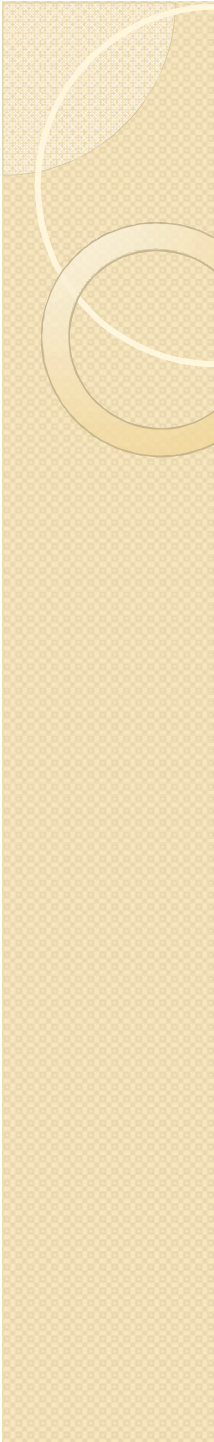# Course Name:
Advanced Java

Lecture 24
Topics to be covered

- Bean info Classes
- Property Editors
- Customizers.

BeanInfo

- Provides explicit information about a JavaBean
- Defined by the creator of the bean
- Does not need to provide complete information

BeanInfo Classes

- You can define an object that implements the BeanInfo interface to describe your bean.
- When you implement this interface, a builder tool will look to the methods from the BeanInfo interface to tell it about the features that your bean supports.
- You need to follow a naming pattern to associate a BeanInfo object to the bean.
- The name of the bean Info class must be formed by adding BeanInfo to the name of the bean.
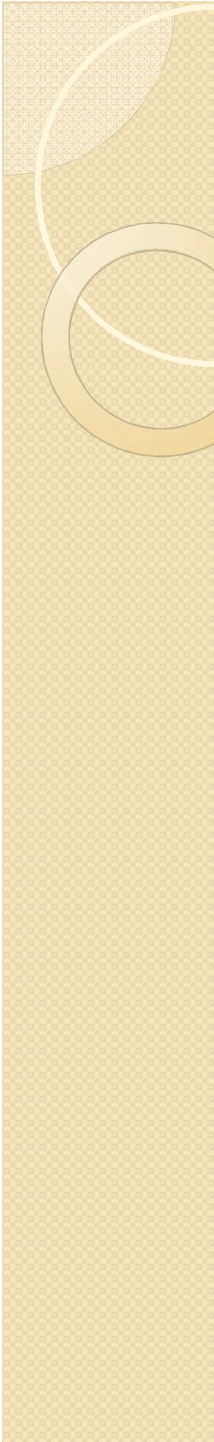
Example

The bean info class associated to the class ImageViewerBean must be named ImageViewerBeanBeanInfo.

The bean info class must be part of the same package as the bean itself. The most common reason for supplying a BeanInfo class is to gain control of the bean properties.

You construct a PropertyDescriptor for each property by supplying the name of the property & the class of the bean that contains it.

```
PropertyDescriptor descriptor = new PropertyDescriptor("filename",ImageViewerBean.class);
```

Then implement the getPropertyDescriptors method of your BeanInfo class to return an array of all property descriptors.

The BeanInfo interface has four constants that cover the standard sizes :

ICON_COLOR_16*32
ICON_COLOR_32*32
ICON_COLOR_16*16
ICON_COLOR_32*32

Property Editors

- Visual element for editing a specific Java Type
- For standard types editors are provided
- Located using the *PropertyEditorManger*
- Displayed on Property sheets

Property Sheets

- Consist of all editors necessary to edit the properties of a component
- Keep track of which editor's values change
- Update bean after each change

Customization:

- ◦ Enables the developer of a Bean component to customize the appearance and behavior of a bean
- ◦ A custom property editor should to be created to associate with the custom classes

Properties:

- ◦ Supports the customization mentioned above

Customizers

- More elaborate visual interfaces to edit the properties of a bean in a multiple step process
- Act like wizards or experts
- Builder tools register with the customizers for property changes and update bean after each change

Bean Box

- Bean Box is a sample bean that's comes in the kit (BDK).It allows you to test the functionality of your beans, including properties, events and serialization.

- Bean Box allows you to
  ◦ drop beans onto a composition window
  ◦ resize and move beans around
  ◦ edit the exported properties of a bean
  ◦ run a customizer to configure a bean