

AMIGA

\$2

RRP

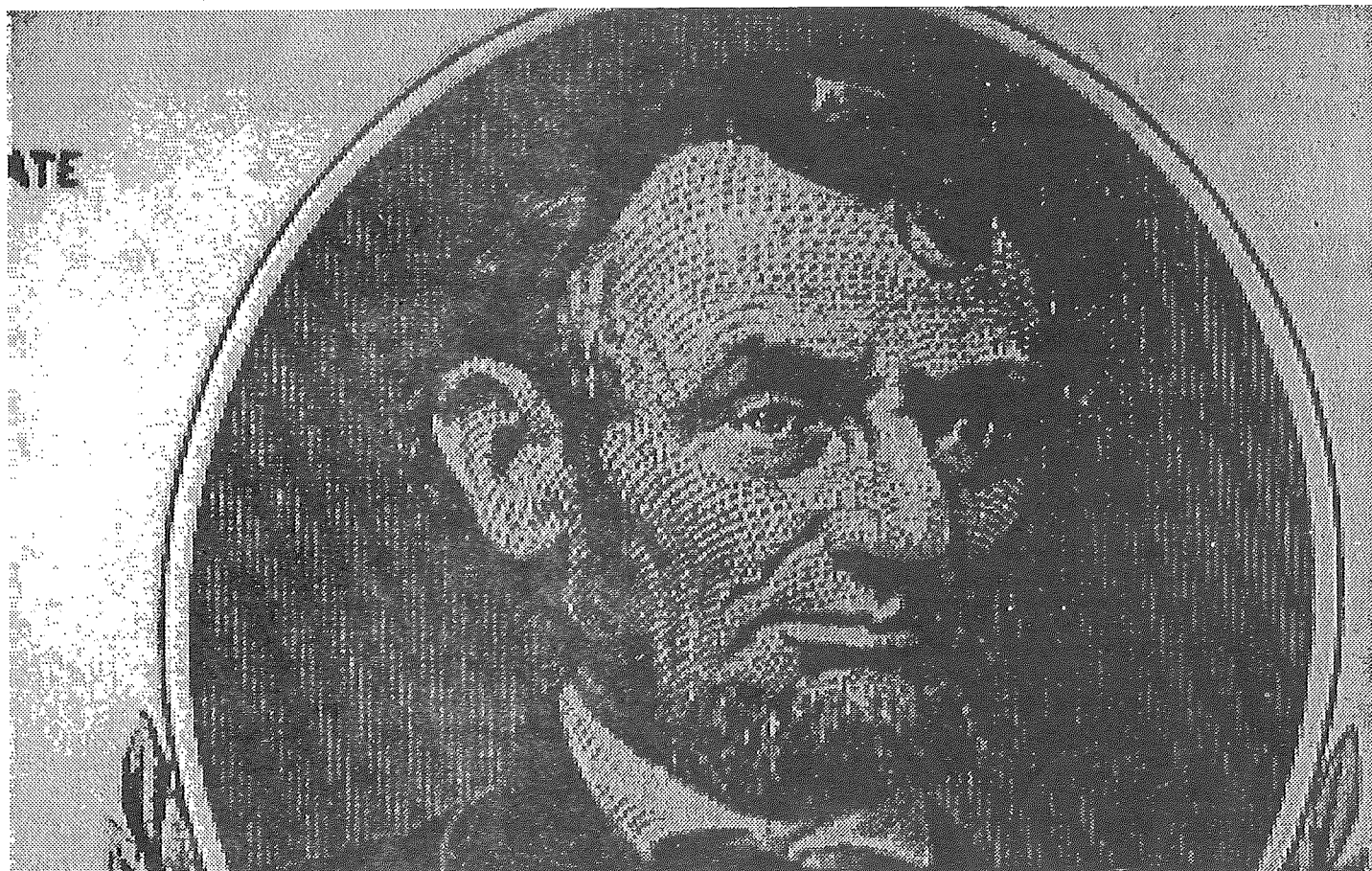
WORKBENCH

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Next AUG Meeting

Sunday, October 15th at 2pm

(Doors open at 1pm, meeting starts at 2pm sharp)

**AUG meetings are held at Victoria College Burwood Campus
Burwood Highway, Burwood - Melways map 61 reference B5.**

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

Australia's Largest Independent Association of Amiga Owners
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AMIGA Users Group

Who Are WE?

The Amiga Users Group is a not-for-profit association of people interested in the Amiga computer and related topics. With over 1000 members, we are the largest independent association of Amiga users in Australia.

Club Meetings

Club meetings are held at 2pm on the third Sunday of each month at Victoria College, Burwood Highway, Burwood. Details on how to get there are on the back cover of this newsletter. The dates of upcoming meetings are:

Sunday, October 15th at 2pm

Sunday, November 19th at 2pm

Sunday, December 17th at 2pm

Production Credits

This month's newsletter was edited by Con Kolivas. Equipment and software used was: Amiga 500 with SIN500-2 memory board, Professional Page, and HP Laserjet.

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Contributions

Articles, papers, letters, drawings, cartoons and comments are actively sought for publication in Amiga Workbench. All contributions submitted for the purpose of publication that are printed in the newsletter are rewarded on the basis of one free public domain disk copy per column or half page printed with a minimum of one free copy. Contributions may be sent in on disk, paper or uploaded to Amiga Link or Amiga Link II in the area set aside for this purpose. Please send your contributions in text-only, non-formatted if they are on file and remember to include your address for return of disks and tokens for PD disks. Absolute deadline for articles is 23 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 \$25. 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 or money order for \$25 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 200 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 also available.

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 Workbench

All back issues of Amiga Workbench are now available, for \$2 each including postage. Note that there may be delays while issues are reprinted. Back issues are also available at meetings.

Amiga Link I & II - Our Bulletin Board Systems

The Amiga Users Group operates two bulletin board systems devoted to the Amiga, using the Opus message and conferencing software. AmigaLink I and II are available 24 hours a day. AmigaLink I & II can be accessed at V21 (300bps), V22 (1200bps), V23 (1200/75bps) or V22bis (2400bps) using 8 data bits, 1 stop bit and no parity.

AmigaLink is part of a world-wide network of bulletin boards, and we participate in 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 I (792-3918) is OzNet node number 8:830/324 and AmigaLink II (376-6385) is OzNet node number 1305/998

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The Amiga Users Group accepts commercial advertising in Amiga Workbench subject to the availability of space at these rates:

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Full page \$70
Double page spread: \$120

These rates are for full-size camera-ready copy or Professional Page format only. We have no photographic or typesetting facilities. Absolute deadline for copy is 23 days before the meeting date. Send the copy and your cheque to: The Editor, AUG, PO Box 48, Boronia, 3155, Victoria.

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,CUS >From: papa@pollux.usc.edu.UUCP Subject: Re: Can System Request windows appear on custom screens?

>How can I redirect System Request windows to a screen other than the >Workbench screen? In particular, I'm interested in the ones that say ">Please insert volume ... in any drive".

>From the bag of tricks of Bryce Nesbitt:

```
struct Process *mproc; struct Window *window; APTR temp;
```

```
... mproc = (struct Process *) FindTask(OL); temp = mproc->pr_WindowPtr; mproc->WindowPtr = (APTR) window; /* any window open on custom screen */
```

at the end:

```
... mproc->pr_WindowPtr = temp; /* restore BEFORE CloseWindow */
```

```
CloseWindow(window);
```

Enjoy.

```
-- Marco papa 'Doc' uucp:...!pollux!papa BIX:papa
ARPAnet:pollux!papa@oberon.usc.edu
"There's Alpha, Beta, Gamma and Diga!" -- Leo Schwab [quoted
Rick Unland]
```

,EXC >From: dillon@CORY.BERKELEY.EDU.UUCP Subject: Re: Need info on exceptions

Time to go into a brief description of the three types of interrupts that exist on the Amiga:

- (1) Task Exceptions (via SetExcept() and standard signals). This is a task-level interrupt and only interrupts the task it is attached to. Other tasks still run... the interrupt only interrupts the one task. That is, any number of tasks may be handling exceptions all simultaneously.

This is analogous to UNIX signals with one major exception... system calls can get interrupted in the middle (i.e. library calls). Although all run-time libraries are reentrant between tasks, this is not always so within a given task. For instance, you cannot interrupt a DOS Write() with an exception and then do a Write() from within the exception!! Another for instance: you CAN call AllocMem().

So you have to be very careful as to when to allow an exception and when not to. Forbid() effectively disables exceptions (but also task switching). Also, there is a bug in the exception handler in that if an exception occurred during a Forbid() it does NOT execute when you Permit()... i.e. you also have to do a SetExcept(0,0) to force EXEC to check for active exceptions after you Permit().

The 'simple' description of an exception is this: First, a task gets signalled and if the exception bit for that signal bit is set, the EXCEPTION-ENABLE BIT AND THE SIGNAL BIT IS CLEARED and the task then enters its exception handler. DO contains a mask of the exception that occurred

(more than one bit may be set if more than one exception occurred at once). The exception handler thus must be reentrant for different exception bits.

After the handler runs, it must return a bitmask in D0 of those exceptions that occurred. EXEC automatically ENABLES the exceptions specified by the bitmask. However, it doesn't check to see if they re-occured at this time... Thus, there is a window of vulnerability here. Usually, I reenable the exceptions manually with a SetExcept() call from the handler and return 0 in D0. Unlike other types of interrupts, EXEC saves and restores ALL of our registers (except the stack pointer) for us. But, you cannot make assumptions as to the contents of the registers (except for D0 and A1(=tc_ExceptData). Specifically, there is no guarantee A4 will contain the small-code-model data segment base so you must reload it if you intend to use that model inside the handler.

- (2) Software Interrupts. Software interrupts are HIGHER priority than tasks but LOWER priority than interrupts. Essentially, these are pseudo hardware interrupt but without the timing restrictions in real interrupts.. you can do things that you would not want to do in normal interrupts because they would otherwise take too long.

BUT! A software interrupt is not a task, and you still may not use memory allocation/free functions within one (same restrictions as for hardware interrupts apply with the exception that you can take a longer time in the soft int). For example, instead of calling ReplyMsg() from an HARD interrupt handle you might want to Cause() a softint instead. This allows the HARD int to end (and other HARD ints to occur).

A software interrupt uses the same structure as a hardware interrupt.

- (3) Hardware Interrupts. Real honest to goodness hardware interrupts. Implemented by SetIntVector() and AddIntServer() and the like. These are real hardware interrupts and the service routine should take as little time as possible in them... I mean as *little* time as possible. Make your code tight. Calling something like ReplyMsg() or PutMsg(), while it works, usually takes too much time for an interrupt handler to spare Cause() a softint for things that take too much time so other interrupts can go. I don't know how much time Signal() takes.

There are two flavors. (1) Direct hardware interrupts (SetIntVector()), and (2) Chained hardware interrupts. In many cases there are also resources (misc.resource, for instance) to arbitrate usage of some of the interrupt vectors.

-Matt

,IFF >From: carolyn@cbmvax.UUCP Subject: Re: IFF File Format

>What exactly is the format of an Amiga IFF file?

Intro to Amiga IFF ILBM Files and Amiga Viewmodes Carolyn Scheppler - Commodore Amiga Technical Support

The IFF (Interchange File Format) for graphic images on the Amiga is called FORM ILBM (InterLeaved BitMap). It follows a standard parsable IFF format.

Sample hex dump of beginning of an ILBM:

Important note! You can NOT ever depend on any particular ILBM chunk being at any particular offset into the file! IFF files are composed, in their simplest form, of chunks within a FORM. Each chunk starts starts with a 4-letter chunkID, followed by a 32-bit length of the rest of the chunk. You PARSE IFF files, skipping past unneeded or unknown chunks by seeking their length (+1 if odd length) to the next 4-letter chunkID.

```
0000: 464F524D 00016418 494C424D 424D4844
FORM..d.ILBMBMHD
0010: 00000014 01400190 00000000 06000100
.....@.....
0020: 00000A0B 01400190 43414D47 00000004
.....@..CAMG....
0030: 00000804 434D4150 00000030 001000E0
....CMAP...0....
0040: E0E00000 20000050 30303050 50500030
..P000PPP.0
0050: 90805040 70707010 60E02060 E06080D0
..P@ppp.\.\.\.\.
0060: A0A0A0A0 90E0C0C0 C0D0A0E0 424F4459
.....BODY
0070: 000163AC F8000F80 148A5544 2ABDEFFF
..c.....UD*...
0080: FFBFF800 0F7FF7FC FF04F85A 77AD5DFE
.....Zw.]. etc.
```

Interpretation:

```
'F O R M' length 'I L B M' 'B M H D' <-start of
BitMapHeader chunk
0000: 464F524D 00016418 494C424D 424D4844
FORM..d.ILBMBMHD
```

```
length WideHigh XorgYorg PlmCoPd <- Planes Mask
Compression Pad
0010: 00000014 01400190 00000000 06000100
.....@.....
```

```
TranAspt PagwPagh 'C A M G' length <- start of C-
AMiGa View modes chunk
0020: 00000A0B 01400190 43414D47 00000004
.....@..CAMG....
```

```
Viewmode 'C M A P' length R g b R <- Viewmode
800=HAM | 4=LACE
0030: 00000804 434D4150 00000030 001000E0
....CMAP...0....
```

```
g b R g b R g b R g b R g b R g <- Rgb's are for
reg0 thru regN
0040: E0E00000 20000050 30303050 50500030
..P000PPP.0
```

```
b R g b R g b R g b R g b R g b
0050: 90805040 70707010 60E02060 E06080D0
..P@ppp.\.\.\.\.
```

```
R g b R g b R g b R g b 'B O D Y'
0060: A0A0A0A0 90E0C0C0 C0D0A0E0 424F4459
.....BODY
```

```
length s*art of body data <- Compacted (Com-
pression=1 above)
0070: 000163AC F8000F80 148A5544 2ABDEFFF
..c.....UD*...
```

```
0080: FFBFF800 0F7FF7FC FF04F85A 77AD5DFE
.....Zw.]. etc.
```

Notes on CAMG Viewmodes: HIREs=0x8000 LACE=0x4 HAM=0x800 HALFBRITe=0x80

ILBM is a fairly simple IFF FORM. All you really need to deal with to extract the image are the following chunks:

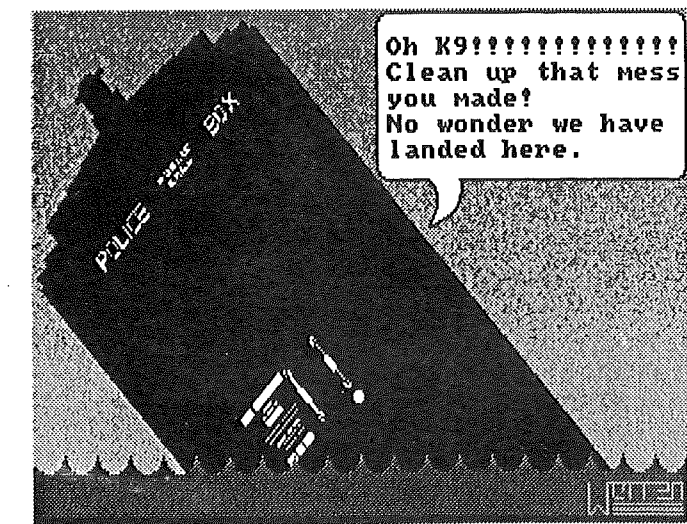
(Note - Also watch for AUTH Author chunks and (c) Copyright chunks and preserve any copyright information if you rewrite the ILBM)

BMHD info about the size, depth, compaction method (See interpreted hex dump above)

CAMG optional Amiga viewmodes chunk Most HAM and HALFBRITe ILBMs should have this chunk. If no CAMG chunk is present, and image is 6 planes deep assume HAM and you'll probably be right. Some Amiga viewmodes flags are HIREs=0x8000 LACE=0x4, HAM=0x800, HALFBRITe=0x80.

CMAP RGB values for color registers 0 to n (each component left justified in a byte)

BODY The pixel data, stored in an interleaved fashion as follows: (each line individually compacted if BMHI Compression = 1) plane 0 scan line 0 plane 1 scan line 0 plane 2 scan line 0 ... plane n scan line 0 plane 0 scan line 1 plane 1 scan line 1 etc.



Body Compression

The BODY contains pixel data for the image. Width, Height, and depth (Planes) is specified in the BMHD.

If the BMHD Compression byte is 0, then the scan line data is not compressed. If Compression=1, then each scan line is individually compressed as follows:

More than 2 bytes the same stored as BYTE code value n from -1 to -127 followed by byte to be repeated (-n) + 1 times. Varied bytes stored as BYTE code n from 0 to 127 followed by n+1 bytes of data. The byte code -128 is a NOP.

Interpreting the Scan Line Data:

If the ILBM is not HAM or HALFBRITe, then after parsing and uncompressing if necessary, you will have N planes of pixel data. Color register used for each pixel is specified by looking at each pixel thru the planes. IE - if you have 5 planes, and the bit for a particular pixel is set in planes 0 and 3:

```
PLANE 4 3 2 1 0
PIXEL 0 1 0 0 1 then that pixel uses color register binary 01001 = 9
```

The RGB value for each color register is stored in the CMAP chunk of the ILBM, starting with register 0, with each register's RGB value stored as one byte of R, one byte G, and one byte of B, with each component left justified in the byte. (ie. Amiga R, G, and B components are each stored in the high nibble of a byte)

BUT - if the picture is HAM or HALFBRITe, it is interpreted differently.

Hopefully, if the picture is HAM or HALFBRITe, the package that saved it properly saved a CAMG chunk (look at a hex dump of your file with ascii interpretation - you will see the chunks - they all start with a 4-ascii-char chunk ID). If the picture is 6 planes deep and has no CAMG chunk, it is probably HAM. If you see a CAMG chunk, the "CAMG" is followed by the 32-bit chunk length, and then the 32-bit Amiga Viewmode flags.

HAM pics will have the 0x800 bit set in CAMG chunk ViewModes. HALFBRITe pics will have the 0x80 bit set.

To transport a HAM or HALFBRITe picture to another machine, you must understand how HAM and HALFBRITe work on the Amiga.

How Amiga HAM mode works: Amiga HAM (Hold and Modify) mode lets the Amiga display all 4096 RGB values. In HAM mode, the bits in the two last planes describe an R G or B modification to the color of the previous pixel on the line to create the color of the current pixel. So a 6-plane HAM picture has 4 planes for specifying absolute color pixels giving up to 16 absolute colors which would be specified in the ILBM

CMAP chunk. The bits in the last two planes are color modification bits which cause the Amiga, in HAM mode, to take the RGB value of the previous pixel (Hold and), substitute the bits in planes 0-3 for the previous color's R G or B component (Modify) and display the result for the current pixel. The color modification bits in the last two planes are interpreted as follows:

- 00 - no modification. Use planes 0-3 as normal color register index
10 - hold previous, replacing Blue component with bits from planes 0-3
01 - hold previous, replacing Red component with bits from planes 0-3
11 - hold previous, replacing Green component with bits from planes 0-3

How Amiga HALFBRITe mode works: This one is simpler. In HALFBRITe mode, the Amiga interprets the bit in the last plane as HALFBRITe modification. The bits in the other planes are treated as normal color register numbers (RGB values for each color register is specified in the CMAP chunk). If the bit in the last plane is set (1), then that pixel is displayed at half brightness. This can provide up to 64 absolute colors.

Other Notes: Amiga ILBMs images must be an even number of bytes wide. Smaller images (such as brushes) are padded to an even byte width.

ILBMs created with Electronic Arts IBM and Amiga "DPaintII" packages are compatible (though you may have to use a '.lbn' filename extension on an IBM). The ILBM graphic files may be transferred between the machines (or between the Amiga and IBM sides your Amiga if you have a CBN Bridgeboard card installed) and loaded into either package.

Carolyn Scheppler -- CATS Commodore Amiga Technical Support PHONE 215-431-9180 UUCI ...{uunet,allegro,rutgers}!cbmvax!carolyn

,REQ >From: koster@cory.Berkeley.EDU.UUCP Subject: Re: Intuition requestors: how to stop them?

>How do I make Intuition requestors NOT appear?

Just place a \$ffffff (or -1) in the pr_windowptr field of your process, and intuition will mind its own business, returning errors when it would return a message. Note that you will want to restore this after your program exits, as leaving it at -1 will mean the CLI will not get intuition requestors anymore. Normally pr_windowptr is a 0.

koster@cory.berkeley.edu David Ashley

,BUG From: bryce@cbmvax.UUCP Subject: Re: Crashing at the way to Kickstart (*the solution*)

In several articles <> several.net.posters wrote: > [Since in stalling V1.3 I have noticed something strange. If the > machine ever crashes, it sometimes goes back to the Kickstart hand > instead of the Workbench hand.]

Thank you all for noting and reporting this bug. I have located the cause; a code mistake causes the Kickstart protected memory to be left open open for writing during some types of system Alert. This problem will be addressed in the next version of "SetPatch" (no date or distribution details are available at this time).

Please note that some types of bug reports can be sent directly to Commodore. Before reporting, please verify the accuracy of your statements. Try removing any special programs or hacks you may be running (booting from your unmodified master Workbench disk is a good way to guarantee this).

Submitted reports must include a TELEPHONE number. Reports must be CLEAR, COMPLETE and CONCISE. Based on your bug report alone, we must be able to repeat the bug. Bugs that we can repeat in-house GET FIXED.

-Bryce Nesbitt, Commodore-Amiga, Inc.

,STA From: peter@sugar.UUCP Subject: Re: A little help please...

This is the code I use to find the stack size for launch...

```
-----[from launch.shar]----- struct Process *FindTask();
... struct Process *me; struct CommandLineInterface
*cli; long stack; ... if(stack == 0) {
me = FindTask(0);
if(me->pr_CLI) {
cli = (struct CommandLineInterface *) (me->pr_CLI<<2);
stack = cli->cli_DefaultStack<<2; /* DefaultStack is
in Longwords */
} else
stack = me->pr_StackSize; } Peter "Have you hugged
your wolf today" da Silva '-_' Hackercorp. ...tex-
bell@sugar!peter, or peter@sugar.uu.net 'U'
```

,BOO From: page@Sun.COM (Bob Page) Subject: What the Amiga does on reboot

u586182058ea@deneb.ucdavis.edu Frank Kuan wrote: >What does the Amiga do when you reboot?

- Clear Chips (screen turns blue on custom chip failure)
- Disable DMA and Interrupts
- Clear the Screen
- Check the Hardware
- Pass or fail the Hardware to the Screen (dark grey if OK)
- Checksum the WCS (OS does not checksum the ROM)
- Pass or fail the WCS to the Screen (displays "Insert Kickstart" screen)
- System setup
- Check the for RAM at \$C00000
- Move SYS_BASE to \$C00000 if it exists
- RAM Test
- Pass or fail the RAM to the Screen (green if bad)
- Check the Software
- Pass or fail the Software to the Screen (light grey if OK)
- Set up the RAM
- Link the Libraries

- Find External RAM and link it to the list
- Set up Interrupts and DMA
- Start default Task
- Check for 68010, 68020, and 68881
- Check for an Exception (screen yellow if found and GURI handler not set up)
- System Reset

>Is it possible to change a vector somewhere and have th Amiga >run your code instead of the reboot sequence?

Yes. This is one of those Amiga Secrets, most people don't discuss it because (presumably) it encourages crackers to writ viruses and other nasty stuff.

..bob

,LIB From: fgd3@jc3b21.UUCP (Fabbian G. Dufoe) Subject Re: Lattice Library Question

>From article <690@dsacg2.UUCP>, by nor1675@dsacg2.UUCP (Michael Figg): > I've been program ming with Lattice 'C' off and on for about 2.5 years now, > bu continually get confused with what libraries need to be linke when.

Take a look at the Addendum.docs file on disk 5 of your com piler package. Among other things it contains a description o all the files in the LIB: directory.

Library Descriptions cback.o - Startup routine to detach pro cess from CLI and run in background.

catchres.o - Startup routine to catch software exceptions in resi dent programs.

lcs.lib - Lattice C Library for use with 16-bit integers.

catch.o - Startup routine to catch software exceptions.

lcms.lib - Lattice Standard IEEE Math Library for use with 16 bit integers.

lcm881.lib - Lattice 68881 Coprocessor Math Library.

c.o - Standard Lattice Startup routine.

lcnb.lib - Lattice C Library for use with no base-relative dat addressing.

catchresnr.o - Startup - Catch Exceptions, Resident, No Re questers on exception.

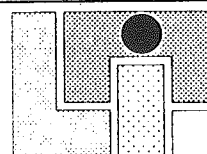
lcmffp.lib - Lattice Motorola Fast Floating Point Math Library.

lcmieee.lib - Lattice IEEE Math Library for use with Com modore Resident Library.

lcsr.lib - Lattice C Library for use with 16-bit integers and Reg isterized Parameters.

lcr.lib - Lattice C Library for use with Registerized Parameters

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Requirements :

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- Martin Murray, author of PowerWindows, INOVATRONICS Inc.

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Laser Image Technologies.

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Benchmark M2	\$260	\$235		
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'C' Library.	\$135	\$125		
Simplified Lib.	\$135	\$125		
Total Amt Enclosed (Add \$4 Postage per Item) :				

MAIL TO : LASER IMAGE TECHNOLOGIES
248 JASPER Rd.,
McKinnon.
Vic. 3204.

Name : _____ AUG #: _____

Address : _____

P/Code : _____

Payment : Cheque Cash

Small Things in Life

by Soh, Kam Hung

lcmr.lib - Lattice IEEE Math Library for use with Registerized Parameters.

lc.lib - Lattice Standard C Library.

cres.o - Startup routine for Resident Programs.

lcm.lib - Lattice Standard IEEE Math Library.

lcsnb.lib - Lattice C Library for 16-bit integers and no base-relative addressing.

ddebug.lib - Commodore debug library for use with Parallel Port.

debug.lib - Commodore debug library for use with Serial Port.

amiga.lib - Library of linkage routines to Amiga Resident Libraries.

--Fabbian Dufoe 350 Ling-A-Mor Terrace South St. Petersburg, Florida 33705 813-823-2350 UUCP: ...uunet!pdn!jc3b21!fgd3

'Crunch' V1.1 by 'The New Masters'. Compiled by Joe Salazar. 'Power Packer' V2.2 by Nico Francois. 'Mach' V2.: by William S. Hawes.

It never ceases to amaze me how unexpectedly small matter can change the way I work. For example, the recent fad among Amiga programmers and hackers is to produce the best crunching program. Crunchers are nothing new: 'arc' and 'zoo', and more recently, 'zip', are used by electronic bulletin to compress files to be stored and these archived files now require about 50% less space than before. According to a friend studying in formation theory, that percentage is the best available for most practical file compression algorithms for a wide variety of data. Both 'arc' and 'zoo' give the user the option to run an archive program, but this process is slow and tedious since the compression program has to be loaded first. Some bright spark among computer hackers realised that if a loader and uncruncher was stored with the archived file, then it would be possible to run compressed programs, and save disk space. To this end two crunchers - so far - have been written for the Amiga 'Crunch' and 'Power Packer'.

'Crunch' V1.1 was written by a group of hackers called "The New Masters", but the arc'ed file has been compiled by Joe Salazar. In the documentation, he mentions that Steve Tibbet wrote the patch to remove the "rainbow" effect from cruncher programs, and that D. J. James did another patch to totally re

move the rainbow code from 'Crunch'. Upon running 'Crunch', the user is presented with three options: Load, Save or Quit. The user can load and compress an executable file, or load and uncompress an archived file, and then save the resulting file.

On the other hand, 'Power Packer' V2.2 by Nico Francois is a much more polished package: the documentation is complete, the program supports compressed files by other crunchers, a simple scripting language for batch work, and as an extra, the user can modify the file hunks. 'Power Packer' offers five different efficiency levels, and a choice of colours on screen the compressed file will flash when it is being uncompressed. I used the script language to compress my utilities overnight, saving me about 100K of disk space, and when I compressed the 392K long game 'Moria' (AmigaLibDisk #194), it was shrunk to a file about 200K long, saving of about 200K! Unfortunately, both crunchers are no use for small programs which are less than 3K long, since about 600 bytes is added for the loader. I would heartily recommend 'Power Packer' for anyone stuck on floppy drives; not only do you gain extra disk storage, but the drive heads doesn't move so much when a program is loading, saving wear and tear.

Even smaller things

Being a touch typist, I dislike having to lift my hands off the keyboard when I am working on the computer, but when I am typing more than one document at a time, I have to use the mouse to select windows and bring them to the front of the screen. Recently, from reading an article in ACSNet, I found that William Hawes' 'Mach' program uses the left-Amiga J and K key sequence to shuffle windows around. In addition, 'Mach' has more features on the control panel that I should have noticed before. By choosing the "clock depth" gadget, its little clock window now has depth gadgets and it doesn't try to appear at the front of my workbench screen all the time. This speeds up other programs with windows on screen, especially text editors, since the blitter doesn't have to redraw the clock window when text is scrolled. I find the ability to shuffle between windows useful when I am writing and debugging Lisp programs since the XLisp interpreter opens its own window but I have to edit my files separately.

And smaller and smaller

A new version of the serial.device file is now available on AmigaLink. According to the short readme file included, it is version 34.12, 27th March 1989, and it should take less overhead compared to the serial device originally provided by Workbench 1.3. It seems to work faultlessly so far, but I haven't been able to perform any tests since I don't have any CPU or resource monitors.

Even More Goodies

From: Bull@vaxc.cc.monash.edu.au (Gareth Bull) News groups: aus.computers.amiga Subject: What's new in 1.4 Summary: Some highlights Message-ID: <7336@vaxc.cc.monash.edu.au> Date: 24 Aug 89 04:30:2 GMT Sender: com259h@vaxc.cc.monash.edu.au Organization: Computer Centre, Monash University, Australia Lines: 37

There's a brief preview of what AD 1.4 will be like, along with a few words on the Extended Chip Set (ECS) in the August addition of "Amazing". These are the highlights: Arx is officially included as part of AD 1.4. "System messages" have replaced Guru error codes. (This is supposed to mean that the message will actually tell you what caused the error, instead of making you decode the error numbers.) Workbench is now an AmigaDos window (eg resizing etc.) The "disk free space gadget has been replaced with a message in the window title bar, specifying how many free K left. Files without an icon (depending on the file type, no doubt) can be opened from the workbench. Dos error messages now display meaningful text messages (same as Guru's). Any utility/application which needs to be started when the system is booted, and has an icon can be started by putting the icon in the new "startup" drawer. All icons in this drawer will be executed immediately after the workbench is loaded.

And as for the ECS: The new Agnes is plug compatible with both the 500 and 2000 (1000 owners may miss out). Apart from the 1Mbyte address space, Agnes now supports rectangular blits (not bits) up to 32k x 32k.

Denise is also updated, and here's what's new: SuperHire mode with a screen refresh time of 35ns (70ns is the current rate) which will support a horizontal resolution of 1280 pixels per scanline on a standard NTSC or PAL display. 640 x 480 non-interlace resolution on a multisync monitor (4 colours). Genlock modes: ChromaKey, BitplaneKey, BorderBlank and BorderNotTransparent.

Those are the juicy bits. Buy the mag for more details. - Bull@vaxc.cc.monash.edu.au OI com259h@monu1.cc.monash.oz Alias: Gareth Bull

From: khsoh@bruce.OZ (Kam Hung Soh) Newsgroups: aus.computers.amiga Subject: Network News Vol.1 No.4 Keywords: news Message-ID: <1482@bruce.OZ> Date: 28 Aug 89 23:22:28 GMT Distribution: aus Organization: Monash Uni Computer Science, Australia Lines: 334

Found this item on a local bulletin board:

AUGUST 1989 THE NETWORK NEWS Vol. 1, Issue 4

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NEWS/RUMORS

I was fortunate enough to attend the AmiExpo show that was at the end of July. If you were at the show you might have seen a large number of men with earphones, and as you might have guessed, they were there to keep an eye out for any suspicious activity, because President Bush was going to address the National Governor's Association on July 31st. If they'd have gone downstairs to the Exhibition Level, they would have been able to see the latest AmiExpo!

While there weren't a lot of new things shown, the overall show was slightly larger than last year's show in Chicago. The AmiExpo folks told me they were right on target for about 12,000 attendees during the three day event.

Here are some tidbits about what was happening at the show:

NewTek was showing a VideoToaster in action, and had a flyer posted with a price of about \$1600 for it. DigiPaint 3.0 is now shipping, and it looked pretty impressive! Also, Allen Hastings was there showing off some of the demo reels he has created with a new 3D rendering package he's working on. When it is released it should be able to work with the Video Toaster's framer buffer, so you'll be able to do renderings with over 16 million colors. (It will support HAM mode, so those people without the Toaster can still get the program). The rendering package is still quite a way off from release.

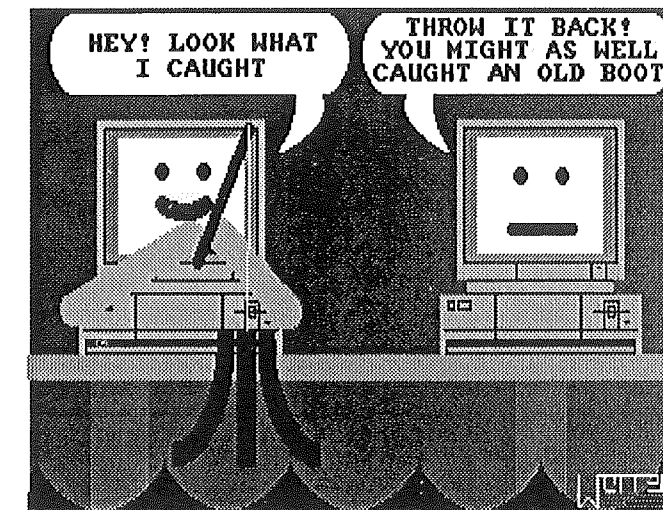
In the "Gee, I wish I could afford one of those" category falls the \$6000 transputer board by Digital Animation Productions. This thing runs at 120 MIPS! The people at the booth said that they've gotten commitments from Byte by Byte (Sculpt Animate 4d) and Impulse (Turbo Silver SV) to port their applications over to the board.

More magazines seemed to be displaying than at any other AmiExpo before: AmigaWorld, Amazing Computing, JumpDisk, INFO, Compute!, Transactor, Antic, and AMNews.

Besides the Creative Computers booth (always has a TON of people looking at the hardware and software goodies from their stores in California), probably the most crowded booth was the Intuitive Technologies booth. Jay Miner was there signing autographs while people watched demonstrations of UltraCard.

Lattice was showing off their C compiler package version 5.0.2. Lattice's C compiler has been gaining more and more ground over MANX in the hearts of many developers. They said at the show they expect to have the next few bugs knocked out within several weeks, and registered owners would be informed when the upgrade comes out.

ReadySoft was showing off a demo of the game "SPACE ACE" (another arcade video disk game translation like their previous hit Dragon's Lair). They expect to have SPACE ACE ready in



three to four months. Simon Douglas, the developer of AMAX, was on hand answering questions too.

Been wondering what the heck happened to MindScape's translation of Gauntlet II for the Amiga? They expect to have it shipping sometime during August. From the looks of the number of people wanting to play it, it looks like it will be a big hit [Ed's note - Already is!]

The joystick of choice at the show seemed to be at the Advanced Gravis Computer Tech. booth. This analog joystick was the best joystick I've ever used. They had lots of game for people to play with, so they could judge the joysticks for themselves.

Soft-Logik was showing off PageStream, and you could hear people at their booth complaining about all the complaints they had been hearing from the Amiga community about PageStream.

WordPerfect was putting on their usual show, and they were giving away caps for people who would stand and listen to their presentation they were giving. The update looks pretty good!

CLtd. was showing a hand-held scanner, and was using every picture and driver's license they could to show off how it worked. Retail is about \$400.

AmigaForum member Greg Tibbs was showing off what many people said couldn't be done: An A1000 with an Obese Agnu chip! The board installs inside the 1000 and will provide MEG of CHIP memory when the Obese Agnus is installed. Quite a feat! Greg expects to be able to provide this solution to other Amiga folks within the next couple of months. Watch THE NETWORK NEWS for details!

GVP was showing off their 68030 board. As you would expect this thing is FAST! It's a bit beyond the price range of most folks, but for those with "the need for speed", this is just the

thing.

The keynote session on Friday was given by Henri Rubin the COO (Chief Operating Officer) of Commodore. Not too much news from him, but he did seem to have a pretty good understanding of the Amiga.

Saturday's keynote was given by Tim Jenison of NewTek. After being introduced by Laura Longfellow (Maxine Headroom), he came roller skating in with a fan strapped to his back! He told about how DigiView was developed, showed a few Amiga commercials, (How many of you remember the 2001-like Amiga commercial way back when?), and gave his view on where the Amiga is headed.

Sunday's keynote was given by Jim Sachs, the creator of the graphics for Defender of the Crown. His current project is "20,000 Leagues Under the Sea", and from the looks of it, it's going to be quite a game! I spoke with Jim about the game, and he said he expects to have it done in about 2 years. I think it will be well worth the wait.

Lots of rumors going around at the show too:

Q: "Why isn't MicroIllusions here showing off Music-X?"

A: Well, they were right in the middle of moving their company, and were unable to attend. It's too bad, too....many people would have liked to see the Music-X package demoed.

Q: "Where's ASDG???"

A: They were there....they were sharing a booth with SHARP electronics. (The JX-100 \$1000 color scanner was being shown too!)

Q: "WHERE'S COMMODORE???"

A: A CBM person at the show said that there was a BIG meeting on Thursday and Friday of that week, and that coupled with the Siggraph show in Boston made it impossible for them to attend....the subject of the "BIG meeting"? Read on and find out.....

New Times Ahead At Commodore! Lloyd Mahaffey has been hired by CBM to become vice president of marketing for Commodore. Mahaffey resigned recently from Apple Computer's federal group.

The following was taken from a posting by Andre Frech on CompuServe:

The following is excerpted from my notes of Commodore's business meeting held July 27-28 in PA:

The bottom line will be to increase revenue; for this first year from 160M to 270M (increase of over 70%). (All figures run from Jy89-Ju90.)

Number of employees available for field and support will go from 112 to 215 head count.

Marketing will get new staff, and advertising will increase from 1.1M in 1988 to 16M in 1989.

Innovation and quality: CATS is now part of the US company products will be market and not product driven (ie: you get what you want), accelerate development of needed products increase yield. For example, work has increased on providing network solutions; recently Ameristar was bought by Commodore for their networking solutions. Also, to be hired will be a VP of Customer Satisfaction.

Amiga will be Commodore's strength and focus for the long term. It is our only unique product, and thus it is the most defensible in the way of proprietary technology.

The selling channel will be enhanced and expanded. All dealers will be evaluated for their performance, and new methods of distribution developed. VAR, OEM, and high end market will be strengthened. By high-end I mean those who provide support and do not discount (like Sears, not like Toys R-Us). There will also be added safeguards against grey marketing (by the way, we've caught the dealer selling to Montgomery Grant (they're gone) and a letter went out to all dealers from MG (and a warning letter from us) for bids on Amiga.

Plans to enter new markets: Education, Government, and Multimedia are our three foci. The former and latter are under way. In fact, do you realize that none of our competitors has a coherent and affordable solution that addresses education in the years to come? This is clearly something we can re-capture since we do have an upgradeable and affordable computer established.

Since Harry Copperman began with Commodore about 18 months ago we've noticed a lot of change both corporately and politically. Morale is a lot better and things are done more professionally. I'm not saying that there aren't mistakes made, but that's a learning curve. Here's some more changes:

Howard Diamond was brought on as VP of Education, and is starting to build a national education support/sales group. Implementation of this group begins in 10-14 days.

Lloyd Mahaffey joined as VP of Marketing less than 10 days ago, and has put into place a structure for effective communication to the press, public, company, and engineering. He has also committed to a large marketing budget (see above) and will increase head count for marketing operations.

Bob Larsen is VP Consumer Products, and will reform and increase this sector to create demand through advertising. He'll also have enhanced products to work with that won't interfere with the dealer product line.

Conditions at Commodore are improving. New equipment, new surroundings, growth and expansion are under way. Many old-timers at CBM report never having seen so much enthusiasm and developments happening before.

Please feel free to ask me for clarification on any point brought

up here. I am sorry that I have been out of touch lately, due to my traveling. When I'm in town I do try to be regular (I've set myself up here!), and WHap lately has not been helping me (it corrupts the msg file). However, when responding, please do not use the past as rhetoric, since I will not address it that way. As I've said, I should have news in as little as 10 days about developments. Enjoy!
andre

and also:

I can't give away too much, but witness more changes at Commodore. The new VP of Marketing, Lloyd Mahaffey, has commissioned 16M dollars of commercials centered around the Amiga. Mostly on TV and paper. Something about the 2Q89 (holiday season) having 150/250 GRPs (for you advert types), which translates to about 92% of the US population seeing about 26 impressions from us. The total translates to something around 1 billion Amiga impressions.

To give you an idea of how much advertising there was last year: \$1.1M. Quite a difference.

Then again, you'll get to be the judge. Things start in the fall.
andre

Commodore has also bought AmeriStar, the makers of the Ethernet board for the Amiga.

Commodore has named Robert Larsen, a former Casio senior VP, as it's VP of consumer sales. He had responsibility for the electronic musical instruments and professional dealer product divisions.

Commodore has named Peter Kaiser as the general manager of Commodore's Business machine division in West Germany. Kaiser was a manager for the European distribution strategy for Compaq.

Commodore President Harry Copperman has reorganized Commodore's applications and tech support group for third parties so they now report directly to him.

This was excerpted from another notice on CIS Fm: John Sobernheim/TCR 76625,1210 To: All

(all, here is some brand new info coming to dealers across the country regarding CBM's fall promotion/product/sales plans). There are a number of exciting releases scheduled over the next 90-120 days including;

- 2630 68030 at 25MHz with 25MHz 68882 and integrated MMU. 2-4MBs of 32 bit RAM. 2091Autobooting HD Controller supports 7 SCSI devices (0 ST-506). Works with severe overscan 4 bit-plane screens. Will allow mounting of 3.5" device on board. Socketed for 2 MBs of 16bit DRAM.
- 2094 Kit to bring a 2000 up to a 2000HD configuration. (2091, 40MBHD, software and cables) Factory configured. 2090bHalf-Size Card that allows the A2090

to autoboot. 2232Multi-Serial Board. Supports 7 port on a single card. (external chassis or what?) Driver for UN*X and AmigaDos.

- 2065 10Mbit/sec Ethernet interface with support for both Thick and Thin Ethernet and AmigaDos support for NFS, TCP/IP, and Novell. 2024Hi-Resolution Monochrome Monitor supports 1008x800 with AutoSwitch to lower resolutions and deinterlacing. Requires 1MB RAM and works on any Amiga.

CBM will also be advertising in a BIG way over the last quarter of the calendar year. We are talking 14 Million U.S. dollars hitting all the TV, Mags, Newspapers etc. 14 Million, according to my rep will put CBM in the top 80 U.S. advertisers, a list that Apple and IBM are not a part of! (And we've all seen that little helo-car commercial, HOW MANY TIMES?!). According to CBM, each person in the target market, will see commercial an average of 20 times over the months of October, November and December!

The TV commercials (a 30 second spot and a 60 second spot) will be produced by George Lucas (from what I am told, he turned down a lot of other jobs, but has an Amiga and I guess he's excited enough about the Amiga to do the work for CBM and directed by Mathew Robbins.

The dealer network is currently going through a process of requalification. CBM is being very strict about what they want out of their dealers, and a lot of the excess baggage is going to go. Only committed, supportive, top-dealers will remain.

That's it, in brief. This is a big move on CBM's part to really kick the personal computer market in the a**. I for one am EXTREMELY EXCITED about this news and am behind Commodore 110%. I only hope that it excites the rest of the dealers and the Amiga users out there as much as it does me, and that we can all work together to give the Amiga the kind of recognition and sales that it deserves.

-John

It looks like Commodore is finally taking the bull by the horns

If you have any questions or comments, or better yet, if you have anything to contribute to THE NETWORK NEWS, please send e-mail to me on CompuServe! I'd be happy to hear from you!

Steve Pietrowicz CIS ID: 73047,2313

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Grandmamma Agnes, fixing the flicker, and getting the boot

by Michael Saleeba

My Amiga's had all its Christmasses at once in the last month, getting a new autoboot hard disk controller card, a flicker fixer, and the (even fatter!) new Agnes chip. Some of you may have seen my talk in the hardware SIG on my design for an autoboot ST-506 style hard disk controller card. The idea was that it would be possible in the long run to produce a hard disk controller for the Amiga which would be as cheap as the ones for PC-compatibles, and would offer full autoboot capability. This would mean that us poor Amiga owners would be able to get a working 20Mb hard disk setup for around \$600 - and worth every penny! Despite all my best intentions, the project was never to become a reality. The lecturers at Uni. must have heard about my project and suddenly increased my workload terrifically. So I had to shelve the idea (at least until after my final exams).

So now I had to find an alternative hard disk controller for my 2000. A search of all the magazines showed that there were basically three types of controllers available:

- 1) SCSI-only controllers (great if your drive is SCSI - mine isn't)
- 2) ST-506 controllers which have to have a PC-compatible controller plugged into them (Yuck!)
- 3) The Amiga 2090A

The 2090A is a great controller; it can connect ST-506 style hard disks, as well as up to seven SCSI devices. Considering how much cheaper ST-506 style hard disks are, it's almost cheaper to buy a genuine 2090A and a ST-506 hard disk than to buy a cheap SCSI controller and a SCSI hard disk. Having the SCSI ability as well gives you plenty of room for expansion when the PC world comes to its senses and starts buying SCSI drives (and SCSI miraculously becomes cheap).

The absolutely brilliant feature of the 2090A as far as I'm concerned is autobooting. No more waiting for the floppy to boot, then waiting for the bridgeboard to start up, and then being able to boot from hard disk. My system now boots in about 39 seconds, and most of that's because I've got a pretty big startup-sequence. When you're programming and each time you test the program the system bombs, quick rebooting saves you hours of listening of listening to grinding floppy drives.

The other big improvement as far as I'm concerned is the disk read and write speed. I used to only get DiskPerf ratings of about 30K per second when I was running my hard disk on the PC side of the bridgeboard. It seems that the transfer rates through the PC-Amiga interface aren't all that hot. With my 2090A, I get up to 200K per second on large block reads, which really speeds up loading large programs like "excellence!".

Now the bad news. The recommended retail price for the 2090A in Australia is about \$900. Pretty expensive, considering that some of the cheap controllers are less than \$400. After asking around a bit, and being offered \$820 by one dealer, I decided that I didn't want to be ripped off. So I bought the latest

AmigaWorld, looked up a good price in the ads, and ordered it direct from the U.S.A. for US\$325!

Some might say that I should support the local dealers, and I'd love to, but the money I ended up saving is a strong incentive not to!

I had no real problem with ordering from overseas. I ordered by phone at about 8:30am, keeping the call as short as possible. I quoted my VISA number, and asked the salesperson to send it by registered mail, not courier. It arrived within two weeks. The all-up cost, including phone calls, VISA bill, and Australian sales tax, was less than \$500 Australian.

I have ordered computer parts from overseas several times before, and have only once had any problem. That was the first and last time I will ever request courier delivery. The parcel arrived in Sydney very quickly, and I received a telegram saying to call the courier company. I was all hyped up to get my parcel the next day, but when I called the courier company I was told that the first page of the invoice was missing so it couldn't be passed through customs and "What were my instructions?". I'm still trying to work out why they didn't just go ahead and sort out the problem with the U.S. company, since the mistake was between the two of them, but they insisted on my attending to the affair myself from several hundred kilometers away. Five days, seven Sydney calls, five international calls, and a lot of aggravation later, I had the American company on the one hand telling me that they'd faxed two copies of the appropriate invoice direct to the Sydney courier, and that the faxes had been sent successfully. On the other hand I had the courier telling me that no fax had been received. The final straw came when the guy in Sydney was telling me (yet again) that they hadn't received the fax, when he suddenly said, "Oh, wait a second, here it is on my desk, I wonder how it got there!". If only you could wring people's necks via phone!

It just goes to show that even excellent overseas service can be completely destroyed by Australian total incompetence.

Despite this one bad incident in ordering from overseas, I would strongly recommend buying this way, particularly for expensive items. The Australian distributors must take an enormous percentage on Amiga items, and I've never heard of them offering any after-sales service to make it worthwhile.

Another item I bought recently was a Microway FlickFixer. I managed to get one of these second-hand cheaper than it would have been to import a new one. I have had a NEC Multisync monitor since I got my 2000, and have been quite happy with it. There are a couple of problems, though. Multisync monitors aren't designed to display interlaced graphics, and they have very short persistence, so interlaced displays look awful. Not only that; because they draw their scan lines so finely, a standard Amiga 256 line display leaves deep black gaps between each scan line. Neither of these is a major problem, but I found myself wanting to make the most of the hardware I had. The FlickFixer does a great job of removing both these problems. All non-interlaced displays are drawn using double the normal number of lines, giving beautiful solid areas of colour rather than the lines we are used to, and interlaced displays come up completely flicker-free. This makes far more difference than

ever expected! Most people avoid interlace because of its bizarre brain-scrambling jittery effect, but the big bonus is that it offers double the resolution. Think of the difference between 320*256 and 640*256. It's the same thing all over again; an enormous improvement. It's just a pity that the jitter makes it almost completely unusable for most people.

I now use an overscan interlaced workbench all the time, and I'm writing this using "excellence!" in 'interlaced' mode. Of course the output from the FlickerFixer is non-interlaced, so there is no jitter. The greatest advantage here is that I can see so much more of the text that I'm writing. On the workbench, I can pop up application programs that normally take the whole screen, and have plenty of room to leave other items free for access, like the disk and program icons (which are normally hidden by big windows, and can't be clicked to the top). The thing which leaves me most impressed, however, is that I can have several large editing windows around while I am writing a program, and still have plenty of room for a shell as well. In short, I'm impressed.

Now the bad news. The scan rate used by the FlickerFixer is quite high; about 50kHz. This is OK, but most multisync monitors have a tendency for the screen to reduce in width at high scan rates. "Great," I thought, "now I can use full overscan and see everything!". This is all very well, but it means that you are left with a black border around the picture, rather than a nice coloured one. Given the benefits, I can live with it.

The other problem is that the FlickerFixer only seems to be able to display 510 lines, rather than 512. This complaint may seem a little petty, but it does mean that the bottom borders of windows disappear off the bottom of the screen, which tends to be visually confusing. I solved this problem by using the public domain program "MoreRows" to set up a 708*510 pixel workbench screen. This works quite well, especially as most programs that work with PAL take their dimensions from the workbench, so you get the full benefit of the entire available area with programs like "excellence!".

Apart from these small gripes, there is only one major obstacle to stop you buying one: the cost. Most people think that the quoted price of around US\$500 is a rip-off, but actually this is not the case. What the device does is watch everything that comes out of the Amiga 2000's video slot, and store it away in some very high speed 12 bit (4096 colour) memory. It then has its own totally separate display generator to redisplay the screen at double the scan rate, without interlacing. Pretty tricky stuff.

I sad to say that all you drooling 500 and 1000 users out there are going to be disappointed: the FlickerFixer requires the video slot in the B2000 to operate, so you'll just have to gnash your teeth until Commodore changes their pricing policy on the 2000. I imagine a few of you have twigged that since I am using full overscan and a 2090A hard disk controller, I might have problems with the infamous 2090A slow-down problem. In fact, this isn't the case as the 2090A only has problems with interlace when doing SCSI DMA transfers. Since I'm not using the SCSI yet, the problem hasn't affected me. I might have to reduce my overscan when I start using SCSI. If you are unaware of this problem, the fact is that the 2090A's SCSI DMA

has to compete with the display chips when transferring data. When you use overscan and several bitplanes the number of available data transfer 'slots' are reduced dramatically, and the 2090A is only able to transfer data during the vertical retrace period. This apparently reduces SCSI transfer rates by a very large factor.

During the last meeting one adventurous soul said that he had installed the new Agnes chip in his Amiga. I later asked him for his source for the chip, which he kindly provided. This was "Tate-Palmer Technology", in South Oakleigh. I visited them soon after, wanting to buy the chip to install myself. These people are a Commodore repair centre, and understandably wanted to fit the chip themselves (for a fee). They were reasonably happy to just sell me one for \$65, though. I asked them what had to change in the machine apart from the link, J101. I was told that I should cut track J102 (more on this later).

When I got the chip home I proceeded to take my Amiga apart removing the case and the disk / power supply frame to get at the old Agnes. The really tricky part of the installation is getting the old Agnes out! These chips aren't your standard dual-in-line package, they are PLCC (plastic leadless chip carrier). This means that you should really have the special extraction tool to remove them. I was confident that I could get it out without damaging anything. Twenty minutes later as I brushed away the grated plastic I wasn't so confident. I had tried prying it out with a very small screwdriver. I had tried making an extraction tool out of a very stiff piece of wire. I had tried swearing, ranting and raving. None of this seemed to do much, and was in danger of damaging the socket. This would be disastrous as it would mean having to desolder the damaged socket VERY dangerous on a multilayer board. I didn't want to buy new Amiga so I was extra careful as I pried at it a bit more. Suddenly it popped out and all was well. But the moral of the story is definitely to use the right tool. Maybe the club should buy a PLCC extraction tool for communal use. I happily plugged in the new chip (taking the usual anti-static precautions), and changed the link marked "J101" to its other position. After the machine failed to boot I decided to cut the track marked "J102". After I did this the machine still failed to boot. I swapped back J101, and was happy to see that everything came up OK. A quick check with FreeMap showed that I was only getting the usual 512K of chip RAM. This wasn't totally surprising as I had put J101 back in its original position. A few more tests showed that I was getting nowhere, so I gave up for the night, realising that there must be something I didn't know.

The next morning I rang Tate-Palmer and asked them nicely (again) if they would mind telling me what I had to do to get the new Agnes running. The secretary told me with a stony voice that "We do not give away free information". I reminded her that I had just paid \$65 the night before, and she said she would get someone, muttering under her breath as she dropped the phone on the table! One of the guys then spoke to me, half apologising for the secretary, but adamant that since they were a service organisation they couldn't be expected to spend all day helping people on the phone for free. Considering that had been given the wrong instructions in the first place, and that I was only taking a couple of minutes, I felt that this was little unjustified. In any case he gave me the correct information without too much more fuss. I just kept thinking that I

they had handed me a 7 cent photocopy of the instructions in the first place they would have saved everyone a lot of trouble. Tate-Palmer is a small organisation, and I can forgive them a few mistakes, but they really should work on their public relations.

J500 was the extra track I had to cut. Once I had cut this track and swapped back J101 everything was hunky-dory. Up came my 708*510 workbench, and I could even open a hi-res, 16 colour DPaint screen at the same time. I then went overboard and opened terminal emulators, graphics demos, and various other things at the same time just to prove a point.

The new Agnes works well. I have experienced no compatibility problems with old software, and there seem to be no problems with old software adapting to the extra space. I have heard that some games have difficulties, however. If this worries you, it is possible to install a switch to flip J101 and J500 back to their original connections.

J102 has an interesting effect. This goes to the pin marked "TEST" on the old Agnes, and is tied low normally. On the new Agnes (numbered 8372, by the way) this line tells the Agnes whether a PAL or NTSC display should be used. You have to cut J102 to use the full PAL resolution. You could conceivably fit a switch across this to have a switch-selectable PAL or NTSC machine.

So here's the REAL list of Agnes mods for the B2000:

- * Somehow remove the old chip and insert the new one.
- * Move link J101 to the 2-3 position.
- * Cut track J102.
- * Cut track J500.

I should point out that this chip replacement only increases the chip memory. The new graphics modes will require us to change our Denise and Paula chips as well. The new versions of these chips are not available yet, so we'll just have to wait.

AUGADS

Ads placed here are for members only (to advertise that is), and any ads placed here (free of charge) will be printed for only one month unless re-submitted

For Sale: Yamaha PSR-90 MIDI keyboard with Yamaha MDF1 midi data filer (disk drive) and variety of suitable software including many tunes already edited for this instrument. Value around \$2000. No reasonable offer refused. Norm Christian - 580-3756.

For sale: Custom built computer desk with 4 levels, currently used with an Amiga 500 and printer but suits others - \$50. Norm Christian - 580 3756.

Manual Bug

From: kodiak@amiga.UUCP (Robert R. Burns)

Let me say this again (though I didn't say it the first time). The hardware manual incorrectly identifies CIA usage. Here is the correct allocation:

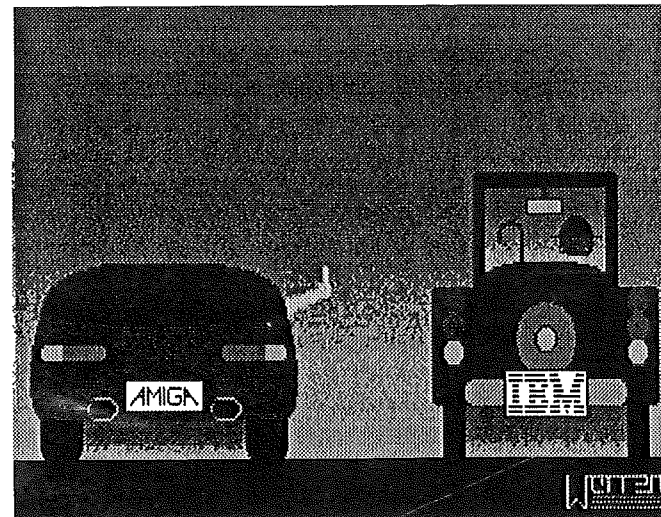
CIAA (int 2)	
timerA	keyboard handshake
timerB	uSec timer.device
TOD	60Hz timer.device
CIAB (int 6)	
timerA	Commodore serial communication, usually not used
timerB	not used
TOD	graphics.library beam counter

This example code incorrectly allocates CIAA timerA. The keyboard is arguably "broken" in the sense that it does not preclude that from happening -- but in any event, the keyboard expects timerA for its exclusive use. The keyboard.device code on the Amiga side handshakes key acquisition to the keyboard processor using a mechanism such that if the timer is running the handshake may not be properly generated. Furthermore under 1.4 the keyboard.device will be using the timer itself, and the AddICRVector would begin to (correctly) fail.

so, use...

```
if ((CIAResource = (struct Library *)OpenResource(CIABNAME)) == NULL)
    ^
```

and do it carefully, because your interrupt code is now at much higher priority (6 vs. 2).



BROWSING IN THE LIBRARY

by Mark Kelly, Swan Hill

I've been trying to come to grips with Amiga libraries for a long time. My tiny C programming skills won't permit adventurous investigation so BASIC was my only choice. After browsing through Mortimore's Amiga Programming Handbooks I found a few functions that may be fun to use in BASIC. Exactly HOW they may be useful I'll leave to you, dear reader. The GURU routine might let you enjoy yourself and I wish I had discovered the SetWindowTitles() function a few programs ago!

Can anyone help? Can I, in BASIC, get pointers to IntuiText structures and set IDCMP flags so I can play with the intuition library's AutoRequest() function?

The following routines may whet your appetite for further fun & games. (Note that each "LIBRARY xxx.library" line requires "xxx.bmap" to be in the current directory or LIBS: directory.)

While I'm here, could Con the Editor count up our subscription forms and tell us how many of we AUG members own 500s, 1000s and 2000s? I have a horrible feeling that, as an A1000 owner, I am becoming an endangered species.

May I have a little grizzle? The topic is public domain software. Has anyone else out there experienced startling failure with so-called masterpieces of the software revolution? I refer to programs such as:

GRIZZLE 1.

T-SNIP: a cut-and-paste-from-any-window utility. It is supposed to let you disable auto-window-activation programs like Dmouse/SunMouse etc. I tried. I really DID try but no way would it cooperate. To use T-SNIP with Dmouse meant disabling Dmouse's auto-window-activation routine first. Quite a pain.

GRIZZLE 2.

SNIPIT: acts like T-SNIP. Less "powerful" but far easier to use: no messy patch files and configuration bits and pieces needed. Just the ticket, I thought as I relegated T-SNIP to the archives. Snipit lets you cut and paste intuitively. I ran it. It did nothing. It lets you use other "hot-keys" instead of the default ones. I'll try those, I thought. I tried commanding SnipIt to recognise Left-Amiga, Left-Alt, Control, Right-Amiga, Right-Shift and Right-Alt.

No luck. I tried the remaining magic button: Left-Shift. It worked! Great, I cried. It cut and pasted nicely. No side-effects (I have so many magic buttons through using Dmouse, TimeSaver et al that there are ALWAYS conflicts with key combinations!) I retired to Workbench to clean up a few files. Then it hit me. Left-SHIFT+Left-MouseButton (the only keys that worked with SnipIt) are the combination WorkBench uses to select multiple files. I almost cried, but since I'm a man and I nearly program in C, I thought better of such a pathetic display. I cheated instead. SnipIt's documentation said that ONLY those keys listed above would work. I didn't believe him any

more so I tried the one key code not listed: one I found in Dmouse's documentation. That's CAPSLOCK. Did it work YOU BETCHA! Now I can turn SnipIt on and off by turning CAPSLOCK on and off. Actually it's better than the other keys because it can be left on or off after it's pressed! The end result is my s/startup-sequence now starts SnipIt with: snipit a b4 p"" Because I only have one magic key for SnipIt, I can use both paste modes (normal and paste-with-prefix-string). No worries there, though. The above command always paste with a prefix string, but the 'p' flag sets the string to null. To use a prefix, just call SnipIt and define the string (e.g. Snipit p""). Now, I just have to work out how I can get SnipIt to release its lock on the CLI window when I boot... (I've tried RunBack and RUN >nil: snipit. Any ideas?)

GRIZZLE 3.

HACKLITE. A wonder program with which I have wasted many hours of my life in the past. The new version has super-whizzbang installation utility. The only problem is that the "labour-saving" installation is more of a pain than the old hand-operated version. To top it off, it writes its own configuration file for the game and GOT IT WRONG! I, a mere mortal, had to edit the configuration file to correct its own syntax errors! Ah, isn't progress wonderful?

GRIZZLE 4.

PACMAN87. Has ANYONE out there got this working? have had it (a) crash (b) report it's out of free store (with 2.. megabytes RAM on board???) (c) start and present a fashionable black screen... and do nothing more. What am I doing wrong? Am I being paranoid or do these programs hate me?

At least my little programs below work. At least I HOPE they do!

```
-----
' GURU: A requester you just can't ignore!
' See Mortimer, Vol.1, p.483 & Intuition Ref.Manual
DECLARE FUNCTION DisplayAlert& LIBRARY
LIBRARY "intuition.library"
CB=1 'a continuation byte ends each substring
AlertBoxHeight%=40 'in pixels (you set this)
WHILE CB
READ X,Y,CB,TEXT$: GOSUB BuildAlert
WEND
DATA 200, 10, 1, "THIS IS ONLY A HARMLESS ALERT!"
DATA 240, 20, 1, "This is NOT a Guru!"
DATA 20, 30, 1, "Press LEFT MOUSE BUTTON"
DATA 300, 30, 1, "or"
DATA 430, 30, 0, "Press RIGHT MOUSE BUTTON"
' X,Y = text coordinates (in pixels)
' CB = 0 for LAST text piece, 1 for others.
Clik%=DisplayAlert&(1&,SADD(messg$),AlertBoxHeight%)
' The 1& parameter makes a non-fatal alert.
IF Clik%=0 THEN PRINT "right"; ELSE PRINT "left";
PRINT " mouse button clicked": END
BuildAlert:
X$=CHR$(X/256)+CHR$(X MOD 256) '16-bit X coord
Y$=CHR$(Y) '8-bit Y coord
CB$=CHR$(CB) '8-bit contin.byte
' Build substring & add to alert message.
messg$=messg$ + X$ + Y$ + TEXT$ + CHR$(0) + CB$
RETURN
-----
```



```
'SetWindowTitles() retitles windows on the fly
DECLARE FUNCTION SetWindowTitles& LIBRARY
LIBRARY "intuition.library"
WINDOW 2,"SetWindowTitles", (20,20)-(400,150)
ZERO$=CHR$(0): wp&=WINDOW(7) 'window pointer
WHILE title$<>"END"
READ title$
IF title$<>"END" THEN
title$=title$+ZERO$
e&=SetWindowTitles&(wp&,SADD(title$),-1)
FOR pause=1 TO 3000:NEXT
END IF
WEND
PRINT "Move the mouse around!"
PRINT "CLICK MOUSE BUTTON TO QUIT"
WHILE MOUSE(0)=0
mx=MOUSE(1): my=MOUSE(2)
title$="Mouse is at"+STR$(mx)+STR$(my)+ZERO$
IF title$<>old$ THEN 'update only if changed
e&=SetWindowTitles&(wp&,SADD(title$),-1)
CIRCLE(mx,my),RND*10,RND*3 'entertain user
old$=title$
END IF
WEND
WINDOW CLOSE 2: END
DATA "This is a demonstration of how I can"
DATA "change the title of a window without"
DATA "closing it and reopening it!"
DATA "You could use this feature as some"
DATA "sort of output device for the user"
DATA "For example..."
DATA "END"
```

```
'-----
' Shows usage of ClearEOL() function
' Deletes from cursor position to end-of-line
DECLARE FUNCTION ClearEOL& LIBRARY
LIBRARY "graphics.library"
FOR i=1 TO 23
LOCATE i,1: PRINT STRING$(74,"#");
NEXT
FOR i=1 TO 23
LOCATE i,i*2 'put cursor somewhere
e&=ClearEOL&(WINDOW(8)) 'zap to EOL
NEXT
END
```

```
'-----
'Using WindowToFront() & WindowToBack()
' to juggle windows - N.B. the windows'
' contents are not lost as happens when
' using WINDOW/WINDOW CLOSE commands.
DECLARE FUNCTION WindowToBack& LIBRARY
DECLARE FUNCTION WindowToFront& LIBRARY
LIBRARY "intuition.library"
WINDOW 2,"window 2", (100,10)-(300,50),16
w2&=WINDOW(7) 'window 2 pointer
COLOR 1,2:CLS:PRINT "This is window 2"
WINDOW 3,"window 3", (150,40)-(350,80),16
w3&=WINDOW(7) 'window 3 pointer
COLOR 2,3:CLS:PRINT "This is window 3"
FOR w=1 TO 5
e&=WindowToBack&(w2&)
e&=WindowToFront&(w2&)
e&=WindowToBack&(w3&)
e&=WindowToFront&(w3&)
FOR i=1 TO 1000:NEXT
NEXT
WINDOW CLOSE 2: WINDOW CLOSE 3:END
```

```
'-----
'SizeWindow() function resizes windows
DEFINT a-z
DECLARE FUNCTION SizeWindow& LIBRARY
LIBRARY "intuition.library"
wide=200: high=50: xInc=60: yInc=20
WINDOW 2,"SizeWindow", (100,10)-(300,50),16
```

```
wp&=WINDOW(7) 'window pointer
FOR i=1 TO 5
e&=SizeWindow&(wp&,xInc,yInc)
wide=wide+xInc: high=high+yInc
PRINT wide"by"high
FOR pause=1 TO 2000:NEXT
NEXT
WINDOW CLOSE 2: END

'-----
' MoveWindow() lets a window travel!
DEFINT a-z
DECLARE FUNCTION MoveWindow& LIBRARY
LIBRARY "intuition.library"
X=100: Y=10: xMove=30: yMove=15
WINDOW 2,"MoveWindow", (X,Y)-(300,50)
wp&=WINDOW(7) 'window pointer
FOR i=1 TO 5
e&=MoveWindow&(wp&,xMove,yMove)
PRINT "X"X "Y"Y
X=X+xMove: Y=Y+yMove
FOR pause=1 TO 2000:NEXT
NEXT
WINDOW CLOSE 2: END

'-----
' Not really useful, but fun.
DECLARE FUNCTION DisplayBeep& LIBRARY
LIBRARY "intuition.library"
e&=DisplayBeep&(0)
```

NWAUGNWAUGNWAUGNWAUGNWAUG

North West Amiga Users Group

A geographical Special Interest Group OF AUG

Meetings held every 2nd Wednesday
at 7:30 pm in Rooms 19 & 20, 1st Floor
Essendon Community Centre,
Cnr Mt Alexander & Pascoe Vale Rds
Moonee Ponds 3039

Meetings Scheduled:
25/10/89 1/11/89 15/11/89

Nwaug members to be members of AUG
NWAUG annual fee of \$5 helps cover
PD, Library and Equipment costs.

Meeting Entrance fee of \$1 (\$2 visitors)
covers room hire/coffee/biscuits.

NWAUG - A multitasking SIG of AUG
See YOU at a meeting soon.

NWAUGNWAUGNWAUGNWAUGNWAUG

SCRAMBLES (aSortments of Con's RAMBLES)

A couple of interesting facts to discuss this month...

The review you saw two month's ago in this newsletter on PageStream by Hugh Leslie seemed to be pretty over-the-top stuff. Well, it is, and I think that I should point out that most people who have spent a great deal of time with the program since they received it have found it to be crummy. Not in the sense that it is not a good program - heck no! This program seems to have everything you ever wanted and more, but at a cost. That cost is not money, but BUGS. This program is full of them, and as INFO had put it, it is "Too much, too soon", so wait for an update before you buy this proggy.

Remember the hype over Excellence! when it first came out? I mean you should if you read this newsletter, because I was the main one going on about how good it was. Well, here comes another program, Pen Pal. This program, like Excellence! is more and more Desktop Publishing oriented, while still retaining all the main features of a word processor plus extras. Most of the hype about this one is related to it's printing ability (much like PageStream was supposed to be). However, I find it unusual that nowhere is there mention of PostScript support in today's computing world - that's what annoys me the most. Besides that, it seems to be a real beauty, and as far as I know, hasn't been released fully yet (ie reviewers are previewing beta versions).

Speaking of printing ability, some time ago I wrote an article on getting the most out of your damned printers. Well I said in that article that 1.3 drivers would not change the vertical density of your printed output. It seems I was wrong, because the 1.3 drivers I spoke of were those released with my version of Excellence!. It seems after obtaining the proper 1.3 Workbench and printer drivers, just about all the printer drivers except EpsonXOld will change vertical densities. Anyway after finding this out, and using the EpsonX[MPS1250] driver with a variety of different programs, I found I could produce pictures of unbelievably high densities. However, at a horizontal density of 240 dpi, the printer still cannot print consecutive dots in a row, something which to date, only Gprint seems to be able to work around. Unfortunately GPrint can only print two colour pictures, so I found myself loading pictures into DIGI-VIEW and using the dither-2 option, while fixing the palette on only black and white. This produced nice printouts, but unfortunately, I was limited to 640x400 pictures (which came out tiny on the printer) unless I chopped the picture into many parts then put them together again on another program. But I couldn't find a program that I owned which would take pictures much bigger anyway.

Somewhere along the line, I tried using the print drivers at a friends, who owns PPage 1.1, which prints on Dot matrix printers as well as Postscript compatible printers. What I found was, like most programs (or rather all of the ones I have seen), the default page width, 8.5 inches, was incorrect, and the poor printing was a result of the scaling down of the image! Once again (I think) I stress, if you are to print out on a dot matrix printer that has a maximum printing area of 960 dots (ie most Epson X compatibles) then SET YOUR PAGE SIZE TO 8 INCHES WIDE! You'll be shocked by the difference

On the game scens (just out of interest). if you own Super Hang On, and have become bored of it, try this:

Beat the highest score on the easiest level. When prompted to type in your name, type in 750J Then press Shift, Amiga, Z, X (I think or something similar).

Then when playing again, press down left amiga (O Commodore) and you will start shooting. Fair dinkum, you can see the shots, and you can kill other riders and signs.

On Elite, when prompted to type in the password to start the game, type in SARA (I think), and you will be given a hack to modify your character. Note - have not tried this one, so if it doesn't work, don't blame me.

On Starglider II., slow down to a halt, pause the game and type in "were on a mission from god", and you will get infinite energy, shields, and all the weapons. (It's been a while since I have done that one, so I'm not sure if there is more to do, but have done it).

Last month at the meeting we had two Gentlemen from Commodore Melbourne come to give us their sales pitch, and what directions Commodore was now taking to put itself at the front. The men were very understanding of all the people's problems within the meeting, and did understand that Commodore had been, (and still is) far from perfect. The future does look bright for Commodore if they follow up the many ideas mentioned and take some more advice from the users. It was good to see them there, and I apologize to them for the flak they copped from the crowd every chance they got.

Workbench 1.4. Yes that's right, 1.4 is now well under development. Already alpha releases have been given to developers to criticize, and offer suggestions, and boy, does it look good. Some of the ideas I've heard already include a multitasking Workbench, which is now a window rather than a screen with more options. FastFile for floppies (I mean officially, not the setup I use, which will now be bootable, meaning you will no longer have to have separate partitions on your hard drive. Most of it seems to relate to creating a better Workbench envi-

AMIGA HELP-NETWORK

The following is a list of AUG members who have volunteered to share their knowledge/experiences with others. If you also want to help and have your name listed here please contact Lester McClure (233 5664 AH). The names are not listed in any order of priority and the format may change in future listings. Please keep contact to reasonable hours (6 to 9 pm unless otherwise mentioned) and remember one very important basis of this service - they are volunteers...

- | | | |
|----------------|---------------------------------------------------------------|------------|
| Neville Sleep | - AmigaBasic (beginner level) | - 546 0633 |
| Rudy Kohut | - AmigaBasic (intermediate) | - 807 3911 |
| John Elston | - AmigaBasic (advanced) | - 375 4142 |
| Alan Garner | - AmigaBasic, A/C Basic | - 879 2683 |
| Mal Woods | - C(Introductory), Professional Page | - 888 8129 |
| Andrew Gelme | - C (advanced) - AZTEC | - 645 1744 |
| Eric Salter | - C (advanced) - LATTICE, TeX | - 861 9117 |
| Norm Christian | - Amiga Art, Music | - 580 3756 |
| Neil Rutledge | - Music, Audio Sampling, MIDI | - 597 0928 |
| Russ Lorback | - Excellence!, Superbase Professional (Beg-Int) After 9:30 pm | - 756 6640 |
| Darren King | - Amiga Viruses, Modems/communications | - 546 5040 |
| George Wahr | - Side-Car, Bridgeboard | - 376 6180 |
| James Gardiner | - AmigaDOS, Auto-boot hard drives | - 523 6843 |
| Stephen Bell | - Hardware design | - 25 8415 |
| Joe Santamaria | - Graphic arts - DPaint, Sculpt etc. | - 836 9129 |
| John Hampson | - Modula-2 | - 584 3922 |

ronment. Oh yes, and it is supposed to be fully compatible with 1.3 (like 1.3 was to 1.2).

By the way, did you know that with a bit of file editing you can have to Rad disks?. Here is how. In your devs: directory, copy ramdrive.device and rename it to say ramdriv1.device. Load up a file editor that can support binary files and do a search/replace (only one needed) from ramdrive.device to to ramdriv1.device on the file called ramdriv1.device. Also, do a search/replace on RAMB0 to RAMB1. Then in your mountlist, create a copy of the rad: listing and rename it to whatever you want say df5:. Then change the mountlist on df5: from ramdrive to ramdriv1. Then you can mount df5: and have two recoverable ramdisks. However, if you have 1.3 kickstart installed, and don't have a bootable disk in df0:, the system will hang because it will try to boot off the rad disk, and there are two of them. To verify this, place a bootable disk in df0: and reboot again. Use your own imagination as to how many things you can do with two (or more) rad disks. Oh yes, and you can also make your rad disk run the fast file system... I'll leave that up to you to figure out - all the changes for that one are all to do with the mountlist.

Oh yes, the A590 Hard drive/2Meg expansion board for the 500 is now on sale at a retail of around \$1100.

Editor's Column
(written 27-9-89)

Guess what? I'm actually running out of articles. For the first time since I took over this job from Pete Jetson, I am actually running short on articles. In fact, most of the articles this month weren't articles at all. If it wasn't for those tidbits and a couple of articles from Mark Kelly and Sam Hung Koh, we would have had nothing. I mean nothing. So here goes. Please send in articles. All are appreciated, and all are rewarded at the rate of one free public domain disk copy (value \$2) per half page or column published. The same goes with pictures and tables.

I tried printing those pictures again this month. I hope the reason they came out bad last time was because I used a dot matrix to print them out. This time they will be half toned on a postscript laser, like the front cover always is. Last month's front cover was called Magi, and it was from the PhotonPaint Art Disk (Photon Paint I). This month is called Abe.lac and is from the demo images of PIXMate.

If there are people out there who have the graphical ability and desire to provide high quality graphics for entertainment software for the Amiga, please contact me, as Darren Leacy is looking for graphics in style similar to Cinemaware products for Amiga software, both stills and animations will be required. The Bible is now available on the Amiga. Amen.

Public Domain Software Order Form

Mail to: Amiga Users Group, PO Box 48, Boronia 3155, Victoria

Disk Numbers:										
Don't forget to specify collection name, ie Fish, Amigan, Amicus, etc										
Disks Supplied by Amiga Users Group at \$8 each										\$
Disks Supplied by Member at \$2 each										\$
Club Use Only:										Total \$
Member's name:										Membership #:
Address:										Postcode:

Newsletter Back Issue Order Form

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Issue Numbers:										
Be patient, we may have to reprint some issues to fill your request										
Number of issues ordered at \$2 each										\$
Club use only:										Total: \$
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Address:										Postcode:

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Membership is \$25 per year. Send your cheque to: Amiga Users Group Inc, PO Box 48, Boronia, 3155

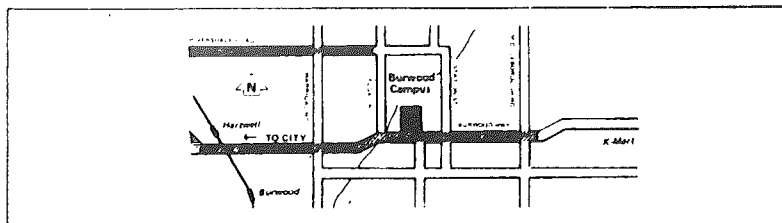
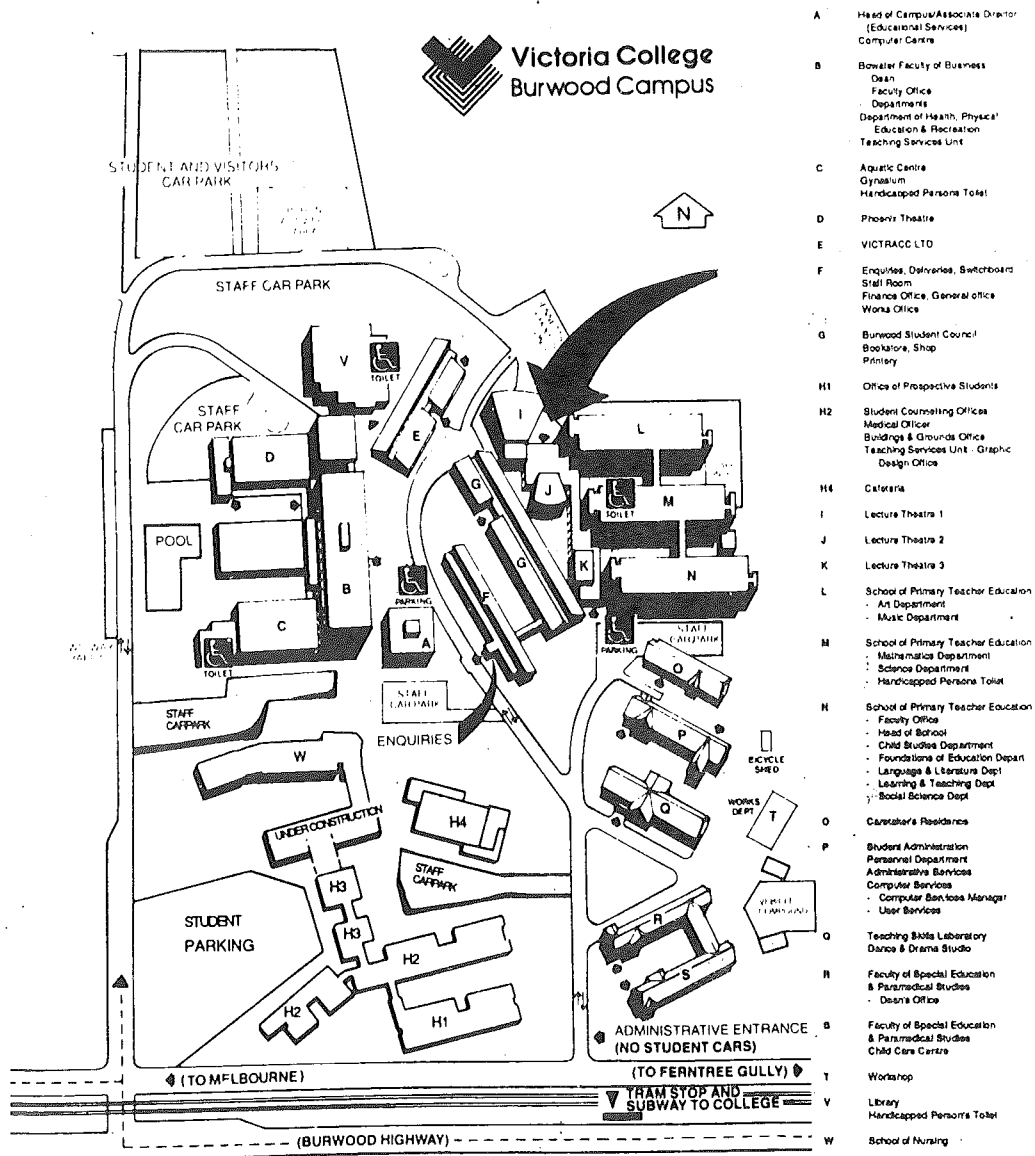
Surname: _____		Details on this side are optional	
First Name: _____		Year of birth: _____	Which model Amiga: _____
Address: _____		Occupation: _____	
Postcode: _____		Interests: _____	
Phone Number: _____		STD Code: _____	
Where did you hear about AUG: _____			
Dealer's Name: _____		Dealer's Address: _____	
Signed: _____		Date: _____	

If admitted 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
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October 1989 Amiga Workbench

AUG meets on the third Sunday of each month



Where is Victoria College, Burwood Campus?

People often have difficulty locating our meeting place the first few times. Victoria College is on the North side of Burwood Highway, Burwood, just East of Elgar road. Coming from the City along Burwood Highway, 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 Theatres 1 and 2.

If you have a Melways, try Map 61 reference B5.