

# JABIRU: Java3D Application Behaviors Immersive virtual Reality Utilities

Jabiru is a set of object behaviors that are controlled by a virtual wand. This wand can be manipulated through any suitable input device. Current input device implementations as part of Jabiru include either a mouse + keyboard combination or a 6DOF Joystick (CAVE) device + head tracking glasses.

Imagine this:

You are developing a Java3D application for a normal desktop. You're using the usual "SimpleUniverse" from Java3D, because it sets up a basic window for you on your desktop and takes care of mouse / keyboard input, views, cameras, etc. Fine, great, but that's where you're limited - a desktop. Why not use the ConfiguredUniverse instead and allow for anyone on any kind of computer (e.g. a Java3D enabled CAVE) to use your application? Sound good? I thought so. Now imagine that you can develop your application and load an extra set of behaviors at run time to do things with your scenegraph that you maybe didn't even think of! Jabiru is a smaller part of:

The Sun Center of Excellence for Visual Genomics Java3D CAVE resources. It is being developed to aid the portation of Bioinformatics tools written using Java3D to a virtual environment, where the data sets (such as molecules, genomes, systems biology) can be viewed and manipulated intuitively by anyone (even biologsts) in their full glory. How it works: Section not complete...

How Jabiru can help you:

As you create your application, use a ConfiguredUniverse with your input device / basic interaction defined in the plain text file to navigate around your space as you develop. Forget about the manipulation aspects and concentrate on the content of your applications. Load JABIRU as a behavior set when you're done that will work the same in CAVE or desktop environments, and the sky is the limit. Demos

Demos of Jabiru are available at [cave.ucalgary.ca](http://cave.ucalgary.ca)      Publications

Quon G.T., Gordon P., Sensen C.W. (2003) 4D Bioinformatics: A New Look at the Ribosome as an Example. IUBMB Life 55:279-283

Stromer J.N., Quon G.T., Gordon P., Turinsky A.L., Sensen C.W. (2005). JABIRU: Harnessing Java 3D Behaviors for Device and Display Portability. IEEE Computer Graphics and Applications 25(2):70-80.