

Virtual Memory

Chapter 8

Hardware and Control Structures

- Memory references are dynamically translated into physical addresses at run time
 - A process may be swapped in and out of main memory such that it occupies different regions
- A process may be broken up into pieces that do not need to be located contiguously in main memory
 - All pieces of a process do not need to be loaded in main memory during execution

Execution of a Program

- Operating system brings into main memory a few pieces of the program
- Resident set - portion of process that is in main memory
- An interrupt is generated when an address is needed that is not in main memory
- Operating system places the process in a blocking state