

## **CMLabs Completes DRDC Autonomous Land Systems Contract**

*Vortex robotic and sensor simulations reduce DRDC development time and expense*

**September 10, 2007, Montreal, Canada** – CMLabs Simulations Inc., the leading supplier of real-time physics-based simulation software and services was selected by Defence Research and Development Canada (DRDC) – Suffield to contribute robotic and sensor simulations to aid in design work for robotic vehicles.

CMLabs first developed a MATLAB/Simulink interface for simulated robots within Vortex, CMLabs' COTS software for modeling vehicles, machines and robots for real-time interactive simulations. These simulations were then extended to simulate the sensors utilised by robots produced by the DRDC-Suffield, specifically the Bumblebee and Digiclops cameras. (Future work may involve creating a simulation of the SICK Laser Range Finder and other sensors.) Robotic controllers developed within MATLAB may be run alternatively on the real and simulated robots with equivalent results, saving significant development time and prototype expense.

The work is part of the Autonomous Land Systems (ALS) project at DRDC – Suffield that undertakes research into the development and deployment of novel robotic vehicles for use by the Canadian Forces. In an earlier contract, DRDC had selected CMLabs to provide physics-based vehicle dynamics for the ALS.

CMLabs has developed and delivered numerous simulation projects, and has built a unique capability of physics-based modeling for real-time applications and are leaders in high fidelity, real-time simulation of land-based vehicles.

### **About DRDC Suffield**

Defence Research and Development Canada Suffield is one of Canada's main defence science and technology assets. DRDC Suffield has long been active in the development of effective defensive countermeasures against the threat of chemical and biological (CB) weapons that could be used against Canadian troops in their operations. DRDC Suffield has important programmes in military engineering, including methods to detect and neutralize landmines. Part of the Department of National Defence, DRDC Suffield collaborates with the civil sector in the development of commercial applications of its technical products through technology transfer and licensing.

### **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. CMLabs' commercial-off-the-shelf (COTS) product Vortex is the leading development platform for modeling 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 reality, and robotics and general visualization.

For more information, please visit CMLabs on the web at [www.cm-labs.com](http://www.cm-labs.com) or email [info@cm-labs.com](mailto:info@cm-labs.com).