APPLICATION NOTES

For use with the INTEGRA-β

This leaflet provides information on using the INTEGRA-β with certain applications. Only applications which we have found to perform better in certain configurations have been listed. If software you are using is not listed, then that means that we have either not been able to test it, or nothing needs to be said about it.

If you find yourself having to make major changes to configuration settings for certain types of application, then we suggest you use *CSAVE to save configurations to disc and *CLOAD to load in new configurations as required.

As many of the listed applications will issue the *SHADOW command themselves in OSMODEs 2 and 4, you may like to keep *OSMODE 4 and SHX ON as configuration settings. These can be easily setup as follows:

```
*CONFIGURE OSMODE 4 [RETURN]
*CONFIGURE SHX [RETURN]
```

These settings will then always be re-established following [CTRL] + [BREAK] or Power-up.

If you encounter any problems, or find methods of setting up the INTEGRA-β to function with software not listed here, then we would be pleased to hear from you.

- ### Acorn ADFS Utility disc

*OSMODE 4 and *SHADOW 0 must be included at the start of the !BOOT file.

- ### ADE Plus   from System Software

In order for the time and date to be read from the real time clock, select OSMODE 3. This must be done before you enter ADE Plus otherwise problems may occur due to contention between the IBOS printer buffer and that provided by ADE plus. Note: if you encounter problems linking when an input file is longer than the input buffer, this is not a fault of the IBOS or INTEGRA-β, but a bug in the linker. The solution is to use smaller source files and chain them using the 'CHN' or INCLUDE' psuedo ops.

- ### Advanced Disc Toolkit   from Advanced Computer Products

You will find that many of the disc utilities produce rather strange effects in OSMODE 3 due to the fact that this utility ROM is trying to directly access hardware in the BBC Master. The solution is to select OSMODE 4 temporarily.

- ### AMX Super-Art and Stop Press!   from Advanced Memory Systems

Both these applications function best in OSMODE 0. As they do not appear to make any advantageous use of shadow memory, this is not a loss. AMX Super-Art v3.61 does however appear to work quite happily in OSMODE 1.

- ### Bank Manager (BBC Master Version)   from Contex Computing

It is possible to use the BBC Master 128 (ADFS) version of this program with the INTEGRA-β however it does issue a warning to the effect that you may not have sufficient memory. In order for this application to initialise correctly, a small change has to be made to one of the BASIC programs on the system disc. It will also be necessary to make an insertion in the !BOOT file. It is recommend that these alterations be carried out on your backup copy of the system disc. The first change will be to insert the *OSMODE3 command at the start of the !BOOT file. The next stage is to enter BASIC and load the file named 'BM'. List line 660. This line should read as follows:

```
660 IF INKEY(-255)=245 CHAIN "BM128"
```

If it doesn't, then find the line which does read as above and replace it by the line:

```
660 CHAIN "BM128"
```

Now save the revised BM program under the file-name "BM" and then the application should be ready for use on the INTEGRA-β. In order for Sideways RAM to be correctly used, you must have at least four banks available. If it is unlikely that these four banks will be 4,5,6 and 7 then insert the command '*SRSET *' at the start of the !BOOT file.

- ### Diagram 2   from Pineapple Software

The following commands need to be inserted at the start of the !BOOT file.

```
*OSMODE 1
*SHX ON
*SHADOW 0
```

- ### GENIE and GENIE Junior   from Permanent Memory Systems

GENIE Junior may be entered using SHIFT+CTRL+G if not in a Shadow mode. If entering GENIE or GENIE Junior via *GENIE, the prefix command *X* must be used: *X*GENIE. The Standard GENIE may be entered using [SHIFT]+[CTRL]+[G] in any mode or setup.

- ### Graphics Extension ROM   from Acornsoft

Requires alteration for use with Shadow memory. Read the file 'T.GXRx' on the INTEGRA System Disc for further details.

- **Mini Office II**   from Database Software

The Disc copy-protection scheme is incompatible with the INTEGRA-β.

- **MUSIC 5000 & Ample Nucleus**   from Hybrid Technology

The following commands should be inserted at the start of the !BOOT file prior to the 'BASIC' command on your back-up copy of the system disc.

```
*OSMODE 4        \ Select OSMODE 4 (or 2)
*SHADOW ON       \ Force Shadow mode at next mode change
*SHX ON          \ Ensure data is moved to/from Shadow Ram during mode changes
```

The best way to carry out this change is to load the !BOOT file into a text editor and make the necessary modification.

- **Quest Paint**   from Watford Electronics

It is not possible to use the UNDO facility as this package does not support BBC B+ Shadow RAM. It will however make use of a sideways RAM bank.

- **ROM-LINK Software**   from Computer Concepts

Including: INTER-WORD, INTER-BASE, INTER-SHEET, INTER-CHART and SPELLMASTER.

All of these packages should be used in OSMODE 4 with SHADOW set to 0. This may be carried out with the following commands:

```
*OSMODE 4
*SHADOW 0
```

Your setting of *SHADOW 0 is only required by INTER-BASE and INTER-CHART as INTER-WORD and INTER-SHEET will issue this command for you.

Versions of the IBOS from 1.20 onwards contain a special prefix command '*S*' which may be used to enter any of these packages without the need for typing the above commands.

This command may be used as follows:

```
*S*IWORD <n> where n is the INTER-WORD package number.
```

This is equivalent to entering the following sequence of commands:

```
*TUBE OFF, *OSMODE 4, *SHADOW, *SHX ON, *IWORD <n>
```

Similarly *S*ISHEET <n>, *S*ICHART <n>, *S*IBASE <n>,...

This prefix command only needs to be used when you first enter one of these applications and not every time you select a different package. The machine changes caused by '*S*' will remain in effect until a hard reset or when changes are made using *OSMODE or *SHADOW etc.

If you exit from INTER-WORD using [CTRL]-[BREAK] then you may find that it will hang if it is immediately re-entered. This appears to be caused by corruption of INTER-WORD's pointers and data by the default language, especially in the case of BASIC. This can be avoided by setting the default language to the IBOS using 'CONFIGURE LANG <n>'. Alternatively, use :KILL or :CANCEL to clear ROM-LINK data from memory.

If you do encounter a crash on entry to INTER-WORD, then it is possible to quickly recover using [CTRL]-[@]-[BREAK] immediately followed by [CTRL]-[BREAK], DO NOT press 'Y' in response to the 'Go (Y/N) ?' prompt. It should be noted that this procedure will clear all main memory.

Using SPELLMASTER with other word processors

SPELLMASTER will need to have workspace allocated before it can be used. This is carried out as normal using the *WORKON command followed by [BREAK] or [CTRL]-[BREAK] if you have the ADFS fitted. However it should be noted that SPELLMASTER is not capable of properly claiming it's workspace in OSMODE 3 therefore OSMODE 4 should be selected.

Installation of PAL-PROMs.

We have found that for maximum reliability all of these PAL-PROMs should be installed on the INTEGRA-β board, rather than your computer's main board.

If you encounter consistent crashes with any of the PAL-PROMs and you have a CMOS R65C02 processor fitted, we would suggest that you replace it with the original 6502A processor as some BBC computers cannot cope with the slightly altered timing caused by the R65C02.

Owners of issue 1 and 2 INTEGRA boards should contact us for further advice if they have not already had the Issue 3 upgrade fitted.

- **The Publisher**   from Permanent Memory Systems

This package should be used only in OSMODEs 2 and 4. Note that with versions of The Publisher up to 1.10, loading and saving of macros and '*' commands will not work. It is possible to get round this by selecting OSMODE 0 prior to entering the macro editor, and reselecting OSMODE 4 on exit, please note, however that in changing to OSMODE 0, you may loose text from your word-processor and so you should save your document first. Contact PMS about compatibility of later versions.

- **VIEW A2.1**   from Acornsoft

Requires alteration for use with Shadow memory. Read the file 'T.VIEW21x' on the INTEGRA-β system disc for further details.

- **Wordwise PLUS**   from Computer Concepts

In order for 80-column preview to work correctly, the command '*SHX ON' must be entered prior to, or immediately after entering Wordwise Plus. *SHADOW must have been set to 1.

Communications Packages and Games

In general, you will find that most communications packages and games will only function correctly in OSMODE 0. This also applies to 'Enhanced' Sideways RAM versions of games. Please note however that games specifically designed for the BBC Master 128 may not run at all due to differences in hardware.

- **Exile (Enhanced version)**   from superior Software

You must ensure that all ROM sockets above the highest priority RAM bank contain ROM. This is because EXILE thinks that empty sockets on the INTEGRA-β contain RAM. We would also suggest that the *UNPLUG command is used to disable all ROMs except for the IBOS, BASIC and your DFS. Finally, your machine must be set to OSMODE 0.

- **Stryker's Run (Enhanced version)**   from Superior Software

You must ensure that four banks of Sideways RAM are available and that your computer is configured to OSMODE 0. The version tested was that found on the 'Play it Again Sam' disc. (Box inlay is marked SUP 10137).