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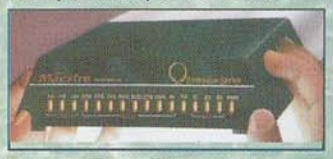

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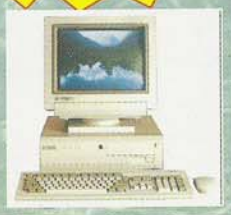

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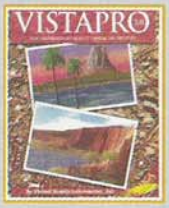

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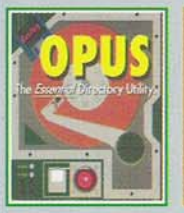

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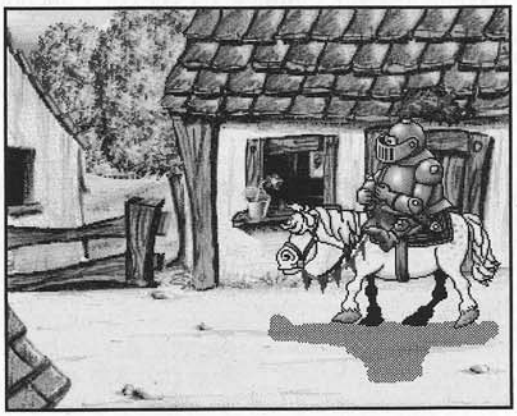

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Win a copy of Second Samurai

Amiga Technology likely to find new home

Commodore International are in trouble. Serious trouble. This does not, however, mean Amiga technology shares the same destiny. The technology is in demand, new models are almost ready for market, and third party products continue to surface which open new opportunities for the Amiga.

The difficulties at Commodore International are no secret. The trouble came to a head around July last year, and it seems things have only worsened in the interim. Officials have warned that, without additional financial help, Commodore could be thrown into a reorganisation or even liquidation proceedings.

Commodore International has already trimmed US and European operations considerably, putting distributors in place instead of maintaining their own offices. However, Commodore International has suffered two more quarters of losses. On March 25th, it reported an $8.2 million loss, for its second fiscal quarter, ending December 31st. Sales were down to $70.1 million. A year earlier, Commodore lost $77.2 million, on sales of $237.7 million.

Commodore have blamed various things, however many observers have noted that much of the problem seems to be management related. In 1990, when the Amiga 3000 arrived, the company was intent on pursuing the already crowded PC market. This distraction left the Amiga range poorly marketed the world over - despite the fact the machine boasted a dramatically better architecture and operating system than other PCs of the day.

Commodore's President, Irving Gould, recently loaned $7.5 million to Commodore and advanced another $9.9 million to buy components used in producing Commodore products. Despite this, supply of finished products has been hurt by the company's financial position.

Information released by Commodore indicated a dramatic drop in sales, both in terms of units shipped and revenue. However, the UK market remains strong. CD32 is doing well there. But is that enough?

Mike Levin is the man behind the Commodore Shareholders Movement - a group of Amiga devotees keen to see the Amiga survive. He recently met with the major creditors of Commodore International to discuss two key issues.

The first was that Commodore is a good investment.

The second key issue was simple. The current management has got to go. The suggestion that the major creditors could turn Commodore around was well received. The largest creditor, presumably a financial institution, has the resources to make it happen.

The Commodore Shareholders Movement has already sourced the people needed to help create a new management team, receptive to the Amiga community. They have also located a person who is qualified and motivated to jump in and take on the mammoth task of getting Commodore moving again.

Is this scenario likely? The creditors face two simple options - liquidate Commodore or restructure. They may have the clout to control management, and make Commodore a going concern.

According to Mike Levin, the ideas presented are being seriously considered. Clearly, rather than lose money currently tied up with Commodore, creditors will likely see restructuring as a positive move. We will keep you posted as soon as the situation becomes is clarified. Right now it looks like the technology will survive.

ANDREW FARRELL

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Sex & Woolies

Craig Siegert of Murray Bridge SA has taken this long to work up the courage to admit that he saw an Amiga on the *Good Sex Guide* on Channel 9 last year. During a section on virtual sex, they had an Amiga 500 (NOT capable of virtual anything, let alone copulation!) in the background, showing a picture.

Craig also knows someone who did work experience with Phoenix Computers in Adelaide (makers of the famous Phoenix Board and various later hardware), who told him that Woolworths in SA use Amigas in their headquarters.

And in the Investigator Science and Technology Centre in Adelaide there are prominently Commodore-sponsored information terminals, controlled with a trackball. The Sydney Powerhouse and Australian Museums both use Amiga terminals as well, but they're not advertised as such.

PC User Group

Charles Syms of Flynn, ACT, discovered an A2000 doing the accounting at his auto electrician's; they said they bought it because they wanted to spend time fixing cars, not fighting unfriendly computers.

He also noticed that the Canberra PC Users Group's December 1993 newsletter has three articles about Amigas - and this from a group dedicated to IBM compatibles! The articles mentioned the Amiga based Virtuality machines, the ease of installing a CD-ROM drive in an Amiga (versus the profound annoyance of putting it into a PC) and an Amiga-plugging review of the game *Frontier* by David Andrew Clayton (hi DAC!).

Brisbane Council

Robin Jeffery of Nathan, Qld, spotted the A1200 in the Canon Bubblejet ad - and rightly guessed that someone would have done it first. But he also saw two humble A500s being used at the Brisbane City Council, driving TV monitors to display a slideshow of digitised photos of the Council's Botanic Gardens, parks and so forth, and information to occupy people waiting to pay rates - interspersed with announcements when cashiers became free.

Gameshow Sighting

We didn't have room last month to print the sightings of a CD32 and eight games on *The Price Is Right* on Channel 9 in February. Larry Emdur's shoulder-rub with Commodore's baby was noticed by Richard Bow of Padstow Heights NSW, Mark Wakefield of Walpeup Vic, Robert Pogainis of Beecroft NSW, and 12 year old Ben Cheney, who was somewhat irritated when a contestant got the price completely wrong.

Robert Pogainis also noticed that Canberra's Eagle Hawke Hill Resort Motel uses an Amiga to control its movie channel; when he turned the TV to channel 0 early in the morning he saw an Amiga shell with the line "Elston Systems Video Controller" and then a prompt for the time.

Just to round things off, Robert also sent us a newspaper clipping of South Sydney Rabbitohs second-rower Dennis Beecraft sporting the Commodore-sponsored uniform.

Since Robert's sent us a sighting or two before, we reckon he gets a free sub this time. Nice grovel, Robert! ❑

Commodore Auction Report

Commodore Australia went broke. Commodore Australia had a lot of stock. Ergo, there was a auction, on the 25th and 26th of March, 1994. The instructions for the auctioneers at a liquidation auction are simple - turn everything into cash. There's no reserve (minimum) price, everything just has to be out of the door with some sort of money received in return.

Everything went. Computers, furniture, display stands, the hand dryers from the washrooms, coffee-making equipment and a ping-pong table (though not the snooker table - damn!).

I attended both days of the auction, and bought nothing at all. The reasons for this were twofold. One, the auction was liberally populated with maniacs with more money than sense (the auctioneer's dream!). And two, like all auctions, caveat emptor rules, and many people left with highly dubious bargains indeed - if a machine didn't work as it was supposed to and it wasn't brand new, tough.

Some examples of the first class - the nutters. Take, for example, the price paid for a couple of 1.2 gigabyte external SCSI drives, a few years old and very, VERY well used - $1250. This is only a whisker under the price for a brand new, faster model with a warranty.

Other flavours of nuts made themselves unpopular with some no-holds-barred inspection procedures - like the bloke who undid all the screws on the back of the A4000s except the one with the warranty sticker, peeled the case back with a sickening creak and apparently half-inched anything removable - or perhaps that was somebody else, later. Certainly, various people nicked off with small, free components - a pocket full of memory chips doesn't spoil the cut of your suit.

There were plenty of lots guaranteed to get the cap-propellor rotating for any Amiga fanatic. Various keyboards, hard drives, half-dead computers and the like. Lucky dips - boxes with crud on the top and whole computers lurking beneath the 5.25 inch disk

boxes and dead power supplies. A crate of approximately a zillion hard drive mounts for A1200s. CDTVs, that went for $150 each. CD32s (they bottomed out at $145 each for a lot of 48!) and matching MPEG video modules, which went for about retail price thanks to the coterie of Amiga fanatics.

A lot listed as a pallet of 1900 cables was accurately described - 1900 nine pin D connectors with pins 1 and 7 wired to a RCA plug at the other end of three feet of wire. They all went for about $20, and good luck to the buyer.

More useful was a crate of 15 Amiga UNIXes, the same package that came with the redoubtable Amiga 3000UX. Just such a machine, with 10Mb RAM, a network card and 210Mb hard drive went for a $1400 - without monitor.

There were quite a few new A1200s, knocked down for about threequarters of retail after tax, which is not an astoundingly good deal but was not at all bad when coupled with one of the warranties that Compuaid, the company that's handling warranties for Commodore Asia-Pacific, were selling for all new stock.

Some descriptions proved inaccurate - machines with different hard drive sizes to the one advertised, for example. This sort of thing's inevitable if you don't fire up and test every single machine for sale, and with hundreds going at low prices there was no way for the auctioneers to do it. Buyers who noticed in time got their money back.

Foolish buyers also frequently found they'd got themselves in deeper than they expected - there was a 5% premium on everything, and all the new stuff also carried 21% sales tax, which gave a few people a nasty surprise despite being clearly explained.

Overall, the auction was a deeply weird experience. The cavernous halls of the Commodore warehouse bing stripped and sold off, right down to the big styrofoam Amiga signs and the framed printouts from the offices upstairs. I felt as if I was going through a corpse's pockets.

X-Calibur Screams

Amiga 4000/040 owners have a very fast machine - but it's not as fast as it could be, thanks to the inefficient memory subsystem. A4000/030 owners lust after 040 speed, but not Commodore 040 speed. The solution for both is the RCS X-Calibur board, a 68040 accelerator running at 25 or 33MHz which mounts in a piggyback configuration, not taking up the CPU slot and risking incompatibility. The 25MHz version offers a overall speed increase of 80% over standard 040, thanks to an onboard 128k cache. You can also install up to 128Mb of RAM in standard 72 pin SIMMs.

The manufacturers promise a 68060 version, and 512Mb RAM capacity, when the components become available.The 25MHz X-Calibur with no RAM (except the cache, of course) is available from CPA for $2499. Contact them on (02) 337 6255.

Amiga section on radio show

The PC-MAC FM Review Show on 3RPP (Radio Port Phillip), 98.7FM on the Mornington Peninsula, has entered its sixth month of broadcasting. As well as the usual PC and Mac news, there's an Amiga segment hosted by Chris Van Ameyden. The show caters to "normal" computer users, inasmuch as the species exists, with content not unlike that of the average computer magazine and reviewers who use the products - not sell them.

If you're in the Mornington Peninsula, metropolitan Melbourne, Geelong-Lorne or even Warrigal areas, try tuning in on Monday evenings, 6 to 7pm.

For more information contact 3RPP on (059) 788 200.

Final Writer 2

Release 2 of Softwood's popular word processor *Final Writer* brings several new features. There's finally (no pun intended) an Undo/Redo function, and the program also now handles bold, italic and underlining of outline fonts without loading a whole new font. There's an optional paragraph strip tool that gives instant access to paragraph styles, font names, font sizes, superscript, subscript, case and bold, italic and underline without forcing the user to wade through several menus. You can also use configurable button "palettes".

Final Writer 2 also includes several more new features, including significantly faster graphic handling. It's available from Tupsoft on (02) 482 7040.

Stop Frame Controller 2.0

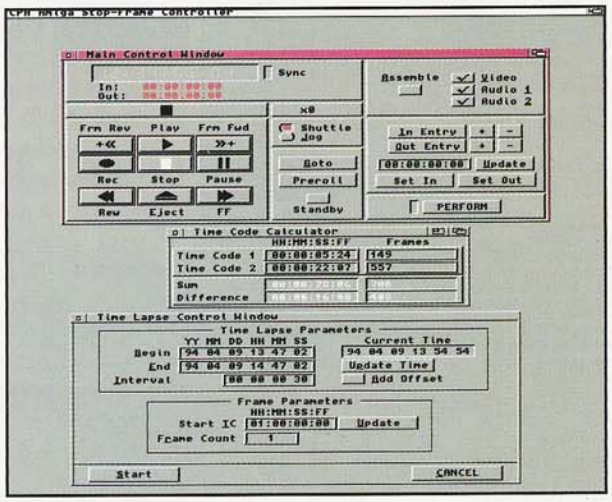
Smooth animation is only possible at high frame rates. To achieve this, animators often record each image to tape one frame at a time. C.P.A. developed a controller which automates this process a few years back. Now, version 2.0 has been released featuring numerous improvements.

You can now record repeated frames in one hit - so if frame 10 also appears identically on frame 50, 140 and 210, the software will record all four instances in one take. Support for the latest UVW series decks is included, along with 1800 series betacams - an economical choice for entry level broadcast quality.

SFC 2.0 converts any Dpaint anim into individual IFFs ready for stop frame recording, supports multiple display devices (IV-24/OPal/DCTV/AGA) - in one edit list. A swag of different test patterns are built in. You can synchronise sound, images can be from anywhere on your hard drive - and you can now have multiple EDL lists.

RRP is $1200. Upgrades are $140.

For more information call CPA on (02) 337 6255.



X-Calibur 33Mhz 040

A4000 Accelerator

X-Calibur is a piggyback board for the A4000/040 board. It has space for 128 K of RAM on board so the 25Mhz version can speed up A4000 memory access by up to 400%. Overall 80% speed increase and improve disk access 10-20%. More with a 33Mhz **version. X-Calibur uses** Std 72pin SIMMs. Compatible with Opalvision, Emplant & other Amiga addon devices **Now Available**

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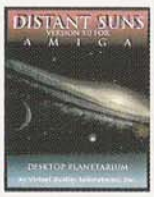

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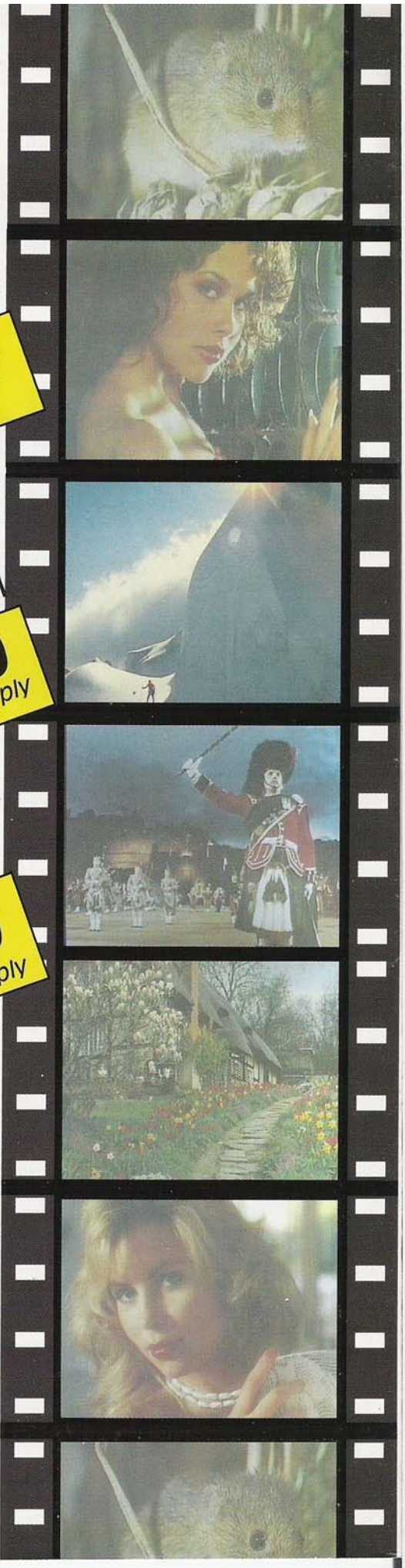

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1084S lives on despite flaws

Amiga owners have always been very proud of the graphics power of their machine. Whilst we may not be winning the resolution war these days, the speed of the Amiga as a whole remains uncontested in the value for money stakes.

However, it seems ludicrous that one of the things AGA fixed - if somewhat clumsily through the use of software in hardware deinterlacing (yes, that annoying flicker) - should be crippled by the selection of a monitor unable to take advantage of these wonderful new display modes.

Despite this, that is exactly what Commodore International has, in its usual wisdom, done. We recently received a press release proudly trumpeting the fact the 1084S monitor and Amiga 1200 were now back in production for the US market.

It seems that following a meeting between Microsphere Inc officers (a leading distributor of Commodore products in the US) and Medhi Ali, President of Commodore International, a deal was struck and the announcement made.

According to Larry Boyll, Dealer Sales Manager for Microsphere, "The renewed availability of these products will be a big boost to the Amiga channel. Our dealers have told us that their sales of Commodore's flagship product, the Amiga 4000, could be significantly higher if suitable monitors were available. Microsphere has offered monitors from third party suppliers to fill the void, but we know our dealers will be delighted with the combination of value and performance of the 1084S.

Frankly, we doubt many users will be equally as thrilled to find the value for money 1084S is not capable of displaying a stable high-resolution image. Indeed, now would be a good time to bury the 1084S under a large pile of other equally obsolete components.

Video Toaster users are particularly keen to use the 1084S. Which is fair enough, however Microsphere president Roger Dooley goes on to say the Amiga 1200 is also an important product.

"The Amiga 1200 has been an extremely popular computer in Europe, and new software that takes advantage of its high-resolution graphics is constantly coming into the market."

Does this man know the 1084S is totally unsuitable for such high-resolution graphics? It appears Commodore Asia Pacific also consider the 1084S a valid partner to the Amiga 1200. Company employees were seen at the recent auction scooping up 1084S monitors. At one point earlier this year, dealers could only buy Amiga 1200's with a 1084S. If you want to use AGA graphics without the annoying flicker, forget the 1084S. Commodore should forget it too - the sooner the better.

Compu-Aid to the Rescue!

When Commodore Australia died, dire rumours spread about the Amiga's future in this country. Commodore Asia-Pacific is now handling Amiga distribution, but they're not nearly as big an organisation as the old Commodore and they no longer handle the mechanics of warranty repairs.

So who does?

Enter Compu-Aid. This Melbourne based computer company has been appointed the national support and warranty agents for Commodore products, and now has a branch in Sydney. Essentially, Compu-Aid do all the warranty and support work for all Commodore products, but they also do non-warranty repairs and upgrades for any machine, Amiga or not.

Compu-Aid have extensive stock of hard-to-find Amiga spares, which helps them in their aim to have computers repaired fast. No more waiting for the drive mount to be shipped from Norway.

I talked to Matt Patrick of Compu-Aid, and he was very optimistic about the future of the Amiga in Australia. He made it quite clear that Compu-Aid were dedicated to giving the Amiga and its users the best support possible.

I asked Matt exactly what Compu-Aid do. His reply: "First and foremost, we act as the national warranty agents for Commodore. If your Amiga breaks down, the service centres now deal with us rather than Commodore, and we act as a service centre ourselves, along with distributing parts throughout Australia. We also do upgrades - memory, hard drives, Workbench upgrades and so on."

Compu-Aid are committed to supporting the Amiga regardless of the outcome of Commodore International's financial troubles. The nightmare predicted by doomsayers of Commodore evaporating overnight and Amiga owners being left out in the cold will NOT happen, even if Commodore does go completely broke (check out the editorial this month for the latest news - and it's certainly not all bad!).

Compu-Aid's staff have impressive credentials. Many

of them, including Matt Patrick himself, used to work at Commodore's head office in Lane Cove, Sydney.

So there's no way that Compu-Aid are going to fold their tents and steal away into the night, and they also know what they're talking about.

Contact them on (02) 898 1555, fax (02) 898 1379. The Melbourne office's phone number is (03) 466 4466, fax (03) 464 1200.

Letters TO THE EDITOR

Each month we will publish the most interesting letters we receive. Think of it as an open forum where you can view your opinions, share ideas or ask questions. Around half a page is a good length. The contents may be edited for brevity, accuracy or legality. If you don't wish your name and suburb to appear, please say so at the end of your letter.

A better ACAR

Reading the letter from Bill Hodge, together with your reply in the March issue, I can't recall at any time debating with myself whether I should buy a magazine because it had a glossy cover - I usually flick through the pages and weigh up whether the information contained within justifies the expense of the purchase.

Comparing *Australian Mac User*, at $3.95, I was surprised at how little information it contained. Cover disks may add appeal to some, perhaps a couple of useful utilities, but to me what counts is the information.

You need to cater for the professional users, mid-range users and the newcomers, especially the latter - since the Amiga has not got a large user support base and most of their computer using neighbours may have IBM compatibles - it will be a magazine like *Amiga Review* they will need to turn to.

For the professional user I would like to see serious, and factual reviews and no baby talk. Users out there like myself who believe the Amiga is a capable machine may show these articles to IBM'ers and Mac users - hoping to sway their opinions.

In other words, these articles should be professionally written, without outlandish statements.

Mid-range users like myself just want to learn. The new DTP column, Amos and Blitz Basic are spot on. What about a Video column? New users need to have the basic repeated and repeated. Answer their letters sincerely, and soon they will be mid-rangers.

As I see it, your magazine matches the above criteria - the March '94 edition covered all the above areas well. However statements such as "AA Moves Ahead" page 7 in the last column, " ... this machine will be considerably faster than any IBM or Apple Mac" Ahem! Need I say more.

Yes, I do, for those who may not be aware, *Amiga Format* is written, edited and published using the same equipment as that used to publish *Mac Format* - Apple Macs. I also believe *CU Amiga* does so along the same lines. Just keep this magazine informative and affordable by all. I think it is spot on the way it is.

Ian D Alexander
Naracoorte

Ed: *Ian, we're glad to hear you're happily mid-ranging along. We certainly intend to keep Amiga Review affordable, as well as catering for the entire Amiga community as best possible within the space we have. However, you've probably noticed a number of improvements over the past year - and we have more in store.*

However, we can't make sense of your comment about AAA. The article in question discussed the graphics architecture of the new Amiga in development right now. If you have a closer look you'll see the bandwidth - that is the amount of information that can be shunted around the computer - is very high. For animation and digital video this sort of performance is just what the proverbial doctor ordered. AAA will indeed be considerably faster than any other graphics system on Mac or PC.

Indeed, many magazines are produced on the Mac - including some Amiga publications. However, much of Amiga Review, Amiga Down Under and Australian PC Review is produced using the Amiga running Professional Page 4.1. You might say we're prepared to eat what we cook!

A1200 surprise, CD32 questions

Congratulations to the hard working team at ACAR on a great Amiga magazine. It's so good I even subscribed. Anyway, I've just purchased an Amiga 1200. I was really surprised to find it included *Deluxe Paint AGA, Wordworth AGA* and *Oscar*. The salesman didn't even know they were in the package!

I think I'm going to buy a CD32 (no, make that definitely), and I was wondering if I would be able to connect these two machines together?

Also, I was flicking through a recent copy of *Amiga Format* where I saw an ad for a PD disk that was a HD install program for *Lemmings 2*, and I was wondering if I could lay my hands on a similar program for *Space Hulk*? It's a great game - but a bit slow, even with two drives.

Nigel Rohrid

Ed: *Connecting your CD32 and Amiga 1200 together is feasible - but you'll need a special cable and CD-ROM or the docking bay (coming soon) with PARNET - which is readily available now. The first solution hasn't turned up yet - but it's said to be on the way (check with Compu-*

ter Affair - 02 417 5155). The CD includes a stack of PD software, a copy of SERNET (a serial network program) and cable to go from the keyboard connector on your CD-32 to the Amiga 1200.

A500 upgrades

I have owned an Amiga 500 since 1986 and I'm looking to upgrade to Workbench 2.x. I'd like an Amiga 1200, but my finances and wife say no! I was reading back in January 1992 about the 500+ and was wondering if it is necessary to upgrade the chipset, especially the Fat Agnus chip, if I install Kickstart 2.1 and at least 2Mb of memory.

I use my machine a lot for business, including desktop publishing, but I also play a lot of games. I know the 500+ had some compatibility problems, which of course, I don't want to encounter.

Could you please advise me on what the best (besides an A1200) way to upgrade is. Keep up the good work.

Neil McCann
Osborne Park

Ed: *No. A fat Agnus would help - the extra Chip memory is vital for serious work. However, you don't have to add anything apart from a new Kickstart and Workbench to upgrade your machine. However, this very step is what caused many of the compatibility problems you mention. Using a Kickstart switch board as suggested would be a good solution.*

Copyright ideas

A lot has been said about copyright of late, and here's my review of what's actually happening.

The scenario is this. I go to a local store and ask for a certain program. The local store asks the supplier for said items. The supplier asks the manufacturer. The manufacturer informs the supplier that they're not making it any more. The supplier tells the store. This seems to discourage the stores to stock software for that computer.

You, the consumer, and the programmers are both hurt by this. You can't get what you want, the programmer can't get his royalty.

I think that copyright law should be changed so that when manufacturers stop making products for certain computers they should forfeit copyright and channel the programs into shareware. I urge readers to think about this idea and send your thoughts to ACAR.

Matthew Blydensteinm
Publicity Officer
Commodore Users Group Inc Canberra
PO Box 409
Curtin 2605

Ed: Sounds a good enough idea. Shareware isn't much of a way to make money, but it's a heck of a lot better than piracy, which is what happens to old programs at the moment. Drop us a line with your opinion!

Letter of the Month

Desktop publishing dilemma

First, let me congratulate you and your staff for producing such an excellent magazine. ACAR is truly the most informative magazine for Australian Amiga users today. Take a bow!

In your March issue, I was finally relieved to find that you began a Desktop Publishing column (hip-hip-hooray!). I'm sure there are many Amiga users out there who have many questions to ask regarding Amiga DTP.

I have an Amiga 1200 with 6 megs of RAM and a Commodore 1942 monitor. Currently, I am using Pagesetter as a DTP program but am considering an upgrade to *Professional Page* or *Pagestream 3.0*. As part of my university degree, I have to complete 24 weeks of practical experience with a major firm. Naturally, the firm used the Mac programs *QuarkExpress* and *Adobe Illustrator* to produce their ads.

I was impressed by what I saw but couldn't help thinking that my beloved Amiga is capable of producing documents like those I saw on the Macs. But I was disappointed a little. After toying around for a very long time with *Pagestream 2.2* and *Professional Page 4.0* at my local computer shop, I discovered both packages didn't have the features of *QuarkExpress*.

For example, the feature that allows you to define a line then have text bend around it according to the shape of the line.

Another example is creating an object (circle, oval etc) and having a word fill the object. Also effects that involve colour (like that used in the cover of the March ACAR in the top of the word Amiga) seem to be missing too. Perhaps these features are in the manuals? I'm not exactly sure, but I thought I would seek some advice from someone who has obviously dealt with Amiga desktop publishing programs.

Are the features mentioned in Amiga desktop publishing programs? If not, will *Pagestream 3.0* contain them? I also noticed that when a picture is enlarged in *Professional Page*, the resolution of the picture us lost and the pixels that form the picture are more prominent. Is there any way this can be avoided?

I would greatly appreciate it if you will be able to help me in these questions which will surely assist in my choosing a DTP program. Keep up the excellent work on the mag.

Patrick Lagana
Auburn

Ed: Indeed, the features you mention are missing from the programs you tested. But do not despair! For starters, *QuarkExpress* costs over $1500, and you're dealing with software at around $149 for version 4.1 of *Professional Page*. What you need is *Professional Draw* - a separate package which integrates well with *ProPage* and allows everything you mentioned.

Professional Draw created the fill in the Amiga on our front cover, it can also do weird and wonderful things with text. Even if you have to buy *ProDraw* and *ProPage*, I'm sure you will still come out at under $300 - a considerable saving on *Quark*!

Furthermore, *Pagestream 3.0* will probably do everything you want for around $500 and give *QuarkExpress* a good run for its money in many more areas.

On Screen Q&A

Frontier help

I own a 1.3 Amiga 500 with an A590 hard drive, I play *Frontier* with the detail set to Very High and I have no problems. I'm concerned about the bad press this game's been getting concerning its bugs. I have figured out how to avoid every last one of the game's problems, and have compiled an Aliet 2 - Frontier Help Sheet for just these occasions.

Does the AutoPilot keep crashing you? Do you find it impossible to target enemy ships, not to mention win battles? Does Sirocco Station keep telling you you can't dock? I can help you with these problems and a lot more. If you've got a specific problem, tell me when you write and I may be able to help. Include a stamped and addressed envelope.

If you need a really BIG hand, send a blank formatted disc and you'll receive a save game with an Imperial Courier docked at Earth and enough credit to equip any way you like.

A C Foster
37 Jean St
Woodridge 4114

Ed: *What can we say? Write to Mr Foster and reap the rewards!*

CD32 Gloom

Who are we trying to kid? The CD32 is no more than a 1200 with a CD-ROM, in different plastic. Last issue's comparison between CD32, CD-I and Mega CD was a farce. The Mega CD is a joke and nobody's ever heard of CD-I.

CD32's real competitors, such as the Panasonic 3DO, have specs easily belittling the A4000/040 and huge corporate muscles to back them up. CD32's only major advantage is it's first on the market, but even with that it'll probably die.

The problem lies (here we go again) with Commodore. I don't think they're putting enough effort into promoting the CD32, or Amigas in general. They should be advertising in newspapers and other non-Amiga based publications to recruit new believers. Maybe it's a little too early to predict the worst, but if Commodore doesn't do it right, CD32 could well become another CDTV.

James Nguyen
Yarraville Vic

Ed: *Well for a start, the CD32 is NOT just a 1200 with a CD-ROM - it also includes the Akiko chip for very nifty chunky pixel graphic effects on top of the Amiga's lightning smooth planar system, and with the MPEG expansion it can play video CDs. The mega CD is, indeed, pretty lousy, ad CD-I is, indeed, not exactly the Market Penetation King.*

The 3DO (just the 3DO - panasonic have licensed the technology but so have other people) beats the 4000/040 in some departments, becuase it's got built in hardware texture mapping and other game-tuned stuff, but in processing power any high-level desktop machine walks all over it - but then you're not going to run a spreadsheet on a 3DO.

In fact, in Australia, you're not going to run anything on a 3DO unless you've got a NTSC compatible TV - PAL 3DOs are still not available. So it's a bit of a academic discussion - unless you own a very expensive TV you can't use a 3DO, and if you do then you'll have to buy one from the US.

Re Commodore's marketing, you're probably right. Since Commodore International has finally run out of cash, it's possible that following a reorganisation we'll see some proper promotions. Hope springs eternal.

Help wanted

Is the game *Jumpman* or *Jumpman Junior* available for a 1Mb Amiga 500? How could I get a copy? And in *The secret of Monkey Island*, what article do I have to sacrifice to the Great Monkey, and is there any way to get the banana picker out of the cannibals' huts?

Ed: *Send replies to Jan (we think - handwritten name!) Hewarid, 44 Kintore Ave, Kilburn SA 5084.*

Send us music!

This is a call to all you budding musicians - we're looking for people to write original music for a couple of Amiga games we're working on, which will be finished, as music, by the time you read this. If you're interested, then you must be able to create a range of musical styles in (Octa)MED, ProTracker or GMC format. Send a sample of your work to: Philip Haeusler, 7 St Ives Court, Croydon 3136. Phone (03) 725 1430.

We will reply to all submissions received.

Wanted - piece of paper

I bought a second hand copy of *Jack Nicklaus Greatest 18 Holes of Major Championship Golf* from Cash Converters, but it doesn't contain the sheet containing all the courses and green numbers, which is essential to get through the copy protection. If anyone can help me, I will reimburse any postage.

J. Krelle
24 Ligar St
Hilltop 2575

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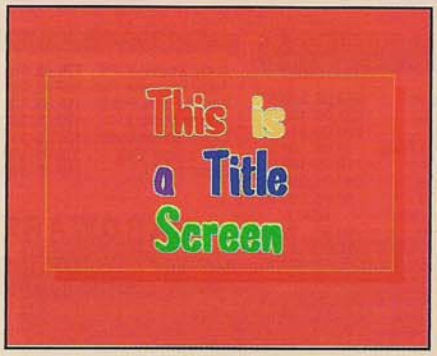
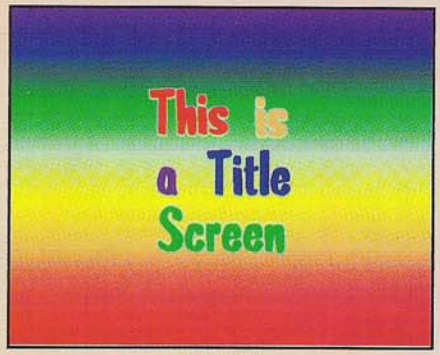


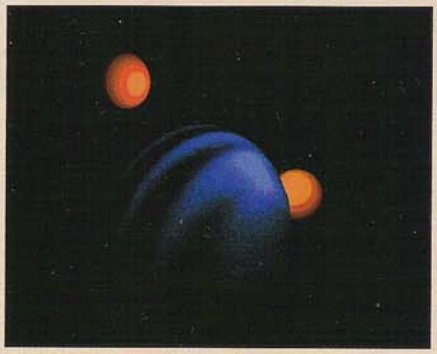
Pic 1A



Pic 1B

Pic 1C

Pic 1D



Pic 3A

Pic 3B

Pic 3C

Pic 3D

Computer images often require a compromise between quality and file size - Heiko Wynen tells you how to achieve the best balance.

Some people may argue which computer offers the most advanced (and therefore best?) graphics capabilities, but there is little doubt that Commodore's Amigas deliver the widest range of

Pic 2A

Pic 2B

easily accessed options, even for a beginner. Most importantly though, most Amiga graphic modes can be displayed on standard RGB/CGA type monitors or any consumer colour TV or recorded on video tape. They are consequently not susceptible to budget restraints and may be used by anybody owning an Amiga.

Unfortunately, the extensive range of options also means it is easier to make mistakes like working in resolutions not ideal for the application or choosing the wrong number of colours. Beginners in particular are usually tempted into select-

Understanding AMIGA Graphics

ing the best possible image quality offered by their machine. As a consequence the resolution and/or number of colours may far exceed what is required, resulting in much larger files than necessary which occupy valuable disk space.

Interestingly, the reverse problem is much less common, as people seem to overestimate their needs when it comes to graphics. This is also the reason for so many trying their luck with raytracing program and ending up with pictures they could have achieved much faster and more easily with a simple paint package.

So is there an easy way to decide how many pixels and colours are needed to do one's masterpiece justice? As in most other areas of life, it all comes down to experience. There are, however, certain rules which can help you avoid the more serious mistakes.

Simple graphics

When creating simple graphics from geometric figures, including some freehand painting, it is best to stick to the standard Amiga graphics modes with up to 64 colours. HAM may be tempting, but all colours beyond the first 16 can cause rather disconcerting fringing effects. Apart from some special applications, HAM and HAM-8 modes should therefore be reserved for digitised or scanned images, which we will discuss later.

With any kind of graphic it is always a good idea to keep one or two spare colours if you're going to add text later. This way the writing can be made legible without affecting the background. For example, when working in 32 colour mode, use only 30 for the actual painting and the remaining two for the font's body and shadows or outlines to isolate the text from the surrounding graphic.

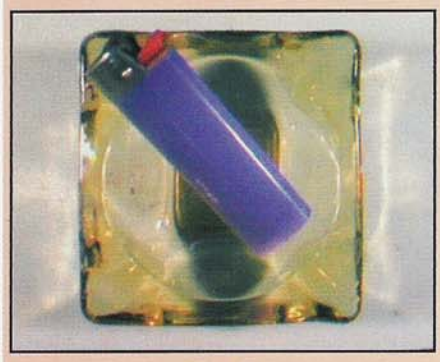
In this example, however, it would probably be better to restrict the image to a maximum of 16 colours and choose a high resolution mode. The resulting file will be much bigger, which must be kept in mind, but the oblique and circular sections of most font styles look proportion-

PIC1: Eight colours are sufficient for this picture's number of hues, while high resolution mode keeps the "jaggies" down to a (barely) acceptable level (a) For a multi coloured graded fill, however, the number of shades is clearly insufficient with quite disastrous results (b) Restricting the graded fill to a simple spread between two colours rectifies the problem (c) and achieves a quality very close to a 16 colour implementation of the same image (d) while saving about 10 kB in file size.

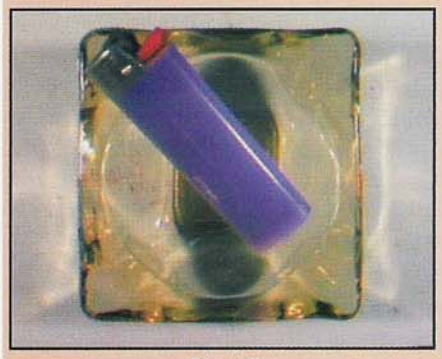
PIC2: Low resolution is not really suitable when graphics contain other than horizontal and vertical structures, like text. Graded fills are also out when working with eight colours (a) and even 32 colours (b) are barely enough to match the performance of eight shade high resolution (1c).

PIC3: 3D modelling cries out for as many colours as possible. A 16 colour render clearly shows the steps from shade to shade (a), and dithering (b) provides little improvement, despite working in high resolution mode. HAM offers much better results (c), although the restriction to low resolution is responsible for a somewhat coarse appearance. HAM-8 finally brings a photo-realistic impression to screen and print, especially in high resolution mode (d).

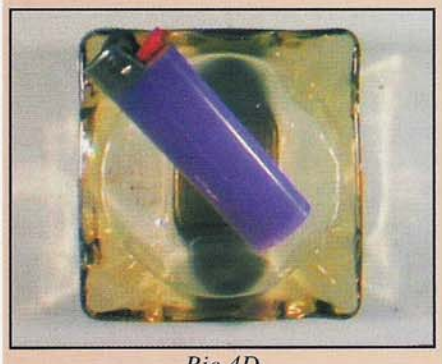
Pic 4A



Pic 4B



Pic 4C

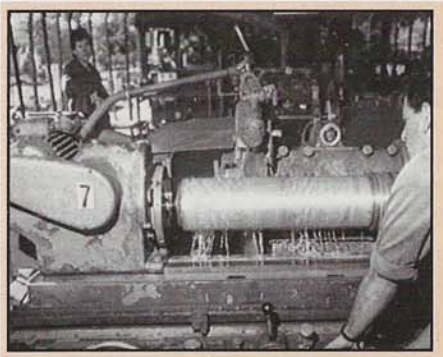


Pic 4D

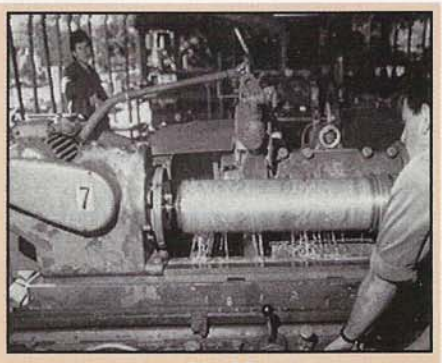
Pic 6A

Pic 6B

Pic 6C

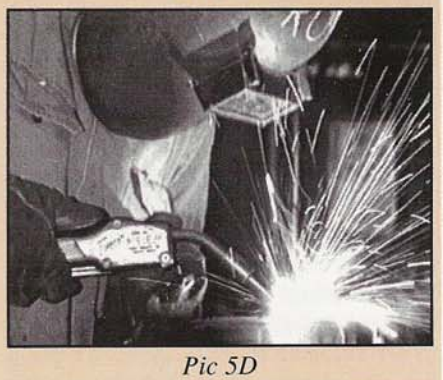


Pic 5A



Pic 5B

Pic 5C



Pic 5D

PIC4: Different subjects have different requirements. This digitized scene contains only a limited number of large pastel hues. Consequently a straight 256 colour high resolution render (a) already produces watchable results. Dithering visibly increases the quality (b). The actual number of unique colours is 239 in both cases, increasing to 1156 when switching to laced HAM (c), which ensures a similarly good, though rougher appearance, despite the lower horizontal resolution. 9727 colours in HAM-8 HiRes (d) guarantees the best picture. Whether the relatively small visual improvement makes up for the 3 times larger file size (311 kB), when compared with standard HAM, is questionable and depends very much on the application.

PIC5: When using a greyscale representation of digitized photos rich in detail, both resolution and number of colours become less of an issue. The difference between high resolution 256 colours (a) and 16 shades (b) is largely negligible, with the latter needing less than half the disk space for storage (295 kB / 136 kB). Even more drastic file size reductions can be achieved by converting to low resolution 16 colour mode (d). The resulting image may appear less smooth next to a 256 high resolution render (c), but it would certainly be sufficient for many applications.

PIC6: The Amiga's HAM modes are particularly suitable for images combining both fine details and larger areas with very few features. The standard HAM render (a) looks quite coarse because of the low resolution and some fringing. However, 1147 unique colours already give a faint impression of the difficult to reproduce shininess of the frogs' skin. HAM-8 mode boosts the colour content to 13811 (b). Fringing is strongly reduced but the low resolution still lets the picture look somewhat rough or "dirty". Only high resolution HAM 8 produces the intended photo-realistic impression of smooth skin and natural highlights (c). In this example it makes little difference that the HAM-8 HiRes file is about five to six times larger than the other two. Its superior quality means it should be the first choice even for less demanding applications and when storage space is tight.

ally cleaner without the low resolution "jaggies".

The same obviously applies to images without text as well. Especially if their content lacks fine detail, the rough appearance of sloped lines will stand out and probably ruin the overall impression the graphic was intended to give. In many cases, increasing the horizontal resolution from 320 to 640 pixels may be sufficient while avoiding the dreaded flickering associated with doubling the vertical sharpness on standard video monitors like Commodore's 1084.

But if you have to use interlace mode, perhaps to gain access to more than 16 colours, it helps to draw all structures at least two vertical pixels (lines) wide. This considerably reduces flicker, as do certain colour combinations. Naturally, if the image is created to be printed, it may be preferable to ignore the negative screen effects of interlace modes. Some applications may also respond considerably faster when the vertical resolution is raised instead of the horizontal. Graded fills are another area in which interlace modes excel, although laced high resolution often gives the best results, even at the cost of a 16 colour palette.

Digitised and scanned graphics

As mentioned above, HAM and HAM-8 modes are ideally suited for digitising, especially of photographs. While the sixteen million plus colours of 24 bit cards may deliver the most realistic results, the Amiga's HAM capabilities are quite capable of representing real life scenes, especially with some clever dithering.

It must be said, though, that a 256 colour dithered high resolution interlace picture produced with an AGA machine wins hands down when compared with a 4096 colour laced HAM image. In fact, if you don't need colour a 16 shade high resolution greyscale image will usually look very close to a black and white photograph and considerably better than standard HAM colour. On this point it should be noted that digitising monochrome video signals in HAM mode also delivers very pleasing results.

While HAM-8 images are the best a standard modern Amiga has to offer, their file size can easily exceed 300 kilobytes. This means a normal 880 kB floppy disk can store just a couple of such high quality pictures, which may seriously reduce their applications. It is consequently very important to decide how much quality is really necessary for a specific application.

Contrary to common beliefs, digitised images with apparently large areas of single coloured areas require the largest number of colours to avoid those telltale rings where brightness drops off by a fraction. On the other hand, the wider the distribution of fine details across the frame, the lower the number of colours or shades required for a natural appearance. The colours in some areas may be quite different from the original under those circumstances, but this may only become obvious in a direct comparison. What normally counts is the illusion of seeing a photograph, which can be very convincing despite the lack of colours.

Conclusion

For those Amiga owners with lots of hard disk space and a patient nature, the questions of adequate resolutions, colours and file sizes may be of only academic value. In the real world, where you have to be able to exchange our creations with others either for fun or to make a living, you need to produce the best results with a minimum of wasted time and disk space. To achieve that, you first have to be sure what your requirements are for a certain application and then decide which of the Amiga's graphics modes suits them the best. Look at some public domain images which seem all but perfect but still occupy less than 100k. Quality, not quantity, has always been the best recipe for success.

The accompanying images give a few practical examples, although some of the finer differences mentioned in the captions, and clearly visible on the monitor screen, may not come out in print. All photos have been digitised in 24 bit and then converted to the standard Amiga graphics modes. ❑

MODEMS
An introduction for beginners

by Daniel Rutter

Bill Gates, the man who invented MS-DOS, has a vision for the future. It is an information superhighway, using fibre optic cable to deliver all sorts of services to your home. This is an exciting idea, but it could be many years before it happens.

Today, you can tap into a whole world of fascinating things using a modem. Although considerably slower than the information superhighway of the future, a modem can bring all kinds of information to your Amiga at a very reasonable cost.

From a social viewpoint, the modem has been called the CB radio of the nineties. Using it, you can meet with people electronically. You can chat while connected to the same distant computer, send mail to each other, or exchange files and programs.

It's not expensive

All this can be done most affordably by dialing up your local Bulletin Board System, or BBS. These are run by computer fanatics who have decided to make their computer accessible for others to call. A BBS is typically run on a reasonably powerful PC, with loads of hard disk storage. By sharing files and messages with other similar systems around the world on a daily basis, each individual BBS becomes a door into an entire world of activity.

A message posted in Melbourne can make it to Birmingham in a few days - and be read by tens of thousands of people on the way. In a similar fashion, a new program written by a person in Canada will be passed on from BBS to BBS until it arrives at your local system a few days later. You can access all this for the cost of a local phone call, and perhaps a year of membership on the BBS - usually less than $50.

Understanding modems

Modems come in an external box or, rarely, as a card to plug into one of an Amiga 2000, 3000 or 4000's internal slots. The latter sort is virtually extinct these days, which is just as well since they take up valuable expansion space and are more annoying to set up.

Modems vary in price according to the speed at which they can handle information. Additional features to cope with poor telephone connections and special built in software to compress data also add to the cost, but speed is by far the biggest factor.

The slowest modem you can buy new these days works at 2400 bits per second. That is, in one second the modem can send a stream of 2,400 0's and 1's to represent information. It's all a bit abstract, so let me explain how that works out in real terms.

There are eight bits in a byte, which is enough to represent one letter of a word. So a 2400 bit per second modem should handle 300 bytes of data every second. They don't. This is because everything the modem sends has to have extra information around it to tell the other modem where the data starts and ends - think of it as packaging.

So while about 300 bytes of actual information is transferred every second, the amount of useful data that gets through is more like 230 bytes (or letters) per second.

This means a 2400 baud modem can send text faster than you can read it. However, it will take a long while to transfer a big program or detailed picture. A one megabyte file would take about 76 minutes, which is fine if you're on a local call and aren't in a hurry but a pain otherwise.

The solution is to step up to a faster speed. The next popular speed up is 9600 bits per second. Now our one megabyte file would take about 19 minutes to send. But that's not the end of it. The fastest

What is a modem?

To talk to other computers over the telephone, you need a modem. This is a small device which converts information into sound and back again. It connects to the serial port on the back of your Amiga. You will also need software to control the modem, and allow you to send files to and from the computer you connect to. This is often called a communications or terminal program. A cheap modem costs around $300 new.

commonly used modems available today go up to 14400 bits per second, or about 1350 bytes per second. Now the one meg file can be sent in 13 minutes.

For a premium you can even get 19200 bit per second modems, which would send the file in less than 10 minutes, but relatively few people are using these models, so you'd seldom get the full speed - when a fast modem connects to a slow one, it has to communicate at the slow one's top speed.

Above 19200 there's nothing available to average consumers. Sure, the new 28800 monsters are available and dropping rapidly in price, but they're still too expensive for most of us, even if there were enough other 28800 modems around to call. In summary, 2400's slow, 9600 normal, 14400 quick, 19200 icing on the cake and 28800 is still in the Star Trek department.

Software

Modems need communications software to tell them what to do. The software can also be used to send and receive entire programs, which is a great way to collect and share freely distributable software. Sending from your computer to another is called uploading. Receiving files is called downloading.

Some games allow a modem connection to another player with the same game. This makes it possible to play against someone else living thousands of kms away, or in another room.

There are lots of communication programs available, and we don't have nearly enough room here to cover them all, but a good one for a beginner is *NComm* (shareware). Power users like *Term* (free!), and there are tons of other public domain and shareware terminals for the Amiga.

All of these programs are well documented and quite easy to use - they have powerful high level script and configuration options but for everyday use you can run them run out of the box. If you can use a word processor, you can run a communications program.

What's Available

We checked out a range of Austel approved modems and found overall quality was very good. There seems to be quite a price range at the top end, and fax is now standard across the board.

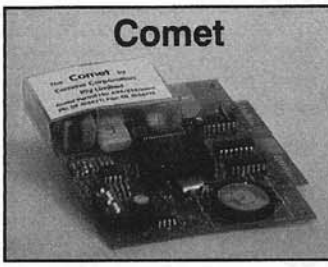
SimpleModem 24f

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	No	No	No	No	Yes	$249

Comments: Very basic, quite cheap, brilliant case but inaudible speaker. Can run from battery, and has all the LEDs.

Simple Computing (02) 484 0089

Comet

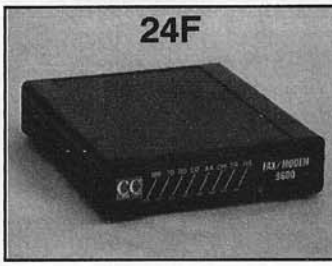


2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	No	No	Yes	Yes	Yes	$249

Comments: Internal modem - the same guts as the 24f but without a case and $100 cheaper. But is an internal really for you?

Comma Corp (02) 418 6711

24F



2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	No	No	Yes	Yes	Yes	$349

Comments: Compression gives a bit of zip to this basic 2400 baud faxmodem; the price is OK but not exciting.

Comma Corp (02) 418 6711

144FM

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	Yes	Yes	Yes	Yes	Yes	$649

Comments: Ugly case, odd internal speaker volume adjustment, but reliable and not overly pricey.

Maestro (06) 242 9755

SimpleModem 144f

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	Yes	Yes	Yes	Yes	Yes	$649

Comments: Same case, no room for a battery, same lousy speaker, standard price for all the gubbins.

Simple Computing (02) 484 0089

continued on page 22

What's Available

Spirit Pocket

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	Yes	Yes	Yes	Yes	Yes	$649

Comments: Small, sexy, all the features but not all the LEDs, can run from battery, good price.

Mike Bourne Electronics (02) 416 3014

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	Yes	Yes	Yes	Yes	Yes	$649

Comments: This is a rebadged Spirit 2, but the bugs seem to be worked out now. The old models were lousy, these ones are fine.

Comma Corp (02) 418 6711

Hayes Optima 144

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	Yes	Yes	Yes	Yes	Yes	$999

Comments: Rock solid, the total industry standard (Hayes INVENTED the modern modem), but definitely not cheap.

Markom 008 809 789

Bit Blitzer MX-6

2400	9600	14400	Compression	Error Correct	Fax	Price
Yes	Yes	Yes	Yes	Yes	Yes	$1133

Comments: All the bells and whistles, good bundled software, outrageous price.

Banksia (02) 418 6033

Who to call?

So you've got your modem and your software - where to now? By far the most popular use for modems is calling Bulletin Board Systems (BBSs). These are computers set up by people called System Operators (Sysops), which receive and transmit messages and store files, for the public good.

Some BBSs charge fees for high level access (staying on for longer, downloading more); these fees are seldom very steep and you can usually get along perfectly well without paying anything. Very few BBSs are set up for profit, and even fewer actually make any money.

Usually, BBSs are set up so that in order to download files beyond a fairly modest new user limit, you must upload something in return. Your uploads usually give something like five or ten times as much download allowance. You can improve or even completely remove this ratio by paying membership fees, but the ratio is the mechanism used to make sure BBSs have new files on hand, and it works well as long as idiots don't do damn fool things like uploading the same file nine times with different names - and yes, your friendly sysop WILL notice this, and boot the miscreant off.

Getting software free

File transfer is achieved by means of special protocols. These are conventions by which the systems at either end of the phone line parcel up files, with various extra lumps of information stuck in to check for errors, file lengths and so on. The most common protocol is called ZModem; it combines high speed with good reliability.

If you look at the files on bulletin boards, you'll see that just about all of them have a suffix along the lines of .ARJ, .ZIP, .LHA, or maybe .ZOO or .ARC. These suffixes indicate that the files are archives.

An archive is a load of separate files which have been algorithmically squished and bunched together. This is done for two reasons. One, an archive is usually smaller than the sum of the files that went into it, and hence uploads and downloads faster and takes up less room on the BBS computer.

Many programs have several support files - documentation, examples and so on - which would be annoying to download separately. An archive puts them all in one place, where they can all be downloaded under one name.

The down side of archives is that they're useless to you until you unarchive them. This can be done most easily with a program like Directory Opus, which makes working with common archive types much easier and can be set up to extract just about anything, if you've got the right program to do it.

The bulletin board you got the archive from will almost certainly have all the archive builders and extractors available for download too - then you just have to figure out how to use them.

Hey, what's this about 57,600?

Hang on, I hear you say, I've looked at modem boxes in my local computer store and they've got "57,600 bps throughput!" in big letters on the side. How so?

This figure relates to the built in hardware compression. Compression is the packing of data into a smaller space by way of some clever mathematical manipulation, not unlike the construction of an archive. By using the data compression built into most faster modems, one can indeed make them work up to four times faster, giving a 14400 modem a speed of

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ACAR594 LM

57600, or a megabyte every three and a bit minutes. Great, eh!

Well, no. Data compression is much like physical compression - some things are more squishable than others.

Let's suppose you have three files to send. One is a load of text, like this article. One is a program, like the word processor I'm writing the article on. One is a GIF format picture.

Making sense of compression

The text, from a compression point of view, is like a sponge cake. You can squish it down much smaller than its original size, because its original form wasn't all that space efficient. Sending text with a modem capable of compression will get you considerable speed improvements - not the optimal factor of four that the boxes and the salesmen love to quote, but twice the speed isn't out of the question.

The program isn't as squishable - it's more like a nice solid fruit cake. You can maybe get a forty to fifty per cent improvement, depending on what sort of program you're sending, but since its original structure contained less "air", you can't do much better.

The GIF picture behaves like a block of marble. You're not gonna get that puppy ANY smaller, since GIF is a format which is already compressed, and just can't get significantly more efficient in its use of space. There are plenty of image formats which DO compress well - standard Amiga IFF images give from 10 to 60 per cent reduction depending on content - but GIF is so tightly packed that all the squashing in the world won't do a thing more.

Why do the manufacturers quote a four times improvement? Well, if you make a file in a word processor that's composed entirely of one character ("zzzzzzzzzz" and so on), and save it as plain text, and

COMMUNICATIONS

ACK: Acknowledge. Yes, I received that last byte, or string of bytes. Normally only used in file uploading or downloading.

ANSI: If your communications software can do ANSI, it can display coloured, flashing and similarly prettified text. Amiga terminal programs are notorious for getting ANSI subtly wrong, because we don't have a text mode like IBM compatibles. Becoming very worried about this indicates that you have too much spare time.

ASCII: American Standard Code for Information Interchange. A code used widely in data communications to transmit the letters of the alphabet, plus the standard punctuation marks and certain control characters. Every character has a corresponding numeric value that is common on most home computers. This allows different types of machines to talk to each other, and makes sure that a text file written on an IBM is legible on an Amiga or Mac.

Auto-answer Modem: A modem that can answer an incoming call by generating a carrier tone that tells the originating modem its call has been received.

Auto-dial Modem: A modem that can simulate a telephone dialer using either pulse or touch-tone dialing signals.

Austpac: Packet switching network provided by Telecom. Allows computers that talk at different speeds and languages to exchange information.

Baud: A speed expressed in bits per second transferred over a communications line. 300 baud is roughly 30 characters per second. Functionally all BBS's support 2400 baud and most now support 9600 or 14400 baud as well.

Bell: The American standard for data communications.

Binary: A number system using base two, rather than base ten as in decimal.

Bit: Short for binary digit (either 1 or 0), the elemental unit of digital information. Every character is made up of several bits (usually eight). A bit is either one or zero, corresponding to pulses that may be transmitted audibly on telephone lines.

Buffer: Often called capture buffer. A capture buffer is temporary storage for data "captured" from a communications link; it contains all the text that's scrolled up your screen since you started the comms program.

Bulletin Board: A computer you can access via modem, especially for leaving messages to other users. Various subject areas are available, and normally programs can also be uploaded or downloaded.

Byte: Eight bits make up a byte. Usually one byte is equivalent to a character.

Carriage Return (CR): A hangover from the old teletype days; moves the cursor to the start of the line. Amiga text files only need line feeds (see below), but IBMs show their age by having both a carriage return and a line feed whenever they want to start a new line. Thus IBM text files frequently have funny boxes at the end of each line when displayed on an Amiga. Various utilities exist to convert these files.

Carrier: A steady signal that can be changed in tone (modulated) to transmit data.

Checksum: A test for the integrity of information transmitted by any means where corruption may take place. The data is algorithmically manipulated to produce a relatively small number, which will always be the same if the data it came from is the same. If the data's damaged, it's very unlikely that it'll produce the same checksum.

Control Characters: ASCII characters that do not print out, but are used to control communications. Control characters can, for example, signal a sender to stop transmitting information, clear the screen or make the receiving computer beep.

Data: Information in code, text or numeric form, generally represented in ASCII code for digital communications.

Download: Transfer a file from another computer to yours.

Duplex: Refers to the two-way nature of modem communications. In full-duplex communication, both terminals can send and receive simultaneously. In half-duplex operation, both ends can send and receive, but not at the same time. With full-duplex, echo-back communica-

then send that with compression on, you'll get within a gnat's whisker of the full quoted speed.

If you think that such a file isn't of much use to anyone, you're right. But hey, it's the numbers that count.

Approved or not

The other technical thing to remember when buying a modem is that not every modem for sale in Australia can actually be legally plugged into an Australian phone line. Every communications device sold in this country has to fulfil certain performance requirements set by the governing body Austel, or it can't be legally used and anyone who does faces a fine of up to $12,000.

Yet it's perfectly possible to buy unapproved modems, under the Mantelpiece Law. When you buy such a product, it's purely so that you can put it on your mantelpiece and admire it, or maybe plug it into your personal privately owned telecommunications network. You're certainly not the sort of miscreant that'd connect it to the regular phone line. Oh no. Not you. No way.

Needless to say, lots of people own and use unapproved modems, and there have been few prosecutions. There was a rash of fines when 14,400 modems were new, and none of them were approved for use in Australia. Various bulletin boards bought and used unapproved modems, and so Austel just checked out which boards offered 14,400, and busted a load of them. It is, however, difficult if not impossible to tell if a given modem is approved or not under normal circumstances.

We are NOT advocating you get an unapproved modem, because it IS illegal and the possible punishment is no slap on the wrist, but it's a fact that many people use them.

The big incentive to buy unapproved modems is that they're much cheaper -

GLOSSARY

tions, a transmitted character is not displayed until it has been verified by the receiver.

Electronic Mail: Messages that are delivered electronically, via a modem or local area network. There are several varieties. Echo mail is propagated around a communications network like FidoNet or the Internet. It may be addressed to one person, but anybody can read it. Netmail is the same, only it's directed to only one user and can't be read by anyone else, except system operators on the way to its destination. Local mail is not distributed around a network, but stays on the board on which it was posted.

Frequency: The number of cycles of an oscillating waveform that occur each second.

Hayes: A widely accepted standard set of commands for controlling modems and setting various options within them.

Line Feed (LF): A character which moves the cursor to the next line (see Carriage Return).

Modem: A device that modulates audio tones to carry digital signals and also demodulates the signals at the receiver so they can be understood by a computer, and subsequently its user.

NAK: Negative Acknowledge. Used in file uploading/downloading. As in, yes, I got something, but I don't know what it was!

Noise: Random disturbances that degrade or disrupt data communications, present to some degree in all transmission links.

Originate/Answer Modem: A modem that can either start a telephone call or receive one automatically. Some modems automatically assume originate or answer status, others require manual switching.

Parity: A means of checking for errors by adding an extra bit to each ASCII character transmitted.

Protocol: A set or rules for the transmission of data. Protocols describe when transmission will start and stop, what error checking system is in effect and the like. To minimise errors, a checksum may be calculated and then compared with that calculated by the receiving system to ensure everything arrived intact. Files are normally broken down into smaller parts, sometimes called packets, so that if there is an error the sender only has to send that packet again, not the whole file from the beginning.

RS-232: A standard for transmission of serial data covering both hardware configurations and transmission parameters. Different manufacturers may implement some or all of the RS-232 standard in their communications products. Generally you'll only hear RS-232 in connection with serial ports; it's the standard sort of serial port for most PCs these days.

Serial data: Data sent one bit at a time, as opposed to parallel data, which is sent several bits at a time. Modems operate on serial data.

Sysop: System Operator. The person who is responsible for the smooth (or otherwise) operation of a remote access system, such as a bulletin board.

Teleconferencing: Several people talking via electronic means, either telephone or computer, about a particular subject. Often used in multi-user remote access systems, where it's colloquially called chat mode.

Terminal: A device that receives or transmits digital information. There are dedicated terminals that do nothing else, but running communications software on your PC will make it behave like a terminal for a lot less money.

Upload: Transfer a file to another computer.

X-ON/X-OFF: A protocol for pausing data transmission using simple control characters.

XModem: An older transfer protocol, not dreadfully efficient and lacking advanced features. It survives in older communications programs and dedicated products like cheap notepad computers.

ZModem: A newer and better protocol. ZModem transfers files a bit faster than XModem, but it also lets you send several files in sequence without selecting them one by one. If you send half a file and then stop, ZModem will automatically restart where you left off. And ZModem automatically sends file names, so the receiver doesn't have to tell his computer what's being sent.

the considerable expenses involved in getting Austel approval haven't been incurred and the savings are passed on to the consumer. Of course this comes to naught if you get caught - all Austel has to do is find out who the modems have been sold to and go doorknocking for some revenue.

So what does Austel approval actually mean? It's all basically about safety. All sorts of nasty things can happen to computers, generally thanks to problems with power lines from falling trees, lightning strikes, heavy machinery turning on or off, strange and hugely improbable internal faults and the like. An Austel approved modem, in essence, won't allow huge voltages from a fried computer to get onto the phone lines and cook lots of other expensive gear.

If you get a lightning strike right outside your house, it'll fry your computer, your modem, and possibly yourself. In situations like this, even Austel approved modems can prove inadequate. But in normal surge conditions, an approved modem will not screw up the phone lines, and this is a Good Thing.

This, however, doesn't mean that unapproved modems are necessarily dangerous. They may well be, and using them is certainly illegal, but if they pass US FCC regulations they're unlikely to cause problems - we haven't heard any stories about modem nightmares for years and years. But FCC and Austel specifications, while similar, are NOT the same and NOT interchangeable, and every modem we use at the magazine (and at home, for that matter) is approved. So there.

Interestingly, it's apparently technically possible for Austel to bust you even if you're using an approved modem. For a start, there are some rather peculiar regulations about how you can set up your modem. According to the Telecommunications Act of 1991, you have to have at least two rings before your modem answers an incoming call, and there are limits on the maximum number of redials the computer can initiate.

There are a few other odd laws, but the weirdest of all seems to say that the computer you plug your modem into ALSO has to be approved - the Act says that "All Data Terminal Equipment supplied by a person to whom a DTE permit has been issued and which is connected to Telecom's, OTC's or AUSSAT's network though (sic) a permitted modem" is supposed to be covered by a permit - in other words, your computer. Not many computers are approved.

We've never heard of ANYONE being busted for an unapproved computer, though, so it's really just trivia, and a perfect example of technology moving way too fast for bureaucracy to keep up.

Acknowledgements:

Thanks for information used in this feature go to Andrew Hassell, Pauline Gleeson at Comma Corp, Joe Altoff (call his bulletin board on (07) 899 1180!), and everyone who's ever rung us up and cursed about their modem.

DirWork

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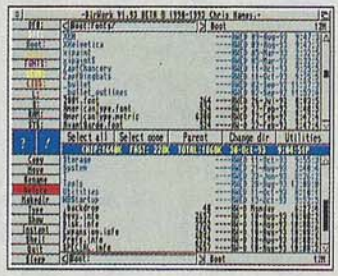

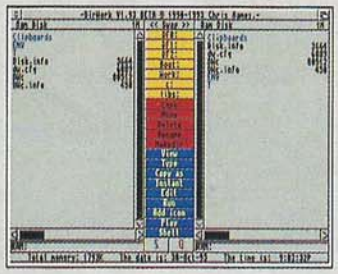

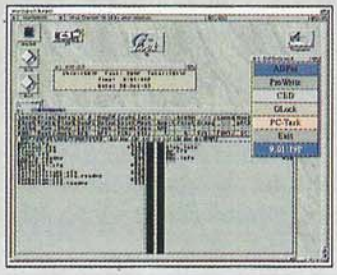

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Up and running

You've read the previous story, you've let out a thin shriek, you've retired to bed with a teddy bear and eight Mogadon. Surely communications can't be THAT horrible?

Well, not if you've got some basic knowledge. Figuring out every intricacy of modems and their interactions would stump Stephen Hawking, but a few simple tips will help you past the most common problems the modem produces.

If you buy an Amiga modem today, it'll be an external one. This, thankfully, gets around the problems of the cheaper internal models, which are more annoying to set up and have no visible status lights. The serial cable hooks the modem up to your serial port, of which more later. The power cable's function isn't too difficult to establish; most modems run from an AC plugpack that allows them to be sold in different countries without changing the modem - they're just supplied with plugpacks designed for different voltages.

You'll also need a cable to hook the modem to the phone line. Some modems have what's called a pass through port - you can plug in two phone leads, with the second one going to an ordinary telephone. The modem should automatically shut off the phone while it's working, to stop you accidentally picking up the phone while the modem's talking to another computer and stuffing up the link.

If you've got other extensions on the same phone line, though, it's perfectly possible to pick up the phone while the modem's on line and make it barf. Some modems survive this better than others, but virtually none will maintain a connection while another member of your family lifts the receiver and obliviously dials a phone number. Discreet paper signs on the other phones while you're online are the cheapest solution to this problem, but a dedicated phone line is the most elegant.

Getting back to the setup procedure, all the right cables are probably supplied - although some modems neglect the essential serial cable. Not unlike buying a car and finding the tyres are optional.

Amiga serial ports are much simpler than IBM - unless you've got a multi-port board fitted, you've got one serial port, and the only other thing you're likely to plug into it is a serial printer; if you have a choice, get a parallel printer, they're faster.

Once the device is physically connected to the computer, you'll need to run a communications program of some flavour. Your modem probably came with one that's good enough for casual use, but there are tons of other communications programs out there in the commercial and freely distributable arenas.

Now we come to the tricky bit. Modems are not plug and play devices. Unless you're quite remarkably lucky, you can't just turn 'em on and go. You need to fiddle a few settings to make sure the computer's talking to the modem at the right speed and the modem's talking to the outside world in the right language.

This stuff has got easier of late, with greater standardisation of online services. Just about every bulletin board you'll ever call, for example, uses eight data bits, no parity, one stop bit. You don't even need to know what this means - just set up the "8N1" configuration, as it's called, and you're away. You'll find these settings under "serial options" or something similar in your comms software.

No habla inglese!

Likewise, modems from different manufacturers now talk to each other quite reliably. In the olden days, interpretations of the communications standards were so lax that modems spoke very different dialects of the same language, and frequently screwed up in sometimes amusing but mainly damn irritating ways. Those days have gone, almost - any new modem will now talk to any other new modem with a high degree of reliability.

"Figuring out every intricacy of modems and their interactions would stump Stephen Hawking"

The glitches now show up only on occasional, high end features, like different ideas about the proper way to do data compression. Turn off the monster feature that causes problems with this particular other modem, and all will again be well.

Just the same, modems suffer from the video recorder syndrome. A large number of home VCRs are sitting there sadly blinking "12:00" because their owners never figured out how to set the clock. Likewise, many modems give lousy per-

What is FidoNet?

On most BBS's, you'll find message areas belonging to something called Fidonet. It's strictly non-commercial. The system works by repeating messages from one computer to the next, like the drums of some ancient African tribe. Computers on the Fidonet call each other during the night, and swap great chunks of data.

The result is an astounding resource of people spread around the world, accessible by a local telephone call, exchanging electronic messages on a host of different topics. Fido is not the biggest world-wide network, but it's certainly the cheapest and simplest.

It all started in the US around 1984. A man named Tom Jennings came up with the name FIDO and wrote the necessary software. At first one huge network existed, but eventually the number involved became unmanageable, and other small networks were arranged.

FIDO BBS software made its way to Australia and Europe though public domain software collections. Soon networks were running around the globe, with the European network linked back to the United States.

Before long a group in Melbourne, and another in Sydney fired things up locally and eventually linked back to the United States in late 1986. Today, there are hundreds of Fidonet systems across the country.

Fidonet is cheap, there's lots of message conferences and the information is public. Most message areas are moderated - overseen by a (hopefully) reasonable expert - to keep things moving along smoothly. You'll probably find something just for you. Topics range from Audio to Star Trek, Workbench to Networking, Eating Out to Entertainment. Check it out!

formance because nobody ever set them up properly. Anybody who tells you a modem's as easy to use as a toaster is taking liberties with the truth; if you're a complete computer beginner, approach with caution and a knowledgeable friend at your side.

Checklist

A basic checklist of things to do with your new modem, though, is as follows. Let's say you've bought a 14,400 with all the trimmings (2400s are easier, I'll deal with them later). Set up your comms program to a baud rate of 19,200. This, more astute readers will note, is higher than the modem's top speed.

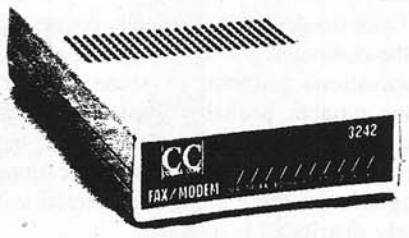
The reason for this is that the modem, told it can connect as fast as it likes, will use data compression if the modem it's connecting to offers it. If you just hook up at 14,400, the data compression won't necessarily happen.

Now, making sure the modem's plugged in and turned on, type "at", or if you're feeling really good "AT". The modem should reply with a cheery "OK". If it doesn't, something's wrong.

Before you start juggling cables, try just pressing a load of keys, or holding down one. The TX and RX lights on your modem (often called TD and RD), which indicate when data is being sent or received, should flicker.

If you've got an internal modem or one of the stripped down baby pocket modems, you might not have TX and RX lights. If this is the case, diagnostics are obviously more difficult.

If you do have the lights but there's no change in their status while you hammer on the keyboard, the modem's either misconnected or misconfigured. If none of the lights are on, make sure the power



switch is on and the modem plugged in. Ensure your serial cable is securely connected.

If all of these things are definitely right yet the modem does not respond, something is probably broken. Possibly the comms program, maybe the serial port or one of the chips that make it work (an otherwise perfectly healthy computer can have a stuffed serial port and you'll never know until you plug something into it), most probably the modem.

To eliminate the first two possibilities, try another comms program. Then try another serial port (remember to tell the comms program which one you're using now).

If your modem is broken, telephone your dealer, make vastly unhappy noises and get a new one.

If, as you type "at", the screen shows "aatt", you've got full echo turned on. This does absolutely no harm (you still only said "at" to the modem, but the communications program showed you what you sent AND the same characters, coming back through the modem). There will be an option somewhere to change the echo settings; if you turn echo off all will be well, but if you're connected to something that doesn't have echo on either it's impossible to see what you're typing.

If your modem's alive and says "OK" (which it probably will), it's time to set a few more things. As mentioned above, set eight data bits, one stop bit, no parity. Set your transfer protocol to ZModem, because that's what everybody else uses. Set the Serial port speed in Preferences to something pretty respectable, like 38,400 or more.

Why this last? Well, when your modem is using data compression, the amount of data it spits out to the computer (after decompressing it) is greater than the amount of data that came down the phone line.

If the modem to computer speed is the same as the line speed, then it will only be able to deliver this data at that speed and will sit about a bit waiting for the serial port to catch up with it. The chief symptom of this is the modem's RX light blinking during a download or lengthy text display, instead of staying more or less steadily on.

Remember, the serial port speed is NOT the same as the modem speed. Essentially, if your modem has data compression, set the serial port speed to around twice the modem's top speed and you'll be assured of the best transfer performance the modem can deliver.

Slowpokes

If you've got a slower modem, most of the above still stands. If you've got a 9600 with data compression, set the modem speed to 12,000 or more and the serial speed to 19,200. If you've got a 2400 with data compression, set modem speed to 4,800 or more and serial speed 4,800. If your modem doesn't have data compression, set modem and serial speed the same.

The other things you need to set are the different strings, as they're called. Your comms software will have a modem initialisation string and a hangup string, which are the most important ones. There will probably be a sample initialisation string (which will not make very much sense at all) in the modem manual; type it carefully into the box provided on the modem setup screen or window.

The other important string is the hangup string, which is probably set properly to start with. Generally, you should only use the hangup string if the bulletin board you're calling has died unexpectedly and won't hang up for you. Just hanging up in mid-call on a BBS is considered impolite, and makes the sysop suspicious about his system since he doesn't know if you hung up or his board stuffed up and dropped you.

Serial devices

One thing peculiar to the Amiga is its use of a serial device - a piece of software through which the operating system talks to the serial port. Commodore includes the standard serial.device, but you can use different ones if you like - just about every comms program includes a "set device" option. The problem with the existing serial.device is that it supports a great deal more options than the average user will ever need, and all this extra baggage means that using fast modems on slow machines can be a very marginal proposition, and 14,400 communications even on 68030 machines can cause significant slowdowns. The most popular alternative device is BaudBandit.device, which has all the seldom-used stuff removed and is built for speed.

The only problem you're likely to have is if you try to run your comms program without the modem turned on - for phonebook editing, say. Nothing will happen until you flick the modem on and off, since BaudBandit.device wants a DTR signal before it'll work. Baudbandit.device is the only way to get really fast (19200bps and beyond) connections happening on 68000 based machines. It's ShareWare, and costs 20 Deutschmarks to register.

Fax modems

Many new modems can send and receive facsimile transmissions as well, like a regular fax machine only without the built in scanner and printer. The program of choice for doing this on the Amiga is Australian programmer Greg Perry's excellent *GPFax*. If you have your own printer you can get your faxes onto paper that way, and you can create faxes in a word processor or desktop publishing package, which gives far crisper results than pushing a paper document through the cut-rate scanners that lurk within most fax machines.

Generally, if you can get the modem talking to the comms software, it'll work with the fax software as well. If it ventures forth on an extensive hiking tour of the Land of the Cabbage, it could be the initialisation string again - fax and data initialisation strings are different. Again, pore over the manual.

You'll also need to set up your name and number for the fax headers - if you don't do it, you can send anonymous faxes, but none of us can think of any reason to do that. No idea at all. None at all. Not a clue.

Once everything appears to be working - you've got paths set up for faxes to send and received faxes, and the print intercept function is on so that programs that try to print to paper actually send faxes - make a sample fax and send it to a friend, who can fax it back to you. If it arrives intact, you're in business.

Communications is not child's play. We take more support calls for modem-related problems than for any other single peripheral. But once you've figured it out, it's one of the most useful, cost-effective and downright fun things you can do with a computer. Gird your loins and have a go! ❑

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Personal Write

Super cheap word processing

by Daniel Rutter

I'm writing this article on what would, ten years ago, have been the hottest word processor in the world. *Personal Write*, from Cloanto who also make the rather successful *Personal Paint*, is a new, super cheap word processor for the Amiga with a few rather interesting features.

I'm not kidding when I say super cheap. *Personal Write* sells from Amadeus for a lousy $49, and it pays to keep this tiny price in mind when checking the program out. It offers an extraordinary list of features for the price, but there are still some glaring omissions.

The Amiga budget word processor of choice here at the ACAR office is *Transwrite* or *Transcript*, depending on which version you're using. Both are Gold Disk programs, closely related to the old and still okay word processor *Scribble*! and the *Professional Page* text editor, Article Editor. All have very spartan layouts, showing you the text, the bare text and nothing but the text, with no provision for fonts, graphics, or other namby-pamby desktop publishing stuff. For many people's needs, a stripped down word processor like this is fine; we certainly write an awful lot of ACAR copy on one Trans-variant or another.

You can get away with a stripped word processor if you've no need for frills, or if all the formatting niceties are going to be added later in a DTP package and you just need a simple, fast way of getting the words into the computer.

Personal Write shares the no fonts no pictures approach with *Transwrite* (well, almost - see below), but it adds a whole heap of other stuff. Like *Transwrite*, it uses proper Amiga windows for viewing documents, and automatically reflows the text to match the size of the window you use.

Unlike *Transwrite*, though, *Personal Write* includes a number of Real Word Processor Features. It can do mail merge - substituting names, addresses, honorifics and so on into a form letter. It does auto-hyphenation, keyed encryption (for paranoids), and can save in several formats. There's compressed saves, which are great for floppy users, and a bit smaller than PowerPacker can make them, but still slightly less efficient than LhA. There's IFF-FTXT format saves, for the approximately three people in the universe who care. And you can save in ANSI X#.64 format, whose major advantage is that there's an option to save with *Professional Page* codes, allowing you to move your formatted text to *Pro Page* easily.

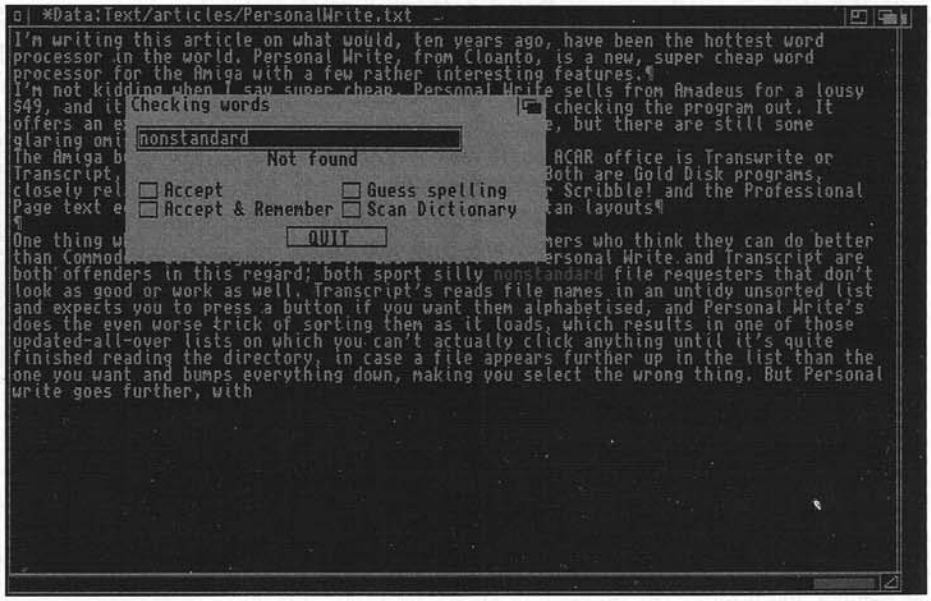
Character Sets

One useful feature is that *Personal Write* can load and save 26 character sets - Amiga, older Commodores, Mac, standard IBM and various international ASCII variations, and the newer Code Page 850 and EASCII standards. This means that no matter where a text file came from, *Personal Write* can load it, edit it and save it in a format the original machine can read. Average users will probably never need this feature, but some people may buy the program just to have it.

Graphic limits

Personal Write can actually load pictures, and print them, but it can't mix text with pictures in any way at all. If you want

Transwrite - basic but effective



a letterhead or a picture in the middle of a page, you print text, then you print your graphic on the same page, then you print more text, each bit from a separate file. This is an extraordinarily clumsy approach which is better than printing graphics from a whole different program, but it's like the difference being boiled in oil of different temperatures; on the whole most people would prefer to avoid the oil altogether.

The reason for the clumsy graphic handling is that *Personal Write* can't handle bitmapped screen output, which is needed for both fonts and graphics. In English, this means it's designed to work with built in printer fonts.

Within the limitation of not doing anything much in the graphic department, *Personal Write* does every printer output thing you need. It spools properly, so you can print one thing while working on another (*Transwrite* et al do this, too), and it lets you set all the basic page layout features and proportional print, too, which looks much better than standard fixed-width out-

Personal Write handles mail merge and multiple windows

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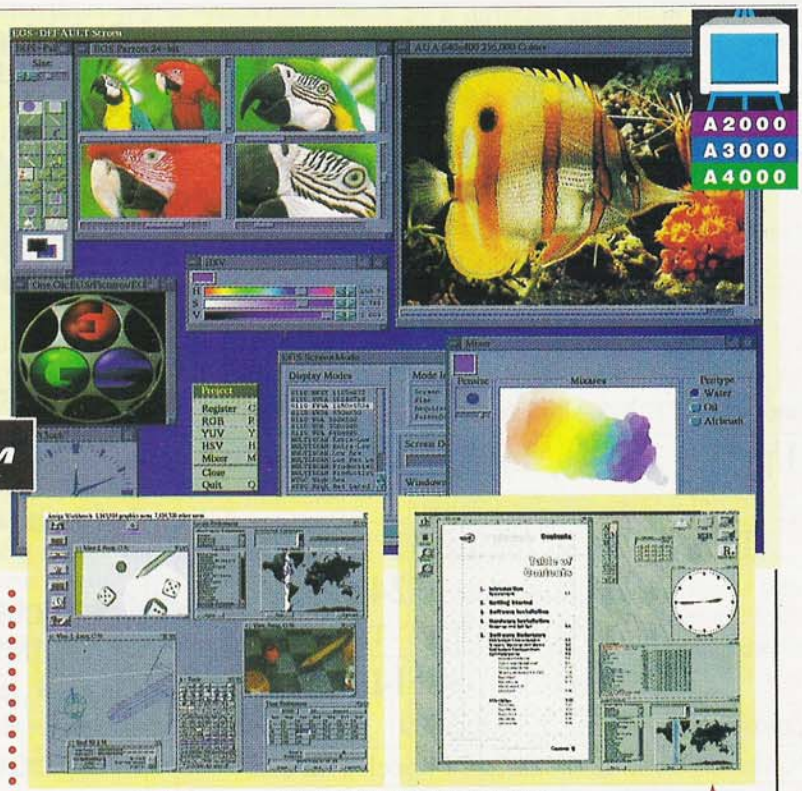

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put. *Personal Write* also has a basic Postscript driver built in, so you can select which of the printer's built in fonts to use for each typestyle and other basic features.

Personal Write's printer support doesn't include oddities like expanded and shadowed text, which most dot matrixes can do, a shame since there are no other ways to play with the output. You can't even insert escape codes into the text to activate these modes the quick and dirty way.

No spelling

Personal Write's biggest omission is a spell checker. That's right, this word processor has no spell checker, which puts it behind every other commercial word processor available today. Fortunately, Amadeus are selling the program with a Public Domain spell checker which you can run your documents through after writing them; with the Amiga's multitasking ability it's easy to change the mistakes in another copy of the document. But this is another clumsy point, and it's *Personal Write*'s biggest drawback.

Personal Write DOES have a word count (very useful for us journos!), along with a slab of mainly useless other text statistics.

It's also got an emergency text retriever, GrabText, which you use if your computer hung before you'd saved - or worse, while you saved. It scans memory after you reboot and tries to find the files *Personal Write* was working on. *Transwrite* has a matching program, RecoverTW.

Why oh why ...

One thing which irritates me considerably are programmers who think they can do better than Commodore at designing bits of user interface. *Personal Write* and *Transcript* are both offenders in this regard; both sport silly nonstandard file requesters that don't look as good or work as well.

Transcript's reads file names in an untidy unsorted list and expects you to press a button if you want them alphabetised, and *Personal Write*'s does the even worse trick of sorting them as it loads, which results in one of those updated-all-over lists on which you can't actually click anything until it's quite finished reading the directory, in case a file appears further up in the list than the one you want and bumps everything down, making you select the wrong thing.

Personal Write, like *Transwrite*, also uses nonstandard dialogue boxes, which like the file requester look and work worse than the standard ones. Mystifying.

But *Personal Write* goes further, with a block marking system that goes against not only Commodore standard, but the standard of the entire computer industry back to the bad old days of the early '80s when everyone's program had different ideas about which keys moved the cursor! To mark a block you hit F8 twice, then drag out the block as normal. You can't then see the "highlighted" area, but cut and paste (again done with weird F-key combinations) work on it as normal.

This system actually works about as well as the standard Amiga-X and Amiga-V setups, but why on earth did Cloanto do it? Just because they could? It escapes me completely; GREATER standardisation is the

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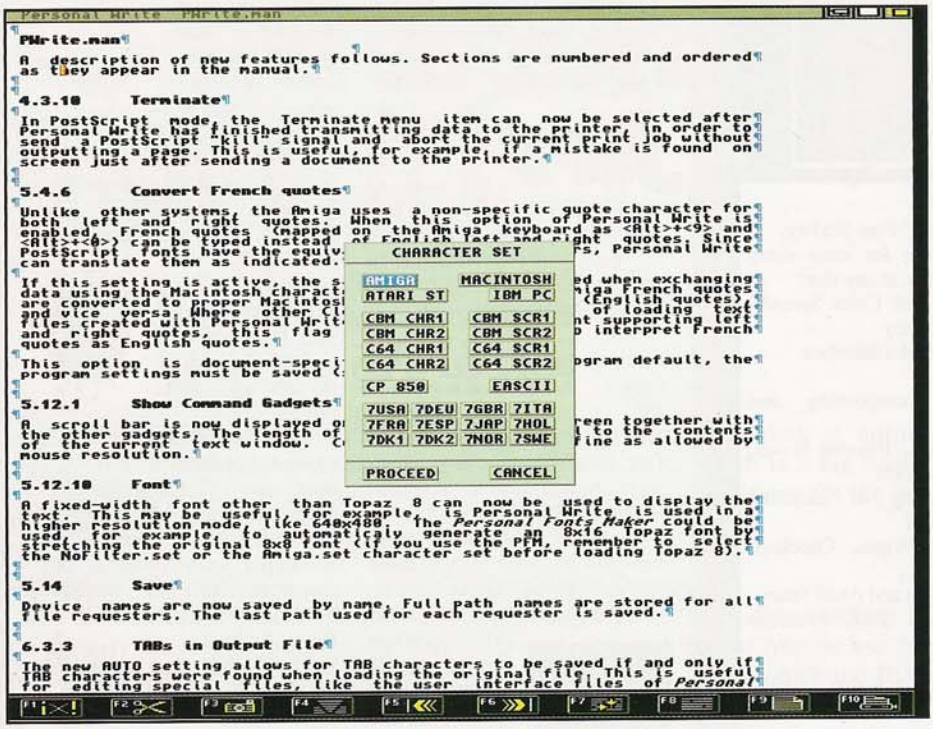

Personal Write supports 26 character sets

whole thrust of modern operating systems, and *Personal Write* goes completely in the other direction.

Personal Write's manual is a nice little ring-bound affair; it has no index but is otherwise perfectly adequate. For a program whose price is barely above shareware, it's excellent.

I haven't listed anything like all of the program's features; if a "full" word processor is a tablecloth, *Personal Write*'s a doily - smaller, but remarkably frilly. There are scads of little dangly bits to play with in this program, from sound feedback for events and errors to about a billion weeny configuration options. If this were a full-priced program I'd dump on it from a very great height. But it's not; it's $49. For that money, it's good value, particularly with the bundled spell checker.

Give the program a test drive first; its idiosyncratic operation may turn you off as much as it did me. But if you can put up with *Personal Write*'s quirks, you won't find more bang per buck anywhere.

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The Sky's not the Limit

by Graham Bowden

I received a plaintive missive recently from one Reg Forsaith, an avid fan of this column, the proud owner of a lightning fast A4000/040, and would-be artist of note but for his problem with clouds, landscapes and waves.

Dear and gentle readers I, your humble servant, am the meek owner of a Vanilla version A1200. No extra memory, no FPU and a minute 40 meg hard drive. Time and tithe will rectify this situation I'm sure, but in the interim, any plea for help from moneyed Amiga brethren turns my jowls a tad green. 'Tis envy you know.

Ham salad

Be that as it may, he had a genuine problem and the solution will be of benefit to all Deluxe Painters. Reg's first difficulty was to do with drawing clouds using HAM8 as his artistic medium. HAM of course, is a problem unto itself, especially in the context of *Deluxe Paint* and an un-accelerated Amiga.

My own mouse hand involuntarily flinches at the very mention of the word when I'm involved with this program.

You see with HAM format and a bog standard Amiga, screen updates consume almost geologic ages in execution. This is the reason HAM art has never been dealt with in my tutorials. My readers will forgive me then I'm sure, if my sagely advice, although dealing with HAM clouds, does so only fleetingly. Naturally the other clouds contained within this tutorial, which are created on anything up to a 256 colour Hi-Res screen, can be imported into a HAM page and modified at will. Let's look then at the fleeting HAM haze.

A point of reference

Figure 1 is a reference picture used to gauge the success of the cloud formation created in Figures 2 and 3. How was the cloud created in the later figures? Very easily.

Take a close look at Figure 2. This picture shows, among other things, the small cloud shaded brush used to begin the modification. It's simply a cluster of filled circles drawn using a range of nine colours with the fill type selected to vertical gradient as shown. All nine colours by the way, are shades of blue. A common mistake among budding artists seems to be attempting to draw clouds using shades of grey. Unless you're talking serious storm clouds avoid the greys and stick to the blues.

Next step is to call up the translucency settings requester (Ctrl-t) and select 90 percent translucency. With translucency On (Alt-t), click the cloud shape down repeatedly and randomly until an acceptably puffy cloud shape is created. Don't fall into the trap of selecting the airbrush tool and trying to spray the cloud shape down in one swoop. Translucency requires repeated applications - read mouse button clicks - to progressively build up the variations in shading required. Try this ...

Using the cloud shaped brush and with translucency turned On and set to 90 percent, magnify a section of the page. Select the unfilled draw tool (keyboard d) and drag the brush back and forth while holding the left button down. Notice that once the translucency has initially been effected, repeated moves over the same area are ineffective. Now re-click the left button and the next wipe over the previously covered area again has an effect. Each time the button is clicked the effect occurs. This means, of course, the airbrush really can be used but remember, keep clicking the button as you use it to multiply the effect.

Whether the weather

Have a look now at Figure 3. There are some explanatory notes on the right covering the previous paragraph but also note the use of our custom brush being used in "Color" (F2) mode. Used this way, areas of the cloud seed can be lightened or darkened using varying colours from the palette with translucency still turned On.

Ignore any sharp edges between different colours, they will be attended to shortly. Once the cloud is shaded to perfection, select Smooth from the Mode menu (or F8) select the sketch tool (Keyboard s) and the largest built in round brush and smooth out the sharp edges within the cloud.

Simple, isn't it? Always remember though ... make liberal use of the "Background/Fix" feature under the Effects menu. Each time it's selected it locks your entire picture into memory. Anything drawn down after the background is fixed can be erased using either the CLR (Clear Screen) tool or even better, by painting with the right mouse button.

Figure 1

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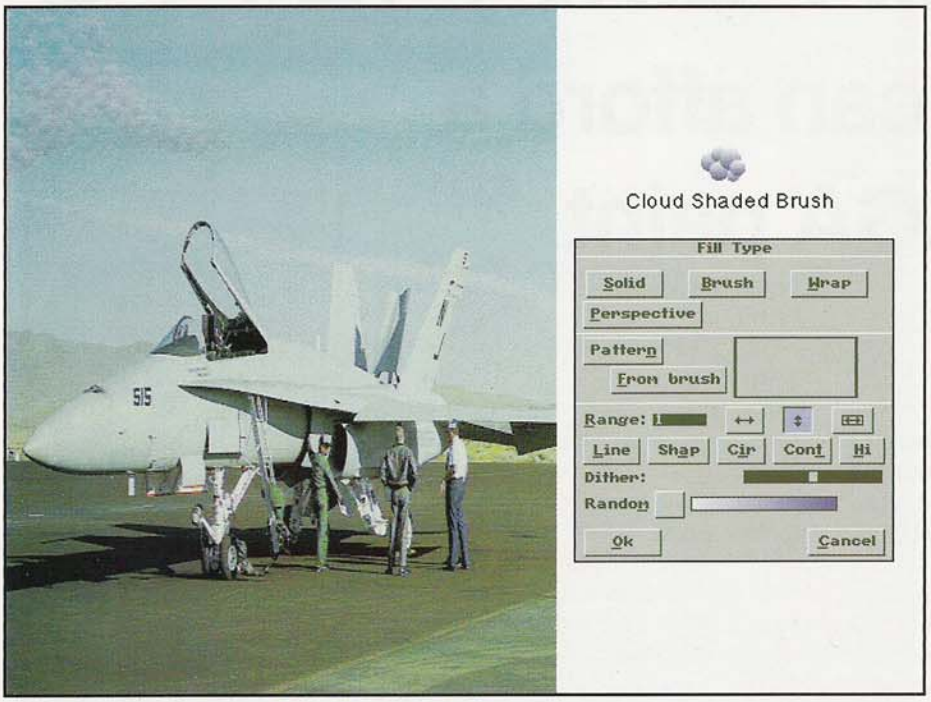


Figure 2

Either way the original picture will return unsullied so that if you make a mistake or overdo an effect there is no need to go back to scratch and begin all over again. By selecting Background/Fix regularly, say every five minutes or so, a lot of heart ache can be avoided.

Another tip. If your picture is saved as "Clouds.pic" try saving it alternately as "Cloud1.pic" then "Cloud2.pic" then "Cloud1.pic etc just in case the power goes down part way through a save and the picture file becomes corrupted. Believe me, it might not happen straight away, but it will happen.

Climbing higher

Now to the Hi-Res clouds in Figure 4.

Cumulus clouds can be created by building a range of blues as shown, grabbing the small, scattered pixel built in brush, turning on Cycle mode (F7) and airbrushing a shape onto the sky. This doesn't look much like a realistic cloud but it will, it definitely will. Select Shade mode (F5) and let's shade the colours into something more cloudlike.

Shade mode's effect was explained in the shadowed moon tutorial back in the October '93 issue so regular readers should be aware of its workings. Our cloud will need the colours towards the top lightened and those along the bottom darkened for no better reason than that's how clouds appear in the sky courtesy of the sun's altitude.

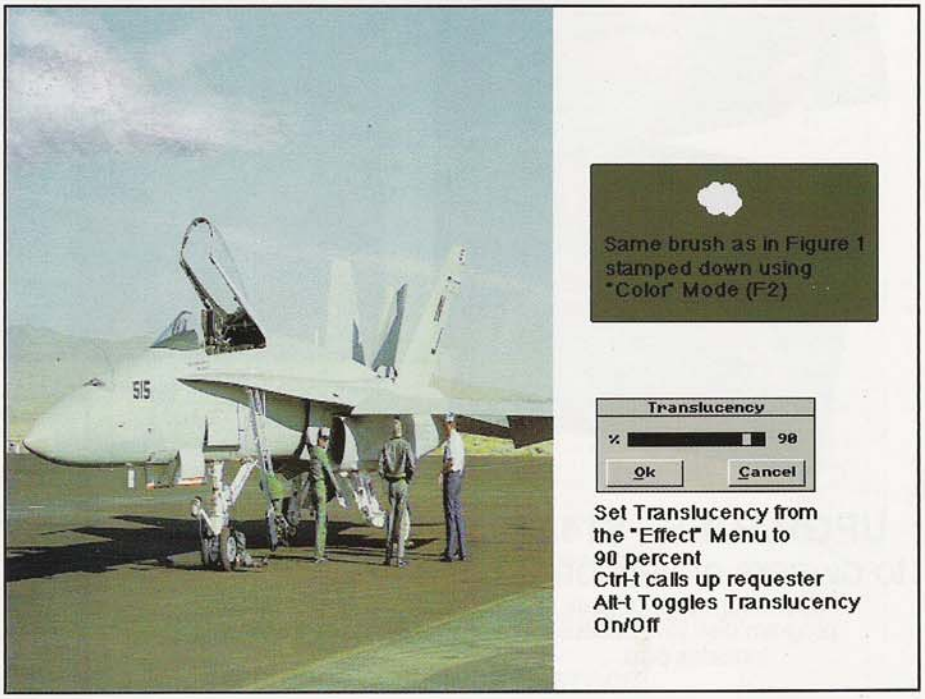
Remember the left mouse button shades colours down the palette within the created and currently selected range and the right button shades upward. Within our particular range the lighter colours are higher up the palette than the darker ones so the left mouse button will darken the cloud and the Right button will lighten it.

Okay. Shade's selected, airbrush is selected so simply use the appropriate buttons and perhaps the second largest round built in brush and shade the cloud. You may like to experiment with airbrush sizes to obtain the desired effect but experimentation is part of the art of time wasting when all is said and done. With the shading to your liking it remains only to grab the largest round built in brush, select Smooth (F8) and the sketch (keyboard s) tool and doodle around the cloud smoothing its rough and sandy edges away.

Soft and light

The small puffy cloud to the left of the sky in Figure 4 was also created in this way. The scattered end of the large cumulus and the scattered pieces again on the left employed an additional custom effect.

Figure 3



Take a look at the Spacing requester (Shift-v) at the bottom left of Figure 4. It's selected to Airbrush with a density of 2 in the box. The higher the number in the density box the thicker the airbrush will spray. For the scattered cloud we need only a very fine spray, hence the low number. Using the scattered pixel built in brush, I activated the Curve tool (Keyboard q) and with "Smear" mode selected, stretched a curve over a couple of small puffy clouds and ended up with the result you see.

By the way, the Curve or Vector tool is used for this effect because it is only via these tools' spacing requester that the airbrush density - amount of splatter if you like - can be controlled. Simply using the airbrush tool with any other drawing tool will generally produce too heavy an effect. Experiment, you'll see what I mean.

Finally the banded cloud simply used the custom brush shown, in conjunction with Cycle mode and the airbrush tool.

The finishing touches

There remains one more tweak which can be applied to clouds to enhance them further and it involves using "Blend" mode. This mode in *Deluxe Paint* operates something like a dynamic smoothing tool. It'll drag colours out across the screen in a similar manner to "Smear" only this time other palette colours are added to the effect to smooth the edges between whatever colours are passed over.

The banded cloud at the lower left of the patch of sky in Figure 4 gives an indication of what can be achieved. After the cloud was created the second largest built in round brush was used in conjunction with the Sketch (keyboard s) tool to drag the cloud edges across the canvas and blend away some of the more ragged edges. And so to landscapes, oceans and the like.

Related manifestations

Until the carrier pigeon delivered Reg's letter I'd never tried to draw such natural beauties but a little experimenting created the picture in Figure 5. The trick here, as with the clouds, is to make full use of the tools *Deluxe Paint* provides rather than trying to draw things by hand.

The picture began using the Filled Freehand tool (Shift-D) to draw the shape of the sandhill, beach and grassy knoll, each in a different colour. Several colour ranges were next created to serve as sandhill, ocean, grassy knoll, beach and sky mixtures. The sandhill brush shape was next drawn as a solid shape before filling it using the sand colour Range with "Shape" selected from the Fill Type requester (Shift-F).

Next a stencil was created which protected all colours except the apricot colour of the sandhill. The sandhill brush was then simply airbrushed onto the screen.

A little juggling was required towards the bottom of the picture to vary the apparent slope of the hill a little. This was accomplished by rotating the brush slightly via the Brush/Rotate/AnyAngle menu item and enlarging it a little by tapping the "=" key. Final cleaning up was done using the tried and true shading process with various built in brushes. Obviously the

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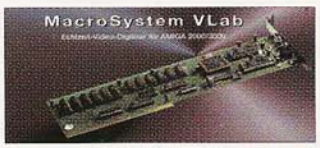

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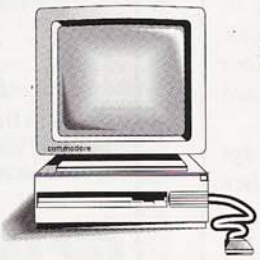

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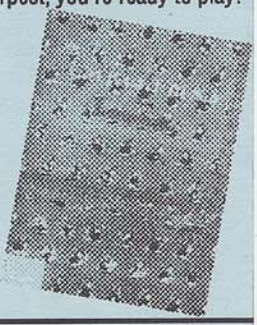

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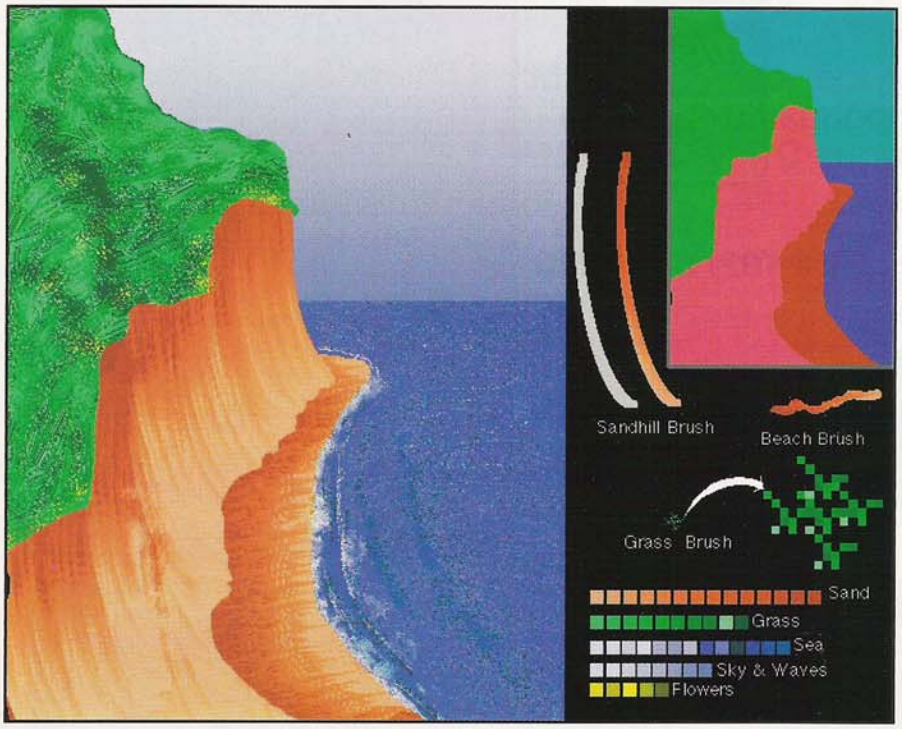

Figure 4

beach used the same style for its creation.

The grassy knoll employed a different approach. The magnified version of the grass brush reveals it consists of several shades of green from the grass colour range. This brush was dragged around the stencilled green area using the Freehand Draw tool which produced an oil painted effect. The same brush was then used with the airbrush tool in Shade mode to finish off the effect.

With the stencil still active I selected the scattered pixel built in brush, the flower colour range, Cycle mode and the airbrush tool to spread the yellow flowers around.

Then came the ocean. It was drawn in using a deepish (to borrow a cricketing commentator's expression) blue before the Sky & Waves range was selected for the waves. To draw these I adjusted the Airbrush nozzle down to about 5 pixels in diameter, selected the good old "Cycle" and airbrushed my way up and down the foreshore and out to sea scattering spray and waves behind me.

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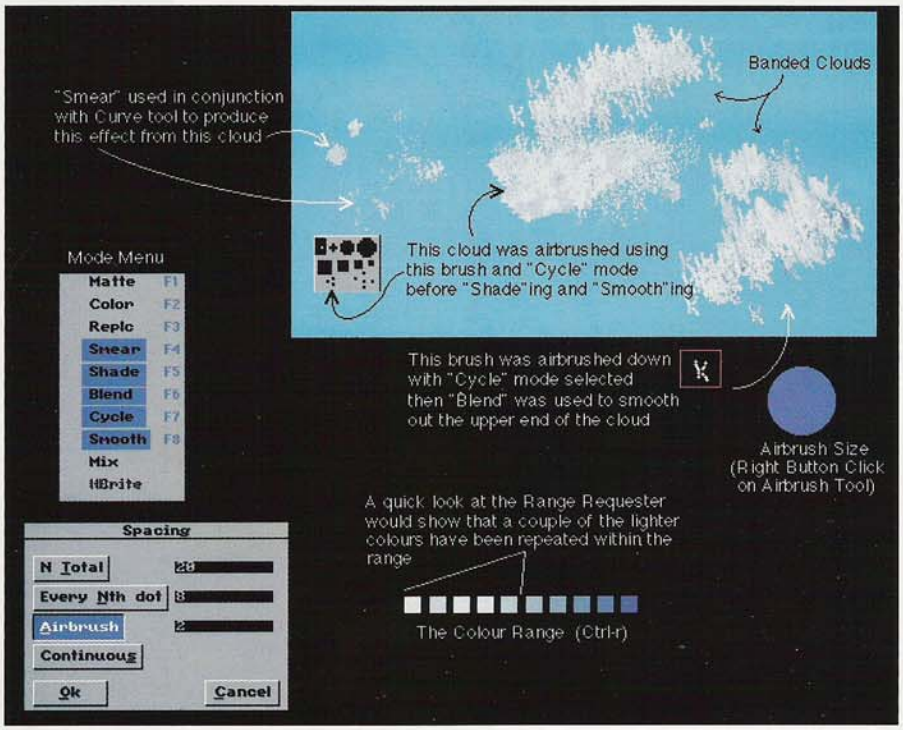

Figure 5

Finally the sea range was selected and the reflection and shadows of the ocean ripples were scattered about using a spray nozzle about 50 pixels in diameter. The sky? Why, it was a simple fill operation using colour Range 5 and vertical gradient fill type.

Next Issue

Next month's tutorial will deal with creating a seascape from a vantage point slightly above the beach with an excellent view of the surf and passing birdlife. Until then how about sending me details of any curly *Deluxe Paint* challenges you're facing. You've got no problems? Then how about sending a few hints of your own. This column could well do with a little stimulation from other avid Amiga artists. Send your queries and tips to Graham Bowden c/o Morayfield PO Qld 4506.

Until next month, Ciao - Graham. ❑

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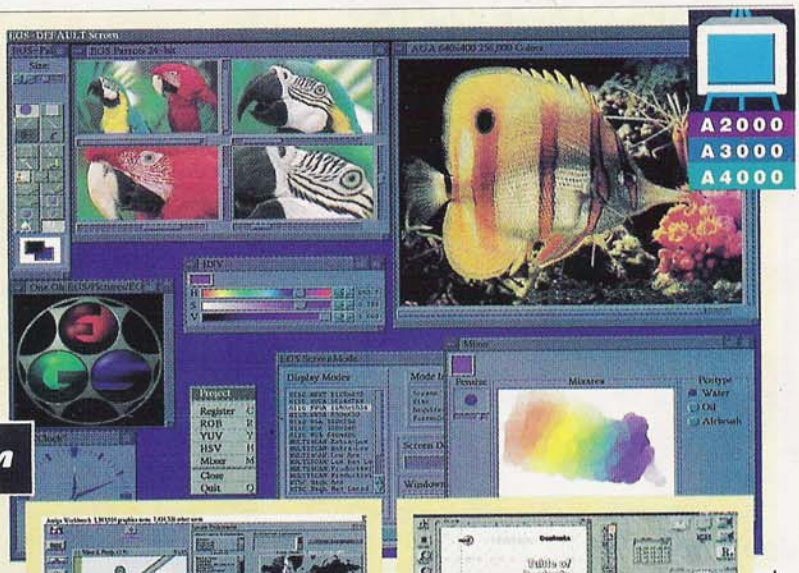

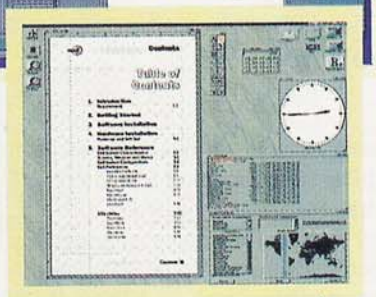

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Crossword Wizard

by Joe Candoing

Crosswords have been a source of pleasure, relaxation and also frustration, for people from 8 to 80, for many years. They have appeared in many forms, from simple ten clue crosswords to monsters such as Mister Wisdom's Whopper in the *Australasian* Post. With *Crossword Wizard* you can now create your own crosswords. You can then print them out to give to friends or family to complete. Teachers can design crosswords for class use quickly and easily using *Crossword Wizard*'s simple crossword creation features.

All you need to do is provide the words and clues and Crossword Wizard will do the rest for you. Crosswords can be created in various sizes, saved to disk, edited at any time and printed out to any Amiga compatible printer. Clue Lists, Word Lists and Solutions can also be printed. You can also play any crossword you have created on-screen.

A timer is displayed, showing the time elapsed while doing the crossword, the number of clues attempted and the number of clues entered correctly.

The creator page is well set out and all information relevant to the crossword is displayed down the right hand side of the screen. You can create crosswords to a maximum size of 25 by 20 letters. An interesting feature is the AUTO-CREATE feature, where you can select a list of words to load, and a crossword will be created using the words in the list.

Any words that wouldn't fit into the list are placed in an unused word list. As you add further words to your crossword, the program will attempt to insert words from the unused word list into your crossword. The word lists can be created from within the program. When this option is selected, a small text editor is displayed, allowing you to enter your wordlist and then save it to disk.

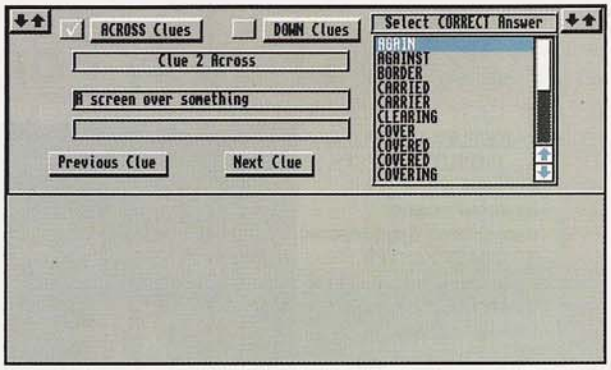
While entering words, if a word is placed in an unsuitable location, you can use RELOCATE to move the word around the crossword, to see how it looks in other locations. This is useful if the crossword is becoming a bit crowded in one section. The size of the crossword can be changed at any time by entering the new dimensions in a requester that pops up. The crossword grid is redrawn, and the words are placed back into the new grid.

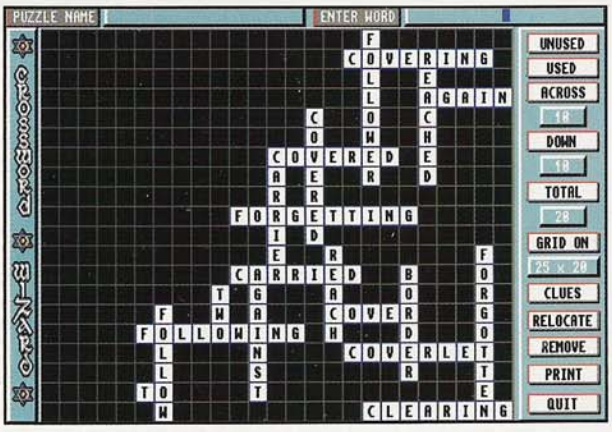
Once the crossword has been created to your satisfaction, it is a simple matter to enter the clues to match the words. A small entry window pops up over the crossword, allowing you to enter your clues. The clues are then saved with the crossword. There is also an option to play a crossword you have created, which would be most useful in schools.

There are several options available when printing your crosswords. You can set the pattern for the blanks in the crossword, preview the crossword before printing, and select whether to print the solution.

I found the speed of the program to be very good. I tried lists of 50 words and more, and found that the crosswords were generated very quickly. Also the printouts are extemely good, unlike many of the other crossword creators I have seen on the Amiga. The program installs onto a hard disk easily and has no copy protection. Rush Software rely on the honesty of the users of their software. If you like creating crosswords then this program is ideal.

For more information on this program, and for details on ordering contact Rush Software on (042) 342107. ❑





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Utilities extract more from Workbench

Program complexity guide:
*** If you can find your bum with both hands**
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***** No hands**
****** If you can talk someone else into finding it for you**

After last month's Fish festival, it's time for another general look at the newest offerings from the PD and shareware world.

ALoad **

In the Impressive Flashing Lights department is this elegant little system load measurer. It opens a window (whose size and position you can set) with a scrolling display of how much of your CPU time is being burned. That's all it does, and it's not actually very useful, but it's small and sure impresses people that you're a Serious Power User.

ARTM ***

I last mentioned *Amiga Real Time Monitor* more than a year ago, and it's been updated. ARTM's one of those diagnostic programs that you'll know if you need. It allows you to view and play with tasks, windows, libraries, devices, resources, ports, residents, interrupts, vectors, memory, mounts, assigns, locks, fonts, hardware and resident commands. ARTM will, in essence, tell you anything you want to know about your Amiga, as well as letting you juggle task priorities and lots of other stuff. The current version is 2.00; it's removed a few more bugs and added some cosmetic features, but the change that made it worth including on the companion disk is online AmigaGuide help, which is a big bonus with a program so mystifying for the basic user.

DiskSpareDevice ***

The Amiga's floppy disk handling is unusual. The vast bulk of Amigas use the old double density disks which the IBM world has virtually forsaken, and our more efficient but slower FastFileSystem manages to pack 879 kilobytes onto them - standard MS-DOS only manages 713 kbs.

But it's possible to pack still more onto a floppy, by using non-standard file systems. I've seen this sort of thing working on IBMs before, but *DiskSpareDevice* is the first effort I've seen on the Amiga. By installing the diskspare.device in your DEVS: directory (you need at least Workbench 2) and setting up the right mountlist entries, you can have a standard Amiga formatting floppies to a full 984 kilobytes - more than 100k extra. And diskspare.device actually works a little faster than the standard trackdisk.device!

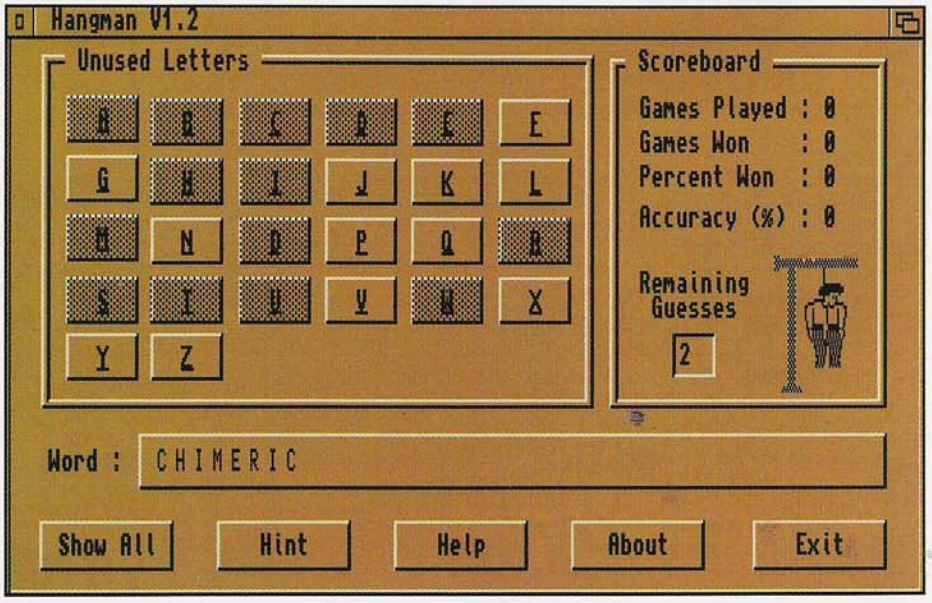
The down side is that it gets 984k by cheating a little, and hitting the hardware to put two more tracks onto the disk above the standard 80. This doesn't matter if you're using Workbench 2 or 3 and just about any floppy drive, but it may well break with future operating systems and a few odd drives. You can fix both problems by using a smaller version without the extra tracks (only 960k).

Users of floppy only machines should love this system, as will people using DOS disks for backups and anyone who's ever tried to move a file that's one kilobyte too big and had to muck about with splitting and joining the file. Incidentally, *DiskSpareDevice* disks are also immune to bootblock viruses!

HOT PD

by Daniel Rutter

Hangman - ferociously challenging



CatchDisk *

If you are using a Macintosh (the computer with training wheels you can't take off) you'll notice that when you put an unformatted disk in the computer helpfully asks you if you want to format it. *CatchDisk* sets this up on the Amiga, where it's not quite as useful.

You see, the Amiga's got lots of different disk formats that it can't necessarily read all the time. A Workbench 1.x machine won't necessarily be able to read FastFileSystem disks. A machine that doesn't have CrossDOS or similar running, or just hasn't mounted CrossDOS for the drive the disk's in, won't read MS-DOS disks. And the above mentioned *DiskSpareDevice* makes disks that are quite incomprehensible to an Amiga without it. Add non-DOS games to this list and you've got a ton of different sorts of disks which *CatchDisk* will ask if you want to format, and if you say yes you'll be sorry. But if you don't deal with these weird formats often, it's great. And you can always turn it off, after all.

CLICommands ****

For the Real Users out there (only quiche eaters use Workbench!), here are a couple of nifty, and tiny, CLI commands. Cmp takes two files, pumps them out as parallel hexadecimal listings up your shell window and highlights the differences between them. Sot does the same thing as the AmigaDOS sort command, only more than ten times faster. The author's not sure just how much faster, since he got sick of waiting for the AmigaDOS one to finish!

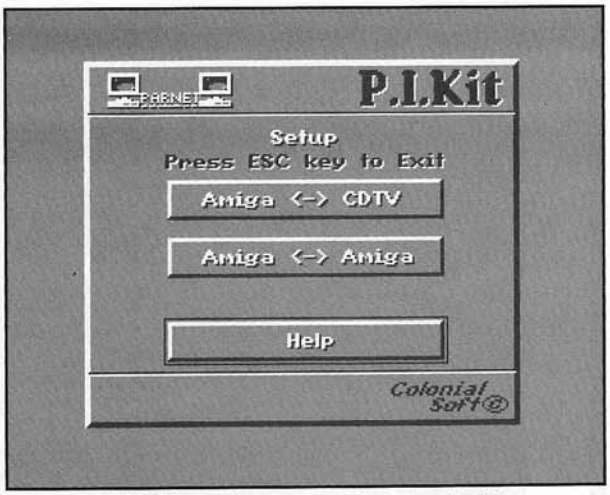
FastJPEG ***

JPEG images are rather nifty. By sacrificing a little or a lot of image quality, depending on how they were made, they let you pack big 24 bit pictures into startlingly small files. The down side is they display very slowly.

FastJPEG is a JPEG viewer, which comes in both ECS and AGA flavours and (prepare to be surprised) displays JPEGs quickly, but still with decent image quality thanks to some quick and dirty dithering. *FastJPEG* runs on any Amiga (although the AGA version requires an AGA machine, duh). It's also freeware - nothing more to pay.

Hangman *

If you need the game of Hangman explained to you, I'd advise that you peel yourself from your computer chair and ask another human being about it. This version's pretty good, with an editable database of 17360 English words, not many of which lend themselves to easy guessing. Abidjan, adenoma, hardcider (even my spelling checker doesn't know that one!), phloem, to quote a few of the less frequently heard. You get ten guesses a word. It's not a kiddy game.The only real problem with this Workbench 2 game is that it scrambles its window if you're using a font that's a different size to Topaz 8 as your screen font. So don't.



PIKit's main screen. Complex, huh?

Hangman comes with Dutch, French, German, Spanish and Swedish word lists, but I archived these to make it fit on the companion disks. If you want a real challenge, unarchive them and go for it!

Powersnap 2.2 **

It's been a while since the last update to this eminently useful program. *PowerSnap* lets you grab text with the mouse from just about anywhere and paste it just about anywhere else. Version 2.1 added the hugely helpful history window, and v2.2 now has a completely font-sensitive and localized user interface (in other words it looks OK when you use odd fonts and if you want to see it in Norwegian you can), it allows you to save the settings from the Workbench interface, it recognizes text lines with an extra pixel in between (though it's still not perfect ...), and it allows you to specify the clipboard unit to use.

On the purely frivolous side, you can now have ants around the text being snapped. You know. Ants. Little marching three pixel thingies. Ants. Ah, forget it.In any case, PowerSnap is better than ever and indispensable. I use it every day. Get it.

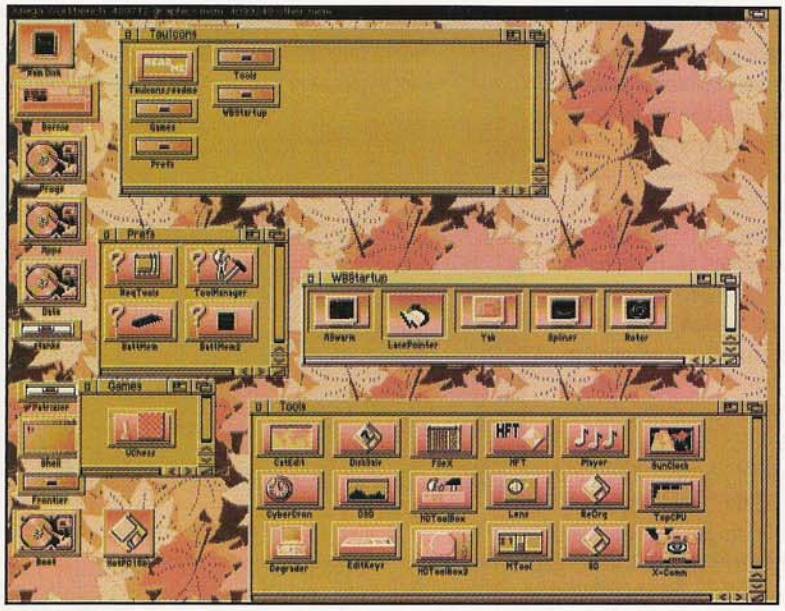
TauIcons **

Magic Workbench has been described as a virus - the prettified set of Workbench icons and backdrops has spread rapidly through the Amiga community, adding little usability and eating considerable chip RAM wherever it goes. Tough. I like it.

And in the interests of perpetuating its inefficient but aesthetic survival, here are 28 more groovy icons for *MagicWB*, done by a different guy but in the same vein and covering a few more programs, so you don't have lumpen old style icons cluttering up your flash New Wave Work-

Labyrinth BBS

Recently I banged on somewhat about the Oz Online bulletin board, which earned me a slightly reproving phone call from Grant Robinson, the sysop of the Labyrinth BBS, which I'd described as smaller. Labyrinth is NOT a little board, with full InterNet access (drop me a line at danr@labyrinth.apana.org.au!), very active file bases (with a fair influx of rather elderly stuff but hey, nobody's perfect) and a six CD-ROM changer in the pipeline. It's also an online link to Sigmacom, one of Australia's leading Amiga retailers, and users get the early news on specials and new products. Add to this online fax services and loads of online games and you've got a very worthwhile board. Membership costs from $20 to $50 a year, and you can reach Labyrinth on (02) 580-5829 and (02) 580-5881.



The TauIcons - a feeble excuse for another picture of my Workbench

bench. There's no installer included, like you get with *MagicWB* itself; you have to copy them over by hand. Diddums.

DataMagic **

Gary Midwood of 1462 Ross River Rd, Kelso 4815, was good enough to send me his hybrid database program *DataMagic* for evaluation. The program, written in AMOS Basic, is not very pretty, multitasks clumsily and has inexpertly written documentation, but apart from that is rather good.

The idea of *DataMagic* is to let you show pictures, animations or text files, play SoundTracker modules or raw sounds, launch other programs and run batch files from a comfortable button interface, with files being accessed from lots of different places. It's a cross between a directory utility and a database, and it works quite well.

There's also a simple notepad style quick reference feature, reminder memos that you can set to annoy you on a certain date and a calendar.

You can configure *DataMagic* to run just about anything that doesn't detach from the CLI and doesn't need icon tool types, so the possibilities are considerable. Perfect it is not, flashy it is not, but useful it certainly could be. Get hold of the freely distributable version from any good PD library and see if you think it's worth it, or contact Gary (079) 740 646.

PIKit **

ParNet is a very cheap two machine networking system which uses a modified parallel cable to connect the machines. It allows data transfer at about 23 kilobytes per second - about the same as floppy - and allows proper networking - you can run programs stored on the other machine, manipulate files there and so on.

Using a disk called *ParBench*, it's quite easy to set up ParNet, but this assumes you have the special cable. If you're handy with a soldering iron you can make up your own, or you can pay an exorbitant fee for somebody else to do it for you. But now, naturally, There's An Easier Way. Local designer Jeff Wilson is selling a simple hardware gizmo called PIKit, for Parallel Interface Kit, which plugs into the end of a standard parallel cable and turns it into a ParNet cable. Easy as that.

The PIKit hardware also comes with an installation disk which features a chunky but simple point and click interface which is even easier to use than *ParBench*. The underlying software is still the same ParNet, so it's no faster once it's set up, but the setup process itself is now a genuine doddle.

For more information contact Megadisc at PO Box 759, Crows Nest 2065, or call them on (02) 959 3692.

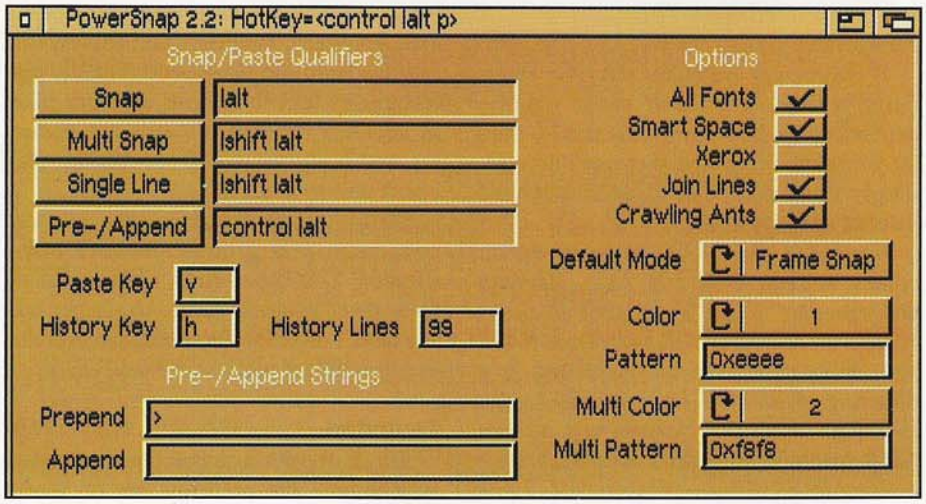
Faster ParNet ***

On the subject of ParNet, I've come across a couple of optimised ParNet.devices which increase ParNet transfer speed by up to 20 per cent. The usual disclaimers apply if they happen to turn your system into a toad, but they're on the companion disk for your experimenting pleasure. There's one for 68000 users and one optimised for 020 and above.

And More ParNet ***

Still on the subject of ParNet (hey, it's been 13 months since I last mentioned it, OK?), ParNFS is a tweaked version of the whole system which addresses some old problems. Namely, it comes with source

PowerSnap's simple but functional interface



code, gives proper "list" directories, co-operates with other applications using Parnet and doesn't give annoying requesters when you try to use 2.0 features.

As a side effect, if one of the machines ParNFS connects uses Workbench 1.x and the other doesn't, the newer machine can call WB2 functions and crash the system. The solution to this problem is, once again, to upgrade.

This new package is NOT set up in as warm, pink and fuzzy a way as *ParBench* and PIKit, but it does come with an installer and good documentation so you needn't run screaming if you're not a ParNet guru.

New virus

It's thankfully been a while since I had to tell you about a new virus, but another one's come around.

The Degrad trojan claims to be a degrader type program for AGA machines (to make old, badly written programs work, you know), but don't trust it. If you run it it just writes blocks of zeros over the Rigid Disk Block of any hard disk - in other words, your hard disk suddenly forgets all its vital statistics and you have to restore them as they were or lose your data.

The Degrad trojan is 5612 bytes long unpacked. As I write, no virus checkers spot it, but there should be a new *BootX* recognition file out by the time you read this to catch it.

Apology

The Illusion picture I included on my companion disk two months ago was actually created by our own Graeme Whittle, general Amiga graphic guru. I downloaded it from a bulletin board, all innocent, and it came with no attribution. Graeme knows quite a lot about these 3D pictures, and may well be writing an article for ACAR on the subject some time soon!

All of the programs mentioned this month except for PIKit and *DataMagic* are on the companion disk two pack, available from Prime Artifax as HotPD 15a and b. As usual, it's all laid out nicely and fully iconned. 'Till next time!

Demo Column

by Mark Cocquio

Well, hello and welcome to the new section! I'll be dealing with an aspect of the Amiga that many users take for granted, but many people using other computers rarely see; demos. These examples of (often) stunning graphics and sound are plentiful on the Amiga, but quite scarce on other machines.

This column will feature some of the more notable demos for the Amiga, both for the newer AGA machines and the older ECS ones.

By the way, if any of the jargon below is unknown (for example, "wormhole"), find the demo somewhere and it should become clear once you see it.

Demo Ratings
+ Seen it before...
++ Getting the idea
+++ Not too foul at all
++++ Seriously groovy!

HoisAGA +++

As the name would suggest, this is an AGA only demo. In fact, it is one of the first ever produced. Reasonably slick, it doesn't do anything really new or revolutionary; it merely sets out to show off the AGA chipset, which it does quite nicely. Old ideas have been put to good use with the new graphic capabilities of the AGA chipset, and the result is a nice, slick looking demo. The accompanying soundtrack isn't all that awful either. Notable features include some cute fireworks and other patterns, a simple yet effective dissolve routine (that ECS could never manage nearly as well), and many, many colours.

Mindwarp +++

Another in the AGA series, actually coded by the same group that did *HoisAGA*. It has the same "look and feel" as *HoisAGA*, but plays different tricks. It's mostly fairly stock stuff like wormholes and vector spheres, but there are a few cool things, like the bouncy balls being bounced by the music (you really have to see it, OK?). They seem to also be showing off their scaling routines a lot. Since *Mindwarp*'s an AGA only demo, the graphics are of course very slick. The soundtrack is also very similar to its predecessor. A plus for both demos is that they can be installed on a hard disk.

Virtual Journey ++

Yet another AGA demo. One of the more recent offerings, it's nothing to write home about. The AGA graphics are just about the only thing that really set it off, which they do for any demo. Apart from that, pretty standard; vectors and various objects throughout. Worth a look, but won't run on my '030.

Odyssey +++

An oldie but a goodie. For those who haven't seen this one before, it's more of an epic than a demo of the common flavour. Vector graphics and still pictures feature throughout, along with a few nice looking explosions and stuff. There's also a pretty vanilla flavoured soundtrack to accompany the on-screen action. Five disks worth, the demo runs for about 20 minutes, imparting a "space hero" sort of story. It will run on most machines, but needs KillAGA or a similar program for the newer chipset. It's also hard disk installable - if you've got the right version!

World Trash +

Pretty much an average flavour of demo here. The usual smattering of vector graphics, ray traced animations and such. There's a pretty good plasma display in the middle, but the rest is all formula. Very well coded and attractive formula, but formula none the less. If you've never seen a demo before then this might be a good place to start, and shows you what to expect.

Satisfaction Guaranteed ++

Another "Mr. Average" type of demo, but not quite as average as the one above. Featuring balls, interference patterns and a wormhole, it is a fairly slick, although somewhat repetitive piece of work. A fairly boppy soundtrack accompanies, with the nice touch of actually following what is on the screen.

Squeezing your data

Hello all, and welcome to your monthly Blitz II column. This month we will be looking at compression, and creating two very useful functions to add to your growing set of home made Blitz functions. But first I'd like to thank all the ACAR readers who have written to me with praise, suggestions and requests. I appreciate all your feedback, but I must thank in particular two chaps, Neil O'Rourke and Steve Boothman, for their ideas and code.

What is compression?

Compression is the ability to "pack" data into a much smaller space than it would normally require, and "unpack" it only when you need to use the data. This saves disk space, memory and perhaps modem transfer times, enabling the programmer to pack more data and code into less room.

A simple analogy to help you visualize the idea behind compression would be to replace all the occurrences of the word "the" in a book, with just the letter "T". The reader would still understand the data, but the number of letters required to communicate the meaning would be reduced. Compression is all about removing redundant data, while retaining the original data in tact.

Blitz compression

Our Blitz compression system will take the form of two functions, PACK {IN$,OUT$} which is used to compress the data, and UNPACK {IN$,OUT$} which is used to uncompress the data into its original form.

These functions use the undocumented Blitz commands Implode and Deplode. While I can't say for certain why the documentation for these extremely useful commands was omitted from the manual, I can tell you what we have managed to discover about these secret commands. You read it first in ACAR!

by Roy Hurley

IMPLODE: Error/crunched length = Implode (Buffer Address, Data length)

The Implode command requires an address in memory to start its compression from, and the length of the data you want to pack. The screen colours will flash during the compression process to let you know it's working. If the compression was successful, you'll be returned the new length of the imploded data, otherwise an error code.

DEPLODE: Success = Deplode (Buffer Address)

The Deplode command only requires the address in memory that your compressed data is located at, and it will set to work uncompressing it.

The problem is, that Deplode will expand the data out to its original length regardless of your buffersize, so it is vital that you allocate enough memory to hold the uncompressed data length, not just the size of the compressed data.

Most of the time this won't be a problem, since it will have been you that created the packed file. Luckily, the compressed data stores the expanded length of the data in the second longword of the file, so it's possible to read this if you are unsure of the uncompressed data's length.

As an example of the use of these commands, I've created two simple functions. One is called "Pack" and enables you to load a file on disk, compress it, and save it out again. The other function is called "Unpack" and loads the compressed data in, unpacks it and saves it out to disk.

Although just a simple example, the user could go on to create more elaborate compression systems using the principles outlined in the following functions.

```
Function PACK {IN$,OUT$}
   ; Packs the file called IN$ and saves it out as OUT$
   ; Requires BLOAD {}, BSAVE {}
   SHARED FADDRESS,FLENGTH   ; share these BLOAD {} values
   If BLOAD {IN$}                    ; use our BLOAD {} function
      length=Implode (FADDRESS,FLENGTH)    ; Imploded the data
      If length                  ; if ok, save out the data
         result=BSAVE {OUT$,FADDRESS,length} ; use our BSAVE {} function
      End If
      FreeMem_ FADDRESS,FLENGTH          ; return memory to the system
   End If
   Function Return result             ; return result
End Function

Function UNPACK {IN$,OUT$}
   ; loads and uncompresses a file, and saves to disk again.
   ; Calls: ABLOAD {}, BSAVE {}, FSIZE {}
   ; Get the length the file will be when uncompressed
   ; (secondlongword) use ABLOAD to load in the first 8 bytes of the
   ; file, into our temporary memory allocation
   If ABLOAD {IN$,?ainfo,8}
```

```
    length=Peek.l(?ainfo+4)
  Else
    Function Return False
  End If
  ; Allocate enough memory to hold the uncompressed data
  mem=AllocMem_(length,1)
  If mem
    ; Binary load the compressed data into the memory area
    If ABLOAD {IN$,mem,FSIZE{IN$}}
      If Deplode(mem)
        result=BSAVE{OUT$,mem,length}
      EndIf
    End If
    FreeMem_ mem,length
  End If
  Function Return result
  ainfo:  Ds.l 2      ; Allocates two longwords of temporary storage
End Function
```

As you can see, these functions call some other functions previously developed in this series, namely BLOAD {}, BSAVE{} and FSIZE {}. There is a new function mentioned called ABLOAD {}, which is a variation of our standard BLOAD {} function, which enables us to load a specified amount into an already allocated memory area. Here it is:

```
Function ABLOAD {f$,address,length}
  ; BLOADS <length> bytes into memory, at <address>
  ; WARNING: You must have previously allocated this memory!

  hand=Open_(&f$,1005)
  If hand>0
    bytes=Read_(hand,address,length)
    If bytes=length Then result=True
    Close_ hand
  End If
  Function Return result
End Function
```

Putting these functions together to create an example program couldn't be easier, the following program compressed a 386,000 byte file down to 172,000 bytes in just 13 seconds, and uncompressed the same file back into its original form in just two seconds!

Here's the source code for this program:

COMPRESSION: BLITZ II VS LHA
Input file: Dictionary 386583 bytes

	Blitz II	LHA
Pack time	13 seconds	21 seconds
Unpack time	1 second	2 seconds
Output file length	172976 bytes	126690 bytes

```
DEFTYPE.l
INCDIR "dh0:Blitz/includes/"
INCLUDE BSAVE.Fun
INCLUDE ABLOAD.Fun
INCLUDE BLOAD.Fun
INCLUDE FSIZE.Fun
INCLUDE UNPACK.Fun
INCLUDE PACK.Fun

     IN$="Ram:pic"
   IMP$="Ram:Pic.Imploded"
UNIMP$="Ram:Pic.Unimploded"
If PACK {IN$,IMP$}
  If UNPACK {IMP$,UNIMP$}
    NPrint "files processed ok!"
  Else
    NPrint "ERROR: Uncompressing!"
  End If
Else
  NPrint "ERROR: Compressing!"
End If
MouseWait
```

That's all we have room for this month, as always I am happy to get your feedback and suggestions. We also need more code for the Australian Blitz II PD library. You can reach me via modem on either POWERHOUSE BBS (042) 616380/622170 24 Hours or in Sydney on AMIGA CONNECTION BBS (02) 970 6444 24 hours.

If you want the source code for this magazine tutorial, including the functions and example programs created, send a stamped, self addressed envelope and a disk to: Blitz Column, Box 1420, Wollongong NSW 2500.

Blitz on! ❑

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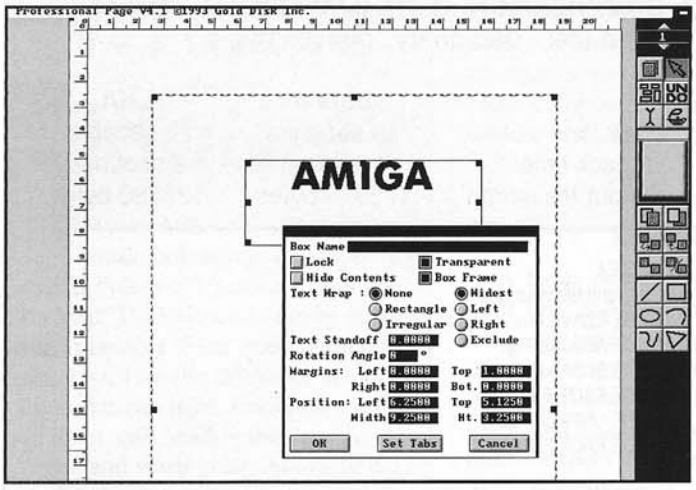
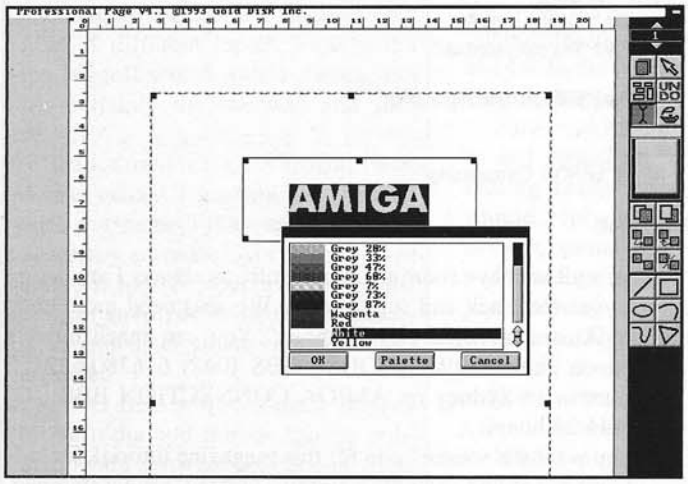
Creating Reversed Text

by Stuart Farrell

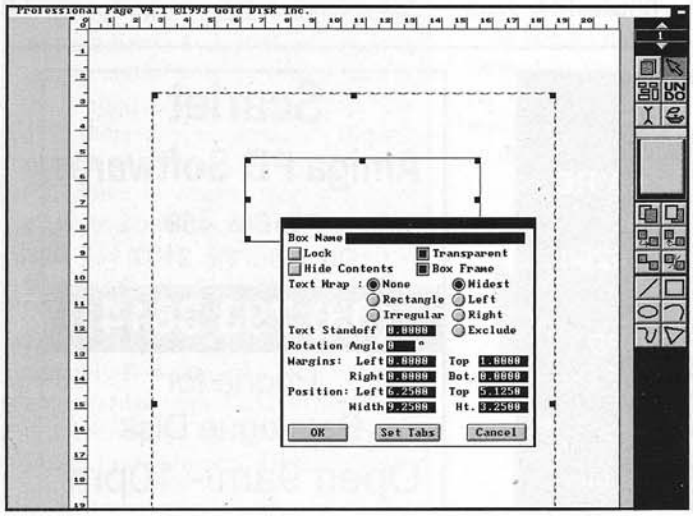
Picture 1



Picture 2



Picture 3



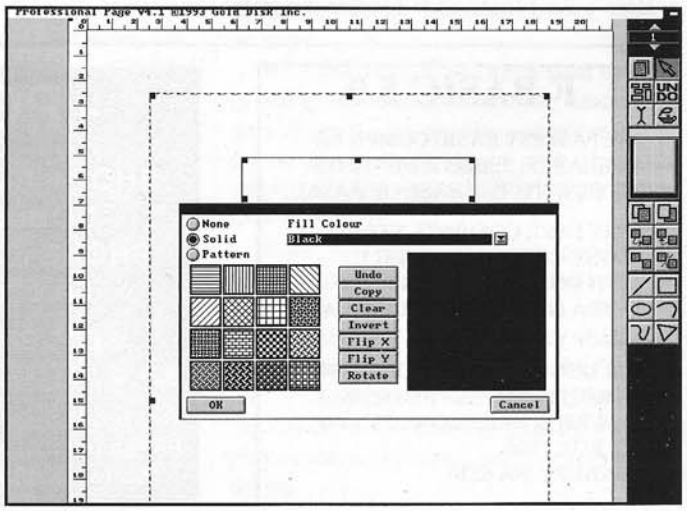
Over the past months, ACAR has received numerous calls and the odd letter from confused *Professional Page* users trying to create reversed text. For example, white text on a black background. So, this seemed like a good place to start to relieve the pressure from frustrated learners.

Unfortunately, there isn't a simple pull down menu option called "reverse", so stop looking! I've set out below six quick steps to achieve centred reversed text in a black box.

Firstly click on the text box tool and create a box on your page. With the text tool click once inside the box and type "AMIGA". Use a bold font if you like. I used Futura Bold.

To use a different font highlight the text, hold down the shift key and hit f. (Note: it's a good idea to learn the keyboard short cuts.) A font list should appear from which you can choose whatever font you like. Use the preview button if you're not sure what the text will look like.

Picture 4



1. Centre the text in your box by highlighting the text, and choosing TYPE from the menu, JUSTIFICATION, and center. (Or right Amiga key and -.)

2. Double click on your box and set the top margin to center the text within the box then click OK. (Picture 1) (This may require some fiddling to get the margin right. Don't be afraid to adjust the size of the box, remembering that if the text disappears, the box is now too small.)

3. Highlight the text, and choose TYPE, COLOUR and White from the colour box and click OK. (Or right Amiga key and c.) (Picture 2)

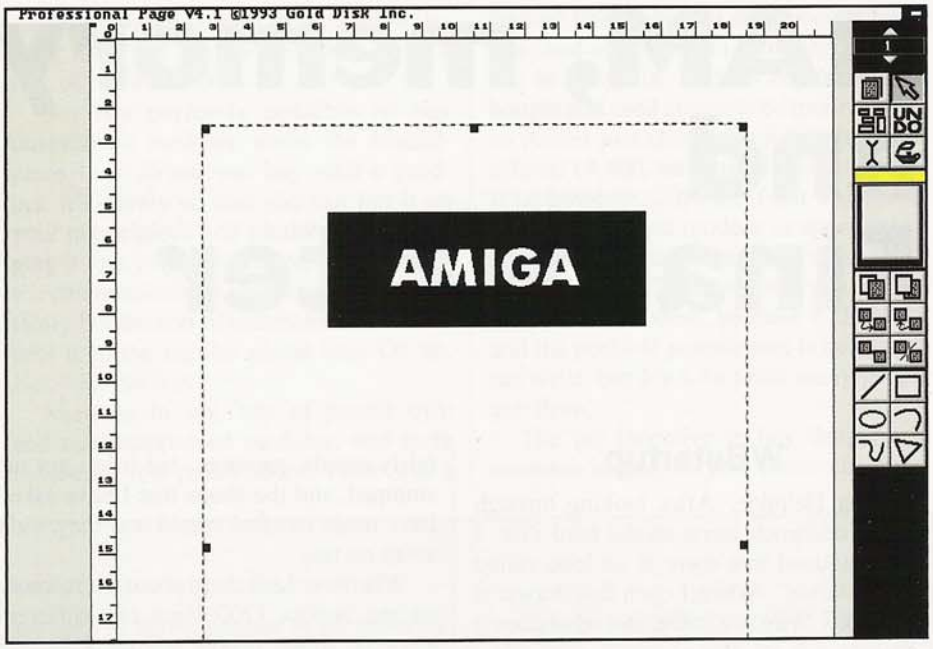
4. Double click on your box again, click box frame on and click OK. (Picture 3)

5. Now choose DRAW from the menu, and FILL PATTERN. Click on solid and choose black for the fill colour and click OK. (Picture 4)

6. Now you have reversed text in a black box. (Picture 5)

NOTE: If you just have a black box and can not see any text, check the following points.

1). Make sure your text is white, (or any other colour other than the fill colour in the box) by clicking once inside the box, then hold down the shift key and hit F4. This will highlight any text inside the box. Now hold down the right Amiga key and hit c. This will bring up a colour chart with the colour of the text highlighted. If it is black then choose white, and click OK.



Picture 5

2). If you still can not see any text make sure the box is not too small for the text. Stretch the box out at the bottom right hand corner by clicking down and holding down the left mouse button on the handle, and pulling the box out and down. Your problem should be solved. If not go back over the above points and double check everything was done correctly.

Of course once you have done this, there are several variations you can create using these menu options. Different fill patterns and colours, and text colours can make a boring heading interesting. Next month, we'll take a look at box manipulation and some more tricks with text. ❑

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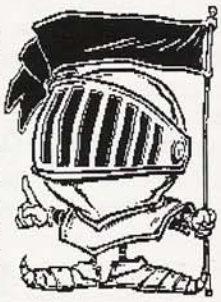

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RAM, memory and Final Writer

WBstartup

Dear Helpline, After looking through my Workbench icons on the hard disk, I have noticed that there is an icon called "WBStartup". When I open this drawer it is empty. Why is it there, and what does it do?

Ben Walsh
Fyshwich, Canberra

ACAR: *The WBStartup drawer (under Workbench 2.x) is actually quite a nifty idea. When you turn your computer on, you can automatically load certain programs by putting their icons into this drawer.*

Examples of this include things like virus killers, screen blankers, or any small programs that you want to run each time you start up the computer. Some programs may need the following line added to the tool types: DONOTWAIT. To do this, select the icon, the hit Amiga-I (or select Information from the Icon menu), select new, then type in the line. Finally click SAVE. You'll need to do this if Workbench reports such and such a program did not return during boot up.

A1200 Memory

Dear Helpline, I am hoping that you can help me with this one. It is probably a fairly simple question, but it has got me stumped, and the shops that I have asked have made me feel stupid and they walk away on me.

Whenever I ask them about the memory on my Amiga 1200 I get two different answers. Some people tell me I have 2 megabytes, and some people tell me I have 40 megabytes. Also, while we're on the subject, what exactly is a megabyte. Is it just a measurement like grams, or is it something else?

I. G. Noramous
Blaxland

ACAR: *It seems that everyone who first starts to play with computers asks this question, and people who know about computers seem to think that it's a cardinal sin to have to ask the question in the first place. The answer to the question, just to confuse you further, is both are right. The two megabytes they were talking about is the Amiga 1200's RAM, and the 40 megabytes is the hard disk capacity.*

Try thinking about memory on your computer as storage space. If we use an analogy of a chef in a kitchen then we would say that your hard disk is the cupboard space, and your RAM is the kitchen bench.

The chef would then be your computer's processor. When the chef wants to make a particular type of meal (run a particular program) he will take all the ingredients for that meal out of the cupboard (hard disk) and put them on the bench in front of him, where they will be quicker and easier to put his hands on. Unfortunately the kitchen bench is very limited in size, so when he has finished making a particular type of meal, and another one is asked for, he sometimes has to put the ingredients for the last meal back into the cupboard because he doesn't have enough space.

A megabyte is similar to a gram in your analogy, but to be more precise one character (an A, B, etc) is a byte of information, so a kilobyte is a thousand characters, and a megabyte is a million. (Technically speaking, a kilobyte is 1024 bytes, and a megabyte is a thousand kilobytes.)

Do I have a virus?

Dear Helpline, I bought some PD games about two months ago. When I first put them in they were okay, but they have gradually had funny problems with different games, the problem seems to be getting worse and some of my other programs now have the same problems. Do I have a virus?

Bart Bruce
Burleigh Vic

ACAR: *Well, it sounds like you have a big problem with that disk. Of course, that doesn't rule out the virus possibility. To prevent problems like this make sure firstly that all of your diskettes have the write protect tabs up. (You should be able to see through the hole). To get rid of a virus you can try a virus killer, and have it scan your disk. If it has got to the stage that you mention, it may be impossible to recover the disk without resorting to your back up copy. You did make one, didn't you?*

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Take care as to how you store your disks too. They don't like smoke, heat or magnetic fields (speakers, power supplies). Invest in a disk box you can keep out of harm's way.

Adding RAM

Dear Helpline, I have an Amiga 2500 which has three megabytes of RAM on board. My question is, what is the cheapest way of increasing memory? There are different types of memory chips on the market. Which ones should I use? And what would the cost be? As I am a retired person funds are limited. Here are the specifications of my A2500: Workbench chips: 2.05, Workbench: 2.1, Accelerator card: A2620, Hard disk controller: 2090A, Hard drive: Rodime RO 3055 (40 Mb ST-506).

According to the manual on the accelerator card, it can only be increased by two megabytes to a total of four, which would give me a 5Mb machine (if I'm reading it right) which would be plenty for the time being. The manual also states that the memory type is 414256- 10 Zip-style package (100ns).

Hoping that you will be able to help me and keep up the good work! Great magazine!

P. Burgheim
Buderim Qld

ACAR: *The cheapest way to get out of this one would be to add the memory to your accelerator card, as you surmised. The only other way would be to buy yourself an eight-up board, which will enable your computer to go up to 9 Mb total. If you do decide to put the extra memory on your accelerator card, it shouldn't be a problem.*

Memory seems to have been slowly dropping in price lately, but make sure that you get your local service centre to put in the memory. RAM chips are easy to damage, and must be specifically matched to the type of expansion your placing them in - as you've noted. You can probably source RAM from someone like Pelham and do it yourself if your accelerator manual shows how.

Final Writer problems

Dear Helpline, I am presently driving an Amiga 2000HD (WB 2.04) to which I have added a number of extensions, the most recent being the 150 Transportable Bernoulli.

For two years I have extensively used Softwood's word processing program, *Final Copy 1.1*, and have found it to be satisfactory. Last year, through the state distributor, I updated to *Final Copy II*. I found the money spent mostly worth it until a serious problem arose when writing a report. This report called for the creation of four columns half way down the page.

As columns cannot be introduced to part of a page, I used the Tab facility and reduced the size of the Text/Font. Entries under the first three headings were only one line. In most cases entries under the fourth heading were two or more lines. This involved using the Return and the Tab keys. When attempting to print my report, complete lines at irregular intervals became partially to totally illegible. In some cases the text appeared to be written in hieroglyphics. Once this happened, it seemed virtually impossible to fix the problem.

Mr John J Heaney
Kingsford, NSW

ACAR: *Well, we can't seem to find a way around this one. Maybe some clever person out there can help us solve it. Perhaps if you could tell us what printer driver, and printer you're using too? Support of Final Writer products is available from (02) 477 5353.*

PD documentation

Dear Helpline, I have installed a public domain program I bought recently. It works fine, however the documentation file returns an error when I click on the icon. It worked fine from the floppy disk, what have I done wrong?

Elizabeth Wright
Emu Plains, NSW

ACAR: *There are several different types of files on your Amiga. Two you need to know about are projects and tools. A project is a file created by an application like a wordprocessor. The documentation for the program you want to use is on disk, and has an icon attached to it indicating the file is a project. To view a project by double clicking the icon, Workbench needs to know what tool to use to open it.*

Here is where your problem lies. The tool the project is looking for is not where it ought to be. The fix is simple. Select the icon for the documentation and select Icon, Information from the Workbench menu, or just hit Right-Amiga-I. This will open up the icon information Window.

From here you can alter the details of the default tool. In the middle of the Window you will see a requestor containing a path and file name of the program Workbench is looking for. Chances are, that program is on the floppy disk you have, however it has not been copied across to your hard drive. If it has been copied, it may be the path to where the tool is stored is incorrect.

To fix it, edit the default tool to point to any program you have that will view a text file. C:MORE is fine, as MORE is included with Workbench. However MORE is also pretty simplistic. Fullview is a better program. There are others. Even your favourite word processor may do the trick.

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Covers Preferences, printer setup, commodities, Shell, Assigns, HDBackup, HDInstallations, the Ram Disk, Memory, Keyboard shortcuts, Using a paint program, Using a Word Processor, Creating MS Dos compatible files, WBStartup, getting old games working and much, much, much more.

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Map Studio Vol 1

by George Kimpton

Textures can turn flat looking 3D objects into life-like images. They're essential! *Map Studio* is the first in a series of six disks offering a wide range of JPEG 24 Bit graphics for use in Paint, Image Processing and 3D Graphics programs.

Image textures and subjects in the set range from the rough but richly coloured stringy bark of what is probably an Australian eucalyptus tree through to felt, granite, foam, fondue, hessian and acid bump to Martian and Alien Sky. The quality is first class.

Each disk contains between 14 and 19 different material textures or patterns in beautiful 24bit colour. Each image in the Vol 1 set is a Hi-res, 24 Bitplane IFF graphic with a resolution of 250x250. Expanded file size is around 200KB requiring a total of 2.8MB of memory when downloading the complete disk.

These images can be used as Brush or Image maps in Imagine and used to control Bump, Altitude, Environment, Specular, Diffuse or Transparency parameter maps very effectively as shown in the scene rendered by Mark Eagles.

They can also be used as fills and brush wraps in *Deluxe Paint* and other paint programs that support these techniques. The only thing to remember is that they will need converting through *AdPro* from the JPEG format to one suitable for planned application.

Volume 1 contents include Bark stringy, Bark goldie, Bark solid, Birch wood, Blue hessian, Goose bump, Fine bump, Ribbed bump, Ground stoney, Ground mix, Liquid rock, Vulc rock, Yelo rock, Marble grain, Marble teal, Snow heap and Holy cane. What you do with these excellent textures is limited only by your imagination.

For more information contact Peripheral World on (03) 725 3233. RRP is $59.95. ❑

DPTute

the DPaint beginners friend

by George Kimpton

There are those who wisely read and devour software manuals before really getting down to the nitty gritty of putting a new software package though its paces. There are also those, the majority of Amiga users I suspect, who just attack new programs on the basis of suck it and see and consider reading the manuals as a last resort because the Amiga is so user friendly.

DPTute is for the latter group who would like to learn their way around *Deluxe Paint* without resorting to reading the manual. It will be of little use for the experienced *DPaint* user as it appears to be aimed squarely at the novice user.

First time users of *DPaint IV* could find *DPTute* useful for finding their way around *DPaint*. Clicking on individual Tools or Menus brings up information screens explaining the selected subject. In the case of drawing tools the screen displays a static and very brief illustration of what you can do with that tool and lists the associated hot keys. The Menu screens on the other hand provide rather succinct text only displays which briefly detail the menu item's purpose without any illustration to explain what you are reading.

While the purpose behind the production of this software is admirable it does nothing more than provide a shorthand breakdown on what is already in the excellent manual supplied with *Deluxe Paint*. Its two main weaknesses are that it tells you what you can do but not how to do it. Secondly it needs at least 1.5 MB of RAM to run both *DPTute* and *Deluxe Paint* together.

For more information call (08) 251 3655. RRP is $45. ❑

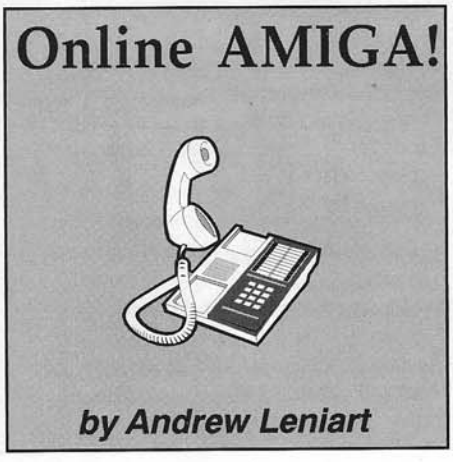
Start your own Max's BBS

Welcome back to Amiga Online. This issue we take a close look at an excellent BBS package which carries a price tag that's guaranteed to be acceptable to everybody. It's totally FREE! But firstly:

Stop Press Spot rego site closed

Quite a few issues back, I told everyone about one of my BBS points, Richard Galezowski, being the Australian Registration site for SPOT pointing software. Unfortunately for those of you using SPOT and thinking about registering the product, Richard has had to withdraw this service and is no longer accepting registration money, nor providing user support for the product. Please do not send any money if the SPOT archive you have still contains Richard's details, as it will just be returned.

At time of writing, no one else has taken the job on, so registrations must again be made directly with the author in Belgium. I'll be sure to pass on any further info as soon as any comes to hand.



Wanna run a BBS?

Y'know, going back a few years, there was no Amiga BBS software around that you could Try before you Bought. Now ther's much more, but the problem with most BBS packages is that they are highly complicated for a new modem user to get the hang of and the documentation in most assumes that the user alrady has a fairly good idea of what all those technical terms are about.

I remember when I first fired up my own BBS on my Amiga 500. I had a megabyte of RAM, no hard disk and two floppy drives, but a hell of a lot of determination. About the only freely distributable BBS software at the time was a package called *Tag* by an overseas author.

I must admit that at the time, having spent many hours agonizing over *Tag*'s configuration files and finally managing to get the thing to accept a caller, I thought that it was the bee's knees. *Tag* was totally basic in features and highly restrictive until you shelled out some big bucks to register yourself. Today, things are looking up.

MAX's BBS

Enter *MAX's BBS* by Australian author Anthony Barrett. Once a fully commercial product that cost an arm and a leg to purhase, it's now fully public domain and available to anyone at all for nix. But is it any good?

If you already regularly log onto networked bulletin boards and participate in the popular Fidonet Australian Amiga conference called Aust_Amiga, then you've probably read many bad stories about *MAX's BBS*.

Don't be put off by these reports. These messages often come from system operators who are using considerably superior (and quite expensive) BBS software packages. Some (not all) of these operators seem to have a chip on their shoulder and will knock every BBS package they don't use.

Sure, *MAX*'s doesn't have everything that you might expect to find in a $300 plus commercial package, but if you want to see if running a BBS is for you before you shell out big dollars, it's perfect. This little BBS is not only very easy to set up, it also takes full advantage of the Amiga's GUI, by being highly controllable and configurable with your mouse.

It has proven networking capabilities, which means that once you're all set up for it, you can join and participate in a message network such as Fidonet. This enables you and your callers to receive and send messages all over the world, for the price of a local call, with the convenience of it all happening automatically from your own home. Many Amiga sysops had to pay for an expensive commercial software equivalent to be able to enjoy such benefits, yet *MAX's BBS* offers all this and more for nothing. Great stuff.

Support

Due to the author no longer updating the *MAX's BBS* package, there is no official support for it. The latest official version of the software is Version 1.52. However many *MAX*'s enthusiasts have devised their own support and have created a *MAX*'s related message network (similar to Fidonet but much smaller) which you can join or simply read on other participating boards.

External utilities, such as split screen chat modules, online games and doors are also available, some modified from games written for other Amiga BBS software and are easily installed. I carry a few MAX's support utilities on my own BBS in the BBS Support files area.

Setting up

Apart from modifying the modem initialisation string setting and altering a couple of paths, MAX's doesn't actually need any setting up at all. The archive (file) you need to download, MAXBB152.

DMS will unpack onto a single floppy disk and once unpacked, is virtually ready to run. The docs state that it will quite happily run off disk on a single floppy drive Amiga with a standard 512k of ram.

Naturally, the more memory you have the better, but it's possible for even the most basic Amiga to run this program, which is great for those that don't have a hard drive yet. If you have a hard disk, all the better.

Features

Multi-line capable. A basic BBS setup, complete with ANSI coloured menus, files and message areas has already been pre-configured on the MAX's disk, so you can be up and running with a minimum of effort. There is a message editor built in, an internal chat routine which allows you to chat online with your callers, a CLI interface and a lot more. Everything is easily configurable, but you would be wise to at least scan the documentation to familiarise yourself with the system.

Speaking of documentation, MAX's comes with a comprehensive manual on disk, which I found easy to follow and informative. While not strictly necessary reading if all you want to do is fiddle, watch a few friends log on and play with your computer by modem, it's worthwhile reading if you intend to let your computer loose to the general public and invite strangers to log on. Particularly if you intend to let people use your machine via modem when you're not there.

Concluding

There is not a lot more which can be said about MAX's BBS. Get a copy from a local BBS that has the archive or order a copy from Prime Artifax PD library, who will send you a copy of MAX's set up and ready to go. If you want to see a MAX's BBS from the user's side first, then listed below are some bulletin boards from around Australia which run on it. Look at the area codes to find the closest one to home and give it a call. It's only a modem call away. Bonus is that just about all of them should have the archive you need along with some support utilities as well. ❑

MAX's Bulletin Boards Around Australia

Here's a small list of Bulletin Boards around Australia which are run with MAX's BBS software. This is not a complete list and only represents the boards as listed in the March edition of the Australian BBS registry listings as running on MAX's BBS software.

System Name: Amiga File Server
Sysop: Jonathan Scowen
Phone: (02) 876-8965 Multi-Line
Baud: V.21 V.22 V.22bis V.23 V.32
Access: Mem VA
Hours: 24 Hours

System Name: Amitech Support BBS
Sysop: Rob Selff
Phone: (02) 544-1248
Baud: V.22 V.32
Access: Mem Reg VA
Hours: 24 Hours

System Name AMY BBS
Sysop: Steve Norton
Phone: (02) 607-4253
AmigaNet: 41:200/888
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Archer BBS
Sysop: Sandra Shaw
Phone: (02) 371-0347 Multi-Line
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: ATrax BBS
Sysop: Steven Noble
Phone: (042) 68-2359
Baud: V.21 V.22 V.22bis V.23
Access: Reg
Hours: 24 Hours

System Name: Basecom BBS
Sysop: Bill Langfield
Phone: (02) 671-6149
Baud: V.22bis V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Continental Drift BBS
Sysop: Murray Chaffer
Phone: (02) 918-8375
FidoNet: 3:714/911
Baud: V.21 V.22 V.22bis V.32 V.32bis
Access: Reg VA
Hours: 24 Hours

System Name: Enconn
Sysop: Greg MacDonald
Phone: (02) 524-1584
FidoNet: 3:712/613
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Extreme Graffitti
Sysop: Freddy K
Phone: (02) 449-9621
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Graffix Chaos
Sysop: Willie
Phone: (02) 742-5861
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Mem LVA
Hours: 24 Hours

System Name: MidnightCaller BBS
Sysop: Budds
Phone: (02) 869-0223 Multi-Line
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Mr Beans BBS
Sysop: Waheed Khan
Phone: (042) 85-1327
Baud: V.21 V.22 V.22bis V.23
Access: Public
Hours: 24 Hours

System Name: Realms of Fantasy BBS
Sysop: Dark Knight
Phone: (02) 543-0395
Baud: V.22bis V.32
Access: Mem VA
Hours: 24 Hours

System Name: Realms of Fantasy BBS
Sysop: Dark Knight
Phone: (02) 543-0395
Baud: V.22 V.22bis V.23 V.32 V.32bis
Access: Mem VA
Hours: 24 Hours

System Name: Shadow Run BBS
Sysop: Allan Mostyn
Phone: (042) 97-0958
FidoNet: 3:712/410.1
Baud: V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Skylab BBS
Sysop: Laser
Phone: (02) 831-3823
Baud: V.22 V.22bis
Access: Public
Hours: 24 Hours

System Name: Sollaris BBS
Sysop: Marc
Phone: (02) 599-4406
Baud: V.21 V.22 V.22bis
Access: Public
Hours: 24 Hours

System Name: Sonic Aus HQ BBS
Sysop: Aaron Leung
Phone: (02) 660-1903
Baud: V.22 V.22bis
Access: Public
Hours: 24 Hours

System Name: Squid's BBS
Sysop: Stephen Parkin
Phone: (042) 26-1047
AmigaNet: 41:200/300
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public Hours: 24 Hours

System Name: Technophilia BBS
Sysop: Michael Glew
Phone: (02) 807-3563
Baud: V.21 V.22 V.22bis V.32 V.32bis
Access: Reg VA
Hours: 24 Hours

System Name: The Cheese Shop BBS
Sysop: Michael Sirmai
Phone: (02) 908-2276
Baud: V.22 V.22bis
Access: Reg
Hours: Daily: 2100 - 1600

System Name: The Nut Factory
Sysop: Norbert Peter Feist
Phone: (02) 822-5613
FidoNet: 3:713/808
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis HST
Access: Mem LVA
Hours: 24 Hours

System Name: VIVA! BBS
Sysop: Ross Briggs
Phone: (043) 23-3982
FidoNet: 3:711/441
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Mem VA
Hours: 24 Hours

System Name: CLUB-64 BBS
Sysop: Steve Elwood
Phone: (07) 341-9560
FidoNet: 3:640/308
Baud: V.21 V.22 V.22bis
Access: Public
Hours: 24 Hours

System Name: Power BBS
Sysop: Chris Prasser
Phone: (07) 821-1067
Baud: V.22bis V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: XyonicS BBS
Sysop: Greg Fitch
Phone: (07) 808-4806
Baud: V.22 V.22bis
Access: Mem Reg LVA
Hours: Daily: 2030 - 0700

System Name: BeeJay's
Sysop: BJ Dibbins
Phone: (08) 337-0021
FidoNet: 3:800/878
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Reg LVA
Hours: Daily: 2200 - 0800

System Name: Fred's BBS
Sysop: Randy Quick
Phone: (08) 341-5944
Baud: V.21 V.22 V.22bis V.23
Access: Reg VA
Hours: 24 Hours

System Name: Ireland's Own BBS
Sysop: Paddy
Phone: (08) 281-6485
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Night Shift bbs
Sysop: David Cowley
Phone: (08) 326-5356
Baud: V.21 V.22 V.22bis V.23 V.32
Access: Public
Hours: Daily: 2000 - 0800

System Name: Amiga Valley BBS
Sysop: Bob Mcaulay
Phone: (03) 458-4729
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: ...And Justice For All BBS
Sysop: Daniel Dyrsmid
Phone: (03) 560-3032
Baud: V.22 V.22bis V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Awesomes Revenge BBS
Sysop: Awesome
Phone: (03) 432-1056
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: Daily: 2100 - 0700

System Name: Banjo's Backyard
Sysop: Mark Paterson
Phone: (03) 367-2924
FidoNet: 3:635/739
Baud: V.22bis V.32
Access: Public
Hours: Daily: 2200 - 0630

System Name: Compupal Amiga BBS
Sysop: Ron Heffernan
Phone: (051) 43-0051
Baud: V.22bis V.32 V.32bis
Access: Mem Reg VA
Hours: Daily: 2000 - 0800

System Name: Conan's BBS
Sysop: Tryone Platt
Phone: (03) 776-6701
Baud: V.22 V.22bis V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Dragons Lair BBS
Sysop: Rick
Phone: (03) 383-3526
Baud: V.21 V.22 V.22bis V.23 V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: FireBase One
Sysop: Mark Wesson
Phone: (03) 877-6660
Baud: V.21 V.22 V.22bis V.32 V.32bis
Access: Public
Hours: 24 Hours

System Name: Flight of Fancy
Sysop: Andy McArdle
Phone: (03) 726-9106
FidoNet: 3:633/252
Baud: V.22bis V.32 V.32bis
Access: Mem Reg VA
Hours: 24 Hours

System Name: RANGER BBS
Sysop: Ranger
Phone: (03) 749-6148
Baud: V.32
Access: VA
Hours: 24 Hours

CMD picks up GEOS

Some welcome news for fans of GEOS is that production of the complete GEOS series has started again and units are now available in Australia. GEOS, formerly a GeoWorks product, is now manufactured by Creative Micro Designs (CMD). The announcement has heralded both good and bad news.

Due to increased production and licensing costs, the price for the main system and accessory modules has increased. The good news for C128 users at is that the entire GEOS 128 collection is available once again.

For the unfamiliar, GEOS is the Graphic Environment Operating System that shares many similarities with the Macintosh, Amiga Workbench and Windows operating systems. Functions are accessed using a 'pointer' controlled with a mouse, joystick, or similar input device.

GEOS is more than just an operating system; it also includes a suite of application programs, including an excellent word processor with spell check and mail merge, a versatile graphics program, and many smaller utility programs. Several add-on applications are available, including a spreadsheet, database, desktop publisher and chart generator.

The main GEOS environment, required by all other GEOS applications, has a street price of around $90.00 ($100 for GEOS 128), with applications costing between $48.00 and $100. For more information contact your local C64 retailer, or call Code One on (047) 57 3982 or by mail PO Box 192, Katoomba NSW 2780.

New C64 magazine

More news from CMD is the release of their own C64 magazine. Commodore World is a paper magazine published about eight times a year, with an average size of 80 pages. The first issue should be available by early May. This is welcome news for the many C64 users looking for more coverage for their machines. Price per issue is $9.50, but it won't be available through newsagencies. Copies will be available in Australia through retailers such as Code One (see above).

Re-usable subroutines

Anyone experienced in programming on the C64 will have undoubtedly written some re-usable subroutines. You may have created a user interface that you've been particularly proud of, a menu routine that's adaptable, or a disk management routine that can be used again and again. Re-usable subroutines make programming as easy as slotting the modules together.

This month we'll be taking a look at short, adaptable routines to add to your programming library. Even though they are designed to be sub-routines, I've started their line numbers at 10 to avoid confusion. They each contain a 'function header' similar to what you might see in C source code.

DEVICE ON-LINE. This is a short routine that can be called from anywhere within your program before attempting to access a device such as the disk drive or printer. If the device is off-line, it will either ask the user to make it on-line, or cancel the request. The sub-routine returns a value of Z=1 if everything is okay, or Z=0 if the user has requested a cancel. ON-LINE CHECK expects variable D to contain the device number to check.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: ON-LINE CHECK
30 REM DESCRIPTION: MAKES SURE DEVICE IS
AVAILABLE
40 REM MODIFIED VARIABLES: A$, S, Z
50 REM RETURN VARIABLE VALUES: Z=0 IF DEVICE
OFF-LINE
60 REM ***************************
70 POKE 7
80,D : POKE 144,080 SYS 65457 : S=ST
90 SYS 65454 : S=S OR ST
100 IF S=0 THEN Z=1 : GOTO 160
110 PRINT "[HOME]MAKE DEVICE ON-LINE AND PRESS
C. X TO EXIT"
120 GET A$ : IF A$="" THEN 120
130 IF A$="C" THEN 70
140 IF A$="X" THEN Z=0 : GOTO 160
150 GOTO 70
160 RETURNTEXT SLIDE.
```

Here's an interesting way to present a line of text. Have your text stored in TE$ and call this routine. It is set to slide in at the top of the screen, but with slight modification you could also pass it a vertical cursor position to use.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUN@TION NAME: TEXT SLIDE
30 REM DESCRIPTION: SLIDES A LINE OF TEXT ONTO
SCREEN
40 REM MODIFIED VARIABLES: I, S, TE$
50 REM RETURN VARIABLE VALUES: NIL
60 REM ***************************
70 TE$ = "[CSR UP]"+TE$+" "
80 PRINT CHR$(147)
90 FOR I=20 TO 1 STEP -1 : FOR S=1 TO 35 : NEXT
100 POKE 211, I
110 PRINT TE$
120 NEXT
130 RETURNDISK ERROR.
```

The following routine is designed to be called after each and every disk operation to check that everything worked okay. If it finds a fault it will return a value of 1 in E. Your main program should then give the option of either trying again or exiting.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: DOS ERROR CHECK
30 REM DESCRIPTION: CHECKS FOR ERRORS ON
THE DRIVE
40 REM MODIFIED VARIABLES: NU, ME$, E
50 REM RETURN VARIABLE VALUES: E=1 IF ERROR
```

by Owen James

C: commodore 64

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```
DETECTED
60 REM ****************************
80 OPEN 15,8,15
90 INPUT#15, NU, ME$
100 IF NU < 1 THEN 130
110 PRINT "[HOME]DOS ERROR "NU": "ME$"
120 E=1
130 CLOSE 15 : RETURNCENTRE MESSAGE.
```

Another text presentation routine. This time you feed it some text in ME$ and it will centre it on screen. Just make sure that the correct vertical cursor position is set before calling the routine.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: CENTRE MESSAGE
30 REM DESCRIPTION: CENTRES TEXT ON SCREEN
40 REM MODIFIED VARIABLES: TA
50 REM RETURN VARIABLE VALUES: NIL
60 REM ****************************
70 TA=(40-LEN(ME$))/2
80 PRINT TAB (TA) ME$
90 RETURNEXIT.
```

This one isn't exactly a sub-routine, so just GOTO it. EXIT will draw an interesting screen before resetting the C64.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: EXIT
30 REM DESCRIPTION: DRAWS A CLOSING SCREEN
AND RESETS 64
40 REM MODIFIED VARIABLES: J
50 REM RETURN VARIABLE VALUES: N/A
60 REM ****************************
70 POKE 53280,6 : POKE 53281,14 : POKE 646,6
80 PRINT CHR$(147)
90 FOR J = 2024 TO 1024 STEP -6
100 POKE J, 224 : NEXT
110 SYS 64738WAIT FOR DISK.
```

This is a great little routine that automatically senses when a disk has been inserted in the specified drive. No need for a "Insert disk and press a key" message. It expects variable D to contain the device number of the drive to check.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: WAIT FOR DISK
30 REM DESCRIPTION: WAITS FOR THE INSERTION
OF A DISK
40 REM MODIFIED VARIABLES: A$
50 REM RETURN VARIABLE VALUES: NIL
60 REM ****************************
70 OPEN 15,D,15
80 PRINT#15, "M-R"; CHR$(30); CHR$(0)
90 GET#15, A$
100 IF ASC(A$+CHR$(0)) THEN 80
110 CLOSE 15
120 RETURNCHECK WP STATUS.
```

Here's a handy routine which will check if a disk is write-protected. GOSUB it before trying to write to the drive to avoid problems. The routine expects D to contain the device number of the drive to check.

```
10 REM ***** FUNCTION HEADER *****
20 REM FUNCTION NAME: CHECK WP
30 REM DESCRIPTION: CHECKS THE WP STATUS OF
A DISK
40 REM MODIFIED VARIABLES: W, A$
50 REM RETURN VARIABLE VALUES: W=1 IF DISK
PROTECTED
60 REM ****************************
70 OPEN 15,D,15
80 PRINT#15,"M-R"; CHR$(30); CHR$(0)
90 GET#15, A$
100 CLOSE 15
110 IF ASC(A$+CHR$(1))=1 THEN W=1 : GOTO 130
120 W=0
130 RETURN
```

MAIL

Whatever happened to Simon

Reg Tutton of Riverton WA writes;

"Dear Owen, What a great pity it is that Commodore did not keep the Simon's BASIC cartridge on the market. I know it is a number of years since the demise of this useful addition to the C64. True, it does rob the C64 of 8K of its user RAM, but I think that its usefulness far outweighs this disadvantage.

"In many ways I think that it is much more useful than the same commands on the C128. There are of course the subtle differences in commands as one is of British origin and the other is American, like the spelling of COLOUR and the use of SLEEP (C128) and PAUSE (Simon's). I find Simon's BASIC very useful in making titles for home video, putting the Camcorder pictures onto VHS cassettes. If any of your readers are interested in having a dabble with this system I may be able to help them.

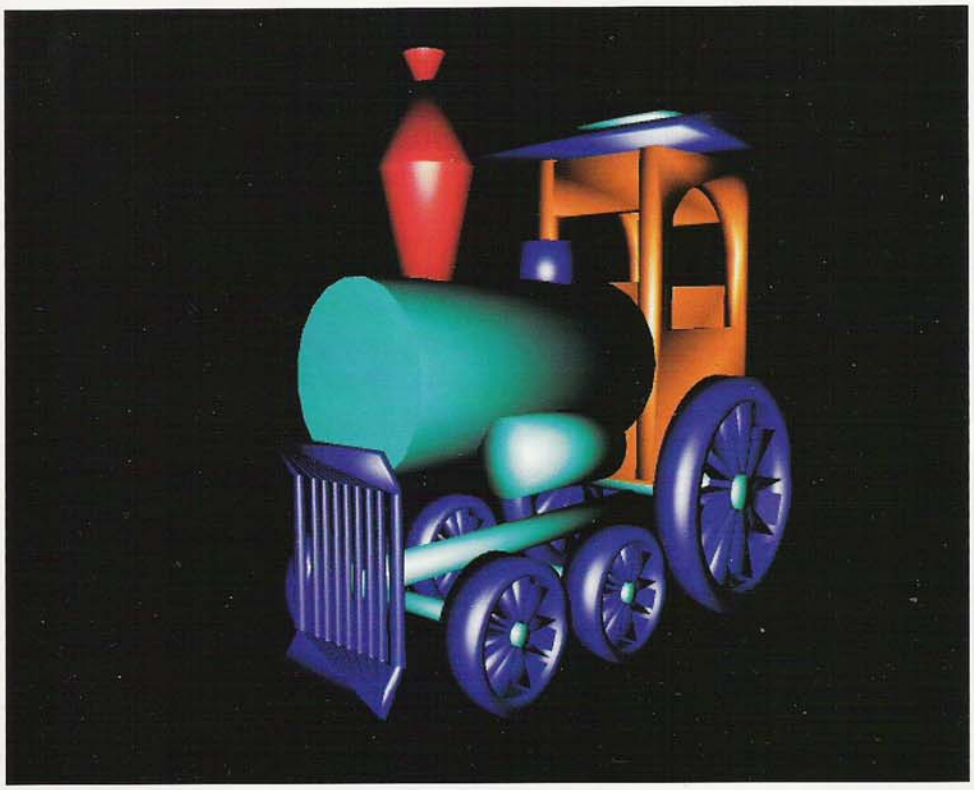
"In response to one of your reader's queries in Feb 94 issue regarding ML books for the C128, I have found *Machine Language Routines for the Commodore 64/128* from Compute Books (USA) to be very helpful."

Thanks to Reg for the information. If any user wishes to contact Reg, write to him directly at 5 Errinbee St, Riverton WA 6148.

That's it for this edition. In the meantime please write to me care of The C64 Column, PO Box 288, Gladesville NSW 2111 or via Fido Netmail at 3:713/888.999.

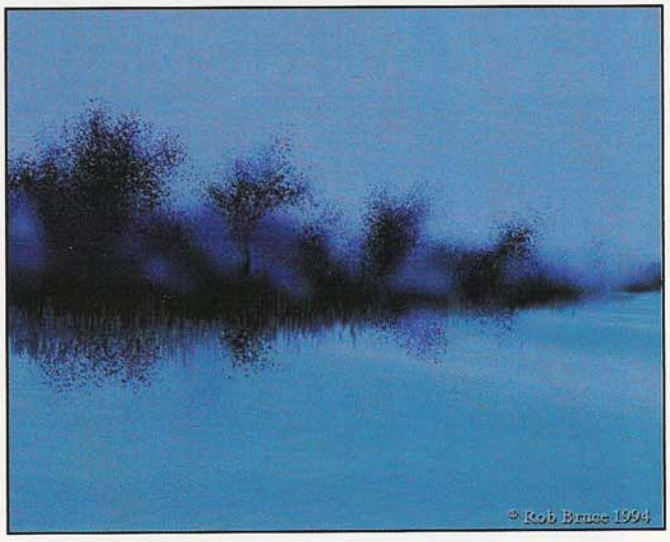
See you again next month. ❑

Amiga ART GALLERY



⬅ Rendered in Imagine 2.0 by Colin Baggarley - modelled using detail editor, rendered in scanline mode. 24bit x 640 x 512.

⬇ "Blue Marshes" ... this was an Imagine quick render file that looked nice so it was saved and used as a basis of a number of paintings. The painting was completed in Opal Paint.



⬇ "Eagle" ... painted from scratch in Opal Paint

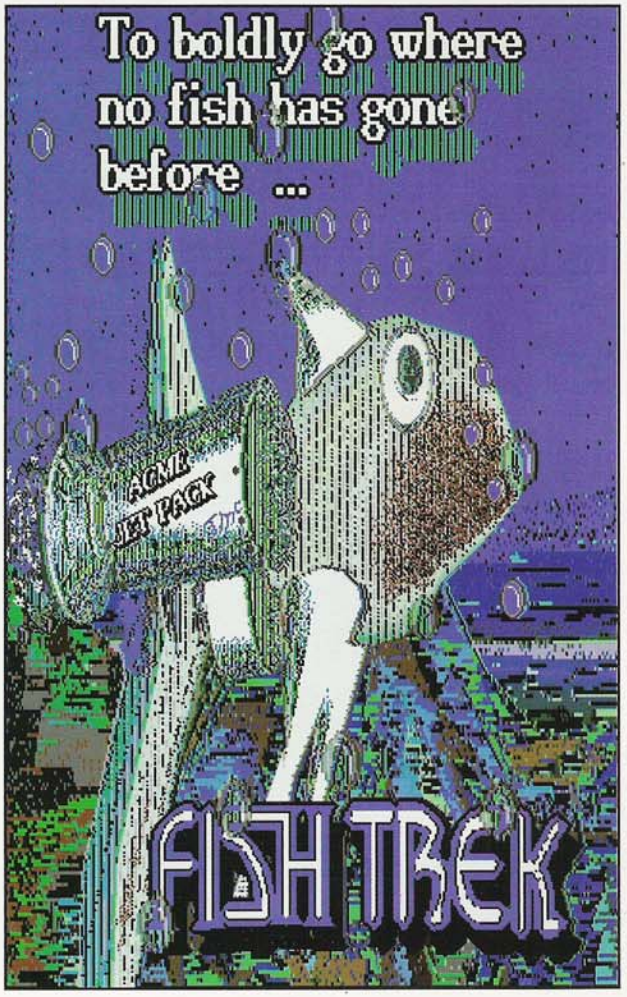
Amiga ART GALLERY

"Mt Fuji Pond" by Robert Bruce ... VistaPro background and reflection maps. Rendered in Imagine 2.0. Anti-Aliasing touched up Opal Paint.

"Come On Now" by Robert Bruce ... Vidi 12 Frame grab form Hi8 heavily modified in Opal Paint ... smear woodcut etc.

"Wynnum Pelicans" by Robert Bruce ... Painted from scratch in Opal Paint

By Jon McKay - Fish Trek was produced using Real 3D (Version 1). The background was added later using DPaint 4.1. All was done on an Amiga 600HD with only 1 extra Meg. It's not what you have, it's how you use it!



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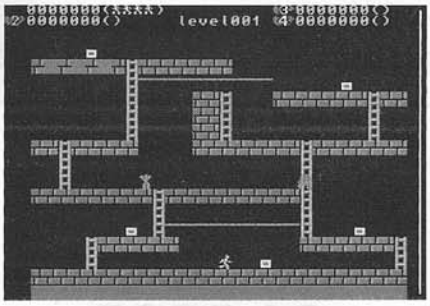

Hot Games # 12

A disk packed with great new games including the fabulous Loderunner clone - Minerunner. Allows up to four players and has all the original levels from the popular Apple II and Commodore 64 version. Also includes Battle Cars, Dynamite Wars (2-player), Galactoid, Megasquad and Parcheese.

AGA DEMO #2

AGA Demo #2

A fine demo showing of the capabilities of AGA - with a smart new bouncing balls segment, some cool copper effects and impressive polygon animation.
Ideal as an in shop demo too. Mentions all the A1200's good features.
One disk. AGA machine required. Ideal for A1200 owners.

Author	Title	Publisher	of publ
Adams, Douglas	Dirk Gently's Holistic Detective Agency	Pan Books Ltd.	1988
Adams, Douglas	Hitchhikers Guide to The Galaxy, The	Guild Publishing	1986
Baum, L. Frank	Wizard of Oz, The	Mandarin Publishers Limited	1983
Beresford, Dick	Uncensored Boy's Own, The	Macdonald & Co (Publishers) Ltd	1980
Boardman, Tom Jr	Science Fiction Stories	Octopus Books Limited	1983
Burnet, Frances Hodgson	Secret Garden, The	Octopus Books Limited	1983
Carroll, Lewis	Alice's Adventures In Wonderland	Octopus Books Limited	1981
Clarke, Arthur C.	2010- Odessey Two	Granada Publishing Limited	1982
Clarke, Arthur C.	2061: Odessey Three	Grafton Books	1989
Crichton, Michael	Jurassic Park	Random House	1991
Davis, Jim	Garfield- Here's Looking at You	Ravette Books Limited	1985
Davis, Jim	Garfield- Life And Lasagne	Ravette Books Limited	1986
Davis, Jim	Garfield- We Love You Too	Ravette Books Limited	1985
Doyle, Sir Arthur Conan	Lost World, The	Hamlyn Publishing	1986

Database II

A collection of simple to use database programs for maintaining all sorts of lists - from catalogues to clients. Flexer - pictured above - is one of the new programs included on release II of the database compilation. Flexer's form-like display makes it ideal for beginners, and powerful enough for advanced users.

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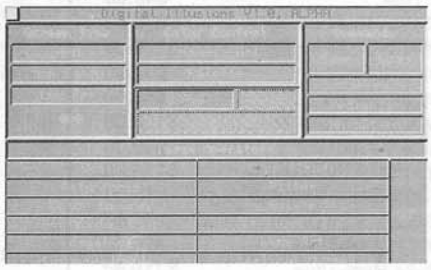

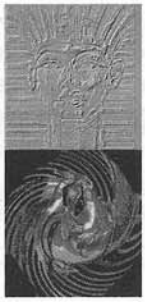

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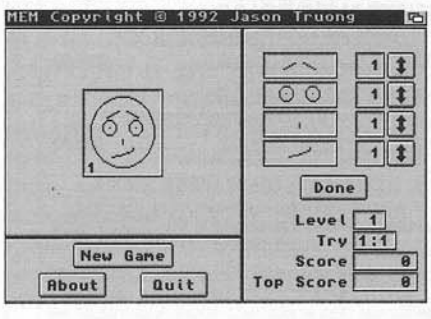

Education #5

We now have a total of six disks of education software. Mem (a memory game - picture above) is from education #5 - one of five programs on the disk. Others include Maths Adventure, Division, Counting and Lemonade. Education 6 has an excellent puzzle game called OXYD.

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• #8 - Asteroids, Bug Blaster, Microbe, Poing, Revenge of the Mutant Camels, Ring War, Trix
• #9 - Pacman (brilliant copy of the original), OmegaRace, Columns, Nebula and POD.
• #10 - Donkey Kong, Galaga (the best!), Artilerus, Fleuch
• #11 - Scorched Tanks - the latest super version, 2-4 players.
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• Star Trek - The Game, with sound-FX, animation, point and click interface, various missions. 1Mb
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• UChess - Chess game - Needs 4Mb and accelerator - Ideal for A1200 or 4000. AGA Support.

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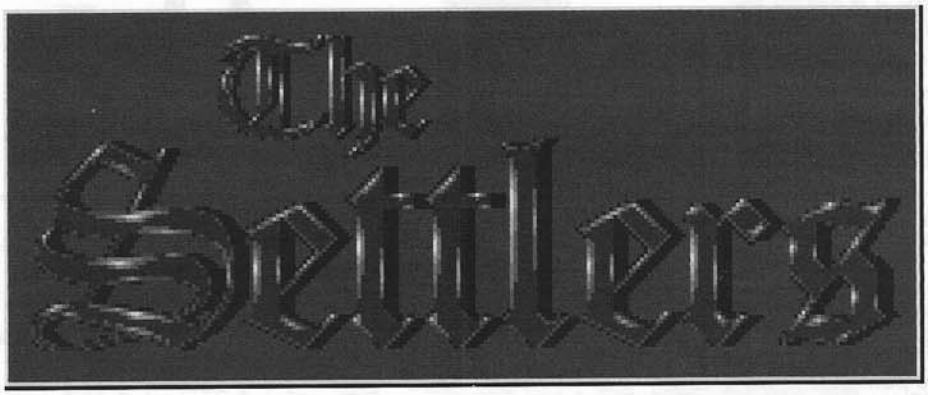


Ratings:

Graphics	90%
Sound	88%
Gameplay	100%
Overall	96%

Distributed by Metro Games (03) 329 2999. RRP $99.95.
From Logico (02) 519 6719.

Every once in a while a unique game comes to the Amiga that is so different from anything else that it stands out from the crowd and leaves many other programs for dead. *Lemmings* was one such game that set the world alight all those years ago. It was unique for its time and it was, and still is, a very popular game which has led to many clones since its release.

The Settlers is a strategy game unlike any other and is extremely enjoyable to play. It's both educational and entertaining and it will provide you with a very enjoyable and rewarding challenge.

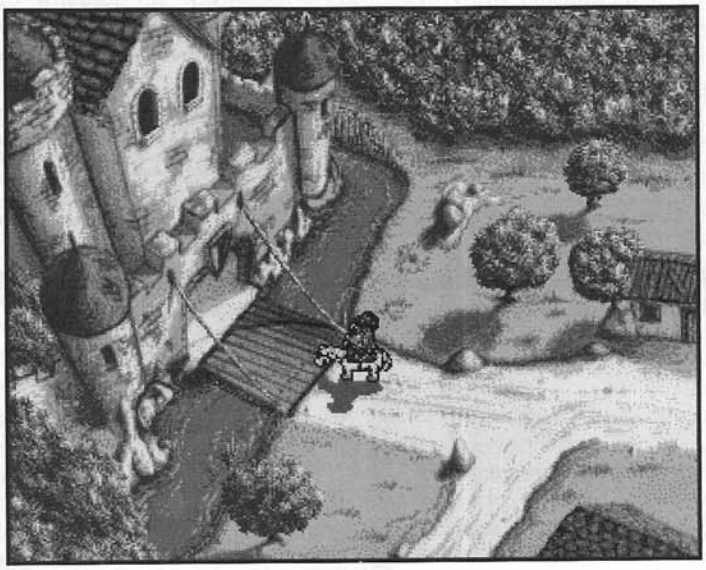
You control a group of settlers as they populate a new area by having them construct all the necessary buildings in order to create a prosperous and successful settlement. To help them, you will need to build farms to supply the food, mines to extract the raw materials, castles to store the surplus supplies, and workshops to make the tools and weapons needed to successfully defend your territory.

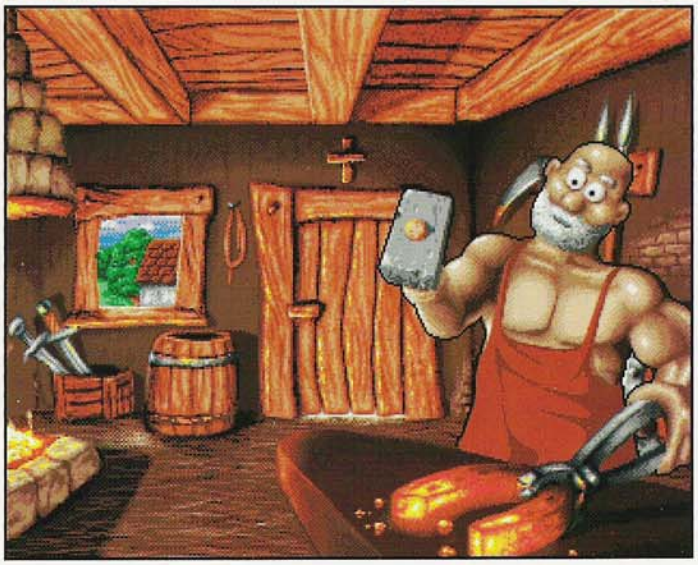
The goal of the game is to build a prosperous and well organized city and to gain control of the enemy cities. In order to conquer the enemy castles, you will need many knights. To keep their morale up, you will need gold, and for their weapons you will need iron and coal. These raw materials are found in mines and the miners must be provided with food. The raw materials must then be melted in a foundry to make gold bars and steel which in turn will be made into weapons and tools.

The food supply is ensured by the fishermen and farmers, and the butchers and bakers will further create bread and meat. To build your huts, houses and castles you will need construction materials and workers. Each worker will need some tools, and these tools are made by the smiths. Timber is provided by the lumberjacks and sawmills and stone is supplied by the mines and quarries.

Of course raw materials will run out in time, so you will need to expand your territory from time to time. If the enemy have a valuable piece of land that you would like to have, then you must send in the knights and this is where the fun begins. So as you can see this game is a progressive one, and any settlement can take many hours or days or even weeks to build.

The Settlers may seem a little daunting to some people at first, but once you learn a few basic principles on how to construct buildings, then you will be able to play the game almost immediately and





you can learn as you go and refer to the manual only as needed. This is a bonus to those of you who want to rush in and play the game right away.

The game is entirely mouse driven. You just click on the screen, select a suitable building, then click on the construct icon and the Settlers will go to work and erect the building on the vacant site. Connect some roads to each of your buildings then watch as the Settlers go to work to produce the materials that you have requested.

Of course you must watch out that you don't build too fast and run out of raw materials which are stored in your castle at the start of each game. Keep an eye on the huge range of statistics that are available to you and make suitable adjustments to increase production before materials run out.

There are thirty missions available, and for beginners there are six training scenarios. You can play in single mode against the computer which can control up to three enemy settlements, or you can play against a friend or even have two players gang up against the computer.

The Settlers is a huge game, and the more computer memory that you have, the more settlers will be available to you. With a standard 1 meg Amiga you can have up to 2000 settlers including the enemy, and if you have 4Mb of fast ram, you can have up to a massive 64000 little guys running around on a huge scrolling screen. You can literally sit there and watch these little guys for hours at a time and watch them go about their work.

This game would have to be among the best piece of coding done by any computer company for a game on the Amiga. There are some games out there that slow down when you get more activity on screen. That doesn't happen with *The Settlers* - no matter if you have one settler or a thousand the game plays at the same pace. This is absolutely brilliant.

The guys at Blue Byte are to be commended for bringing such a quality game to the Amiga, and this is one game that is certainly going to be played for a long time to come. If there is only going to be one piece of software that you will be purchasing this year, then make it *The Settlers*, you won't be disappointed.

Graeme Beavan

Win a copy of Second Samurai

(See our review on page 72)

Post or fax in your entry to reach us by June 6th to Australian Commodore & Amiga Review, 21 Darley Rd, Randwick NSW 2031. Fax (02) 398 5322. The winner will be announced in the July issue.

Name .....

Address .....

..... **Postcode** .....

Prize kindly provided by Hotpoint (02) 634 6499

Second Samurai from Vivid Image, while historically confused, is a very acceptable platform game with which to while away many an hour.

(Historical note: Samurai were representatives of the ruling class in Japan. They were armed with two swords, one long and one short. No one else was allowed to be armed and so kung fu was invented as a means of protection without the use of weapons. Thus samurai never, ever used kung fu.)

The best way to get a grip of what the samurai were and what they did is to read *Shogun* by James Clavell and see *The Seven Samurai* by Kurosawa.

The people who wrote the game *Second Samurai* simply have no idea. They appear to be under the impression that a samurai started with kung fu and worked up to using swords.

If you played *Second Samurai* and you knew no better you would end up with a totally erroneous idea of an important part of Japan's history.

Having said that, the gameplay is smooth, fast moving and addictive. The game allows you to pick up weapons as you move along. The first weapon you pick up, a sword, is on the first level.

With his new sword the samurai chops through a bridge and drops down into a series of caverns where he fights armadillos (or an acceptable substitute), a sort of millipedal dragon and mythological nonsenses galore.

At one stage the samurai wanders into a fiery furnace with fire and fire balls shooting at him and a sign comes up "Don't burn". This is one of the silliest suggestions I have seen in a game in a long time (hey, most of us would have worked out not to get burned - at least the *second* time).

Then down comes, please believe me for this is true, a bubble car to carry our hero out of the furnace and then, by jiminey crikey, he finds another dragon which turns bright silver every time the dragon is kicked on the nose.

Eventually a swift kick renders the dragon to his component parts and you are awarded more weapons with which to fight. (Did I mention that after a number of uses your weapon of the moment - for me generally a sword - wears out). Our hero can then plunge back into the realms of fantasy to do more derring do.

The problem is that I am a silly old purist as far as Asia is concerned. This game was written in Liverpool, the home of the Beatles and the Yellow Submarine. And it shows. However as a game and not a historical treatise it rates very highly. ❑

GARETH POWELL

Ratings:

Graphics:	80%
Sound:	78%
Gameplay:	85%
Overall:	83%

Distributed by:
Hotpoint (02) 634 6499
RRP $69.95

Kingmaker

If like me, you have a serious interest in English history you will quickly become obsessed with *Kingmaker*. If you do not care about Richard of York and Henry VI and Margaret of Anjou and the assorted claimants to the English throne you may find this just a very good strategy game with excellent graphics. And, if you have a SoundBlaster card installed in your computer, good sound.

The game opens with William Shakespeare talking about the problems created by that interfering bastard, Richard Neville, the Earl of Warwick. He is in league with Vernon and an un-named lawyer - "the first thing we do, let's kill all the lawyers" - *Henry VI, Part Two*.

In fact, the opening scene is very much from *Henry VI, Part One* where Richard, Duke of York has challenged John Beaufort, Duke of Somerset. York plucks a white rose from a bush and says that those who support him should do likewise. Somerset picks a red rose and the scene is set for the start of the Wars of the Roses.

Thus *Kingmaker* opens in 1453 and because of the Earl of Warwick's infernal meddling we are into the Wars of the Roses even though we are coming out of the disastrous 100 Years War with France.

Note that Shakespeare was acting as a propaganda writer for the Tudors and thus his plays reveal the troubles in a way that flatters the Tudors even though their claims to the throne were but of the flimsiest.

If Shakespeare could rewrite history - and he did, a lot - then why can't you do the same when playing *Kingmaker*?

Boot up the game and the intrigue, manoeuvring, back-stabbing and head chopping begins.

You can play against between one to five factions. Some advice: start with one faction until you are used to the game. And choose to play after the computer has made its move otherwise you are going in blind. A further tip - keep the Advanced Weather option off until you have got some time in.

Now you can start to form alliances and arm them with bowmen and archers.

At your first run you may realise that an early gambit is to assemble as much of an army as you can under one banner and then go around trouncing the opposition castle by castle - lopping off heads as you go. (You need to be hard-hearted to play this game. Being Welsh is also of great assistance because of our in-born talents for mendacity and role-playing.)

But that "mass your forces and attack" is a beginner's gambit and simply will not work when the game starts to become complex.

As you move to higher levels you will realise that lying and deceit and false moves are the only way to go.

There are also, I should warn you, a few wild cards that can upset your plans.

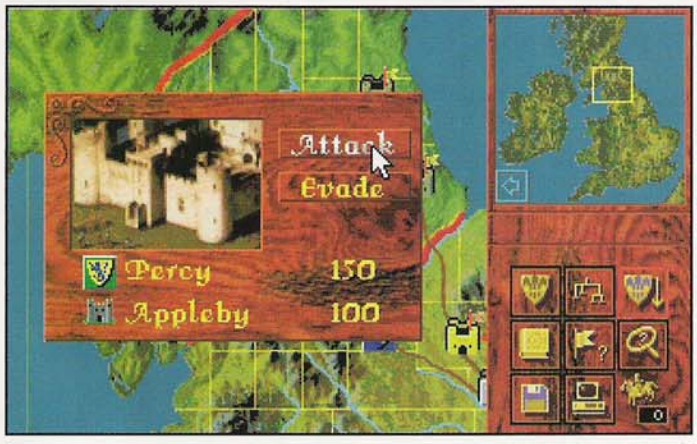
I got hit rather badly last night by a plague in Northampton and later was forced, reluctantly, to behead Margaret of Anjou which still lies heavily on my conscience. But I need, in this game, to end up with the sole heir to the throne and if heads need to be lopped then, by jiminy crikey, they will be. My mother didn't christen me Gareth the Kingmaker for nothing.

Gareth Powell

Ratings:

Graphics	80%
Sound	82%
Gameplay	90%
Overall	86%

Distributed by
Sega Ozisoft (02) 317 0000.
RRP $69.95



With CD 32 games one should look, perhaps, with a cynical eye at games that have been ported over from the Amiga 500. CD-Rom should encourage the use of video clips, of extra sound, of outstanding and astounding graphics. They should not be extensions of the standard productions.

Trolls is such a game. It does not belong on a CD-Rom disk because it simply does not take enough advantage of the possibilities.

True, it starts with jazzy music, and the Flair Team who are responsible have some sort of Disney approach to the introduction so that you see a snowy scene, a clock, a pair of eyes on a dark screen, a face lit up with a torch - you know the sort of thing.

This game has a standard of play and a type of drawing that suggests it would be ideal for ankle biters if they were but quick enough and dextrous enough to handle the control panel. (I much prefer a standard joystick myself although Bill Gates, the man who runs Microsoft, swears by the CD-32 control panel.)

The voice in the game says, "Let's go get them." At least, that is what I think it says. It is difficult to be quite sure. This is not, believe me, 32 bit sound. It is eight bit, and not too wonderful at that.

The idea is that you jump up and down to avoid objects that can nut you. At the same time you spend your time finding baby trolls who make baby noises to urge you on.

At the first level you are asked to find 19 baby trolls and then find the pigstop. And, no, I have no idea what a pigstop is or why I should want to find one.

The game is all in the timing.

Leap too soon and get nutted.

Leave your leap too late and the same thing happens.

Leap at precisely the right time and land in the centre and stars explode and your score increases.

Strangely the one who got me the most was a caterpillar which moved very slowly but kept making me land on his poisonous head.

The scenery is full of pencils and toys and brightly coloured spheres and it is mildly amusing but nothing we should get overexcited about.

To try and bring some excitement into your troll's life you select another level.

We choose Sodapop land which as a title is enough to make you feel distinctly queasy.

Here the scene is underwater and the scenery is like a mad aquarium with a yellow submarine easing past and firing torpedoes at you and pretty fish intent on depriving you of life.

Weird graphics which have a sort of distinct charm of their own and make you feel as though you have been partaking of a banned substance to give you an out of body experience.

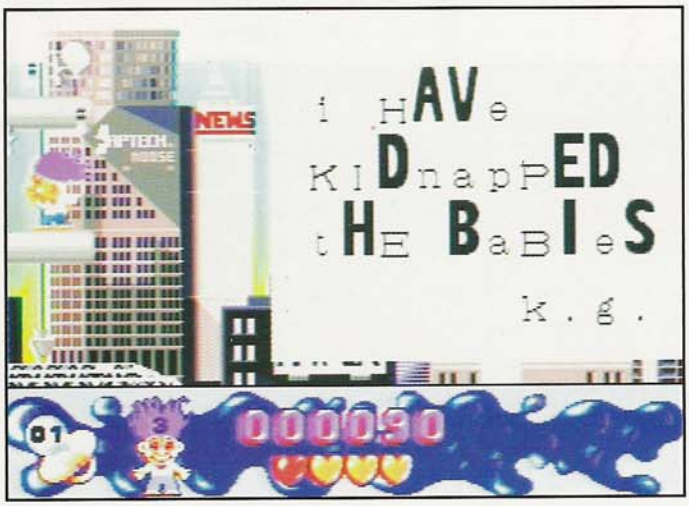
On the Amiga 500 it was a perfectly splendid game of its kind. On a CD-Rom disk the seams are showing.

GARETH POWELL

Ratings:

Graphics	80%
Sound	70%
Gameplay	83%
Overall	80%

From
Logico (02) 519 6719.
RRP $69.95



MICHAEL SPITERI'S Adventurer's Realm

The normal time for reading this part of the magazine is usually about, say, 2.00 am. It's dark outside, nobody makes a sound, not even the mice. Ahem, yes the most likely moment you'll be turning to these pages is when you are seriously stuck in an adventure game. Well, you've picked a good month to turn to Adventurer's Realm, because this month is the first of a super hints series. We have these specials every couple of years and they have proved immensely popular. So enjoy!

Not only is Adventurer's Realm a source of adventure hints and tips, but it is also the central point for obtaining access to a huge network of hints and tips in the form of the many Clever Contacts, Kerrie's Hint Sheets, Realm's Super Hint Disks and Hint Books. Some are free, some cost a couple of dollars, either way Adventurer's Realm is good value.

The Address: Adventurer's Realm, 12 Bridle Place, Pakenham, Vic 3810.

The Rules: If it's hints you want, make sure you enclose a stamped addressed envelope. Otherwise we'd like to receive mail from you regarding any adventure topic. This is YOUR part of the magazine, so make the most of it!

Free Hint Sheets

If over the last couple of months you've noticed a slight delay in receiving your hint sheets, then we have a pretty good explanation for the temporarily reduced service. Kerrie's "little helper" arrived in the form of a beautiful baby girl ("Elly Joan") on March 15th at around the same time when many adventurers were up tackling dastardly problems. Normal (slightly) services have been resumed.

If you would like up to four of the hint sheets listed below then drop a line to Kerrie's Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810. Please make sure you check the list below before sending in your request, and you must enclose a stamped addressed envelope (or your request will not see the light of day).

Hint sheets available: *Mortville Manor/ Maupiti Island, Monkey Island I, II, Space Quest III, IV, Wonderland, Leisure Suit Larry 3, Champions of Krynn, Kings Quest V, Pool of Radiance, Zak McKracken, Zork 1, 2, 3, Bards Tale 1, 2, 3, Hitchhikers' Guide to the Galaxy, Guild of Thieves, Jinxter, The Pawn, Corruption, Faery Tale, Indiana Jones and the Fate of Atlantis, Loom, Space Quest II*, and the latest '94 Clever Contacts Listing.

Clever Contacts

Clever Contacts - love them or hate them, many of you cannot sleep without them. Their services are known nationally, and rightly so, as their good efforts reach to all corners of the nation (just about). There are Clever Contacts scattered in every state who are willing to offer their time and services (but not money) to help you out of a adventure dilemma. Drop a line to Kerrie in the Free Hint Sheets Dept and she will promptly send you out a complete listing. In the meantime, here are a couple of updates to that listing.

First up, Stuart George of 68 Sharon Road, Springvale, Vic 3171. Now it beats me why this guy keeps sending us his updated listing when surely he knows we have no room to print them all. Still, I might add that his list includes some of the greatest Legend games such as *Eric the Unready* and the *Spellcasting* series, not to mention *Legend of Kyrandia*. But I can't do that. Oops, I have. Anyway, Stuart is the man to write to with your problems, so drop him a line (and he might spare you his corny jokes - if you can call them that).

Another man who continues to lodge updates with us is Graeme Beavan of PO Box 254, Wyong, NSW 2259. I mean, this guy has produced hint disks for us covering about 300 games. Not only that, but he can now modem hints and tips to you. Just ring him first on (043) 511 746 (voice), and go on from there. Graeme did ask me to specifically mention the following games: *Gobliins 1-3, Curse of Enchantia, Elvira, Black Crypt, Fate of Atlantis, Might and Magic 2-3, Monkey Island 1-2, Lure of the Temptress, Eye of the Beholder 1-2, Hook*, and *Simon the Sorcerer*. And no. Graeme does not know any corny jokes (I hope).

Finally, a big thank you to the big Clever Contacts like the two mentioned above, and the small timers for doing such a fantastic job. Your country needs you.

Realm's Super Hints 1994 - Part One

Yep, it's that time again, where we hold no bars and just open the floodgates, empty the buckets, pull the plug on the kitchen sink, burst the dam, but enough of the small talk. Let's get down to business. The hints come from a number of sources, however the main source is you guys and gals out there in reader land. Share and share alike, I say. So let's begin with ...

Leisure Suit Larry 5

Something about those tapes. Maybe they need to be degaussed - all of them.

Now what do we enter at the AeroDork machine? Check your game manual, man.

Showing your AeroDork card to a camera might progress you further.

Commander Twit will give Patti some useful info.

Maybe the PC Hammer DataPak fits into the DataMan.

Hey Larry, don't forget to prepare your video camera when you arrive at the next airport. This means charging it and loading up a tape.

Need to make a call? Check the charity case.

Sweet talk the Maitre d' at the Hard Disk Cafe.

The magazine on the plane has some good tips about modifying tickets.

Having trouble opening a desk, Patti? Try the letter opener, or better still, check the plant out.

Eric the Unready

All the piggy wants is a kiss.

Put Excalibannana in water.

Seen a beard anywhere? Need a key? It's not a trap ...

Use the starter rock on the lever with the slingshot.

Tort-ease. Great for those in a rush.

The unicorn comes out for a moon. Can't wait that long? Moon it yourself.

The whoopi cushion is a favourite at contests.

Everybody has a cake with candles on their birthday.

What do you have that a monkey could eat?

Ultima 6

The plans for the balloon lie underneath Sutek's castle.

Telekinesis must be used to lower the drawbridge.

There is a cauldron in the sewers of Britain.

You can buy rope in Paws.

Michelle lives in Minoc and can make you a basket.

Give 40 pieces of silk to Arbeth in Paws.

Give the thread to Charlotte in New Magincia.

Give the cloth to Marissa in Paws.

Got to Gargoyles Realm via Hythloth.

Meet Captain John on the last level to learn the language.

Let the little gargoyle join your party. Go to his father.

Surrender to Draxinusom.

Leather Goddesses of Phobos

To pass the penguins, make a donation.

Make a trap out of leaves and trellis to catch the Venus Fly Trap.

Attack Thorbast with the sword from the cargo hold. You'll need a therma suit first.

Convert a untangling cream using the special machine to help King Mitre.

Darkseed

Got a headache? Take an aspirin and a shower.

At the cemetery, press the left button on the family grave, then the centre, then the right button. You'll eventually get the key to the clock.

Check out the right hand side wall in the main bedroom for a secret room.

Wear gloves when you first pull the lever in the Darkside.

Dig up McKeegan's grave, then get yourself arrested.

Hide watch, bobby pin, gloves and money under the pillow.

Use the cup on the cell bars and show Delbert's card to the cop.

Steal a weapon from the police station.

You'll need the stick that the dog was playing with - in fact it is perfect for ridding you of Evil Fido into the abyss.

Escaping from the police station in Darkside should be easy now (but make sure you pick the lock twice).

Give the bobby pin to Sargo and get the cloak of invisibility.

Wear the headband past the Alien guarding the library.

Lure of the Temptress

Burn some straw to escape from the cell.

Cut open a sack to obtain some money.

Giving the prisoner some booze will reward you with a useful hint.

Chat to Mallin and he'll eventually give you a metal bar - just what the shopkeeper needs.

Offer Morkus a drink to obtain info about the damsel in distress.

Black Goat is just the thing to say to Grub.

The lady in the hotel without arms will give you an important recipe.

Ratpouch knows how to pick locks if you give him the right tool.

Ask the monks about that smell.

Goewin is the person to see about some herbs and opening a gate.

Manipulate the skulls to open the various gates.

Rise of the Dragon

Get dressed to stop being arrested.

Apologies to Karyn and buy her some roses using the id card.

Don't stand Karyn up, whatever you do.

City Hall is only open between 9 & 5.

You can't put on your bullet-proof vest without removing your trench coat first.

Give Slen a candy bar so that you don't lose your weapon.

"The Jake" is the small guy in green at the back of the bar.

Show Jake the picture from the Vid-Phone that the mayor sent you.

Give Jake a candy bar after talking to him the first time.

Common numbers on the gun permit and Chen Lu's Vid-Phone will open the safe.

A manhole cover is the best way to get under Johnny Qwong's house.

Lie to and seduce the receptionist to pass her.

Might and Magic 3

In the Maze from Hell, the chests that don't kill are 15,1 8,15 7,25 27,23

In the Fortress of Fear, only pull the levers at 15,2 18,22 6,12 5,21, then stand in

the centre of the four heads to access the secret room.

In the Greywind Tavern, turn all three hourglasses up and bang the gong, then turn all four down and bang the gong.

In the Cathedral of Carnage, turn the five altars to face NWNES (from left to right).

The Mighty Moose will be WEEDS. Drink from the six cups.

In the Main Engine Sector, touch the rear crystal to access the power orbs.

Eye of the Beholder 2

The Crystal Hammer in Silver Tower Level 3 can break the Azure Seal.

The Crimson Key in the Azure Tower will fit into the key way in temple level 2 (south of portal).

Use the Stone Gem between the Temple and Catacombs.

Use the Stone Dagger between the Temple and the Frost Giant Prison.

Use the Stone Dagger between the Catacombs and the Frost Giant Prison.

Use the Stone Gem between the Frost Giant Prison and the Catacombs.

On Catacomb level 3, open the stairs before using the three spider keys.

Realm's Poetic Trading Post

Classified ads. Boring things, aren't they? Not in Adventurer's Realm they're not. In fact, in this part of the magazine, classified ads are sheer poetry, and I mean that literally. So, if you want to sell, swap or buy something, you can do it here absolutely free. There are a few ground rules. One - you cannot advertise pirated stuff. Two - commercial ads are not welcome here. Three - your ads must rhyme. Failure to abide by these very simple rules will result in your ad not being published. And you thought poetry was just for lovers.

In the sweet little town of Greenacre,
Lived Wayne Boulten, the computer game trader,
But privately you see,
For between ten dollars and sixty,
He has Fire & Ice, Robocod, Mig 29, Hot Rod,
Life and Death, Baron Baldric, Toyota Celica (how odd),
Fuzzball, & World Series Cricket. Not to mention,
Humans, 3D Construction Kit (with video), he'll win an election!
Pelican Press, Rugby World Cup, Flashback, hey Rolf!
Populous II, Railroad Tycoon, and Jack Nicklaus Golf
Our friend Wayne is willing to swap you see (he lives in no hive)
So give him a ring on (02)7425385
(Wayne would also like a non-pd version of Wheel of Fortune or Family Feud for C64)

Good ol' Matthew J Lowe,
Who lives at 2 Taylor St, Dinmore Qld (4303), oh know!
Is sick of these Amiga games and will swap or sell to any good offer,
Heimdall, Ork, Godfather, Dojo Dan, It Came from the Desert,
Robin Hood - Conquest of Longbow, Leander, and more.
So drop him a line,
and if you know the whereabouts of Kelly Spiteri, he'd like to know, that's fine.
(Nothing nasty, I hear, just some help is needed, as usual).

Oh no! More Lemmings! and Troddlers.
These you can own for your Amiga for $35 smackers each,
Which is not really beyond reach,
So write to, in the heat,
Andrew Hay of 10 Finschafen Street,
That's in Mt Isa, Qld, 4825, by the way.
And you will be happy, I say.

Australian Commodore & Amiga Review back issues still available

+ many more before June 1993 - Call for more info

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Adventure Chat

Regular Realmer Stuart George writes: "Could you please tell people I don't mind helping them in games but I won't photocopy manuals and copy protection stuff for anyone."

Mike: Talk about abusing the ever popular Clever Contacts service. To all you pirates out there - you've done enough damage to the Amiga industry already. The Realm's Clever Contacts were setup for supplying hints and tips and pen-pals. To all those honest Clever Contacts who have received such requests, send their letters back to headquarters (that's here) and we'll deal with them the best way we know how. Stuart George would like to end his complaint with a pretty ordinary gag (if you want to call it that). "How many adventurers can screw in a light bulb? Depends on how many people have got the hint book."

Mike: Arrgghhhhhhhh!

A big thank you to Stuart George for hint sheets for *Spellcasting 201, Spellcasting 301, Eric the Unready*, and *Day of the Tentacle*, and a big thank you to Joseph McElwee for the hints for *Zak McKraken* and *Indiana Jones*. Hints from these generous offering feature in our Super Hints Special this month.

Adventure Problem Centre

This is the part of the Realm where problems are aired, scrutinized and solved. If you were stuck a few months back (in this segment), then you might be in luck. On the other hand, you might not.

"Dear The Realm" starts Chris Lynch from Cranbourne in Victoria. "I bought *Cruise For A Corpse* last year and have been stuck for about six months. Could you please help me! At the moment I have a thank you note, key, receipt for bracelet, map and soap. The time is 10:20 am. Can you help me?"

Mike: Hey Chris, you repeated yourself there. I said you repeated yourself there. I said you repeated yourself there. Your problem seems kinda specific, so specific that somebody can surely help you out. I said somebody surely can help you out ...

"Dear Adventurers Realm" begins Hal Douglas from Tassie. "A couple of years ago I bought an A500 and *Larry 5* and I haven't played the game properly until a few days ago. I only played it for an hour and I'm stuck. I've got my mission from Silas Scruemall and I've got my camera, battery charger, tapes and an Aerodark gold card. I don't know what to do next. Please help me!"

Mike: What a sick guy. He buys an A500 just so he can play *Larry 5*. And Hal, Rome wasn't built in a day. Calling for help after an hour's work sounds pretty wimpy to me, but who am I to criticise. Anyway Hal, I'll give you some pointers (refer to the Super Hints section), and hopefully someone can give you something more specific. Hey, I was only kidding about the sick guy bit!

"To Michael Spiteri" begins Karen (I think) of Randwick in NSW. We have another loser stuck in *Cruise for a Corpse* ... "I wanted to refuse hints, but beggars can't be choosers. Anyway, I've found the bracelet, checked its clasp, found the father's case and had a chat with him, had a chat with Hector and Dick Schmock. What do you do with the cat in the linen room, or the non-English speaking cabin boy? What do you do with the maid in the linen room? What do you do with the four books on the bookcase? I also overheard Tom Logan arguing on deck. What are you supposed to do in the engine room? Help!!"

Mike: I know this is off-topic, but in real life, what do I do about the cat which keeps digging up our wood-chip bedding. It's really bugging me. And no, strangling the cat is out of the question. And as for *Cruise for the Corpse*, boy, talk about asking a few questions. And why do I start a lot of sentences with and, I mean, it must really bug the teachers out there who read this article. Who knows!

Realm's Really Top Value Hint Disks

Big news last month was the release of the Third Hint Disk, which is packed with hints for 100 adventure games, including many recent releases, as well as maps for *Elvira, Chaos Strikes Back, Flashback* and *Simon the Sorcerer* and solutions for *Kings Quest* 5 & 6, *Cruise for a Corpse, D/Generation, Eco Quest, Fascination, Inca, Bards Tale 3, Cadaver*, plus much much more.

Orders are running hot for this new hint disk, as well as orders for Hint Disks Volume 1 & 2. Combine the three hint disks to cover over 290 different adventure and roleplaying games. Incredible, eh? These are the best dressed and most easy to use hint disks ever. Each features a very easy to use interface that allows you to display hints at a click of a button. Absolutely packed to the last remaining sector with hints and maps, each disk is priced at an absolute bargain at just $7.00 (including p&p) or $5.00 if you supply the disk and stamped addressed envelope. To order either disk send a cheque to Michael Spiteri for the required amount to Realm's Hint Disk, 12 Bridle Place, Pakenham, Vic 3810.

Realm's Really Good Hint Books

Two great hint books are currently available. Volume 1 contains hints and tips to over 40 games, and Volume 2 contains hints and tips to over 25 adventure and RPG games as well as pages upon pages of mapping sheets. Volume 1 is only $9.00 and Volume 2 is only $10.00. To order either book, drop a line to Saturday Magazine at 21 Darley Road, Randwick, or ring (02) 398 5111.

ALIEN BREED '92 SPECIAL EDITION

Alien Breed is set in the year 2191 and things are not looking good, not looking good at all. Prime Minister Bishop has at long last resigned after a twelve year term and Australia has just been made a colony of new Zealand (just kidding, folks.)

Worse than the fact that our Bronnie has closed down her stainless steel grin and handed over the reins to a much younger pollie is that the galaxy is on the brink of war.

Yet again you are in Stainless Steel Rat mode in the interplanetary corps.

Johnson and Stone are crack members of the corps and have won the Order of Bronwyn Bishop for bravery beyond the call of duty. They are on their way home to planet earth to hoist a few and have a well-earned rest when news comes that ISRC-4 has ceased operating which means that "Beat the Clock", now in its 212th year, is not being transmitted and the civilised world is in an uproar.

You, as Johnson and Stone, go to investigate. You approach and, as in *High Noon*, everything is quiet, too quiet. Come out of ion drive, on with the retro rockets and approach the landing bays.

There is a great overhead view that shows you moving around the station looking for trouble. There appear to be a fair number of rooms but for most of them you need a key to enter.

As you traverse the corridors and accessible rooms you find keys and enter one of the locked rooms.

Coming towards you are a series of creatures who look like a cross between Robocop and an American cockroach. They have the intelligence of the cockroach. You can easily zap them with your Uzi style machine gun but there are more of them than you would believe. Although you kill them by the hundreds they keep a'coming.

Now comes the suggestion from base headquarters that you blow everything up but chill out before the big bang. But before you do you find the enemy is boring holes in the floor and swamping you in sheer numbers.

I found it OK - not boring but less than totally enthralling. There are good graphics but you spend too much time poncing around the corridors looking for keys and fighting cockroaches was never my idea of fun.

Ratings:

Graphics	75%
Sound	76%
Gameplay	77%
Overall	76%

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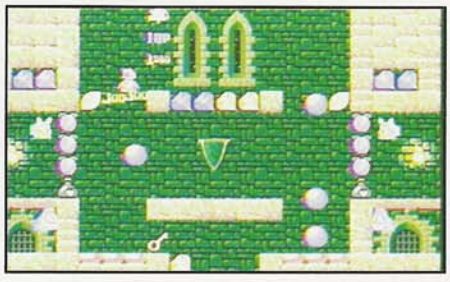
QUAK

Qwak is a silly platform game that reminds me of a show at Disney World called It's a Small, Small World. Try to avoid it because if you ever see it you will sing the theme song for the rest of your life. It is totally addictive.

This is one of those happy Donald Duck scenes which are so pleasant, and warming and cutesy that I want to vomit.

The trick is to move around - skippity skip - without getting zapped by silly looking fish - flippety, flop - although why you would want to bother wonders me.

This is a silly little platform game which will undoubtedly appeal to people who like silly little platform games. Include me out.



PROJECT X

Project X is on a disk which offers you two games in one (the other is *F17 Challenge*). In *Project X* the writers from Team 17 have placed all of the instructions on the disk in various languages and this is definitely the way that all games are heading.

Those of you who, like me, are fans of Harry Harrison and the Stainless Steel Rat will be quite at home with this game. You are members of the interplanetary police working for the Federation.

Your job is to fly to Ryxx, the station evil mutated spawn has made its home and your mission is to blow the whole thing sky high. That's precisely what it says in your orders.

Once again you are the Stainless Steel Rat fighting the forces of evil for the Federation. The game has great graphics and good music.

Heading towards Ryxx you snap out of hyperdrive and there they are, coming towards you.

You are shooting ahead and below and above and scoring hits but there is some damn silly controller who keeps on telling you to speed up. That, Stainless Steel Rat, is when you get zapped. Ignore the voice and fight at your own speed.

Now you are hammering through the asteroid belt.

Yes, you can shoot at them but the trick is to stay at the left hand side of the screen and then let them come to you and you can weave a slow track through them without getting zapped although the asteroid belt is a killer and perhaps, you, like me, will find the keypad on the CD32 does not provide precise enough control.

As you come out of the asteroid belt they play the "Join the Australian Army" theme tune which is the 1812 Overture and this jollies you along.

Sadly the programmers, who at a bet are a bunch of smart-arsed Poms, keep giving you scores like "Pitiful" and "Woeful" as you proceed. What is, indeed, pitiful and woeful is their spelling which is subhuman.

Once you are past the asteroid belt a malevolent cricket ball hurled by Merv Hughes is there to get you and it is a not easy, believe me, to shoot down.

Project X is a basic shoot 'em up but not bad, not bad at all. Lots of game play. If it were not for the comments of the programmers it would be totally enjoyable.

GARETH POWELL

Ratings:

Graphics	83%
Sound	85%
Gameplay	88%
Overall	87%

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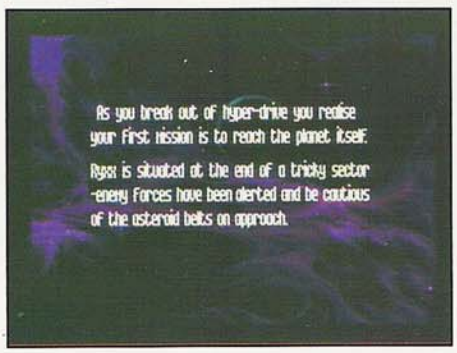
Hotpoint (02) 634 6499.
RRP $69.95
(comes with F17 Challenge)



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