



3-D Animation Algorithms

Graphics

Principal Inventors:

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Description of the Technology:

The 3-D Animation Algorithms comprise the first 3D, real-time procedural animation system that gives animators the power to create true personalities for interactive characters. More than a collection of repeatable animations, 3-D Animation Algorithms characters can be assigned specific minutely adjustable traits to create believable, intelligent beings. With 3-D Animation Algorithms, an author can script not only the way characters physically move, but define their internal motivations as well.

Features and Benefits:

- Engaging computer interfaces, not static displays that wait to be clicked on.
- Building technologies to produce distributed responsive virtual environments in which human-directed avatars and computer-controlled agents interact with each other in real-time, through a combination of Procedural Animation and Behavioral Scripting techniques.
- Exploration of multi-modal interaction paradigms that combine 3-D Animation Algorithms with speech and gesture recognition in conjunction with various forms of presentation, including 2D and 3D display.

Applications:

3-D Animation Algorithms provide an API that allows complex and responsive behaviors to be authored entirely via a scene graph description (and therefore through a GUI). Currently implemented as a set of Java classes, communicating with 2D and 3D graphical environments such as VRML 2.0, the 3-D Animation Algorithms support a network distributed responsive world within standard Web browsers, enabling anyone with access to the World Wide Web to develop or participate in a fully interactive, virtual experience

Patent Status:

U.S. Patent No. 6,115,053 *issued* September 5, 2000. U.S. Patent No. 6,285,380 *issued* September 4, 2001. U.S. Patent No. 6,317,132 *issued* November 13, 2001.

International Patent applications pending.

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