Assignment 6

Due Fri. 13 October 2000

- **Note: This is a time-consuming assignment (which should be obvious upon reading it) and it will count accordingly**. You have been given extra time; don't wait until the last day to start it. I am telling you this now as a courtesy. Please don't say that you weren't warned.
- Work with one other person. Let me know in advance who it is. Let me know if you want me to help you find a partner.
- Turn in: all code, a test file, and a demonstration of your CLI running. Indicate who is responsible for which use cases.

Requirements

- Using your model of the TAU file system (or some other model of it), as defined in Assignment 4, implement the functionality of the attached use cases as an API, along with a CLI (command-line interface) that tests the API.
- Use STL where appropriate.
- Exploit **Design Pattern** ideas in your implementation, and point out where these are used. For example, the command-line interface would be an Interpreter pattern. Implementing certain of the operations will use either an Iterator or Visitor pattern, etc.

  To get credit for this part, you *must* indicate explicitly where and how the pattern is being used.

Required Use Cases (1 of 2)

- **cd**: Set current directory to one specified by a path.
- **cp**: Create an ordinary file in a specified directory by copying contents of another file.
- **cpa**: Create a directory in a specified directory by copying a directory recursively.
- **create**: Create an ordinary file in a specified directory (current or otherwise) by giving the contents as a string.

Required Use Cases (2 of2)

- **ln**: Establish, in a specified directory, a link to a specified file.
- **lns**: Establish, in a specified directory, an alias according to a specified path.
- **mkdir**: Create a directory in a specified directory.
- **mv**: Move a file to another directory.
- **ren**: Rename a file in a directory.
- **rm**: Remove the identified file or directory from its directory.