What is the Visual Library?

Generic Visualization Library
Especially useful for displaying Graphs Widgets as Graphic primitives
What is the Visual Library?

Can be used in any Swing Application
Only one dependency. Lookup (util)

Documentation & Demo Projects:
  http://graph.netbeans.org/documentation.html
  http://graph.netbeans.org/examples.html

Used in NetBeans & many independent applications
Used in many Applications

Inside NetBeans (Visual Mobile Designer)
Jarvis (Jasperreports Visual Designer)
MindMap
GeeWhiz (Prolog Editor & Tutorial)
ChipInspector (Genome Browser)
InstantJChem (Form Designer)
BlueMarine (Photo Editor)
Certified Engineer Course
How does it work?

Similar to Swing: Components organized in a tree

Widgets = Graphics primitive (like JComponent)

- Scene (Root element)
  - ObjectScene
    - Graph Scene
    - GraphPinScene

- LayerWidget
- LabelWidget
- ImageWidget

... 

Demo...
How does it work?

Layouts:
- AbsoluteLayout
- FlowLayout
- CardLayout
- OverlayLayout

Demo...

Actions:
- MoveAction
- HoverAction
- ZoomAction
- PanAction...

Every Widget has a WidgetAction.Chain to receive Events and forward them to the matching Action.

```java
widget.getActions().addAction(ActionFactory.createMoveAction());
```

Demo...
Custom Behaviour - Providers

Use Providers to create Custom Behaviour:

```java
ActionFactory.createXXXAxtion(new MyXXXProvider ());
```

Example:

```java
private static class MyHoverProvider implements HoverProvider {

    public void widgetHovered(Widget widget) {
        if (widget != null) {
            widget.setForeground(Color.RED);
        }
    }
}
```

Demo...
public class IconNodeWidget extends Widget {

    public IconNodeWidget(Scene scene, String icon, String label) {
        super(scene);
        setOpaque(true);

        setLayout(LayoutFactory.createVerticalFlowLayout(LayoutFactory.SerialAlignment.CENTER, 4)); // use vertical layout
        Image image = Utilities.loadImage(icon);
        addChild(new ImageWidget(scene, image));
        addChild(new LabelWidget(scene, label));
    }
}

Demo...
Create a Visual Database Explorer

DEMO
Learn more

Documentation, Demo Projects 6
Tutorials:

http://graph.netbeans.org/documentation.html
http://graph.netbeans.org/examples.html