

**AltiVec Vectorizes PowerPC** . . . . . 1  
 The PowerPC vendors have created a set of new instructions, called AltiVec, that adds parallel arithmetic for both integer and floating-point operands. Using 128-bit registers and ALUs, they offer twice the bandwidth of competing designs. These extensions, which will appear first in the G4 processor in mid-1999, will boost multimedia performance on the desktop. AltiVec will also be used in networking and other embedded applications.

**Editorial: Notebook Performance Leaves Gap** . . . . . 3  
 The performance gap between Intel's desktop and mobile processors is growing, leaving an opening for competitors to exploit.

**Most Significant Bits** . . . . . 4  
 FTC approves Intel/Digital deal; AMD in Alpha negotiations; First new Katmai instructions appear; Xeon to plug into Slot 2; Sun raises UltraSparc speeds; 3Dlabs, TI settle lawsuit.

**Embedded News** . . . . . 10  
 The 6502 is alive and sighted in Arizona; V3 adapts PCI for 32-bit processor; ARC brings 15 licensees on board; Samsung does stand-alone ARM7/Thumb chip.

**Net+ARM Drives Network Black Box** . . . . . 11  
 Osicom has bundled its own networking software with an ARM7 CPU, Atmel's Ethernet controller, and pSOS into one \$35 package.

**TI Rediscovered CISC With 'C2700 DSP** . . . . . 12  
 Texas Instruments has combined a DSP architecture with a CISC-like instruction set in a single microprocessor core. The 'C2700 will be used in customized DSP chips starting in 3Q98.

**The Slater Perspective: How Much Power Is Too Much?** . . . . . 15  
 Both Intel and Microsoft have clear monopolies in their core areas. Both companies appear bent on leveraging these monopolies into other areas, which could attract unwanted government intervention.

**Intergraph Gains Injunction Against Intel** . . . . . 16  
 A federal judge believes Intel is a monopolist. If this ruling, which Intel is appealing, stands, it could open the door for further suits from CPU, system-logic, and graphics-chip vendors.

**Viewpoint: Dvorak on the Cheap** . . . . . 18  
 John Dvorak believes the sub-\$1,000 PC will take over the market, leading to the ultimate demise of desktop computing.

**Counterpoint: Dvorak Off the Deep End** . . . . . 19  
 Linley Gwennap believes that new software will help shift demand to more expensive systems.

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