

ARI(VA)²

Augmented Reality for Vehicle Architecture and Virtual Assessment

Objectives

ARI(VA)² project aims at defining and developing an integrated software and hardware generic system and augmented reality applications, tested on an industrial application, Vehicle Architecture with comprehensive Virtual Assessment.

Project developments

The project objectives of ARI(VA)² will be realized through the development and validation of virtual reality technologies: software and hardware. These developments involve the following steps:

- Development and industrialization of a large F.O.V helmet
- Comprehensive hardware and software architectures for industrial Augmented Reality applications
- Industrial application process analysis
- Study of observation and virtual exploration in proximal space

Results

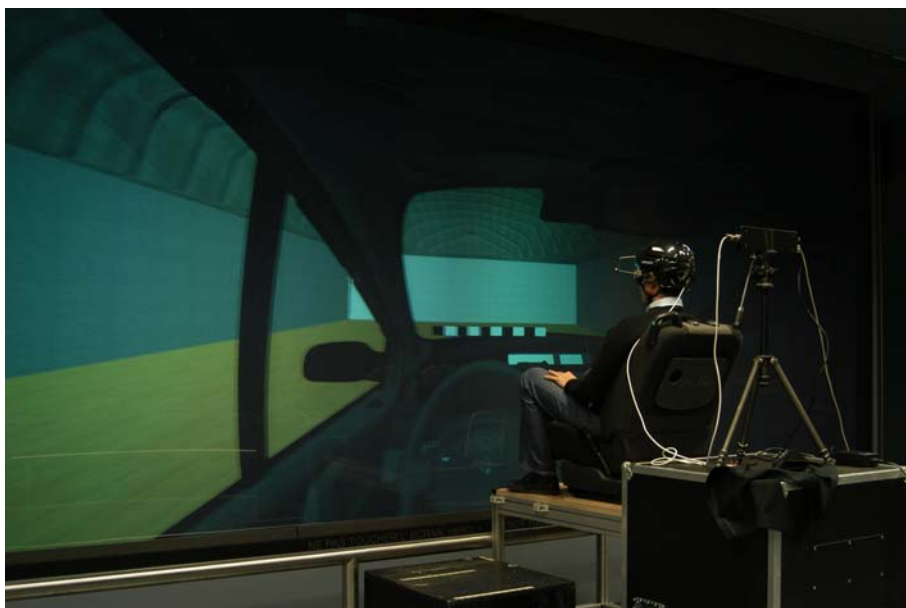
- Validated technology
- Increased performance of virtual prototyping
- Commercial development of virtual technology

Consortium

ARI(VA)² is a European collaborative research project, recognized by the EUREKA organization (www.eureka.be) as project E!4000. It will start in June 2008 for a duration of 3 years.

The ARI(VA)² Consortium is composed of

- RENAULT (France, project leader)
- STT (Spain)
- KALETRON (Turkey)
- HOLOGRAFIKA (Hungary)
- CNRS, ENSAM, Le2i (France)



Cockpit Architecture Simulation: large field of view screen display
CTS Renault

Augmented Reality Technology

Typical Virtual Reality (VR) systems allow us to see the numerical environment only, and lack real world references, in particular the body, which are essential for vehicle architecture assessment. Augmented Reality (AR) mixes real and virtual images to open new fields of application.

The project will focus on the comparison of 4 types of systems suitable for large field of view AR visualization:

- CAVE
- Head Mounted Display (HMD)
- Large cylindrical screen
- Holographic technology



Cockpit Architecture Simulation: head mounted display view
CTS Renault



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