## Mitel debugger handles 8/16-bit chips

An aid for software debugging and system logic analysis is now available from Pronto Electronic Systems.

The Mitel MD68SC49 is an ISO-CMOS bus monitor. It is designed to be interfaced directly to most microprocessors, such as the Z80, Z8000, 8085, 8086, 8088, 6802, 6809, 6502 and 68000.

Logic analysis functions available include address range comparison, data pattern matching and freeze mode. All are available in multipass or single-pass operation. Pronto says that the ISO-CMOS construction gives low power dissipation. Operation is from a 3--6 V power supply. The operational mode is set under the control of the central processor. If a 16-bit processor data bus is used, then two MD68SC49 devices can be used in tandem, one acting as the master and the other as the slave.

The bus monitor chip is suitable for such tasks as the remote maintenance of computer and data networks, for microprocessor-controlled test equipment, for microprocessor or multiprocessor debugging and as a logic analyser replacement for small systems. (Pronto Electronic Systems Ltd, 466-478 Cranbrook Road, Gants Hill, Ilford, Essex IG2 6LE, UK. Tel: 01-554 6222. Telex: 8954213)

#### **Resource project management from engineers**

A resources module is being offered by the British Hydromechanics Research

## **UK gets 3-in floppies**

A 3-in floppy disc drive by Hitachi is available in the UK from ESI Components.

The HFD505A is compatible with previous models. It has a storage capacity of 0.5 MB.

The disc unit is intended for application in office automation equipment.

The width of the HFD505A floppy disc drive has been reduced to 41mm, one-half that of previous models. This means that two units can be mounted in the space ordinarily required by one unit. (ESI Components, Brighton Hill Parade, Brighton Hill, Basingstoke, Hants RG22 4EP, UK. Tel: (0256) 57166. Telex: 858127)



Hitachi 3-in floppy drive

Association with its project control and forward planning microprogram Plan-Kit.

The module allows a user to check that the people, equipment and cash are available for the project in hand. Expenses can be checked against projected income at any stage.

The user can allocate up to 40 separate resource centres. Each centre can be analysed individually or as a subset with other resource centres, or every centre in the project can be included in a single analysis. Results can be in either tabular or histogram form.

The Plan-Kit package and the resources module each cost £250 (£450 if bought together). (Technical Software Centre, BHRA Fluid Engineering, Cranfield, Beds MK43 0AJ, UK. Tel: (0234) 750102)

# Pet protocol converter links to mainframes

A protocol converter for use with the Commodore Pet has been launched.

The synchronous protocol converter from IEEE to RS232 links the Pet micro with various mainframes using different synchronous protocols.

The converter has three external interfaces: one fully synchronous RS232, one IEEE-488 and another



Pet Protocol converter

RS 232 (e g for line monitoring and diagnostics). It has an Intel 8085A microprocessor with a variable PROM/ RAM memory configuration and full interrupt control.

In a typical configuration the converter is connected directly to the Pet via its IEEE interface. Synchronous modems then link it to a mainframe. Up to four Pets and one converter can share a single communications link into a mainframe.

Mator provides two alternative modes of Pet interfacing

- instructions on how to interface Pet code to the converter to build a communications terminal for applications
- Mator-written software, supplied as a 5¼-in floppy which makes the Pet function as a standard communications terminal

(Mator Systems Ltd, Willett House, 12 Grand Avenue, Hove, Sussex, UK. Tel: (0273) 720451/2)

### Hard discs for CBM DOS emulation

An addition to the Shark intelligent hard-disc data storage units for use with microcomputers has been announced by Mator Systems.

The 5¼-in Shark models provide users with storage in the 10-15 Mbyte range. They form a complement to other Shark units (which have capacities of up to 120 Mbyte).

The system can be used to emulate Commodore computer DOS. It is compatible with CP/M-based systems. It also has its own file management system. (Mator Systems Ltd, 134-140 Church Road, Hove, Sussex, UK. Tel: (0273) 720451/2)