

Digital Media



Introduction

The aim of the NextGRID project is to devise the next generation Grid architecture. In order to design and validate this architecture, it is necessary to experiment with new middleware components, and to use them in application level experiments to verify that they can meet the needs of business Grid users.

Digital Media Application Level Experiment

Most films and commercials use computer graphics animations to implement the special effects that the artists want to depict on the screen. None of this would be possible without the accelerating rise of 3D graphics and animation technology. However, cost-effective use of this technology still presents a challenge.

A problem in handling real world 3D models is their computational complexity. The number of objects, textures, light sources and effects which can be used is a factor that limits the design of a scene; too many of these features leads to an unacceptably high computational load. One solution is to use a powerful computer cluster to allow more complex scenes to be produced, but this is a very expensive solution not only for post production houses, but also for the programmers that develop 3D rendering software.

The rendering process could be made more cost-effective through the introduction of a new business model, capable of supporting the online collaboration of the user and the client. Through the online discussion, the client would be able to specify design details about the job and guide the designer to produce exactly the result that client desired. A preview option could also be included so that the client can approve the final rendering. This new business model not only improves the quality of service that the company offers to clients but is also an effective way to minimise the loss of time due to re-runs of the same job.

KINO TV and Movie Production SA (a leading producer of TV commercials and films in Greece) believes that this business model could be supported by a Grid-enabled rendering infrastructure that can handle not only the in-house production of urgent jobs and small jobs, but also large tasks with task-based negotiation.



Current Status of Experiment

National Technical University of Athens (NTUA) and KINO have developed a stable, public version of the digital media demonstrator. The digital media demonstrator is based on the GRIA middleware.

Legal Information:

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