

System Programming Lab

2021315385

이건 / Gun Daniel Lee

Report 12

This report summarizes the man command result of the commands *select()*, *poll()*, and *epoll_wait()*. These three commands are the key commands required in concurrent programming.

select(): *Select()* allows a program to monitor multiple file descriptors, waiting until one or more of the file descriptors become “ready” for some class of I/O operation. A ready file descriptor should be able to perform a corresponding I/O operation such as *read()* and *write()*. This command returns the number of ready file descriptors.

poll(): *Poll()* performs similarly as *select()*. It waits for one of a set of file descriptors to become ready to perform I/O. The set of file descriptors to be monitored is specified by a structure which includes the file descriptor, requested event, and returned events. On success, a positive number representing the number of file descriptors that are ready. -1 is returned if an error has occurred.

epoll_wait(): *epoll_wait()* waits for an I/O event on an *epoll* file descriptor *epfd*. An *events* structure will contain the events that are available for the caller and up to *maxevents* of events are returned by *epoll_wait()*. *Maxevents* must be greater than zero. When successful, this command returns the number of file descriptors ready for the requested I/O.

These commands are helpful in knowing the number of file descriptors ready for I/O, especially in servers with several client connections.