ULTRAMUNDUM DATA SHEET

Orgnization profile:
Ultramundum is based upon a revolutionary and newly patented technology involving the storing and representation of three-dimensional environment data.
Some examples of Ultramundum application fields are: videogames, 3D interactive documentary, synthesis movies and TV movies, 3D interactive TV (ultravision) and, in general, all those cases where allowing full 3D exploration by any users is the main goal.

Compared to the known standard techniques, 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' 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.

Elementary little bricks can be either single elements or very complex aggregates. Whole buildings can be taken and used (as the Mole Antonelliana or Palazzo Madama), parts of them (as porticos, arches, portals) or single elements (as friezes, capitals, simple bricks). Every brick is 'intelligent', that is it can fit any particular application.
Not being a mere collection of fixed data but a proper program, a portico can, for instance, enlarge or stretch itself to suit the desired scene.

Being the environment a series of references to the basic collection elements, it can improve automatically in time. In fact, if an author decides to use the Mole Antonelliana in a specifical point, he stores the element serial number and not its actual data. If the Mole 'brick' is improved, all channels related to it are automatically improved, without any further author's work.

Technology advantages:
UltraPeg main advantages:
- Internet transmission is possible with TV-like channel switching times, no lengthy delays, no 'please wait' messages. Even with low-speed connections, time to enter detailed, rich virtual worlds is extremely reduced.
- 3D elements can be created faster than using conventional techniques, are totally reusable and must not be rewritten as consumer electronics possibilities grow. Any 'Brick' can be written once and reused forever.
- Development times and costs are dramatically reduced, allowing for the creation of complex contents in a fraction of the time (and of the cost) usually needed for standard-mode productions. This is a key advantage for development of next-generation (but available 2006) entertainment platforms.
- Public databases can be used for entertainment purposes, exploiting the huge amount of data already available and never used until now.

Virtual Italy project:
Ultramundum Foundation has solid realtionships with Italian public entities (such as city councils, provinces, regions, ministries and so on), is already providing an on-line virtual reality course for teachers with the ministry of instruction and research, and has developed a production network with a large number of italian schools.
Projects are already been made, leading to the creation of entire virtual cities, virtual provinces and artistic sites.

A new project is now under development: the virtual reconstruction of the entire Italy.
By using its UltraPeg technology, the Foundation is ready to start the endeavour of building up and putting on-line the 3D model of Italy.

This will be a modular project, allowing for the progressive insertion of Italian art masterpieces into world-famous cities like Rome, Florence, Venice and so on. Virtual Italy will became the source for a huge number of projects exploiting official databases for videogames, documentary titles, remote tourism applications and so on.

Many revenue streams have already been determined and a full business plan has been made.

Competitive advantages of this project are the Foundation's exclusive UltraPeg technolgy, that will make the entire project cheap and fast to be up and runnig, as well as the availability of a database holding detailed data of 305 italian cities and villages, road maps, ground types and so on. This database has been developed for technical use and is worth 20 million euros. The company holding rights on this database is willing to be partner of the project, and has already given the first data layers to the Foundation.

Videogames applications:
Current and, most of all, next-generation entertainment platforms will face a big problem: production of contents for videogames will be more and more expensive. Current titles cost around 5 million dollars and the trend is toward 10 millions or mode. Revenues from many titles, on the other end, are around 1-2 millions. We see bankruptcy events almost every week, due to this highly risky and competitive market.

UltraPeg is a technology that will allow costs to be reduced by a factor of 10. If a new title costs around 500.000 , even a 1 million return will mean profits, not losses.
By reusing components developed one time and able to run forever, capable of adaptive quality and so scalable when new platforms are available, entities using the Foundation technology will experience a dramatic reduction in time-to-market and development costs. Worlds produced is this way will be dynamic, with details adapted to the users's point of view, delivering an extremely high quality of simulation, required by customer using new powerful hardwares.

Videogames will be ready for download form the Internet at amazingly high speeds, cutting distribution costs and allowing customers to buy any title on the fly, without even leaving his chair.