Models

KAP C V3.2 for OpenVMS Alpha is a source-to-source preprocessor that optimizes compute intensive code for Alpha systems running OpenVM S C programs.

Introduction

KAP C is a source-to-source preprocessor that restructures code for improved performance on Alpha-based serial and parallel processors. When used with the corresponding DEC C for OpenVMS compiler, KAP C forms a complete compilation system. The supplied drivers integrate KAP C and the DEC C for OpenVMS compiler, so compilation can be performed with a single command line.

KAP C works by scanning the source code and then analyzing the code, automatically or with direction from command line options or directives inserted in the code. KAP C restructures the code, seeking to exploit parallelism, improve data locality, maximize use of resources, and improve code scheduling. The restructured source code is then passed to the compiler.

The KAP C optimizer is an automatic code restructuring tool that improves the performance of computer programs on both shared-memory parallel (SMP) and uni-processor Alpha systems. KAP C automatically uncovers and analyzes parallel, pipeline, and cache management opportunities within C language code, then selects the most efficient methods for executing each program for a specific machine. An extensive set of directives and command-line options allows the advanced user to control and direct KAP C optimizations.

Benefits

- **Advanced, automatic source code restructuring reduces execution times** – Compute intensive applications are optimized for faster execution.
- **Saves money** – Optimized use of Alpha processor resources now improves execution performance.
- **Improves efficiency and effectiveness of developers** – Automatic restructuring means developers can focus on correct source code rather than parallel processor features.
- **Software Services contracts available** – Compaq Services' software experts can assist customers in troubleshooting and diagnosing difficult and unexpected problems, 7 days a week, 24 hours a day.

Product Features

Key Features

- Improved support for Alpha processor parallel features
- Built-in quality with problem report corrections
- Faster execution times for compute intensive code
- Improves data locality
- Efficient Alpha processor cache utilization
- Year 2000 ready

Advantages

- Developers can write C programs concentrating on correct application logic rather than being concerned with specific processor parallel features.
- Applications will execute faster, saving time and computing resources.

Compatibility

Processors Supported

Any Alpha system that is capable of running OpenVMS Alpha Version 6.2-7.2. Refer to the OpenVMS Software Product Description (SPD 25.01.xx) for details.