Create a live wallpaper using GIF images

There are many ways to create an amazing live wallpaper in short time and using an animated GIF is one of them. This guide will help you to find and build your live wallpaper with just a couple lines of code.

1- Let's use internet to find a nice animated GIF. A perfect key phrase is "animated arcade backgrounds".

2- Just clicking on the first results and you are going to have plenty animated GIFs. We chose this one:

3- The code is simple, just a couple lines of code:

```xml
<?xml version="1.0"?>
<doc>
  <basic type="animations">
    <screenCanvasResolution>
      <width>320</width>
      <height>480</height>
    </screenCanvasResolution>
    <canvasResolution>
      <maxWidth>768</maxWidth>
      <maxHeight>256</maxHeight>
    </canvasResolution>
    <bgColor>#ff000000</bgColor>
  </basic>
  <images>
    <image>
      <frames>
        <convertGifAniToFrames>mygifanimated.gif</convertGifAniToFrames>
      </frames>
      <top>0</top>
    </image>
  </images>
</doc>
```

We strongly recommend use an xml editor, it will make easier write the code. A good one is **Notepad++**, it is free and quite useful.

Create a new folder and then copy and paste the previous code in a new document and save it as xml file.

Remember that the folder and the xml file need to have the same name and the animated GIF need to be inside that folder too.

4- The tag “canvasResolution” need to be updated using the same size in your animated GIF.

```
<canvasResolution>
  <maxWidth>768</maxWidth>
  <maxHeight>256</maxHeight>
</canvasResolution>
```

Another tag that needs to be updated is “convertGifAniToFrames” with your animated GIF file name.

```
<convertGifAniToFrames>mygifanimated.gif</convertGifAniToFrames>
```

Now save your xml file and close the xml editor.

5- Copy and paste the folder created inside a folder named “PixelsLW” in your phone SD card and run the app.

Note: If you get an error after run app, maybe is because the animated GIF has too many frames and is using too much memory, Android is quite limited about live wallpapers. In that case you need either change the GIF image for another one with fewer frames or delete the animation otherwise, the app will be trying to load that animation all the time giving you endless errors.

Improving your live wallpaper

Remember read the app documentation if you want to create a live wallpaper with more details. You can change properties or use multiples GIFs animated in one live wallpaper.

You have more than **100** tags available and the ability to trigger events and actions.

Remember include an icon for your new live wallpaper, it's silly but is a great detail.

Let's going to see some nice ideas about how to improve your new live wallpaper.

1- **Resolution**: The tag "screenCanvasResolution" allows you change the target resolution, we are using 320x480 but maybe your phone allows increase it. Another option is a nice trick, reducing the values with the proper calculations.

```
<screenCanvasResolution>
  <width>320</width>
  <height>480</height>
</screenCanvasResolution>
```

```
<screenCanvasResolution>
  <width>171</width>
  <height>256</height>
</screenCanvasResolution>
```

Change the tag “screenCanvasResolution” with the next values:

- **Height**: The same height value used in the animated GIF.
- **Width**: Here is more complicated, this value is like the field of view. Increase or decrease the value until fit your preference.

The perfect value for “Width” can be calculated in this way:

Width = (Phone width resolution * Animated GIF height) / Phone height resolution

Note: Please don’t get too confused about the value for “Width” tag, remember it can be whatever you want. The problem is if the image looks stretched, in that case, increase or decrease the value until fix the problem.

2- **Auto horizontal scrolling**: You have two options, the first one is creating a wallpaper with a “width” bigger that your phone screen and if your phone support scrolling wallpapers the app automatically will move the wallpaper when you move between screens on your phone. The second option is adding these lines of code to the basic section:

```
<basic type="animations">
  <screenCanvasResolution>
    <width>320</width>
    <height>480</height>
  </screenCanvasResolution>
  <canvasResolution>
    <maxWidth>768</maxWidth>
    <maxHeight>256</maxHeight>
  </canvasResolution>
  <bgColor>#ff000000</bgColor>
  <camera>
    <autoHorizontalScroll>true</autoHorizontalScroll>
    <iniPosition>0;0</iniPosition>
    <pixelsMove>1</pixelsMove>
    <cameraSpeed>1</cameraSpeed>
  </camera>
</basic>
```

3- **Change the palette of colors**: Read the documentation about image manipulation. You can create interesting effects with imagination.

4- **Change position**: Using the tags “left” and “top” you can change the position of the image. By default is 0.

5- **Parallax**: The tag “createBackgroundLayer” allows you create a nice 3d effect with multiples layers.

6- **HTML5**: Whatever you do will run in your internet navigator as well. Use it for show off your projects online or just as a developer platform.