Eukalyptus

(Koala Environment Simulator)

User manual: Map blueprint

Thabo Beeler, University of Applied Sciences, Rapperswil (HSR)

Revision History

Version	When	What	Who
0.1	13.06.2004	Initial version	Thabo Beeler
0.2	23.06.2004	First revision.	Thabo Beeler

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How to create a good map blueprint

Eukalyptus is able to load and interpret image files. This provides an easy and convenient way to generate maps for the simulator, as blueprints of most buildings are available.

One could simply load such a blueprint, but the resulting map may not be good. Especially doors need to be color encoded, so Eukalyptus interprets them correctly.

The following instructions for blueprint pre-processing will enable you to create good blueprints.

Color encoding

The following color encodings are recognized by Eukalyptus. Every element in the blueprint should be colored in one of these colors.

Element	Color	Code-code (hex)	Sample
Door (open)	Green	0x00FF00	
Door (closed)	Blue	0x0000FF	
Obstacle	Black	0x000000	
Go-areas	White	0xFFFFFF	
No-Go-areas	Red	0xFF0000	

Size

The size of the image file is important, as it determines the resolution of the map. One pixel on the image is the base unit for the collision detection. The smallest object may have this dimension. Smaller objects cannot possibly be detected.
If you want collision detection with an accuracy of 1 cm, you need to choose the size of the image such that one pixel on the image corresponds to 1 cm^2 in the real world.

Format

The best formats for the images are indexed ones, like GIF, because we have just a small amount of colors.
When saving the file, make sure to use a palette with exactly the amount of colors used in the map (max. 5).
Turn off any dithering or smoothing, because we don't want blurry walls.