

CPU Architecture

A CPU's architecture consists of the bits of instructions it can handle, the type of machine it is made for, and how it processes instructions. Furthermore, most modern processors support virtualization technology, allowing 64-bit virtual machines to run on a device.

Purpose

Upon completing this project, you will better understand the components of a CPU's architecture.

Steps for Completion

1. How many bits does an x86 processor support?
 - a. _____
2. In which type of device will one often find an ARM processor?
 - a. _____
3. What is the difference between a single-core and multicore processor besides the number of cores in the processor?
 - a. _____

4. Which architecture trait, mainly found on Intel processors, allows apps to have a processor emulate two physical processors?
 - a. _____
5. Where can virtualization support be enabled for a device if available but not enabled?
 - a. _____
6. On a Windows device, use the System Information window to find out whether your processor is a 32-bit or 64-bit processor, and list your answer here:
 - a. _____

Project Details

Project file

N/A

Estimated completion time

5 minutes

Video reference

Domain 3

Topic: Motherboards, CPUs, and Cards

Subtopics: x64 and x86; ARM; Single-Core; Multicore; Multithreading; Virtualization Support

Objectives covered

3 Hardware

3.4 Given a scenario, install and configure motherboards, central processing units (CPUs), and add-on cards

3.4.6 CPU architecture

3.4.6.1 x64/x86

3.4.6.2 Advanced RISC Machine (ARM)

3.4.6.3 Single-core

3.4.6.4 Multicore

3.4.6.5 Multithreading

3.4.6.6 Virtualization support