Computer Engineer Position for Long Distance Visualization Project at INRIA (France)

- Position: Computer engineer with Master or PhD degree.
- Duration: 16 months initial contract with extension possibilities.
- Location: Grenoble, France
- Employee: INRIA (public research institute)
- Starting date: April 2011 - September 2011
- Contact: Bruno Raffin (bruno.raffin at imag.fr)

The MOAIS team at INRIA Grenoble, France, is hiring a computer engineer with a Master or PhD degree. The candidate will integrate a project of transcontinental scientific visualization.   The goal is to enable the interactive visualization in Grenoble of data generated by a parallel fluid simulation in Japan. We will rely on the classical VTK library (http://www.vtk.org) for data processing, and the in-house developed tools FlowVR for distributing the computations and FlowVR Render for rendering (http://flowvr.sf.net). The goal is to develop new approaches for long distance visualization by mixing local and distant rendering approaches. Distant rendering enables to reduce the amount of data to transfer to the amount of pixels to render, but reactivity for interactions is reduced. Local rendering in opposite requires to send the 3D data to the rendering machines, enabling a high level of interaction. We will study how to combine both techniques where some data will be sent on the distant site and rendered in a sort-first fashion, while large data sets will be rendered where they are produced and only textures will be transferred.

The experiment will use a dedicated high speed connection between Grenoble and Osaka and high performance clusters on both sides.

We seek a candidate with good C/C++ programming skills, confident with Linux. Additional expertise in distributed or parallel programming as well as computer graphics oand scientific visualization is more than welcome.   We are looking for a candidate autonomous and motivated to develop and experiment new approaches. He/she will be involved in co-authoring international publications.

Send your Résumé including references to bruno.raffin at imag.fr.