AEROBEL

Upgraded Visuals on Belgian Ship Bridge Simulator

Aerobel has recently upgraded - as a turnkey system - the realtime visuals of a Ship Bridge Simulator in Belgium.

This 5-channel visual system provides:

- High-fidelity geospecific ports with 30Hz frame rate at 1024x768 res.
- Realistic sea with fully-responsive dynamic objects
- Control of global sea state with varying sea conditions
- Control of time of day, sun angle & met. visibility
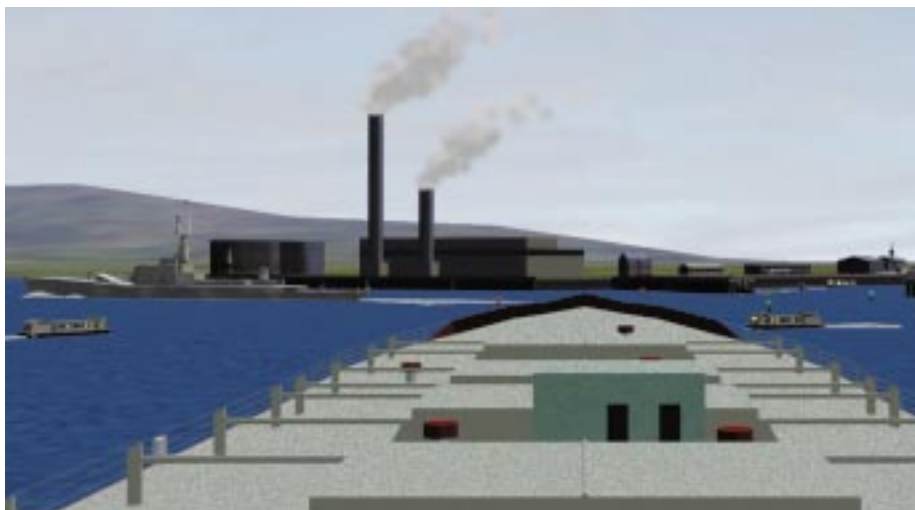- Quadraphonic sound.

The Ship Bridge visual system incorporates key features such as:

- Anti-aliased, fully-photo-textured out-the-window views at high frame rates
- Detailed ships/entities with *smooth* level of detail switching
- Dynamic own-ship motion with collision detection
- Spatially-varying dynamic sea with control of global sea state and local amplitudes

- Dynamic response of ships/buoys over the whole sea
- Bow waves & stern wakes and directional wakes for tugs
- Dynamic components such as lights, radars, cranes, lock gates
- Wind-induced effects including smoke/exhaust plumes & flags
- Changing ship signals automatically from day to night
- Dynamic signals on-shore
- Dynamic sound allocation from an unlimited number of sound sources

Aerobel provided converters to import the client's proprietary databases into COTS 3D modelling tools. This simplified the generation and modification of geospecific databases & their associated radar displays. Aerobel also supplied add-on terrain generation and realtime performance tools in the upgrade.

For further information, contact:
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Norwegian Combat & Gunnery Simulators

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In early 1997, Aerobel won a major contract from Kongsberg Defence & Aerospace (KDA). Aerobel was commissioned to supply realtime visual terrain & entity databases, ModSAF-compatible terrain databases, realtime visuals tools and the terrain-following, vehicle dynamics & special effects software for the Norwegian Army's Combined Combat & Gunnery Simulator. This facility consists of 8 DIS-compliant Leopard & CV9030 Simulator Cabins.

The 2 **high-fidelity geospecific** terrain databases and 40 entity models (representing own & enemy forces including dismounted infantry) already delivered, enable AFV crews to participate in tactical operations at platoon & higher formation level in the North & South of Norway, in summer & winter conditions, without leaving their barracks! System integration testing will be completed later this year.

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Training Harvester Drivers

Over the last 8 years Aerobel has continued to support the MSc CAGTA course at Teesside University. Our 2 MSc students this year are undertaking a project on training harvester drivers. Nabil Salah & Emmanuel Bouvier are

drivers to improve both their crop cutting and driving skills. It will also enable the assessment of performance under controlled conditions, without the risk of injuries or damage to the costly harvesters.

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working at Aerobel's offices to take advantage of the company's in-house facilities and expertise.

The project was completed at the end of September with the demonstration of a *highly realistic* harvester simulator. Primary requirements include layered wheat, smoothly cut crops, the articulated rotor & grain dust.

This simulator will enable harvester

Nabil has generated a 3D vehicle interior with instrument panel together with a 150 degree out-the-window field of view. Then he has generated a layered crop structure that Emmanuel can 'cut' with smooth edges in realtime.

The students are using **leading-edge** commercial software tools including Designer's Workbench™ and EasyScene™ from Coryphaeus Software running on SGI computers.

Year-2000 Compliance

A number of Customers have been requesting information on the Year-2000 compliance of Coryphaeus' products. CSI have produced a formal statement that can be forwarded on request.

In summary:

- The current CSI software tools are Year-2000 compliant but the associated (third party) licence manager is **not** Year-2000 compliant

- The latest release of CSI's products (v4.1) is fully Year-2000 compliant

- Customers on maintenance have recently received this release *at no cost*

- Customers are advised to take out maintenance since the current licence manager will prevent use of the software after 31st December 1999

- Customers are advised to check that their own programs developed and/or used with CSI's products do not contain dates that will result in Year 2000 problems.

New Staff at Aerobel

Zahid Anwar has recently been appointed Sales Manager at Aerobel; he has an extensive background in Visual Simulation. Please contact him for specific information on COTS software tools and off-the-shelf products including:

- Coryphaeus' Vis Sim/VR tools
- Mission Planning/Review System
- Entity and Terrain Databases

- DIS-compliant Reconfigurable Crewstations
- Autometric's Image Exploitation Tools
- Aerobel's add-on modules (Firefight™, Dynamo™, Frametool™, Adamant™, GroundHog™ and WayMaker™)

BSI '98

Battlefield Systems International '98 - held at DERA/Cherstey in June - has become the major Land Systems Exhibition in UK. As well as showing **high-fidelity realtime visuals** in land/air/sea applications, Aerobel demonstrated:

- A prototype HQ Command Aid in the MRAV vehicle on GKN's stand
- The rapid generation of **geospecific** terrain databases
- Rugged SGI computers in 19" rack, portable & ATR configurations.

Further Information

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Forthcoming Events:

- **Int'l Synthetic Environment Symposium at RMCS, Shrivenham on 20-22 Oct 1998**
- **I/ITSEC '98 in Orlando on 30 Nov - 3 Dec 1998**