

# Weekly Report

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Week 12: 19 March 2008

## Summary of activities since last meeting

**Last meeting:** 12 March 2009

**Next meeting:** 19 March 2009

## Goals and Work targets

### Goals for this 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 the OpenMP API and look into possible usage
- Find various parallel processing techniques
- Finish reading slides: “General Purpose Computation on Graphics Processors (GPGPU)”

### Goals Achieved

- Selected C/C++ as language for implementation
- Decided to use OpenMP API as a parallel implementation for project
- Got used to compiling C/C++ code using OpenMP API
- Tested a piece of simple parallel code to test the OpenMP is working
- Found various parallel processing techniques and the OpenMP API
- Finished reading slides: “General Purpose Computation on Graphics Processors (GPGPU)”
- Found slides about parallelization concepts and an OpenMP overview

## **Proposed goals for next week**

- Find papers on devising algorithms for test programs
- Start devising algorithms for test programs
- Start experimenting with the OpenMP API
- Prepare oral presentation for project
- Start reading up on the OpenCL Specification
- Create project website

## **Rate your work performance**

- Most of my work that was planned was achieved
- I managed to fit in a few minor extra goals for the week
- Had limited time due to practicals, lectures, tutoring and events with BSG

## **Issues**

- The paper, “Distributed texture memory in a multi-GPU environment”, could not be downloaded from ACM, only from EuroGraphics website
- Tried to download the latest version of GCC which turned out to be the source code!

## **Tasks/Learning**

- Learned how to compile code using the OpenMP directives
- Tested the OpenMP API with a simple piece of C code
- Added paper for the week to the DocArc

## **Research**

- My paper for the week, “Parallel Processing with CUDA”, provided some insight into how OpenCL could be used
- Slides on parallelization concepts could help with certain aspects of the implementation