

Three Ways to Upgrade

	Multimedia PCs	Upgrade Kits	Components
What are they?	A PC system purchased with the CD-ROM drive, sound board, and speakers installed.	A CD-ROM drive, a sound board, and usually speakers purchased together as a kit.	A CD-ROM drive, a sound board, speakers, and software purchased separately from different vendors.
Who offers them?	Most PC vendors, including Apple, AST, Compaq, Dell, Digital, Epson, Gateway 2000, Hewlett-Packard, IBM, NEC, Packard Bell, and Zenith.	Most CD-ROM drive and sound card vendors, including Aztech Labs, Creative Labs, Diamond Computer, Media Vision, and Reveal.	CD-ROM drives: Mitsumi, NEC, Panasonic, Plextor, Sony, and others. Sound boards: Aztech Labs, Creative Labs, Media Vision, Turtle Beach, and others. Speakers: Altec Lansing, Bose, Koss, Labtec, Panasonic, Sony, Yamaha, and others.
Pros	In most cases, components come installed, so no component installation is necessary. Buying a multimedia PC usually costs less than buying a system and kit or the components separately.	Kit vendors have solved the problem of making the multimedia components work with one another. Documentation usually covers the kit as a whole. Buying a kit is usually less expensive than buying the components separately.	Users can choose the best multimedia components for their needs. No compromises are required if price is not an object.
Cons	System vendors usually offer a limited choice of components.	Choosing among packages rather than individual components may require compromises. Installation is required and may be difficult.	Installation is difficult. You will usually have to pay more than you would for a kit, and you usually won't get much free software, if any.
Ideal user	The average home or business user who has already decided to purchase a new system.	The home or business user upgrading an existing system to run multimedia applications.	A developer, a professional graphic artist, or any user with special needs. Or simply the user who will accept only the best.
Installation required	None; the system needs only to be set up. Documentation usually covers the system and components.	Installation is usually a matter of installing a sound board, then connecting the CD-ROM drive to the CD connector on the sound board and the speakers to the sound board line-out jack. Driver installation is also required. You may run into	If the sound board or system does not come with an adapter for a CD-ROM drive, you will have to purchase a separate adapter. Each component has to be installed individually, and each has its own
		interrupt, DMA, or I/O address conflicts with other devices.	documentation. You will probably have to deal with interrupt, DMA, and I/O conflicts.
Cost	Usually only a few hundred dollars more than a standard system.	\$300 to \$1,000, depending on the quality of the components.	Almost any price, depending on the components.