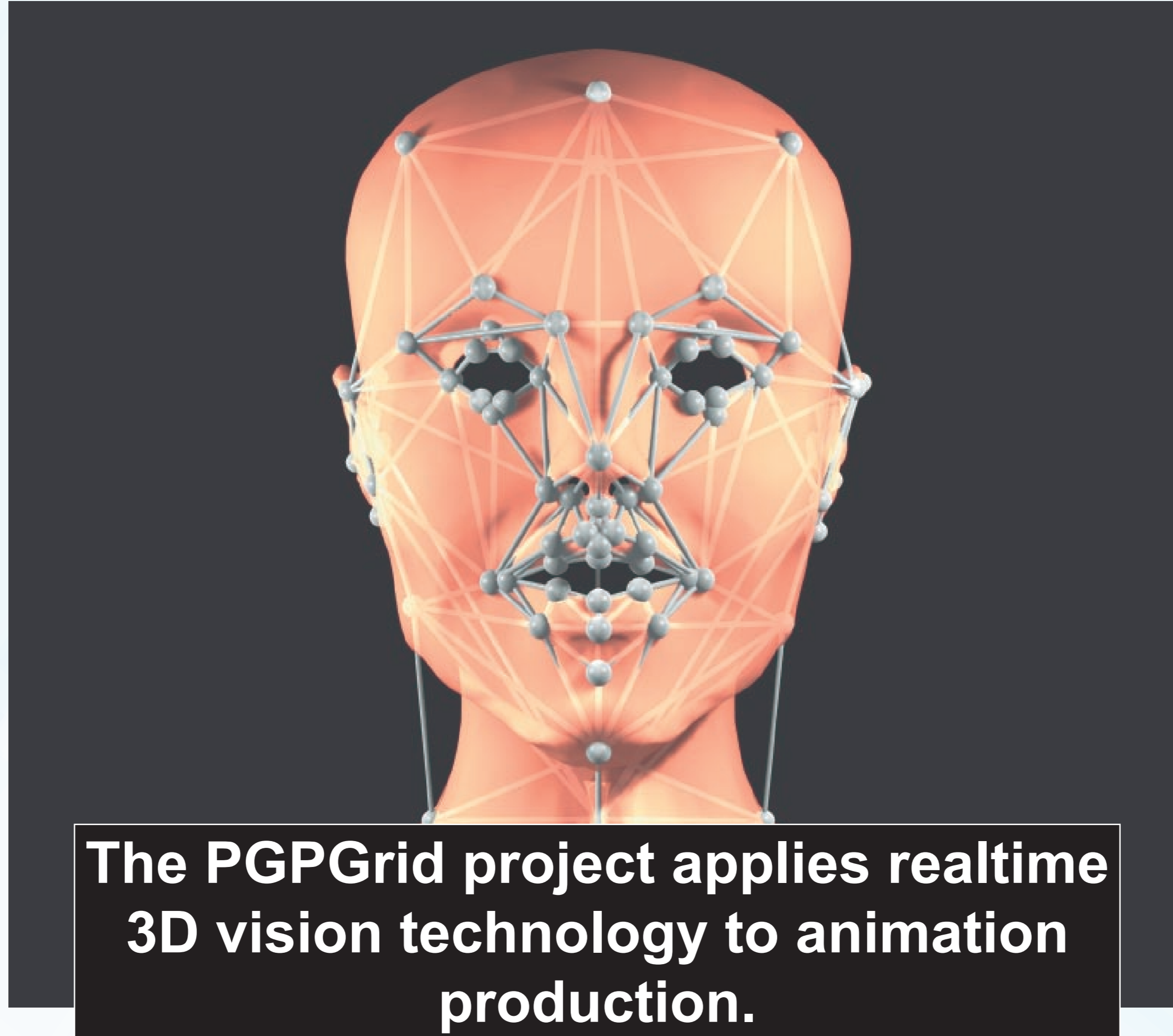
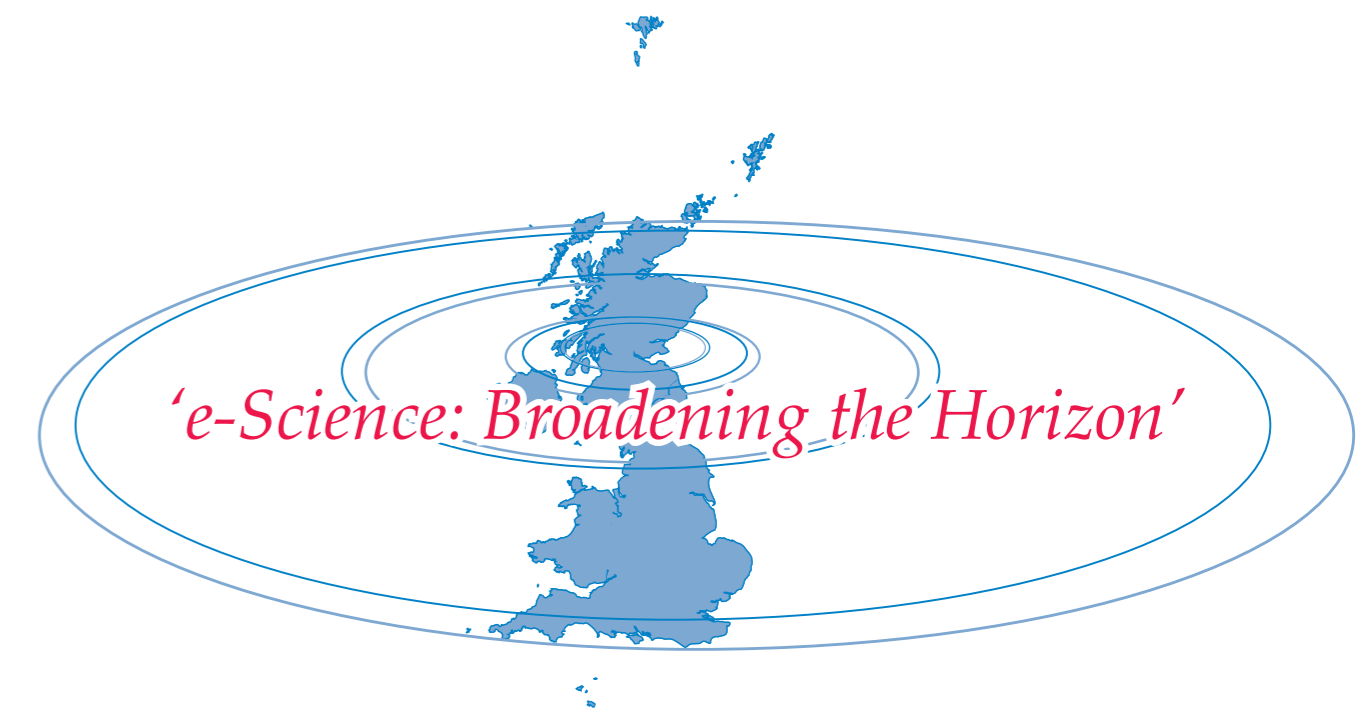


PGPGrid

Real time 3D animation on the Grid

www.epcc.ed.ac.uk/pgpgrid



The PGPGrid project applies realtime 3D vision technology to animation production.

It aims to parallelise the process of extracting range data from an experimental 3D scanner using the Grid as a vehicle for providing necessary resources. The application is potentially highly parallel but has some unusual features such as rapid spawning of processes in real time and a dynamic inter-process network topology. These characteristics require enhancement of the usual task migration capabilities of the Globus toolkit.

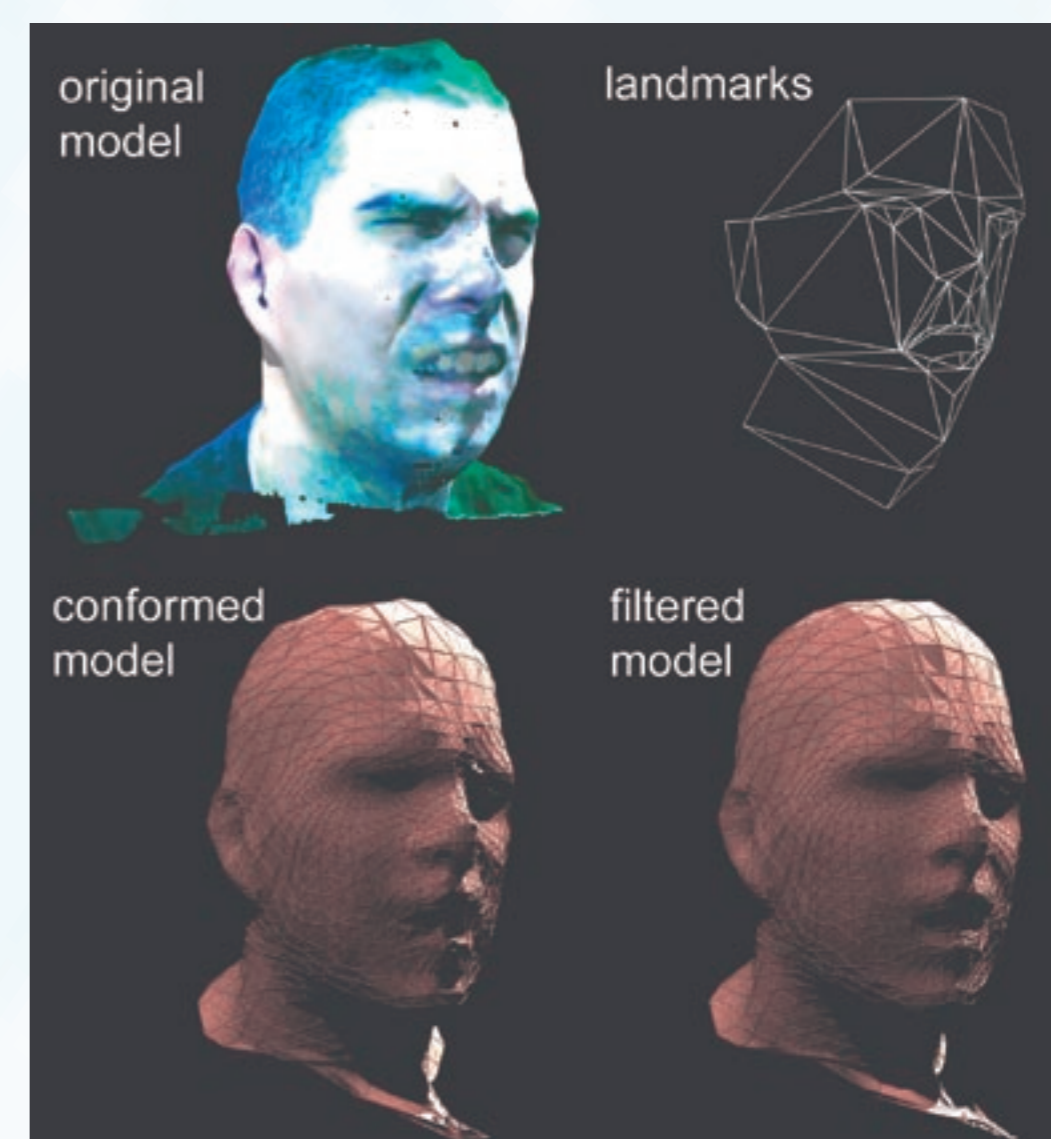
The data and compute challenges

25 images per second are taken on 16 cameras – a total of 400 images a second. Processing each pair of images takes approximately 45 seconds.

A 5-minute animation sequence thus needs:

- 60,000 image pairs
- 750 hours of processor time

PGPGrid is tackling these challenges head-on using Grid technologies enhanced with computer science research!



The PGPGrid collaboration

- EPCC
- 3D-Matic Lab, University of Glasgow
- Pepper's Ghost Productions Ltd