

AMIGA

WORKBENCH

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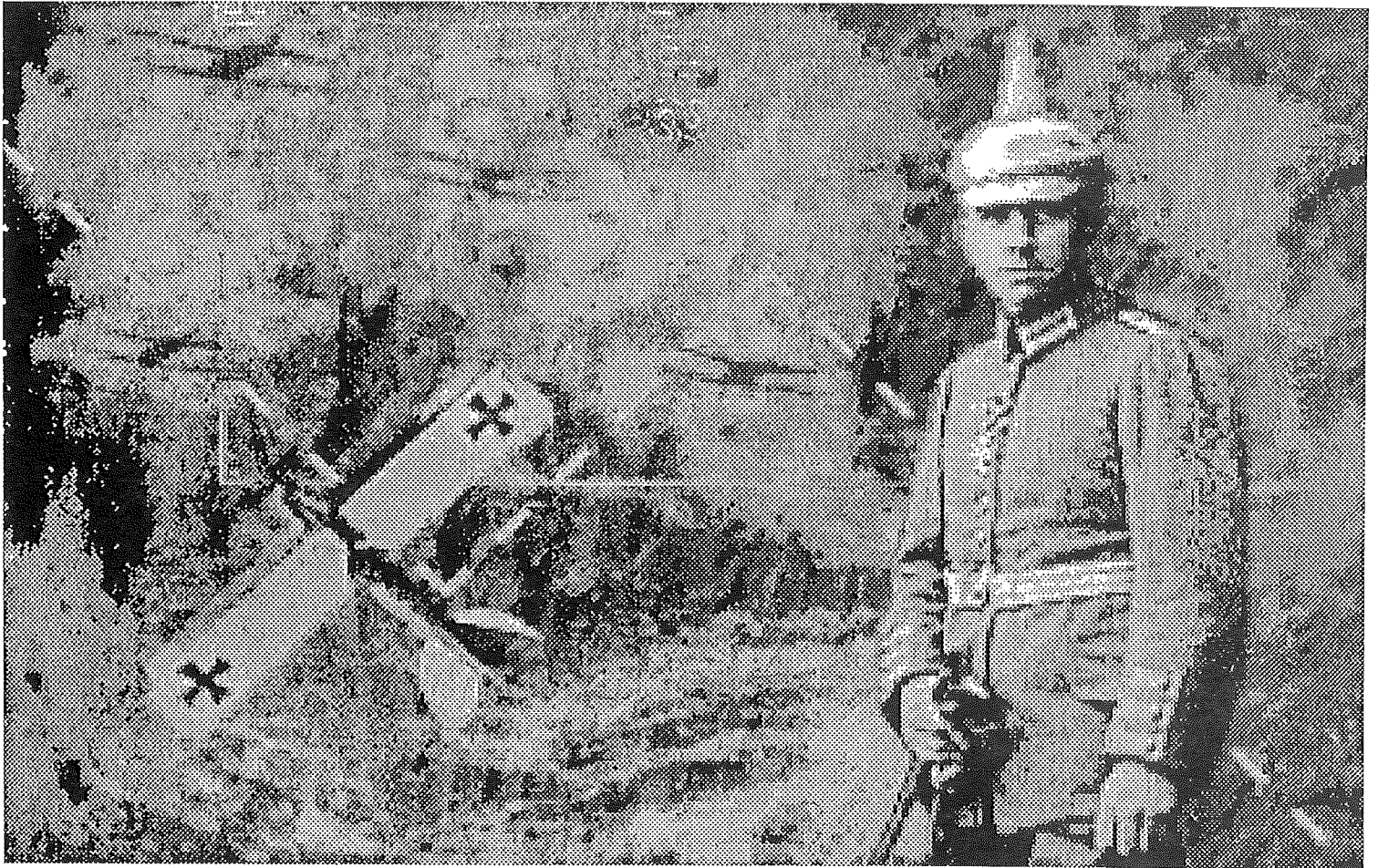
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Next AUG Meeting
Sunday, June 18th at 2pm

(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, June 18th at 2pm

Sunday, July 15th at 2pm

Sunday, August 20th at 2pm

Production Credits

This month's newsletter was edited by Con Kolivas. Equipment and software used was: Amiga 500, Professional Page, Excellence!, and Apple LaserWriter Plus.

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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. Absolute deadline for articles is 23 days before the meeting date. Contributions can be sent to: The Editor, AUG, PO box 48, Boronia, 3155.

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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 250 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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These rates are for full-size camera-ready copy 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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Moderately Important Note to Amiga 500 Owners

If you own an Amiga 500 and you have ever delved into the inner workings of the keyboard, you will know that the keyboard returns a value between 0 and 127 when you press any key, and that value (plus 128) when you release that key. But which values?

Okay, to the AmigaDOS Developer's Manual, pages 228 to 231. Hang on... where's the numeric keypad 'slash', or the numeric keypad 'brackets'?

Well. According to the Amiga System Programmer's Guide, page 59, they don't exist. On the detachable-keyboard 1000 and 2000s, that is. After a fair bit of playing around, I found out what values these missing keys return, as below.

Amiga 500 Raw Event Key Codes

Codes Hex	Decimal (press)	Decimal (release)	Key
5A	90	218	left bracket (keypad)
5B	91	219	right bracket (keypad)
5C	92	220	backslash (keypad)
5D	93	221	asterisk (keypad)
5E	94	222	+ (keypad)

Most of you 500 owners are probably saying, 'So what?' Well, not everyone who is serious about program development can afford a 1000 or 2000 (why does the 500 carry the stigma of being 'just a games machine?' or is it the stigma of a machine that is being pushed by John Laws?).

- Saint Nikolai

Dear Amigos

I have just discovered some rather interesting news. Commodore have released a new version of the Amiga 500 with a revised 'Fat Agnus' chip allowing access to 1Meg of chip ram. OK, so you already knew Commodore were going to release this revised 'Fat Agnus' chip but read on.

What you probably didn't know was that most Amiga 500's sold to date (Rev 5 cct board) wont be able to support the new Agnus chip because the circuit board lacks the necessary extra address bus lines.

The new model Amiga 500's have a revised circuit

board to provide the extra architecture for the new Agnus chip (Rev 6A cct board). On the new circuit board there is still only 512Kb of ram in place but sockets exist for another 512Kb (up to the user to supply the extra ram).

Externally the old A500 is no different to the new A500 and Commodore provides no labeling to be able to tell the difference. Current deliveries of A500's are a mixture of old and new machines (only a small amount of new ones at this stage). I have an idea that Commodore has put little red and blue stickers on the side of the new versions box.

If you have just bought an A500 in the last month or so and it came with Kickstart 1.3 installed then you have a chance of owning the new machine. There are only 2 ways that you can tell the difference between the old and new versions.

1. Pull it apart and look for:
 - Rev 6A on the board (rev 5 on old version)
 - Fat Agnus labelled 8372A (8370 on old version)
 - Positions for 8 ram chips with only 4 installed (16 ram chips on old version)

2. -Turn the computer over and look for the air vents beside the extra ram and clock hatch (ie directly beneath keys 'asdfghj'). Look into these vents. This is where the ram hangs out. On the new version, if you look carefully you can see only one row of soldered dots towards the front of the computer and bus lines towards the back. (on the old version there are two distinct rows of soldered dots each representing 8 ram chips).

I have taken photos of both the old and new versions of the A500 and when get the photos back from the lab I will digitize them and upload them to the graphics area of this bbs for all to see. Personally I think this is a good move by Commodore as I think 1Meg of chip ram is necessary for serious graphic manipulations. It's just a pity that this didn't happen earlier in the day. I shudder to think of the incompatibility problems if developers start producing software for this new version of the machine.

Oh well thats life! Trying to keep up with Commodore.

Dan Davies 14-May 1989

[Ed's note - see next page for printed digitisations]

Workbench Newsletter Index by Glen Sheppard

Here is a list of the contents of the last 11 Workbench Newsletters leaving off from where Lester McClure left off in April 1988. Hope you find this useful.

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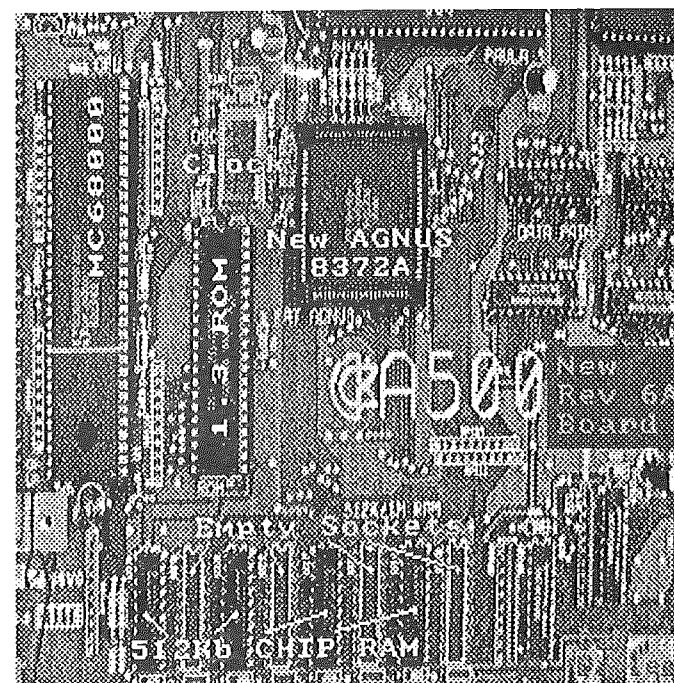
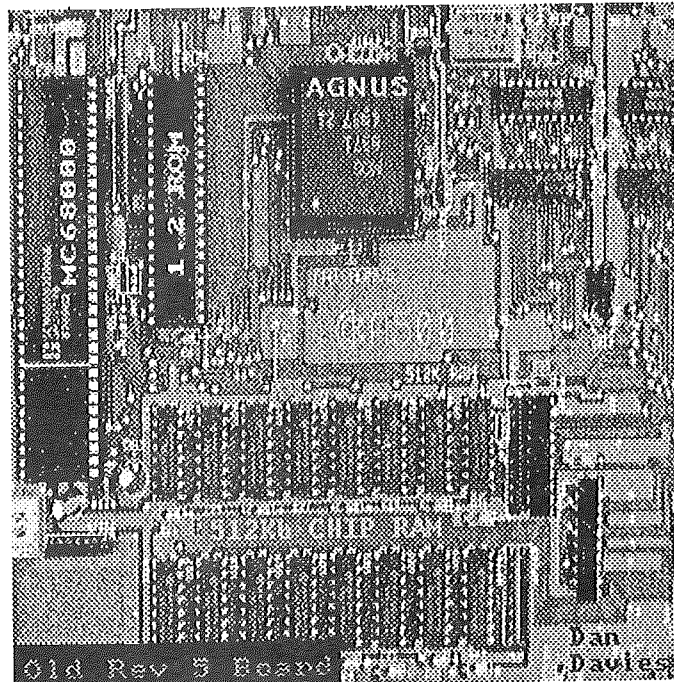
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April 18, 1989

Mr. Con Colivas
Editor, *Amiga Workbench*
PO Box 48, Boronia 3155
Victoria, AUSTRALIA

Dear Mr. Colivas:

Your *Workbench* for April, '88 arrived in today's mail. I snatched it open immediately and read—first with interest, then with shock—Lu Beranek's article on using Conman with AmigaDOS V1.3.

Before I proceed, could you do me the favor of passing to Mr. or Ms. Beranek the enclosed copy of this letter and the disk attached? After the kind words in the article wishing the resurrection of the A&J, I can do no less than solve the problem reported. (I say "solve" with so much confidence that I'll bet a soggy Havana cigar butt against a dead dingo that I'm right. Please *don't* ship the dingo if I win! If I don't, do you want the soggy Havana?)

As I read the article, the problem is this (in Beranek's own words):

In practise [my startup sequence] leaves me with the original window as a backdrop which will accept keyboard input, but as soon as < RETURN > is hit, it [the original window] disappears...

I first assumed that Beranek had done something vile to the startup-sequence and tried all the DOS buggeries I know to duplicate the sin. No luck.

Then I tested for one of Amiga's worst debaucheries: The ALT key is so sensitive that it's easy to brush it and the spacebar at the same time and to enter an ALT SPACE (\$A0) instead of hex 20. This will zap any script.

Woe! No solution. An ALT SPACE anywhere in the startup-sequence always brings up a error requester. When that is cancelled, the sequence proceeds okay. Strike two.

Then I remembered that a number of word processors and editors for Amiga have a great flaw (Word Perfect amongst 'em): When they make ASCII files, they often FAIL to end the file with a linefeed, hex 0A. Aha!

- I edited the Beranek startup-sequence, exactly as it appears on page 2 of *Workbench*, by removing the terminal \$0A in the file.


- The startup-sequence executed perfectly *except that* the original window remained active. I could type in it; it remained open until I pressed RETURN. Then the window disappeared. (Beranek's failure duplicated.)
- If you boot from the enclosed disk (in which the file "startup-sequence" is missing a terminal \$0A), you'll see the same thing happen. Stuff the terminal \$0A back in the file and the problem goes away.
- The reason is simple: DOS will *not* execute any line of a batch file missing a \$0A. The line "endcli > NIL:" therefore was not executed until it received a RETURN from the keyboard.

Lesson: don't write startup-sequences with editors or word-processors that don't end every ASCII file with a terminal \$0A. (About half of the so-called ASCII files I used to get for the A&J, made with the ASCII option in word-processors, were missing that final \$0A. The problem is widespread.)

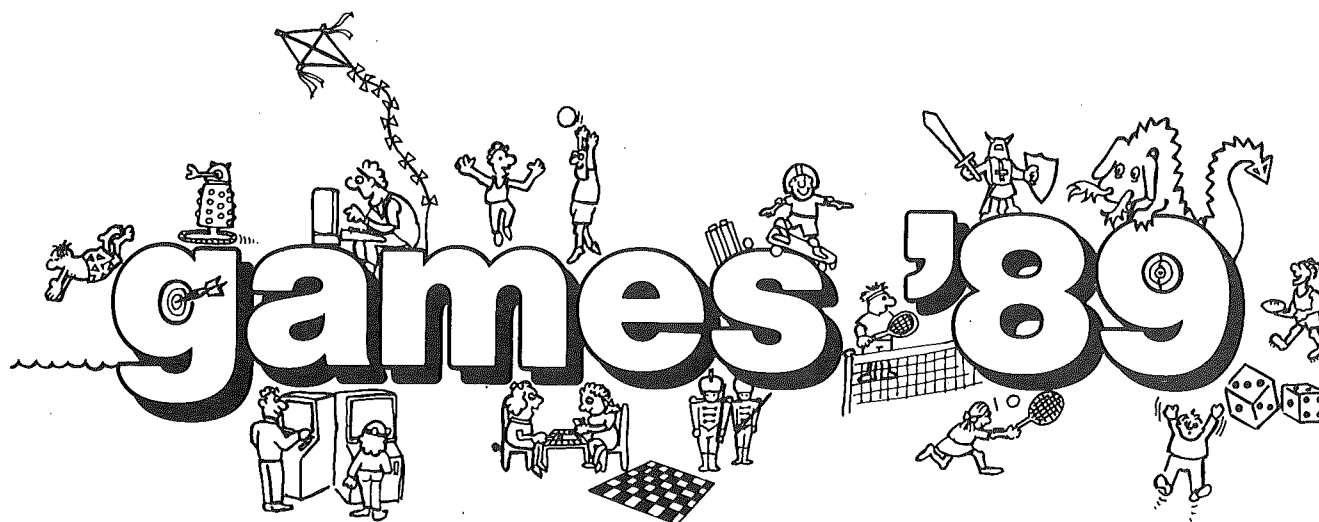
Now, back to the bet: Please ask Beranek to read his startup-sequence file with "type df0:s/startup-sequence opt h". Is the end-of-file \$0A missing? If so, problem solved. If not, Beranek has gremlins in an Amiga—and I will shut up, go back to bed, and never raise the subject again.

Thanks for continuing to turn out a very good newsletter—and for continuing to send it. I may be ancient and broken-down, but I still enjoy reading about Amy and playing detective when I can.

Best regards,



Dick Barnes



Towards OOPS

Object Oriented Programming Systems are much talked about in language magazines these days. I see OOPS as the direction in which programming should be heading and the combination of the Amiga and C as an environment where such programming is natural.

Without going for a full blown Object Oriented language there is much you can do in embracing the principles underlying such systems to give your programs an Object Orientated feel.

It all started a bit over a year ago when I got this idea for an algorithm to generate school timetables. I'd been doing the things for ten years and had always felt that something that steals so much holiday time, destroys marriages and leaves only three uncommitted neurons, should damn well be done on computer. Let the machine suffer!

It became the project in which I would learn C and find all this fascinating stuff inside the Amiga. The learning curves went through the plod stage for a couple of months but when the rush hit, the compatibility of the language and the environment made the rate of new understanding breathtaking. Pointers, structures, lists, nodes, Intuition, Exec, function pointers, ... great stuff! AmigaDos is still a bit of an odd one out. But they're working on that aren't they?

The handling of Gadgets presented as messy: The standard system of defining ID numbers in header files, assigning them on gadget creation in one file, comparing them in IDCMP handling routines in another and calling some function appropriate to the gadget in yet another file, was getting quite unwieldy with hundreds of gadgets on several windows communicating through one message port. The Gadgets have a UserData pointer in them that must be useful.

I decided that, since each gadget usually only did one job, the function eventually called when a gadget is hit might as well be referenced from the gadget itself. In fact, the gadget itself should know what job it has to do. Jolly fine Object Oriented thinking! Heres what I did:

First, define a new structure:

```
struct Job{
  int Args;
  void (*Func)();
  APTR Arg1,Arg2,Arg3,Arg4;
```

```
}
```

Write a function to create job instances:

```
struct Job *MakeJob(args,func,arg1,arg2,arg3,arg4)
int args;
void (*func)();
APTR arg1,arg2,arg3,arg4;
{
  struct Job *j;

  j=AllocMem((sizeof struct Job),MEMF_CLEAR);
  j->Args=args;
  j->Func=func;
  j->Arg1=arg1;
  j->Arg2=arg2;
  j->Arg3=arg3;
  j->Arg4=arg4;

  return(j);
}
```

Give every gadget a job:

```
struct Gadget *g; /** created already **/
void LoadForms(),GetFile();

g->UserData=
  (APTR)MakeJob(3,GetFile,"load forms","r",LoadForms,NULL);
  This will effect the call GetFile("load forms","r",LoadForms); which
  is my file requester routine.
```

And when the gadget is hit, do the job:

```
for(;;){
  WaitPort(port);
  while(m=(struct IntuiMessage *)GetMessage(port){
    class=m->Class;
    g=(struct Gadget *)m->IAddress;
    w=m->IDCMPWindow;
    ReplyMsg(m);
    switch(class){
      case GADGETDOWN:
      case GADGETUP: DoJob(g->UserData,w);break;
      default: break;
    }
  }
}
.....
```

```
void DoJob(j,w)
struct Job *j;
struct Window *w;
{
  if(!j) return;
  switch(j->Args){
    case 0: (*j->Func)();break;
    case 1: (*j->Func)(j->Arg1);break;
    case 2: (*j->Func)(j->Arg1,j->Arg2);break;
    case 3: (*j->Func)(j->Arg1,j->Arg2,j->Arg3);break;
    case 4: (*j->Func)(j->Arg1,j->Arg2,j->Arg3,j->Arg4);break;
    default: break;
  }
}
```

The task of adding new gadgets is now done all in the one file. You can write the function to be called when the gadget is hit, create a job instance with appropriate arguments including the function name and attach this to the gadget as it is created and linked into a list on a window. ID's are no longer used and may even be called into service to store

more handy stuff!

I have used this idea on other Amiga structures and it makes my code so much neater and more controllable. I have found that the whole Amiga environment, with the possible exception of AmigaDos in its current form, well attuned to Object Oriented thinking. The first version of C++ was only a set of preprocessor macros; indicating how neat the system is to begin with.

I can't try C++ yet because it needs a Meg but I've read the manuals (it comes complete with a very good text on OOPS generally and C++ specifically by Wiener & Pinson) and look forward with excitement to the wonders awaiting. Look for the add in this issue of FMS Micro Systems who are our agents for Lattice and offer a 20% discount to AUG members.

APPENDIX: What's OOPS?

The new words are data encapsulation, information hiding, message passing, inheritance of methods, classes, instances, packages, objects. Briefly, object oriented thinking works like this:

The world is full of things. These are not dumb things that require purposeful effort to shift around or that need to be told how to do the job for which they were designed. They are precient things that know what they are, what they can do and how to go about doing it. They are classified evolutionarily so that some classes are subclasses of others and, so being, are understood to have all the properties of their superclass and some specific to themselves.

From thinking in terms of what needs to be done, one has to shift to thinking in terms of what things there are around and what messages to send them. One doesn't perform actions on things; one instructs things to act.

Consider the class 'Dog'. (AI Expert: Jan,89. p57)

```
class Dog {
  char *breed;
  char *owner;
  int birthday;
public:
  void speak(int);
  void come();
  void stay();
};
```

This is as it would appear in C++ and says that a Dog has some distinguishing characteristics and

knows how to do three things. Dog can now be used as a type.

Dog fido;

... creates an instance of the class 'Dog'. (It actually calls a 'Constructor function' that you have written to initialise an instance variable). There should be a 'Destructor function' also to remove an instance.

fido.speak(3);

... sends the message 'speak' with parameter '3' to the object 'fido', fido rummages around in his list of skills and, finding a match, barks three times.

A subclass of class Dog called Puppy would probably overwrite the speak function with 'printf("%s,"Yap");'

Fido could be sent messages that don't appear in his structure but can be found in the superclass of 'Mammal'.

Data (parameters) and methods (functions) have varying degrees of privacy between languages but generally the idea is to make information as invisible as possible, the class instance itself controlling access. There are such things as Friend objects, Public and Private classes, subclasses, data and functions.

The first intentionally Object Oriented language was SmallTalk in August 1981 and now there are heaps: C++, Objective C, C_Talk, LISP (several varieties; Golden, Common, Pearl.. including public domain XLISP !), Neon (Forth), Actor, Object Pascal, MacApp.. and relatives like Prolog and Ada.

XLisp for the Amiga is on public domain (Fish disk 18 and probably later) and Metacomco have a version of LISP for the Amiga. For my money, though, the best bet for the Amiga is C++ because it so nicely fits in with the architecture of the operating system and is just an extension of the Amiga's natural language.

Well, thats it. Sounds good doesn't it?

Happy programming. Roland.

Letter to the editor

by G. Coret

Dear sir,

I would like to start by thanking the people who made my visit to the SMAUG night at Melbourne University most enjoyable. However I have now seen so many things I can't live without and I also realise how much there is to learn. It looks like a lot of fun and I'm looking forward to the next one.

About four weeks ago I decided to get Ami some memory, and after looking (looking looking as Con says [and he ain't talking about the editor!]) I decided that I would try and import it (memory) form O.S.

So at four in the morning I rang the software Shop in the USA and I spoke to a Gentleman named Mo (that's right - Mo) who informed me that he would send me a Spirit technology 1 Meg board \$529 US and the Software Music Student 1 \$42 US freight \$49 US.

All of this was to arrive in three weeks, and it did. It cost \$793 Australian.

The fun began when I opened the Spirit Installation Manual (disk). I am lucky enough to have a printer and printed out the instructions, I read and re-read them. Then came the challenge and I turned Ami over and opened her up (WOW)... I had to remove the disk drive but apart from that the installation wasn't so difficult.

The memory comes with a clock which they say should last 15 years (by then I hope to own a 2000 or maybe a 4000???) we'll see.

I hope this has been of interest to some body.

Keep those icons moving.
G.C.

[Ed's note - thanks for the information, and I'll look into what Power Peripherals (exclusive Australian distributors for Spirit Technology) here have to offer me since they wish to make some deal with the club. Oh, and I need two more megs...]

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AMIGA Languages - Modula-2
Karl Lean.

INTRODUCTION : Anyone who has had any sort of extended involvement with computers has probably, at one time or another, been involved in a discussion on computer languages - normally of the 'this' is better than 'that' variety. In the Amiga world this most often takes the form of "C" versus BASIC. "C" is the 'programmers' language, for those who are serious about their work (and with the price of "C" compilers for the Amiga, you've got to be serious about using it!), while BASIC is for 'everybody else' - after all, it's free with the machine! Into the picture I'd like to drop a third element - Modula-2. As a language it offers the speed and machine control of "C" (Modula-2 has a similar range of lowlevel functions to "C", that allow you to get 'close' to the hardware), but with the simplicity and readability of BASIC ("C" programmers would probably call it 'verbose'). In a nutshell, it's fast, structured, easy to debug, and cheaper than "C" compilers ! Rather than an

attempt to prove that Modula-2 is the answer to everyone's needs (it isn't !), this article is simply to introduce the language to those who know little or nothing about it. Like all languages, it has strengths and weaknesses, and this article will attempt to show at least a little of what Modula-2 is good at. As much as possible, this article deals only with each language in general, not specific versions (eg. Lattice "C", or AMIGABasic).

HISTORY : Very briefly, Modula-2 is a much refined version of Pascal. Both languages were designed by Professor Niklaus Wirth, with Modula-2 building on the good points of Pascal, and correcting many of the earlier language's problems. The language definition was first published in 1980, and has been revised several times since. The 'newness' of Modula-2 contributes to one of its strongest features - many of the latest theories of software design have been built into the very core of the language.

LANGUAGE COMPONENTS : Simplifying things quite a bit, all computer languages work with the same basic building blocks - Variables, and Statements. Tying these together is the language syntax.

(a) General Syntax - Modula-2 does not use line numbers. Code is entered as a stream of text statements. Like BASIC, more than one statement can be entered on one line. Case is significant in Modula-2, with "T" and "t" being two different identifiers. Programs consist of a main routine, which normally calls other blocks of code called "PROCEDURES" (similar to BASIC GOSUBS and "C" Functions). Blocks of code can be stored in separate files, and called into the 'main' program as required.

(b) Variables - Modula-2 provides a programmer with a very wide range of variable types - far greater than BASIC, and more detailed than "C". Like Pascal, you can code your own variable TYPES, and Modula-2 also supports advanced concepts such as "Opaque" data structures (not a subject to discuss lightly!). Simple variable types include INTEGER, REAL, CHAR and CARDINAL (an Unsigned INTEGER), and Modula-2 fully supports ARRAYS, POINTERS (no BASIC equivalent) and RECORDS (similar to "C"s STRUCT). The "C" UNION data type can be coded as a VARIANT RECORD, and Modula-2 (like Pascal) offers a data type called "SET OF" (similar to an array, but more flexible). Modula-2 variables can be defined in a variety of ways, and

like "C" variables can keep their value throughout the life of the program, even though they may not be 'globally' declared.

(c) Statements - In many cases Modula-2, BASIC and "C" offer very similar statements - only the actual way in which you code them differs. Modula-2's main statements are "IF..THEN..ELSE..END;", "FOR...DO", "WHILE...DO", "REPEAT ..UNTIL" and "LOOP". Unlike the other two, Modula-2 does NOT have a GOTO statement ! Modula-2, by definition, has a fairly weak input/output command set. There is nothing with the power of BASIC's PRINT statement. Instead, there are commands to read and write each type of Variable, (eg: READINT, WRITECHAR, etc). Various implementations of Modula-2 also allow access to the lowest levels of the machine hardware, with statements to access the CPU registers, and the facility to code Machine-code statements directly into the source code.

MODULA-2 STRENGTHS : After that whirlwind tour of the language basics, it's probably best finish off by noting a few of Modula-2's strong points. Without a doubt, the language's biggest contribution to steady and speedy program development is it's facility for separate compilation. Like "C", chunks of code can be written and compiled before you even begin to write the final program. This allows you build a collection of tried and tested routines for use in new programs, or to break a large program into a series of smaller 'modules' (hence the language name) - each of which can be compiled and even tested before they are combined into the final product. The big difference between "C" and Modula-2 is that the Modula-2 compiler tracks changes in these modules, and will not allow you to compile and link a program if modules needed by that program have changed since the program was last compiled - it forces you to recompile the intervening modules first. While this may seem a minor point, its importance only really becomes apparent when you try to manage a large programming project - it's an indispensable aid !

The other major advantage of Modula-2 is a little harder to describe without launching into a full discussion of software design theories. Basically, Modula-2 supports many of the theories of Object-Oriented design. This is a lofty sounding phrase, which really just means that its not a bad idea to treat data types (variables) and the code (statements) that act upon those variables as a

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single object, and then build programs out of a collection of objects. In reality, what this means for the average hacker is that you don't have to remember the details of that great little routine you wrote 6 months ago - if you need it, just plug it in and away you go!

CONCLUSION : I've really only skimmed over these topics, in an effort to get as much as possible into as small a space as possible. If people are interested I'll be glad to try and expand on the vague statements I've scattered throughout this article - just let the Editor or myself know if further articles are of interest to you. Hopefully I've been able to convey a general feeling for what Modula-2 is, and how it works - and maybe interest a few others in a much overlooked language. If you're looking for a bridge from the clean, uncluttered world of BASIC into the madness of fully powered compiled languages, then try Modula-2!

More Fish

Fish Disk #187

Diskperf A disk benchmark program which runs on both Unix and the Amiga. This is an update to the version on disk 48, with bug fixes and more reliable measurements of the faster read and write speeds available under the new Fast File System.

HackLite This is the latest version the Amiga port of Hack, with lots of Amiga specific enhancements and neat graphics. Now includes an easy to use installation program. This is HackLite version 1.0.0, binary only.

Mackie A versatile cli/macro-key initiator based on POPCLI with a unique method of "screen-blanking". I won't say more, just try it! Version 1.13, includes source. This is an update to version 1.1 from disk 161.

SetCPU A program designed to allow the user to detect and modify various parameters related to 32 bit CPUs. Includes commands to enable or disable the text/data caches, switch on or off the '030 burst cache line fill request, use the MMU to run a ROM image from 32-bit memory, and to report various parameters when called from a script. This is version 1.4, includes source.

Fish Disk #188

BootIntro This program creates a small intro on the bootblock of any disk, which will appear after you insert the disk for booting. The headline can be up to 20 characters. The scrolling text portion can be up to 225 characters. Version 1.0, binary only.

DiffDir Diffdir compares the contents of two directories, reporting on differences such as files present in only one directory, different modification dates, file flags, sizes, comments, etc. Version 1.0, includes source.

ExecDis A disassembler comment generator program for the 1.2 Kickstart ROM exec library image. Generates a commented disassembly of the exec library. Version 1.0, binary only.

FastGro A fractal program, simulating Diffusion-Limited Aggregation (DLA) as described in the December 1988 Scientific American in the Computer Recreations column. This program is about an order of magnitude faster than the "SLO GRO" program described in Scientific American. Version 1.0, includes source.

FracGen A fractal generator program that generates fractal pictures from "seeds" that you create. This is unlike any of the other "fractal generators" I've seen. It can be used to load and display previously created fractal pictures, modify existing fractals, or create your own fractals. Version 1.23, binary only, update to version on disk 142.

MemoryClock A clock program that shows the amount of free fast ram, free chip ram, as well as the time and date. Includes source in assembly code.

MinRexx A simple ARexx interface which can be easily patched into almost any program. Includes as an example the freedraw program from disk number 1. Includes source.

Null A new dos device that behaves like "NIL:" but unlike "NIL:", it is a real handler. This makes it useful in lots of situations where "NIL:" cannot be used. Version 0.0, includes source.

TextDisplay A text display program, like "more" or "less", but about half the size and handles all screen formats (pal/ntsc, interlace/non-interlace, etc). Version 1.1, binary only.

Fish Disk #189

Mackie A versatile cli/macro-key initiator based on POPCLI with a unique method of "screen-blanking". I won't say more, just try it! Version 1.20, includes source. This is an update to version 1.13 from disk 187.

NetHack This is part 1 of a two part distribution of NetHack, which was too large to fit on a single disk, even when zoo'd. Part 2 is on disk 190. Both parts, along with zoo to unpack them, are required to use or rebuild NetHack. This is version 2.3, and includes source.

Uedit Version 2.4g of this nice shareware editor. Has learn mode, a command language, menu customization, and other user configurability and customizability features. Binary only, shareware, replaces beta 2.4g version on disk 173.

Fish Disk #190

GaryIcons A collection of more interesting and useful icons.

ILBM2Image Takes an IFF picture and generates a C source module which can be compiled and linked with your program to display the picture with the intuition DrawImage function. Binary only.

NetHack This is part 2 of a two part distribution of NetHack, which was too large to fit on a single disk, even when zoo'd. Part 1 is on disk 189. Both parts, along with zoo to unpack them, are required to use or rebuild NetHack. This is version 2.3, and includes source.

Fish Disk #191

BlitLab Blitlab is a program which lets you experiment with the blitter, to your hearts content, in relative safety. It opens a workbench window with gadgets for all the registers of the blitter, and allows you to manipulate individual registers and perform blits on a magnified bitmap. This is version 1.4, an update to the version released on disk number 84. Includes source.

Blk A requester making tool employing various recursive algorithms including a recursive parser. It takes input text files and converts them to C-source for including as requester declarations. This is an update to the release on disk 152, with many enhancements. Includes source.

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Lattice Compiler Companion	Lattice	\$150
Lattice C Compiler Update	Lattice	\$150

Note: Version 5 includes the full development system, compiler companion and symbolic debugger.

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FileBootBlock This simple little program reads blocks 0 and 1 of a bootable disk and saves them as a program file that can be run (heaven forbid) or disassembled by programs like DIS or DSM. Includes source in assembly code.

ISpell A port of a Unix version of a freely distributable screen oriented, interactive, spelling checker. This is an update to the version released on disk 54, with enhancements by Tomas Rokicki. Version 2.0.02, includes source.

Pz15 Computer version of those cheap plastic puzzles with 15 white tiles numbered 1 through 15 and an empty square in a 4 by 4 arrangement. This one is more challenging since you can't solve it by just prying out the pieces. Includes source.

Fish Disk #192

Eval This package allows you to manipulate expressions. Currently its two main functions are evaluation and differentiation. It also does some basic simplifications (based on pattern matching) to make the result of a differentiation more presentable. Includes source.

PacMan87 This is a nice little "pacman like" game with some new features like fire pits, stabbing knives, electric arcs and flame throwers, that must be avoided. Has three levels of difficulty, easy, medium, and hard. Sounds can be toggled on or off. Keeps a record of the top ten scores. Shareware, binary only.

ReSourceDemo A demo version of ReSource, an interactive disassembler for the Amiga. This is a complete version except that the "save" features have been disabled. Version 0.36, binary only.

Fish Disk #193

KeyMapEd Allows you to change the KeyMaps used with SetMap. This is a full featured editor providing support for normal, string and dead keys. The keyboard represented is from an A2000/A500 but it is fully compatible with A1000 keyboards. Version 1.02, includes source.

Zc This is a modified version of the Sozobon C compiler from disk 171. It has been modified to generate code compatible with the A68k assembler from disk 186 and a new frontend control program makes it easy to use like the UNIX "cc" frontend. Version 1.01, includes source.

Fish Disk #194

Moria A single player dungeon simulation. The object of the game is to defeat the Balrog, which lurks in the deepest levels of the dungeon. You begin at the town level above the dungeon, where you may acquire supplies, weapons, armor, and magical devices by bartering with various shop owners, before descending into the dungeon to do battle. Amiga enhancements include pull down menus, graphics mode, pickup mode, a continuous move mode, a real time mode, a message wait time mode, as well as other modifications to improve overall playability and to take advantage of the unique features of the Amiga. Version 3.0, binary only, requires at least 1Mb of memory.

Fish Disk #195

MicroEMACS Version 3.10 of Daniel Lawrence's variant of Dave Conroy's microemacs. This is an update to the version released on disk 119. New features include multiple marks, more function key support, a better crypt algorithm, and end-of-word command, a command line switch for setting environment variables, new hooks for macros, a command to strip trailing whitespace, internationalization features like foreign language message support, horizontal window scrolling, much faster search algorithm, Amiga intuition support, and more. Includes source and extensive online

documentation.

Fish Disk #196

HamPics These are some of the most stunning digitized pictures yet for the Amiga. They were scanned at a resolution of 4096 by 2800 pixels, 36-bits per pixel, on an Eikonix 1435 slide scanner, cropped, gamma corrected, scaled, and converted to Amiga IFF HAM files. They are displayed with a special ILBM loader that handles overscan HAM images. Includes source for the display program.

Fish Disk #197

CTags Create a tags file from the specified C, Pascal, Fortran, YACC, lex, or lisp sources. A tags file can be used by a cooperating editor to quickly locate specified objects in a program's source code. Berkeley version 4.7, includes source.

Find

Find is a utility which searches for files that satisfy a given boolean expression of attributes, starting from a root pathname and searching recursively down through the hierarchy of the file system. Very much like the Unix find program. Version 1.2, includes source. This is an update to version 1.0 on disk 134.

FixHunk

A program to modify executable files to allow them to run in external memory. It forces all DATA and BSS hunks in the file to be loaded into CHIP memory. CODE hunks will still load into FAST ram if available. New features include an interactive mode to select where each DATA or BSS hunk will load into memory, support for overlays, support for AC BASIC compiled programs, and support for new hunk types as used by "blink". Version 2.1, binary only. This is an update to version 1.2a on disk 36.

Nro

Another roff style text formatter. This is version 1.5, an update to the version released on disk 79. New features include generation of ANSI/ISO codes for bold, italics, and underline, more than one formatting command on a line, longer macro names, and many more formatting commands. Includes source.

Stevie

A public domain clone of the UNIX 'vi' editor. Supports window-sizing, arrow keys, and the help key. Version 3.35a, includes source. This is an update to version 3.10a on disk 166.

Fish Disk #198

Charon

Charon is Bradley's entry for the First Annual Badge Killer Demo Contest. The text of the demo was written by Lord Dunsany (long before the Amiga). Bradley created the illustrations and animation. The sound track is a traditional Scottish tune "The Arran Boat".

Fish Disk #199

ASimplex

An implementation of the Simplex algorithm for solving linear programs. It uses the standardized MPSX-format for input data files. Version 1.2, includes source.

Csh

Version 3.02a of a csh like shell derived from Matt Dillon's shell, version 2.07. Includes many new or improved commands, some bug fixes, etc. Includes source.

MIDIsoft

A program to transfer sound samples between the Amiga and a Roland S-220. Version 1.0, binary only.

Pyro

A screen blanking program that goes beyond the normal blanking process. When there are no input events, pyro takes over and starts a little fireworks display in color. Version 1.1, binary only.

SnipDemo Demo version 1.23 of signal processing program sold by Digital Dynamics. Binary only.

Viewer A very small program for displaying IFF pictures of any resolution. This one is written in assembly code and is only 988 bytes long. Binary only.

Fish Disk #200

NotBoingAgain This is Dr. Gandalf's entry for the First Annual Badge Killer Demo Contest. It is an interlaced HAM animation with nicely integrated sound effects. It is a great visual pun on the original Boing demo, but to say anymore would ruin the effect. Binary only, requires 1 Mb of memory.

Tank This is Vincent's entry for the First Annual Badge Killer Demo Contest. It is an animation of a "fishtank simulator", with sound effects and a cute twist. Binary only.

Review of Rocket Ranger

by Philip Hingston

I don't buy many games these days as it's hard to explain to my other half why we can afford \$50-100 on such luxuries. So when I do buy something I am very keen to get my money's worth. On this score, Rocket Ranger is a winner. The story: The Nazi's have won WW II and the world has been plunged into a dark reign of terror. Scientists from the future have selected YOU to be --- Rocket Ranger! They send you a rocket pack, radium pistol, wrist computer, instruction book and secret code wheel. Your job is to change the course of history by bringing about the defeat of the Nazis.

There is a strategy side to the game and an action side. In the strategy part, you control five agents who can be dispatched all over the globe. They ferret out intelligence on Nazi activities, helping you to locate bases, and can be used to organise popular resistance. In the action part, you use your rocket pack to travel from place to place and engage in mid-air attacks on Zeppelins and dogfights with squadrons of Messerschmidt's. By hitting strategic targets, you can slow the progress of the Nazi's, and obtain rocket parts and fuel. The fuel is needed to keep you flying and to fuel the rocket that you build with the parts (if you get that far). Having built a rocket and collected enough fuel, while at the same time keeping the Nazis at bay and flying heroic rescue missions, I suppose the action shifts to the moon. What happens then you will have to find out for yourselves as I haven't made it yet!

This then is the concept. The execution of the concept is a delight. The graphics and sound are excellent, each action sequence is beautifully done and the overall gameplay holds together well. I am particularly fond of the dogfight sequence (but not very successful at it). The sound and graphics

combine to give what I imagine is a very realistic feeling of flying with a rocket pack and toting a radium pistol. On the negative side, waiting for screens of explanatory text is wearing once you've seen them a couple of times. Also, using the secret code wheel becomes a chore (but this is preferable to copy protection).

The game comes on two disks for \$60-\$70. It is not copy protected --- but you need the secret code wheel to fly the rocket pack. It uses a custom loader so cannot be installed on a hard disk. Overall, this game is destined to join MindWalker and Marblemadness in my collection of Amiga classics. It's one I'll pull out as a showpiece when I want to impress my friends, and it's also great fun to play. Give it 9.99 out of 10.

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For sale - Wedge Hard-disk interface for Amiga 1000, complete with disks, packaging etc. \$180. Call Lester - 233 5664 AH.

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G Nwaug Members to be members of AUG N
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A PD, Library and Equipment costs. A
W Meeting entrance fee of \$1 (\$2 visitors) U
N covers room hire/coffee/biscuits. G
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Games '89 is a convention of hobbies and games being held from the 29th June (Thursday) till the 2nd of July (Sunday). At the convention there will be hobbies from stamp collecting to racing model motorcars, there will be role playing games to participate in, a Celebrity or three to see, pinball machines, chess, toy soldiers, kite flying, skateboarding, etcetera. In fact from the description the organisers gave us if anything tickled your fancy, it would be there!

The organisers have also kindly given us passes to the show to distribute to our members. If you would like a ticket then we will hand them out at the June meeting. For those who cannot attend the meeting there will be a limited number of tickets available by mail. Write to AUG, P/O Box 48, Boronia 3155, and enclose a stamped self-addressed envelope.

The Amiga Users Group will also have a booth at the show and to that end we are calling on volunteers to man the booth. If you would like to go to the show and have an hour or two or more to spare please help. You will, of course, receive free entry to the show plus refreshments and the thrill of boasting about the Amiga to the unprivileged who do not own one! We plan to run demos of music and graphics, games - one game we'd like to have running is a four player game of Gauntlet II - so if you can help us in any way ring me on 729 2327 or John Elston on 375 4142. Donna Heenan, Treasurer AUG.



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Co-ordinators Comment

This month I begin by formally announcing that the Amiga Users Group will be holding its annual general meeting (AGM) at 2 p.m. on August the 20th. 1989 at Victoria College, Burwood campus. The purpose of the AGM is to conduct annual elections and present a report to members on the group's activities. ALL members are invited to participate in the elections and stand for committee positions, more details on the requirements of the committee positions and the procedure for nomination will be provided in next months newsletter. It is also proposed that a number of changes be made to the existing rules of the association which govern the operation of AUG.

A number of people have approached me recently with interest in being involved and helping to run the group but at the same time being concerned that they may not be "up to the task". Please let me assure you that the requirements of committee members are not beyond the abilities of the average group member - the prime requirement is enthusiasm for the Amiga - something I believe we all share and a desire to maintain a strong and supportive user group. Anyone elected to a position on the committee is given the full support of existing members in establishing themselves as important contributors to the groups operation.

The May meeting included a Video produced by Commodore in an effort to promote the "Amiga in Education". The reaction from people present indicated that in some regards it was a "bit over the top", it is however very pleasing to see Commodore promoting the Amiga into an environment where it is ideally suited. So many people find it much easier to use a point-and-click type of approach than trying to learn a heap of seemingly inconsistent commands. There were also a number of animations from the recent Fish disks (195-200) on display which I understand were entries in what seems to have become the annual "Badge-killer" demo competition. The Workbench special edition on Amiga viruses was on sale and proved very popular, it is available at a cover price of \$3 through some dealer outlets or at AUG meetings for a member discount price of \$2.

We have been contacted by a company representing the SPIRIT range of products and an advertisement should appear elsewhere in this newsletter. Hopefully they will have brochures and sample products on display at the June meeting. They have also indicated that if we are prepared to

GRAPHICS - PALETTE

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NINE AMIGA GRAPHIC SOFTWARE PACKAGES REVIEWED:-

- MOVIESETTER: By Gold Disk Inc - Animation with sound.
- DIAMOND PAINT: By Impulse Inc - 12-bitplane HAM program.
- ZOETROPE: By Antic Software - Polygon animation/FX.
- CALIGARI: By Octree S/ware - It has arrived at last.
- PRO DRAW: By Gold Disk Inc - Power-packed draw system
- PHOTON PAINT-2: By Microillusions - The best is now better.
- 3D OPTIONS: By Rainbows Edge - Make 3D from 2D IFF pics
- DPAINT-II BOOK: By Verlag - Bigger new edition.
- VIDEO GENERIC: By Kimatek - Text scrolling package.

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arrange group purchases they are prepared to further discount their prices - contact our purchasing officer for further details or to register your interest.

The Hardware SIG are currently organizing a do-it-yourself or with-a-friend memory expansion board for Amiga 1000s. The kit details are yet to be finalised but takes the form of a blank PCB which can be loaded with either 512K or 1Meg bytes and also has provision for a battery-backed clock. It plugs on to the expansion port of the Amiga 1000 and uses standard 256K (150 nSec) memory chips. The memory controller and address decoder PAL are readily available and could be supplied as part of the basic kit if required. The price is yet to be determined but I built one of these units for approx. \$200 plus memory chips and it has performed quite reliably for over 18 months now. One of these days I might even put a case around it.

The Amiga Art special interest group has been formed. Norm Christian is currently the co-ordinator (by default) but the group will be more formally structured in the future as other members begin to support and help this group grow to become an important part of AUG as it should be. Art and graphics are areas in which the Amiga shines, but to date have been neglected by the group since both graphics groups dispersed. By the time you read this the Chelsea Art Show will have passed, hopefully with much interest shown in computer art and the Amiga displayed at the show by AUG members and in particular the new Art SIG. With enthusiasm from people such as Norm C. many other special interest groups can develop and expand our activities beyond that of a traditional computer club.

Another area of AUG involvement coming up is GAMES 89 which is to take place at the Melbourne Showgrounds from June 29th. to July 2nd. Our group's involvement is to be co-ordinated by Donna Heenan and further details should appear in this newsletter. There will be a number of complimentary tickets to be handed out at the June AUG meeting.

The long awaited Eastern Suburbs SIG has now been established. Look for more details in future newsletters, hopefully with a report on their meetings - rumoured to be held every second Friday night.

The Help-Network is still attracting new

volunteers but more are welcome - especially if you can see an area you think is currently neglected. Please note that from time to time phone numbers change. Some names may be added and others removed so check with a recent newsletter for the most up to date contacts.

Lester McClure May 1989

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SCRAMBLES

(aSortments of Con's RAMBLES)

So, what's new?

I'm sure that you've seen by now the diagrams and details of the new A500... (see earlier this issue)

There is a new Kernel Rom Manual for the Amiga.

An interesting program called printscript has come out for emulating postscript on a dot matrix printer.

Phoenix electronics is producing an expansion chassis for A1000's and A500's which will accept all the usual A2000 cards. How much you ask? Well the price I saw was \$256 US including a replacement power supply much like that excellent one available in the 2000B's, and \$70 US less without the power supply. Oh and a new version supporting co-processor slots will be released soon.

Just out of interest - NASA's new computer. They have upgraded from the "outdated" CRAY-2 to the CRAY-YMP. This new version uses 8 processors in parallel to get around the speed limits associated with electrons approaching the speed of light. It comes with 32 meg on board and can execute 2.37 billion instructions per second. Not bad.

For the graphic buffs - Turbo Silver v3.0 and Sculpt 4d are hitting the market. Also, soon to be released - three Amiga framebuffer!

A new hard-drive for those who have cluttered up their bus with non-pass-thru memory. It's called the Tiny Tiger, and is a SCSI drive that has a pass-thru on your parallel-port. Price - \$2000 for 80 megs, with 20 and 40 meg versions also.

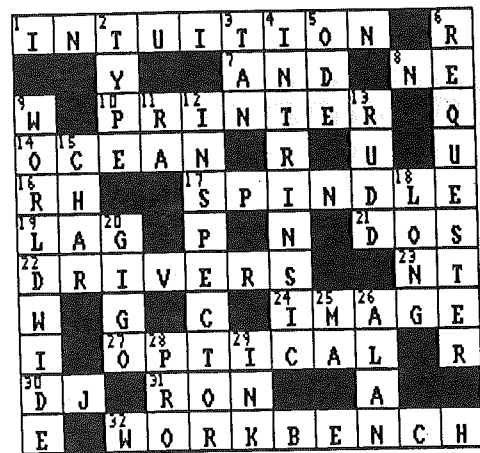
There was a review of the accelerator board recently with the MC68000 running at 16 megs. The fact is that the internal chips can only handle up to 14 megs (I'm talking speed here, not

memory). Even so, the board only achieves 25-50% increases in speed depending on the task. Also compatible with a slot on the board is the 68881, which is claimed to increase speed 10 times with math intensive functions (if they use the co-processor of course)

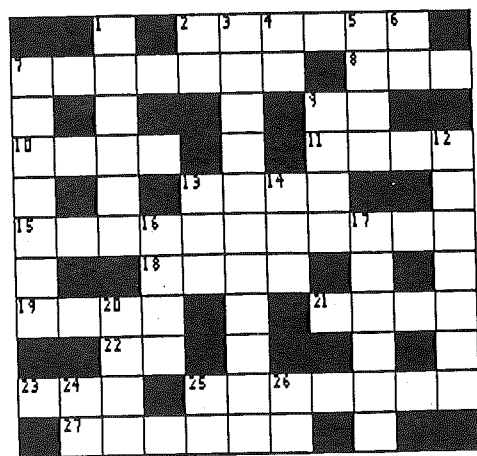
With regards to the article I put in last month about fine printing with Epson X printers. There have been many recent programs that are now supporting vertical density - PageStream is one of them. I apologise if the article seemed out of date - I had found that one waiting to be printed in a directory I had forgotten somewhere.

That'll do for this month.
Con Man 1.4

JUNE AMIGAWORD
by Alan Garner



Above are the solutions to May's AmigaWord



This month's AmigaWord

ACROSS

- 2 Shape the 3-D program
- 7 Education provided by the system interface
- 8 Why four romans swapped the climber
- 9 Register A7
- 10 I dearly need to find this notion
- 11 We hear that they tantalize the golfers
- 13 To the north-east we hear the sound
- 15 Enter tropic confusion when flying FA-18s
- 18 To see the scenery
- 19 Masculine
- 21 Sound interface in Sydney hotels ?
- 22 A moose is preceded by a, whereas an elephant is preceded by _
- 23 5-pin plug capable of a cacophony
- 25 Collect source code into object code
- 27 (and 20 down) Just the place to reminisce about the early days of data transfer and bus architecture

DOWN

- 1 (and 12 down) Submarine simulation
- 2 Elemental abbreviation for Californian electronics valley
- 3 Firm worker assists the CPU
- 4 United Nations
- 5 1.3 handler for dreams ?
- 6 Television
- 7 You trim it for very heavy hydrogen
- 9 Early Commodore computers were flipped by the pace
- 12 see 1 down
- 13 Three
- 14 Novel
- 16 Parity option
- 17 Extraterrestrial plant that had its day
- 20 see 27 across
- 24 I am being abbreviated
- 25 Small company
- 26 Adjective indicating possession by me

Sculpt Animate 4D

A Review by Peter Ward.

Having been a user of Sculpt/Animate 3D for some time, I had to ask what major improvements have been added to this latest 3 Dimensional Animation Package from Byte by Byte, that could justify the hefty increase in price to \$US500 (an upgrade for existing foreign users will cost \$US250). I am pleased to say, however, the performance of this latest incarnation is well worth every cent.

The package comes with a superb manual, in a three ring binder with some 14 chapters, reference section and index, each with divider cards. A general software overview is first given, then each of the tools for producing objects and animations are looked at in turn.

The program itself is "installed" onto the disk and on the first few startups, the user is presented with "a word from the manual" form of copy protection. Though I first saw this as a step in the wrong direction, with further use of the program I found the requestor for a word from the manual failed to

appear, becoming effectively a random check only on subsequent re-boots. There are two program disks, the second supporting 68020/30 and 68881/82 machines plus one data disk are supplied. The program automatically senses NTSC or PAL Amiga systems which is well received by us "foreign" users, and it's a pity such support is not mandatory and hence often neglected by other software companies.

The format of the package remains relatively unchanged, with the standard tri-view being the working environment. Tool selection is mainly through menus, however many keyboard equivalents have been added to speed up the creative process. In particular, three dimensional fonts can now be added to the tri-view by typing the character directly from the keyboard, a feature which will no doubt impress video titling users of the system. This does, however, require the additional purchase of a 3D font library disk. The overall speed of the tri-view refresh has increased considerably. This is enhanced by the ability to now "hide" objects within the tri-view, so that completed objects need not be re-displayed, and hence slow down the scene refresh for work on new objects. Requestors have also been improved so that files can be accessed with little or no typing, simply identify the file or volume with the mouse pointer and click. Precise modeling work is further enhanced by the addition of a co-ordinate window which includes a tape measure and protractor, user scalable grid, and "snap to grid" function. The user can also directly enter the numerical co-ordinates of a point within the tri-view, with the cursor jumping to the location specified. If that is not enough, then a revised and vast array of Script commands can be utilized to automate the entire object building/rendering and animation process.

Several new rendering modes are now available and all rendering speeds are now faster by a factor of about four (to eight quoting Byte by Byte). I tend to believe this, as a scene I had rendered using Sculpt 4D in some 50 minutes was still being computed using Sculpt 3D after well over two hours, so I frankly gave up and re-booted my system. The new rendering modes are Sketch, Scanline Painting and Scanline Snapshot. Sketch is similar to the old painting mode, with foreground/background faces sometimes being incorrect, Scanline Painting mode I can only describe as being similar to Videoscape 3D/Version 2.0 HAM mode, and Scanline Snapshot being similar to the old Snapshot mode,

without mirror or metal surface reflections (however hi-lights from light sources are rendered). Full PAL video overscan screen sizes are supported with a maximum screen size of 352 x 290 (non interlaced) in Video mode. Sculpt 4D also gives the user information how the rendering process is progressing with the addition of status windows which constantly update and display the phase of rendering in progress and percentage of rendering completed. A memmory monitor is also included giving the status of chip and expansion memmory in use. The image rendering process may now also be aborted by simply interrupting with a Control-C.

Object texture has greater control with the addition of glass and metal surfaces, though a step in the right direction, I felt Byte by Byte could have gone one further and included user variable surface texture and glass refraction routines similar to that found in Turbo Silver. Object creation tools have an additional item called Helix, which allow the user to easily build objects with a spiral symmetry such as suspension springs etc. Once objects have been created and placed in a scene, the fourth dimension, time, and hence animation comes into play. Here Sculpt 4D leaves the competition behind. As with Animate 3D, both Key-Frame and Global animation is supported. Paths of any object, lamp or observer in the tri-view can be plotted over time, scenes rendered then animated all with an intuitive feel for the process. Yet another "power" tool found in Sculpt 4D is the addition of up to 26 user definable "hot-keys". The last menu item selected can be assigned to any letter of the alphabet, and by by pressing ALT and the relevant key, any menu sequence can be repeated to help speed up the creative process. Once the animation is complete, variable playback speed is now available with numeric keypad entries.

Overall Sculpt 4D is an extremely comprehensive and powerful package with many welcome refinement not found in Sculpt/Animate 3D. Product support is also excellent, as I found no problems with obtaining the upgrade from Australia, and found the Staff at Byte by Byte to be very efficient and courteous. Though an expensive purchase for new users, the upgrade price is very reasonable considering the professional nature of the product. It comes well recommended.

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 A.H.). The names are not listed in any order of priority and the format may change in future listings. Please keep contacts 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 (beginner level), 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 9:30pm	- 756 6640
Darren King	-	Amiga viruses, Modems/communications	- 546 5040
George Wahr	-	Side-Car	- 376 6180
James Gardiner	-	AmigaDOS, Auto-boot hard drives	- 523 6843
Stephen Bell	-	Amiga hardware (68000) interfacing	- 25 8415
Joe Santamaria	-	Graphic arts - DPaint, Sculpt-3d etc.	- 836 9129

Editor's Column

(Written June 1, 1989)

I'm sure by now you are all saying - this is a different Workbench. It has more ads - especially full page ones - than ever. Well what can I say? It just goes to show how popular our newsletter is (I hope this comment doesn't affect the number of ads we get next month!).

Another point to note is the Augad. Only one ad this month, as - I assume - all of the previous month's sold well. Just goes to show when you are advertising to the proper audience, you'll get the best response.

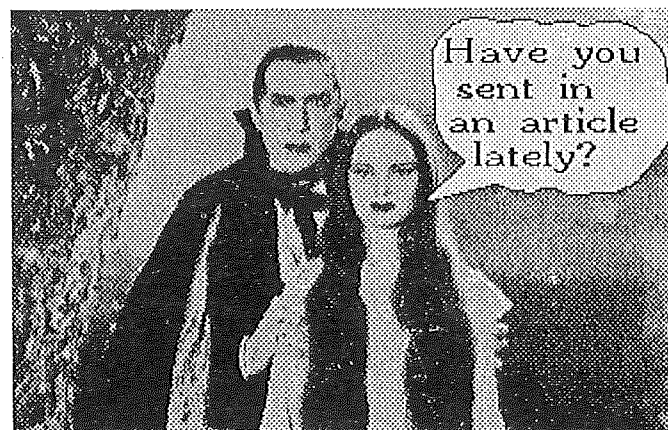
I was disappointed last month to learn that the much-appreciated Help Network we have to offer was abused again and we've had withdrawals because of it. Please understand that all these people *are* volunteers, and so their services should not be taken for granted.

I have had one member call me all the way from Nhill regarding whether anyone has successfully used a data base or any other sort of program for scout files (the member is a scout leader).

If you do, please either call me and discuss your setup with me, or write an article for the newsletter - all responses will be appreciated.

To finish of this month I'd like to throw in a nice little piece of art/digi work by a friend - Dan Davies, who has a few of these prepared which you might see in the near future...

See you at the next meeting.



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 @ \$8 each											\$
Disks supplied by member @ \$2 each											\$
Club Use Only:								Total			\$
Member's Name:						Membership #:					
Address:											
Postcode:											

Newsletter Back Issue Order Form

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

Issue Numbers:											
Be patient, we may have to reprint some issues to fill your request											
Number of issues ordered @ \$2 each											\$
Club Use Only:								Total			\$
Member's Name:						Membership #:					
Address:											
Postcode:											

Application for Membership of The Amiga Users Group Inc

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

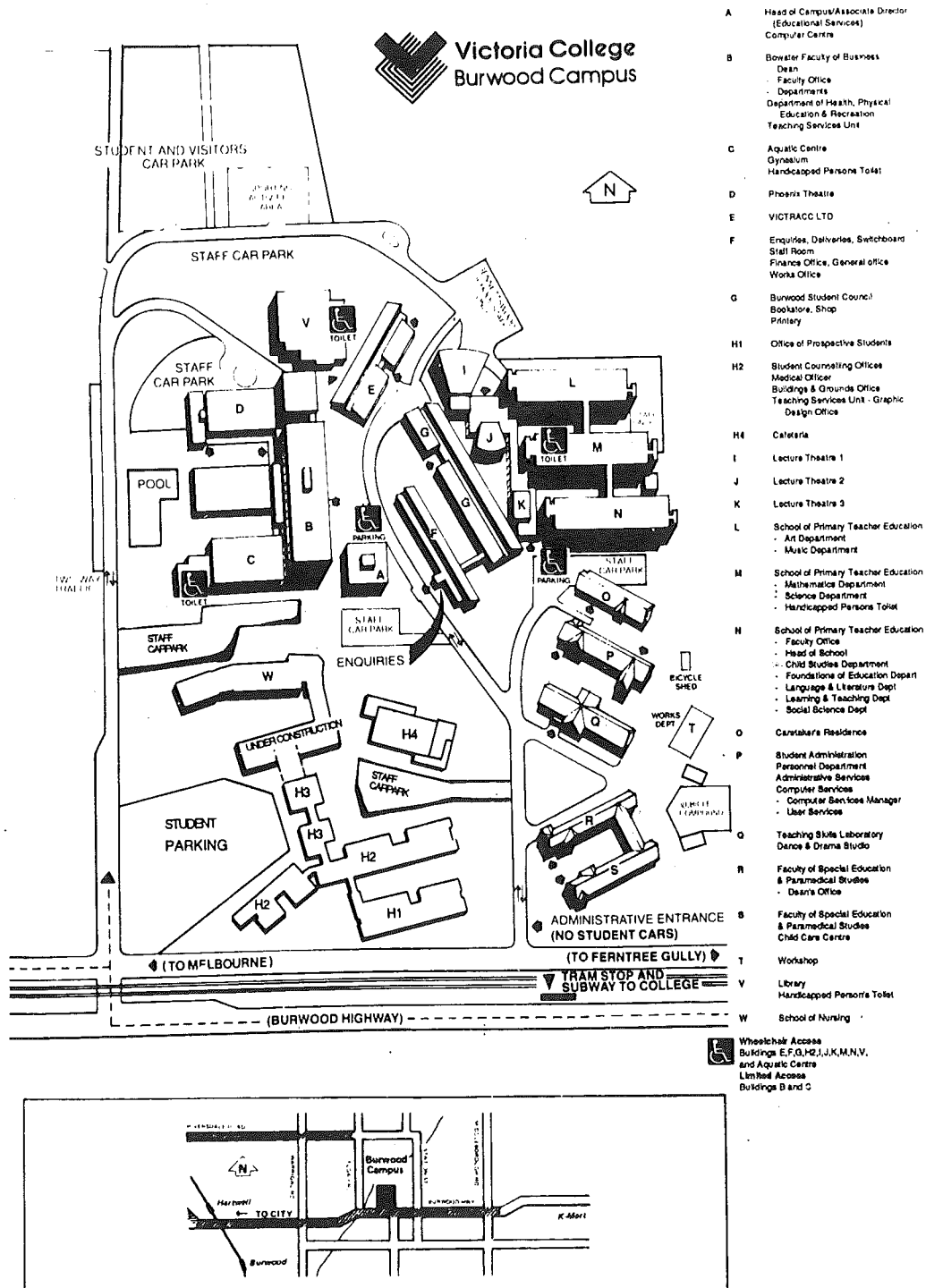
Surname: _____	Details on this side are optional
First Name: _____	Year of birth: _____ Which model Amiga: _____
Address: _____	Occupation: _____
Postcode: _____	Interests: _____
Phone Number: _____ STD Code: _____	
Where did you hear about AUG: _____	
	Dealer's Name: _____
	Dealer's Address: _____
Signed: _____	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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June 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 & 2.

If you have a Melways try Man 61 reference B5.