

Official opening and exhibit of CityCluster

Official opening and exhibit of CityCluster "*From the Renaissance to the Gigabits Networking Age*" a Virtual Reality & High Speed Networking Project

Florence, December 2002. The official opening will take place on February 7th, 2003 in real-time between Chicago (11:00 AM) and Florence (6:00 PM) across two Virtual Reality Networking platforms: the CAVE™ Display System located in the Electronic Visualization Lab at the Illinois University of Chicago, Chicago, USA and the AGAVE™ Display System located in the City Hall, Palazzo Vecchio Florence, Italy.

The opening will feature the City Mayor of Florence On.le Leonardo Domenici and Ms. Robin Schabes, special Assistant for Technology of the Mayor City of Chicago, meeting in a virtual plaza which overlap the city of Chicago and Florence. Each guest from two remote sites will be represented, within the Virtual Reality environment, by an avatar and shake hands in a symbolic gesture of welcome.

Special guests and distinguished representatives of both cities, Florence and Chicago will be present at the opening event, among which: On.le Claudio Martini (RegioneToscana); On.le Elisabetta Del Lungo (Provincia di Firenze); Prof. Alberto Del Bimbo, Deputy Rector for Research and Innovation Transfer and Director of the Master in Multimedia of the University of Florence; Mr. Enrico Granara, Consul General of Italy in Chicago; Allen R. Brown, Consul, Consulate General of Canada in Chicago; Ms.Yannick Mercoyrol, attaché Culturel, Consulate of France at Chicago; Dr. Anne Rashford Exhibits Director of the Museum of Science and Industry, Chicago; Chuck Thurow Executive Director of Hyde Park Art Center at Chicago; Stephanie Whitlock, Director of Special Programs Graham Foundation in Chicago; Judith Kirshner, Dean of College of Architecture and the Arts of The University of Illinois at Chicago; Prof. Klindt Houlberg, Director of the School of Art and Design, University of Illinois at Chicago; Ed Marszewski Art Curator and others guests.

Both platforms interconnect and run over high-speed networks, enabling local and remote the visitors to navigate, interact, and communicate with each other in real time through the avatars in a common virtual space. Passive and active stereoscopic glasses allow them to see in 3 dimensions. A simple tracked input device, "the wand," containing a joystick and 3 buttons, allows the visitor to navigate through the VR space, to manipulate virtual objects and to interact with one another.

Florence City Hall is supporting this cultural and scientific initiative in collaboration with the other local political institutions such as: Tuscany

Region and Province of Florence. Institutions whose most distinguished representatives will also be present at the opening event: On.le Claudio Martini (Regione Toscana) and On.le Elisabetta Del Lungo (Provincia di Firenze). All three institutions will be involved in the promotional and communication campaign.

CityCluster - From the Renaissance to the Gigabits Networking Age- A Virtual Reality & High Speed Networking Project is an innovative technological artistic project in which Tele-Immersion, collaborative virtual reality, high speed networking, culture, history, communication and art are integrated into one unique piece. The visitors can experience a thrilling interactive journey departing from the time of the Renaissance until arriving to the super broadband Networking and Electronic Age, breaking the barrier of time and space in real time. For this project two Virtual Reality environments were created: Florence metaphorically represents the "Renaissance Age", the other related to Chicago representing the "Gigabits Age". Each virtual city is inhabited by a group of avatars: David, Venus, and Machiavelli in Florence, and Mega, Giga, and Nety in Chicago.

The official opening will take place in Palazzo Vecchio, one of the most important historical buildings of the Renaissance, located in the center of Florence, where the city Major has his political and cultural offices. Palazzo della Signoria, or Palazzo Vecchio, as it appears today, is the result of at least three successive building stages between the 13th-16th centuries: the later restructuration carried out by Vasari, after the coming to power of Cosimo I de' Medici, who moved into the palace with his family. Although the palace today contains the offices of the City Council, much of it can still be visited.

After the official opening the VR-Networking exhibit will open to the public, from Sunday 9th to Tuesday 11th, in the Museum of Palazzo Medici Riccardi. Constructed by the architect Michelozzo di Bartolomeo who started building it in 1444 for Cosimo de' Medici, the museum of Palazzo Medici Riccardi is situated along a strategic point of the historic centre of Florence. It is one of the most prestigious and famous Renaissance buildings throughout Europe and hosts very special exhibit presentations. The press conference will take place on January 6th at the sala conferenze - Giunta Regionale Toscana, Florence, Italy.

The sponsor for the event in Florence is DELTA COMMUNICATION
<http://www.deltatl.com/>

Program February 2003

Press conference - February 7th, 2003

5:30 PM Palazzo Vecchio - Florence City Hall, Florence, Italy.

Official opening - February 7th, 2003

6:00 PM, [italian time], 11:00 AM [Chicago Time]

Palazzo Vecchio, Florence City Hall, Florence, Italy - Electronic Visualization Laboratory, UIC, Chicago, USA.

Networked exhibit - February 9th-10th, 2003

Museum of Palazzo Medici Riccardi, Florence, Italy - Electronic Visualization Laboratory, UIC, Chicago, USA.

Project

CITYCLUSTER "From the Renaissance to the Gigabits Networking Age" a Virtual Reality & High Speed Networking Project .

Florence, December 2002. CITYCLUSTER "From the Renaissance to the Gigabits Networking Age" is an innovative technological artistic project in which Tele-Immersion, collaborative virtual reality, high speed networking, culture, history, communication and art are integrated into one unique piece.

"From the Renaissance to the Megabyte Networking Age" is the first CITYCLUSTER virtual-reality networked application.

The virtual application offers its visitors a thrilling interactive journey departing from the Renaissance until arriving and shifting to the Super Broadband Networking and Electronic Age, breaking the barrier of time and space in real time. Florence metaphorically represents the "*Renaissance Age*" , Chicago the "*Gigabits Networking Age*" . Each virtual city is inhabited by a group of avatars: David, Venus and Machiavelli in Florence and Mega, Giga and Picasso in Chicago.

CITYCLUSTER

CITYCLUSTER is a virtual-reality networking matrix with original technological features, navigation and interactivity, graphic and content style. A creative virtual networking terrain with ingenious tools, where visitors, with their own creativity and communicative skills, can become protagonist and/or free citizen: navigate, interact, intervene exchange buildings, objects, ideas and or create their own ideal city.

The framework of City Cluster is developed according to a creative method of tracing diverse concepts and systems of collection in cities both real and imagined, with ambiances and habitats interconnected by a high-speed network which enables participants in remote locations to interact and collaborate in shared environments.

The system has been designed to produce an integrated computing facility and to implement a creative high-tech container in which multiple environments may coexist and be interconnected within a common, virtual territory. The virtual habitats of City Cluster may be expanded, modified, enriched, developed, and produced ad hoc, in accordance with the nature and typology of the environment to be incorporated.

CITYCLUSTER *"From the Renaissance to the Gigabits Networking Age"*

For this project two Virtual Reality environments were created: Florence, the "Renaissance Age", the other related to Chicago representing the "Gigabits Age". Chicago and Florence: two cities, each with an intense artistic, cultural, and technological commitment in a time of innovation and revolutionary changes.

The City Cluster virtual environments of Florence and Chicago are characterized by multiple narrative spaces that comprise animated sculptures, interactive phenomena, high-tech performances, and characters of distinct and peculiar behavior.

Each virtual city is inhabited and guided by a group of avatars: Mega, Giga, and Picasso are the avatars representing the Gigabits Networking Age, while David, Venus, and Machiavelli are Renaissance-age avatars. The visitors contact each other from a remote or local site through the avatars. Each avatar represents a real person in a cyberspace system, acting as a "virtual representative" able to communicate with others in a virtual-reality environment. However in this project the avatars are not only the graphic representation of the Net visitor in the virtual environment, but also interactive "characters" that impose a certain behavior and way of action, leading the visitors through "virtual paths" normally not accessible in either Florence or Chicago.

Navigation and interaction

The navigation and interaction of City Cluster are often surprising. The interactive visitor can find himself within a sort of limbo state where reality, the oniric and the imaginary exist simultaneously. The surprise factor in relation to body space and to the absence of temporal schemes is considered a pivotal experience between the remote visitors of the virtual-reality.

Legendary buildings can become cyber gateways teleporting the visitors from one city to the other. Renaissance or Megabyte digital interactive fragments are found strewn across the VR cities or floating randomly through the atmosphere... when the visitor interacts with them the environment undergoes transformations. Masterpieces' details that turn into three-dimensional creatures ... or the city itself becoming a painting, transparent and penetrable, hosting a myriad of ethereal elements.

Depending on the level and the visitor interaction the shoreline of Lake

Michigan can become a dense accumulation of optic fibers of diverse colors, intensity, and luminosity, and will generate musical sounds and other audio effects.

One of the most intense interactive experiences that the visitor can have is to exchange objects and buildings from one city to the other in real time over the Net. The Dome of Florence, for example, can be transported to Chicago or the Sears Tower to Florence and so forth ... Buildings may be moved to recreate a new city comprising elements and vital parts of Chicago and Florence both.

Each animated environment of City Cluster is linked to all the others so that together they form a united yet open interactive narrative structure. This creative approach allows for multiple viewpoints and repeatedly generates an original multi-linear participatory interactive experience for the visitor.

These are just some of the interactive experiences...

VR-networked Interactive design

This VR-networked piece offers an actively creative experience in the new language of interactive design through the use of new forms of interactive narrative. Emphasis was given to aesthetics and content quality, to the use of visual design in the virtual environment, to the dual concept of the perspective and to the intensity of the interaction thus bringing out the content to its fullest expression.

Virtual reality, networking technology, and digital media have been used as creative tools for the production and implementation of this project and as a tool of communication for its exhibits and presentations.

Interactive Platforms

The VR application is primarily designed to run in the CAVETM ("Cave Automatic Virtual Environment") developed at EVL, (Electronic Visualization Lab) at the University of Illinois at Chicago and on the AGAVETM display system (Access Grid Augmented Virtual Environment). And can run in both in on SGI's Linux platform.

The VR application can run either locally or through remote networking. The networked exhibit takes place in real time between two diverse remote sites using virtual-reality networking platforms such as the CAVE™ and the AGAVE™ Display System.

Both platforms interconnect and run over high-speed networks, enabling local and remote the visitors to navigate, interact, and communicate with each other through the avatars as well as with three-dimensional models over distance in real time, in a common virtual space. Passive and active stereoscopic glasses allow them to see in 3 dimensions. A simple tracked input device, "the wand," containing a joystick and 3 buttons, allows the visitor to navigate through the VR space, manipulate virtual objects and to interact with one another.

Technical innovation

Several characteristics of this application presented diverse creative technical challenges, which in turn revealed innovative aspects and salient feature relative to content management, the development of juxtaposed virtual environments, networking interactive techniques, avatar design, architecture, and virtual effects. Attention was also focused on software improvement relative to project content. A series of special features and enhancements have been added to the software to satisfy content and quality levels of interactivity. The implementation of City Cluster has given rise to a range of technological challenges.

Ygdrasil, the software utilized for developing the project, has been upgraded and enhanced to address these issues. In addition to the production of a virtual-reality networking interface display, a VR-pathfinder called Meta-Net-Page was designed and implemented for City Cluster. This "view panel" will serve as the main interactivity tool for the user. Is a virtual pathfinder, able to detect information, images, and details that are invisible zones or intangible realities for the naked eye.

Goals

One of the principal aims is to explore the possibilities deriving from the fusion of digital media, culture, art, literature, myth and cinema and to expand the ability to conceptualize, communicate, and enrich human interaction. The expectation of City Cluster is two-fold: to transform digital technology into a more humanistic instrument of communication and to explore the opportunities offered by advanced information technology in order to support natural interaction between human beings and a digital system for the fruition of artistic content.. City Cluster is a project whose aims are to enable creative and interdisciplinary remote collaboration, highlighting the various relationships shared among cultures, involving people at multiple locations in a single virtual net art piece as they explore new possibilities available through the combination of high-speed international networks and virtual reality.

Contact

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