



nVISION 08

THE WORLD OF VISUAL COMPUTING

RealityServer® — The 3D Web Services Platform

Ludwig von Reiche, COO, mental images GmbH

About mental images

- Founded 1986
- World's largest 3D component software team
- Fundamental R&D, patented technologies
- Academy Award® winning product
- NVIDIA subsidiary since 2007



mental images Markets

- Digital Content Creation (DCC)

- Motion Picture Studios
- Interactive Entertainment Developers and Providers



- Computer Aided Design (CAD)

- Automotive
- Aerospace
- Industrial Engineering
- Architecture and Spatial Management



- Scientific Computing



mental ray® OEM Customers

Integrated into over 10M seats of leading CAD and DCC tools:

- Autodesk
 - AutoCAD®
 - Autodesk® Inventor®
 - Autodesk® Revit®
 - Autodesk® 3ds Max®
 - Autodesk® Maya®
- Dassault Systèmes
 - CATIA® V4 and V5
 - SolidWorks®
- AVID
 - Softimage® | XSI®
- Others



mental ray[®] at work



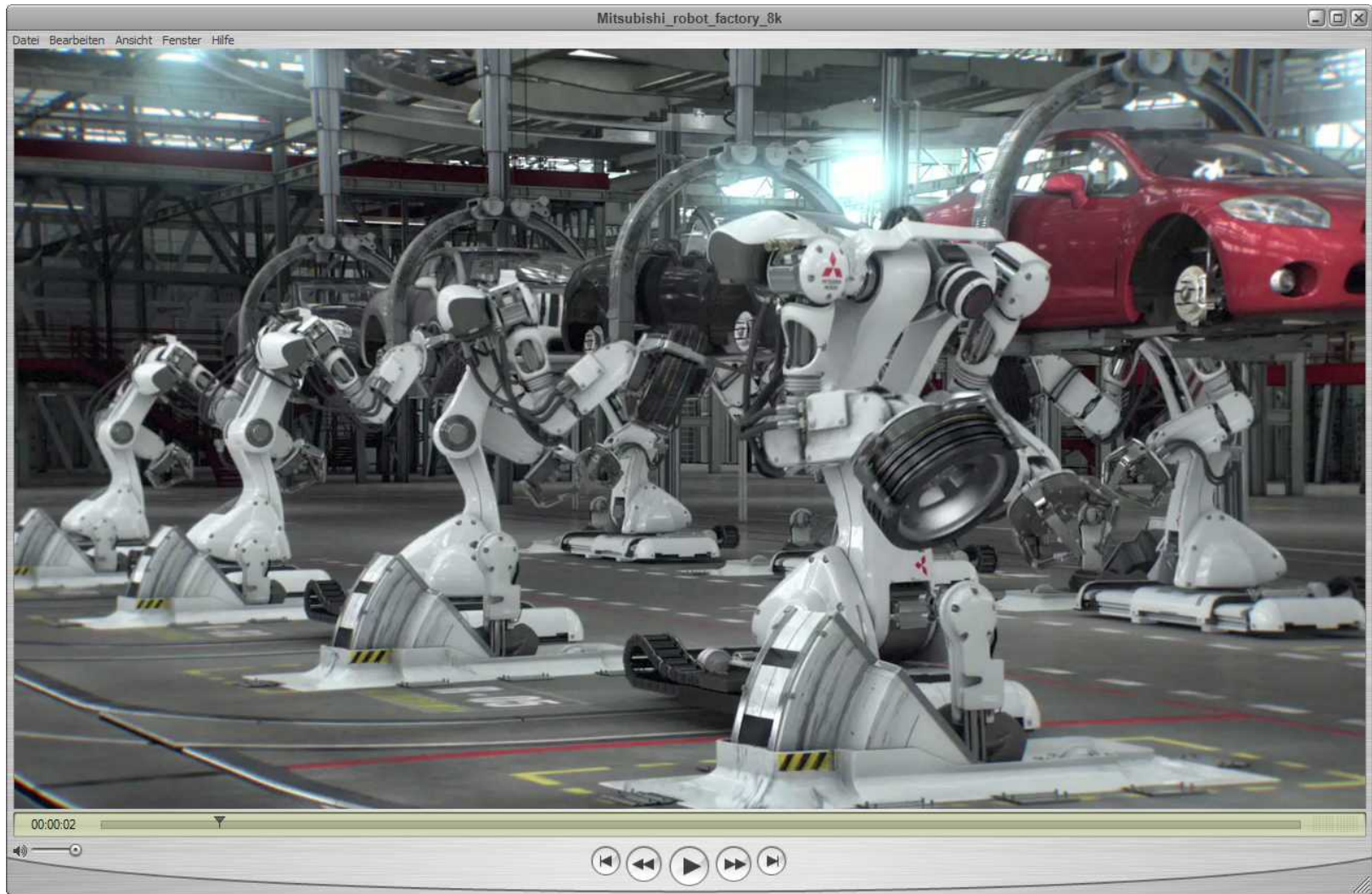
mental ray[®] at work



mental ray[®] at work

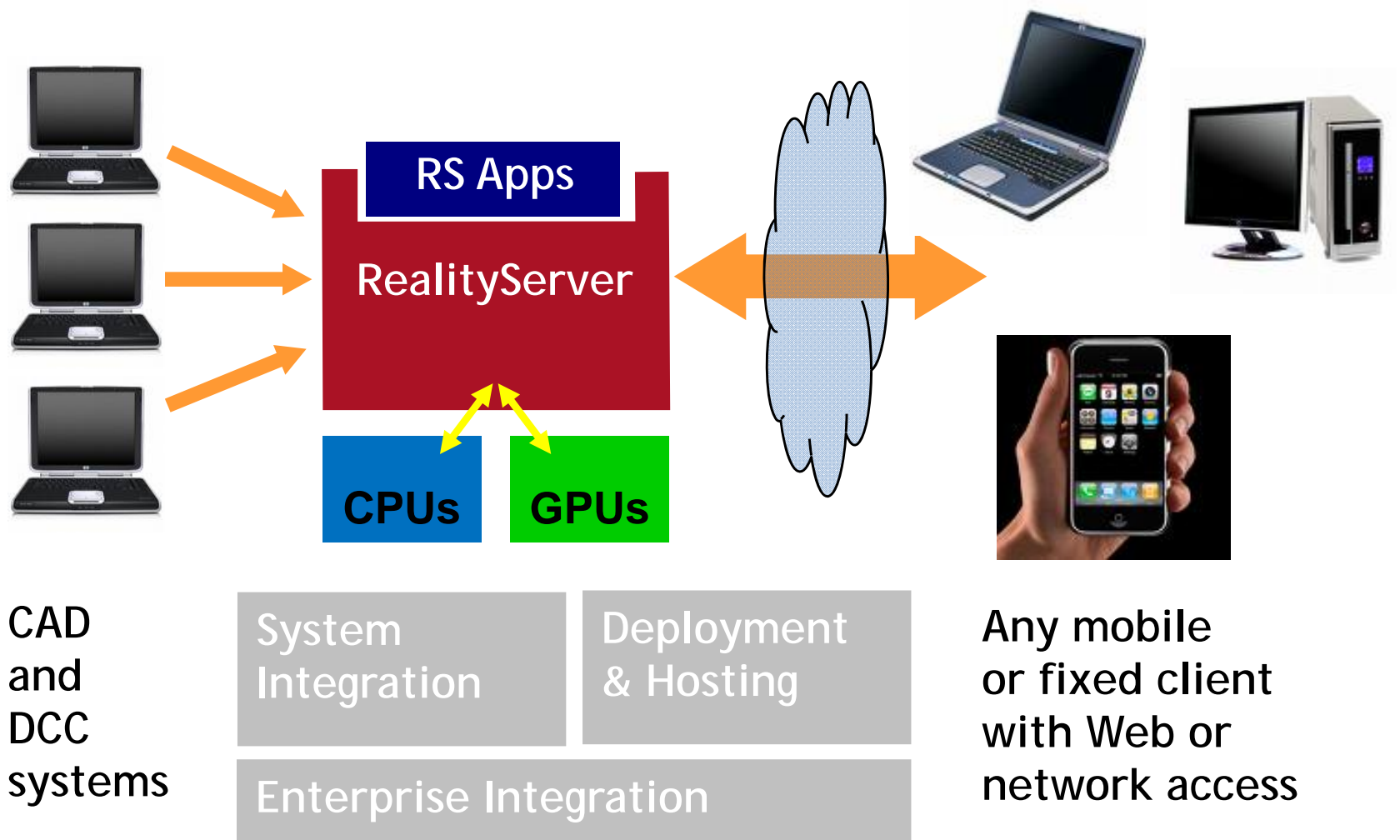


mental ray[®] live

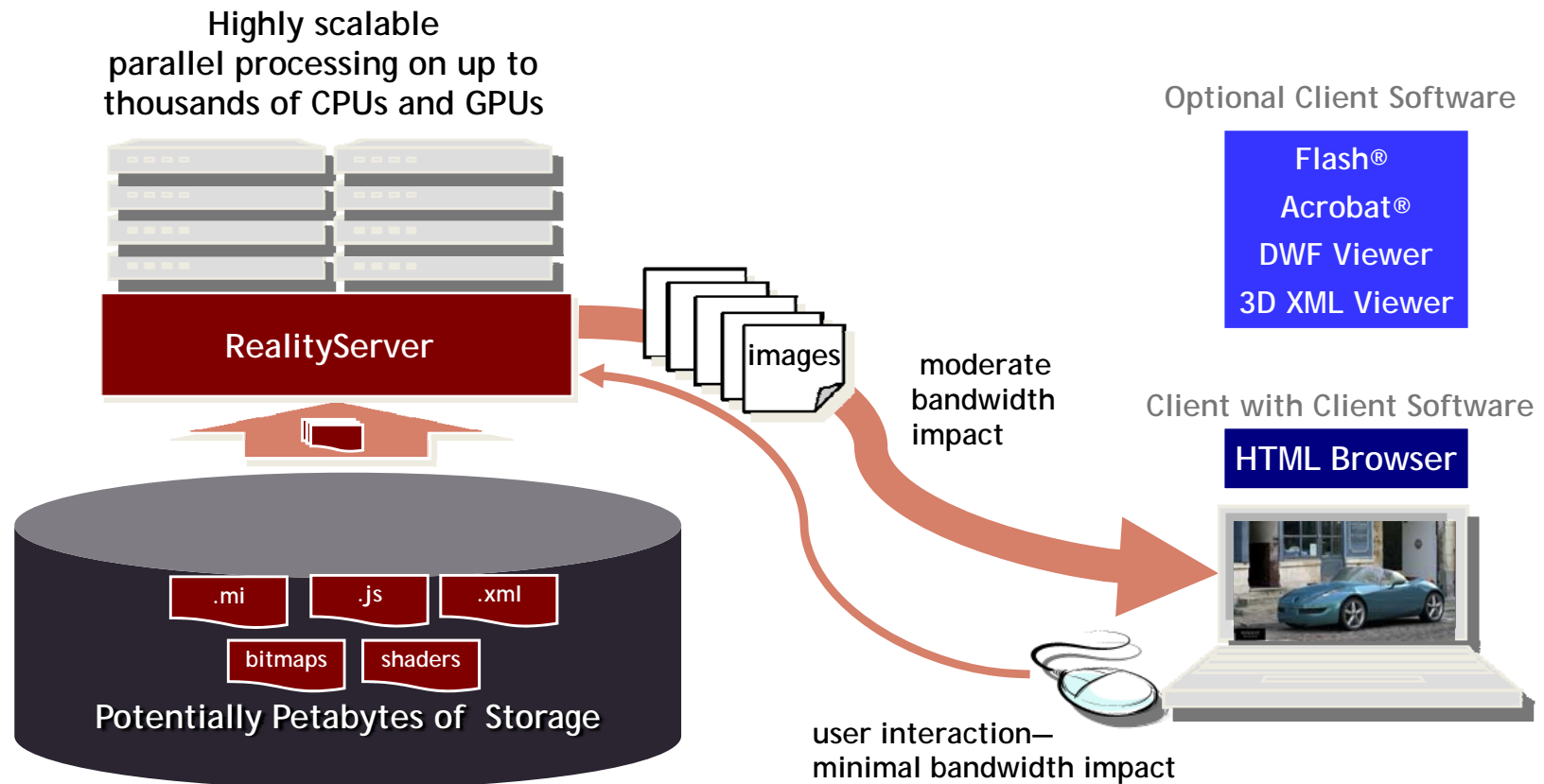


RealityServer® Overview

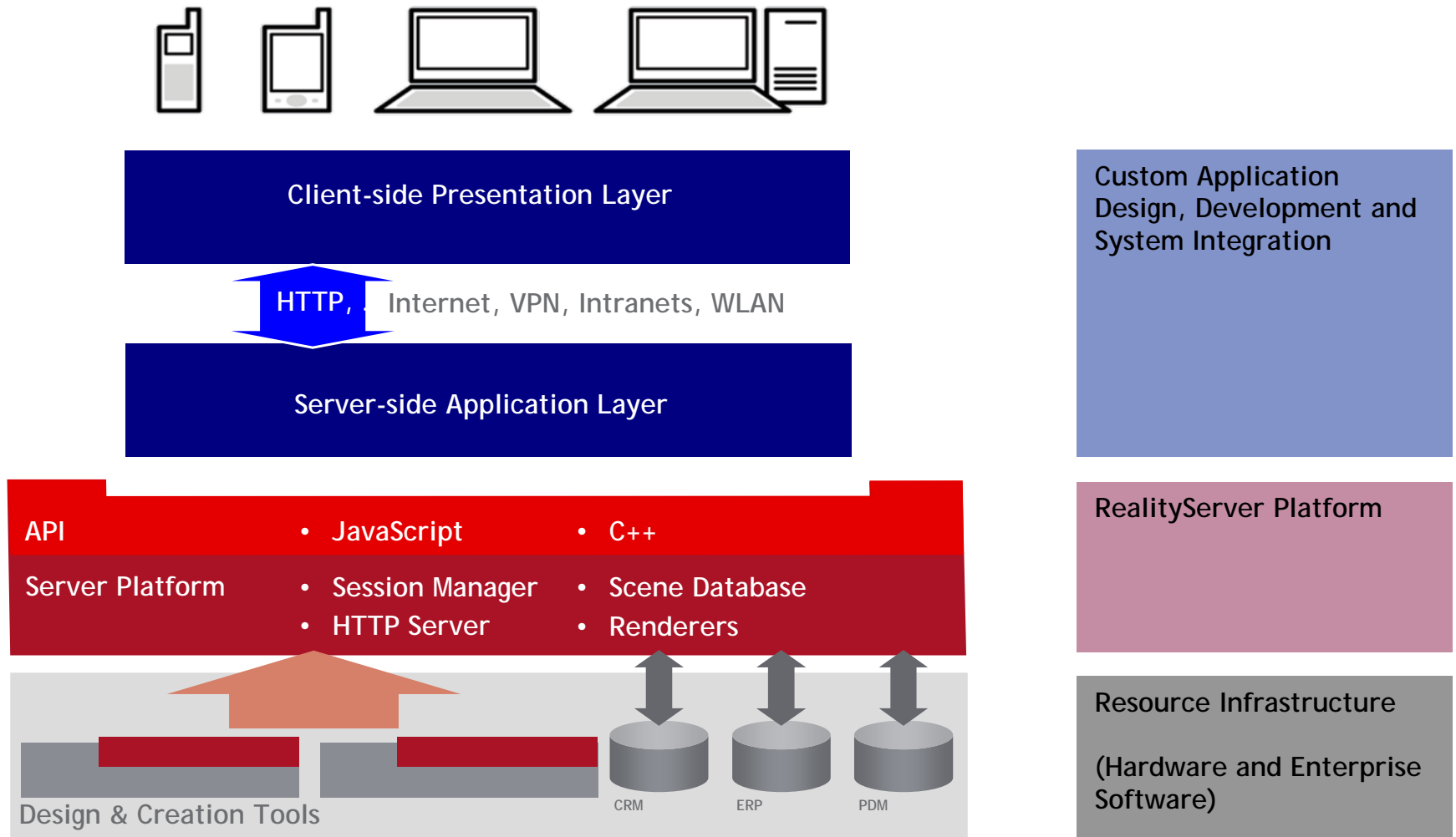
A scalable 3D Web Services Platform



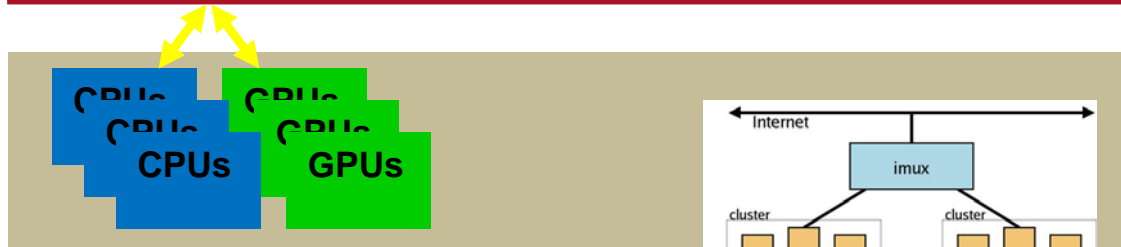
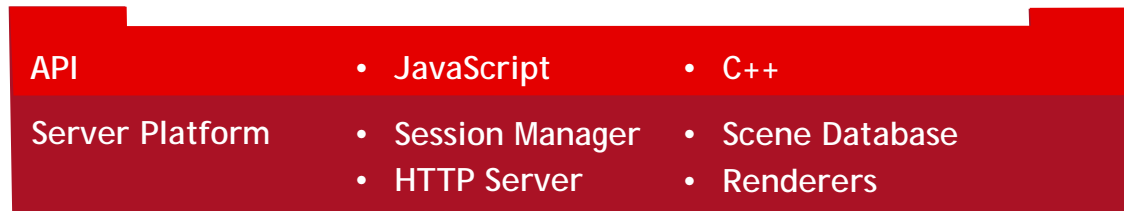
RealityServer Architecture 1/4



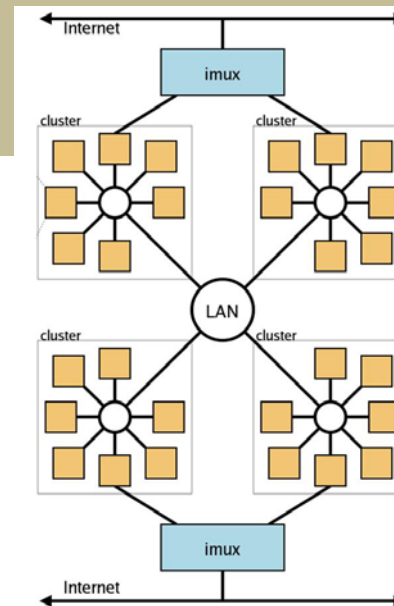
RealityServer Architecture 2/4



RealityServer Architecture 3/4



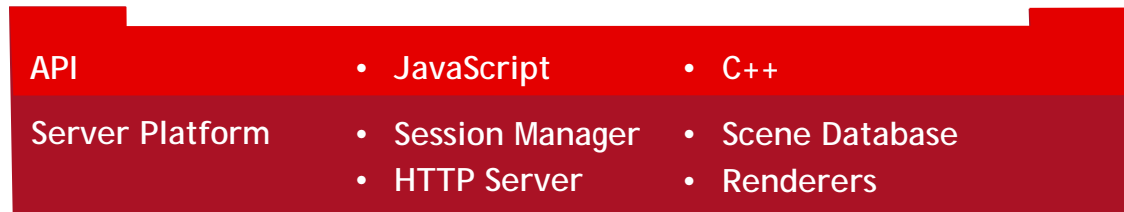
- Self-organizing clusters of hosts
- Multiple symmetric hosts
- Multiple network connections
- IP Multicast



RealityServer Platform

Resource Infrastructure
(Hardware and Enterprise Software)

RealityServer Architecture 4/4



- Distributed data ownership
- Programmed redundancy
- Fault tolerance
- Lost hosts automatically recovered

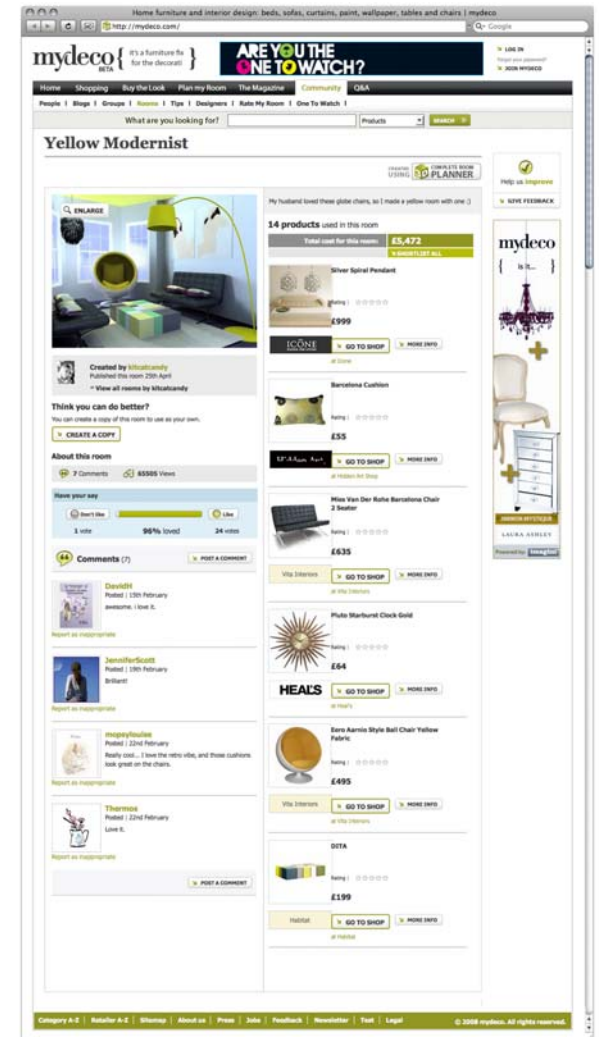
RealityServer Platform

Resource Infrastructure

(Hardware and Enterprise Software)

RealityServer @ mydeco.com

- B2C configuration platform for highly customizable products (interior decoration)
- 30,000+ 3D models from several hundred vendors
- Using simple 2D modeling and 3D model representation
- Supports user-generated content
- Integrates with other application services (e.g. Facebook)
- [Live demo ...](#)



Data Preparation with RealityDesigner™

API

- JavaScript
- C++

Server Platform

- Session Manager
- Scene Database
- HTTP Server
- Renderers

RealityServer Platform

RealityDesigner ...

- ... handles scene graph
- ... supports configurations
- ... converts mental ray shaders into MetaSL shaders
- ... handles textures and environments
- ... supports multiple cameras

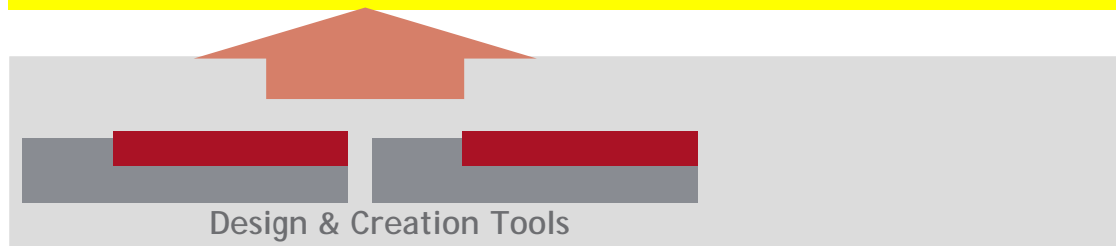
RealityDesigner is available for

- Generic Integration and
- Autodesk 3ds Max
- Autodesk Maya
- Softimage | XSI
- SolidWorks

Data Preparation

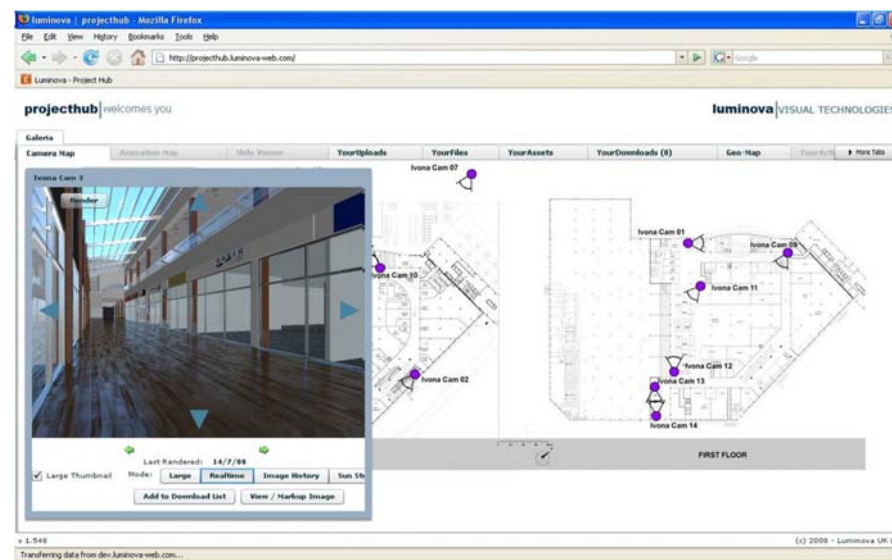
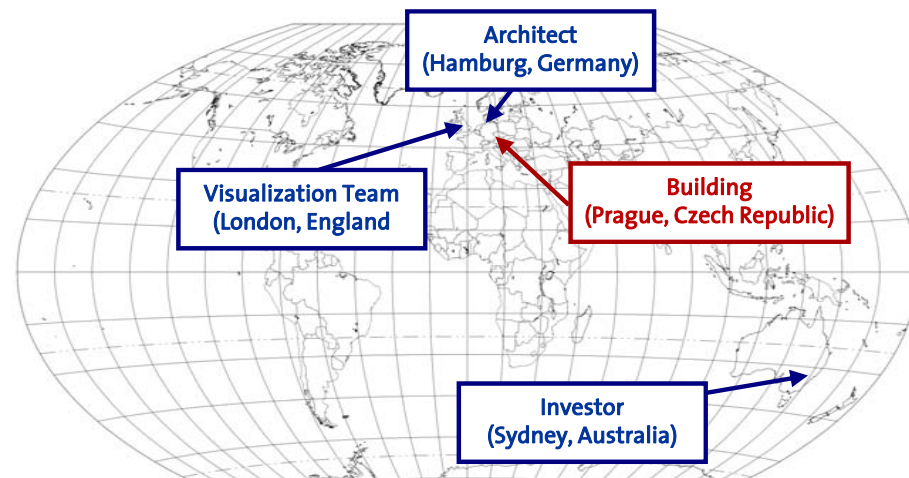
Resource Infrastructure

(Hardware and Enterprise Software)



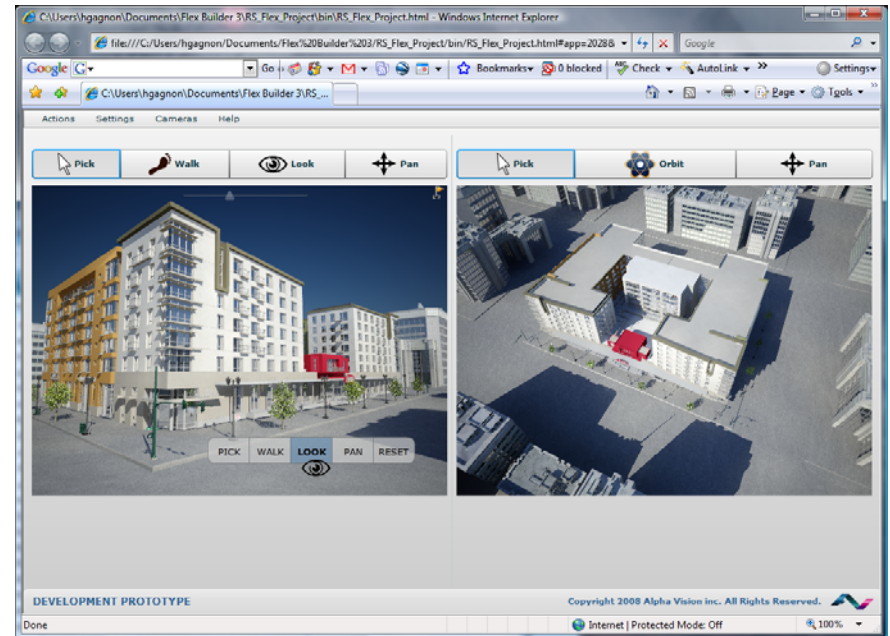
RealityServer @ ProjectHub

- Professional design collaboration across multiple sites and professions
- Easily deploy original 2D and 3D content
- Visual collaboration for improved and timely decision-making
- [Live demo...](#)



RealityServer @ KTGy

- Architecture and construction marketing solution with high quality visualization
- B2B visualization platform for interactive walkthrough of 3D buildings and cityscapes

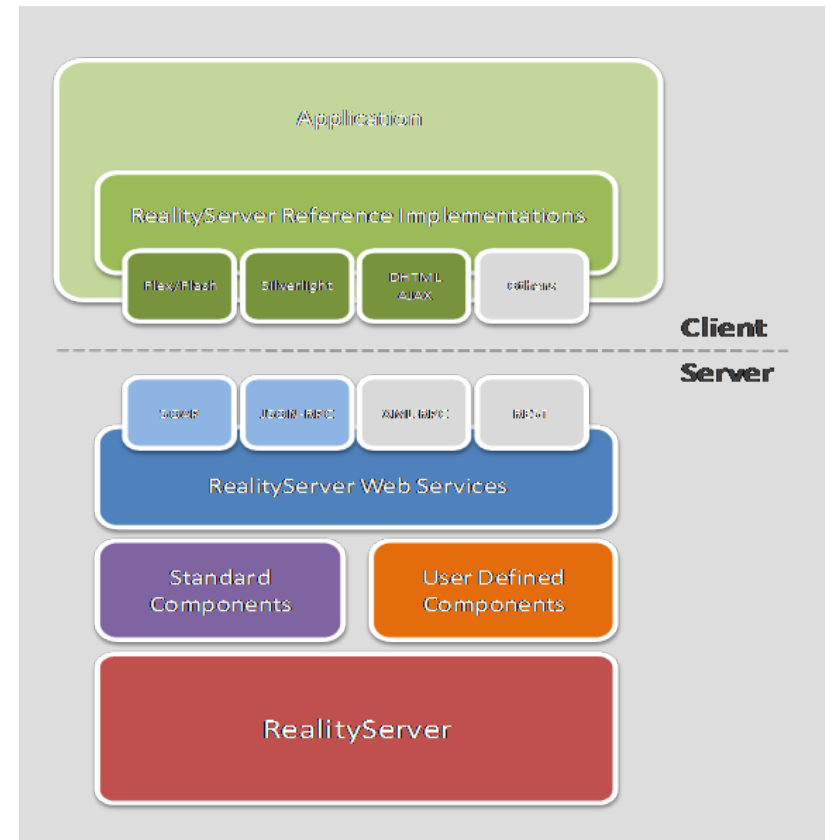


- [Video ...](#)

RealityServer 2.2 Web Services

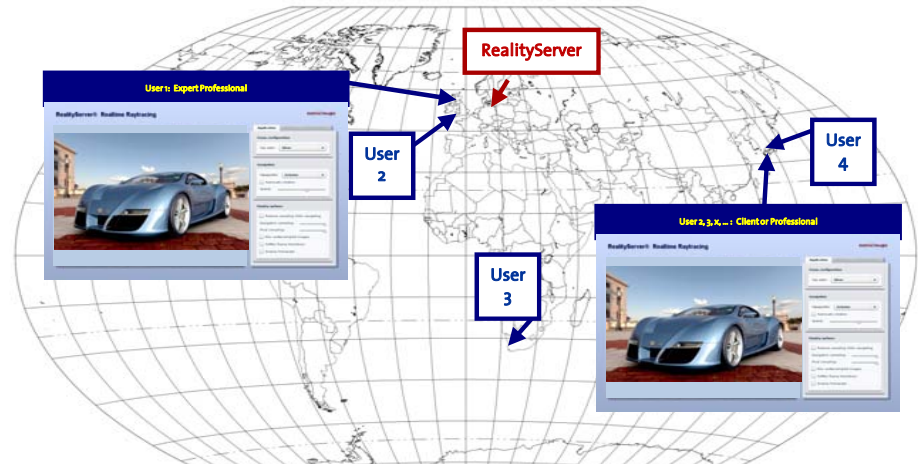
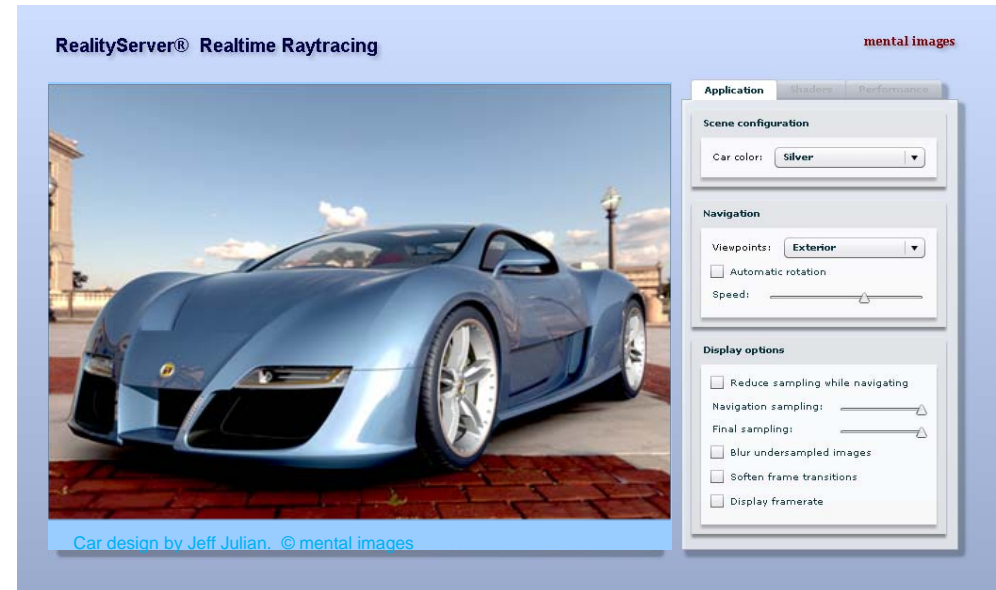
Reference implementations for common web application programming environments

- Simplify Web integration
- Supported environments:
 - Flex/Flash
 - Microsoft Silverlight
 - DHTML/Ajax
- Available from September 2008



RealityServer @ Design Review

- Highest quality, collaborative CAD-based visualization
- Realtime raytracing with image-based lighting
- Multi-site collaboration with various modes of control
- IP protection
- [Live demo ...](#)



RealityServer in Summary

- Leverage your 3D assets in new web-based application services
- Protect your 3D assets through *server-based* Web application services
- Use available tools for straightforward application integration

Get started:

- *See us ...* at NVISION booth # 326
- *Download ...* free RealityServer Developer Edition from www.mentalimages.com/realityserver
- *Contact us ...* in North America: Randy Ochs (rochs@mental.com)
in Europe & A/P: Ludwig von Reiche (ludwig@mental.com)