

AT A GLANCE

**Alpha Sails, PowerPC Flails** . . . . . 1  
 During the past year, PowerPC improved its price/performance position, but not enough to interest entrenched x86 system makers. Windows NT support for PowerPC collapsed, and with Apple losing a third of its market share, long-term prospects for PowerPC are weakened. Digital's Alpha is the sole alternative to x86 for NT, and the company hopes the low-cost 21164PC, combined with its FX!32 emulator, will propel it into the high end of the PC market. Other RISC vendors are eyeing the workstation and server markets.

**Editorial: What's NeXT for Apple?** . . . . . 3  
 Apple's new operating system strategy will give it a modern OS, code-named Rhapsody and based on NextStep, but Macintosh users will need to buy new applications to gain access to the memory protection and multitasking advantages of the new OS. This transition, set for 1998, is critical to the ongoing success of PowerPC.

**Most Significant Bits** . . . . . 4  
 Tillamook to extend P55C; Intel launches MMX, P55C; Apple offers new OS strategy; AMD pushes K5 to PR166 performance.

**First Media Processors Reach the Market** . . . . . 10  
 The first media processors began shipping during 1996, although few products were available to end users. This year will see the first wave of systems and add-in cards using media processors from Chromatic, Philips, Samsung, and others. In addition, companies such as Fujitsu and Mitsubishi have developed specialized media processors for DVD players and other consumer products. Rendition has taken a different tack by using a programmable engine solely as a 3D accelerator. The first casualties have already occurred: Nvidia's NV-1, MicroUnity's BiCMOS processor, and IBM's Mfast.

**Embedded Vendors Seek Differentiation** . . . . . 16  
 RISC processors continue to show aggressive growth in embedded applications, particularly in consumer products such as game players. The traditional leader, 680x0, continues to outsell the RISC players, but with RISC processors reaching ever lower price and power points, this lead is threatened. In 1997, we expect to see increased focus on integration and on CPUs as ASIC cores, which bodes well for ARM and MIPS.

**Controllers Proliferate as USB Catches On** . . . . . 22  
 The Universal Serial Bus is starting to appear in PCs and should become prevalent by the end of the year. This growth rate has caught the eye of several microcontroller vendors, which have deployed a range of chips intended for low-cost USB peripherals as well as more expensive hub devices.

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