## **Simon Fraser University School of Engineering Science**

ENSC894: Advanced Computing Technology: Programming and System Design Spring 2011

## **Contents of Application Analysis Document**

As stated in the course facts sheet, you need write a application analysis document that analyses the design and performance possibilities of a specific application in terms of the different topic areas discussed in class (<u>remember: this application choice must be approved by your instructor</u>). It can be a maximum of 10 pages with 1.5 spacing and 11pt font. Everyone's review will be due on the final day of lecture (April 6<sup>th</sup>).

It should extend the discussion of the topic area given in your seminar presentation and include additional reference material not included on the course reading list.

## **Guidelines:**

Below are a set of guidelines for the content of your research review. Note that the page lengths are merely suggestions.

**Introduction [.5 pages]:** Outline the application you will be considering and why its design choices should be evaluated in such detail to maximize performance/area/power. (In other words, what is so critical that you can't just use a workstation)

**Background** [2-3 pages]: Provide an overview of your application. What are the key components, what are its most challenging aspect(s)? Who are the expected users? How will it be affected by future requirements (in terms of data/users/environments)? Where is the application space moving (ie embedded/portable/mass market/etc)? (Note: *algorithm flowcharts and system block diagrams are expected*).

**Application Analysis [4-6 pages]:** Discuss this application in terms of each of the topic areas discussed in class. For each topic area, discuss a few potential solutions and highlight why one of these is the best choice for your application.

**Future Considerations [1 page]:** Based on current research, what type of advancement will best improve the quality of your implementation (making it faster/larger market...)? In other words, which aspect(s) of the design hierarchy are the most significant limiting factors for your application? Pick a maximum of two and discuss in detail.

**References** [1 page]: Be sure to cite your referenced work properly.