

Dear User,

This month's Newsletter is dominated by software news but before we start, just a few general comments. We should like to thank, for their patience and forbearance, those customers who have waited a considerable length of time for their disk upgrades and new machines.

The manufacture of disk systems is in full swing now. We are working hard to clear the backlog of orders for disk upgrades while at the same time producing new systems.

We have increased our production fourfold in the last six months to cope with the growth in popularity of 380Z systems.

#### NOTES ON CASSETTE TO DISK SYSTEM UPGRADES

From our experience with the upgrade work we have carried out so far, we should like to raise the following points:

##### 1. KEYS

If you are returning a (Black case) computer for a disk upgrade or for repair, please REMEMBER TO ENCLOSE THE KEYS. We have spent valuable time sorting through a box of spares, before we can even switch on your computer!

##### 2. MEMORY UPGRADES

This is also a very convenient time to carry out a memory upgrade. If finance allows, it is worth considering this when ordering a disk upgrade. Remember that the minimum memory size required for disk operation is 32K

##### 3. SIO-4 INTERFACE

It is also the MOST convenient time to fit an SIO-4 Interface. This is an interface for RS232 equipment providing simultaneous input/output and is resident on the floppy disk controller board. It is a low cost interface (L24) and we strongly advise you to have it fitted whether you have an immediate requirement for it or not. You are almost certain to use it at some time in the future. If you already have an SIO-1, we offer an SIO-4 exchange. Please refer to the Disk Upgrade Notes sent to you when an upgrade order is received, or available on request.

NOTE: Other RML interfaces in (Blue Case) computers will be transferred automatically to your new disk system computer.

##### 4. DESPATCHING A COMPUTER

Computers delivered to us by Securicor have been received damaged, often severely. This is partly due to poor packing by the sender but is largely due to rough handling by Securicor. We therefore strongly advise you NOT TO USE SECURICOR. We ourselves are no longer despatching machines by Securicor because of reports of damage from our customers. We are now using COURIER EXPRESS and so far there have been no reports of damage.

## 5. SOFTWARE ETC.

Please do not forget to place an order for:

- a). Disk versions of your existing cassette software, if this is required. Please refer to Disk Upgrade Notes sent on request.
- b). New items of disk software you may require.
- c). Cassette copies of some of the disk software you have ordered, which may be available (at L1.50 per copy) i.e. you may want to use a cassette recorder with your new disk system. Please also refer to RML SOFTWARE NEWS in this Newsletter.
- d). Blank disks for copying etc.

NOTE: The Tiny BASIC Interpreter and a paper tape input facility within BASIC are automatically supplied as utilities with a disk system. There is no need to order either of these items.

Your co-operation regarding the above points will save you and us time and ensure that you can begin work immediately after your new disk system arrives.

## 380Z USERS ADDRESS LIST

Following our proposal in the January Newsletter to produce a Users' List, only one user has requested exclusion from the list. We should like to point out the implications of such a list.

Users would be able to exchange information, applications software, hardware ideas etc.,

BUT

You may find that too many users, or prospective users, get in touch with you. If the list fell into the hands of a commercial company, it may be misused and you could be subjected to unwelcome and unsolicited sales efforts.

We feel we must be certain that everyone understands the problems which may be encountered if their name appears on a Users' List. We have therefore decided not to issue a list until we have been formally notified by you that you wish your name to be included. Your name will NOT appear on the list unless the enclosed form is returned to us within one month of receipt of this newsletter.

## NORTH WEST USERS GROUP

It is proposed to hold an informal meeting in the Manchester area to discuss the formation of a 380Z Users Group. Anyone interested should write to:

JOHN TURNBULL  
NATIONAL COMPUTING CENTRE  
OXFORD ROAD  
MANCHESTER  
M1 7ED

## DUAL CASSETTE CONTROLLER

The dual cassette controller is designed for use with the 380Z when file handling is required. The controller effectively allows the user to read a file from one cassette, amend it, process it, and write the resulting file to another cassette with the minimum of user participation. Cassette File Handling cannot be done from BASIC without a Dual Cassette Controller. With BASIC the Dual Cassette Controller can only be used with versions which have a file handling facility. It can also be used with the Assembler and the Text Editor.

## DISK DRIVE MEDIA

Some uncertainty has been expressed by users regarding media compatibility with the BASF drives used in our disk systems. Information on this can be found in the literature/manuals accompanying a disk system. For example, please see INTRODUCTION TO RML CP/M sections 1,2 and 3 and also INTRODUCTION TO RML 380Z DISK SYSTEMS sections 2,3 and 4.

There are two types of disk media, fine grained and coarse grained. If you use coarse grained media on your system, head life and pressure pad life is reduced. Manufacturers define fine and coarse grained in different ways so a manufacturer's definition may not be relied on. At the moment, the only manufacturers we know of true fine grained media, are BASF and IBM. For your own benefit, only use these two manufacturers, unless you can convince us of the suitability of an alternative. In accordance with the practice followed by other manufacturers, a maintenance contract from us will be more expensive for customers using non-recommended media.

We must again stress the importance of THOROUGHLY READING ALL MANUALS supplied with a system.

IN GENERAL HOWEVER COMPATIBILITY REQUIREMENTS ARE AS FOLLOWS:

MDS-1 and MDS-2 (Mini Disk Systems)

Diameter: 5.25"

Soft Sector'd BASF standard 16 sector

MUST be 40 track. Using 35 track minifloppies will damage the drive,  
\*\*\*WARNING\*\*\* 40 track media is non-standard, most media is 35 track.

FDS-2 (Large Disk System)

Diameter: 8"

Soft Sector'd-IBM 3740 Format

NOTES:

Single sided/single density and double sided/single density disks are directly compatible with BASF drives.

Single sided/double density and double sided/double density disks can be used, if they are first formatted using the self explanatory CP/M Formatter to be found on your CP/M System Disk. You may also find the following notes helpful.

### FORMATTING

The program FORMAT is supplied on the CP/M System Disk. To run FORMAT you must first bootstrap the Disk Operating System, as described in the manual section 'Introduction to Research Machines 380Z Disk Systems'. Note that formatting a disk erases any files held on it, so care should be taken when formatting. FORMAT is started by merely typing FORMAT followed by the RETURN key. The FORMAT programs for MDS and FDS are different, and issue slightly different messages. One of the messages

```
(MDS)          FORMAT WHICH DISK (A,B,C):
(FDS)          FORMAT WHICH DISK (A,B,C,D):
```

will appear. Now remove your system disk (to avoid accidentally formatting and thus erasing it). Place a new disk in drive A or B and then type A or B as appropriate. Formatting takes about 30 seconds and is finished when the message

```
FORMAT COMPLETE
```

is typed. Double sided disks (FDS only) will need to be formatted on the reverse side as well. Type C or D to do this. When you have finished formatting all your (blank) disks, type Control C to return to the CP/M command level.

A number of error conditions may arise:

1. BAD WRITE TRACK probably indicates that you have inserted the disk incorrectly. Type N, investigate the problem and repeat.
2. BAD READ SECTOR indicates a bad sector; this error will occur from time to time. Type N; if the error does not recur more than once or twice, all is well. If the error persists, the disk may be bad. Return it to RML for checking and replacement.
3. For other messages, type N.

### CITY AND GUILDS

A Pseudo-Assembler for the City and Guilds Low Level Language course is probably going to be written for the 380Z. It would be helpful to know in advance how many people would be interested. If you are interested, please send your name and address to Sheridan Williams at the address below. He would also like to hear of any ideas or strong views that anyone has on this.

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Sheridan Williams
114 Beech Road
St. Albans, Herts.
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## RML SOFTWARE NEWS

Our efforts over the past few months have been directed almost entirely to getting the software ready for the standard and mini disk systems and for cassette systems based at memory address 100 hex (the change from address 4100 hex having resulted from the adoption of the CP/M disk operating system).

Cassette system users should note that we have now started sending out systems based at address 100. The new machines are known as "C100" (as opposed to "C4100") and customers may find these shorthand terms convenient when talking to the Sales Office or writing in with a hardware or software query.

Users of existing C4100 machines who are purchasing additional C100 machines need not be unduly alarmed about program incompatibility. For example, users of BASIC will need a different interpreter on the two types of machine but the same BASIC program tape will run on either. The Cassette File System format is unchanged so existing assembly language source, text and data files can be used with C100 TXED and ZAS, although new versions of TXED and ZAS will be needed.

The main difficulties which will arise are where you have been using PEEK and POKE and machine language programs and subroutines. The latter will have to be reassembled for the new system and the addresses used in PEEK/POKE modified.

It will be possible to have C4100 machines modified to C100 standards, but it will be necessary to return your CPU and VDU boards to the factory for the modification to be made - it cannot be done in the field. Details will be announced in a future Newsletter. We are not offering to convert cassette from C4100 to C100 specification at the moment, as we feel that it will be in customers' interest to wait until early problems (if any) with the C100 software have been resolved. Please do not phone the Sales Office to ask for information at present.

Users contemplating an upgrade to disk should note that a disk version of 9K BASIC is available, together with utilities to transfer BASIC programs to and from cassette. This means that all your existing programs can be run on a disk machine, usually without modification, and that you can develop programs on your disk machine which will later run on a cassette based system. In addition, since a disk machine is merely a C100 one with the addition of disk hardware, all of the cassette based software can be run on the disk system if required.

## PATCHES FOR CURRENT SOFTWARE

Enclosed with this Newsletter you will find patches for:

## CASSETTE SYSTEMS

ZAS Assembler Input/Output patch  
TXED Editor Errors

## DISK SYSTEMS

ZASM Assembler	Include Error
ZAS Version 3.0P	Error using editor
TXED Editor	Error on Repeated Read
BASLOAD Loader	Repeated Messages
BASDUMP Saver	Error with IF Statements
BASLOAD,BASDUMP	Error in filenames
S2INP	Coding Error
DBAS9 Version 3.0	Error Saving/Loading

Please insert the sheets in the appropriate manuals.