# Log Book Week 6

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This week's material is about make, stdio, and procs limit. First I read the slides from SCeLE and did the pre-test using the resources on the internet. Here are the resources I gathered, I tried to write my own understandings in this log book.

### Make

The make utility automatically decides the parts of a large program need to be recompiled and issues the commands for recompiling them. Make is not exclusive to services. You can use it to define any job where, if others alter, certain files must be modified automatically by others.

#### Makefile

If you want to run or update a task when certain files are updated, the make utility can come in handy. The make utility includes a Makefile (or makefile) file that specifies the set of tasks that are to be performed. Make may have been used to compile a program from the source code. In most open source projects, make is used to compile a final binary executable that can then be installed with make install.

## System Limits

The total number of client connections, database files, and log files must not surpass the maximum file descriptor cap on the operating system to ensure decent server performance (ulimit -n). The directory server makes an infinite number of links by default, but is limited by the operating system 's file descriptor limit. Linux systems restrict the number of file descriptors that can be opened to 1024 per process by any one process. Any new process and worker threads will be blocked after the directory server has met the file descriptor cap of 1024 per process.

### I/O Buffering

A buffer is a memory space that holds information that is shared between two devices or between an application and a computer.

