

Naive Idea : load time linking

How about doing the linking when process executed, not at compile time

- ➡ Determine where process will reside in memory and adjust all references within program
- How to relocate the program in memory during execution? (consider functions but also data pointers now)
- What if no contiguous free region fits program?
- How to avoid programs interfering with each others?

Issues in sharing physical memory

Transparency

- A process shouldn't require particular physical memory bits
- A process often require large amounts of contiguous memory (for stack, large data structures, etc.)

Resource exhaustion

- Programmers typically assume machine has “enough” memory
- Sum of sizes of all processes often greater than physical memory

Protection

- How to prevent A from even observing B's memory
- How to prevent process A from corrupting B's memory (whether it is intentional or not)