

Seminar on Scientific Soft Skills

Introduction

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CAVE Automated Virtual Environment

- EVL (SIGGRAPH'92)
- Immersive VR device
- Multiple stereoscopic projections
- Head tracking



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Past work

Cave2Cave (C2C, 2008 – 2010)

Streaming of **uncompressed** video between VR devices

- High bandwidth needed

- Protection of Intellectual Property

- Application independent

- Remote interaction

- Collaboration

- Simple adaptations

- Supported by Cesnet

Current research

- Computer Graphics
 - Adaptations
 - Different number of projections
 - Adapting disparity for different projection sizes
- Collaboration
- Networking
 - High-speed networking
 - Agent-based communication



Current projects (1/2)

ViCiTiS - Virtual Cities in Time and Space (2010 – 2012)

Department of Computer Graphics and Interaction

Reconstruction of existing buildings

Generating virtual cities

Collaborative reconstruction

Visualization in CAVE

ViCiTiS

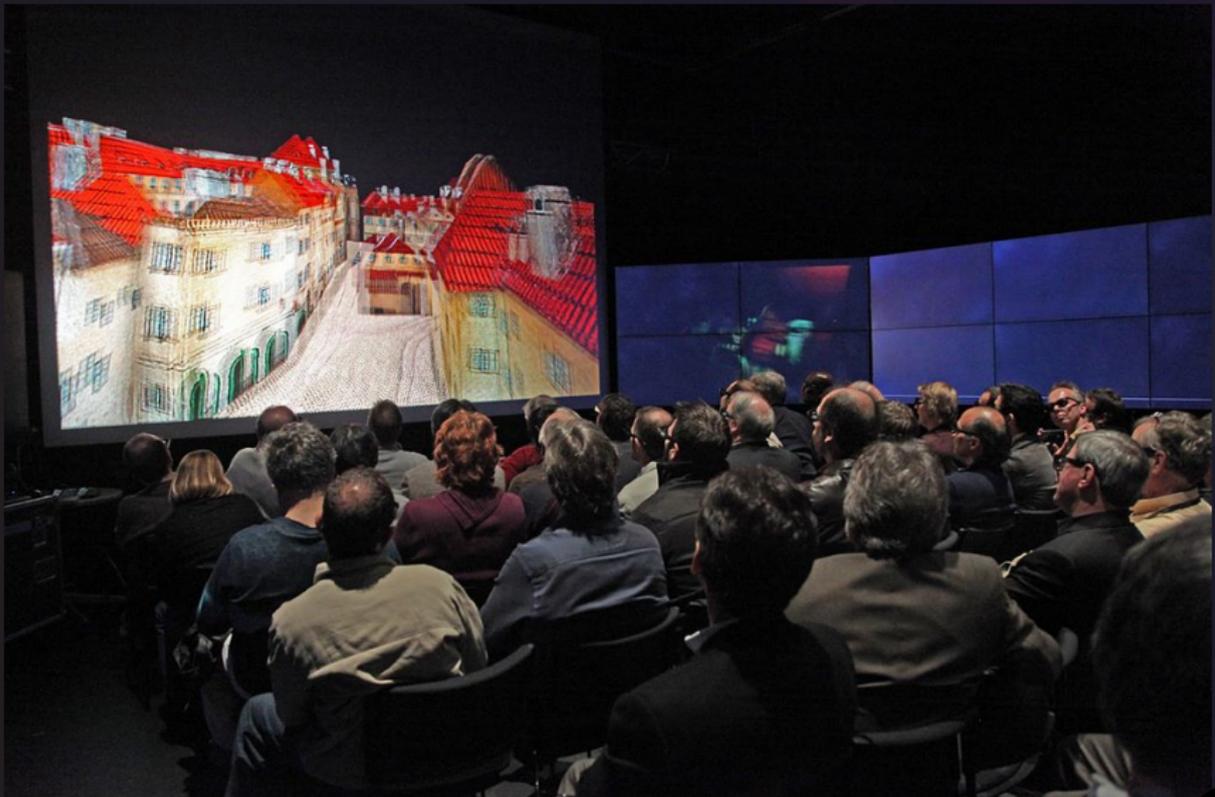


Current projects (2/2)

Cave2Cave cont.

- Compatible with Cesnet HW streaming
- Uncompressed HD and higher resolutions
up to Super Hi-Vision (8k)
- Low latency remote interaction
- Adaptations (CAVE → single stereo screen)
- Agent-based communication

C2C - Demonstration at Cinegrid '11



Publication plan

ViCiTiS

Poster EG'12

Full paper in spring '12

C2C

IEEE Multimedia

Networking conferences (TNC'12, ...)

The end
Questions?