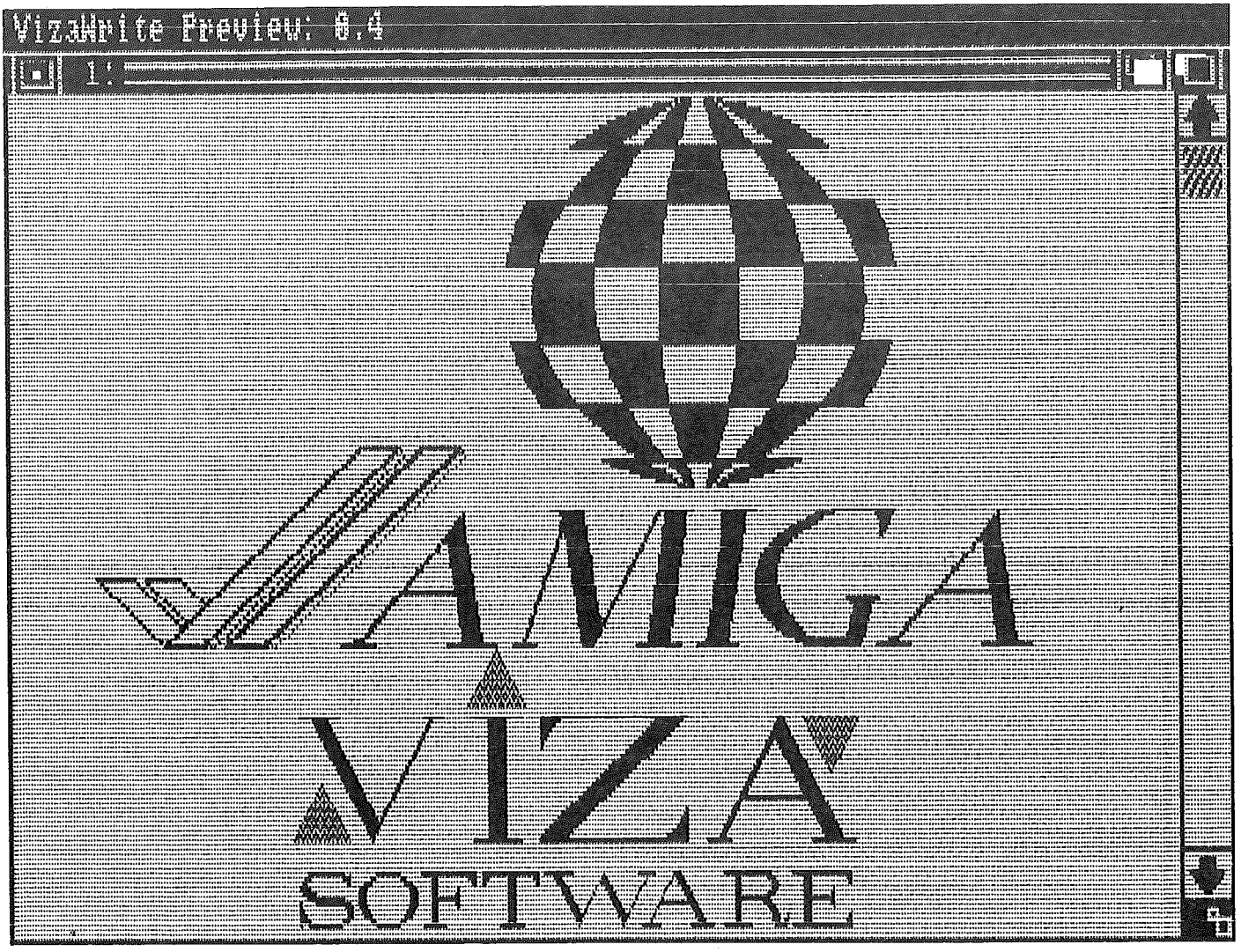
AMIGA

# WORKBENCH

$2
RRP

Registered by Australia Post – Publication No. VBG7930

Number 16 | Circulation: 800 | September 1987




## Next Meeting

## *Sunday, September 13th, 1987 at 2pm*

AUG meetings are held at Victoria College, Burwood Campus
in Lecture Theatre 1 and the Community Resources Centre
Melways map 61 reference B5

Amiga Users Group Inc, PO Box 48, Boronia, 3155, Victoria, Australia

**Australia's Largest Independent Association of Amiga Owners**
**The *Amiga Users Group Inc* has no affiliation with Commodore**
***AMIGA* is a trademark of Commodore–Amiga, Inc**

## LASERSCRIPT REVIEW

By George Vokalek
ADAM Librarian, South Australia

Up till now there has been little option in obtaining high quality hard copy output from the AMIGA. The best has been the family of 24 pin printers which are able to render excellent text provided that the special Near Letter Quality (NLQ) mode of the printer is used.

Unfortunately, programs such as Pagesetter and Prowrite make no use of these powerful facilities built into the printer, and proceed to print their documents as bit mapped graphics dumps, which use 1/72 inch pixels, and make your three thousand dollar NEC P5's output look like your mate's $400 SUPER-5's. InkJet printers are usually no better than the impact printers in this respect.

There is an alternative to the matrix impact printer, the laser printer. The laser printer works in the same manner as a photo copier, except that the image which appears on the page comes from your computer, instead of an original document page. The very **poorest** laser printers have a resolution of 300 dots per inch (dpi), while the best, professional quality machines approach 2500dpi.

Aside from the difference in resolutions available, there is also a difference in running costs. A standard laser printer costs about $0.06 per sheet to run, while the top of the line may cost $10 per sheet.

Rather than adopting standards, the laser printer manufacturers have done the same thing with laser printers as they did with impact printers. There are many different brands, and they are for the most part not compatible, just like their impact cousins (remember all those printer drivers in preferences?). This makes it just as difficult to get the full use of the 300dpi in your laser printer as it was to get the best from your impact printer.

Fortunately, there is a standard which is making steady inroads into the laser printer industry, and that is the typesetting language of **POSTSCRIPT.** The most notable exponent of postscript is the Apple MacIntosh and its associated LaserWriter. POSTSCRIPT is a high level language which does not describe the printout pixel by pixel (which is how an impact printer wants its information), but rather in terms of features. Circles, squares, text are described in terms of position on the page, size, line thickness, etc. This makes the POSTSCRIPT language independent of the device being used to print the page (in theory, at least), thereby giving you the highest achievable resolution on any given device.

Up till now the AMIGA had no support for laser printing. The first package to cater for this need is PageSetter, though indirectly, by the release of LaserScript, which is a program that converts PageSetter documents into POSTSCRIPT.

Unfortunately, the support of POSTSCRIPT is only partial in that only the four fonts which exist in the standard Apple LaserWriter can be printed in the highest resolution mode. LaserScript has no support for POSTSCRIPT graphics primitives apart from the bit mapped image. Any graphics printed out will therefore still have jaggies present.

The four special fonts are provided on disk, and are called:

PTIMES - a serif font like most printed material
PCOURIER - a thin serif font, like early typewriters
PHELVETICA - a sans serif font which looks like letraset
PSYMBOL - the greek alphabet for scientific use

All four are available in the sizes 8, 12, 15, 24 point. A program is supplied which allows you to create any size font of the above four types, which will still be printed at 300dpi.

You can still use any font in your document, but only the above 4 will come out at 300dpi. The rest will come out as 1/72 inch bit mapped images, and will look no better than impact printer output.

LaserScript allows either a straight through approach whereby the pages come out of the laser printer in the same order, and with the same content, as they would from the impact printer (but using the 300dpi), or a custom page approach.

The custom page approach makes a distinction between PageSetter pages which you lay out on the screen, and the printed pages which result. A printed page can consist of one PageSetter page, from any document, or multiple PageSetter pages each suitable scaled and positioned. This is equivalent to using a photocopier to reduce pages, and pasting four of them onto one sheet. Note that even reduced pages are highly readable since you have 300dpi.

You can even rotate the PageSetter pages on the printed page, overlay them (either see through of opaque) to create special effects.

The **AD**elaide **AM**iga Users Group is doing its newsletters on an Apple LaserWriter (from July onwards), so these should provide an example of what you can do.

Now we just have to wait for a word processor (a la Prowrite) and a drawing program (a la Aegis Draw) with built in POSTSCRIPT support, so that you do not have to use PageSetter to do everything.

==========

## PageSetter Review

by Hugh Leslie

PageSetter is a desktop publishing program for the Amiga and was until recently the only such program available. When I first saw it I was reasonably impressed with its performance although I have had little experience with publishing programs before. So far I have used it to produce a simple directory for my church and was able to obtain quite reasonable results even with my 9 pin epson compatible dot matrix printer. The program is menu and gadget driven and as everything is reasonably self explanatory, it is easy to learn and you can be producing things quite quickly.



When you first fire up PageSetter from the Workbench, you are presented with a brown screen with gadgets down the right hand side. The first thing to do is to create a new page using the Page menu and this gives you the choice of Standard, A4, Legal, and B5 but you can design your own as well. (Of course everything is in inches!) You can also select margin and column size, although this is only a guide and does not affect how you place things on the page. After this you are presented with a white page with rulers along the top and left edge.

PageSetter uses the concept of boxes to place information on the page. To create a box, you click on the box gadget and then drag open a box on the page - very similar to drawing a box in any drawing program. Once a box is opened, you can put text or graphics into it and drag it around the page or off the page all together. This box is opened with some default characteristics which can be changed via another menu selection. You can set the font to any of the workbench fonts, add different borders to the box, add a shadow, make the box transparent or opaque, add shading to the inside of the box, alter the justification of the text, and even set micro justification between letters and words. Boxes can be dragged on top of one another and you can have as many boxes as you like up to available memory.


**DIGITIZED PICS.**

Images Digitized using Digiview 2.0 and returned on quality DSDD 3.5" Disk. All images are in Standard IFF Format and are printed out on a Cannon 4096 Colour Printer. Any size photo, artwork ect. can be digitized

1st Picture $10.00 ( Includes Disk )
Each additional Picture $4.00
Include $1.50 for postage and handling if required. Send cheque or Money Order to:

Rob Grinter
7 Cowrie Street
Glen Waverley, Vic, 3150

or ph. 03-561-3595 for more details
Demo Disk Available for $10 postage paid


Text and graphics can be imported from any word processor or drawing program, but PageSetter provides both a simple text editor and a graphics editor. These are both available from menu selections. The text editor is not a word processor, but provides adequate features for most purposes with cut and paste and search and replace functions. One excellent feature of PageSetter is that it provides other font styles apart from the traditional bold, italic, and underline. The extra styles are; outline which does what it says; shadow, which puts a shadow behind each letter; and reverse which just reverses the characters making them white on black. All these styles can be combined and this means that the range of fonts and type styles is vastly increased.

To get text onto your page, you can type something or load it from a file. Once it is displayed, you just exit the editor, click on the text icon and then click in an empty box. PageSetter will fill the box with as much text as will fit, in whatever font was selected for that box. Boxes may be linked together even from page to page and text will automatically flow from one box to another. Boxes can be resized and then more or less text will fit in. All this is handled automatically with proper word wrap.

Graphics are handled in much the same manner and the graphics editor provides simple tools for drawing. It isn't a Deluxe Paint but it is adequate for most things. Pictures loaded from other packages in IFF format are automatically converted to 2 planes and 640 x 200 resolution and colours are converted to shading. There is also a small library of clipart available and the editor allows you to resize and clip any part of a drawing that you want. Graphics are added to the page by clipping something, exiting the graphics editor, clicking on the graphics icon and then on an empty box. The graphics can then be moved around within the box and revealed or hidden by resizing the box.

Once you have your graphics and text on the page, you can proceed to place things where you want them. To move a box, all you do is click on it and drag it while holding the left button down, just as you would move an icon. You can see exactly what you are doing because what is in the box moves at the same time. I found this to be versatile and easy to use. Boxes can be placed anywhere or dragged off the page entirely and they can be placed on top of one another.

When it came to printing my creations, I initially had a few problems. I was impressed by the quality that I could get from my printer, certainly not anywhere near laser printer standard, but much better than I had thought possible. The problem that I ran into was that when I tried to print a page from PageSetter itself, it would happily print about a fifth of a page and then reset the printer before going on. This would sometimes be alright but all too often it would cause a misalignment of the printing which would ruin the page. Obviously the program could only make a bit image of part of the page at a time, probably because of memory considerations and my printer was not acurate enough to maintain the correct position after a reset. (I suspect that this may be the same for other printers too.)

I got around this by using another program supplied on the same disk which was specifically for printing PageSetter documents. This program was capable of printing an entire page without stopping and so no more misalignment problems. The other thing I noticed was that when using the Epson printer driver supplied with the 1.2 Workbench, the program would miss out lines of pixels and thus text would be uneven and slightly squashed. PageSetter is supplied on a disk with 1.1 and that driver seems to work well, so I'm not sure what this problem is.

In summary, I found PageSetter to be well thought out, easy to use and after a few teething problems, I was able to produce quite respectable results very quickly. It has many more features than I have been able to describe here and with a laser printer you would be able to produce some very professional results. I haven't used it with any other printers, but there is now available a program for outputting the pages to a PostScript laser printer (great if you have the money!). PageSetter is quite an expensive program ($250-$300) but I was able to obtain it for less than half that price direct from the USA.

==========

## TC-ED : Textcraft to Ed Converter and Textcraft Document Typer

by Mark Kelly

Ever tried editing a Textcraft document with ED? Had fun TYPEing a Textcraft document and watching the hieroglyphics flash by? If you have, you'll have discovered two problems.

Firstly, even with "text only" Textcraft files, the lines are only broken at the end of paragraphs: lines can be hundreds of characters long. ED truncates them and you lose most of your document. Secondly, standard Textcraft files are preceded by binary housekeeping code (indigestible to ED) and they contain codes in the text to mark styles and new paragraphs.

TC-ED is the answer. As fast as a rat up a drainpipe, TC-ED reads the Textcraft file (whether it's normal or Text Only), claws out binary and embedded codes and spits out ED-sized, nicely wordwrapped lines to your output file.

Alternatively, if the output file is not given, the document is typed to the screen: a handy way of peeking at TC files without the drudgery of loading TC. TC-ED even tells you the format of the TC file.

Usage: from the CLI enter -

TC-ED input [output] (the output name is optional).

Copy the input file to RAM: and specify a RAM: output file to speed the process along.

The output file can be happily digested by ED, Notepad, Blitz and the like. The source for TC-ED was written for a Lattice compiler but it should work under Manx. The code's as bog-standard as it can be. It's my first programming attempt since `printf("Hello, world\n");' so feel free to adapt it to your heart's content. Happy hacking!

```
/*  TC-ED : converts Textcraft documents to Ed-
    compatible format.
    Removes binary and cuts lines to Ed size with
    wordwrap.

    Execute from the CLI with-

    "TC-ED textcraftfile [outputfile]"

    If outputfile not given, the document is TYPEd to
    the screen.

    Version 4, by Mark Kelly 21-Jul-87.

    To be put in the public domain.      */

#include "lattice/stdio.h"
#define WIDTH 77        /* max output line length  */
#define SKIP 314      /* bytes to skip at file head */

  int newline = 1;              /* flag line is new */
  int text_only = 0;         /* flag text-only file */
  FILE *infile,*outfile;                   /* I/O */

main(argc,argv)
int argc;
char *argv[];
{
   register char c;
   char line[WIDTH];                  /* line buffer */
   char eol = '\xOD'; /* EOL in not text-only file */
   int len,done;
   done=0;                                /* EOF flag */

   if (argc < 2 || *argv[1] == '?')  {
      /* bad call or query */
      printf("Usage is: TC-ED input [output]\n");
      exit(1);    }
   if ((infile = fopen(argv[1],"r")) == 0)   {
      /* open input */
      printf("Can't open %s\n",argv[1]);
      exit(1);    }
   if (argc == 3)
      /* command line OK */
      outfile = fopen(argv[2],"w");
      /* open output if named */
   else outfile = stdout;   /* else type to screen */

/* Byte 1 of 'normal' Textcraft files = 00
   else its TEXT ONLY  */

   c=getc(infile);                  /* Test 1st byte */
   if (c)  {                          /* text only ? */
      text_only = 1;                  /* set flag and */
      eol = '\xOA';                   /* redefine EOL */
      ungetc(c,infile);       /* and push char back */
      printf("%s is in text only format",argv[1]);
   }
   else for (len=0 ; len < SKIP ; len++)
      /* skip intro bytes */
      c=getc(infile);          /* if normal TC doc  */
   len = 0;

   while (!done)   {                  /* while not EOF */
      c = getc(infile);             /* get a character */
      done = (c == EOF);           /* EOF? Remember it */
      if (c >= ' ' || c == '\t') /* get characters */
         line[len++] = c;
      /* Process line if max length,
         ended with CR or file ended */
      if (len > WIDTH || c == eol || done)
         len = chopline(line,len);
   }
}

/* ================  process line ================ */

chopline(s,len)
char s[];                      /* formal declarations */
int len;                        /* (I love jargon)    */
{
   int start = 0;
   int end = len;

   if (!text_only && newline)
      /* skip char 1 if new line */
      start = 1;           /* AND not TEXT-ONLY file */

   newline = 1;                    /* default = new line */

   if (len > WIDTH)  {    /* if full line, wordwrap */
      while ( s[--end] != ' ' && end);
      /* Find last space */
      newline = 0;     /* flag next line is not new */
      if (end == 0) end = len;   /* spaceless line */
   }
   s[end]='\n';                                /* add CR */

   while (start <= end)
      putc(s[start++],outfile);
      /* put to file or scrn */

   while (--len > end)
      /* Push start of broken word  */
      ungetc( s[len],infile );
      /* back onto the input file. */

   return(0);                 /* zeroes LEN in main() */
}
```

==========



## Modula-2

by Peter G. Evans

The April 1987 Workbench printed the article "Modula-2 Survey". Since then I have obtained the TDI M2 Developer's disk, Examples disk, and GRID (a file access method). This article attempts to review that product and continue the survey of M2 on the Amiga.

It came as quite a shock on opening the TDI package that the User Manual was for the previous version. This was explained in a five sheet "Special Modula-2 Instructions for Release 3.00a" written on 16Feb86 (sic)(I think they mean 1987). That was it! All the deficiencies of the manual and changes to it due to the new release were not addressed. I thought that an addendum sheet to the manual should at least have been provided. Examples of the manual's deficiencies are given in ref 2 in the last article.

The last page of the Special Instructions held the following annoying paragraph "When the new manuals are finished, we will send out letters offering one free new manual per customer with the purchase of any of our ancillary products directly from us". I thought I HAD paid for this..... Furthermore, as I had all their Amiga products it would seem that to get the manual I would have to buy an Atari or Macintosh product.

Worse was to follow. When I had rung them I specifically asked whether this version was with Workbench support. I believe I was told yes. I had in mind the Atari ST version which runs from its "workbench". The Amiga version doesn't. Like the earlier version it runs from the CLI.

I don't recommend any of the compile and link instructions. I have a 512K machine and the following procedures are based on that. If you have more ram then most of the compile (and link) problems would I guess disappear. The first batch files are for a single drive setup, then for a two drive setup.

### Single Drive Setup

My technique was to boot up with my normal workbench disk which creates a ram disk. This means that a M2 disk can be created that will have the maximum possible available space. Make sure that the ram disk contains at least the command cd. Place your M2 disk in the internal drive and enter "execute m2comp". The batch file (see below) is then executed. The effect of this is to use ram as a second disk. The ram disk only contains the commands assign and cd and is the smallest workable schema. At any time your ram disk can be recreated by running the batch file ramdisk. This setup directs temporary files to ram but leaves the compiler "modula" on disk. When you have done a compilation and are ready to link a program change the directory to df0:c. Then type "link whatever" to run the linker. The assumption is that you will always compile something before doing a link.

Your M2 disk should be organised as follows:

```
m2comp
ramdisk
c (dir)
       all your favourite commands
       modula
       Link
m2 (dir)
       supplied lnk modules and sym modules as you
       need them your own development modules
       Editor
       PMD

Batch file m2comp:-

cd df0:c
delete ram:#? all
if NOT EXISTS ram:t
  makedir ram:t
endif
if NOT EXISTS ram:c
  makedir ram:c
endif
stack 30000
copy df0:c/assign to ram:c
copy df0:c/cd to ram:c
cd ram:c
assign t: ram:t
assign m2: df0:m2
df0:c/modula
```

Batch file ramdisk:-

```
cd df0:c
copy df0:c/copy  to  ram:c    ; place as many copies
;                               here as you need to
;                               recreate a ram disk
cd ram:c
dir
```

Two Drive Setup

(I call the M2 disk in the internal drive M2a, the one in the external drive M2b.) Although it is not as important to boot with your normal workbench first before inserting the first of your M2 disks, as this disk M2a has plently of free space, I still continued to use this method.

The batch file m2comp compiles a M2 program. Note that the stack has been set at 10,000 bytes as I found this quite sufficient. The batch file to recreate your ram disk is the same as for a single drive setup.

The batch file m2compSmall is as its name implies a method for ensuring the ram disk is smaller as it redirects temporary files (ie. t) to the internal disk M2a. This slows up compilations greatly but may be necessary to compile large modules.

The batch file m2compNoRam is a sudden death method as the ram disk is not used (although in fact it leaves a 2K ram in place) and you probably need to reboot to do anything. However, if you need every byte in ram for compilations.....

Your M2a disk should be organised as follows:

```
m2comp
ramdisk
m2compSmall
m2compNoRam
c (dir)
       all your favourite commands
       modula
       Link

    For M2b:
m2 (dir)
       supplied lnk modules and sym modules as you
       need them your own development modules
       Editor
       PMD
```

Batch file m2comp:-

```
cd df0:c
delete ram:#? all
if NOT EXISTS ram:t
  makedir ram:t
endif
if NOT EXISTS ram:c
  makedir ram:c
endif
stack 10000
copy df0:c/assign to ram:c
copy df0:c/cd to ram:c
cd ram:c
assign t: ram:t
assign m2: df1:m2
df0:c/modula
```

Batch file m2compsmall:-

```
cd df0:c
delete ram:#? all
if NOT EXISTS df0:t
  makedir df0:t
endif
if NOT EXISTS ram:c
  makedir ram:c
endif
stack 10000
copy df0:c/assign to ram:c
copy df0:c/cd to ram:c
cd ram:c
assign t: df0:t
assign m2: df1:m2
df0:c/modula
```

Batch file m2compNoRAM:-

```
cd df0:c
delete ram:#? all
delete ram:c? all
if NOT EXISTS df0:t
  makedir df0:t
endif
stack 10000
cd df0:c
assign t: df0:t
assign m2: df1:m2
df0:c/modula
```

Compilation

My initial task before compilation was to convert some ETHZ M2 programs to the commercial TDI. This had some interesting results. One error I got was "402: expression too complicated (branch too long)" for an IF statement with nine ORs in it. This compiled OK under ETHZ.

Unlike ETHZ you can't compile more than one program at the same time under TDI, although you can make up a batch file stating the modules to be compiled.

It pays to leave a space after your comment delimiter (* so you do not at any stage put in a compiler directive by mistake.

Almost all my problems have been with lack of space when compiling, the linker seems to run in a much smaller space. I can't see the advantage in their new compiler. They claim it is now not overlayed. However, if it was overlayed it would require less space.

When you have run one of the batch compilation files all you need to do to run again is:

```
cd df0:c
modula dfx:m2/name
```

If you get run time errors you have to import a module called Trapper using the following code:

```
IMPORT Trapper;
```



You must also recompile using the r option. This will give a dozen or so lines of debug information. To get full debug information every calling program has to be compiled using the r option and linked using the dt option.

One problem is that the method "execute m2comp" won't allow you to use the parameter r for reference so you have to:

```
cd df0:c
modula dfx:m2/name r
```

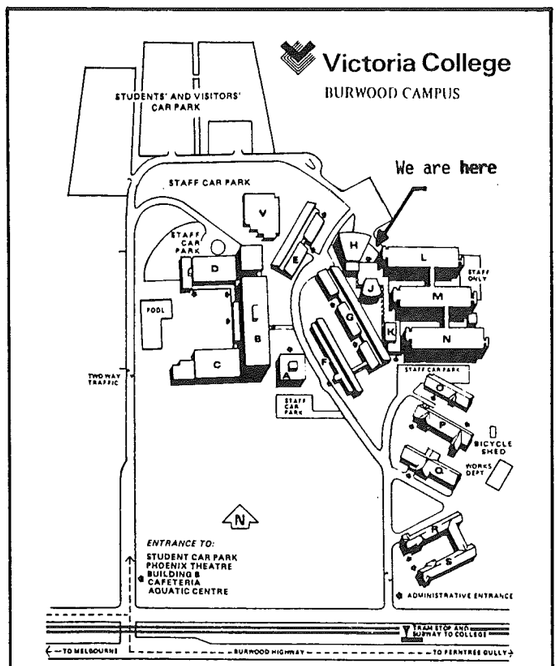
There is a bug there somewhere as you lose 71K of ram when the compiler is abnormally exited.

Linking

I only had one linkage problem. I got linker error 101. I don't know what that is as there are no linkage errors listed in the manual. However I did the two out of three test and it ran without any problems. To link just type:

```
cd df0:c
link dfx:m2/name o
```

The parameter o is very important as it optimises the resulting code by eliminating uncalled procedures. The example program sieve is a good demonstration of this - before 12,340 bytes, with the o parameter 3,808. One of my own modules went from 28,984 bytes to 5,976 bytes with optimisation.




New members and visitors sometimes have trouble locating our meeting place the first time. Victoria College is on the North side of Burwood Highway, Burwood, just East of Elgar Road. Coming from the City, turn left at the first set of traffic lights after Elgar Road. Follow the road around past the football oval, over three or four traffic bumps to the car parking areas near the netball courts. Further up the road, to the left, you'll find Lecture Theatre 1.

If you have a Melways, try Map 61 B5.

Editor

The use of the editor proved intractable at first. The sheets say "The Full Screen Editor uses the Amiga mouse and is self explanatory in its operation". Don't you hate it when things are supposed to be self explanatory? The trouble was that when I typed "Editor" something flashed on the screen and then was gone. By holding down the right mouse button I could freeze the image to see that it was asking for the filename of the module to be linked (I think) so there I was, stuck. However I looked at the manual and the instructions for the old editor. You needed the filename in there!

I gave up on using the editor as an editor and only used it for locating errors, at least that part can be made to work. However, at one stage I commented out calls to two separately compiled modules but forgot to also comment out their IMPORT, and the editor refused to mark where the error was. Also, every time you use the Quit option you lose 3K of ram. TDI knew of this bug when I contacted them.

The version of the editor appears to be 0.00a which is a strange version number and made me think I hadn't got the correct version.

The editor uses the source file and an error file as its input. When I couldn't get the editor to work I was forced to use the error file which has the

```
                                  28      24          73
(line # in original source)
     (column # of char before the
          error marker character @)
                                                (error #)
```

One thing I did to ensure that the editor didn't get confused was to move the module name statement to become the first line of source code.

Post Mortem Debugger (PMD)

You know when you have a runtime error as your program will return to the promptline. When the debugger is invoked (by the use of trapper as mentioned previously) the title on the screen is ".....Version 0.00a". This was confusing as the heading on the text file (there are no printed instructions) on this program says "Modula-2/AMIGA Version 3.00a Post-Mortem Debugger". I expected to find the debugger to be version 3.00a. Again, I thought I had a superseeded program. The debugger version number should be mentioned in the text. The explanation of its use is not comprehensive. I still don't understand all the screen displays - what do the memory dumps mean? At least the text admits to one bug.

The PMD calls for reference files as it runs. Once by mistake I typed in name.MOD and the computer hung! The program is not robust.

## Grid

Grid is a file access method which can handle variable length records and multiple keys. Because of the way the access method works there is no need to ever compress a file. There can be 10 keys per record each of type cardinal, integer, real or string. The maximum record length is 1024. There can be 7 files open at once. There is a maximum of 31 characters in the filename.

Provided with the various Grid modules is an example program called PhoneDB. This program has a main module PhoneDB.mod which is common source code to the Atari, Macintosh and Amiga versions of TDI. There is a system dependent part called PhoneResources.def and .mod. According to the Grid manual (Appendix B) the object code for this program is on the disk. It wasn't. Compiling PhoneResources.mod was the most difficult of all previous compilations. I kept getting the message "Unable to extend heap - memory full" at the declaration analysis state. My largest compile to date had three and a half lines of dots signifying size (I assume) at the declaration analysis stage.

When PhoneResources was compiled it abended at seven rows of dots. (It took 10 mins to get there). A call to TDI in which they said it could compile in 512K didn't convince me. Perhaps the fact it couldn't compile was the reason the object code was supposed to be on the Grid disk? However, I checked my startup-sequence on my workbench disk, (remember that I boot Workbench then put in my M2 disk), and saw that it created 8K of disk buffers. I deleted those statements and compiled PhoneResources.mod. The declaration analysis took 9 and a bit rows of dots. Apologies to TDI. When I tried to link it I got linker error 101 but trying again I was successful. The program PhoneDB was easy to compile and link, its size is 57,908 bytes.

I thought it poor that you had to print out the manual yourself, one should be provided. The example program PhoneDB is a poor advertisement for Grid. The idea of it is that you enter name and telephone numbers via a requester. The requesters elements are not aligned properly for starters, it doesn't look right. I had hoped to enter 100 numbers and get a subjective idea of how fast it is but couldn't fully understand how the system worked. It wasn't worth pursuing. A good, tested example program is needed to show off the power of Grid.

## Which Setup Should You Use?

A single drive setup is OK for people who want to code standalone programs such as those public domain ones. Because you can transfer the code to another disk when finished and don't need to refer to it again, you can unclog your work disk.

A double drive setup is almost mandatory if you are going to use Grid with its large files and/or your own programs use a great number of self written modules.

Ram expansion for large compilations is recommended.

## Latest Release

The latest release 3.00a supports Dos 1.2. It has some extra features such as IFF modules and all the bugs in the previous release have, to the best of my knowledge, been rectified. Some of the procedures have been placed in different modules so that old programs may no longer clean compile. Watch out for that on some of the example public domain programs.

## Conversion Problems (ETHZ to TDI)

I have already mentioned getting error 101 in one module. The main difficulty I had was in getting keyboard input into my programs.

Writing keyboard characters/backspaces/carrage returns etc is no prblem. Just use Write or WriteString from module Terminal or InOut. To Read or ReadString is (I should say, was) more difficult. I failed miserably at this and had to call TDI for assistance. You see all the example/public domain programs use the RAW console which will mirror your keystrokes. If you hit the delete key a graphic character will appear on the screen, if you hit Enter the cursor jumps to the next line. I wanted my prgram to detect those keystrokes before the system did anything with them.

I was told by TDI that there was an example program that did what I wanted and that a recent magazine issue addressed the problem. I didn't have access to the magazine and couldn't find an example on their Example disk. For example the module animal.mod in animal by Richie Bielak takes in user input but does not edit it in any way. He uses Read in module InOut. You can hit delete and get its strange graphical representation on the screen. That was no use to me. However it did put me on the right track, and the method to use is:

```
FROM InOut IMPORT OpenInputOutputFile,
                  CloseInputOutput, Write;
OpenInputOutputFile("RAW:0/0/640/200/ name");
Write( etc); YourOwnReadRoutine( etc);
CloseInputOutput;
```

## Solutions To Some Problems

Many of the example programs have their screens and windows set up in a separate module. This is a good idea and the module MondrianScreen in the Examples disk written by Richie Bielak on 12Oct86 is a good basis for such a module. Note that the similar module in TrailsScreen is now outdated. However I would go further and use the same module to close down windows and screens.

## Summary

One of the deficiencies of the system is the lack of a make utility. For small programs where a mainline is calling a number of user written routines there are no problems. However, if those routines call a further level of user written routines compilation and linkage becomes troublesome. The documentation accross all the TDI products requires upgrading. Better example programs need to be provided. The underlying product is excellent but the surface needs to be repolished.



## Future Releases

On June 6th, I learnt from TDI that they plan to release the source to the symbolic debugger, Xref, GREP, DecLnk, (this program disassembles a link file), DecLod (this program disasembles an executable code file), and others. A new version of the Editor and other bug fixes will be released in the near future to registered users.

The same day Inovatronics Inc told me that their existing product Power Windows will be released in a couple of weeks supporting Modula-2. So the one product will generate C code, assembler and M2. This will be a boon for the M2 user as it will be possible to easily create windows, menus and gadgets.

Ref 4 states that the public domain M2 on Fred Fish disk 24 is a prerelease M2 compiler used for MacMETH for the Macintosh. A revised version of that public domain offering will be available at the end of the year (1986). It will be interesting to see this revised release.

## ETHZ Further Error Messages

| Num | Example of error | Cause/Solution |
|---|---|---|
| 146 | | placing a constant into a variable. You can force a constant into a variable as long as each instance of the constant is the same char length. |

REFERENCES


1) Amiga Project 1 no 1 April 1986
   Modula-2: a Brief Survey by Richie Bielak
   p8-14
2) Amiga Project 1 no 6 Feb/Mar 1987
   Using Menus With Intuition by Richie Bielak
   p5-10
3) Amiga Project 1 no 6 Feb/Mar 1987
   Printer Spooler in Modula-2 by Wayne Westfield
   p36-38
   Spools a maximum of three files with optional date and formfeed.
4) Amazing Computing 1 no 7 [mid to late 1986]
   p75 within section AMICUS Network


M2 PROGRAMS

1) Dk on Fred Fish disk 66.
   the program changes the display so that it looks like it is snowing. Snow flakes fall from picture elements making up screen characters. A snow drift forms at the bottom of the screen. This display hack is slow.
2) D1 on Fred Fish disk 69.
   revised version of that on disk 66 [not seen]

## In The Beginning

by John Pocock

Just one short year ago I hadn't a clue about computers. To me they were no more than glorified accounting-machines, typewriters, calculators and shoot-em-up parlor games for kids. How could anyone rave about such boring activities, except the youngsters of course.

One day I heard an advert for Atari, which bragged about how much better (and cheaper!) than IBM it was and how it had wonderful sound and graphics capabilities. I pricked up my ears, but did nothing about it until while strolling through Forest Hills Shopping Centre one day, I spotted a new computer store. I went in, got hooked, paid my deposit and waited three days for it to be made available. So, armed with chequebook and eager anticipation, I duly presented myself at the store. It was not only closed but empty with an apologetic note on the door- "Sorry for inconvenience etc." In disgust I went to their city office, asked for and received (in small change) my deposit back. On my way home, I called at Maxwells, browsed for a few hours and came home with a friend, complete with digitizers and their programs.

With excitement at fever pitch, my new friend was hurriedly set up and its manual hastily scanned. Not getting much sense from it, I started in. First advice I understood was to play safe and make copies of the master disks, but my friend seemed to have other ideas, and kept telling me to replace the original. Being a computer virgin, I didn't understand about the need for external drives, and so I encountered my very first of so many frustrations. Fancy missing the part about swapping disks. There certainly was a need to swat up on computerese, and the manual didn't waste words on being too friendly either. Digitizing wasn't so difficult but the procedure for saving to disk really had me troubled, not to mention the discovery of IFF, and how to view digitized pictures. That's how I was `persuaded' to invest in DPAINT and a diskdrive. Getting involved is just a mild expression for the situation I now found myself in.

Keyboard commands were the next item on the agenda. This was when I found that near enough was not good enough; my friend just refuses to be taken for granted. Even last night a renamed disk was unacceptable. How could WB make such a mistake? Quite easy, it seems. The name had been offset one space to the left. Just another of the continuing saga of mistakes that can be made when learning the fascinating art of computing; but I still regard my new friend as a fun machine with unlimited possibilities.

Very interesting at the meeting was "500" version of my new friend, looking more than a little like the thing I was nearly stuck with and demonstrating that Commodore is aiming it at a specific market and opposing a former colleague and founder, who deigned to compete with the giant.

Disks present unexpected problems. Imagine my surprise when one of the PD disks I copied at Maxwells (for free to their customers) gave me an unending repeating list of three files. Not

suspecting that the disk might be faulty, I reused it without any trouble and promptly forgot about it. A few weeks later I copied the rest of the PD disks at the store, told the salesman about the experience and on his advice I tried another copy. Unfortunately the disk contained only ABASIC programs which are unusable on the 1.1 and 1.2 versions. How to find that `rotten apple' was the next exercise. Lots of patience and weeks later with the aid of FORMAT and DISKDOCTOR the offender and others were tracked down, very educational I can assure you, so now every new disk is checked using CLI rather than WB. Result - my typing and knowledge of AMIGADOS improved considerably, so some amusing experiments were next.

It's fun to personalise one's Workbench. Have it greet you on startup, tell you when ready and open a full screen CLI with your own caption such as `Quiet! Genius Pondering' at the top and in the centre. It makes startup slower, but with a few ASSIGN abbreviations you can cut time in other operations.

I've had lots of fun with Music Studio too, in spite of its limitations of not having a presettable volume range to enable one to emulate a piano, for instance. It's good to hear music written for the recorder some two or three hundred years ago and unlikely to be heard on a recording.

In looking ahead, the next obvious step is to have a larger memory, so I hope to be able to call on the experience of other members to help me decide the most suitable way.

Now I'd like to suggest a change in format for the PD disk requester as used by AUG, which may save others the disappointment I experienced with my first order. I use a system of letter and number for identification of my own disks, ie, `A' short for AMICUS, and `L' short for AMIGALIBDISK, easy to change too, just delete unwanted characters. The prefix A or L will fit easily into the blocks reserved for numbers. I made the mistake of putting numbers only and selected from the June update list. AUG seems to be keen on unloading the early Fred Fish disks, especially number 13, which is the one I mentioned earlier. [Ed: How will you tell the difference between the Amicus and Amigan disks?] I've good reason to remember that one. This has been an interesting exercise, the first of its kind for me and I recommend that everyone should try it at least once.

==========

## Hack Review

by Simon Bronson

I usually find public domain disks drab and unentertaining, but this time I've found one that has kept me occupied for many hours. I saw a game called "Rogue" a month or so ago, and I found it long and laborious. When I saw "Hack", I thought it was the same trash, but after playing it for a while I found it better than its commercial counterpart. "Rogue" is written by EPYX and sells for $69, but "Hack" is on the public domain list and can be obtained from the club for a mere $2 on your own disk.

You will find that the Hack disk is not bootable, so you will have to load Workbench first. Then, insert the hack disk, and select the Hack icon. You'll be presented with a window full of icons. The first thing to do is to read the Help file and they will tell you what to do (that got me out of that problem). There are two versions of Hack and I recommend the graphics one, the other is in text and doesn't look as good.

After everything has been set up, click on the hack icon, and enter a world full of swords and sorcery (or something of the like). When loaded, you will be prompted to enter your name and then the character you would like to be. The choices include: Wizard, Fighter, Tourist, Caveman, Specialologist and Knight - my favorite is the Caveman, as he seems the strongest.

You are then prompted to push return and what you find is a birds-eye view of a dungeon with you in a corner of it. The graphics are not spectacular, but the adventure compensates for it. You and your trusty canine friend are up against the forces of evil as you battle for gold while at the same time, increasing your level and hit points.

The only visible parts of the dungeon are those places that you have visited; this means that anything could be lurking in the corridors.

You can control your movement with the mouse or the keyboard arrow keys. You pick up objects simply by moving on to them. Fighting is when you bump into a creature, but this can become embarrassing when you didn't intend to fight. Other options are contained within the help screens, but mainly chosen by the menu button of the mouse from the menu bar.

You can fight a whole host of creatures including Giant bats, Hobgoblins, Leprachauns and even your own dog. When you have killed all the monsters or looted the dungeon, you can move to other levels by taking the steps downward (these stairways are concealed within the dungeon, so you'll have to find them yourself). Occasionally you will find when trotting down a corridor that you cannot move any further. This means there is a concealed door which has to be searched for; you then push `s' for a while and then the corridor can be used once more.

Apart from fighting and adventuring, there are also shops in which you can trade goods, or upgrade armour or weapons. To add more realism to the game, the author has made it necessary to eat and obtain food. This can be fun, as there is a wide selections of eats you can find; Rations, Melons, Fortune cookies, Edible monsters, Bananas and even Sardines.

I found "Hack" enjoyable and fun to play, it's cheap and can be found in our own public domain library.




# Memory Plus for the Commodore Amiga™

**The Memory Plus is made in Australia by Subordinate Systems Pty. Ltd.**

## Specifications

- 1, 2, 4, 5, or 8 Megabytes of FAST memory (No wait states!)
- Battery backed real time clock calendar with rechargeable batteries (AA size)
- Time and date utilities supplied
- SCSI adaptor (Small Computer Systems Interface)
- Winchester disk device driver supplied with hard disk options
- Dimensions (including feet) H 114mm x W 98mm x L 284mm
- Power supply included
- Full 12 month warranty on all parts and labour
- 30 day money back Guarantee
- Winchester disk data transfer rates of up to 600,000 bytes per second

## Memory

Modular memory provides you with an easy upgrade path to expand memory to meet your requirements both now and in the future.

## SCSI Adaptor

The SCSI adaptor provides the user with access to a wide range of mass storage devices such as Winchester disk and Tape drives. Subordinate Systems can provide Winchester drives in a wide range of capacities from 20 Mb to over 244 Mb. Winchester drives are supplied in a seperate metal case which supplies power for both the drive and the Memory Plus adaptor board.

## Prices

| | | | | | |
|---|---|---|---|---|---|
| Memory Only: | | 1 Mb | $895 | 2 Mb | $1095 |
| 20 Mb Winchester disk | $2195 | + 1 Mb | $2395 | + 2 Mb | $2595 |
| 45 Mb Winchester disk | **$3195** | + 1 Mb | **$3395** | + 2 Mb | **$3595** |

To order, or for more information, call (03) 786 6868 (9am till 9pm Mon-Fri), or leave a message for LACHLAN on the AUG BBS.

Subordinate Systems Pty. Ltd., P.O. Box 109, North Balwyn, VIC 3104

™ Commodore Amiga is a Trade Mark of Commodore Business Machines.


## My Thoughts

by James Hovenden

To help our long-suffering editor, I've committed some thoughts to diskette, and here they are:

My $20 investment in an AUG subscription has proven excellent value, as it has saved me $89 so far this year on software and books. No, I am not an accountant! I also have a couple of handy Fish disk programs.

Two weeks ago, I purchased TDI's Modula-2 after reading in April WORKBENCH that a new version 3.00 was coming. The new version has a number of extra features such as screen editor, dissassembler and some minor changes to the modules used to interface with the Amiga software library.

The small ring-bound documentation manual is nicely set out - but because of the minor software changes this book is now slightly wrong. The correct info is supplied on disk though. The screen editor is very basic and doesn't show compiler errors on-screen quite as it is supposed to.

This Modula-2 needs lots of elbow room to do its work. TDI suggest a 30,000 byte stack, but even on some of their demo programs this wasn't enough. Nevertheless the language is usable, which is more than I can say about my attempts to use Lattice C (grrr,snarl). Current price for the Developer's (i.e. useful) version is $275 less your AUG discount...

Apart from a ridiculous AMISOFT "magazine on a disk", my only other recent purchase is PORTAL by Activision. It has a good science fiction plot that has you arriving on Earth after a long space trip to find the place totally deserted - so you set out to find why. You pick up clues by collecting information from various "computers" in an imaginary world network of the future. It's a long story (you get 3 disks!) but not too painful to sit through.

My complaint is that there is no mental challenge or difficulties to overcome (apart from the time required to complete it!). You just select a "computer" and read any files it gives you at the time. The game won't let you continue without reading the files it wants you to. The packaging says "PORTAL - A Computer Novel", so I can't say I was cheated. I think it's a variation on the slogan "What you see is what you get". This program comes under the description "What you see is ALL you get"!

**AUG's AmigaLink BBS - (03) 792 3918**

## I'm a Closet Amiga User

by Annette Green

Dear "Amigoid",

Whilst my boyfriend was away at your meeting today, I thought I would "play-around" with his computer. Well, maybe not play-around, but I can't think of a better word. My experience so far with computers has been limited to IBM and Macs.

What a way to start! I loaded "Workbench1.2" only to see the screen begin to melt. (He had loaded a PD disk program called "MELT" into his startup-sequence.) I sat there stunned, wondering what to do and how to get out of this mess. "Very Funny, I'll get even", I said to the Amiga.

Well, since your newsletter/magazine is always looking for articles, I hope this letter will fill an empty gap sometime. (I asked him to prepare this disk for me, then kicked him out while I wrote this.)

If I could be allowed to start with a gripe, why isn't there a program that turns the computer into a typewriter of office quality (like a Canon Typest*r 7 which have features like Tab, Right Align, Margin Set and a warning bell when you near the right margin.) The Amiga's keyboard does take some getting used to after using a typewriter for so long.

First disk was Shanghai, which had me hooked within five minutes. Dare I try their "Ten Second" challenge? The game has very good graphics except for the shadow along the tiles. (A twiddle with the brightness/contrast on the monitor will solve this.) The game is played using pull-down menus. The "Show all moves" menu item certainly helps when you think you are stuck with no more moves possible. By accident, I discovered you can double-click the second tile to remove it, which saves moving the mouse to the "remove" window all the time.

After an hour of Shanghai, I rested my eyes and made lunch before I started to play of the Crown which is on two disks. (How does someone with one drive play this game?) You must be sure that the disks are in the right drives or "NO GO", the system will not give you any icons to open the game with. The game has great graphics, but lacks real action. Maybe I am too fussy.

I did find the changing looks and expressions of the characters to be excellent, particularly when you rescue a Damsel from a castle and she returns the favour the night after the rescue, when you finally get to see her after all this time! The graphics are good, although there are only two castles scenes, yet you are fighting five others for land. There is only one scene for fighting inside the castle (whilst fighting your foe, be on the look-out for a comet!). Likewise there is only one "inside the castle" scene. The jousting field is boring while the trumpets blare their fanfare to announce the start of the joust. The game should allow you to have three tries against your opponent. When you come off your horse, that is all you are allowed for the day, yet you can joust the same person three times, provided you lance him off the horse. Warning: Do not aim to kill the horse, or you will will be very sorry.

The Surgeon. Well, what can I say when the patient is dying before I even start to "open him up"! The graphics are on par with other programs, although the sound of the patient sceaming is a bit sudden if you mistakenly have the volume all the way up. An interesting simulator for all you budding surgeons who have ever dreamed of operating on people you don't particularly like. The manual is very small, but is helpful as it does go through the correct order of the operations, although time is always against you - too long looking at the instructions and he screams and dies on you.

I love Flight Simulator, but why IBM-like graphics? My dream would be this program re-written for the Amiga, enhanced to use the computer to its best ability. My main gripe is the slow animation of the graphics scenery. (Does anyone know how to make it work from the joy-stick, instead of the mouse??).

Maybe one day I may buy my own Amiga, but until then, I will just have to wait for your next meeting to try some more programs.

==========

## I Built My Own Hard Disk System

by Darryl Harvey

To start with I will tell you what you do need to add a hard disk to your Amiga using the same hardware I bought, to make the story a bit easier to follow:

| | |
|---|---|
| Hard Disk (20 meg I have) | SCSI Controller |
| SCSI -> ST-506 Controller | Power Supply (+5 & +12 Volts) |
| Connecting Cables | Software |

Case to put it all in (Which I have yet to get)

My story begins as I am browsing through AmigaWorld, looking at what is available for my fantastic machine. The only things I really need is extra ram and a faster disk access media. The RAM I have ordered and waiting for it to arrive, the faster disk access is a problem. What I have at home (Unused) is a 20 meg Hard disk out of an old IBM machine, a power supply that can run it, and cables to connect the hard disk to an IBM Hard disk controller (ST-506 Interface).

I come across an add for a company that sells Hard disks for Amigas and that I have seen locally for sale by an Amiga dealer. I study the add a bit closer and notice that they also sell the SCSI Hard disk controllers by themselves for a measly US$299.00. I thought to myself this is just what I need, I have the disk drive, have the power supply, all I need is the controller. I jot down their number, right down a few questions I would like to ask them. Wait till the time is overlapping their working hours ( 2.00am in the morning local time ) and give them a ring. My questions go like this:

Q: Will your hard Disk controller work with a standard IBM type Hard disk?
A: "Yes it will work with any SCSI hard disk". (I wasn't 100% sure on what this SCSI controller was!)
Q: I have a ST-225 Hard disk (Seagate), Will this controller work on it?
A: Yes we have had a ST-225 working on our controller.
Q: Does the support software come with the controller?
A: Yes the software is provided.
Q: Is there anything else needed apart from the power supply ?
A: No nothing else is needed, our Controller will work with most SCSI Interfaces. (Thats the catch!)
Q: OK, fine, it looks as though my Hard disk will work, Can I order one ?
A: Yes sure, How will you pay, etc. etc.etc.



So I ordered a SCSI Controller to make my hard disk run off my Amiga. Now I didn't know that my Hard disk uses a ST-506 Interface, because I asked him if my Hard disk (ST-225 Seagate) would run off their controller and he told me it would.

Three weeks later, I receive a note saying that the postmaster has a parcel for me and that duty is to be paid to Customs for clearance of my parcel. A$85.00 wasn't much to pay as I had saved heaps on buying this controller alone. I paid the money, received my parcel and took it home ready to set up my new hard disk.

What a joke, I read the manual and it says that the SCSI controller will run Almost any SCSI interface. My Hard disk is a ST-506 Interface (Standard IBM type Interface). Oh ^%$##^&(*^, What do I do, Can I get a ST-506 -> SCSI controller. I jump on the phone and ring a friend who knows a lot more about this thing than me and ask him the question "Can I, where do I get a SCSI -> ST-506 Controller ?". He tells me that they are available and gives me the names of a few companies to try. I ring one and they say that as far as they know there is NO SUCH THING. I ring another and they tell me that they have them in stock, and even have the same brand/type as referred to in the SCSI Manual supplied with my Purchase.

I ask him the price and availability and he informs me, that they have them in stock and the price is $395 + Tax. (Which works out to around $475). Well I had no choice. I had spent so much already, and it was no use without the controller to interface it to my hard disk, so I went down and wrote a cheque out and got my interface.

Next I got home, Made my cables (Which luckily I had already), Made cables for the power supply, Connected the power supply up to my hard disk and controller, Read the manual. Fitted the SCSI controller to my Amiga and booted the software supplied with the SCSI Controller. Made a backup copy of it, and read all the help/Doc files on the disk. After I thought I knew what I was doing, proceeded to the LOW LEVEL FORMAT program of the controller called SCSIformat. Straight forward enough. Ran the program, set up the settings as per my hard disk and proceeded to format my drive. Lights flashed and the head stepped out, it was working !

After around 10 - 15 Minutes of the low level format, I was told that it had been completed successfully. Hooray, I am getting somewhere. Now to proceed to the standard format. Here you have a choice of their own FASTFORMAT or AmigaDos's Format program. Fastformat sounds nice I thought, so I ran their program, set up the settings again, and hit the format requester. 2 seconds later, I was told Format ok, Disk fine. Wow, too fast for me. I then read the manual again about the FASTFORMATTER and found out that that program only writes the file allocation table on the disk and does nothing else. Hmm, not my cup of tea, I better do the AmigaDos Format to make sure the drive is Ok. (AmigaDos's Format actually formats each cylinder and also verifies each cylinder)

So I ran the Format program.

```
1>FORMAT Drive DH0: name "HARD"
```

AmigaDos tells me to insert volume DH0: huh ? what ? It is already their I scream at the computer.... Back to the manual I go and read again. Ah ha, After the SCSI format, if you do the AmigaDos format you must MOUNT the volume first. So I go into ED and make a MOUNTLIST file which lives in the DEVS: directory. Set up the parameters as they tell me too, Device number, driver name, Unit Number, Amount of cylinders, blocks per track and all that stuff. Exit ED, Run the Mount program:

```
1>MOUNT DH0:
```

Back comes the prompt, no hard disk access, no error messages, it must have worked. Only way to find out is to try to format again.

```
1>FORMAT drive DH0: name "HARD"
```

DF0: accesses, a small delay, and then it says Hit return to format drive DH0:. Hmmm, seems like we are getting somewhere. Still feeling a little unsure, I eject all my floppies out of their drives to make sure they are not formatted instead and hit return. Another delay and then the hard disk lights flash and the head starts stepping again and I am told that Cylinder 0 is being formatted/verified, 609 Cylinders to go. It is WORKING.

Another delay of around 10 - 15 Minutes while the format takes place and then back to the CLI prompt. I can only say that it must have worked ok. No errors reported. Ok, Now the manual says to run the BOOT 20 (For a 20 Meg drive) program to set up the floppy disk for hard disk support. So I enter the command BOOT 20. I get errors, cannot assign values C: to DH0:c. Hmm, Back to the manual, Inspect the file Mount-20 (Which BOOT 20 Uses to set things up) and find out that I need to create the directories on the hard disk, C: DEVS: S: LIBS: L: Etc. I create the directories, try again, BOOT 20, and within 30 seconds my hard disk was whirring away and fully operational. (All I had to do was put the files on it) After spending 45 - 60 minutes transferring files and editing the startup-sequence file my hard disk was booting up and running the whole show. All commands came from the C: directory on the hard disk and everything happened nice and quick. No delay after saying DIR and then waiting for the DIR program to load from floppy, It came from the hard disk as quick as you expect it to come from RAM:

I must say that I am very pleased with the result although I did have a bit of trouble getting

all the bits together to make it operational. The total cost of things worked out about 1/2 the price of the unit that sells locally (Same make, U.S. supplier as I got mine from) But I have NO warranty and no case to put the unit in.

It is not the sort of thing I would recommend to anyone with little or no knowledge of electronics as I had to work out and make a few cables and power connections. Apart from the fact I have no case, my unit is functioning 100% and I will never look back. But I must stress that if you do not already have some of the parts as I did, it would not be worth your while undergoing it my way, I worked out that if I had to buy all the other bits locally (Hard disk, Power supply, cables, ST506-SCSI controller) I would have saved about $150 from the cost of a complete, new guaranteed Unit from a local supplier and lost about 10 + hours of labor and running around.

What I do recommend is that if you have the cash to spare/spend, then a hard disk for the Amiga is a very big bonus. Although you will need extra RAM eventually as the driver files (Although small) do take up valuable ram and some programs will not run due to not enough memory. Which brings me to my next story, where is my ram board ? I've ordered it, and I'll tell you about that saga when I eventually receive and install it. But thats another story !

==========

## A Dreadful Confession

by Peter Menduza

Sitting in the crowded Amiga Users Group meeting I looked around and saw a sea of happy smiling Amigaphiles, and I became worried. Don't they know? Should I warn these simple, selfsatisfied souls of the dreadful peril that awaits them? I must be brave and tell the terrible story of my wrecked life.

I have a theory the trouble is all caused by that Indian mystic. What is he doing in my computer? Has he put a spell on her?

My affair with Amigail began innocently enough with Chessmaster, although I didn't like the nasty tone in his voice when he said "Gotcha". That should have been a warning to me. Then I tried Leaderboard Golf, but a score of 87 is not good for the first hole, and with One On One I only got my strength back with the help of a six pack. This was becoming depressing. Since then I have been shot dead in On Borrowed Time, drowned in Silent Service, speared by savages in Seven Cities of Gold, drugged in Deja Vu, and I always lose my balls in Quintette. By now, I had lost all confidence, but worse was yet to come. In a Faery Tale Adventure, some idiot with a sword kills me, and then I get the kiss of life from a faery. The pits, that is what I have sunk to, the absolute bottom of the pits. I must stop seeing so much of Amigail.

Last night my wife caught me playing Strip Poker with Melissa. It was very cold and embarrassing, sitting there with only my Jocks on. One day it will be my turn to get the clothes off her.

This morning I have a bad cold and should stay in bed, but my hand is shaking so much I have difficulty taking my Valium. I need a fix. Sneezing my way to Amigail's room, there she is in all her majestic beauty. I push the switches and red lights come on. That feels better. The screen says Kickstart, and as I push in the disk I can feel all the tension leave my body. Then Workbench comes up like a flash. Aaaaaah, that feels wonderful. Hands now steady as a rock.

If I hurry, there might be time for a quick game before anyone notices. Which one will I play.....? I think I could just manage House On A Disk, before they come to get me.

==========

## Handy Hints

**Hint 1**

To copy multiple files, use the concatenation character "|" (the shifted key next to the backspace), like this:

```
COPY DF0:Directory1/File1|File2|File3 to DF0:Directory2
```

I thought it wasn't clear in the DOS manual, but then maybe I'm stupid.

**Hint 2**

If you want to clear the screen while in AmigaDOS, hit the control and "L" key, then the return key.

**Hint 3**

If you use the SAY() and TRANSLATE$() commands in BASIC you may find the delay as BASIC uses the Translator.library and the Narrator.device from the disk annoying. Help is at hand. All you have to do is copy the Libs and devs directory to the ramdisk and reassign the system directories to the ramdisk before starting up BASIC. Below is a script file to copy and assign all you need. If you wish to preserve as much of the ramdisk as possible, then only copy the appropriate files to the ramdisk. ie Translator.library to Ram:Libs and Narrator.device to the Ram:Devs directories.

```
If not exists Ram:Libs
  Makedir Ram:Libs
Endif
Copy Df0:Libs Ram:Libs
Assign Libs: Ram:Libs
If not exists Ram:Devs
  Makedir Ram:Devs
Endif
Copy Df0:Devs Ram:Devs
Assign Devs: Ram:Devs
```

==========

## Public Domain Update

Yeah, I know I said last month that I'd be running these lists in reverse order from now on so that I'd only have to keep one list instead of two. The trouble is, I didn't think about it enough. We plan to have printed catalogs available in the near future, and the only way they can be updated is to list the disks in release order so that new disks can be added to the end. So, here's a list of the latest Amicus disks in release order, followed by two Fred Fish disks, released to replace Fish disks 80 and 88. (See last month's newsletter for more information.)



### Amicus #17

This is a special Telecommunications disk, which contains six terminal programs.

| | |
|---|---|
| Comm V1.33 | Terminal program with Xmodem and WXmodem |
| Aterm V7.2 | Terminal program with Super Kermit |
| VT-100 V2.6 | VT-100 emulator with Xmodem, Kermit and scripting |
| AmigaKermit | V4D(060) port of the Unix C-Kermit |
| Vtek V2.3.1 | Tektronix graphics terminal emulator based on the VT-100 program V2.3 and contains the latest ARC file compression |
| AmigaHost V0.9 | For Compuserve, includes RLE graphics abilities & CIS-B file transfer protocol |
| FixHunk | Expansion memory necessity |
| FixObj | Removes garbage characters from modem received files |
| Txt | Filters text files from other systems to allow them to be used on the Amiga |
| AddMem | Executable version for use with memory expansion article in AC issue 2.3 |
| Arc | File documentation and a basic tutorial on un'arc'ing files |
| ArcRe | For shorting Amiga filenames to suit Arc |

### Amicus #18

| | |
|---|---|
| Logo | Amiga version of popular language, with example |
| TvText | Demo version of TVText character generator |
| PageSetter | Freely distributable versions of the updated PagePrint and PageIFF programs for the PageSetter desktop publishing package |
| FullWindow | Resizes any CLI window using only CLI commands |
| Life3d | 3-D version of Conway's classic game |
| DefDisk | CLI Utility to re-assign a new workbench disk |
| Calendar.WKS | Lotus compatible worksheet that makes calendars |
| SetKey | Demo of a keyboard key re-programmer, with IFF picture to make function key labels |
| VPG | Video pattern generator for aligning monitors |
| HP-10C | Hewlett-Packard-like calendar |
| SetPrefs | Change the preference settings on the fly |
| StarProbe | Program studies stellar evolution. C source included for AmigaDOS and MS-DOS |
| ROT | C version of Colin French's AmigaBasic ROT program from Amazing Computing. ROT edits and displays polygons to create three dimensional objects. Up to 24 frames of animation can be created and displayed |
| Scat | Like Ing, windows on screen run away from the mouse |
| DK | Decays the CLI window into dust, in Modula-2 |
| DropShadow2 | Adds layered shadows to workbench windows |

### Amicus #19

This disk carries several programs from Amazing Computing. The IFF pictures on this disk include the Amiga Wake Party T-shirt logo, a sixteen-colour hi-res image of Andy Griffith, and five Amiga Live! pictures from the Amazing Stories episode episode that featured the Amiga.

| | |
|---|---|
| Solve | Linear equation solver in assembly language |
| Gadgets | AmigaBasic gadgets tutorial |
| HouseHold | AmigaBasic household inventory program |
| Waveform | Waveform workshop in AmigaBasic |
| DiskLib | AmigaBasic disk librarian program |
| Subscripts | AmigaBasic subscripts example |
| String.Boolean | C programs and executables Intuition tutorials in AC |
| Skinny.C | Examples for making small C programs |
| COMAL.h | Make C look like a COMAL header file |
| EmacsKey | Makes Emacs function key definitions |
| Amon1.1 | Snoop on system resource use |
| BTE | Bard's Tale character editor |
| Size | CLI program shows size of a given set of files |
| WinSize | CLI window utility resizes current window |

### Amicus #20

| | |
|---|---|
| Compactor Decoder | AmigaBasic tools by Steve Michel |
| BobEd | BOB and Sprite editor written in C |
| SpriteMakerII | Sprite Editor and Animator by Brad Kiefer |
| BlitLab | Blitter chip exploration C program |
| FPic | Image processing program loads and saves IFF images, changes them with several techniques |
| BankN | Complete home banking program - balance your checkbook |
| Cons | Console device demo program with supporting macros |
| Freemap | Creates a visual map of free memory |
| Input.Dev | Sample input handler, traps keys and mouse events |
| Joystick | Shows how to set up the gameport device as a joystick |
| Keyboard | Demonstrates direct communications with the keyboard |
| Layers | Shows use of the layers library |
| Mandelbrot | IFF mandelbrot program |
| Mouse | Hooks up mouse to right joystick port |
| One.Window | Console window demo |
| Parallel | Demonstrates access to the parallel port |
| Printer | Opening and using the printer, does a screen dump but is not currently working |
| Print.Support | Printer support routines, not |

| | |
|---|---|
| | currently working |
| ProcTest | Sample process creation code, not working |
| Region | Demonstrates split drawing regions |
| SampleFont | Sample font info on creating your own |
| Serial | Demonstrates the serial port |
| SinglePlayField | Creates a 320 x 200 playfield |
| SpeechToy | Latest version of cute speech toy |
| Speech.Demo | Simplified version of speechtoy, with IO requests |
| Text.Demo | Displays available fonts |
| Timer | Demonstrates timer.device use |
| TrackDisk | Demonstrates trackdisk driver |

## Fish Disk #89

This disk replaces disk number 88, which was pulled from circulation due to the redistribution status of files in the directory "snap". If you encounter a disk number 88 in circulation, please advise all parties concerned that the disk should be erased immediately.

Note that AUG will be supplying **this** disk for all orders placed for disk 88.

| | |
|---|---|
| AutoEnquirer | An example of a screen contraption that is like a requester except that it's not quite as demanding, goes where you want to put it, and remembers where it was put. Includes source and Manx'ified version of Chris Gray's fractalish terrain generator as a demo. |
| DEMOlition | Another neat little display hack. In the spirit of these things, ya gotta run it to find out what it does. Includes source. |
| DirMaster | A very nicely done shareware disk cataloger, submitted by the author for inclusion in the library. Includes sample database of some disk libraries. Version 1.0a, binary only. |
| FuncKey | A shareware function key editor, submitted by the author for inclusion in the library. Version 1.01, binary only (source available from author). |
| MFF-Demo | Demo copy of the MicroFiche Filer program from Software Visions Inc. The MicroFiche File is a full-powered database program for manipulation of text, numbers, and pictures. It uses the microfiche metaphor for dealing with your data graphically. This is a full production version except that the save option has been disabled. Includes a sample database of my disk library. Binary only. |
| Screenshift | Screenshift is a small program that allows you to adjust the position of the screen on your display, just like the preferences function. Works from CLI or WorkBench. Includes source. |
| Snake | A variant on the old "bouncing lines" program, this on uses multiple vertices and Bezier splines. Includes source. |

## Fish Disk #90

This disk replaces disk number 80, which was pulled from circulation due to the redistribution status of files in the directory "tools". If you encounter a disk number 80 in circulation, please advise all parties concerned that the disk should be erased immediately.

Note that AUG will be supplying **this** disk for all orders placed for disk 80.

| | |
|---|---|
| AmiGazer | Compute a view of the night sky, using a database of 1573 stars, for any date, time of day, and latitude. Click on stars for info about them. Binary only. |
| CardFile | Study aid card file program written in AmigaBasic. Useful for organizing small blocks of data, such as can be done with a 3X5 card file system. Binary only. |
| Conman | Extremely useful replacement for the standard console handler, that provides line editing and command line histories completely transparent to any application program that uses CON: windows. Version 0.98B, binary only. |
| IMandelVroom | A slightly modified version of Kevin Clague's mandelbrot program (on disk number 78) that uses his "ring detector" to draw an approximation of the interior strange attractor contours. Binary only (with patches for original source). |
| NewDemos | Some new demos, including replacements for the standard "lines" and "boxes" demos, that use only a few percent of the CPU time, so it is reasonable to have lots of them running simultaneously to demo multitasking. Binary only. |
| Othello | Othello game, binary only. |
| PrinText | Program to display ASCII text files on the screen with scrollbar, arrow gadgets, automatic word-wrap, a search function, speech, IFF picture loading, and online help. Version 1.2, binary only. |
| PrtDrvGen | Program to automatically generate custom printer drivers. Version 2.2b, binary only, source available from author. |
| RainBench | Simple program which cycles the hardware color register to get an interesting effect on your workbench screen. Binary only. |
| ShortCut | A utility that collects keystroke sequences and allows you to replace them with a single key stroke. Binary only. |
| ShowPrint | A full-feature IFF picture file screen dump utility. Can display and print all sizes of pictures including those larger than the screen. Allows adjustment of printer output in three modes: ASPECT, FULL, and CUSTOM output. Print vertically or horizonatally, in B&W, grey scale, or color, etc. Binary only. |
| Sizzlers | A series of graphics demo programs. Version 1.7.0, binary only. |
| SpaceAceDemo | Shareware shoot-em-up spaceship game. Binary only. |
| Timer | Creates a small window containing a timer. Version 1.5, binary only. |



==========

## BARBARIAN Review

by Nigel Harwood

This game by a mob called Psygnosis of the UK, and is your standard run/jump/fight type platform game (platform = donkey kong etc) which are frequently found gobbling up twenty cent coins at the local arcade.

I wonder how many times I'll have to play it to get my $84/0.20's worth, oh well.

The packaging is great, lovely box (as if that matters), story book, instructions, and even a wall poster! Bundled in with all of this is a single 3 1/2 inch disc.

I tried to backup my purchase using Marauder II brain file 3.00, but it was a bit short on the grey matter this time. And to make it worse, the copy protection scheme dosn't use the master key system, so every time I run the program the original disc must stay in the drive the entire time (I wonder how long it will last).

Now, the game - The most impressive graphics and sound are to be found in the first thirty seconds of the game, the title screen display. This is what caught my eye in the store, unfortunately the game dosn't quite keep up the standard.

### Scenario

You are the good guy called Hegor (ie James Bond with muscles), and naturally you must rid the world of the mad bad guy called Necron. Of course you must get past various traps and monsters to get to Necron, who's only weakness is the crystal he draws his power from.

When you eventually destroy this, the whole underground world goes into self destruct count down. You now have a set time to escape, which depends on how long it took you to destroy the crystal in the first place.

### Graphics

The saving grace of the game is the graphics. These are great, except perhaps for the delay when scrolling between screens. Also the character gets a bit jerky in his motion when too much else is happening on the screen.

### Sound

Apart from the glorious thunderclap in the title screen, the rest of the game's sound is a bit lacking, consisting of GRUNT, IIIEEEEEEE, THUD, UUUUHHHH, YEEEEHH at the appropriate moment for the muscle bound hero.

### Movement

To move you can use either keyboard, mouse, or joystick, but really to access all the necessary things you have to use the mouse. The way things are layed out makes fighting and moving a bit clumsy and I think this detracts badly from the game.

Also the character does not always respond on the first go, and this can have you walking off a cliff.

### My Conclusion

I would still buy it over again, simply because I think the graphics are good, and I like to collect the best of the various types of games. And, to date this is the best of the run/jump etc type I have found.

I do think, however, that I have played better games on my now departed Commodore 64.

### PS

Does anyone know how to get the bow to kill the dragon, from the knight protected by the foot thing with teeth, so that I can get the crystal etc.

==========

## Public Domain Plug

by Nigel Harwood

I have up till now been editing with the standard 'ed' program, and have just started using the public domain 'DME' program.

I can fully recommend this editor; it is so much better than 'ed' and makes more sense to me than 'microemacs', then again I was brought up on UNIX vi.

==========

## For Sale

Amiga Sidecar, new in Jan '87 - $1300

1 Meg. Insider board. Internal RAM with clock. Unused, and I can install it if required, even in a 1.4 machine. $800

1 Meg. CardCo external RAM, with bus pass-through adaptor - $700

Phone Phil, anytime on (03) 232 3898

==========

## Editorial - Interesting Stuff

by Peter Jetson, written 22-Aug-87

Hi. By now you will have noticed that this month's **Amiga Workbench** is just a little different. First of all, I posted it flat in an envelope, and secondly its **eighteen pages long**! I've published every single article I have this month, which means the cupboard is now bare. To continue to receive a

newsletter, you'll all have to write an article. Even just one article each would keep the newsletter running for about ten years!

There are two reasons for posting the newsletter in an envelope, even though it has vastly increased our postage costs. First of all, I wanted to find out how much time it would save me. Every month, I have to fold, staple and stick mailing labels on about seven hundred newsletters. This usually takes about 12 hours. Luckily, the rest of the committee does the collating of the pages at the committee meeting each month, otherwise I'd have another 8 hours or so of work. I'm hoping that not folding and stapling will reduce my workload, allowing me to do other things with my weekend. The second reason is kind of related - with an extra page, the newsletter would be nearly impossible to fold and staple! As it is, I nearly get RSI from the work needed to fold the bloody things, not to mention the number of staplers that have given up the ghost in the line of duty.

The bad news is that not only does the postage go up because we are now no longer a "post office preferred" size, but we have the cost of envelopes and the printing on them. All this is not inconsiderable.

Speaking of extra costs, we have now decided that we have now outgrown the 204 seat lecture theatre two at Burwood College, and we've moved into the 400 seat lecture theatre one. Since this room lacks some of the facilities of the smaller theatre, we're also hiring the four rooms at the adjacent community resources centre. This is where AUG began, for those of you who've been with us from the beginning. Unfortunately, this means the hall hire costs have almost tripled.

Rather than overcome these increased costs by puting up our membership charges, we'd rather bring in more money with a membership drive. We've had some leaflets printed, and we'd like to distribute them to Amiga dealers and other Amiga-oriented places. We need your help for this, so we're asking you to pitch in. Come and see me (or any other committee member) at the next meeting, and get a handful of our new pink leaflets. Put them anywhere that you think will attract the attention of Amiga owners.

We'll be using the four new rooms for mini-meetings, demonstrations and socializing after the main meeting. The rooms will also be available for Special Interest Groups, or anything else that doesn't need a 400 seat theatre. Tea and coffee making facilities are available in this area.

Well, that's about all the AUG news, so lets get on with the general information.

By the time you read this, **Word Perfect** for the Amiga will be available in Australia. Apparently, Word Perfect is the number one word processor in the IBM PC field. The Amiga version has apparently been "Amiga-ized", with pull down menus and other enhancements that will make it easier to use than the IBM version. I believe it'll sell for around $500, which is heaps more than Amiga owners have been used to paying for software so far.

At long last, I have put Kickstart in ROM in my Amiga. A few members have been working on this project for quite a while now, but it's been held up by all sorts of niggly little things. I realise that we are probably the last users group to get on the ROM bandwagon, but, at last count, eleven of us have sucessfully converted our machines, for a cost of around $80 and a couple of hours work. We have been working from an application note from Commodore USA, and have now produced PALS and ROMS for this project. Since the copyright and legal ramifications of what we have done are far from clear, we are not yet offering this upgrade to the general public. The main problem is that both the Kickstart code which we are copying into ROM, and the PAL equations are copyright by Commodore. When we have this resolved, you'll read about it here.

Not only does the upgrade allow an Amiga to "boot up" in just a few seconds, but it also frees up 256k of fast RAM. The biggest problem is that this upgrade makes your machine incapable of running version 1.1 (or for that matter, anything but version 1.2) of AmigaDOS. This may be contrary to what you have heard, but believe me, you are stuck with V1.2. If you need to use AmigaDOS V1.1, (a few packages, and a lot of games still do) then this upgrade is not for you. On the other hand, both the Amiga 500 and 2000 have kickstart in ROM, so anyone still making software that needs V1.1 will have good incentive to change it.

A problem that had to be overcome with the upgrade is that there is a circuit board error on version 1.3 Amigas, where a trace goes to an incorrect location. This causes no problems with a kickstart in RAM Amiga, but it stops a ROM version from working. After tracing out the circuit board, and comparing it to the circuit, the fix for this problem has been found.

A few people have been asking about where they can buy programs like Marauder and Mirror, the copying programs that allow you to copy most protected software. It appears that most Australian dealers are refusing to stock these programs because, in their words, they are used to illegally copy programs that are then passed on to anyone and everyone. While this may be true, there is also a legitimate use for these programs - to make backup copies of purchased software that suffers from copy protection. At the moment, it seems you'll have to import these programs yourself if you need them.

The latest additions to our book library are Volume 2, number 8 of Amazing Computing, the September/October issue of Amiga World, Volume 2, number 3 of The Amigan Apprentice and Journeyman and user group newsletters from New Zealand and South Australia.

Commodore have announced, in the press, that AmigaDOS version 1.3 is "a myth". No-one from Commodore is currently working on the project, although there is a small amount of work being done on a version "1.2.1" or "1.2a" for the Amiga 2000, which will reportedly allow booting from the hard disk. Rumour has it that this will be possible **only** from the Commodore supplied hard disk controller.



## Who Are We?

The Amiga Users Group is a non-profit association of people interested in the Amiga computer and related topics. With over 650 members, the Amiga Users Group is the largest independent association of Amiga users in Australia.

## Club Meetings

Club meetings are held at 2pm on the second Sunday of each month at Victoria College, Burwood Campus, in Lecture Theatre 1 and the community resources centre. Details on how to get there are on the back cover of this newsletter. The dates of the next few meetings are:

**Sunday, September 13th at 2pm**
**Sunday, October 11th at 2pm**
**Sunday, November 8th at 2pm**

## Production Credits

This month's newsletter was edited by Peter Jetson. Equipment and software used was: TurboDOS S-100 computer, Brother HR-40 printer, Gemini 10x printer, Wordstar, Fancy Font and Grabbit.

## Copyright and Reprint Privileges

Articles herein that are copyrighted by individual authors or otherwise explicitly marked as having restricted reproduction rights may not be reprinted or copied without written permission from the **Amiga Users Group** or the authors. All other articles may be reprinted for any **non-commercial** purpose if accompanied by a credit line including the original author's name and the words "Reprinted from **Amiga Workbench**, newsletter of the **Amiga Users Group**, PO box 48, Boronia, 3155".

## Contributions

Articles, papers, letters, drawings and cartoons are actively sought for publication in Amiga Workbench. Please submit your contributions on disk, since that means they don't have to be re-typed! All disks will be returned! Please save your article in **text-only** format (If it can be loaded by ED, it is text-only). Absolute deadline for articles is 16 days before the meeting date. Contributions can be sent to: The Editor, AUG, PO Box 48, Boronia, 3155.

## Membership and Subscriptions

Membership of the Amiga Users Group is available for an annual fee of $20. To become a member of AUG, fill in the membership form in this issue (or a photocopy of it), and send it with a cheque for $20 to:

**Amiga Users Group, PO Box 48, Boronia, 3155**

## Public Domain Software

Disks from our public domain library are available on quality 3.5" disks for $8 each including postage on AUG supplied disks, or $2 each on your own disks. The group currently holds over 110 volumes, mostly sourced from the USA, with more on the way each month. Details of latest releases are printed in this newsletter, and a catalog disk is available.

BY COMMODORE® AMIGA™

## Member's Discounts

The **Amiga Users Group** negotiates discounts for its members on hardware, software and books.

Currently, **Technical Books** in Swanston Street in the city offers **AUG** members a 10% discount on computer related books, as does **McGills** in Elizabeth Street. Just show your membership card. Although we have no formal arrangements with other companies yet, most seem willing to offer a discount to AUG members. It always pays to ask!

## Back Issues of Newsletter

Unfortunately, few back issues of this newsletter are available. Contact the membership secretary for details on which issues are still available.

Even though we print many extra copies of the newsletter each month, eager new members seem to snap them up. We intend to publish yearbooks, in which we will reprint all articles during the preceeding year. Price and availability will be announced in the newsletter, and the yearbooks will be available by mail or at meetings.

## AmigaLink - Our Bulletin Board System

The Amiga Users Group operates a bulletin board system devoted to the Amiga, using the Opus message and conferencing system. AmigaLink is available 24 hours a day on (03) 792 3918, and can be accessed at V21 (300bps), V22 (1200bps) or V23 (1200/75bps), using 8 data bits, 1 stop bit and no parity.

AmigaLink is part of the world-wide Fido/Opus network of bulletin boards, and we participate in the national and international Amiga conferences. AmigaLink has selected Public Domain software available for downloading, and encourages the uploading of useful public domain programs from its users. AmigaLink is FidoNet node number 631/324.

## Amiga Users Group Committee

| | | | |
|---|---|---|---|
| Bob Scarfe . .(Co-ordinator) . . . | 376 | 4143 | Kensington |
| Fergus Bailey.(Vice Co-ordinator) | 211 | 7845 | Malvern |
| Ron Wail . . .(Meeting chairman) | 878 | 8428 | Blackburn |
| John Elston .(Secretary) . . . . | 375 | 4142 | M' Ponds |
| David Penney .(Treasurer) . . . . | 725 | 9447 | Croydon |
| Neil Murray .(Membership) . . . | 794 | 5683 | Dandenong |
| Bohdan Ferens (Purchasing) . . . | 792 | 1138 | Dandenong |
| Joan Wood . .(Book Librarian) . | 580 | 7463 | Aspendale |
| Geoff Sheil .(Software Librarian) | 509 | 3151 | Armadale |
| Margaret Bedson (also software) | 509 | 3151 | Armadale |
| Peter Jetson .(Newsletter Editor) | 762 | 1386 | Boronia |
| Roland Seidel (SMAUG Co-ordinator) | 890 | 3934 | Box Hill |

When phoning committee members, please try to be a bit considerate and not call at meal-times, late at night, or during popular TV programs. If you only have a general query, try to ring the member who lives closest to you.

| SOFTWARE ORDER FORM | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Disk numbers : | | | | | | | | |
| | | | | | | | | |
| Disks supplied by Amiga User Group @ $10 | | | | | | $ | | |
| Disks supplied by member @ $2 | | | | | | $ | | |
| Club Use Only<br>Receipt #: Mailed on: / / | | | | | | Total $ | | |
| Mail to: Amiga Users Group, PO Box 48, Boronia, 3155, Victoria. | | | | | | | | |
| Member's Name: | | | | | | | | |
| Address: | | | | | | | | |

# Australian Amiga Groups

Here is (as far as we know) a complete list of Australian Amiga groups. If you are aware of any others, or you notice that some of these details are incorrect, please let us know. We are currently sending our newsletter to all these groups.

Canberra Amiga Users Society
36 Ambalindum Street
Hawker, ACT, 2614
BBS: (062) 59 1137

Australian Amiga User Association
PO Box 389
Penrith, New South Wales, 2750

Amiga Users Group
PO Box 48
Boronia, Victoria, 3155
BBS: (03) 792 3918

Brisbane Amiga User Group
PO Box 853
Toowong, Queensland, 4066

Mount Isa Amiga Users Group
c/o 147 Fourth Avenue
Mount Isa, Queensland, 4825

Adelaide Amiga Users Group
GPO Box 332
Adelaide, South Australia, 5000

Amiga Users Group of South Australia
PO Box 486
Glenside, South Australia, 5064

Amiga Users of Northern Territory
c/o 4/4 Armidale Street
Stuart Park, Northern Territory, 5790

Waite Amiga Users
c/o Curtin University
14 Colonial Drive
Bibra Lake, Western Australia, 6163

---

**Application for membership of The Amiga Users Group Inc**

Membership is $20 per year. Send your cheque to: **Amiga Users Group Inc, PO Box 48, Boronia, 3155**

Surname: _____

First name: _____ (no initials)

Address: _____

_____ Postcode: _____

Phone Number: _____ STD Code: _____

What services would you like AUG to provide: _____

_____

_____

Signed: _____ Date: _____

Details on this side are optional

Year of birth: _____ Do you own an Amiga: _____

Occupation: _____

Interests: _____

_____

_____

Dealer's Name: _____

Dealer's Address: _____

_____ Postcode: _____

In the event of my admission as a member, I agree to abide by the rules of the Association for the time being in force.

| Club Use Only | Date | Paid | Rcpt # | Memb # | Card Sent |
|---|---|---|---|---|---|