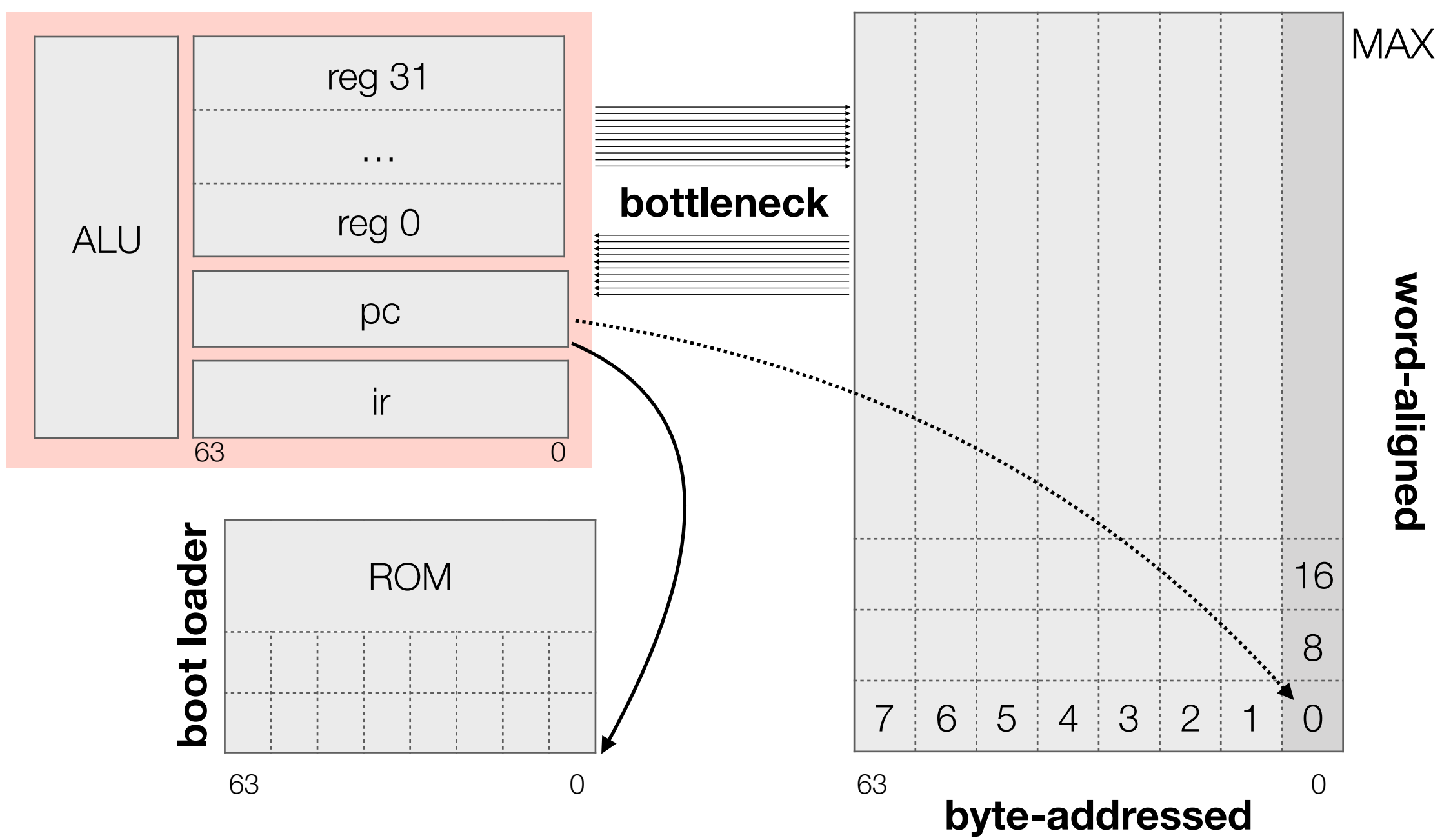


VonNeumannMachine

CPU



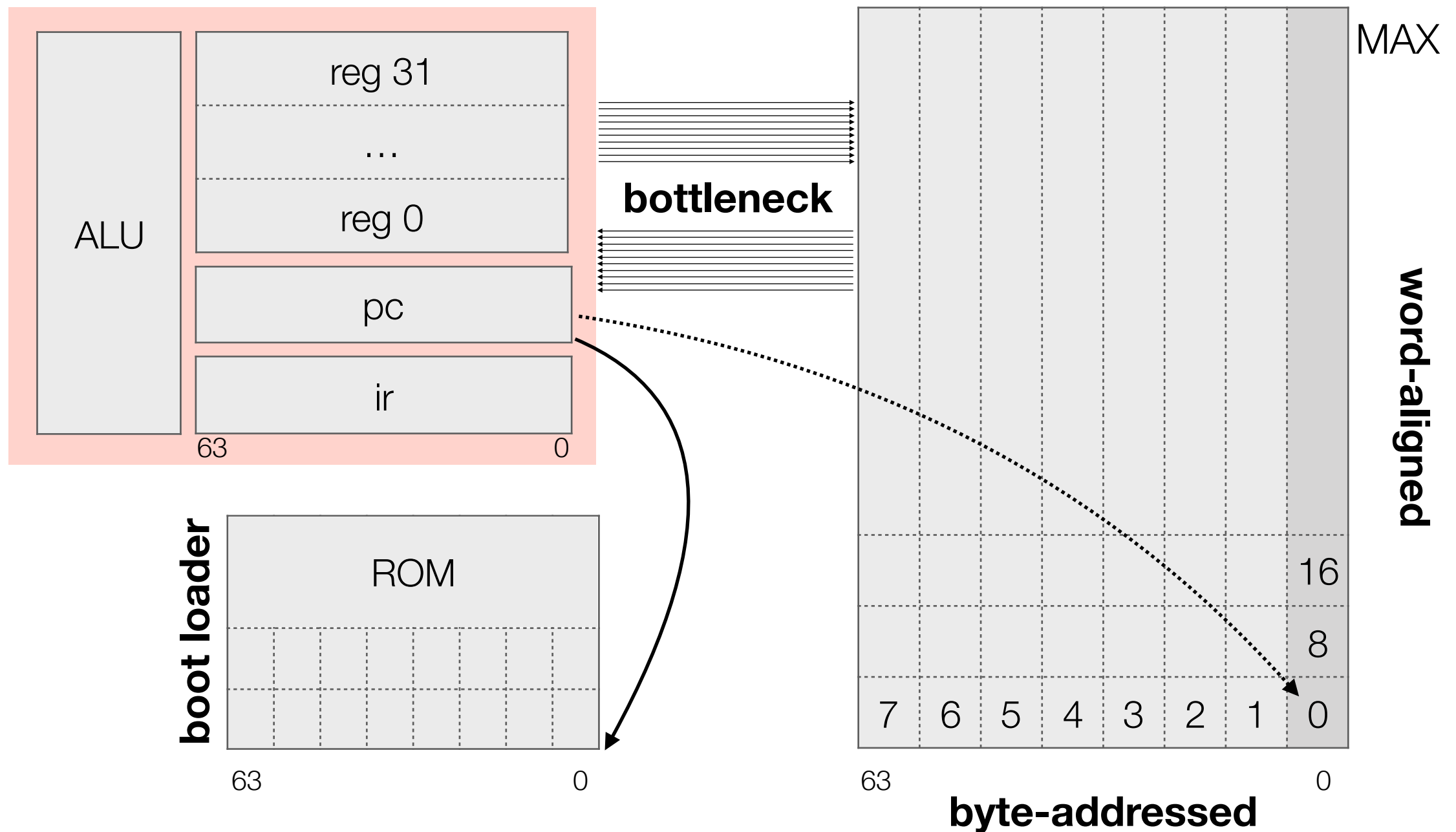
More about the Von Neuman architecture

Von Neumann Machine

- **Key idea** - code and data in same memory
- How do we know what code is and what data is?
 - The **program counter** points to an instruction in memory making it code. This instruction may instruct the processor to load bits from memory and modify them making these bits data.
- **Bootstrapping** - Loading the first program
 - At the very beginning hardware support is needed to set the PC to address 0 of the memory where the boot-loader code is stored.
 - The boot-loader is code stored in non-volatile memory (ROM) that instructs the processor to load code.
 - Last instruction sets the PC to address 0 of main memory.

Von Neumann Machine

CPU



More about the [Von Neumann architecture](#)