Rose-Hulman Institute of Technology
Computer Science and Software Engineering
Prof. Archana Chidanandan

Final Report Specifications
Maximum points : 100 (10% of your final grade)
Due Date: 25th February 2004 by 9:00 PM

The final project report should consist of the following components (not necessarily in the order specified).

1. **Appendix A -** An updated and complete design document. Should include assembly language and machine language specifications, RTL descriptions, datapath diagram, state diagram for the control unit or the micro-program (along with details of the dispatch tables) for the control unit, component specifications and an integration plan. Also, all associated test plans must be included.

2. **Appendix B -** The design journal as submitted for Milestone 5.

3. **Title page** - Include team name, architecture name (if any), team number and names of all team-members.

4. **Table of contents** – Include section and sub-section numbers with page numbers.

5. **Executive summary** – One page summary of the project stating the objective of the project, your design flow and your current status.

6. **Introduction** – Assume that the reader of this document is familiar with computer architecture design principles, but not the project. Keeping this in mind, introduce the project to the reader.

7. **Main body** – In this section, you will discuss the various phases/aspects of your design. Talk about every design phase and discuss the design choices you made. Highlight the unique design aspects. Discuss the pros and cons of each design choice and discuss what you would do differently, given another chance. Also, discuss any improvements you can make to the design. Remember to discuss all the design phases and also to present the material in an easy-to-read manner.

8. **Conclusion** – Conclude your report by talking about the performance of your architecture.
   Performance evaluation – Determine the following quantities by measurement or analysis and present the data in your report.
   a. Number of instructions to calculate the gcd using the Euclid's algorithm.
   b. CPI for the code fragment that calculated the gcd using the Euclid's algorithm.
   c. The cycle time for your architecture.
   d. Number of clock cycles required to calculate a value relatively prime to 0x13B0. (The result should be 0x000B using the algorithm specified in the project specifications.)
   e. The gate count for your entire architecture.

9. **Reflections** - This is to be done **individually** by each team member. Answer the following questions and attach the answers to the final report document. These questions are simply to guide you. You may add any other comments or feedback you have.

    - What is the most valuable thing you learned about working in teams?
    - What is the most valuable technical material you have learned?
    - How could you have been a more effective member of your team?
    - Your most significant contribution to the project.
    - (Optional) Suggestions for future projects.

10. **Confidential Peer Evaluation –** Each member of the team must also submit a **confidential** peer evaluation. You will give me feedback on each member of your team. Submit this **separately** to me and not as part of your report. The peer evaluation form can be found on the class website under the Projects section.