D-BOX TECHNOLOGIES INC
PRESS KIT ITEC 2016

EXPERIENCE D-BOX MOTION-CUEING SYSTEMS AT ITEC

Longueuil (Québec, Canada), May 17 2016 – Pursuing its goal to further develop its footprint within the simulation and training community, D-BOX Technologies Inc. is proud to announce its presence at the ITEC trade show. From May 17 to 19, in London (UK), D-BOX will demonstrate its innovative motion-cueing systems integrated for army, air force and navy with prestigious partners, like Bohemia Interactive Simulations, Esterline and Presagis.

Since 2009, D-BOX has joined forces with the simulation and training world to ensure superior instruction methods. With the integration of D-BOX's innovative and affordable motion-cueing systems, simulators have become more effective by increasing knowledge transfer and improving trainee instincts. Furthermore, D-BOX's motion systems are replicating the kinesthetic cues felt in real life scenarios into the virtual world.

You can test the projects realized with D-BOX at the following booths:

- #D132 – with Presagis
- #E110 – with Bohemia Interactive Simulations
- #G110 – with Esterline

Contact us at simulation@d-box.com to set up an appointment to test our motion-cueing systems during ITEC.

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This press kit contains firsthand information and stories about:

MOTION-CUEING / INTEROPERABILITY / VR EFFICIENCY FOR TRAINING / TURNKEY SOLUTIONS LEVERAGING COTS / OCULUS AND D-BOX BENEFITS

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DRAWING BRIDGES BETWEEN HIGH FIDELITY FLIGHT DYNAMICS MODEL AND MOTION-CUEING SYSTEMS

RT Dynamics and D-BOX planning to make building low cost high fidelity simulators easier.

D-BOX and RT Dynamics are making the virtual training community able to easily build simulators to augment training transfer. Hardware-software pre-integrations are making life easier for all integrators. It allows them to focus on building curriculum to serve better the training needs. COTS Integrations prevent training and simulation professionals from spending too much time on drawing bridges between technology components.

In its journey to support even more COTS high fidelity software for simulation, D-BOX Technologies Inc. just concluded an agreement with RT Dynamics to jointly work on the integration of RotorLib with D-BOX Motion-Cueing Systems.

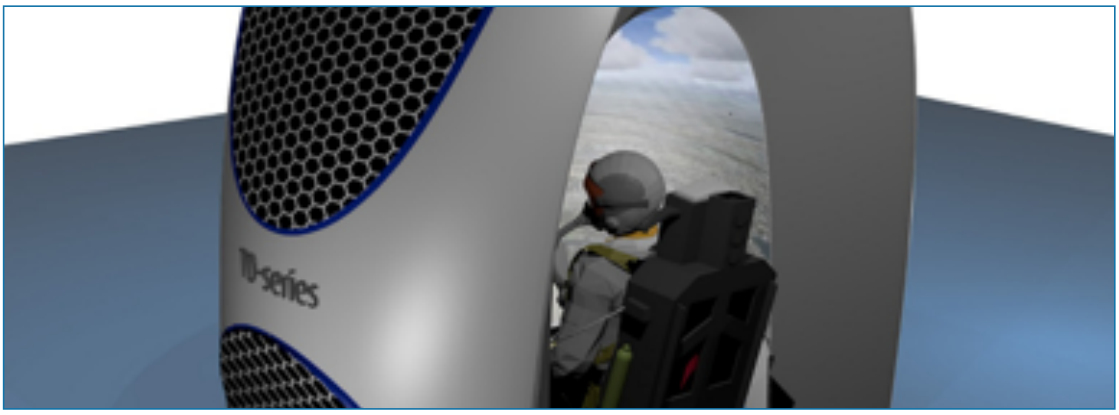
> "RotorLib is based on RT Dynamics' proven experience in high fidelity software solutions and we believe this integration will bring more flexibility to those who strive to build high fidelity cost efficient simulators for fixed and rotary wings".
>
> *Claude Mc Master, President and Chief Executive Officer of D-BOX Technologies Inc.*

> "D-BOX Motion-Cueing Systems are already supporting a large number of simulation software from the gaming and training community. RT Dynamics wanted to support out of the box a large number of I/Os and controls in RotorLib. The choice of D-BOX for motion-cueing systems was obvious as they provide what we believe to be one of the most innovative solutions to bring motion to simulators."
>
> *Devrim Erdem, Managing Director at RTDynamics*

ESTERLINE'S TREALITY TD-SERIES AND D-BOX MOTION-CUEING SYSTEMS: AN EXAMPLE OF A DEPLOYABLE AND IMMERSIVE TRAINING SYSTEM – BOOTH G110

Esterline SVS (Simulation Visual Systems) and D-BOX Technologies Inc. joined forces to construct and demonstrate a prototype of a deployable team-training simulator. The initial configuration of this system was a speed boat with a pilot and machine gun station.

D-BOX took the integration lead and brought Esterline, Bohemia Interactive, Cursive Simulation and Agenium together to construct a low cost turnkey training system with both a pilot and a gunner station. Although the prototype system was for a speed boat, the training simulation can easily be changed to accommodate other types of trainers where a cost effective pilot/driver and a gunner station are needed, like: convoy vehicle trainers, tank trainers, helicopter-gunner trainers, etc.



"Deploying" training systems with the troops is gaining momentum and importance. Practicing combat skills in a simulator the same day or even hours before they are needed can provide a huge tactical advantage. However, these training simulators must perform realistically in order to insure a positive transfer of training. They also need to be affordable and deployed in many locations at the same time. This deployable training system uses Esterline's new TREALITY TD-Series display to provide an immersive and realistic image to the pilot. The TD-Series is specifically designed to be deployable with features like: compact size, easy to assemble, simple to operate and reliable under field conditions.

The compact size of the TD-Series display, the D-BOX Motion-Cueing Systems and the mechanical structures allow the entire training system to fit in an ISO container and be transported anywhere in the world; it is even suitable for deployment on ships. Once on site, the simulator system can be assembled and operational in just a few hours. The assembled simulator has the pilot and gunner station located close together and fully synchronized for effective team training.

This prototype training system not only provides realistic visual and motion cues but also sound cues for the vehicle and its environment that reinforce the simulation realism for the trainees. This total immersive environment makes this "team training system" and effective tool available where troops are and provide on-site training anywhere in the world.

To learn more about the integration contact either Esterline at gaetan.nonque@esterline.com or D-BOX at simulation@d-box.com

PRESAGIS PARTNERS WITH D-BOX TO PRESENT A HIGH-ACCURACY OPEN ARCHITECTURE HELICOPTER SIMULATOR AT ITEC 2016

For ITEC 2016, Presagis, a leading provider of commercial modeling, simulation, and embedded software, has partnered with D-BOX Technologies Inc. who designs and creates motion effects specifically programmed for each visual content.

Helicopter training simulators are designed to teach pilots specific skills and capabilities. By adding kinesthetic cues to the training process, the trainee receives additional stimuli inputs offering clues on how the aircraft is behaving to complement instruments, visual, and audio cues.

The added element allows pilots to truly understand an aircraft's behavior. In essence, the pilot is trained to maneuver by recognizing the sensation of acceleration, deceleration, and wide-ranging vibrations, which are felt even before the onboard instruments can indicate their occurrence. This creates a much more realistic and immersive environment, which allows the trainee to learn how to rely on physical sensations during any phase of flight. The skill can then be transferred and used in real-life conditions either in normal, abnormal, or emergency situations.

> "Applying more working load and feedback using a training simulator to induce fatigue, stress, and anxiety establishes a similar environment to the one a pilot will experience in real life, especially in abnormal and emergency situations. The additional information the trainee receives through physical sensations will lead to a more efficient training scenario and better training performance."
>
> *Stephane Roy, Simulation Product Manager at Presagis*

> "The resulting motion is perfectly synchronized with the aircraft handling, thus creating an unparalleled realistic immersive experience. The motion system will be integrated with HeliSIM, Presagis' high-accuracy rotary wing flight simulation solution, which offers superior simulation of blade stall, blade deformation, blade vibration, lead-lag capabilities, just to name a few. This game changing partnership is sure to deliver a realistic experience to trainees and augment training transfer."
>
> *Claude Mc Master, President and Chief Executive Officer of D-BOX Technologies Inc.*

> "The integration of HeliSIM and D-BOX's motion systems allows training schools the ability to acquire a high performance training simulator at a cost-effective price point. This level of motion and vibration will allow schools to improve their training programs and provide students with an augmented physical experience in addition to the traditional visual cues and displays. The goal is to allow pilots to get a richer experience through better training. As an example, when manipulating RPM Control, the trainee will immediately feel the engine acceleration due to the motion of the seat rather than just seeing the results on their instruments display."
>
> *Stephane Roy*

The physical sensation capabilities don't stop there. Knowing that all helicopters do not behave in the same manner, the level of motion and vibration in the seat automatically adapts to match the simulated aircraft model and its characteristics. Beyond that, D-BOX's motion technology is also capable of reproducing (as kinesthetic cues) the numerous malfunctions or emergency scenarios accessible out-of-the-box in HeliSIM.

> "Where we used to be limited to visual cues during an autorotation or tail strike, the motion system now provides added realism by taking advantage of HeliSIM's high-accuracy simulation and the motion replication of D-BOX's system to provide the pilot with proper physical feedback."
>
> *Stephane Roy*

Join us at the Presagis booth D123 at ITEC 2016 and let our experienced professionals demonstrate this state-of-the-art simulation.

BISIM AND D-BOX TO DEMONSTRATE VIRTUAL REALITY FLIGHT SIMULATOR AT ITEC 2016 – BOOTH E110

BISim and D-BOX to Demonstrate Virtual Reality Flight Simulator at ITEC 2016 and Sea Air Space 2016

At ITEC and Sea-Air-Space, Bohemia Interactive Simulations (BISim) and D-BOX Technologies Inc. will demonstrate a new flight simulator concept that exploits emerging, cost-effective virtual reality (VR) technology coupled with BISim's new 3D planetary rendering technology, VBS Blue.

Where today's high-end flight simulators rely on physical cockpits and expensive display environments that include domes and collimated displays, emerging training systems will benefit from the availability of low-cost helmet-mounted displays and new motion sensing technologies.

> "Massive commercial investments in VR are producing technologies with potential to meet a broad set of training requirements. With military budgets under extreme pressure, VR solutions offer benefits such as dramatic cost savings, greater portability, and increase readiness for pilots and crew."
>
> *John Burwell, BISim Business Development Director*

With a virtual environment generated by VBS Blue, the VR flight simulator will combine D-BOX Motion-Cueing Systems and a Vesaro simulator with the Oculus Rift CV1 to provide a highly immersive training environment. An integrated Leap Motion sensor will enable users to freely interact with a highly detailed virtual crewstation that simulates the job performance environment. The avionics, weapon systems and flight models of an F-18 will be simulated by the Flex-Air application from SA Simulations.

> "VBS Blue enables virtual training anywhere in the world. Over the past 18 months we have developed a high-performance, whole-earth rendering engine that is compatible with VBS3 content. We are especially proud of its data import capability which enabled us to build an accurate model of San Francisco from open data in a matter of days without the need for traditional database modeling. "
>
> *Peter Morrison, BISim's Co-CEO*

To enhance immersion and offer appropriate kinesthetic cues, the flight simulation has been integrated with the D-BOX Motion-Cueing Systems.

> "Virtual reality promises to deliver compact deployable training solutions. Our mission is to support motion-cueing to increase immersion and minimize discomfort for users. We believe that with the association of the true-to-life visuals from BISim and realistic motion-cueing from D-BOX delivered in a portable, deployable solution will go far to meet training needs."
>
> *Claude Mc Master, President and Chief Executive Officer of D-BOX Technologies Inc.*

Visitors to BISim's booth at ITEC 2016 in London and Sea-Air-Space in Washington DC will be able to fly the simulator over a re-creation of San Francisco in VBS Blue.
ITEC 2016 – May 17 to 19, ExCel London (UK)
Booth # E110, H114, H120, H122

MODERNIZATION AND SOFTWARE EVOLUTION OF RAF PART TASK TRAINERS, D-BOX A PARTNER OF CHOICE FOR THE LONG RUN

Royal Air Force (RAF) Shawbury in the U.K. is the home of the Defence Helicopter Flying School (DHFS). At DHFS, trainee helicopter pilots from the Royal Navy, Royal Air Force and the British Army obtain rotary training using the HT2 Squirrel helicopter.

> "Since 2010, the Tri-Service helicopter training base at RAF Shawbury in England has been using 2 Squirrel Helicopter Part Task Synthetic Trainers fitted with D-BOX motion platforms. The D-BOX motion adds an important dimension to the realism of training sorties."
>
> *Bob Northway, Squadron Leader, RAF Shawbury*

A long-term relationship

Originally, RC Simulations Ltd, of Yate, U.K., were awarded the contract to produce two part-task trainers (PTTs) to emulate the Shawbury Squirrels.

To achieve this, Robert Sidwick, CEO of RC Simulations and project manager, gave the simulator superior graphics and refined its gaming seat to reflect the Squirrel's movement. When it was time to match the aircraft's engine vibration, Sidwick went straight to D-BOX.

(PTT) simulator. – Photo courtesy of RAF Shawbury – Photo : Ian Forshaw UK MOD Crown Copyright 2015

Flight Lieutenant Genevieve Rolleston-Smith, a student pilot at the Defence Helicopter Flying School, RAF Shawbury, embarked on her pre-solo flight check in the Squirrel Part Task Trainer.

Sidwick has worked successfully with D-BOX before, using the company's high-fidelity motion systems for other projects. He knows that D-BOX's systems are interoperable, so they easily integrate with other companies' APIs.

> "D-BOX generates good texture in terms of what is going on. It's got the best price and functionality."
>
> *Robert Sidwick, CEO of RC Simulations and project manager*

The original PTTs featured custom scenery and helicopter modelling based on Microsoft ESP (Flight Simulator X). In the beginning of 2016, these PTTs were upgraded to the Lockheed Martin's Prepar3D 3.2 flight simulation platform. D-BOX has supported this project by providing custom motion code and making the software evolution painless.

> "The D-BOX integration has been both safe and effective."
>
> *Robert Sidwick*

Curriculum is key: Addressing training transfer challenges

PTTs are different from full flight simulators; they are designed to teach specific skills such as instrument flight practice. They can also demonstrate what happens if the helicopter enters what is known as a "vortex ring" state. This occurs when a helicopter stalls at very low air speeds, when a significant rate of descent develops. Once in this state, attempts to recover by raising the collective lever lead to even greater rates of descent.

The simulator's vortex ring descent is accompanied by ever-increasing buffeting, which is provided by D-BOX's Motion-Cueing Systems. Conversely, a main gear box failure features vibration.

D-BOX actuators are used to create the area for pilot seats and controls. On top of the training mission-specific effect, motion-cueing replicates all rotorcraft dynamics including terrain-handling effects, landing bumps as well as pitch, roll and heave movements.

> "At D-BOX we are very proud to support the evolution of this project, which was one of our first in the flight simulation world when it started in 2010. It allowed us to learn a lot about the motion cues expected from pilots, and refine our motion codes based on the return of experience from pilot trainees and their instructors."
>
> *Claude Mc Master, President and Chief Executive Officer of D-BOX Technologies Inc.*