Hardware Description Languages

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Variations on Communicating Modules
Suddenly, everyone's headed for MARS.

The MARS-432 32-bit, programmable, floating point array processor.

And with good reason. Because the MARS-432 has opened up a new world of speed, power and ease-of-use that's hard for anyone to resist.

The MARS-432 already interfaces with some of this world's leading computers — DEC, Apollo, Elxi — to provide users with a new level of computational power. Interfaces for other leaders such as IBM, Perkin-Elmer, and Gould/SEL are scheduled to arrive soon.

Simply put, we're setting the direction in state-of-the-art array processors with features such as:

**Programming Ease**

All of the computational power of an array processor doesn't mean much if accessing that power requires days of tedious programming, debugging and reprogramming. That's why we engineered the MARS-432 with an architecture specifically designed to support a FORTRAN compiler and a screen-oriented debugging system that make accessing and utilizing its raw power a very civilized process.

The MARS-432 also provides:

- A Microcode Development System for off-line program development.
- An AP Run Time Executive Support Package (AREX) for simplified processor initialization, I/O operations, and array function executions.
- Applications Libraries for math, signal processing, and image processing.

**Speed**

- Add and multiply times of 100ns.
- Computational power of 30 megaflops.
- Computes a 1024-point complex FFT in 1.7ms.
- DMA transfers at I/O bus rates of 20 megabytes/sec.
- Data memory writes or reads in 100ns.
- Memory paging for uninterrupted processing during I/O transactions.

**Impressive Memory**

Program memory contains a physical address space of 4K words and a virtual address space of 64K words via a cache configuration. Data memory contains a physical address space of 16 million words.

The MARS-432 from Numerix: a journey to faster, more affordable array processing power. With programming ease that sets it worlds apart.

Going our way?

For additional information on the MARS Family of High Speed Array Processors, write or call:

**NUMERIX**

maximum power minimum effort

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