



Summary and Conclusion

Tutorial on Mixed Reality for the Web
Web3D '14, Vancouver

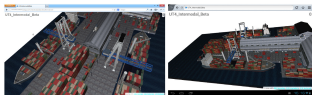
August 10th 2014

XML3D and Content Delivery

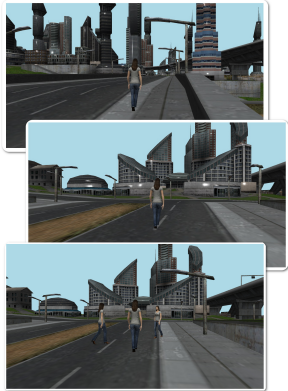


XML3D and Content Delivery:

- XML3D as extension for HTML5 for embedded declarative 3D in the Web
- Assets and Asset Instancing for efficient description of complex structured models
- Asset servers and repositories as suitable storage for externally stored asset data



FI-Ware Synchronization GE



Synchronization GE and FiVES:

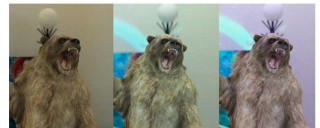
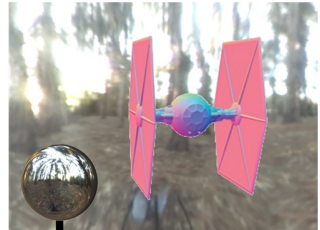
- Link 3D scenes to server-side maintained virtual environments
- Synchronize world state to connected clients
- Example implementation FiVES:
 - KIARA as communication middleware
 - Web client with XML3D

AR and Reality Mixer

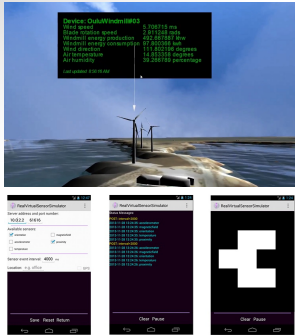


Integrating the Virtual into the Real:

- Marker- and Feature tracking for AR with XML3D
- Application of real lighting conditions with Reality Mixer
- Camera Artifact Rendering with XML3D



Real Virtual Interaction



Integrating the Real into the Virtual:

- Read and maintain sensor data via RVI
- Access sensor data from RVI
- Application examples:
 - Link objects in virtual scene to real world objects (POI)
 - Augment virtual world with real world sensor data

Resources



Tutorial resources and demos (under construction):

- <http://graphics.ethz.ch/research/argroup/web3d2014/>

Future Internet:

- FI-Ware: <http://www.fi-ware.org>
- FI-Lab: <http://lab.fi-ware.org>
- FI-Content SE: <http://mediafi.org>
- XML3D and XML3D GitHub-Repo:
 - <http://www.xml3d.org>
 - <http://github.com/xml3d/xml3d.js>
- FiVES GitHub-Repo: <http://github.com/rryk/FiVES>
- Cyberlightning: <http://www.cyberlightning.com>