

The Commodore CD-TV System

George Cole

Computer company Commodore plans to launch its CD-TV (Commodore Dynamic Total Vision) system in the UK by this coming Christmas. It's a multimedia format that combines computer, compact disc and video technologies. CD-TV puts a mix of sound, video, text and graphics on to a compact disc which is controlled by the user – Commodore calls CD-TV “television you can control”. The format is clearly aimed at the market targetted by the Philips compact disc interactive (CD-I) system – and you won't be surprised to learn that the two formats are incompatible!

Features

I recently had an opportunity to see prototype CD-TV players and discs in operation at Next Technology, a computer company based in Cambridge. The CD-TV player looks like a small VCR and is designed to be linked up with existing domestic TV sets and hi-fi systems. It consists of a CD-ROM (compact disc read-only memory) drive and an Amiga computer housed in the same case. On the player's front panel there are a disc drawer, a display panel which shows the time, track number, volume level and clock, and controls for power on, headphone level, play/pause, stop, forward/reverse and scan/skip. Most users will operate it via an IR remote control system however.

Various computer peripherals, such as a keyboard, mouse, modem, floppy-disc drive and joystick, can be connected to the player. Video output sockets include provision for analogue and digital RGB, Y/C and r.f.. There's also a pair of phono audio sockets.

At the heart of the player there's a Motorola MC68000 microprocessor chip whose clock speed, in PAL machines, is 7.09329MHz. The player has a 1Mbyte RAM, 2Kbytes of non-volatile RAM for the clock and other functions, and 512Kbytes of ROM. In addition there's a facility for storing up to 64Kbytes on a smart card.

CD-TV players can handle CD-TV and ordinary CD

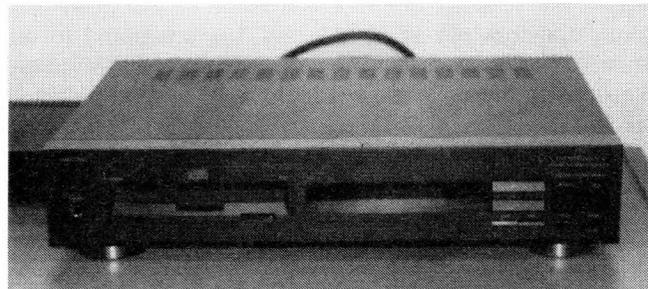
audio discs, including those encoded with CD graphics. They cannot play Laserdiscs, CD-ROM or CD-I discs.

CD-TV offers full-motion video, though at present this is restricted to a quarter of the screen. Commodore says that full-screen, full-motion video will be incorporated at a later stage. The system has a number of graphics modes, with both sequential and interlaced scanning. The text mode offers 80 or 60 characters per line, and there's a choice of font types, sizes and colours. The audio circuitry operates with times eight oversampling, using dual 16-bit DA converters. There's an optional sound system that provides up to 14 hours of a.m.-quality sound.

Performance

So much for the basic specifications. How does CD-TV look and sound? CD audio discs sound as good as I've heard with any normal CD deck. I was shown the Next Technology sampler disc which will be supplied with every new CD-TV deck. It offers users six topics to explore, including the life of Bach, sport, and exhibits at the Victoria and Albert Museum.

Operation of the player is simple. You use the IR handset to guide a cursor over the screen, and click on at the appropriate place. With the Bach section I listened to his music, looked at his scores and read a biography to find



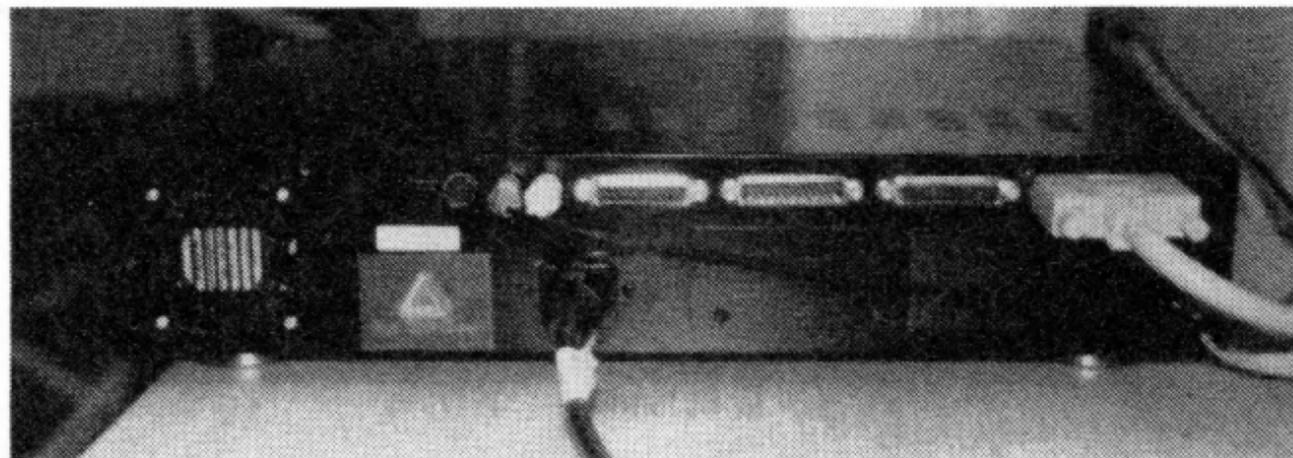
Front view of a prototype CD-TV player.

out details of his life. It's fun to use, and quite addictive!

The picture quality is roughly that of pre-HQ processing VHS, but to be fair the system I saw was a prototype one and Next Technology says that the performance of full production players will be much better.

Marketing

CD-TV should be on sale in the UK by Christmas, with the players costing around £699 and disc prices starting at £25. According to Commodore there will be around a hundred titles available by the launch date, though some industry watchers suggest that the figure is much more likely to be in the region of 30-50. CD-TV will be aimed at educated 24-49 year olds with families: disc titles will include games, encyclopaedias, atlases and cook books. There are plans to put Shakespeare and the King James bible on the CD-TV!



Rear view of the player showing the plugs and sockets.

The effect CD-TV will have on CD-I is hard to guess. Some suggest that Philips will regret not having put CD-I on the market sooner, while others reckon that CD-TV will stimulate a market that will come to be dominated by CD-I. As ever the Japanese are hedging their bets: Matsushita, a major CD-I supporter, is also making the CD-TV players for Commodore.