Each team is required to hand out one hard copy for your final project on December 4, 2001. The date is firm. No delayed submission will be accepted. Remote students must ship their project to arrive at USC DEN on December 4. The outline is listed at the end of the grading criteria.

The number of pages for each subject is not fixed. However, the approximate number of pages is listed in Final Project Outline. Use more pages to include all your hard work is welcome. Don’t skip any part. You are also required to submit the hard copy of your codes. Posting web-based solutions on our class web-page will be an extra credit. Please fasten your project submittal in a way the pages won’t get lost.

Cover Page [4 points]:
You have to put your Team number, Team member name, student ID numbers, and Team location (Campus or off-site location name) on the cover page. The outline for the final project should be followed. Use the subject to label all sections.

Topic Explanation [4 points]:
Your topic name is included with one paragraph to describe your system. State all assumptions you made if any. (Assignment 1)

System Requirements [8 points]:
When you generate your system requirements, use full sentences to describe them. Although you will use full sentences, keep them simple, readable, and grammatical. We only need the high level requirements. Make your requirements "testable". Try to avoid a broad description. The requirements have to be written in the specified format. You need to cover all possible requirements for your system in the final project. Include from the homework whether your system met (or will meet) these requirements. Choose from IADT method (Inspection, Analysis, Demonstration, Test). Develop a matrix of your project requirements, which IADT method(s) apply, and add a column for comments and explanation. Make a clear explanation of how the system will meet its requirements. (First part of Assignment 2 and first part of Assignment 8)

Navigation or Site Map [8 points]:
For the site/navigation map, use approximately one page to present your map. It should resemble a web site map, or a menu-tree-like hierarchical structure that shows how a user can move within the system you plan to design. Include a few words of
User Analysis Discussion [8 points]:
For the User Characterization, you have to figure out what the user psychology, knowledge and experience, and job and characteristics of your project are and explain why. For User Analysis Discussion, a Data Flow Diagram of tasks being performed by your system should be added.
All possible user characteristics (who is the user), user tasks (what tasks the user performs), user workload (for example life-critical systems vs. casual browsing and information gathering sessions), and user environmental considerations are required to be analyzed and listed. Example environmental considerations are: working environment for your project system, e.g in a car, handheld computer, standing at the ATM, sitting at home, working alone or with others, etc.). Include some written explanation to clarify the decisions made. (Assignment 3)

Tools/System [8 points]:
Discuss why and what tools are selected for your prototyping and implementation.
Use the tradeoff matrix of tool alternatives. Use a table format to present the tool capabilities or cost versus tool(s) used or considered. Include explanations in the table. List the challenges for the final tool decision, if any. (Not a previous homework)

Evaluation [8 points]:
Discuss methods used to evaluate your system. Include a Usability Specification. Use the survey you’ve conducted. Analyze the results and discuss the changes that will be made in the final project as the result of this analysis. (Second part of Assignment 8)

Specification [8 points]:
Specify a small portion of your system using one of the techniques covered. For example, UAN, IRG, or state diagrams discussed in the lecture on 11/27/01. Clear explanations are required. (Not a previous homework)

Screens [24 points]:
Use about 10 pages for your screen prototypes. Of course, the number of pages will vary. Please write some explanation for the screen designs and navigation. Sequence your slides following sample path(s) through your system. Try to create an example of how the system would work when the user is interacting with the system. The discussion of your improvements made since the October Project Status Reviews
expected in this section also. You may want to include those previous screens and how you improved them. Write brief comments for the improvements you’ve made in the final project. For each screen, specify what inputs caused you to move to the next screen, for example the menu item selected or button pushed. Mark that on the hardcopy.

Comments/ issues/ lessons learned [8 points]:
State and explain the changes you made. Include the log of design decisions that affected your system design. Comment on any challenges you’ve encountered. Discuss what you’ve learned and the possible improvement or new work could be done in the future. Discuss what you would have done if you had more time. Address how newer UI technologies could enhance your project. Review the V+ sections of the posted grading criteria for previous assignments (on the class web site).

Code Hardcopy [12 points]:
The print outs or CDs for your codes to prove the project was implemented as stated are required. Also, compress your codes into *.zip format and mail it to our grader, Frank. Please use the filename:”team20.zip” for team 20. Replace “20” with your own team number.

Class Project
Final Project Outline
for December 4, 2001 (FIRM)

Approximate

<table>
<thead>
<tr>
<th>Pages</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cover Page</td>
</tr>
<tr>
<td></td>
<td>Team Number,</td>
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<tr>
<td></td>
<td>Team Member Names,</td>
</tr>
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<td></td>
<td>Team Location (Campus or off-site location name)</td>
</tr>
<tr>
<td>1</td>
<td>Topic explanation</td>
</tr>
<tr>
<td></td>
<td>(state assumptions, if any)</td>
</tr>
<tr>
<td>1</td>
<td>System Requirements</td>
</tr>
<tr>
<td></td>
<td>Top-level system requirements. Also, include from the homework whether your system met (or will meet) these requirements. Discuss IADT test verification methods</td>
</tr>
</tbody>
</table>
illustrating how you tested that your requirements were met.

1. **Navigation or Site Map**  
   (navigation hierarchy, e.g. menu tree)

3-4. **User Analysis**  
   discussion
   - User Characterization
   - Task analysis
     - Note: do a *data flow diagram* of tasks being performed by your system
   - Workload analysis
   - Environmental considerations
   - Dialogue/interaction style(s) selected
   - I/O device(s) selected

1. **Tools/system**  
   Tools selected for prototyping and implementation (if any)
   Discuss or present tradeoff matrix of tool alternatives

1-2. **Evaluation**  
   Discuss methods used to evaluate your system, e.g. usability matrix, survey, etc. Then, evaluate it.

1-2. **Specification**  
   Specify a small portion of your system using one of the techniques covered, e.g. UAN, IRG, state diagrams, etc.

10. **Screens**  
   Screens with explanation
   - Follow sample path(s) through your system, i.e. an example of how the system should work

1. **Comments/issues/lessons learned.**  
   Explain changes. Summarize major decisions that effected your design.
   - State what new UI or Input/Output technology changes
you would make for your system design. Comment on any challenges, e.g. use of a tool that proved insufficient for your design. What did you learn this time that you would do differently next time.

Open Code hardcopy

Comment: I fully understand that you will be resubmitting completed homeworks as part of this. Check grading criteria web page on class web site.

**Final Project Grading**

- 4 Cover page/title/followed directions
- 4 Topic explanation
- 8 System requirements
- 8 Menu tree or equivalent
- 8 User Analysis
- 8 Tools
- 8 Evaluation
- 8 Specification
- 24 Screen design
- 12 Credit for implementation/code
  - 8 Comments/issues/lessons learned
  - + Credit for posting web-based solutions on class web page
  + - Teaming considerations
- 100 Total possible points

Projects will be returned. Campus student projects will be left in or near the Computer Science Department Office. Remote students will have their projects returned via the normal process. Anyone who is out of the area (or graduating) and would like the projects returned by mail, please provide a stamped, large envelope to Professor Jacobs and the project will be mailed back to you.