

Amiga Mail News

Commodore USA Introduces the Amiga 4000

Editor's Note: The descriptions of products in this section refer only to products offered by Commodore Business Machines, Inc. and sold through CBM, Inc.'s Authorized Dealer Network. Offers made by CATS or other Commodore sales companies may differ. For more information, contact your local sales company or support manager.

Commodore Business Machines, Inc. introduced the Amiga® 4000, the company's revolutionary new premier multimedia computer, at the World of Commodore show September 11th in Pasadena, California. The Amiga 4000 marks the company's most significant new technology advancement in its Amiga line since the product's introduction in 1985. In addition to the Amiga 4000, Commodore announced several other significant product introductions including the Amiga 600 and 600HD, AmigaDOS™ Release 3 Operating System, A570 CD-ROM Drive, and AmigaVision™ Professional Authoring System.

James Dionne, President and General Manager of Commodore Business Machines, Inc., commented, "These product announcements exemplify Commodore's continued commitment to offer computers with probably the best price/performance ratios in the computer industry today. We are confident that these products, particularly the Amiga 4000, will keep Commodore at the forefront of multimedia technology and enable us to continue our aggressive push in the multimedia marketplace."

Amiga 4000

This powerful new machine features Commodore's Advanced Graphics Architecture™ custom co-processor chip set that enables users to display and animate graphics in multiple resolutions at up to 256,000 colors from a palette of 16.8 million. The new hardware features are driven by AmigaDOS Release 3, the newest version of Commodore's multitasking operating system, in combination with the machine's main processor, the Motorola® 68040. While this new version of the operating system takes advantage of the latest hardware features, it has been written to maintain backwards compatibility with Amiga software not written specifically for the Amiga 4000.

The Amiga 4000 will come standard with a 120MB hard drive, 6MB of memory, a dual speed

IN THIS ISSUE

Fast AmigaDOS I/O

Martin Taillefer

Cooperative Record Locking with AmigaDOS

Ewout Walraven

Signalling with SIGF_SINGLE

John Orr

Color Wheel and Gradient Slider Boopsi Classes

Mark Ricci, Martin Taillefer, and David Miller

high-density floppy drive, and CrossDOS which enables users to read and write to MS-DOS[®] formatted floppy disks. Other key multimedia features include: a dedicated slot for video devices; selectable NTSC scan rate compatibility; four voice dual-channel digital audio; up to 8 sprites, enabling high speed animations; and full hardware video overscan. The Manufacturer's Suggested List Price for the Amiga 4000-040/120 is \$3699.00.

Amiga 4000 Technical Specifications

CPU:

- ☐ Motorola[®] 68040 series 32-bit processor
- ☐ 25 Mhz clock speed
- ☐ Removable processor module

MEMORY:

- ☐ 2 MB 32-bit Chip RAM
- ☐ Up to 16 MB 32-bit Fast RAM
- ☐ Easily expandable via standard SIMM units
- ☐ Additional standard RAM is supported by the Amiga's proprietary AUTOCONFIG[®] capability

SOFTWARE:

- ☐ 512 KB 32-bit ROM
- ☐ AmigaDOS[™] 3.0 Multitasking Operating System
- ☐ Supports programmable resolutions
- ☐ Supports outline fonts
- ☐ Localized for multiple language/countries
- ☐ CrossDOS MS-DOS[®] file transfer utility

INTERFACES:

- ☐ Keyboard
- ☐ Mouse/Joystick/Lightpen/Tablet ports (2)
- ☐ Serial (RS-232)
- ☐ Parallel (Centronics)
- ☐ Video (RGB analog or RGBI digital)
- ☐ Right and Left stereo audio
- ☐ Internal and External floppy disk drive ports
- ☐ Internal AT IDE port. Optional SCSI adapter

SYSTEM SLOTS:

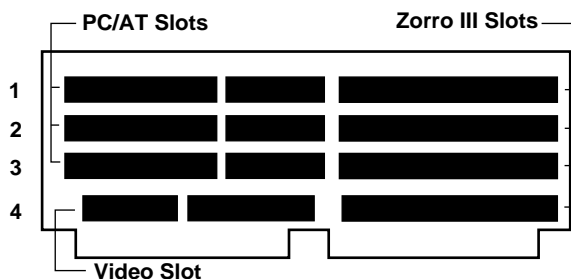
- ☐ CPU slot (200-pin) supports high-speed memory and advanced processors
- ☐ Amiga system bus - Four 16/32-bit Zorro III expansion slots (100-pin) with AUTOCONFIG

- ☐ PC bus - Three PCAT[™] slots

VIDEO SLOT:

- ☐ Extended 24-bit Video slot
- ☐ In line with standard 100-pin Zorro slot for easy integration of Zorro and video boards

How the Slots Work: If MS-DOS compatibility is desired a Bridgeboard may be placed in slot 1, 2 or 3. When a Bridgeboard is installed, the empty PC slots are capable of supporting a wide variety



of XT or AT- style boards. The remaining Zorro III slots support both 24 & 32-bit Zorro boards.

KEYBOARD:

- ☐ Detachable
- ☐ 94 keys, including 10 function keys
- ☐ Separate numeric keypad
- ☐ Separate cursor keys (inverted "T" layout)

MOUSE:

- ☐ Opto-mechanical
- ☐ 2-button design

DISK DRIVES:

- ☐ Built-in 3.5-inch high density disk drive (880 KB/1.76 MB formatted)
- ☐ Hard Drive models pre-formatted and pre-loaded with system software and utilities
- ☐ 2 rear and 2 front 3.5-inch drive bays
- ☐ 1 front 5.25-inch drive bay

GRAPHIC MODES:

- ☐ AGA custom chipset produces resolutions ranging from 320x200 to 1280x400 (more with overscan), including 800x600
- ☐ NTSC and PAL video resolutions

- ☐ Color palette of 16.8 million colors
- ☐ 2 to 256,000 user-definable colors displayable on screen

VIDEO DISPLAY OUTPUT:

- ☐ Works with RGB analog, VGA or multiscan monitors (not all modes supported with non multiscan monitors)
- ☐ Horizontal scan rates 15 kHz - 31 kHz
- ☐ Vertical scan rates 50 Hz - 72 Hz

SOUND:

- ☐ Four channel stereo sound, capable of reproducing complex waveforms
- ☐ 8-bit D/A converters
- ☐ 6-bit volume

DIMENSIONS:

- ☐ 15 1/4" deep x 15" wide x 5" high

WEIGHT:

- ☐ Approx. 20 pounds

POWER REQUIREMENTS:

- ☐ 110 volt/60Hz 150 watt power supply

A4000 CONFIGURATIONS:

A4000-040/120

- ☐ Amiga 4000 with Motorola 68040 Processor, 6 MB RAM, internal 3.5"
- ☐ 1.76 MB Floppy Drive and 120 MB IDE Hard Drive
- ☐ 94-key Keyboard
- ☐ 2-button Mouse
- ☐ AmigaDOS Release 3.0 System Software and Utilities
- ☐ Gold Service Warranty Package

Amiga 600

The Amiga 600 is a powerful entry-level computer with a small footprint and low profile shape, making it very attractive to the home computer buyer. The Amiga 600 and 600HD will come with AmigaDOS 2.XX and a selection of software packages.

CPU:

- ☐ Motorola® 68000, 16/32 bit
- ☐ 7.16 Mhz NTSC
- ☐ Multi-Chip coprocessor system for DMA, Video, Graphics and Sound

MEMORY:

- ☐ Expandable to 2MB Chip RAM
- ☐ Maximum RAM expansion 6MB with PCMCIA

SOFTWARE:

- ☐ 512KB ROM
- ☐ AmigaDOS™ Release 2 Multitasking Operating System in ROM
- ☐ Workbench 2.X and Utilities software

KEYBOARD:

- ☐ Integral 78 Key International

MOUSE:

- ☐ Opto-mechanical
- ☐ 2-button design

DISK DRIVES:

- ☐ Built-in 3.5-inch 880 KB floppy disk
- ☐ External 3.5-inch floppy disk
- ☐ Internal IDE hard disk drive (optional)

GRAPHIC MODES:

- ☐ Color palette of 4096 colors
- ☐ Selectable resolutions
- ☐ Supports full overscan

VIDEO DISPLAY OUTPUT:

- ☐ RGB analog 15 KHz Horizontal Scan Rate
- ☐ Color Composite
- ☐ RF Modulated

SOUND:

- ☐ Four channel stereo sound

DIMENSIONS:

- ☐ 14" deep x 9.5" wide x 3" high

WEIGHT:

- ☐ Approx. 6 lbs.

POWER REQUIREMENTS:

- ☐ Switching power supply 23 watts

INTERFACES:

External:

- ☐ Floppy Disk (DB23)
- ☐ Mouse/Joystick/Lightpen (2 DB9)
- ☐ Serial (RS-232, PC-compatible)
- ☐ Parallel (Centronics--PC-compatible)
- ☐ Video RGB analog (DB23 15 KHz)
 - Color Composite (RCA)
 - RF Modulator (RCA)
- ☐ PCMCIA Card Slot

Internal:

- ☐ Internal AT IDE connector

A600 CONFIGURATIONS:

A600 P

- ☐ Amiga 600 with Motorola 68000 Processor, internal 3.5" 880K Floppy Drive, 1 MB RAM
- ☐ Integral Keyboard
- ☐ Release 2.X Operating System and Utilities
- ☐ 2-button Mouse

A600HD

- ☐ Amiga 600 with Motorola 68000 Processor, internal 3.5" 880K Floppy Drive, 1 MB RAM
- ☐ Internal 40MB IDE Hard Drive
- ☐ Integral Keyboard
- ☐ Release 2.X Operating System and Utilities
- ☐ 2-button Mouse

AmigaDOS Release 3

The newest version of the Amiga operating system adds several software enhancements to the previous 2.04 operating system. Among the new features are: CrossDOS, allowing access to MS-DOS formatted floppy disks; a new Installer utility; and a Postscript printer driver. Additionally, AmigaDOS Release 3.0 offers full support for the new Advanced Graphics Architecture chip set featured in the Amiga 4000.

A570 CD-ROM Drive

The A570 is a high capacity read-only storage device for the Amiga 500 series. The A570 accepts standard 5" compact discs in a CD caddy and plays all CDTV®, audio CD, CD+G, and CD+MIDI discs. It can also read industry-standard ISO-9660 CD-ROM discs.

FEATURES:

- ☐ High Capacity, Read-only CD-ROM
- ☐ CDTV Compatibility
- ☐ 2MB Fast RAM expansion (internal)
- ☐ Rear expansion slot for plug-in cartridges

OPERATING SYSTEM:

- ☐ ISO 9660 file system handler
- ☐ High-speed decompression for graphics, audio, CD+Graphics and CD Digital Audio

CD-ROM DRIVE SPECS:

- ☐ Data Transfer - Normal: 153 KBytes/sec (Mode 1) : 171 KBytes/sec (Mode 2)
- ☐ Average access time : 0.5s
- ☐ Maximum access time : 0.8s
- ☐ Soft read error : Less than 1 in 10⁹
- ☐ Hard read error : Less than 1 in 10¹²
- ☐ Seek error : Less than 1 in 10⁶
- ☐ Commands : CD-ROM, CD-Audio, CD+G, CD+MIDI
- ☐ Standard supported : ISO-9660
- ☐ Data Capacity : 540 MegaBytes (approx.)
- ☐ Mechanism : Protective Disk Caddy Type

CD AUDIO SPECS:

- ☐ 8x oversampling
- ☐ Audio output : External 2.0V p-p, 10K OHM
- ☐ Frequency response : 4-20 KHz
- ☐ Signal/Noise : -96db
- ☐ Channel Separation : -85db
- ☐ Harmonic Distortion : 0.02% at 1 KHz
- ☐ Maximum audio capacity : about 28 hours - AM quality
- ☐ Sample Rates : variable from CD Audio rate (44 KHz)

- ☐ Dual 16-bit D/A converter plus 64 levels of attenuation

PHYSICAL CHARACTERISTICS:

Rear Panel:

- ☐ Power Supply Connector
- ☐ Power Switch
- ☐ Amiga Audio In (Left and Right)
- ☐ CDTV Audio Out (Left and Right)

Front Panel:

- ☐ Stereo Headphone Jack
- ☐ Compatibility Switch
- ☐ Power-On Pilot LED
- ☐ Drive Activity LED
- ☐ Disc Loading Slot

Dimensions:

- ☐ Approx. 256 x 180 x 68 mm

Weight:

- ☐ Approx. 6 pounds

POWER REQUIREMENTS:

- ☐ 110 volt/60Hz from external supply

AmigaVision™ Professional

AmigaVision Professional builds and expands on the visual programming environment used in earlier versions of AmigaVision. The new features include support for the CDTV player, speed and memory improvements, and enhancements to the authoring environment. In addition, a freely redistributable runtime module has been included, enabling flows created in AmigaVision to be played back without loading AmigaVision.

CDTV® SUPPORT FEATURES

- ☐ Playback of CD-XL Motion Video Files
- ☐ Plays CD Digital Audio tracks
- ☐ Cursor and Jumping Highlight Modes
- ☐ Reads CDTV IR Controller
- ☐ Full Support for CDTV Preferences
- ☐ Control MIDI out files to MIDI or Amiga

VIDEO CONTROL FEATURES:

- ☐ Supports full-motion video
- ☐ Supports Genlocks
- ☐ On-screen videodisc controller
- ☐ Video setup and configuration
- ☐ Supports Sony, Pioneer and Phillips laserdisc players, NEC PC-VCR, Panasonic TQ3032F, Sony Umatic 9 Tape Players
- ☐ Supports drivers for custom players

USER INTERFACE:

- ☐ Primary Interface(s)
 - Direct Manipulation of Icons
 - Requester Boxes
- ☐ Presentation in flowchart format
- ☐ User input from keyboard, mouse, joystick or touchscreen
- ☐ Auto-open and reduced-size icons

GRAPHICS & ANIMATION:

- ☐ Combines Text and Graphics on screen
- ☐ Uses Amiga standard IFF ILBM files as foreground and background
- ☐ Simultaneous playback of Animation and Audio
- ☐ 34 Transitions with 4 speeds, 17 palette/resolution independent
- ☐ Visual Display Elements: Graphics, Text, Animation, Video

SOUND:

- ☐ Supports Amiga Stereo Audio
- ☐ Supports Amiga standard SMUS files with tempo, dynamics and chord support
- ☐ Digitized sound in standard 8SVX format
- ☐ Speech synthesis and text-to-speech conversion
- ☐ Pre-loading of audio and streamed-in animation and sound for increased display and playback speed
- ☐ Audio Display Elements: Digitized Sound, Music, Speech Synthesis

DATABASE:

- ☐ Integrated into AmigaVision
- ☐ dBase III® data file compatible
- ☐ up to 10 files open simultaneously
- ☐ Read and Update functions

- ☐ Variable definition and manipulation
- ☐ Define data input forms
- ☐ String, numeric, data and Boolean operations

VISUAL PROGRAMMING:

- ☐ Features:
 - Flow Control
 - Interruptions
 - Libraries of Events
 - Conditional Statements
 - Subroutines
 - AV Engine
 - Object Editor
- ☐ Unlimited Number of Hit Boxes/Buttons per Screen
- ☐ Unlimited Text Windows
- ☐ Hypertext Browsing
- ☐ Runs external programs via ARexx
- ☐ Chaining of programs
- ☐ Selectable memory constraints
- ☐ Create runtime modules
- ☐ Relocate applications
- ☐ Name, Position and Move objects including animation brushes
- ☐ Define Paths and Traversal Options

RUNTIME PLAYER:

- ☐ Includes freely distributable Runtime Player

HARDWARE REQUIREMENTS:

- ☐ Minimum Delivery System: Amiga computer with 2 MB RAM
- ☐ Suggested Development System: Amiga Computer with Hard Drive and 4 MB RAM
- ☐ Runtime Player Requires approx. 270KB, 1 MB RAM recommended

AMIGAVISION PROFESSIONAL (PN: AS251) INCLUDES:

- ☐ Program Disk
- ☐ Install Disk with printer and video drivers
- ☐ Demo Disk with Guided Tour booklet
- ☐ Examples Disk
- ☐ User's Guide
- ☐ Runtime Player
- ☐ AmigaVision Professional requires AmigaDOS™ 1.3 or higher

Commodore USA Announces Amiga CD Solution Promotion

Commodore Business Machines, Inc. has announced that through October 31, 1992, purchasers of the Amiga® 3000-25/50 or the Amiga 3000-25/100 will receive a free CDTV® Multimedia Player and Interface Kit. The "Amiga CD Solution" promotion offers an attractive option for Amiga users who want expanded audio and MIDI capabilities, access to CD-ROM discs from other platforms, and who want to run CDTV applications.

Adding the CDTV Player and Interface Kit to an Amiga enables owners' access to hundreds of CD-ROM discs based on the ISO-9660 format. According to David Archambault, Commodore Director of Business Marketing, "Utilizing the CDTV Player as an intelligent peripheral opens the door for users to hundreds of text, music and picture collections available on CDTV-readable ISO-9660 disks. Text data and picture file formats can be converted from MS-DOS® and Macintosh® formats using existing Amiga-based software. The promotion is ideal for any Amiga user, particularly home and educational video enthusiasts seeking expanded, low-cost features."

The "Amiga CD Solution" also offers users expanded audio and MIDI capabilities through the CDTV Player. The unit can play standard audio CDs, CD+Graphics, CD+MIDI discs, and access the large library of CDTV specific titles. Both the Amiga and the CDTV player maintain the ability to run thousands of Amiga disk-based applications as well.

The Interface Kit includes: a specially configured parallel port cable, for connection between an Amiga and CDTV player; the ParNET file system, allowing two-way communication between the systems; and the Fred Fish CD-ROM collection, containing of over 600 freely redistributable programs.

The Manufacturer's Suggested List Price for the Amiga 3000-25/50 and the Amiga 3000-25/100 are

\$2729 and \$3379, respectively. Current Amiga owners can purchase the CDTV Player and Interface Kit for \$599.00. This promotion is offered through Commodore authorized reseller locations. This offer applies to purchases from Authorized Dealers in the U.S.

4000 Reasons to Own an Amiga Contest

Spectacular graphics! Sensational animation! Superb video! Commodore's users have many reasons for using an Amiga system for both professional and non-professional applications. Now Commodore would like to give all users an opportunity to share their reasons for using an Amiga through its "4000 Reasons To Own An Amiga Contest."

Commodore will award an Amiga 4000 to the Amiga user with the best overall entry. The second prize winner will win an Amiga 600 and the third prize winner will receive AmigaVision™ Professional, Commodore's new authoring software. Details of the contest and entry form are attached.

Contest entry forms, along with Amiga T-shirts and buttons, are available at Commodore authorized reseller locations while supplies last.

Contest Rules:

1. Commodore is looking for the best reason, in 25 words or less, for using an Amiga in the following applications: Video, Entertainment, Presentations, Interactive, Education, Scientific/Medical, Miscellaneous Applications. The reasons are to be written on the entry form. No purchase is necessary.
2. Amiga users of all ages and all professional or non-professional uses are eligible.
3. Only one entry per person and one application per entry. Proof of ID is required of the winner(s).
4. All entries must be post-marked by October 23, 1992.

5. Winners to be announced at The COMDEX Show in Las Vegas on November 16, 1992.

6. Employees of Commodore Business Machines, Inc., Commodore Electronics Ltd., Commodore International Ltd., their advertising and promotional agencies and their immediate families are not eligible to enter this contest.

7. Entries will be judged by the staff of Commodore and a selected group of independent experts.

8. Entries will become the property of Commodore, which reserves the right to use or publish all entries received without further release or authorization. Winners acknowledge that Commodore has the right to publish their name and photo in publicity relating to this contest and/or Commodore's products. No entries will be returned, so please make a copy of your entry.

9. Contest is open only to residents of the U.S. and Canada.

10. Prizes awarded to winners will be shipped within 30 days of notification. Commodore will pay all shipping charges. Winner(s) will be responsible for all taxes.

11. Non-winning entries will not be acknowledged.

12. Void where prohibited.

AmigaDOS™ Release 2.1 System Software Upgrade Technical Specifications

NEW FEATURES:

- ☐ Dynamic Localization of Programs to different languages and locales
- ☐ Includes CrossDOS for easy transfer of MS-DOS® and Amiga® files
- ☐ Includes Postscript® Printer Driver
- ☐ Supports Multiple Serial and Parallel Printer Preferences
- ☐ New Preferences Editing

- ☐ Motorola® 68040 compatible
- ☐ Screen mode requester added for selection of screen mode or video mode

FONTS:

- ☐ Supports Agfa Compugraphic® Intellifont scalable typefaces
- ☐ Includes CG Times, CG Triumvirate™ and LetterGothic typefaces
- ☐ Supports scaling of bitmap fonts
- ☐ Better control of font rendering for Desktop Publishing applications

AREXX PROGRAMMING:

- ☐ Includes ARExx, a powerful inter-process communication language
- ☐ Can be used to control applications which support ARExx
- ☐ Allows the integration of different applications that support ARExx into a single environment
- ☐ Ability to launch applications from within other applications

USER INTERFACE:

- ☐ Professional three-dimensional look
- ☐ Improved ease of use and consistency
- ☐ Extensively configurable through Preferences Editors
- ☐ Standard file and font requesters
- ☐ Supports scrolling screens larger than the monitor
- ☐ Select Locale/Country by clicking on World Map
- ☐ Keyboard selection in Input Preferences

WORKBENCH FEATURES:

- ☐ All files are accessible from the Workbench
- ☐ Files are accessible by name or by icon
- ☐ Drag selection of multiple icons
- ☐ Includes New Drawer command
- ☐ Easier cleanups and positioning of icons
- ☐ Icons can be "left out" on the Workbench backdrop for easier access

OTHER FEATURES:

- ☐ General purpose installer added with installation activation of Keymaps, Monitors, Printers and DOS Drivers

- ☐ Select keyboard from Preferences Editor
- ☐ Printer Drivers for popular printers added
- ☐ Spline animations on blanked screens
- ☐ Support for European monitors
- ☐ Enhanced reliability even under low memory situations
- ☐ Faster and more reliable floppy disk access
- ☐ Improved Icon Editor

SHELL ENHANCEMENTS:

- ☐ AmigaDOS commands are faster, more powerful and require fewer keystrokes
- ☐ New commands handle environment variables and links
- ☐ Cut and Paste in shell windows
- ☐ Extended wildcard capabilities
- ☐ Backtick feature allows embedded commands within commands
- ☐ Shell windows have a close gadget
- ☐ ARExx scripts can be run directly from the Shell

ECS FEATURES: (Enhanced Chip Set Required)

- ☐ 640x480 non-interlaced Productivity Mode (requires 31 kHz-capable monitor)
- ☐ 1280x200 and 1280x400 Super-HiRes Modes
- ☐ 800x600 requires Multisync
- ☐ New genlock features

HARDWARE REQUIREMENTS:

- ☐ Requires any 2.0X ROM-ready Amiga 500, 600, 2000 or 3000 series computer
- ☐ Amiga 2500, A2620 or 2630 requires rev-06 or greater ROMs on the accelerator card
- ☐ ECS features require optional Enhanced Chip Set
- ☐ Contact nearest Commodore reseller for details and installation

ORDER INFORMATION:

AS215 AmigaDOS Release 2.1 Software Upgrade includes:

- ☐ 6 disks
- ☐ 3-manual set

AS216 AmigaDOS Release 2.1 ROM and Software Upgrade includes:

- ☐ 2.0X ROM
- ☐ 6 disks
- ☐ 3-manual set