The Assignment

This assignment will give you some experience preparing a document to help people learn how to use a software product. Although you won’t have sufficient time to write a complete document for a complex software product, this activity is representative of what such an activity typically entails.

The motivation for this assignment should be understandable to anyone who is remotely familiar with computers and software products. At some point, each of us is unfamiliar with a specific software product and so we look for guidance in how to use it, what the capabilities are, etc. While today most software comes with extensive online assistance, written documents (in the form of tutorials, user guides, reference documents, and the like) are also usually provided. For this assignment, you must write a complete, helpful, and well-organized user document for a software product. Assume your audience is a first-year student who is only a couple of weeks into their first quarter at RIT. Further assume your audience is not familiar with the software product prior to starting at RIT.

1.1 Topics

You must follow the given directions and receive approval before beginning to write.

To do this, you must send an email message to me no later than one week before the first draft is due. Include appropriate identifying information about yourself. Include in your subject line your course number and your section number, as well as a clear indication of the nature of your message. In your email message, state your proposed topic and provide a rationale for your choice. Approval or denial of your request will be sent to you via email. If you want to propose more than one topic, list them in order of preference and include a separate rationale for each topic. Students who submit a user document for a non-approved topic will receive a zero for this assignment.

1.2 Format

Your document should follow a logical series of steps to get users through prescribed tasks, and have appropriate visual aids (such as screen shots, etc.). Although you may be comfortable learning information directly from the “Help” guide, you must not write a Help guide. You must do much more than that!

1 Adapted from RIT DCS, H. Etlinger
For specific style guidelines, it is a good idea to consult the IEEE recommendations for “Software User Documentation” that is posted on the website for this course. Further, while you will have some flexibility in designing a tutorial that is appropriate to the topic, there are still some formal aspects that must be observed. Your document must start with a separate title page. The title page will include only the following information: a document title, your course number and your section number, your name and the date of submission. In addition, for the draft document, write the word \textit{draft} at the top of the title page (it may be handwritten). For the final version, do not write anything at the top of the title page. There must be a table of contents on a separate page at the beginning of the document followed by a list of figures also on a separate page. At the end of the document there must be a glossary and an index on separate pages, followed by a list of references on a separate page. Annotate (describe) each reference in your list. For example, you can give some indication of the level of difficulty of the source or identify the primary audience for the source – one source may contain the complete, unabridged reference to some technology, whereas another source may offer excellent examples, especially to those unfamiliar with the technology.

Use page numbers, set reasonable margins, and use numbered section headings. Use a heading scheme similar to that illustrated in the IEEE recommendations. This makes it easier for readers to identify topics and subtopics of interest to them. Note, by convention, normally the title page is not numbered. Pages that follow the title page but are not part of the content (such as the table of contents or an abstract) are numbered with lower case Roman numerals (i, ii, etc.). Pages of actual text are numbered with Arabic numerals (1, 2, etc.). Throughout your document make appropriate references to your sources. A common convention is to organize your reference list alphabetically and assign each reference a number in alphabetical order. Within the body of your document you can refer to specific sources by simply using the appropriate number. For example, “... as given in [1] ...” or “... for a more detailed account see [2] ...” would be appropriate. The final version of your document may be single- or double-sided, and single-spaced. Sections, sub-sections, and paragraphs must be separated by an appropriate amount of white-space.

1.3 Content

Your document must include a general introduction so that readers can determine what will be covered (and what is not covered). Also, listing typical uses for the tool or the kinds of tasks that one can accomplish makes your document more useful. Include a description of the intended audience and what skills they are assumed to possess, or what technology they can be presumed to be familiar with. Provide a description along with some illustrations of the stylistic conventions used throughout the document and use those conventions consistently! For example, even if you think it is obvious that items in bold represent commands typed by a user, you must state this explicitly to avoid ambiguity. You might consider using the IEEE recommendations (especially sections 1 and 2) as a model for how to structure your own document.
A Procedures section must follow the Introduction (or the General Use section if that is included). The Procedures section will consist of a series of sub-procedure sections, labeled with a short description of the sub-procedure to follow. Make sure that you provide sufficient examples for each of the sub-procedures. It’s important to describe not only what to do, but also show how to do it and what happens in response to specific actions. Think of examples and figures as vehicles that help readers confirm their understanding of a concept. Examples and figures can also provide clues as to how a process is supposed to work.

Finally, seize opportunities to help your audience. Readers often raise questions when they first read a passage. They might not quite understand your directions or they simply may be curious and want to know what would happen if they did things slightly differently (for example, if they skipped a step or did things in a different order). Anticipating such questions and offering answers serves the needs of a variety of potential readers. As a side note, the IEEE recommendations refer to an instructional mode or a reference mode for documentation content. There may be elements of both modes in the document you write for this assignment, but the instructional mode is clearly more appropriate here.

1.4 Usability Testing

In addition to the software documentation, you must test the effectiveness of the document. To do this, recruit several volunteers (minimum of 3) who are willing to use your guide as their sole source of information for learning about the software product. Choose appropriate subjects (i.e., potential users such as freshman, or those who are only vaguely familiar with computer software). Do not choose as a subject someone from this class, or someone who may already be familiar with the software. Prepare a usability test plan by selecting features of your document that you want to target, and a method for gauging the effectiveness of your explanations. You may use any of the techniques that were discussed in class. After testing the document with subjects, modify your next draft to incorporate improvements. Write a short report of the test plan and the results of the testing.

2 Peer and Self Review

Each person should plan to produce two versions of his or her user document. The first version is considered a draft and will be reviewed by members of his or her group.

The purpose of the review is to give constructive criticism before the final version is submitted. Hopefully, this will result in a more effective and professional document. You should follow a strategy for developing the draft that makes the best use of your time and allows for effective feedback from your group members. For example, some people prefer to work quickly and get an entire document done in outline form for the draft. Others prefer to work one section at a time, polishing and reworking each section as they go. Some authors do not worry too much about grammar in earlier drafts. The point is to take advantage of the review process. This may include not trying to create a perfect
The intent of the “draft, review, revise, finalize” process is that it should be carried out sequentially.

Reviewers should consider the “usual” matters (format, general appearance, grammar, etc.) and also consider how complete and how helpful the document is. It’s very common for people who know how to use a software tool well to have a great deal of difficulty describing it to beginners, or anticipating the kinds of mistakes or misunderstandings made by beginners. It is also important that the final document is error-free. Reviewers must write comments, concerns, and suggestions directly on the draft under review. In addition, they must complete a review form and return the annotated draft and the review form to the author at a time mutually agreed to, and that will allow sufficient time for the author to make corrections before the final version is due. Reviewers are encouraged to discuss their criticism and give suggestions directly to the author. Authors will also have an opportunity to self-assess their own final document.

3 What to Submit

For the final version, hand in the following items, in the order and manner listed below. Each item in this list is considered a separate document. If you have a multi-page item, it must be stapled. Place all documents together using one paper clip in the upper left corner. Consider having one member of your group review your submission to be sure you have all of the required documents, and that they are in the correct order.

- Your final user manual (on the top)
- Your usability study
- Your draft user manual
- The review that corresponds to the draft
- Your self-review of your final user manual (on the bottom)

4 Grading

Your grade will be based both on your adherence to the process and on your final documents. The process consists primarily of your preparation for and participation in the review activity, as well as your reaction to suggestions made by your reviewers. Your final document will be judged on grammatical style, logical organization, and on how well your document meets the needs of the intended audience (as judged by your usability study). Part of the grade assigned to your final material is based on how well you took advantage of your reviewer’s comments. This assignment is worth a maximum of 15 points toward the “User Manual” category.

5 A Few Tips

1. You must design and write this document yourself. Note this does not allow you to cut and paste sections of material from sources without giving proper credit to the source. You may model your document on another work, but the source should be
acknowledged and the extent to which you utilized the source should be clearly communicated.

(2) If you want to take screen shots to include in your document, see the link *Taking screen shots with xv* on the http://www.cs.rit.edu/~vcss341 web site.

(3) If you want to show an actual session of what you type in an xterm window and show the response, see the link *Using script to capture keyboard sessions* on the above mentioned web site.

(4) Consider “little touches” that will enhance your user manual. Color, either to highlight elements or for figures, is often useful. Consider carefully font style and size. Be consistent in your use of spacing (single spacing vs. double spacing, how you set off sections, etc.).

(5) Figures should not only have captions, but should also be described in detail in the text. You must refer to all figures directly in the body of the text, even if the figure occurs in close proximity.

(6) Test your document by sitting down in front of the computer and following each step to see if the information is complete and correct before beginning the usability study.