The Assignment

This assignment will give you some experience with working on a team to prepare a document that helps people learn how to use a software product. Although your team 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 work with your team to 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 semester at RIT. Further, assume your audience is not familiar with the software product prior to starting at RIT.

1.1 The Proposal

Your team must write and submit a formal proposal of your intended topic and receive approval before beginning to write the document. The proposal is due at the beginning of class on the date given at the top of this assignment. Only one proposal is required per team, so you should determine ahead of time which member of your team will be responsible for printing a hard copy of the proposal and handing it in on the due date.

The proposal will be one-half page in length and will include the name of your team and the name of all team members. State your proposed topic and provide a rationale for your choice. Include in your proposal sufficient background information about the software (what it is used for, where it can be found, any special hardware/OS needed, etc.), the major features of the software product, an overview of a tutorial that will instruct users in how to use this software, and the intended audience of the tutorial.

1.2 Document Format

The 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!

For specific style guidelines, you may want to consult the IEEE recommendations for “Software User Documentation” that is posted on the website for this course, but it is not necessary that you follow the IEEE recommendations for this assignment. 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. The document must start with a separate title page. The title page will include only the following information: the document title, this course name and course-section number, your team’s name and the name of each member of your team, and the date of submission. In addition, for the draft document, write the word *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, “... this design pattern is widely used [1] ...” or “... detailed accounts can be found in other sources [2] ...” would be appropriate. The final version of your document may be single- or double-sided, and single- or double-spaced. Sections, sub-sections, and paragraphs must be separated by an appropriate amount of white-space.

1.3 Document Content

The 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 software 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 The Draft and Peer Review

Each team should plan to produce two versions of the document. The first version is considered a draft and will be reviewed by members of another team. Plan to make at least 5 copies of the draft, so that each member of the other team can independently read your team’s document.

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 team’s time and allows for effective feedback. For example, some teams may prefer to work on an overview of the entire document together, and produce the draft in outline form. Other teams might prefer to have each team member work on one section alone, and then have each member send their draft to the other members for polishing and reworking. A hybrid approach is also acceptable. Some teams do not worry too much about grammar or typos in the draft and other teams prefer perfection every step of the way. The objective is to take advantage of the strengths of your team.

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
should 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 authors at a time mutually agreed to, and that will allow sufficient time for the authors to make corrections before the final version is due. Reviewers are encouraged to discuss their criticism and give suggestions directly to the authors.

1.5 The Usability Study

In addition to writing the documentation for the software and the procedure for using it, your team must determine the effectiveness of the document. To do this, your team should recruit several volunteers (a minimum of three) who are willing to use your team’s document as their sole source of information for learning about the software product. Choose appropriate people to use as test subjects (i.e., potential users such as freshman, or those who are not familiar with the 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. After the test subjects have performed the procedures given in the document and you have collected information from them about the usability of your document (note: you are not testing the usability of the software product, but rather the usability of your document), modify your document to incorporate improvements. The usability study will be handed in separately from the final document, and is due at the beginning of class given at the top of this document. The report will be approximately three pages in length and will contain a description of the test (how it was conducted), the results of the test (what you learned from your test subjects) using charts, tables and/or graphs, an analysis of the results, and a description of the changes you made to your document as a result of the test.

2 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 team review your submission to be sure your team has all of the required documents, and that they are in the correct order.

The final document (on the top)  
The usability study  
The draft of the document  
The review that corresponds to the draft (on the bottom)

3 Grading
Everyone on your team will receive the same grade for this assignment. Your team’s grade will be based both on your team’s adherence to the process and on the final documents. The process consists primarily of your team’s preparation for and participation in the review activity, as well as your team’s reaction to suggestions made by your reviewers. The final document will be judged on grammatical style, logical organization, and on how well the document meets the needs of the intended audience (as judged by your usability study). Part of the grade will be based on how well your team took advantage of the reviewer’s comments. The proposal is worth a maximum of 3 points towards your final grade for this course, the document (including the draft) is worth a maximum of 10 points towards your final grade for this course, and the usability study is worth a maximum of 2 points towards your final grade for this course.

4 A Few Tips

(1) You team must design and write this document yourselves. Note this does not allow you to cut and paste sections of material from sources without giving proper credit to the source. Your team 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) Be sure that each section begins with an introduction to the topic covered in the section. Do not just list a sequence of operations to be performed without any context.

(3) 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.).

(4) 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.

(5) Figures should be numbered and captioned below the figure (centered) and tables should be numbered and captioned above the table (left-justified).

(6) Initially test your document by having one team member sit down in front of the computer and follow each step to see if the information is complete and correct before beginning the usability study.