Media with JavaFX

JavaFX provides a media-rich API capable of playing audio and video. The Media API allows developers to incorporate audio and video into their RIAs. One of the main benefits of the Media API is its cross-platform abilities when distributing media content via the Web. With a range of devices (tablet, music player, TV, and so on) that need to play multimedia content, the need for a cross-platform API is essential.

Imagine a not-so-distant future where your TV or wall is capable of interacting with you in ways that you’ve never dreamed possible. For instance, while viewing a movie you could select items or clothing used in the movie to be immediately purchased, all from the comfort of your home. With this future in mind, developers seek to enhance the interactive qualities of their media-based applications.

In this chapter you will learn how to play audio and video in an interactive way. Find your seats for Act III of JavaFX as audio and video take center stage as depicted in Figure 17-1.

Figure 17-1. Audio and video
17-1. Playing Audio

Problem
You want to listen to music and become entertained with a graphical visualization.

Solution
Create an MP3 player by utilizing the following classes:

- javafx.scene.media.Media
- javafx.scene.media.MediaPlayer
- javafx.scene.media.AudioSpectrumListener

The following source code is an implementation of a simple MP3 player:

```java
package java7recipeschap17.org.java7recipes.chapter17.recipe17_01;

import java.io.File;
import java.util.Random;
import javafx.application.*;
import javafx.event.EventHandler;
import javafx.geometry.Point2D;
import javafx.scene.*;
import javafx.scene.input.*;
import javafx.scene.media.*;
import javafx.scene.paint.Color;
import javafx.scene.shape.*;
import javafx.scene.text.Text;
import javafx.stage.*;

/**
 * Playing Audio
 * @author cdea
 */
public class PlayingAudio extends Application {
  private MediaPlayer mediaPlayer;
  private Point2D anchorPt;
  private Point2D previousLocation;

  /**
   * @param args the command line arguments
   */
  public static void main(String[] args) {
    Application.launch(args);
  }

  /**
   * @param args the command line arguments
   */
  public void start(Stage primaryStage) {
    // Code for setting up the MP3 player goes here
  }
}
```