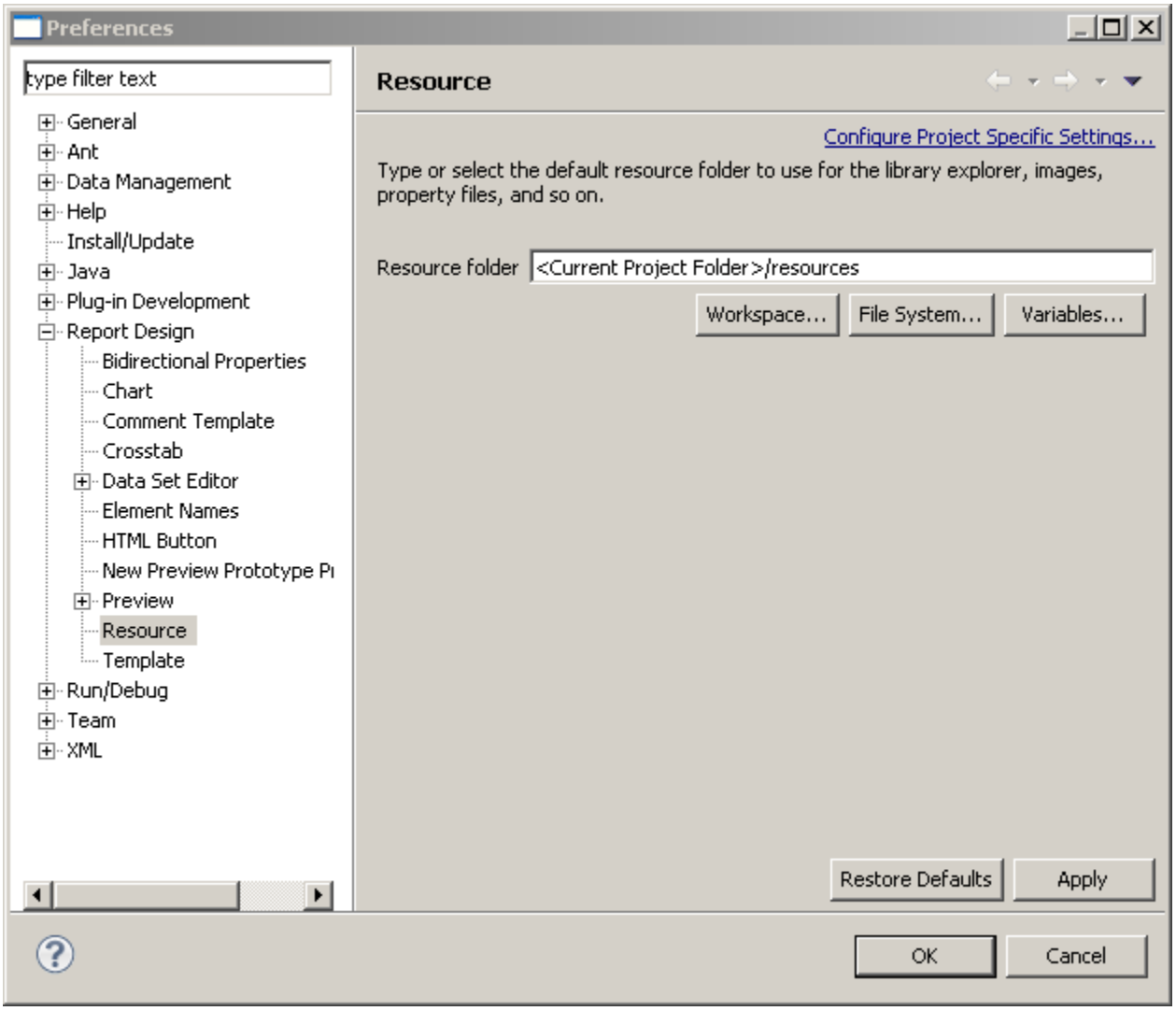
- User want to specify the resource folder relative to some special path like "eclipse home", "system path", etc. User doesn't want to hard code the path so when the environment changed, he need not change the setting again.

Features

This enhancement aims at providing a more flexible way for Resource folder setting. In addition to the original support, we will add following enhancements:

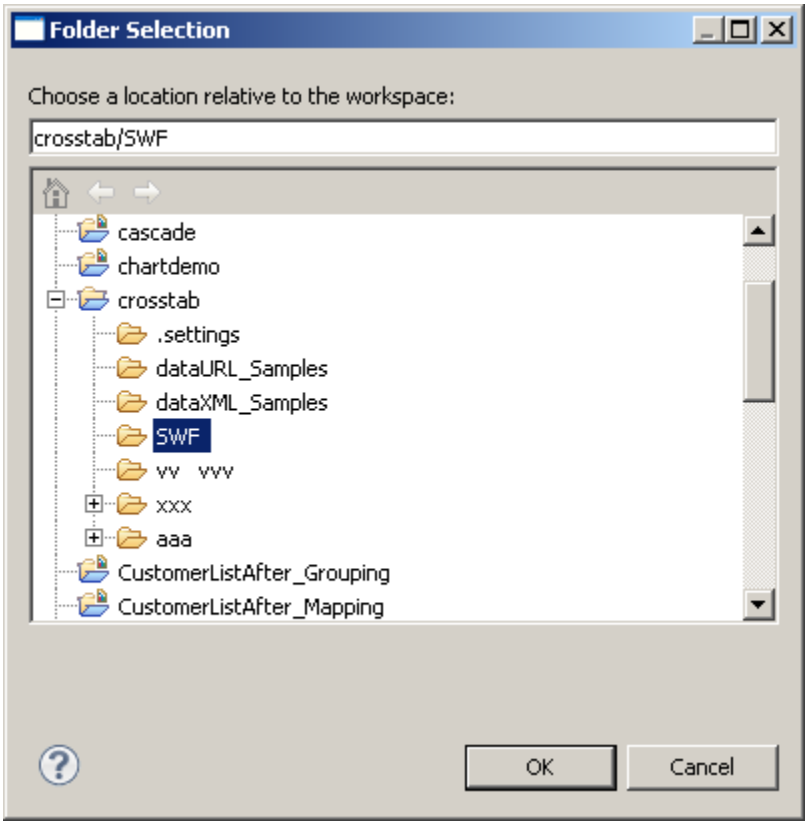
Relative Path to Current Project

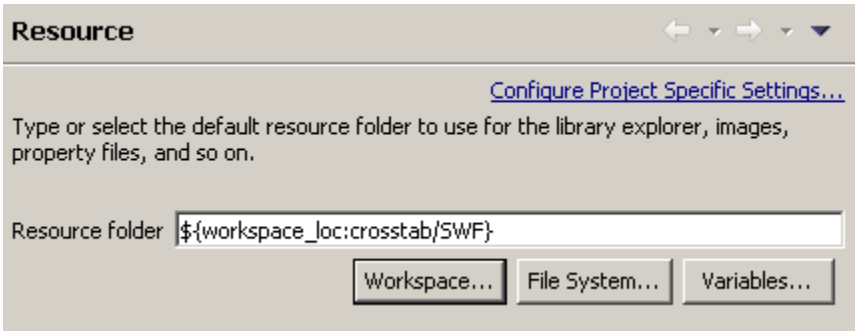
The "<Current Project Folder>" notation support is extended, so it can support syntax like "<Current Project Folder>/subfolder".



Workspace Path

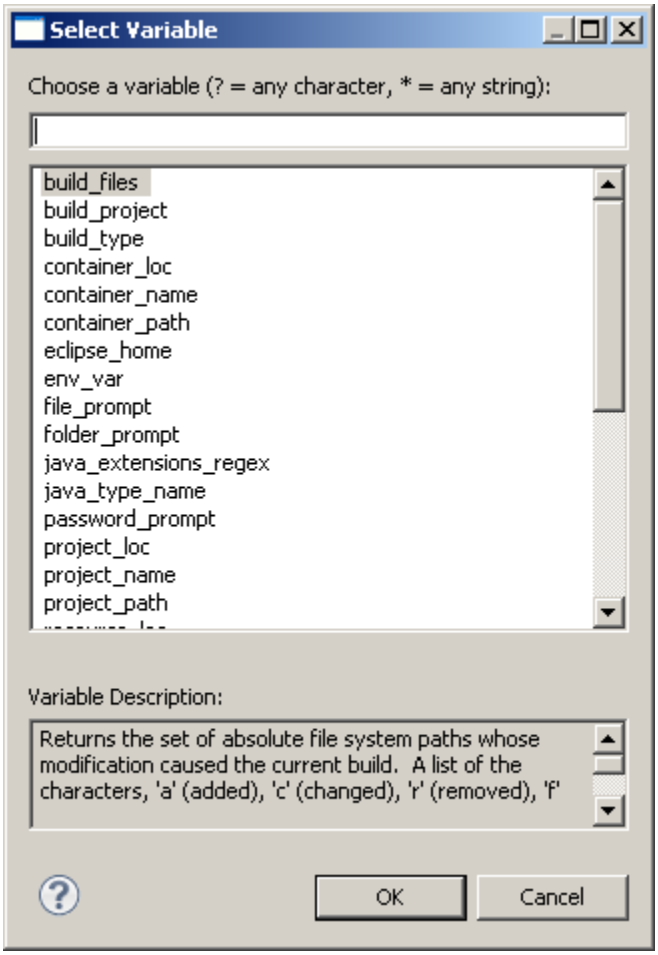
It can support the path points to a project root or sub folder within current workspace.

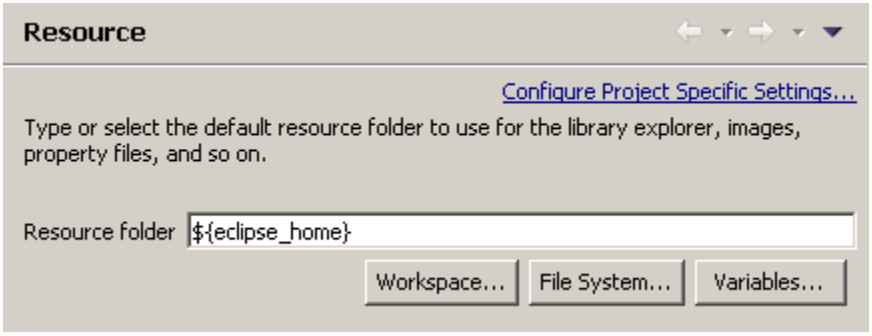




Variable Path

It can support parsing path from the built-in eclipse variable system.


Select Variable
Choose a variable (? = any character, * = any string):
build_files
build_project
build_type
container_loc
container_name
container_path
eclipse_home
env_var
file_prompt
folder_prompt
java_extensions_regex
java_type_name
password_prompt
project_loc
project_name
project_path
Variable Description:
Returns the set of absolute file system paths whose modification caused the current build. A list of the characters, 'a' (added), 'c' (changed), 'r' (removed), 'f'
OK
Cancel


Resource
Configure Project Specific Settings...
Type or select the default resource folder to use for the library explorer, images, property files, and so on.
Resource folder
${eclipse_home}
Workspace...
File System...
Variables...