Adanaxis Control Demo

http://www.mushware.com/
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Introduction

The Adanaxis Control Demo shows the control method for an in-development four dimensional game.

Quick Start

The demo can be played like a normal shooter with one exception. When aiming at a target it is important to **hold the mouse button down, and drag the mouse left or right until the target becomes white.** Although the extra dimension isn't visible on the screen, you still need to aim at the target in the extra dimension. The only other essential is the space bar to fire. Don't forget to use the – and = keys to select a better display resolution.

Controls

These keys control the application. Pressing **Z** will bring up a reminder list.

- **Mouse left/right:** Look left and right (rotate in *xz* plane)
- **Mouse up/down:** Look up and down (rotate in *yz* plane)
- **Hold mouse button down, drag mouse left/right:** Look in hidden axis (rotate in *zw* plane)
- **Space:** Fire
- **Tab:** Scanner on/off
- **Q and A:** Move in *x* direction (left/right)
- **W and S:** Move in *y* direction (up/down)
- **E and D:** Move in *z* direction (hidden axis)
- **R and F:** Move in *w* direction (forward/back)
- **T and G:** Rotate in *xy* plane
- **Y and H:** Look in hidden axis (rotate in *zw* plane)
- **U and J:** Rotate in *xz* plane
- **I and K:** Look up and down (rotate in *yz* plane)
- **O and L:** Look left and right (rotate in *xz* plane)
- **P and ;:** Rotate in *yz* plane
- **– and = (on the top row):** Change display resolution.
- **M:** Toggle music on and off.
- **Esc:** Exit.

Details

Adanaxis is a game in four spatial dimensions. Instead of the usual six degrees of freedom in 3D there are ten, and control for these is lined up on the middle two rows of keys to prove it. Despite that, it only takes three control axes to aim at a target. The first two use mouse left/right and up/down as usual, and the third uses mouse left/right but with the left (or only) button held down.

The display is only 2D, so we need another way to aim using the third axis. This demo uses colour to indicate where the object is in *z* (because of how the rendering works, it's the *z* axis which happens to be lost). Object with negative *z* are red and those with positive *z* are green. To

make the *z* axis consistent with *x* and *y*, objects fade away as they move a long way off in *z*. After all, you can't objects with large *x* or *y* values because they go off the screen. The fading essentially gives you a *viewing angle* in *zw* which is roughly the same as that in *xw* and *yw*.

More information

At mushware.com there are a number of technical documents in the download section. The projection and rendering paper has a lot of detail and diagrams about 4D rendering and viewing.

About recovery mode

On some platforms there is a link to start Adanaxis in recovery or 'safe' mode. This can be used to recover things when, for example, a display mode has been selected that the monitor cannot display. Usually this will not be necessary, and normal mode should be used because it allows better performance.

Version History

1. 2005-08-04: Release for Adanaxis version 0.0.1.

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