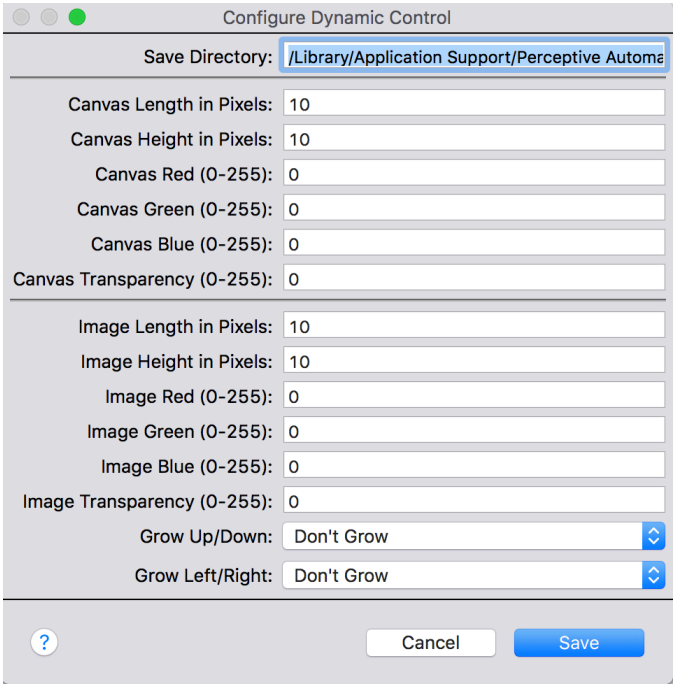
Dynamic Control

The Dynamic Control plugin provides a means to create more dynamic buttons and images on control pages. You define a device that has image properties and you can adjust those properties by calling certain actions. These images can then be used as refreshing images on control pages (The images are currently only squares - future version may allow other shapes).

Dynamic Control used the Python Pillow library. You will need install by running the following: *'sudo pip install Pillow'*

Device Setup



Save Directory: Directory where the image files will be saved.

There is a section for the canvas and one for the image. The canvas is the background and image is the foreground image. Each section has the following settings (all of these settings can be updated through actions):

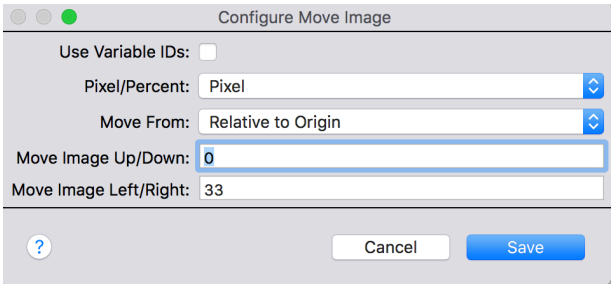
> *Length/Height in Pixels*: The initial dimensions of canvas and image
> *Red/Green/Blue*: The initial color of the image or canvas
> *Transparency*: The initial level of transparency of the image or canvas (0 is fully transparent)

There are also two other settings for the image: *Grow Up/Down* or *Grow Left/Right*. These control wether the image keeps its original dimensions when it moves or if it is “locked” to its

starting position. For example: a scroll bar would use “Don’t Grow” while a temperature gauge would use the *Grow Left/Right* or *Grow Up/Down*. See examples below for specific ways these settings are used.

Actions

Move Image



Use Variable IDs: Checking this flag will allow the Move Image Up/Down and Move Image Left/Right fields to use variables versus hard coded. The fields will require the variable ID and will not work with variable names.

Pixel/Percent: Specify if the changes in the fields are a percent change or a pixel change.

> ***Example**: Assuming a canvas that is 100 pixels wide - setting to Percent and entering 25 in the Move Image Left/Right field will move the image 25 pixels to the left. Using -25 will move the image to the right 25 pixels.*

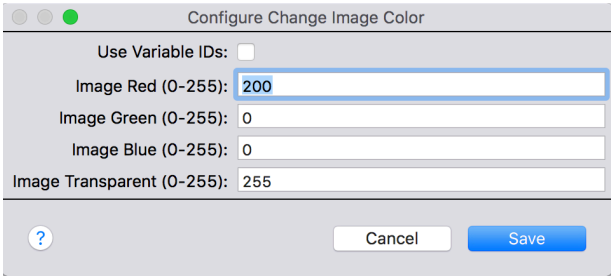
Move From: Move from the Origin or move from the current location.

> ***Example**: Assuming a canvas that is 100 pixels wide - setting to Pixels and Move From Relative to Origin and entering 25 pixels in the Move Image Left/Right will move the image 25 pixels. Running it again would keep it at 25 pixels.*

> ***Example**: Assuming a canvas that is 100 pixels wide - setting to Pixels and Move From Relative to Current Location and entering 25 pixels in the Move Image Left/Right will move the image 25 pixels. Running it again would move it to the 50 pixel location.*

Move Image Up/Down Left/Right: The number of pixels or the percent of movement within the canvas to move the image. Positive numbers will move the image Up/Right, negative numbers will move the image Down/Left.

Change Image/Canvas Color

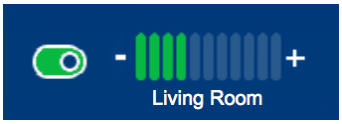


Use Variable IDs: Checking this flag will allow the color fields to use variables versus hard coded. The fields will require the variable ID and will not work with variable names.

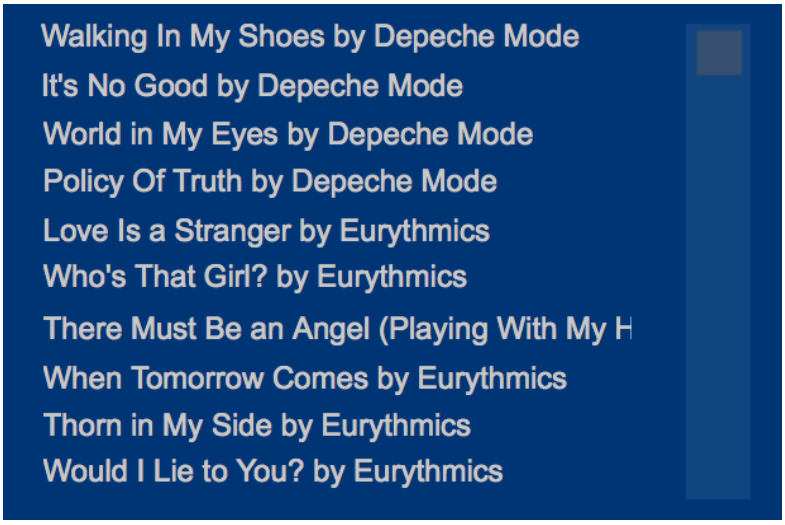
Red/Green/Blue/Transparent: Set the color and transparency of the image or canvas.

Examples

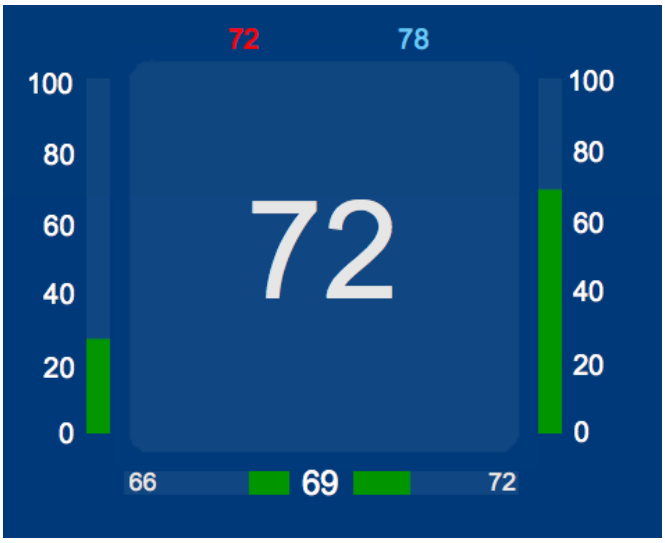
Explanations on how to setup each of the examples are “to be developed.”



Volume Gauge: Uses a transparent image on top of a Dynamic Control. Allows a 0 to 100 volume visualization without having to create 100 different images.

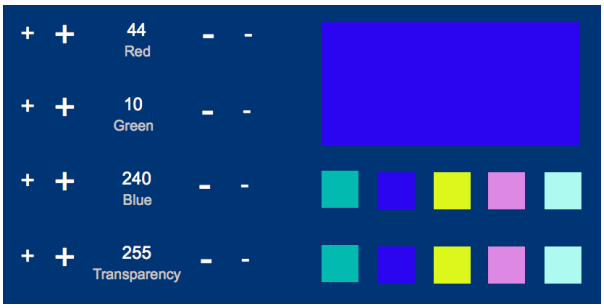


Scrolling Lists: Combined with some other python coding, this mimics a scrolling list (songs in the current playlist in this example).



Temperature Monitor: This was designed to imitate the Nest thermostat. The square in the center will change to Red or Blue if the heater or AC turn on. The left bar is outside temperature and the right bar is inside temperature. The bars on the bottom shows the difference of the upstairs and the downstairs temperature to the desired average temperature.

Motion Sensors: As motion is detected areas of the house are highlighted. As time passes the motion area becomes more and more transparent until it disappears.



Hue Color Selector: Allows the selection and saving of 5 different image colors that can be used as colors settings for a hue bulb.