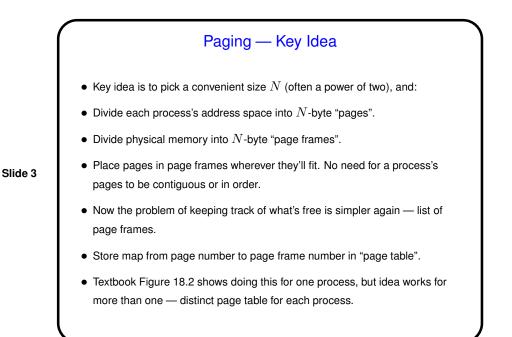
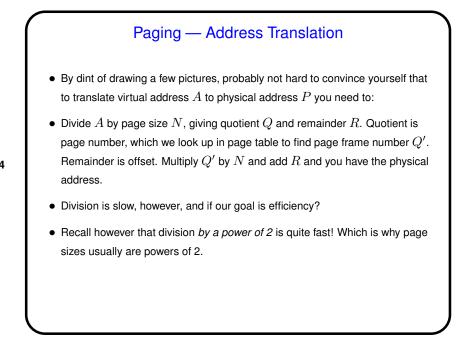
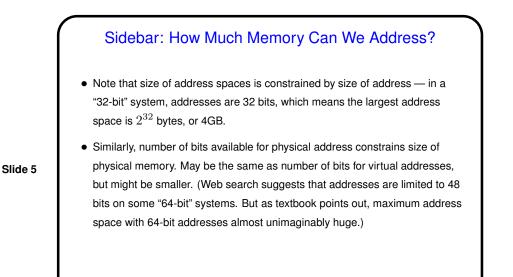


1





Slide 4



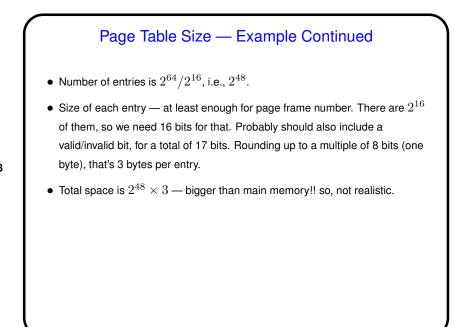
Contents of Page Table Page table is a map. What's in each entry? Page number and page frame number? Not exactly ... No need to store page number — implicit in index. So, page frame number, plus you want some way to indicate that this page isn't in use, so there isn't a matching page frame. Typically call this a "valid" bit. Other useful bits: Protection — can process read, write, execute from this page. Present — is page valid but not in memory (much more about that later). Referenced, modified bits — help track page usage (more about this later too).

Slide 6

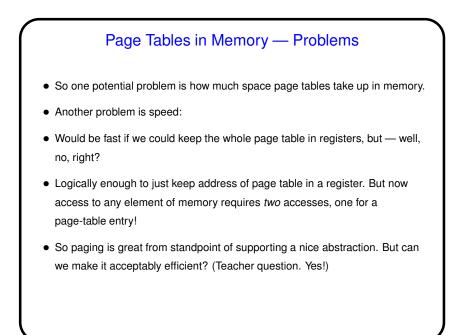
3

Slide 7

Page Table Size
Page table sizes are manageable with very tiny memories, but for anything realistic . . .
Textbook does calculations for one example. Let's do another: Given a page size of 64K (2¹⁶), 64-bit addresses, and 4G (2³²) of main memory, at least how much space is required for a page table? Assume that you want to allow each process to have the maximum address space possible with 64-bit addresses, i.e., 2⁶⁴ bytes.
(Hints: How many entries? How much space for each one? and no, this is not a very realistic system.)



Slide 8



Minute Essay
• Questions? Is this making sense so far?
Slide 10

Slide 9