

Assigned: February 25, 2006

Due: March 9, 2006

Name: Fill in on your answer sheet

Imagine that you have an interview with the company **Xinuworks**. The position is with the file systems group and the job involves enhancing and maintaining the Xinu file system code. You want to gain a reasonably good understanding of the Xinu file system code with the help of in-line documentation and whatever information you can find on the web about Xinu (see the document posted on the class website). This homework is about making and documenting such an effort.

Specifically, do the following:

1. Part I: Describe the strategy you have followed in extracting and analyzing information from the code to gain a good understanding of not just a high-level view but important specifics of the Xinu file system.
2. Part II: Document your understanding of the Xinu file system including your high-level understanding plus the specifics that you think are important.
3. Part III: Describe the challenges you have faced in this program comprehension exercise.
4. Part IV: Gather information on tools such as the Cscope (<http://cscope.sourceforge.net/>) and discuss how such a tool could be used for program understanding. If you have time, experiment with such a tool and summarize your experience.

You are expected to do substantial amount of work, and provide a well written document.

You should use the Xinu code posted on the class website.

Suggestions:

- Show that you have gained significant understanding of the Xinu file system by expressing your understanding in concrete and meaningful ways.
- State your program comprehension strategies as clearly and concisely as possible.
- This is an open-ended problem. It will require some creativity and judgment on your part to define the scope of the work.
- Think of meaningful ways of expressing your efforts and the results of your work.