



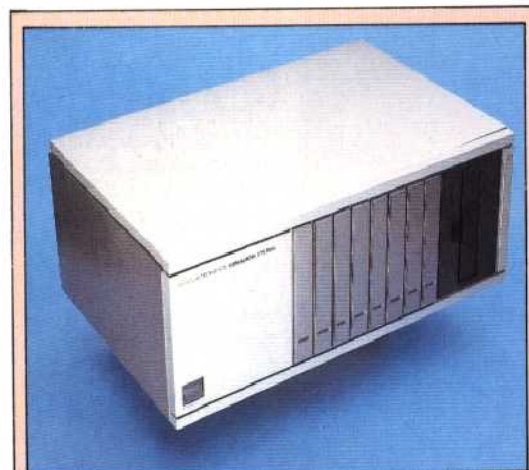
the user is presented with the option of running the new software or of running BASIC. The built-in BASIC is limited in its abilities, but an 'extended' BASIC cartridge is available, which brings the facilities up to and beyond Microsoft standard, giving formatted print commands (see page 53), sprite graphics and the ability to operate a speech synthesiser. The synthesiser costs £34.95 but needs either the extended BASIC or the Speech Editor cartridge to operate it.

The TI99/4A has many hardware and software extensions. Every sort of peripheral is available and many programming languages can be purchased. But although the basic computer is cheap, most of the extras are expensive. Nevertheless, the overall system is easy for novices to use, and its robust construction makes it popular with children.



The Joystick

Texas Instruments' joysticks (they call them 'Wired Controllers') come as a pair of units, wired together onto one plug for connection with the computer. Inside each device are four switches, which are not unlike the connectors underneath some keyboards



Peripheral Expansion Box

This case contains a power supply, connections and space to contain all the modules for memory expansion, disks and printer interfaces. These modules are large plastic cases that contain circuit cards with an edge connector at the base, a 'power on' light at the front and any cables coming out of the back. There are eight 'slots' in the box. The left-hand one has to contain the module that connects the expansion box to the computer and the right-hand slot has to be for the disk drive electronics module. This leaves six slots for memory and serial port expansion. Only one extra 32 Kbyte memory module can be added, which gives 52 Kbyte maximum RAM. The serial interface module allows serial devices, such as printers and modems that use the RS232 format, to be connected to the TI99/4A

CHRIS STEVENS

TI99/4A enthusiasts can keep in touch through 'TI User', c/o Galaxy Video, 60 High St, Maidstone, Kent ME14 1SR



Video Connection

This connector provides the basic signals for generating PAL (UK and Europe) and NTSC (American) television signals

RAM

The machine comes with 16 Kbytes RAM as standard, which can be expanded externally

Joystick Connectors

This single multiple pin connector can cope with twin joysticks made by Texas themselves

Discrete Components

Another feature of computers such as this, which were designed some years ago, is the large number of discrete components, such as transistors and resistors. Now, one chip can replace dozens of these

ROM

The onboard ROM can be supplemented by means of plug-in cartridges. For example, extended BASIC will enhance the range of commands available

On-Off Switch

This incorporates an LED power-on indicator