

# Animation

- Animation is a key feature of every rich graphics application platform
- There are two animation types supported in JavaFX
  - KeyFrame Animation
  - Transitions

# Keyframe Animation

- A general purpose animation mechanism for JavaFX
- Uses a concept of a timeline and keyframes specifying values at given times
- Built in the language syntax - can animate any variable
- tween keyword and custom interpolators
- Long syntax vs short syntax
- autorepeat + autoreverse behavior
- Actions
- Nested timelines

# Keyframe Animation

- A typical example of keyframe animation

```
var simpleTimeline = Timeline {
  keyFrames: [
    KeyFrame {
      time: 0s
      values: [
        node1.translateX => 50
        node1.rotate => 0
      ]
    },
    KeyFrame {
      time: 3s
      values: [
        node1.translateX => 800 tween Interpolator.EASEBOTH
        node1.rotate => 720 tween Interpolator.EASEBOTH
      ]
    },
  ]
}
```

# Transitions

- “Precanned”, single purpose animations
  - Translation/Rotation/Scale/Fade
  - “by” values
  - Animation along a path
- Containers:
  - Parallel
  - Sequential
  - Pause Transition

# JavaFX Tools

- Tools supported for JavaFX 1.0
  - JavaFX plugins for NetBeans 6.5
  - JavaFX plugins for Eclipse 3.4
  - JavaFX Production Suite

# JavaFX Plugins for NetBeans

- Open source project hosted at netbeans.org
- Available either as plugins or as JavaFX IDE
- Includes JavaFX SDK 1.0 w/ mobile emulator
- JavaFX Project Type

# JavaFX Plugins for NetBeans

- JavaFX project can include both JavaFX and Java classes
- Code completion, code snippets/palette
- Configurations
- Preview
- Debugger/Profiler
- Support for assets exported by JavaFX Production Suite (FXZ/FXD files)
- Deployment to Desktop/Applet/WebStart/Mobile

# JavaFX Plugins for Eclipse

- Still in an experimental mode
- Provides basic support for developing JavaFX applications in Eclipse
- Will be open sourced

# JavaFX Production Suite

- A set of tools allowing exporting graphic assets to JavaFX
- Provides a bridge between a designer and a developer
- Targeted at designers using professional graphical tools such as Adobe Illustrator and Photoshop
- Plugins for Adobe Illustrator/Photoshop, SVG Converter and JavaFX Graphics Viewer
- Loader for assets exported by the production suite
- Samples showing the workflow