Weekly Report

Matthew Royle

Week 11: 12 March 2008

Summary of activities since last meeting

Last meeting: 3 March 2009

Next meeting: 12 March 2009

Goals and Work targets

Goals for this week

- Download OpenCL Header Files
- Find paper on texture-based memory for GPUs
- Find content related to parallel processing
- Read slides: General Purpose Computation on Graphics Processors (GPGPU)

Goals Achieved

- Downloaded OpenCL Header Files
- Found paper on texture-based memory
- Found the OpenMP API for parallel processing
- Started reading slides: General Purpose Computation on Graphics Processors (GPGPU)

Proposed goals for next week

- Select a language for implementation
- Prepare oral presentation for project
- Get and read paper: Distributed texture memory in a multi-GPU environment
- Read up on OpenMP API and look into possible usage
- Find various parallel processing techniques
- Finish reading slides: General Purpose Computation on Graphics Processors (GPGPU)

Rate your work performance

- A small amount of work was achieved
- Not all goals were achieved, the reason could be: No formal progress report from previous week
- Performance can be improved by following goals set out in progress report more closely

Issues

• Need to find a language to use for implementation - looking at using C/C++ in a Linux environment with the possibility of using the OpenMP API

Tasks/Learning

- Found the OpenMP API
- Discovered method for mapping CPU algorithms to the GPU

Research

- Found the slides: General Purpose Computation on Graphics Processors (GPGPU) very interesting with possible future use
- The method for mapping CPU algorithms to the GPU could be useful for implementation