[**Android 的 MediaPlayer 多媒体播放器**](http://www.oschina.net/code/snippet_54100_1425)

[鉴客](http://www.oschina.net/code/list_by_user?id=54100) 发布于 2010年11月08日 21时, [7评/6090阅](http://www.oschina.net/code/snippet_54100_1425#comments) ( *17*人收藏, [收藏](javascript:pay_attention(1425,true)) )

[顶](http://www.oschina.net/code/snippet_54100_1425) 0 [踩](http://www.oschina.net/code/snippet_54100_1425)

MediaPlayer 可以播放音频和视频，另外也可以通过VideoView来播放视频，虽然VideoView比MediaPlayer简单易用，但定制性不如用 MediaPlayer，要视情况选择了。MediaPlayer播放音频比较简单，但是要播放视频就需要SurfaceView。 SurfaceView比普通的自定义View更有绘图上的优势，它支持完全的OpenGL ES库。

**标签：** [MediaPlayer](http://www.oschina.net/code/tag/MediaPlayer) [SurfaceView](http://www.oschina.net/code/tag/SurfaceView) [Android SDK](http://www.oschina.net/code/tag/android)

**代码片段*(3)***

***[图片]* 程序截图**



***[代码]* main.xml**

[view source](http://www.oschina.net/code/snippet_54100_1425#viewSource)



[print](http://www.oschina.net/code/snippet_54100_1425#printSource)[?](http://www.oschina.net/code/snippet_54100_1425#about)

|  |  |
| --- | --- |
| 01 | <?xml version="1.0" encoding="utf-8"?> |
| 02 | <LinearLayout android:id="@+id/LinearLayout01" | |

|  |  |  |
| --- | --- | --- |
| 03 | android:layout\_width="fill\_parent" android:layout\_height="fill\_parent" | |
| 04 | xmlns:android="http://schemas.android.com/apk/res/android" |

|  |  |
| --- | --- |
| 05 | android:orientation="vertical"> |
| 06 | <SeekBar android:id="@+id/SeekBar01" android:layout\_height="wrap\_content" | |

|  |  |  |
| --- | --- | --- |
| 07 | android:layout\_width="fill\_parent"></SeekBar> | |
| 08 | <LinearLayout android:id="@+id/LinearLayout02" |

|  |  |
| --- | --- |
| 09 | android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"> |
| 10 | <Button android:id="@+id/Button01" android:layout\_width="wrap\_content" |

|  |  |
| --- | --- |
| 11 | android:layout\_height="wrap\_content" android:text="播放音频"></Button> |
| 12 | <Button android:id="@+id/Button02" android:layout\_width="wrap\_content" |

|  |  |  |
| --- | --- | --- |
| 13 | android:layout\_height="wrap\_content" android:text="停止播放"></Button> | |
| 14 | </LinearLayout> |

|  |  |  |
| --- | --- | --- |
| 15 | <SeekBar android:id="@+id/SeekBar02" android:layout\_height="wrap\_content" | |
| 16 | android:layout\_width="fill\_parent"></SeekBar> |

|  |  |
| --- | --- |
| 17 |  |
| 18 | <SurfaceView android:id="@+id/SurfaceView01" | |

|  |  |  |
| --- | --- | --- |
| 19 | android:layout\_width="fill\_parent" android:layout\_height="250px"></SurfaceView> | |
| 20 | <LinearLayout android:id="@+id/LinearLayout02" |

|  |  |  |
| --- | --- | --- |
| 21 | android:layout\_width="wrap\_content" android:layout\_height="wrap\_content"> | |
| 22 | <Button android:layout\_width="wrap\_content" |

|  |  |  |
| --- | --- | --- |
| 23 | android:layout\_height="wrap\_content" android:id="@+id/Button03" | |
| 24 | android:text="播放视频"></Button> |

|  |  |
| --- | --- |
| 25 | <Button android:layout\_width="wrap\_content" |
| 26 | android:layout\_height="wrap\_content" android:text="停止播放" android:id="@+id/Button04"></Button> | |

|  |  |  |
| --- | --- | --- |
| 27 | </LinearLayout> | |
| 28 | </LinearLayout> |

***[代码]* TestMedia.java**

[view source](http://www.oschina.net/code/snippet_54100_1425#viewSource)



[print](http://www.oschina.net/code/snippet_54100_1425#printSource)[?](http://www.oschina.net/code/snippet_54100_1425#about)

|  |  |  |
| --- | --- | --- |
| 001 | package com.testMedia; | |
| 002 |  |

|  |  |  |
| --- | --- | --- |
| 003 | import java.io.IOException; | |
| 004 | import java.util.Timer; |

|  |  |
| --- | --- |
| 005 | import java.util.TimerTask; |
| 006 | import android.app.Activity; | |

|  |  |  |
| --- | --- | --- |
| 007 | import android.media.AudioManager; | |
| 008 | import android.media.MediaPlayer; |

|  |  |
| --- | --- |
| 009 | import android.os.Bundle; |
| 010 | import android.view.SurfaceHolder; | |

|  |  |  |
| --- | --- | --- |
| 011 | import android.view.SurfaceView; | |
| 012 | import android.view.View; |

|  |  |  |
| --- | --- | --- |
| 013 | import android.widget.Button; | |
| 014 | import android.widget.SeekBar; |

|  |  |  |
| --- | --- | --- |
| 015 | import android.widget.Toast; | |
| 016 |  |

|  |  |
| --- | --- |
| 017 |  |
| 018 | public class TestMedia extends Activity { | |

|  |  |  |
| --- | --- | --- |
| 019 | /\*\* Called when the activity is first created. \*/ | |
| 020 |  |

|  |  |
| --- | --- |
| 021 | private SeekBar skb\_audio=null; |
| 022 | private Button btn\_start\_audio = null; | |

|  |  |  |
| --- | --- | --- |
| 023 | private Button btn\_stop\_audio = null; | |
| 024 |  |

|  |  |
| --- | --- |
| 025 | private SeekBar skb\_video=null; |
| 026 | private Button btn\_start\_video = null; | |

|  |  |  |
| --- | --- | --- |
| 027 | private Button btn\_stop\_video = null; | |
| 028 | private SurfaceView surfaceView; |

|  |  |  |
| --- | --- | --- |
| 029 | private SurfaceHolder surfaceHolder; | |
| 030 |  |

|  |  |  |
| --- | --- | --- |
| 031 | private MediaPlayer m = null; | |
| 032 | private Timer mTimer; |

|  |  |  |
| --- | --- | --- |
| 033 | private TimerTask mTimerTask; | |
| 034 |  |

|  |  |  |
| --- | --- | --- |
| 035 | private boolean isChanging=false;//互斥变量，防止定时器与SeekBar拖动时进度冲突 | |
| 036 | @Override |

|  |  |  |
| --- | --- | --- |
| 037 | public void onCreate(Bundle savedInstanceState) { | |
| 038 | super.onCreate(savedInstanceState); |

|  |  |  |
| --- | --- | --- |
| 039 | setContentView(R.layout.main); | |
| 040 |  |

|  |  |  |
| --- | --- | --- |
| 041 | //----------Media控件设置---------// | |
| 042 | m=new MediaPlayer(); |

|  |  |
| --- | --- |
| 043 |  |
| 044 | //播放结束之后弹出提示 | |

|  |  |  |
| --- | --- | --- |
| 045 | m.setOnCompletionListener(new MediaPlayer.OnCompletionListener(){ | |
| 046 | @Override |

|  |  |
| --- | --- |
| 047 | public void onCompletion(MediaPlayer arg0) { |
| 048 | Toast.makeText(testMedia.this, "结束", 1000).show(); |

|  |  |  |
| --- | --- | --- |
| 049 | m.release(); | |
| 050 | } |

|  |  |  |
| --- | --- | --- |
| 051 | }); | |
| 052 |  |

|  |  |  |
| --- | --- | --- |
| 053 | //----------定时器记录播放进度---------// | |
| 054 | mTimer = new Timer(); |

|  |  |  |
| --- | --- | --- |
| 055 | mTimerTask = new TimerTask() { | |
| 056 | @Override |

|  |  |
| --- | --- |
| 057 | public void run() { |
| 058 | if(isChanging==true) | |

|  |  |  |
| --- | --- | --- |
| 059 | return; | |
| 060 |  |

|  |  |  |
| --- | --- | --- |
| 061 | | if(m.getVideoHeight()==0) |
| 062 | skb\_audio.setProgress(m.getCurrentPosition()); | | |

|  |  |  |
| --- | --- | --- |
| 063 | | else |
| 064 | skb\_video.setProgress(m.getCurrentPosition()); | | |

|  |  |  |
| --- | --- | --- |
| 065 | } | |
| 066 | }; |

|  |  |
| --- | --- |
| 067 |  |
| 068 | mTimer.schedule(mTimerTask, 0, 10); | |

|  |  |
| --- | --- |
| 069 |  |
| 070 | btn\_start\_audio = (Button) this.findViewById(R.id.Button01); | |

|  |  |
| --- | --- |
| 071 | btn\_stop\_audio = (Button) this.findViewById(R.id.Button02); |
| 072 | btn\_start\_audio.setOnClickListener(new ClickEvent()); |

|  |  |  |
| --- | --- | --- |
| 073 | | btn\_stop\_audio.setOnClickListener(new ClickEvent()); |
| 074 | skb\_audio=(SeekBar)this.findViewById(R.id.SeekBar01); | |

|  |  |  |
| --- | --- | --- |
| 075 | skb\_audio.setOnSeekBarChangeListener(new SeekBarChangeEvent()); | |
| 076 |  |

|  |  |
| --- | --- |
| 077 | btn\_start\_video = (Button) this.findViewById(R.id.Button03); |
| 078 | btn\_stop\_video = (Button) this.findViewById(R.id.Button04); |

|  |  |
| --- | --- |
| 079 | btn\_start\_video.setOnClickListener(new ClickEvent()); |
| 080 | btn\_stop\_video.setOnClickListener(new ClickEvent()); |

|  |  |  |
| --- | --- | --- |
| 081 | skb\_video=(SeekBar)this.findViewById(R.id.SeekBar02); | |
| 082 | | skb\_video.setOnSeekBarChangeListener(new SeekBarChangeEvent()); |

|  |  |  |
| --- | --- | --- |
| 083 | surfaceView = (SurfaceView) findViewById(R.id.SurfaceView01); | |
| 084 | surfaceHolder = surfaceView.getHolder(); |

|  |  |  |
| --- | --- | --- |
| 085 | | surfaceHolder.setFixedSize(100, 100); |
| 086 | surfaceHolder.setType(SurfaceHolder.SURFACE\_TYPE\_PUSH\_BUFFERS); | | |

|  |  |  |
| --- | --- | --- |
| 087 | } | |
| 088 |  |

|  |  |
| --- | --- |
| 089 | /\*\* |
| 090 | \* 按键事件处理 | |

|  |  |
| --- | --- |
| 091 | \*/ |
| 092 | class ClickEvent implements View.OnClickListener{ | |

|  |  |
| --- | --- |
| 093 | @Override |
| 094 | public void onClick(View v) { | |

|  |  |  |
| --- | --- | --- |
| 095 | if(v==btn\_start\_audio) | |
| 096 | { |

|  |  |
| --- | --- |
| 097 | m.reset();//恢复到未初始化的状态 |
| 098 | m=MediaPlayer.create(testMedia.this, R.raw.big);//读取音频 | |

|  |  |
| --- | --- |
| 099 | skb\_audio.setMax(m.getDuration());//设置SeekBar的长度 |
| 100 | try { |

|  |  |
| --- | --- |
| 101 | m.prepare();    //准备 |
| 102 | } catch (IllegalStateException e) { | |

|  |  |  |
| --- | --- | --- |
| 103 | | // TODO Auto-generated catch block |
| 104 | e.printStackTrace(); | |

|  |  |
| --- | --- |
| 105 | } catch (IOException e) { |
| 106 | // TODO Auto-generated catch block |

|  |  |  |  |
| --- | --- | --- | --- |
| 107 | e.printStackTrace(); | | |
| 108 | | } |

|  |  |  |
| --- | --- | --- |
| 109 | m.start();  //播放 | |
| 110 | } |

|  |  |  |
| --- | --- | --- |
| 111 | else if(v==btn\_stop\_audio || v==btn\_stop\_video) | |
| 112 | { |

|  |  |  |
| --- | --- | --- |
| 113 | m.stop(); | |
| 114 | } |

|  |  |  |
| --- | --- | --- |
| 115 | else if(v==btn\_start\_video) | |
| 116 | { |

|  |  |
| --- | --- |
| 117 | m.reset();//恢复到未初始化的状态 |
| 118 | m=MediaPlayer.create(testMedia.this, R.raw.test);//读取视频 | |

|  |  |  |
| --- | --- | --- |
| 119 | | skb\_video.setMax(m.getDuration());//设置SeekBar的长度 |
| 120 | m.setAudioStreamType(AudioManager.STREAM\_MUSIC); | |

|  |  |  |
| --- | --- | --- |
| 121 | m.setDisplay(surfaceHolder);//设置屏幕 | |
| 122 |  |

|  |  |
| --- | --- |
| 123 | try { |
| 124 | m.prepare(); | |

|  |  |
| --- | --- |
| 125 |  |
| 126 | } catch (IllegalArgumentException e) { | |

|  |  |  |
| --- | --- | --- |
| 127 | // TODO Auto-generated catch block | |
| 128 | e.printStackTrace(); |

|  |  |
| --- | --- |
| 129 | } catch (IllegalStateException e) { |
| 130 | // TODO Auto-generated catch block | |

|  |  |  |
| --- | --- | --- |
| 131 | e.printStackTrace(); | |
| 132 | } catch (IOException e) { |

|  |  |  |
| --- | --- | --- |
| 133 | // TODO Auto-generated catch block | |
| 134 | e.printStackTrace(); |

|  |  |
| --- | --- |
| 135 | } |
| 136 | m.start(); | |

|  |  |  |
| --- | --- | --- |
| 137 | } | |
| 138 | } |

|  |  |
| --- | --- |
| 139 | } |
| 140 |  | |

|  |  |
| --- | --- |
| 141 | /\*\* |
| 142 | \* SeekBar进度改变事件 | |

|  |  |
| --- | --- |
| 143 | \*/ |
| 144 | class SeekBarChangeEvent implements SeekBar.OnSeekBarChangeListener{ | |

|  |  |
| --- | --- |
| 145 |  |
| 146 | @Override | |

|  |  |  |
| --- | --- | --- |
| 147 | public void onProgressChanged(SeekBar seekBar, int progress, | |
| 148 | boolean fromUser) { |

|  |  |  |
| --- | --- | --- |
| 149 | // TODO Auto-generated method stub | |
| 150 |  |

|  |  |  |
| --- | --- | --- |
| 151 | } | |
| 152 |  |

|  |  |
| --- | --- |
| 153 | @Override |
| 154 | public void onStartTrackingTouch(SeekBar seekBar) { | |

|  |  |  |
| --- | --- | --- |
| 155 | isChanging=true; | |
| 156 | } |

|  |  |
| --- | --- |
| 157 |  |
| 158 | @Override | |

|  |  |  |
| --- | --- | --- |
| 159 | public void onStopTrackingTouch(SeekBar seekBar) { | |
| 160 | m.seekTo(seekBar.getProgress()); |

|  |  |  |
| --- | --- | --- |
| 161 | isChanging=false; | |
| 162 | } |

|  |  |  |
| --- | --- | --- |
| 163 |  | |
| 164 | } |

|  |  |  |
| --- | --- | --- |
| 165 |  | |
| 166 | } |