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# **Pelican Briefs**

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Manual #001: Making Sprites

## ***What is a 'sprite'?***

A sprite is a picture used in 3d environments that appears as if it is floating. No matter which way you view a sprite, the sprite will appear to rotate towards you, always showing just one side. That is the beauty of a sprite. Pictures and photos can be displayed to seem as if they are truly 3d objects rather than merely 2d photos.

A sprite is made up of 3 parts. An image, a mask, and a flat object to display your image on.

## **The sprite image**

An image can be any picture, drawing or photo that has been saved in the \*.jpg format. One example of this can be seen below.



buddha.jpg (Do not zip!)

## **The sprite mask**

A sprite mask is similar to the sprite image except all of the area that you don't want to be seen, should be colored black and all of the area you DO want to see must be colored white. An example of this can be seen below.



buddham.bmp (Remember to zip!)

The sprite mask must be saved on the \*.bmp format and zipped. Usually, the standard has been to name your sprite mask the same as your sprite image with the addition of the letter 'm' placed at the end. It is then placed in the folder that contains all of your textures.

## Picture wall

The script below (figure 1.) is an example of a picture wall. If you were to copy it into notepad and then save it as *filename.rwx*, it would be a valid and recognizable file for active worlds. It is merely a simple picture wall 3d object.

It may look daunting but, amongst the "Vertex" and "UV" commands are 2 lines of info that we will use. Just 2, that's all. The first has been highlighted in blue "AxisAlignment XOrientY". This merely tells the object to always turn and face the viewer. If you are making this sprite for hanging on the wall, you could omit this line to keep your sprite stationary.

The line highlighted in green is the line that is most important to us. "Texture buddha Mask buddham". This tells the picturewall what to display. This one line is actually 2 commands wrapped into one. The first half is "Texture buddha". This tells the picture wall to use the texture (the image file) called "buddha" (and by default looks for buddha.jpg).

The second half of the command line is "Mask buddham". This tells the picturewall to mask out the parts you don't want to see using the file "buddham" (and by default looks for the zipped \*.bmp of that name) A special note: All textures and masks are always in lowercase lettering)

```
modelbegin
clumpbegin
AxisAlignment XOrientY
#Object name cube2
clumpbegin
LightSampling Vertex
Vertex 0.100000 0.100000 0.100000 UV 0.010086 0.004805
Vertex 0.100000 0.100000 0.100000 UV 0.997455 0.001375
Vertex 0.100000 -0.100000 0.100000 UV 0.010085 0.992175
Vertex 0.100000 -0.100000 0.100000 UV 0.997455 0.988745
Vertex 0.100000 0.100000 -0.100000 UV 0.010085 0.001375
Vertex 0.100000 0.100000 -0.100000 UV 0.997456 0.004807
Vertex 0.100000 -0.100000 -0.100000 UV 0.010085 0.988745
Vertex 0.100000 -0.100000 -0.100000 UV 0.997455 0.992177
Vertex 0.100000 0.100000 0.100000
Vertex 0.100000 -0.100000 0.100000
Vertex 0.100000 0.100000 -0.100000
Vertex 0.100000 -0.100000 -0.100000
Surface 0.580000 0.150000 0.150000
Color 1.00000 1.00000 1.00000
Opacity 1.00000
Texture buddha Mask buddham
Quad 2 5 7 4
Quad 3 8 6 1
clumpend
clumpend
modelend
```

You can exchange the file names buddha and buddham in the following script for any other textures and masks you may have. Then, save the file as a uniquely named ".rwx" file, zip it and put it in the folder that contains all of your object models. For example; name it "spritebuddha.rwx"...zip it to "spritebuddha.zip" and upload it to the ftp address that holds your objects. In Activeworlds, they are usually all in a folder named "models"