

COMPUTER HARDWARE AND SOFTWARE



Computer hardware and software have become an essential part of America's way of doing business. For example, corporate presentations are now routinely developed on personal computers and recorded on data storage drives, and proprietary information on company networks is protected from hackers and hostile insiders by information security software. Many types of advanced technology, such as electronics and optics, can improve the speed of computers and capacity of data storage drives. New software technology can also protect computer networks against industrial spies accessing company information from the Internet.

Today's Market

Millions of personal computers (PCs) are reaching international markets. PC shipments surged 25 percent worldwide in 1995 from the previous year, with over 59 million units shipped. In the United States, PC shipments increased by a rate of 21 percent from the 1994 level.¹ Software is becoming a hot industry, too, with more than 8,000 companies developing software products. In 1996, the software industry's estimated total revenue reached well into the tens of billions of dollars; it is expected to grow at a rate of 27 percent.²

Tomorrow's Opportunity

BMDO has funded technology for ballistic missile defense that can also provide the computer and software industries with innovative solutions to help the United States maintain a strong presence in these ever-growing world markets. Much of this technology covers such emerging areas as optics, electronics, neural networks, and information security. The following section describes six of these technologies.

¹Carlton, Jim. 1996. PC shipments surged 25 percent worldwide in 1995. Computer News, 31 January. World Wide Web at <http://www.newstimes.com/archive/jan3196/cpa.htm>.

²Software Publishers Association. 1997. General issues: SPA to host congressional breakfast series. Washington Connections Monthly. January. World Wide Web at http://www.spa.org/gvmnt/Wash2_0.htm#anchor1251453.