

Operating Systems

What is an operating system?

- The **operating system**: *A collection of programs* that manages and controls applications and other software, and coordinates the various hardware components to perform tasks requested by the user.
 - Controls both Hardware and Software

History

Loader: first program to become part of the Operating System

- The loader took care of loading object code (binary machine code) into memory
 - Decide where to start loading
 - Read first binary instruction, and store it in memory starting with the first place
 - Add up to get the next spot
 - Read in the second binary instruction, and store it in memory, etc
 - When done, load the program counter with the starting address. And erase itself from memory.
- BUT: Programs ran one at a time.
- Later: How about **stacking all jobs together?**
 - separator card, indicates where one job stops and the next began
- So a program was created to do job management and to load the next job each time it read the special indicator cards.

→ **Beginning of the operating system**

EXAMPLES: Mac OS, MS Windows, MS DOS, UNIX, Linux