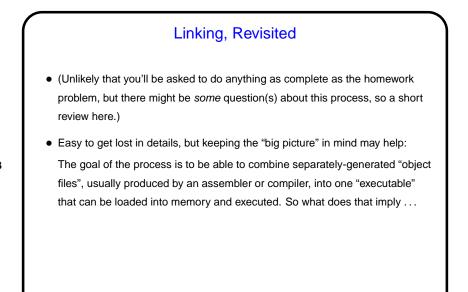


Slide 2



Slide 3

Linker Input/Output

- Output of the linker is meant to be something the operating system can load into memory and execute. Notice that this might not be true for output of assembler or compiler — e.g., if there are calls to procedures not included in the source code (e.g., to library functions). Also probably need information on how much memory is needed for combined code (machine instructions) and combined "fixed data" (as opposed to data for which we get memory at runtime). For SPIM (which incorporates a very primitive o/s) we assume that we always load the code and data into the same place in memory.
- Input to linker is "object files". What do they need to include to make the above possible? for one thing, sizes (of code and fixed data). for another, a list of labels that could be referenced from other object code. finally, a list of places where the assembler/compiler wasn't able to completely generate code because there was a reference to a label (possibly in another object file).

Slide 4

