Data Compression:
Streamlining Transfer and Storage

Also in this issue:
Mechanisms for Programming Distributed Systems
A Software Development Environment for Improving Productivity
Routing Strategies in Computer Networks
Software Engineering in the US and Japan
MARS-432 Array Processor
Speed
A high-speed programmable arithmetic processor used as a peripheral to a general purpose computer.

MARS-432 Array Processor
Memories
Program and data memories compatible with programs written for today's array processor applications.

MARS-432 Array Processor
Software
An architecture specifically designed to support a FORTRAN compiler and other software development tools.

Program Memory
Virtual and physical address space of 4K words – standard. Expanded configuration uses a 4K cache memory to extend total memory to 64K words.

Data Memory
Data I/O is supported by DMA transfers into data memory with a physical address space of 16 million words. A data memory page-loading feature provides the option of zero overhead background loading of data during time critical program execution. No DMA cycle stealing overhead is incurred. Uninterrupted processing can occur simultaneously with high-speed I/O transfers.

FORTAN Development System (FDS)
FORTAN compiler, linker, and trace/monitor provide high-level language access to the MARS-432.

Microcode Development System
Off-line development package includes macro-assembler, microcode diagnostics, and an unique utility for automatic microcode optimization.

AP Run Time Executive Support Package (AREX)
As the interface to the MARS-432 at run time, AREX provides processor initialization, I/O operations, and array function execution.

Applications Libraries
Extensive applications libraries include math, signal processing, and image processing.

NUMERIX
For additional information on the MARS family of high-speed Array Processors, write or call:
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Reader Service Number 1