





MELTDOWN & SPECTRE FOR NORMAL PEOPLE

CONFIDENTIAL BURGERS INC. : ORDER IS IMPORTANT

































The green instruction will finish before the red instruction. The CPU ensures that red is seen before green.

CPU core













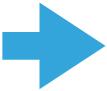




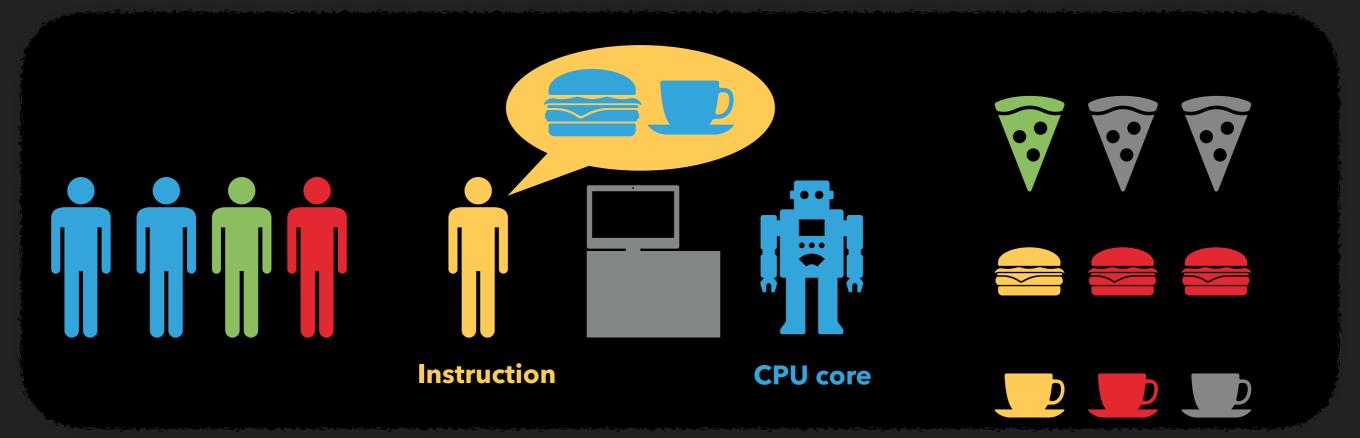


Actual µOP execution order

Instruction execution order as seen

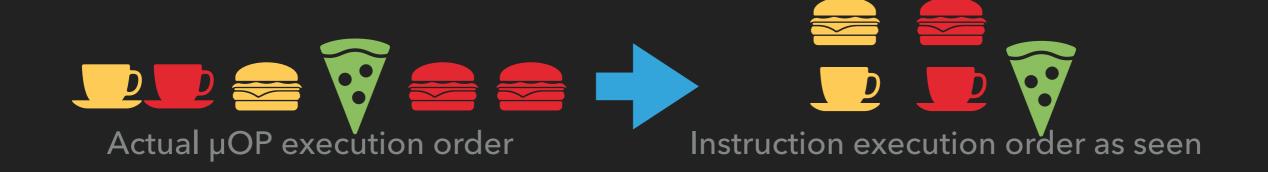


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The CPU ensures that red is seen before green.



WHY DID MELTDOWN & SPECTRE HAPPEN?