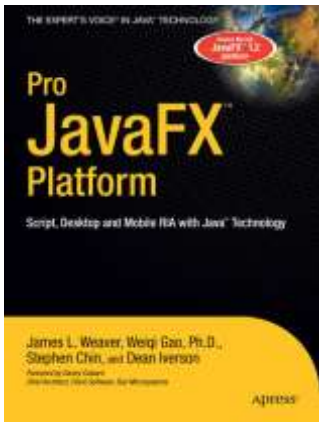


JFXtras

Utilities and Add-ons for the JavaFX™ Platform

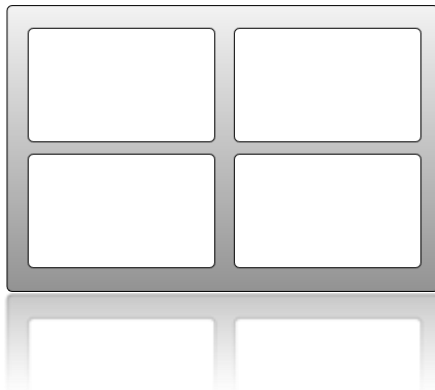


Supercharging Your JavaFX Programs
with WidgetFX and JFXtras

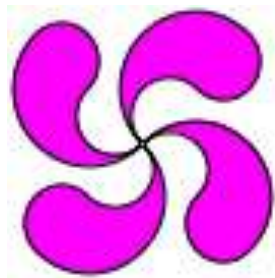
Stephen Chin
Inovis, Inc.

Keith Combs
Inovis, Inc.

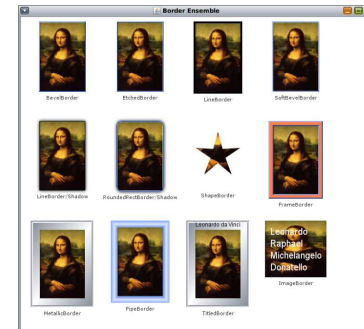
JFXtras – Utilities and Add-ons for JavaFX



Layouts



Shapes



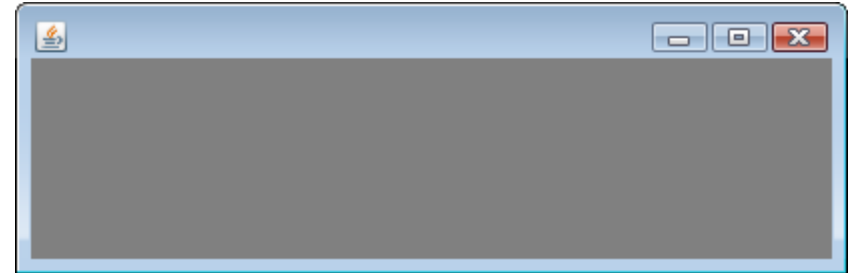
Borders



Controls

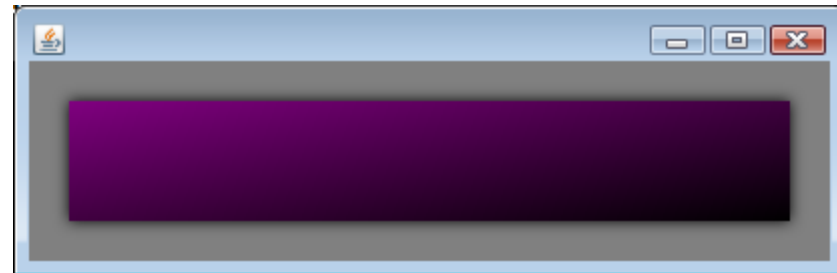
Hello SDForum - Start with a Scene

```
var scene:Scene;  
scene = Scene {  
    width: 400  
    height: 100  
    fill: Color.GRAY  
}
```



Hello SDForum - Add A Rectangle

```
var scene:Scene;
scene = Scene {
    width: 400
    height: 100
    fill: Color.GRAY
    content: [
        Rectangle {
            x: 20
            y: 20
            width: bind scene.width - 40
            height: bind scene.height - 40
            effect: DropShadow {}
            fill: LinearGradient {stops: [
                Stop {color: Color.PURPLE}
                Stop {offset: 1, color: Color.BLACK}
            ]}
        }
    ]
}
```



Hello SDForum - And Add Some Text

```
var scene:Scene;
scene = Scene {
  width: 400
  height: 100
  var text:Text;
  fill: Color.GRAY
  content: [
    Rectangle {
      x: 20
      y: 20
      width: bind scene.width - 40
      height: bind scene.height - 40
      effect: DropShadow {}
      fill: LinearGradient {stops: [
        Stop {color: Color.PURPLE}
        Stop {offset: 1, color: Color.BLACK}
      ]}
    }
  ]
  text = Text {
    content: "Welcome Oakland Java SIG"
    textOrigin: TextOrigin.TOP
    translateX: bind (scene.width - text.layoutBounds.width) / 2
    translateY: bind (scene.height - text.layoutBounds.height) / 2
    font: Font.font(null, FontWeight.BOLD, 18)
    fill: Color.WHITE
  }
} ] }
```



JFXtras Layouts – Before and After

```

var scene:Scene;
scene = Scene {
  width: 400
  height: 100
  var text:Text;
  fill: Color.GRAY
  content: [
    Rectangle {
      x: 20
      y: 20
      width: bind scene.width - 40
      height: bind scene.height - 40
      effect: DropShadow {}
      fill: LinearGradient {stops: [
        Stop {color: Color.PURPLE}
        Stop {offset: 1, color: Color.BLACK}
      ]}
    }
  ]
  text = Text {
    content: "Welcome SDForum Java SIG"
    textOrigin: TextOrigin.TOP
    translateX: bind (scene.width -
      text.layoutBounds.width) / 2
    translateY: bind (scene.height -
      text.layoutBounds.height) / 2
    font: Font.font(null, FontWeight.BOLD, 18)
    fill: Color.WHITE
  }
}
} ] ]

```

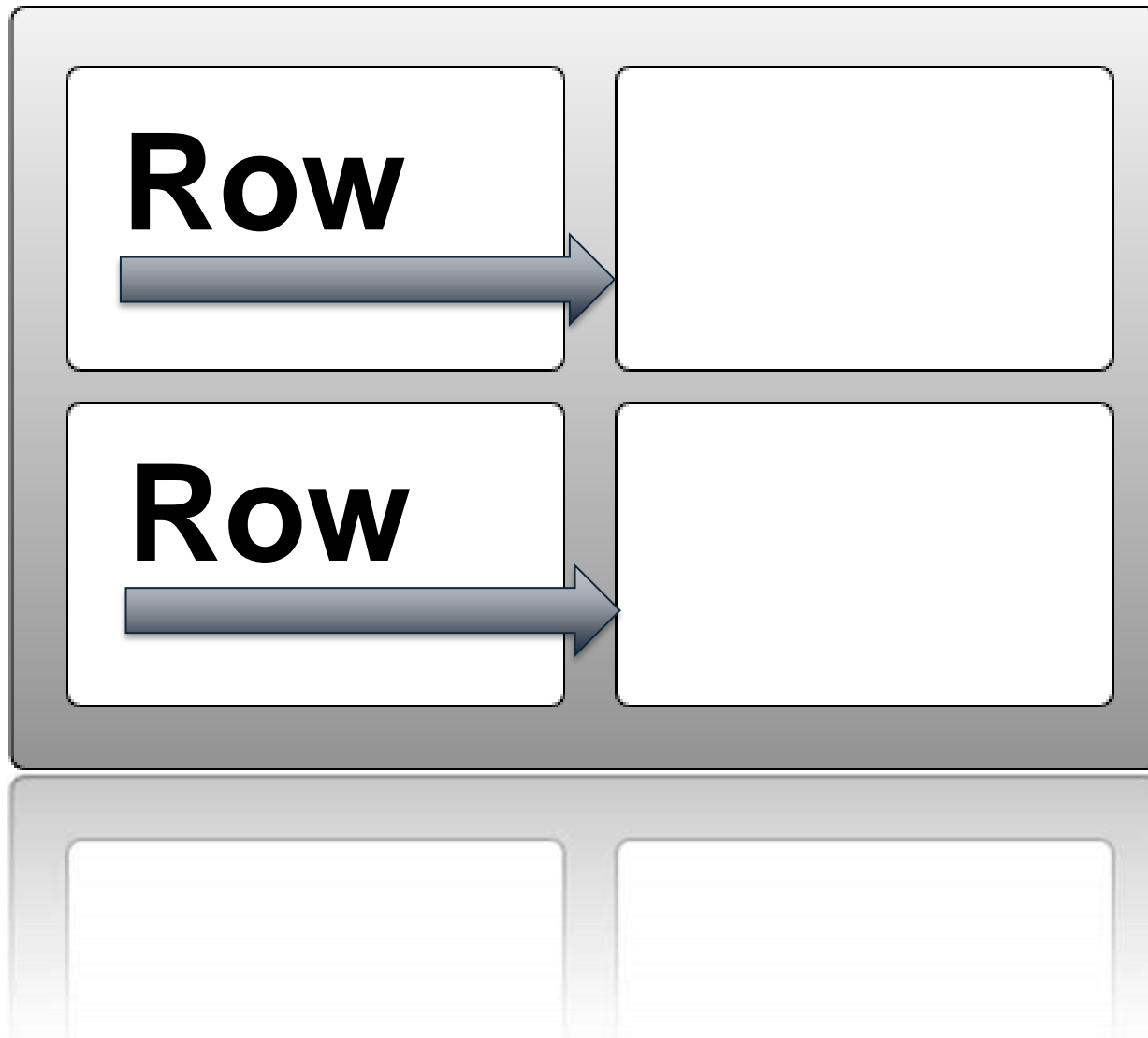
```

ResizableScene {
  width: 400
  height: 100
  fill: Color.GRAY
  content: EmptyBorder {
    borderWidth: 20
  }
  node: Deck {
    content: [
      ResizableRectangle {
        effect: DropShadow {}
        fill: LinearGradient {stops: [
          Stop {color: Color.PURPLE}
          Stop {offset: 1, color: Color.BLACK}
        ]}
      }
      Text {
        content: "Welcome SDForum Java SIG"
        font: Font.font(null, FontWeight.BOLD, 18)
        fill: Color.WHITE
        layoutInfo: LayoutInfo {hpos: CENTER}
      }
    ]
  }
}
} ] ] ]

```



JFXtras Grid



JFXtras Grid

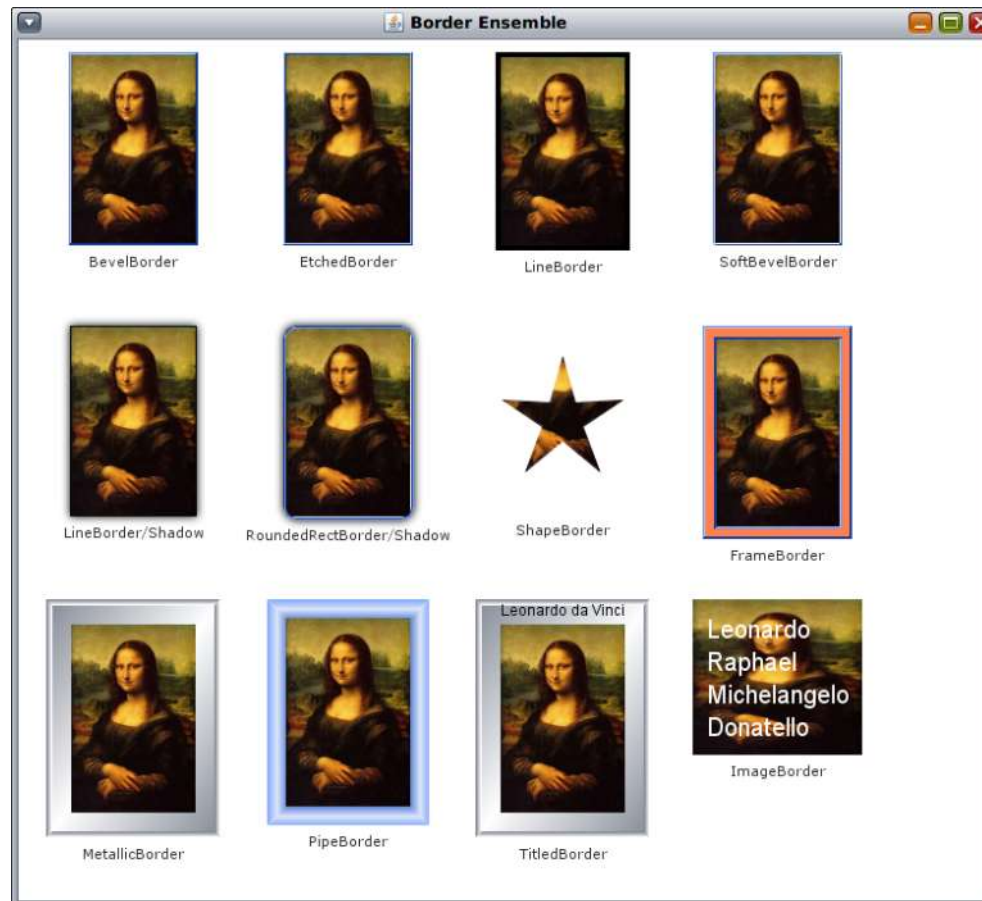
```
Grid {  
    effect: Reflection {}  
    border: 20  
    vgap: 12  
    hgap: 12  
    rows: bind [  
        row([text, progressBar]),  
        row([navigator, mediaGrid])  
    ]  
}
```



Media Explorer Example



JFXtras Borders



JFXtras Borders

Function:

```
override function create() {  
    TitledBorder {  
        id: "imageTitle"  
        title: file.getName()  
        content: FrameBorder {  
            id: "imageFrame"  
            node: ResizableImageView {  
                preserveRatio: true  
                smooth: true  
                image: bind image  
            }  
        }  
    }  
}
```

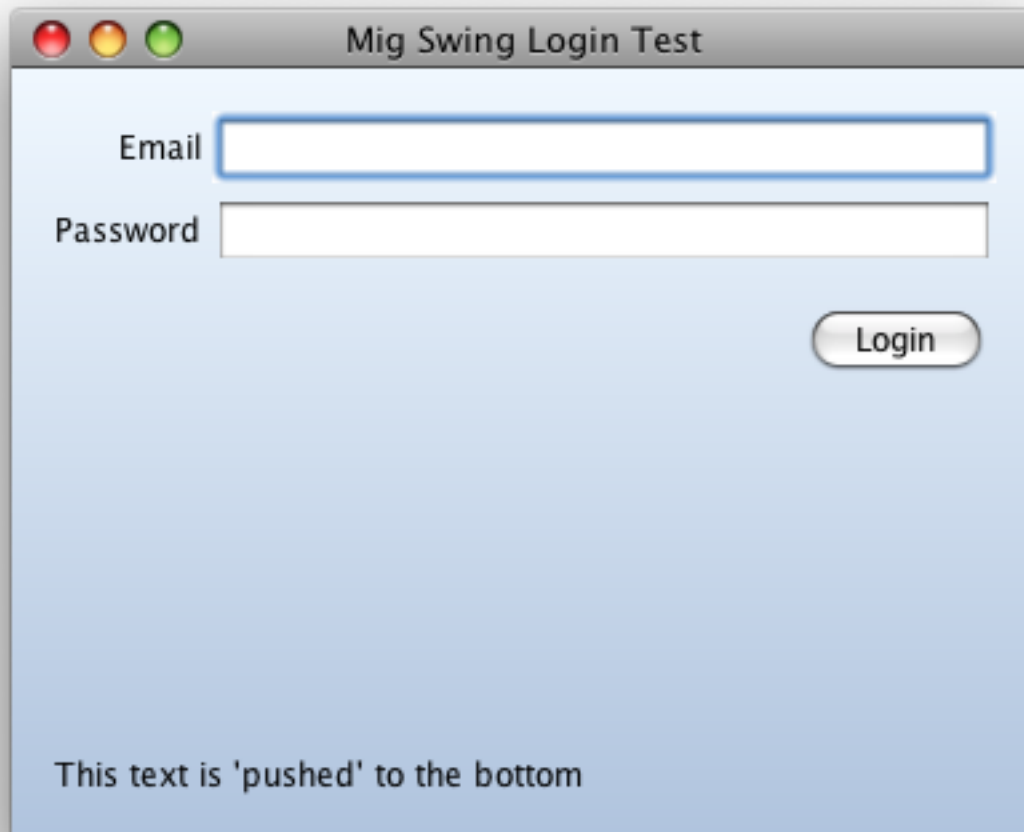
CSS:

```
#imageTitle {  
    position: "bottom";  
    justification: "center";  
    font: bold 12pt Serif;  
    text-color: #000060;  
}  
#imageFrame {  
    border-left-width: 12;  
    border-top-width: 12;  
    border-bottom-width: 20;  
    border-right-width: 12;  
    background-fill:  
        #00007020;  
}
```

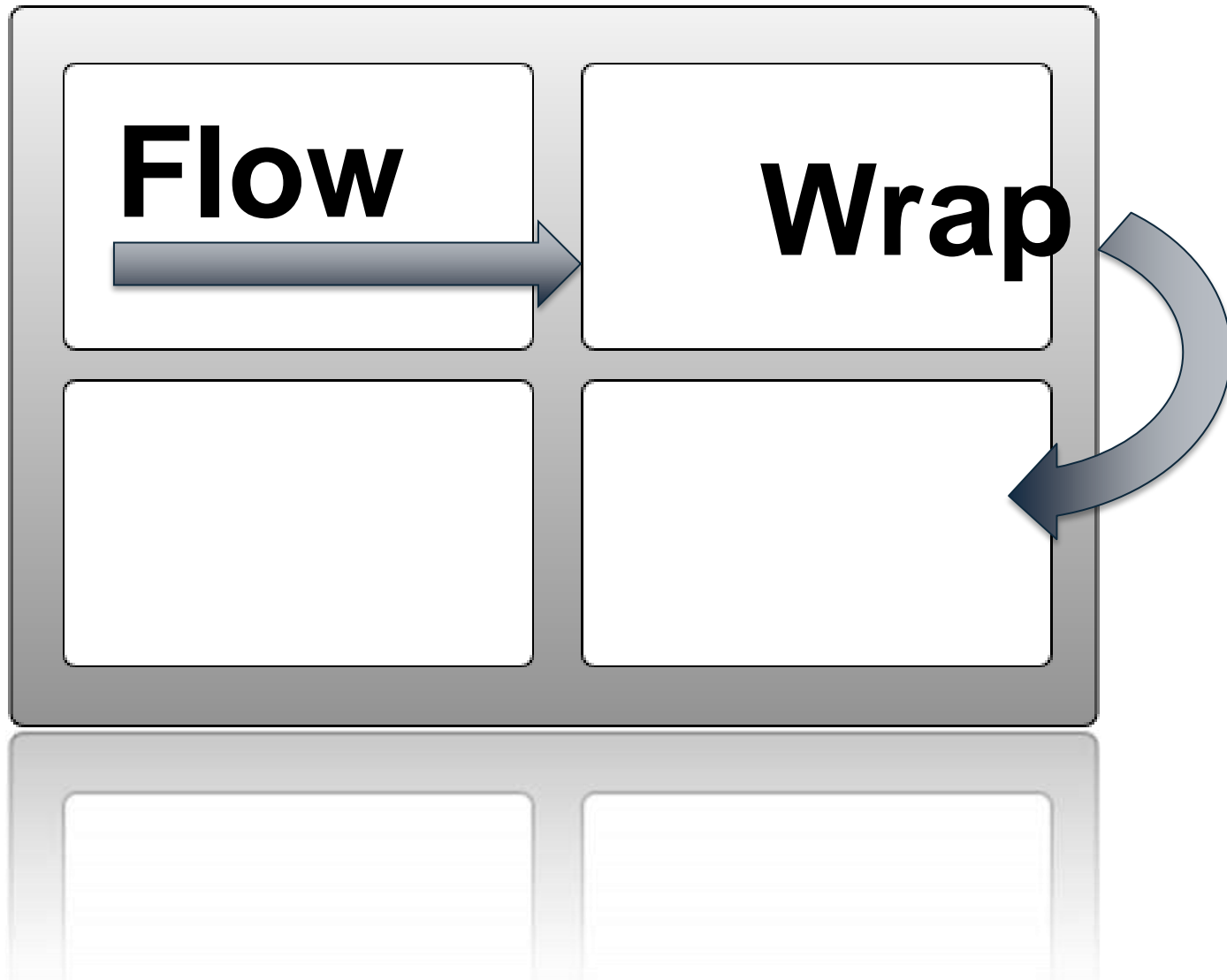
JFXtras Borders



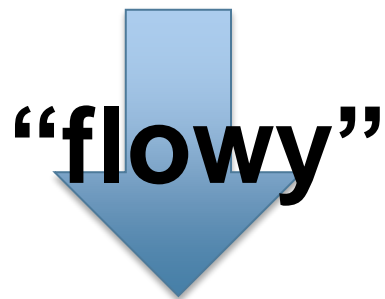
MigLayout for JavaFX



Flexible Grid-Based Layout

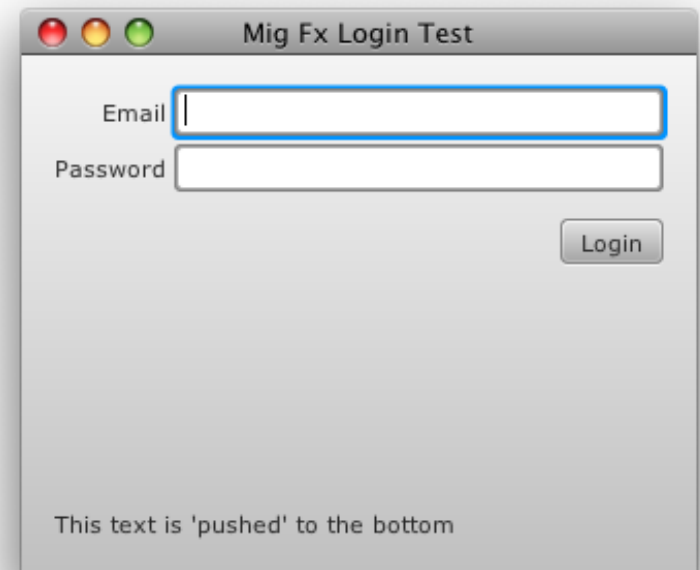


MigLayout Constraints











```
MigLayout {  
    constraints: "fill, wrap"  
  
    // to be continued  
}
```

```
MigLayout {
  constraints: "fill, wrap"
  columns: "[[]]"
  rows: "[[]]4mm[]push[]"
  content: [
    Label {
      text: "Email"
      layoutInfo: nodeConstraints( "ax right" )
    }
    TextBox {
      layoutInfo: nodeConstraints( "growx, pushx" )
    }
    Label {
      text: "Password"
      layoutInfo: nodeConstraints( "ax right" )
    }
    TextBox {
      layoutInfo: nodeConstraints( "growx, pushx" )
    }
    Button {
      text: "Login"
      layoutInfo: nodeConstraints( "skip, right" )
    }
    Label {
      text: "This text is 'pushed' to the bottom"
      layoutInfo: nodeConstraints( "span" )
    }
  ]
}
```



JFXtras Shapes

	Almond	Intersection of two circles (Vesica Piscis)	<code>centerX, centerY, width</code>
	Arrow	Arrow shape	<code>x, y, width, height, depth, rise</code>
	Asterisk	Asterisk with rounded corners	<code>centerX, centerY, width, radius, beams, roundness</code>
	Astroid	Hypocloid with four cusps	<code>centerX, centerY, radius</code>
	Balloon	Rectangular shape with a tab	<code>x, y, width, height, arc, anglePosition, tabWidth, tabHeight, tabLocation, tabDisplacement</code>
	Cross	Symmetrical cross shape	<code>centerX, centerY, width, radius, roundness</code>
	Donut	Regular polygon with a hole	<code>centerX, centerY, innerRadius, outerRadius, sides</code>
	Lauburu	Four comma-shaped heads	<code>centerX, centerY, radius</code>

Continued...

JFXtras Shapes (continued)



MultiRoundRectangle Rectangle with configurable corners `x, y, width, height, topLeftWidth/Height, topRightWidth/Height, bottomLeftWidth/Height, bottomRightWidth/Height`



Rays Multiple rays extend from center `centerX, centerY, rays, radius, extent, rounded`



RegularPolygon Polygon with equal sides `centerX, centerY, sides, radius`



ReuleauxTriangle Curved triangle shape `centerX, centerY, radius`



RoundPin Cone with rounded top `centerX, centerY, height, radius`



Star2 Multipoint star `centerX, centerY, innerRadius, outerRadius, count`



ETriangle Equilateral triangle `x, y, width`

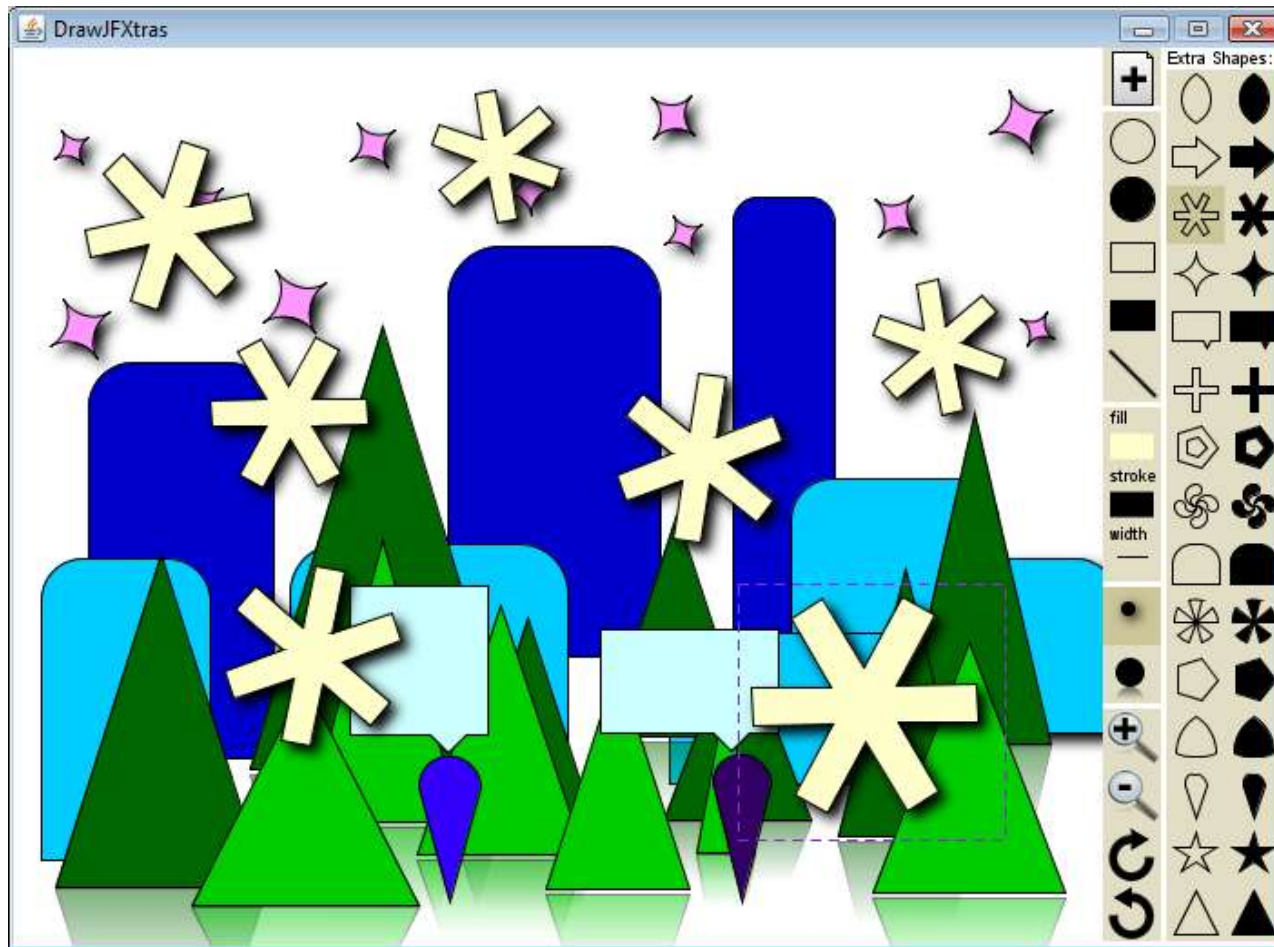


ITriangle Isosceles triangle `x, y, width, height`

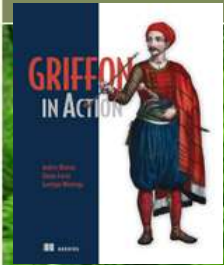


RTriangle Right triangle `x, y, width, height, anglePosition`

JFXtras Shapes



Sphere Challenge



Andres Almiray's Weblog

http://www.jroller.com/aalmiray/entry/griffon_gfxbuilder_fxbuilder_side_by

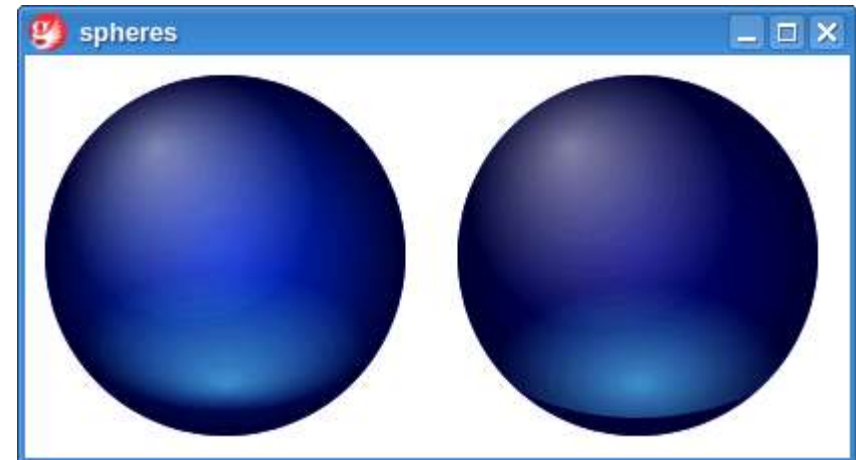
“The following snapshot shows a couple of spheres drawn with GfxBuilder and FxBuilder, can you guess which one is which?”

...

This is by no means a post to bash JavaFX rather to point out some of its deficiencies”

-- Andres Almiray

(taken completely out of context)



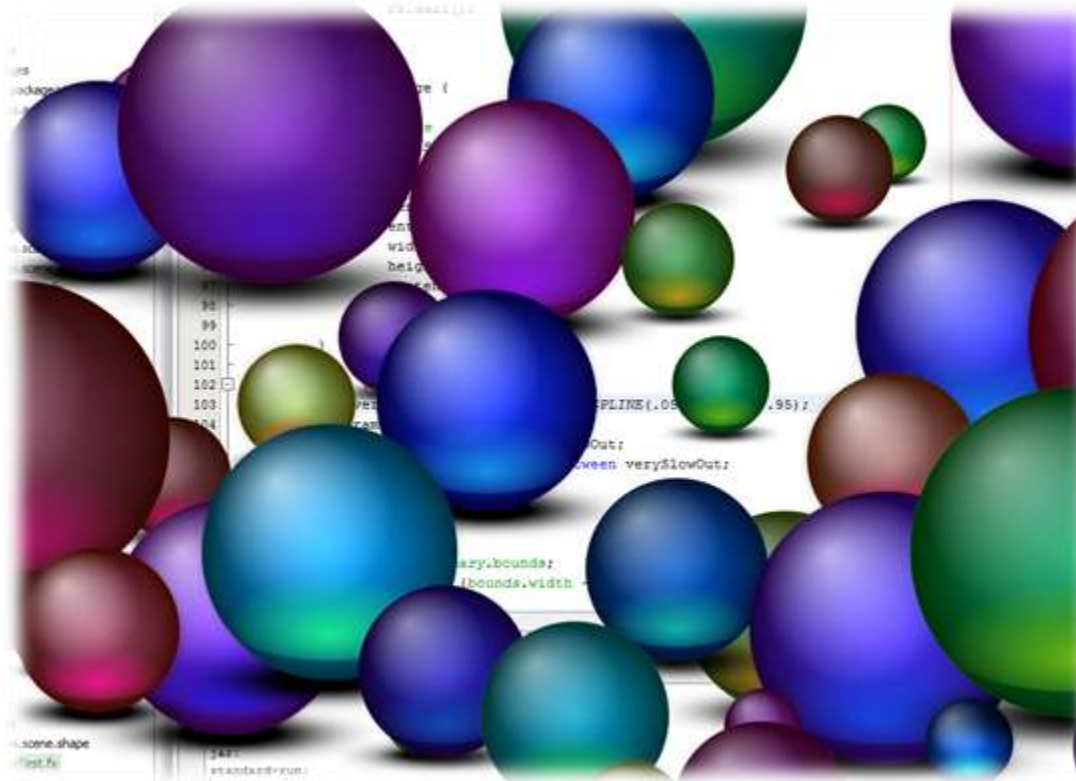
Sphere Challenge – JavaFX Response

- > Composition:
 - RadialGradient for the Sphere
 - Three additional RadialGradients for the light sources
 - A blurred shadow underneath
- > Features:
 - All Bound/Relative Coordinates
 - Configurable –
 - Base, Ambient, Specular, Shine Colors
 - Shadow Size and Height
 - Uses New JFXtras ColorUtil Library
 - JavaFX Caching for High Performance



Will be shipped with JFXtras 0.6

JFXtras Spheres Demo



JFXtras Shelf



BandMatesFX

The screenshot shows a JavaFX application window titled "BandmatesFX - Aynsley Dunbar". At the top left is a small image of Aynsley Dunbar playing drums. To its right is a search input field containing "Aynsley Dunbar" and a blue circular button labeled "Done". Below this, the text "Aynsley Dunbar played in these groups:" is displayed. Underneath is a horizontal carousel of album covers, with the central one showing the band Journey. Below the carousel, the text "Journey has had the following members:" is shown. At the bottom is another horizontal carousel of photos of band members, with the central one showing Steve Smith. The background of the application features a faint, stylized image of a guitar.

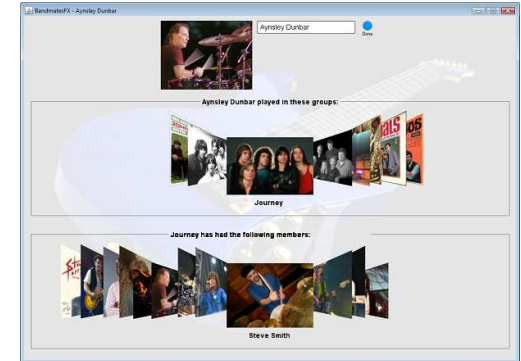


BandMatesFX - JSONHandler in 3 Steps

1

POJO

```
public class FreebaseResult {  
    public var code: String;  
    public var result: Result;  
    public var status: String;  
    public var transactionId: String;  
}
```



2

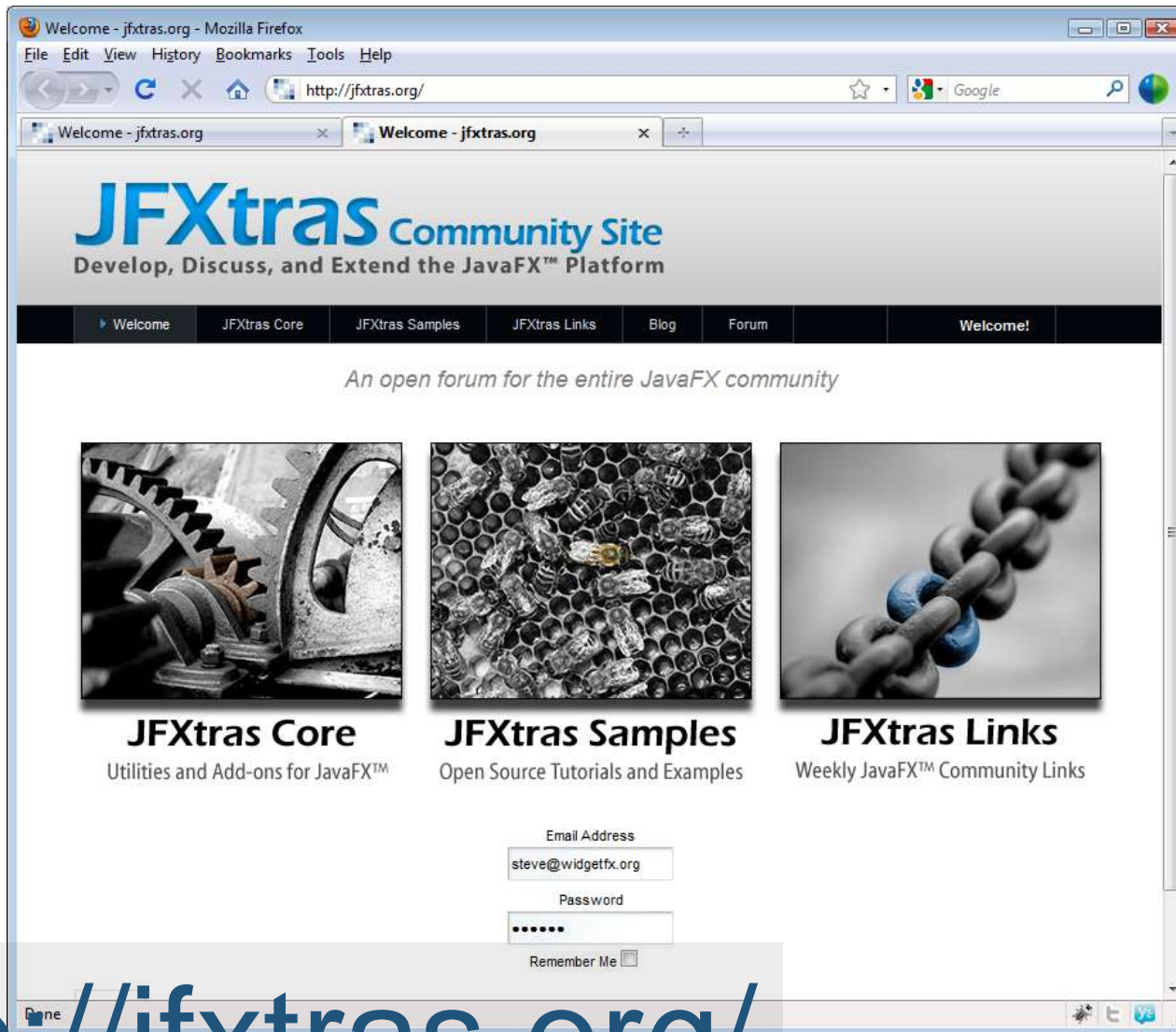
JSONHandler

```
var albumHandler:JSONHandler = JSONHandler {  
    rootClass: "javafxpert.FreebaseResult"  
    onDone: function(obj, isSequence): Void {  
        freebaseResult = obj as FreebaseResult;  
    }}  
}}
```

3

HttpRequest

```
req = HttpRequest {  
    location: queryUrl  
    onInput: function(is: java.io.InputStream) {  
        albumHandler.parse(is);  
    }}  
}}
```



<http://jfxtras.org/>

JFXtras

on to WidgetFX...

Utilities and Add-ons for the JavaFX™ Platform

Backup Slides...

Row and Column Constraints

- > Size Types
 - “[min:pref:max][100:pref:500][3cm!]”
- > Gap Types
 - “[]5mm[]rel[]unrel[]push[]”

```
MigLayout {  
    constraints: "fill, wrap"  
    columns: "[[]]"  
    rows: "[[]]4mm[]push[]"  
  
    // to be continued  
}
```

Component Constraints

- > “cell 0 1”
- > “wrap 1cm”
- > “newline 1cm”
- > “grow, push”
- > “span 3”
- > “skip 2”
- > “width min:300:max, height 20mm!”
- > “alignx left”
- > “aligny right”
- > “sizegroup label”