ITBU 373, Operating Systems Homework 33

Chapter 41, *Operating Systems, Three Easy Pieces*

Readings

Read chapter 41 in the *Operating Systems, Three Easy Pieces* book.

Discussion Questions

Answer the discussion questions in writing.

1. What is a *cylinder group* and how is it defined on a hard disk drive?
2. How do *block groups* relate to cylinder groups?
3. In the FFS, what is the role of the super block within a cylinder group?
4. What is the role of the inode and data bitmaps within a cylinder group?
5. What is the basic "rule" of FFS? In other words, how is FFS different from the simple file system in chapter 40?
6. Describe the *large file exception*? For what purpose does the large file exception exist?
7. How does the FFS *amortize* the time spend seeking between chunks of data? Please be specific.
8. What is the purpose of *sub-blocks*? How are they used in the FFS?
9. Explain how *parameterization* works while skipping blocks in doing layout in the FFS.
10. What is the *track buffer*?
11. What is a *symbolic link*?