

CMLabs Delivers Vortex 4 for Real-time Simulation of Vehicles, Robotics and Physics-based Virtual Environments

Vortex 4 Release Introduces Key New Technologies for High-fidelity Real-time Simulation of Wheeled and Tracked Vehicles, Cable Systems, Marine Environments and Rigid-body Dynamics in an Integrated Platform.

November 26, 2007, Montreal, Canada – CMLabs, the global innovator in real-time physics-based visual simulation, today announced the availability of Vortex 4 – the latest version of its software toolkit designed for fully interactive virtual environments that demand fast motion and accurate dynamic behavior. Vortex is used by developers simulating physics-based vehicles, machines and robots for real-time applications. Vortex 4 extends simulation realism for operator training applications, virtual testing environments and mission planning systems.

Vortex 4 continues to lead the visual simulation market with extensions to the VxVehicles module with the ability to support advanced suspension, additional tire-terrain models, mixed wheel and track drive, articulated vehicles and both electric and combustion powered drive trains. High-fidelity physics-based modeling of a wide range of vehicles and robots is easily integrated with off-the-shelf tools. Simulating marine, semi-aquatic and sub-sea vehicles is possible with Vortex 4's new floating bodies with drag and buoyancy capabilities as well as physics-based environment models. Robots and vehicles can now support sensor models using VxSensors for ray-cast based sonar and laser systems. Virtual sensor output can drive autonomous control systems built into the robot simulation. A new VxCables module simulates the physical behaviour of cables, ropes and chains fully coupled within the Vortex world. Cables can interact and collide with other dynamic objects. It is an ideal solution for modeling hoisting systems, robot tethers, underwater cables, moorings and tow-ropes.



Vortex in use for simulating a sub-sea ROV, log-forwarder heavy equipment and M1 Tank.

Vortex 4 is a platform for enabling truly interactive simulation based on fundamental physics, dynamics and object collision. It is designed to make it easier to build more exacting and realistic virtual-reality applications. It uniquely provides an integrated solution to modeling machines operating in interactive environments.

“Our R&D efforts have been driven by a demand for usability and performance, and we continue to make it easier for our customers to develop rigorous, high fidelity simulations, without having to be an expert in physics,” states Robert Weldon, CEO, CMLabs. “Vortex’s unmatched combination of vehicle modeling capabilities, fast performance and impressive realism put physics in the hands of everyone building visual simulation applications.”



Press Release

Pricing and Availability

Vortex 4.0 will be available for general release in March 2008 for Microsoft® Windows® and Linux platforms. Visit www.cm-labs.com to find out how you can evaluate Vortex for your application. Please contact CMLabs at info@cm-labs.com for pricing and upgrade information.

About CMLabs

CMLabs provides specialized physics-based behavior modeling for real-time simulation. CMLabs' combination of professional services and innovative software tools enable developers to create high-fidelity interactive applications. Its technology is used by the world's top defense and commercial organizations such as Raytheon, EADS, NASA, L3 and John Deere. CMLabs' Vortex software is the leading development platform for real-time modeling of physics-based vehicles, machines and robots. Vortex is used by applications developers to build physically accurate motion models and interactive behaviors for demanding industrial applications such as training, virtual testing, mission planning and visualization. For more information, please visit CMLabs on the web at www.cm-labs.com or contact Chris Funk at chris.funk@cm-labs.com.