

Visual Interface Technologies

Applying advanced visualisation technologies and human factors to real world challenges



Workshop Group 5 Discussion

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General

- Opinions on the technology
 - VR collaboration tools is good for training purposes
 - Easier to get access to procedures for field operator - reducing need for communication with control center
 - Field operators should see the consequences of his actions
 - Replay of situations for analysis, debriefing and learning
- Research focus
 - Intuitive end-user interaction with process systems
 - Access to more plant device information options but still easy to use
 - Using context (work process, responsibility & location) to filter information to the field operator into (small) wearable displays

General

- Other application areas
 - Emergency scenario planning and training
 - Risk planning and training
 - Logistics planning - just in time training
 - Expert support center
- Integration with existing systems
 - For handheld devices, EX issues is a show stopper
 - How to get hold of data from existing information systems
 - Issues a paradigm shift in the information system
 - Operator panel user interface are not prepared for distributed work. Not accessible for the field operator

Design

- Challenges
 - Availability of 3D data
 - Balancing 3D model details vs. Usability
 - Simpler to play collaboration roles with human-like avatars
 - Using plant design radiation simulation for placing maintainable components in low radiation areas
 - Manage the history of the design process - traceability
 - Occupational safety - how do I “survive” my work in the long run
- Aspect of design process
 - Rapid prototyping in the early design phases
 - All taking active part of the design process - ownership
 - Health Environment and Security can be discussed and addressed for each work process

Outage and maintenance planning

- Benefits
 - Apparent economical benefits
 - Safety - all operations are planned and trained for
 - Documentation of the plant state to the regulatory body
 - Learning by seeing - increase acceptance
- Planning issues
 - Logistics planning
 - Planning for “robust” staffing, covering risk scenarios
 - Using component history for replacement descisions