

ABSTRACT

Operating system is a software, it is used to manage hardware and provide extended function to application. Every computer needs an operating system in order to operate the computer. System call are provided by operating system to programmer in order to making software more easy.

This final assignment was developed a modular and multitasking operating system, function as hardware management and system call provider to application. It used round robin algorithm to process management, virtual memory to memory management, FCFS algorithm to floppy management and index method to file system management. Operating system interface was developed too. This interface will be used to operate the operating system.

This operating system was implemented with linux operating system, gcc (compiler in linux), NASM (assembler in linux), ld (linker in linux). This operating system uses personal computer with Intel Pentium Celeron processor that Intel 386 architecture compatible.

Key word : *operating system, round robin, virtual memory, FCFS, process (task), system call, file system*