

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s)

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Project Number

J1207

Project Title

Which of Three Commonly Used Computer Programming Languages Performs the Fastest?

Abstract

Objectives/Goals

The objective was to determine which computer programming language performs the fastest: Microsoft Visual Basic, Borland Delphi, or Microsoft Visual C++.

Methods/Materials

The two test algorithms were designed and programmed in three of the most commonly used computer programming languages: Microsoft Visual Basic 6, Borland Delphi 2005 (Win32), and Microsoft Visual C++ .NET 2003 (Win32) using functionally identical source code. These algorithms were a soundex-based spell-check program and a prime number sieve based upon the Sieve of Eratosthenes. Another computer program was developed to conduct the thousands of timed tests that would determine the fastest language, and to analyze the mass of data.

Results

The results from both algorithms showed that Visual C++ performed the fastest, Delphi ranked in a relatively close second, and Visual Basic lagged behind as the slowest.

Conclusions/Discussion

From this experiment, I can conclude that Visual C++ is one of the fastest computer programming languages. This information is very useful for the programming community. While there are other factors that determine the programming language to use for a development project, when speed is important, this experiment proves that Visual C++ should be the language of choice.

Summary Statement

My science project tested the relative speeds of three of the most common computer programming languages, Microsoft Visual Basic; Borland Delphi; and Microsoft Visual C++, and determined that Visual C++ is the fastest language.

Help Received