Progress Reports Guidelines

Introduction

The Progress Reports are to show (with indications of proof) a snapshot of where the project is at the time the reports were prepared, and to inform the reader of the changes that have taken place since the Final Proposal. The reports consist of one team report (the Team Progress Report), and individual reports from each team member (the Individual Progress Reports). So if there are 4 people in your team, 5 total reports are expected.

In the Progress Reports your writing should be concise, and you should use bulleted lists, tables, and figures where possible to keep the documents short, yet informative.

Document Format

See the general Document Guidelines. A reminder that figures and diagrams are NOT included in the target section lengths.

The following sections are expected in the Team Progress Report. You should read the individual section descriptions to see notes on presentation and content.

- Cover page (team identification, project title, date, etc.)
- Table of Contents
- Project Overview (target 2 pages)
- Team Progress Summary (target 1 page, max. 3 pages)
- Verification Table update
- References
- Appendix A: Gantt or other scheduling charts (Current + that from the Final Proposal)
- Appendix B (if needed): Updated Project Goal, Project Requirements, System-Level Diagram and Overview, Work Breakdown Structure / Gantt Chart
- Additional Appendices (max. 15 pages)

The Individual Progress Report will contain the following sections in the order given below.

- Cover page (1 page)
- Executive Summary (1 page)
- Body, consisting of:
  - Individual Progress and Contributions
Specific Section Details: Team Document

Project Overview

The intent of this section is to re-introduce the reader to the project. It may be largely crafted from previous work if the project has not changed much from the Final Proposal, although it may contain details of decisions made since then. As it will set the stage for your progress descriptions, you might also want to include information about the main design challenges of your project. It must at least create the stage for the individual reports so the relevance of the individual work is apparent.

It is expected that details pertinent to the individual progress will be in the documents from those individuals.

If it makes sense, combine this section with the team progress summary. This section should not be as detailed as in your Final Proposal, and you may use your Final Proposal as a reference.

Team Progress Summary

This section summarizes what has been done since the last report. It is written by the team and can be used as a reference in each team member's individual report.

This section should contain the following items:

- A summary of the project goal and of any changes to the goal or requirements since the Final Proposal. A system-level diagram is often helpful. Be brief here since you can provide more detail in Appendix B (if there are changes).
- A summary of the team's progress. Highlight a few key accomplishments since the design review. Briefly describe some of the key challenges that were encountered and some of the key decisions that were made in this time. Is the team on schedule? Make explicit reference to the milestones on the original Gantt chart from the Final Proposal.
- The key responsibilities of each team member since the design review. One or two items for each member is sufficient, and can be general areas instead of tasks.
- A summary of any changes to the team work plan, individual responsibilities, or the project milestones. **It is not expected that your plan will evolve exactly as you first predicted.** Again, be brief here since you will provide the details in individual reports.
Updated Verification Table

Update the Verification Table from your Final Proposal. Note where changes have been indicated from the original, and how verification results have been recorded. Any changes to the original should be described in your previous sections. Note that module tests are not recorded here (unless they are also verification tests). The module tests and results should be part of your task information.

<table>
<thead>
<tr>
<th>Change?</th>
<th>ID</th>
<th>Requirement</th>
<th>Verification Method</th>
<th>Verification Result and Proof</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified</td>
<td>1</td>
<td>The item shall be dark blue</td>
<td>REVIEW OF DESIGN</td>
<td>Pass. See Appendix C</td>
</tr>
<tr>
<td></td>
<td>2a</td>
<td>The item shall have a maximum volume of 20cm x 30cm x 100cm</td>
<td>REVIEW OF DESIGN</td>
<td>Pass. 20cm x 25cm x 101cm. See Appendix C</td>
</tr>
<tr>
<td></td>
<td>2b</td>
<td>The item shall have a maximum mass of 6 kg</td>
<td>TEST: measure weight</td>
<td>Pass. 5.2kg. Results in section 5.3</td>
</tr>
<tr>
<td>Deleted</td>
<td>3.4</td>
<td>The gain in the amplifier unit will be greater than 50 db</td>
<td>TEST: Measure the gain using a 1kHz, 1mV(rms) input sine wave.</td>
<td>Untested</td>
</tr>
<tr>
<td></td>
<td>3.2</td>
<td>The item shall operate for a minimum of 1 year in low earth orbit.</td>
<td>SIMILARITY: reuse of design from last project.</td>
<td>Pass. See Appendix D and section 5.2</td>
</tr>
<tr>
<td></td>
<td>3.3</td>
<td>The item shall have the following maximum power demand:</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>3.3a</td>
<td>12 Watts average in standby mode</td>
<td>TEST: measure power</td>
<td>Untested</td>
</tr>
<tr>
<td></td>
<td>3.3b</td>
<td>23 Watts average in operational mode</td>
<td>TEST: measure power. Apply test signals as detailed in Appendix E.1</td>
<td>Untested</td>
</tr>
<tr>
<td></td>
<td>3.3c</td>
<td>31 Watts peak in operational mode</td>
<td>ANALYSIS: extract from previous test</td>
<td>Pass. 29 Watts peak. See Appendix E.2</td>
</tr>
<tr>
<td>New</td>
<td>4</td>
<td>Flight Computer will be able to set standby mode</td>
<td>TEST: manually power up then set mode.</td>
<td>Untested</td>
</tr>
</tbody>
</table>

Appendix A: Gantt Charts or Timeline information

Provide a current version of the Gantt chart or timeline information plus a copy of the previous version from the Final Proposal (if different). Each Gantt chart should be presented on separate sheets. They should fit onto 1 or 2 pages, and must cover the entire project cycle (i.e., from Sept. to April). The updated version should show progress and any changes.

A note about the WBS: An updated Work Breakdown Structure (WBS) table can also be included if you feel it necessary (e.g. if major revisions were made). Ensure the task titles and task numbers are consistent across this appendix.

Appendix B: Updated Proposal (only required if changes were made)

If you have made changes since the Final Proposal, use this appendix to provide updated copies of the key sections: Project Goal, Project Requirements, System-Level Diagram and Overview,
and Work Breakdown Structure / Gantt Chart. You must describe the changes that have happened, either in the main body of the team report, or with a phrase or so for each change here. Note that the expectation is that the requirements list will expand, based on solution-generated requirements. For example, choosing to work with a 120V power source means that requirements will be generated to cover safety and high-voltage regulation compliance. These new requirements should also be present in the Verification Table.

Additional Appendices (max. 15 pages)

Place in the additional appendices all other information does not fit the flow of the document. Some information is bulky and only summaries or snapshots will go in the main part of the document. Some background information may be required to bring the reader up to speed, but will be overly long or unsuitable for the main part of the document (which should still contain a summary of this background). There should be one Appendix for each subject and each Appendix should have a title and letter (e.g. C, D, …). Remember to provide captions for tables and figures. Each appendix must be referred to by its letter within the body of the Progress Report, and only include material appropriate to that reference.

Specific Section Details: Individual Document

One of these reports is created by each team member. Diagrams and figures can be used from the team report and from the Proposal, but the rest must be created by the individual team member.

Individual Progress and Contributions / Information on Individual Milestones

This is the main part of the individual progress report where you highlight your personal contributions to the overall project. Keep your writing concise, and focus on what was actually accomplished. If your progress is below your expectations, avoid the temptation to pad this section or to digress back into professing the intrinsic virtues of your project. Instead, write about what needs to be done to get your project back on track.

You may want to have general descriptive text followed by treatment of the individual significant milestones. Think about moving less-important material to an appendix if the report is getting difficult to read or too long.

Since this is the only individual report in the course, you can highlight any of your contributions to date. If you are limited by the report length, summarize your contributions in this section, placing all the detailed documentation in an appendix.

Typical information to include:

- Overview information that helps the reader appreciate the significance of your tasks to the overall project.
- A summary table of your individual tasks or milestones for this reporting period. Report only on your work; if you have significant contributions in a task assigned to another
team member, try to subdivide the original task into distinct portions which each of you can separately claim responsibility for (e.g. split 'Design of X' into 'Design of X' and 'Testing of X’). The table should have the following headings:

<table>
<thead>
<tr>
<th>Task #</th>
<th>Task Title</th>
<th>Category</th>
<th>Status</th>
<th>Old completion date</th>
<th>New completion date</th>
</tr>
</thead>
</table>

- The ‘Task #’ and ‘Task title’ should be taken directly from the updated Gantt chart or timeline in Appendix A.
- ‘Category’: Choose from ‘Old’, ‘New’, or ‘Modified’. Indicate ‘New’ if this task did not appear in the original Gantt chart from the Project Proposal. Indicate ‘Modified’ if the task was included in the original Gantt chart, but has since changed in nature or should be renamed. For tasks listed as ‘Modified’, also indicate under ‘Task title’ the previous title used.
- ‘Status’: Choose from 'Completed', ‘Delayed’, 'In progress', or 'Cancelled'. A delayed milestone is one that should have been completed by now, whereas a milestone that is ‘In progress’ is not yet completed but on schedule.
- ‘Old completion date’: For ‘old' tasks, specify the original expected completion date. Leave blank for new tasks.
- ‘New completion date’: For completed tasks, record the date of completion. If the task is 'in progress' or ‘delayed’ put down the expected completion date.

- Provide a brief report for each individual task listed in the above table. For tasks that have been cancelled entirely, a brief justification is required. An example format for reporting tasks and an example of a complete and incomplete task can be found here. A blank template can be found here. (left click to open the word file. Or right click your mouse and click on “Open weblink in browser”)

Some comments when reporting on tasks:

- You must provide sufficient and adequate documentation in order to substantiate your claims of completing or progressing on a task. Each task should be verifiable, and have some tangible result or milestone associated with it. Examples include:
  
  - a circuit schematic
  - a completed test plan document
  - key decisions from a research study (rather than simply saying that you studied something)
  - experimental or simulation results
  - For software, source code listings and class descriptions are sometimes useful but do little to show the work involved or that software actually works. Provide actual samples of the outputs of your program where possible, particularly those resulting from module tests. Also for larger programs provide documentation such as a functional specification, pseudo-code, state diagram, or flow chart. Note that failure to reference what code you copied from other sources, or modified and used is plagiarism and an academic offence. You must indicate what you developed
from scratch and what is from outside sources. Any software without any indication of source will be assumed not be yours for marking purposes. Where you modified the software, indicate the nature and extent of the changes.

Summarize the key significance or results from the documentation you’ve provided and attach the actual detailed documentation into the appendix where this is practical. For longer items, such as program listings, only include excerpts.

- **Actions vs. Decisions:** make a clear distinction between Actions and Decisions.

  - **Actions** focus on the activity that went behind the decisions. What alternatives did you explore? How did you compare the alternatives? How did you overcome any challenges?

  - **Decisions** result from the actions. Which of the competing solutions did you choose? Did you decide to change a milestone? Add further testing? Do further investigation? For each decision, provide a sentence or two to justify it.

A note on changing tasks and milestones: Some teams do not develop an adequate work plan as part of their Project Proposal and thus find themselves in a dilemma when they submit their progress report because the milestones no longer make sense. Under these circumstances, the students may choose to make substantial changes to the Work Plan and Gantt chart. This is acceptable, but students must provide adequate justification: it is not acceptable to change a project because you haven’t worked hard enough and now want to make it easier. Some examples of common problems and the questions you should ask yourself:

<table>
<thead>
<tr>
<th>A Problem</th>
<th>A Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have one milestone under which group members performed similar work but because the milestones were poorly worded or devised, the students got themselves into a trap (ownership of a task is murky)</td>
<td>If prime ownership for the milestone has changed, this should be noted. Group members doing work for the milestone should indicate what work they have performed. If the milestone was badly devised, it should be revised and/or split as appropriate.</td>
</tr>
<tr>
<td>Current milestone has an inappropriate title and should have been reworded or broken into subtasks</td>
<td>Note changes and do it right.</td>
</tr>
<tr>
<td>Unforeseen problems took place that were beyond the control of a team member (unrecognized risk)</td>
<td>Report activity under current status and discuss the problems in the context of decisions made. Show changes to work plan, divisions of responsibility and any new identified risk. Risk analysis is an ongoing &quot;moving target&quot; that is finished only when the project is finished.</td>
</tr>
<tr>
<td>Work was done on a task, then the task was cancelled as a result of a project decision</td>
<td>Note how far you got in the task and (briefly) the reason it was cancelled.</td>
</tr>
</tbody>
</table>
**Conclusion / Progress Assessment**

Conclude the document by briefly summarizing the current status of your individual work and of the overall project and give the reader a sense of whether or not the project is on track and the expected final outcome of the project. Provide a balanced assessment that is positive, yet honest.

**Additional Appendices (max. 15 pages)**

See Team Progress Report section for details.