

CALIFORNIA STATE SCIENCE FAIR 2009 PROJECT SUMMARY

Name(s)

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Project Number

J0917

Project Title

RAM vs. CPU: A Study on the Effects of RAM and CPU on Computer Speed and Performance

Abstract

The objective of my projects was to determine if the main modifier on computer speed and performance was random access memory of the computer processor unit and how much of an effect these two components had.

Methods/Materials

Objectives/Goals

I tested this by obtaining three computers with similar ram and differing processor speeds. I installed one copy of my two test programs on each of these computers and then ran these programs twenty times. I used these times as my data by averaging them. To preform these tests I used three computers with similar amounts of ram, three cpus with three different speeds, three copies of RPG Maker 2003, three copies of t@b video editor, and one stopwatch.

Results

I found that the cpu had more of an effect on speed and performance of an operating computer than the ram in all instances except for when I was running a more complex program.

Conclusions/Discussion

The results I attained did not prove my hypothesis correct. I had stated that the ram would have more of an effect however it was the cpu that triumphed. This project has furthered my knowledge in this field by disproving my previous theories about ram and educating me on the effects of faster processors.

Summary Statement

The effects of ram and cpu on computer speed and performance.

Help Received

Mother help assemble display