Assembly Language Lecture Series: X86-64 Software Architecture

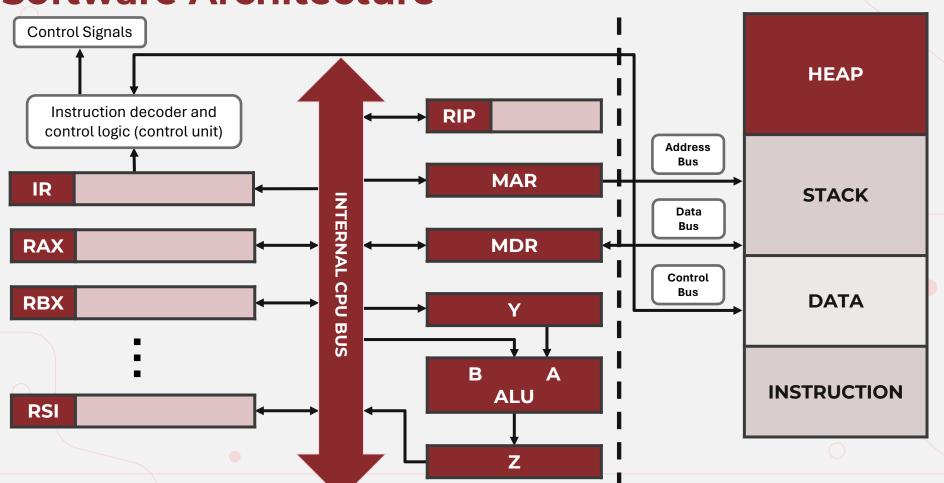
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Software Architecture



Software Architecture: Memory Memory Control Signals address data (hex) Data Memory 403017 403016 Instruction decoder and **RIP** control logic (control unit) 403015 **Address** 403014 Bus **MAR** 403013 IR INTERNAL 403012 Data 403011 Bus **RAX MDR** 403010 Instruction Memory Control CPU Bus 4014E6 **RBX** Y 4014E5 BUS 4014E4 4014E3 В **ALU** 4014E2 **RSI** 4014E1 4014E0 Z

Software Architecture: Memory Memory **Control Signals** address data (hex) Data Memory 403017 403016 Instruction decoder and **RIP** 403015 control logic (control unit) ddress Let's try to execute this... 403014 Bus 403013 IR 403012 section .data Data 403011 Bus var1 dq 0x11223344AABBCCDD **RAX** 403010 section .text Instruction Memory ontrol Bus MOV RAX, [var1] 4014E6 **RBX** 4014E5 4014E4 4014E3 В 4014E2 ALU **RSI** 4014E1 4014E0 Z

