Aosta Augusta Praetoria

Virtual reconstruction of the italian city of Aosta in roman age

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Ultramundum Foundation, while spreading its UltraPeg tecnology for the on-line fruition of virtual worlds, has produced, with the sponsorship of Valle d'Aosta Region, the virtual model of the city of Aosta in roman age.

The model allows for the free interactive and three-dimensional exploration of the city of Aosta on a standard personal computer. The reconstructed age is that depicted by the historian Strabone, of the first century DC. The city was built anew in the place where Varrone had his headquarters.

The reconstructed area covers the ground around the city, the walls and the internal insulae, The wall belt measured 730 meters per 560, with twelve towers, and was put around an area of 42 acres, divided in 64 blocks. The model, entirely made by use of the Foundation own technology, can be downloaded from Interenet very quickly.

The development of a so large and complex area required a surprisingly reduced work. Thanks to the UltraPeg technology the model building blocks are available for everybody.

The substantial difference is represented by the memorization of data as concepts, not as collections of digital infos. Ultramundum actually suggests to develop a huge 'construction box' where any 'little brick', called 'Tabula', required to make the scene can be found. In this way only the list of serial numbers of scene elements is stored. By this system, the overall data dimension of a 3D environment is strongly reduced, making Internet real time transmission possible.

The technique used for the reconstruction of the insulae clearly demonstrates the advantages and possibilities of the UltraPeg technology. Each insula is produced in an algorithmic fashion and not from a model made by a human developer. In this way, a huge number of different structires may be produced by use of few standard bas elements

The automatica details generation is carried on by a group of open-source Tabulae, with may examples of use. The spectacular result of this technique may be seen in another example, downloadable via web. In that model the Foundation reconstructed, as a fiction, a roman city as big as the modern Mexico city, completely generated by the computer.