



Cyclo-VR

Reality in a virtual environment

CYCLOMEDIA[®]

Cycloramas

Frank Data is a company specialized in the fast and efficient production of digital images of an extraordinary nature, the so-called Cycloramas.

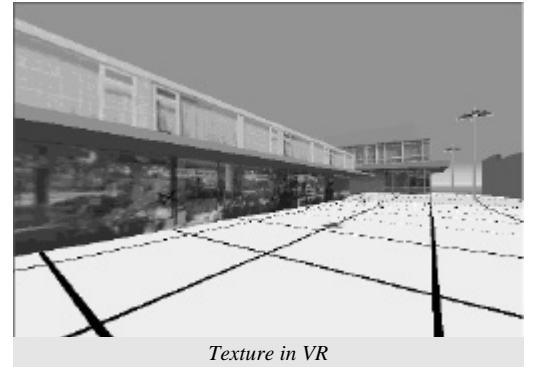
Cycloramas are digital panoramic images with a horizontal field of view of 360° and a vertical field of view from 30° below up to 60° above the horizon. For the production of Cycloramas, a car equipped with a fisheye camera is utilized. With the aid of a computer the position and direction of each picture is registered. Depending on the clients' requirements the shooting interval is defined. This can vary for each application. Subsequently the fisheye recordings are made with the required interval. Every picture records the entire environment around a specific position. As a result the most objective way of viewing the environment is guaranteed.

Virtual Reality

CrossWorlds is a company specialized in the production of 'virtual reality' (VR) worlds in which one can walk, drive or fly through e.g. cities. In this way one can visualize among others town planning activities and infrastructural plans from the start at the drawing board up to the actual construction. In the planning phase one can visualize all different ideas from any angle in three dimensions. Consequently the coordination between all experts involved can be improved strongly. It is also possible to compare various alternative designs to obtain a better end result.

Cyclo-VR

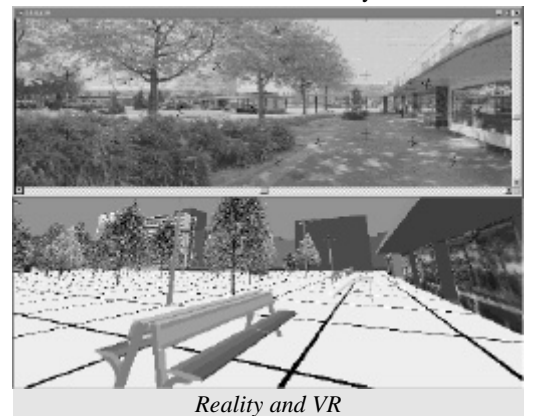
To combine the existing and the virtual world, the product Cyclo-VR was developed. With Cyclo-VR it is possible to project the existing world into a virtual world. This method combines the advantages of two different technologies: on the one hand the VR-world becomes more realistic as panoramic images are used as texture in the VR-model and on



Texture in VR

the other hand in a simple manner one can compare the existing and the new world.

This integration is accomplished by indicating Cyclorama positions in the VR-world by means of symbols on top of the road surface. As one moves over one of these symbols in the VR-world, instantly the corresponding Cyclorama is displayed. Hereafter the movements one makes in the VR-world will be synchronized with the movements in the Cyclorama. As a result a detailed comparison of the existing world (Cyclorama) and the new design (VR) can be made. When using Cyclo-VR one understands why the two technologies complement each other: the 360° field of view of a Cyclorama agrees with the usual freedom of movement in reality.



Reality and VR





*Frank Data
is a supplier of optical
data and systems.
The developed systems
are applied in the
professional market
for geographics
and landsurveying
applications.*

Cyclo-VR is a unique product adapting to the need of having a sound understanding of the impact of large spatial planning projects on the present environment. Cyclo-VR can greatly attribute to the analysis of human experiences of a plan, by which the quality of the design and its evaluation is largely enhanced.

A main advantage of this method is that administration and public will better recognize the VR-world and thus will better evaluate the new situation. Therefore participation procedures can be shortened, meaning cost reduction.

Applications

- town planning and infrastructural planning
- project development

to be used by:

- administration
- town planners
- architects
- project developers

Added value Cyclo-VR

- faster decision making
- shorter project duration
- realistic experience of new situation
- risk reduction
- cost reduction



**For more information
on CycloMedia
please contact
Frank Data
tel. +31 73 6579140
fax +31 73 6569356
e-mail: info@frankdata.com**

