

ACORN USER SIDEWAYS RAM UTILITIES DISC © Acorn User 1986

The Acorn User Sideways RAM utilities is supplied on a 40 track disc, to convert it to 80 track simply type: CHAIN "COPY40" <RETURN> and follow the on screen instructions. If you have a B+ or a Master, please disable the shadow screen with *SHADOW 1 before you start. When you are ready, Shift Break the disc and you will be presented with the Menu. (IF you don't want all the fancy graphics at the beginning, CONTINUE to hold down SHIFT until the menu is displayed.) There are eight main programs of which five of them are pure machine code ROM images, the others being Basic or part Basic. In addition there are five machine code programs on the disc that must be *RUN. The following list details the utilities available:

Font Rom	ROM	Six different on-screen fonts
Buffer	ROM	15k printer buffer
*HLP ROM	ROM	Instant *HLP on any subject
RAMpad	ROM	Saves reaching for paper and pen
Screen Swap	ROM	Store and recall Mode 4 or 5 screens
Romhead	BASIC	Standard service ROM header
Romfile	BASIC	Place your own programs in RFS format
Windows	BASIC	Simulate Gem-like overlapping windows
*RLOAD	*RUN	Load a sideways ROM image
*RSAVE	*RUN	Save a sideways ROM image
*ROMS	*RUN	List currently installed ROMs
*RCLEAR	*RUN	Clear all Sideways RAM
*RLOOK	*RUN	Examine Sideways RAM or ROM

Font Rom

Commands: *FONT <name> , *FONTS , *NORMAL

Use *FONTS to list the fonts available, *FONT followed by a name to select one of the fonts and *NORMAL to return to the normal BBC font.

Buffer

Commands: *BUF ON , *BUF OFF

Leave long documents or listings printing while you carry on computing! Switch the buffer on with *BUF ON and off with *BUF OFF. Use *FX 230,1 to prevent escape from clearing the buffer. PRINT ADVAL(-4) prints the amount of free space in the buffer, so while something is printing PRINT 15360-ADVAL(-4) displays the number of characters left to print.

**HLP ROM*

Commands: *ADD <word> , *HLP <word> , *HLPS , *HLPCLR

Store information that you often forget in Sideways RAM! Use *ADD <word> to store the text and *HLP <word> to retrieve it. *HLPS lists the currently stored words. For example, if you kept on forgetting how to switch the sound off, try the following:

*ADD SOUND OFF

To switch the sound off, type *FX 210,1

then press the COPY key.

*HLP SOUND OFF

*HLPCLR clears the sideways RAM used by the ROM.

RAMpad

Commands: *PAD ON , *PAD OFF , *PADCLR

After typing *PAD ON, pressing Ctrl Tab will take you into a very simple Wordwise type text editor, you can scroll around using the cursor keys and enter text anywhere. Escape will leave

the Pad and return to where you were before. The Pad is useful for storing programming information in such as variables or Procedure names. *PADCLR clears the pad.

Screen Swap

Commands: *SWAP , *STORE , *RECALL , *CLEAR

These commands are for use in Modes 4 or 5. *STORE stores the currently displayed screen in Sideways RAM, it can be recalled with *RECALL. *SWAP swaps the currently displayed screen with the 'Sideways one' - this is useful for simple animation. Finally, *CLEAR clears the 'Sideways screen'.

Romhead

This is an assembler program that not only assembles a correctly formatted ROM header, but also contains code for printing *HELP messages and processing unrecognised star commands. The program is fully REMed and contains all instructions for adding your own commands to it. All the above ROMs were written using this header. NOTE: If you have Basic 1, you must use the program called 'Rhead1' instead, this simulates Basic 2's EQUB, EQUW etc. and the offset assembly.

Romfile

This Basic program was featured in September's Acorn User and this issue should be read for full instructions. It is best to copy 'Romfile' and all the files you wish to 'ROM' onto a blank disc and then RUNING the program. However, once run, the program will ask for filenames of programs to be incorporated into the ROM. When you have entered all you want, the program will create a ROM that contains the programs in the standard RFS. format. They can then be CHAINED or LOADED as usual after typing '*ROM'.

Windows

This features a short machine code routine plus three Basic procedures. With this program you can open and close text windows, but instead of simply 'forgetting' about what was behind each window, it copies that area into Sideways RAM ready to be restored when you close the window. You can open as many windows as you like (as long as there is enough memory). The three Basic procedures are:

PROCinit Initialise workspace, note: change slot=4' as appropriate.

PROCopen(x1,y2,x2,y1,f,b) Open a window, co-ordinates as shown, (these are the same as normal text windows), foreground and background colours are set by f and b.

PROCclose Close last window, this restores the screen, resets the text window and cursor position and restores the old colours.

See Acorn User December 1986 for more information.

All programs can be loaded via the 'load' option on the menu. More information can be obtained by using the 'text' option.

Disc based commands

*RLOAD <bank 0-F> <filename> Load the named file into the specified RAM slot.

*RSAVE <bank 0-F> <filename> Save the specified RAM slot with the given filename.

*ROMS List currently installed ROMs. The length of the ROMs and the position of Sideways RAM is also shown.

*RCLEAR Clear all Sideways RAM banks.

*RLOOK Examine Sideways RAM memory. Use cursor keys to scroll up and down and to change the RAM bank. (shown at top)

More information on these can be found by using the 'util' option on the menu.

All programs were written by David Lawrence except Romfile which was by Mike Rawlings.