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Software File Structure

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General Recommendations

- Express the structure of the software's design in the software's file structure

- Put files that work together in the same directory

- Use version control software to control and track modifications to files

Kinds of Files

- A software system will often contain various kinds of files for holding:
  - Source code
  - Object code
  - Scripts
  - Binary executables
  - Data
  - Documentation
- Use file name suffixes to distinguish between different kinds of files

Modules

- Put all the files associated with a module in the same directory

- The directory of a module should contain:
  - A **readme** file describing the module and its use
  - A **status** file listing what is finished and what needs to be done
  - An **install** file that will install the module
  - A **make** file to automatically update module files
  - A **maintenance** file explaining how to maintain the module files

Interfaces

- Put the interface and the implementation of a module in separate files
  - Enables an implementation to be easily replaced
  - Other modules only need access to the interface file
  - In C, the interface can be put in a header file while implementation is put in a source file

- List at the top of each implementation file the interfaces that need to be imported
  - In C, this is done with an `#include` command