

Serious gaming in aviation maintenance education

Tree C participates in the subsidized innovation project "Virtual games as challenging education method" for the ROC West Brabant college, departments of aviation and maintenance education. Based on VR4MAX a Pre Flight Check (PFC) simulator is currently being developed where pre flight maintenance inspections can be performed and trained in virtual reality.

Wearing head mounted displays, students explore a photorealistic model of a Fokker 100. They identify inspection points and report possible fault conditions.

This project is funded by the Dutch M&ICT program promoting successful IT applications in education, healthcare and public services. The scope of the project is to develop 3D simulation environments where MBO students can practice complicated technical maintenance tasks. Real life training facilities for these tasks are often limited due to availability, safety and cost constraints.

The project is a unique cooperation between ROC West-Brabant, IT-Workz, CatalystInteractive, Koninklijke Luchtmacht, Zadkine, Avans Hogeschool, Hogeschool Zeeland, ROC Westerschelde, Stork Fokker en Shell Chemicals. Please see the project page of M&ICT for more information (Dutch).

The simulators are based on Tree C's VR4MAX technology. Tree C plays a leading role in the development of the VR training application and develops the 3D models and the required interactivity within the VR environment. In addition Tree C provides project management and training on VR and 3D modeling to all involved developers.

Within the Virtual Games project there are plans for a similar training environment for education in chemical process technology in cooperation with Shell. The Pre Flight Check simulator is currently in use and students and teachers are enthusiastic about the realistic "look and feel" of the simulator and experience great training value. Developments are going on to expand the number of inspection points and to add extra interactions and smart behavior to the environment.