1. Summary

Professor Chuck Hansen plans to visit Wales from Monday 13 June to Friday 24 June 2011. He would like to visit all four universities. While working on established collaborative research with Dr. Robert S. Laramee (Swansea) and Dr. Jonathan Roberts (Bangor), he will also explore new collaborative opportunities with other RIVIC colleagues. Professor Hansen will also give a seminar(s) at each university subject to the scheduling by the host.

Professor Hansen is a well-known scientist in scientific visualization and computer graphics. He received his PhD from University of Utah in 1987 and his dissertation was entitled “CAGD-based Computer Vision” (which is close to the historic research theme of Cardiff). Following some eight years of career in Los Alamos National Lab. as a visualization scientist, he took up an academic position in University of Utah. He is currently a full professor and the associate director of the Utah Scientific Computing and Imaging (SCI) Institute.

Professor Hansen’s research interests include
- Large Scale Scientific Visualization,
- Rendering Techniques and Computer Graphics,
- Parallel Algorithms,
- Distributed Computation,
- 3D Shape representation

Professor Hansen is an established scientist in the visualization community with significant international visibility. He received IEEE Computer Society Technical Achievement Award in October 2005, “for Seminal Work on Tools for Understanding Large-Scale Scientific Data Sets”, The IEEE VGTC Visualization Technical Achievement Award was established in 2004. It is given every year to recognize an individual for a seminal technical achievement in visualization. His professional services to the community including chairing of conferences (e.g., IEEE Visualization 2000 and 2001, VG 2010), IPCs (e.g., IEEE Visualization 2007 and 2008), and editorial boards (e.g., TVCG). Further details of Professor Hansen’s achievement can be found in the attached CV.

Professor Hansen has visited Wales for many times. He was a keynote speaker for HPCVG95 held at Swansea, and he was an external partner of the e-Viz project involving both Bangor (Professor Nigel John) and Swansea (Professor Min Chen and Dr. Mark Jones). He was also a partner of a collaborative EPSRC grant on large-scale data management for visualization, and co-authors papers with Dr. David Chisnall and Professor Min Chen on out-of-core volume rendering. He recently took part in a collaborative activity with Dr. Jonathan Roberts at Bangor and co-authored a research paper together.
We would like to apply for a senior fellowship status for Professor Hansen. He will be happy to collaborate with any faculty member and research officer in RIVIC. We expect him to act as an adviser on many ongoing projects across different SPs, including:

- Flow Visualization: Bob Laramee
- Visual Analytics: Jonathan Roberts, Mark Jones and Bob Laramee
- Volume Visualization: Nigel John, Nick Avis, Mark Jones, Benjamin Mora, Ik soo Lim
- Large-scale data visualization and applications: Nick Avis, Simon Cox, Bob Laramee
- Rendering (including ray tracing): Benjamin Mora, Ik soo Lim, Mark Jones
- Shape representation: Ralph Martin, Xianfang Sun and Dr Yukun Lai

2. Professor Chuck Hansen

See attached CV.

3. Planned Schedule

A provisional plan is:

Monday 13 June: Arriving at Cardiff from Paris, then to Swansea
Tuesday 14 June: Some rest and seminar at Swansea
Wednesday 15 June: Research meetings at Swansea
Thursday 16 June: Arriving at Aberystwyth by car
Friday 17 June: Seminar and discussions at Aberystwyth
Saturday 18 June: Arriving at Bangor by car
Sunday 19 June: Rest
Monday 20 June: Seminar and discussions at Bangor
Tuesday 21 June: Arriving at Swansea by car
Wednesday 22 June: Arriving at Cardiff by train
Thursday 23 June: Seminar and discussions at Cardiff
Friday 24 June: Departing from Cardiff airport

4. Budget Plan

International Flights (Utah - London Airport): £200
Train travel between London Airport and Swansea/Cardiff: £120
Accommodation (11x£100): £1100
In-Wales travel (including car hire): £800
Others (subsistence, taxi): £250
Total (+/- 500): £2470