Product: Replay Price: £35 Supplier: Vine Micros, Marshborough, Nr. Sandwich, Kent CT13 OPG. Tel: 0304 812276

MANY facilities are advertised to enable BBC Micro users to copy or back-up protected programs and transfer them from tape to disc.

While some break the protection in the process and thus assist software piracy, others are more responsible, using techniques which retain the protection. Vine Micros, who already leads the field in the latter group with the TD ROM, now supplies Replay.

It consists of a 16k eprom mounted on a 28 pin socket connected by a set of leads to a small printed circuit board which in turn is connected to a 16 pin IC header, two small connectors and to a push button switch.

Installation instructions are easy to follow and although fitting is slightly more complex than a simple ROM, it should present no difficulty to the average BBC Micro user. Once fitted my micro behaved as normal, with no clashes revealed during the time I have had the review copy.

Vine Micros matches Replay to the floppy disc controller chip, so I assume it acts as its own disc filing system. Vine also claims that different Replays will not load files from each other or other systems, so continuing the backup with protection afforded by TD ROM.

Typing \*REPLAY reveals the main system menu – see Figure I – from which each freshly formatted disc for use with Replay must be specially initialised. After this they cannot be used with other data.

Transferring files from any other



Figure II: Revs dump

# Back-up without danger of piracy

### By IAN WHITMORE

system requires a file to be created on the Replay disc using option one. After pressing Break, you load or run your game or utility in the usual way, from tape or disc, pressing the Replay button when you have reached a stage that you want to save.

This freezes the micro, leaving only the keys needed in Replay still active and the Caps Lock and Shift Lock lights flashing alternately. Pressing function keys 0, 1, 2 or 3 will save the whole of the BBC Micro's 32k of memory on to the relevant side of a Replay formatted disc, then allow the program to continue.

In order to re-run your program from the Replay disc you must re-enter the main menu and press the relevant letter



Figure III: Frak dump

Figure I: Main system mena

key. The program is loaded and continues from the point it was saved.

System by Vine Micro

Irackst

It is also possible just to load the screen, which can then be dumped to a printer with a suitable dump routine. Using this facility I have been able to produce dumps of program screens – Figures II and III – previously impossible without a lot of hard work, if at all.

In the development of Replay Richard Mallet found one area of problems in the special screen formats used by some games and utilities.

The 6845 video controller chip possesses a number of registers which control the display. Several of these are write only and are thus unreadable by Replay which reloads the screen but is garbled. The ROM has the ability to write to these registers when reloading a program, obtaining the data from one of two sources.

For several named games, such as Elite, the data is held on the chip and is programmed in when the game is originally saved on a Replay disc if it has been given the correct name.

The second way is to use the edit facility = see Figure IV = from the main menu. You are presented with a screen allowing the setting of most of the 6845

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Products and Prices. **REPLAY** System £35.00 ADDCOMM ROM £28.00 (Toolkit and Graphics) MATRIX ROM £41.40 'B+ to B' Conv. £21.95 Ditto without O.S. £15.95 For Acorn 'Master. **ROMBOARD '3'** £19.95

Write-protect Sw. £8.95

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#### Figure IV: 6845 edit facility

#### From Page 48

registers, the logical/actual colours and the screen mode.

It is also possible to alter the program - Vine Micros provides tips for infinite lives and so on on some games. Other facilities switch off ROMs and cursor, and allow files to be continuously updated so you can save a game over and over again as you progress with it.

Replay transferred every file I tried from tape to disc, and has replayed almost everything set for it. Although not a 100 per cent successful in reloading screens I found it very useful, providing easy access to screens for dumping for reviews.

Here is the opportunity for BBC Micro users who have many games on tape to transfer them to disc with ease and at a reasonable cost.



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