

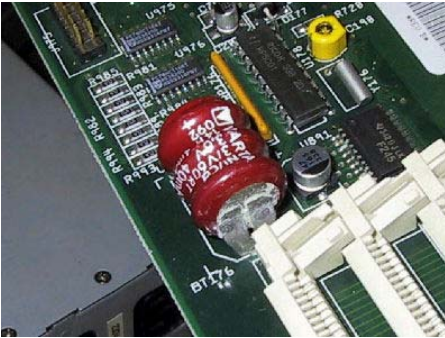


# Workbench

August 2002

Issue 183

## Amiga OS 4 Feature List Inside !!!



**Protect your investment !!  
Check those Batteries !!  
AUG's Resident Tech Tells  
You how!!**



**More  
Amithlon  
News!  
Xine**

**Multi media  
player coming  
to Amithlon!**



**Bill Speaks !!  
News from the USA AmiWest  
Amiga Show !!!**



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Contributions can be soft copy (on floppy½ disk) or hard copy. It will be returned if requested and accompanied with a self-addressed envelope. The editor of the Amiga Users Group Inc. newsletter Workbench retains the right to edit contributions for clarity and length. Send contributions to: Amiga Users Group P.O. Box 2389 Seaford Victoria 3198 tonym@net2000.com.au

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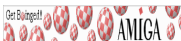
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**Editorial**

Ho ho ho... what a month. Here I was, near the end of the Workbench deadline and I had hardly any decent news. When suddenly bang... out of the blue, I'm up to my neck in Ami news.

We have news of updates for Amithlon, news of a new multimedia player for Amithlon, the feature set for OS4 has been published, as well as a bit of extra news from Ben Hermans of Hyperion, and Amiga Inc have spoken at the USA Amiwest show.

On the AUG front, the financial report has been prepared and published in prep for next months AGM. Plus one of AUG's initiatives for this coming year is to promote the group at swap meets.

**Tony Mulvihill**



bringing in a production model of the Thylacine Amiga Zorro USB card. We may even be able to demonstrate it in operation.

Plus well have all the usual Amiga news brought to us by AUG's Meeting Chair David Myers.

**Last Months Meeting  
July 21st 2002**

Great meeting last month. Good attendance. Lots of things to see and experiment with. Our assistant co-ordinator Peter Margerison brought in his amplifier and speakers and was demoing Prayer II playing MP3's We also did a bit of networking and played some LAN AmigaQuake.

**Next Months Meeting  
September 15th 2002**

It's the annual AGM meeting!!!

**This Months Meeting  
August 18th 2002**

I'll be demoing encoding MP3's with SecondSpin on Amithlon. Fellow AUG member Merv will be bringing in his PPC powered A3000 so we can do a bit of head to head speed checking. Which machine will win? Amithlon or the PPC A3000 beast. You'll have to be there to find out.....

**Membership Renewals**

Membership renewals have been slowing trickling in. Those of you who haven't yet renewed will receive a reminder with your issue of Workbench. Remember it's your membership of AUG that makes AUG the group it is today.

**Annual General Meeting  
Next month will be our  
Annual General Meeting.**

The AGM is where committee positions are voted on and new directions for the group discussed. Also a reminder that all current committee members are required to be in attendance.

**More info next month.**

Scott of Boing.Net will possibly be

# Bytes & Pieces

**The only thing holding back Amithlon is an unresolved licensing issue with Picasso 96.**



Everything else is go and has been for at least the last month. How long before Picasso give the green light? I don't know. Ask Picasso?

I do know that Bernie has programmed his way out of more than one corner. I also know that Bernie specializes in graphics. If Picasso aren't careful they may lose a nice little licensing agreement.

For Bernie such a move would simplify his licensing markedly plus significantly improve his income.

This is all speculation on my part. Bernie gave no indication that he was likely to wander down this path... but he might? Jump now guys! The grass is greener on Bernies side of the fence!

The new demo version of

Amithlon slowly increases the number of CPU cycles it ties up in a non-productive CPU intensive loop till it gets to about 94% of CPU usage. (takes about 20 min). If you pay your \$99 you get a key that removes this throttle.

Imagine millions of Amithlon demo CD's on magazine covers all over the world!

Everything: setup, drivers, ease of use, software, etc... has been improved in Amithlon 2.

BTW: Amithlon will be getting a new name! The old name might have some intellectual property issues attached that are better discarded before they become problematic. Bernie seems to like Amigator!

Imagine an alli-Gator with Bill Gates or M\$ in its jaws? I'm sure you can think of a few more?

Michael Czajka  
MC1@pobox.com

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I have just made the third Amithlon contrib pack available on [www.amithlon.net](http://www.amithlon.net). This one has a couple of new patches, a small correction to the previously released fpu patch, as well as replacement serial and gfx drivers. It also includes a bunch of small useful utilities, most of which were posted to this list at some time, but never collected in a handy archive.

As always, you can find it in the "Updates" section on the site. While this archive should have something for everyone, it is especially interesting for people who can only use VESA mode for their display — the replacement gfx driver allows resolution and depth switching even on "unsupported" cards...

Enjoy, and keep the feedback coming,

Bernie Meyer Amithlon Author



# OS4 Feature List



Listed below are the modules that make up the core of AmigaOS 4. Most of the OS modules (including the kernel) are finished and being tested internally by the OS 4 development team.

Current work centers around Intuition and Reaction, 2D/3D drivers, A1 Bios, additional kernel functionality (virtual addressing and page-based memory handling) and the integration of the 68K emulation into the system.

Here are the modules that make up AmigaOS 4:

Exec Second Generation (Exec SG)

Exec is the kernel of the AmigaOS and is currently written in 68K assembly.

The following features are planned for ExecSG:

Hardware abstraction layer (HAL)

Virtual addressing (for automatic stack enlargement etc.)

Page-based memory handling (less fragmentation and more efficient)

Virtual memory

New library interface

Resource tracking and

management  
Optional  
memory protection  
WarpOS  
backwards  
compatibility

Just in Time  
(JIT) 68K  
emulation

PPC native  
TCP/IP stack &  
PPP drivers

fastest on the  
platform

Re-  
implementation of  
the Amiga file system (FFS2)  
for PPC

PPC native CD Filesystem

with limited Mount  
Rainier support (use your  
CDRW as a floppy)

Recovery and Salvage tools  
for FFS2 and SFS

PPC native CD back-up tool

OS 4 will include a  
simple tool which allows the  
user to back-up files by  
burning them to an ISO 9660  
CD which also allows for  
exchanging data between  
systems)

PPC native RTG system  
Picasso 96 V3



PPC native arithmetically  
optimised version of  
layers.library

Warp3D (3D driver system)

OpenGL 1.3 support (Mesa  
4.0)

PPC native RTA system  
based on AHI

with Soundblaster Live!  
Drivers

PPC native GUI system  
(Intuition and Reaction)

PPC native shell

PPC native version of  
“Amidock”  
PPC native utility for

## Bill McEwen speaks at AmiWest 2002. This is a short transcript from just one of his show speeches.

Now, to the update, I got this from Ben literally just before I left. So, most OS modules including the kernel are finished, and being tested internally by the OS4 development team. Current work centres around Intuition and ReAction, 2D/3D drivers, the "AmigaOne" BIOS and additional kernel functionality, virtual addressing, page-based memory handling, and 68k emulation

So, what happened was, with the extra time... If you remember, some time ago we had 4.0, 4.2, et c. Basically, everything that was in 4.2 is now in 4.0. So it will be a stand-alone new OS that will run on PPC hardware. So that will allow us some flexibility, some growth opportunity, and some other opportunities we haven't had... for... Because we were expecting that another year from now. So, while a real big pain in the butt, the good news is that it's here, it's working, and all the other goodies are on their way. So we expect that after the next 60 days that external testing will begin happening so you guys can check it out, and in the next few weeks I expect to have a lot more information for you and we expect to have a machine in house so we



AmiWest 2002  
July 27th & 28th



can begin testing ourselves. Now, real quick, there's a lot of fuzz, and all kinds of fun... I wouldn't say attacks but some interesting volleys going on out there about Amithlon.

Amithlon 2.0 is 100% legal, is 100% signed and they have a license from us. The other guys don't, they never signed their license, a year after them shipping their products we are yet to receive any royalties due to us, and they are the ones who have illegal copies out there.

I'll make it very clear, that no matter what you hear out there, the reality is they don't have a license, Bernie Meyer does. So all copies of Amithlon 2.0 are absolutely legal. Now we'll probably do a name change, because to be honest I don't like the name Amithlon. That is the only change you'll see there, we're planning to do all kinds of stuff with it in the future.

So, beyond what you read out there, on the boards and the nonsense and people willing to throw a bunch of crap up and see what sticks, the reality is that they (Haage & Partner) don't have a license. They haven't had a license and unfortunately now we have to go the ugly route, you know we've been trying for over a year to get it cleaned up the nice way. So Amithlon is legal and they're not. So, enjoy Amithlon, and we'll have some other stuff going after that and you'll see some more answers later tonight

Thank you. Bill McEwen

## OS4 Feature List From page 4.

archiving and de-archiving

SCSI drivers for onboard (UW) SCSI controllers

AmigaInput API (for multimedia controller devices)

USB stack

already adapted for the Highway and Subway hardware

PPC native datatypes

New HDToolbox ("Media Toolbox")

Support for TrueType/OpenType fonts

Web-browser (Ibrowse 2.3)

MUI PPC (for legacy applications)

Reading/printing of PDF files

PPC native rewrite of DOS library

PPC native movieplayer

"Action" with DivX and MPEG4 support

PPC native devices

Generic PPC native PCI library







## By David Myers.

This is the first in a series of articles dealing with Amiga hardware issues which may be of interest to most users. Some will be of a DIY type, where you will need the right tools and a knowledge of electronics. Other articles will simply provide some background information, and hopefully will be of interest to all.

My first article has been adapted from a page on my website, and I consider it important enough to be the first article. It deals with that ticking time-bomb in almost all Amigas - the dreaded clock battery.

Most Amigas use a rechargeable 3.6 volt NiCd battery to keep the clock operating when the Amiga is switched off. These batteries deteriorate with age and start to leak corrosive fluids after several years. These fluids will eat away the copper tracks of circuit boards and destroy ICs and other components, ruining your Amiga. PCs don't have that problem as they only last at most a couple of years before they are thrown out and upgraded, long before their batteries have a chance to leak.

As even the newest

Commodore-made Amigas are now over 8 years old, it is important that the batteries are checked, and if necessary replaced.

From my experiences, over 90% of all Amigas now have leaking batteries, so it is vital you check your battery without delay. If you don't, your Amiga will stop working one day and it may not be possible to repair it as part of the motherboard may be dissolved away!. You have been warned!

Some Amigas such as the A4000 use a multilayer "sandwich" construction on their motherboards, which means that the internal conductors can be eaten away, even if the surface looks OK. It is almost impossible to repair such damage. Furthermore, the chemicals from the battery can even "wick" along the pins of ICs and work their way inside the IC, completely destroying it.

***Note that these batteries contain cadmium, which is toxic.***

It is strongly advised to thoroughly wash your hands if you come in contact with any leaking matter from these batteries. For this reason it is also advised to not simply throw it out in the garbage but to dispose of it in a recycling

facility that can handle old batteries and other similar materials.

The photo shows a typical leaking battery in an A2000. If this picture won't convince you to check your own battery, then nothing will! As you can see the leakage is very extensive. One end of the battery was coated with a white crystalline "fuzz" and you can see the extent of the leakage on the surface of the motherboard. It even penetrated into the CPU socket and was starting to corrode the CPU pins.

As you can imagine, it is very difficult to clean it out properly from under all those parts. All Amiga models use similar batteries. They are all the same size and shape. They all leak eventually, especially if the Amiga is not used regularly. So, if you intend to store your Amiga for a long time (more than a few months), I strongly advise you to either replace or remove the battery first.

Some 3rd party devices may have a "coin" type battery. These are lithium and are unlikely to leak.

If you have a leaking battery, it is vital it be removed immediately. Ideally it needs to be replaced by a new one.

To do this will require some soldering skills.

Remove the motherboard from the case (after disconnecting the mains power!). Unsolder the old battery and clean all signs of spilt liquid from the area with some electronic cleaning fluid or methylated spirits. An old toothbrush is useful here. Make sure you try to scrub thoroughly in all the places where the battery fluid collects.

Finally scrub again with electronic cleaning solvent or methylated spirits. Don't forget to check underneath the PCB as well.

To finish off, submerge the whole PCB in hot water with a dash of detergent and work in thoroughly with a small paintbrush. Repeat and finish with a long rinse in the hottest water you can stand. Shake the board vigorously and leave it to dry in a warm place for a day or two.

Solder in the new battery, observing the same polarity as the old one. It is a good idea to use one of the newer technology Nickel-Metal Hydride (NiMH) batteries as they are far less likely to leak.

Most Jaycar Electronics shops sell the appropriate type of NiMH battery (cat No. SB-1609)

If you are still using a NiCd battery, you may want to consider mounting it remotely and running wires to the motherboard so that if it leaks again, it will cause

less damage. It is also possible to replace the battery with a lithium one. These last at least 10 years and do not leak. They are not rechargeable, so the charging circuit must be disabled, usually by placing a diode in series with the battery. There is a file on Aminet called "lithbatt.lha" with the details.

If you don't have the required soldering iron and replacement battery, or you don't have an electronics knowledge, take the board immediately to someone who does. An AUG meeting is a good place to start.

To minimise the risk of any damage getting worse in the meantime, I strongly advise removing the battery by breaking it off.

Bend it back and forth lengthwise gently until the battery breaks away from the



PCB. Clean off all traces of gunk as outlined above. The Amiga will continue to function with the exception that the clock will need to be set each time on power-up.

Some A3000 versions have some system settings stored in battery-backed RAM, they may need to be input each time on power up. A500 owners with the A501 expansion will need to remove the tin shield around their A501 before checking the battery.

Feel free to bring your Amiga to an AUG meeting if you can't check it yourself.

We can inspect it and recommend a course of action for you. We will also remove the battery for you if required, but note that we don't have stocks of replacement batteries.

<http://www.starnet.com.au/davem/amiga.html>

# XINE

[ksɪn]

To complement Bernie Meyer's recent Amithlon update release, Bernie has demonstrated a soon to be released port of Xine. Xine is a multiplatform multimedia player he is developing for Amithlon use. Scott Pringle of Boing.Net had this to say about the demonstration of Xine.

## Scott Pringle

Xine is a multimedia player, we watched 2 DVD's at the same time and also tried Quake and a DVD and shapshifter and a DVD. All with no slowdown. We had some power leftover to playback MP3s. We were also able to send each app to a different screen which was very nice, if a little confusing at first. Hows that for AmigaOS showing how to make effective use of the hardware.

**Read on to find out a few of the highlights of XINE.**

## Xine Overview

Xine is a free, gpl-licensed video player for unix-like systems. The software is based on a modular, advanced multi-threaded architecture composed of:

### 1. xine-engine

The core of xine is responsible for synchronizing audio, video and overlays. It provides high performance communication functionality between modules, logging capability, unified configuration system, On Screen Display support, fast MMX/MMXEXT/SSE memory transfers, among other important things.

### 2. input plugins

They provide input data to xine and may be seen as an abstraction layer for DVDs, files, http, pipes, VCDs so that the rest of xine does not need to know from where the data is coming.

### 3. demuxer plugins

These plugins are responsible for understanding file formats

like AVI, MOV, ASF and others. These file formats don't define how video and audio are encoded but how the encoded data is mixed together (multiplexed). An AVI file, for example, may have Divx4 video and MP3 audio, MPEG2 video and AC3 audio, etc.

### 4. decoder plugins

These plugins receive the encoded data (video, audio or subtitles) and deliver them uncompressed to the engine to be played or shown. Examples of encoding formats (also called "codecs") are MPEG2, MP3, Ogg Vorbis and Windows Media Video 7/8.

### 5. output plugins

xine runs on a wide variety of hardware and operating systems therefore it need to have different means of displaying video and audio. These plugins are like drivers, they talk directly to the system so xine-engine does not need to handle the details. Some video output plugins have been developed to utilize

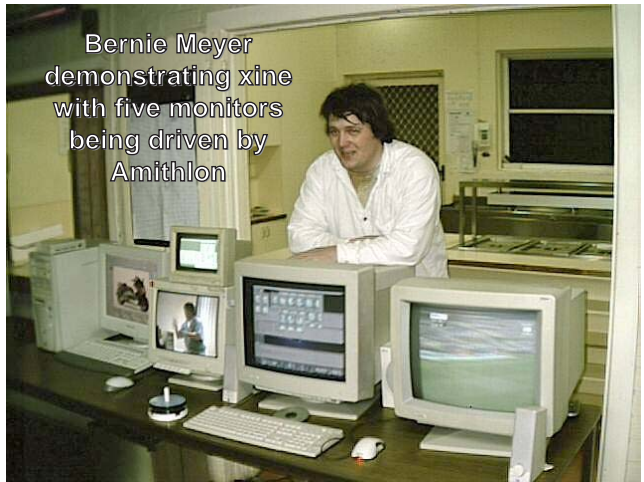




several hardware capabilities like color conversion, scaling and refresh sync to provide the best multimedia experience and at the same time, requiring less CPU processing.

## General features

- o Skinnable GUI
- o Navigation controls (seeking, pause, fast, slow, next chapter, etc)
- o On Screen Display features
- o DVD and external subtitles
- o DVD/VCD menus (requires external plugin)
- o Audio and subtitle channel selection
- o Closed Caption support
- o Brightness, contrast, audio volume, hue, saturation adjusting (requires hardware, driver support)
- o Playlists
- o Image snapshot
- o Audio resampling
- o Software deinterlacing algorithms



- o Configuration dialog
- o Aspect ratio changing
- o Fullscreen display
- o DTS passthrough
- o TV fullscreen support using nvtvd
- o Streaming playback support

## Some of the xine supported video formats.

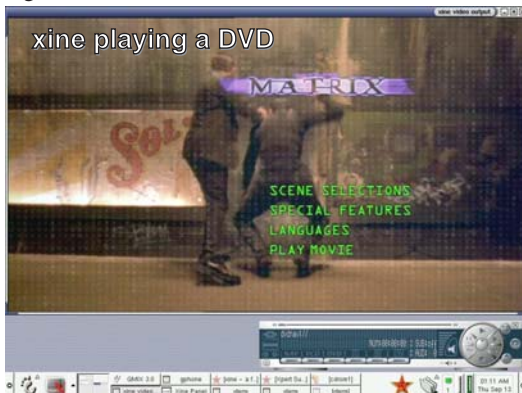
### Video codecs supported:

- o mpeg 1/2

- o Cinepak
- o ms video 1 (msvc)
- o ms rle
- o Sorenson Video
- o creative yuv (cyuv)
- o roq video, via external win32 codecs (not included in xine):
- o Indeo 3.1-5.0
- o Window Media Video 8
- o On2 VP3.1
- o I263

### Audio codecs supported:

- o mpeg 4 (aka OpenDivX )
- o ms mpeg 4
- o divx 3/4/5
- o windows media video 7
- o motion jpeg
- o mpeg audio (layer 1,2,3)
- o a/52 (aka ac3, dolby digital)
- o aac (used in .mp4 files)
- o dts (via external decoder)
- o vorbis
- o pcm
- o adpcm (MS/IMA/DVI)
- o roq dpcm, via external win32 codecs (not included in xine):
- o DivX audio (WMA)
- o MS GSM
- o Intel Music Coder



## Amiga Users Group Financial Report 2001-2002

<b><u>Opening Balance</u></b>	<b><u>2042.46</u></b>
<b>Add Income</b>	
Memberships	1732.00
Meetings	344.20
AUG Promotional and Auction Sales	2862.00
Other - (Coke sales, munchie sales, misc sales)	235.50
<b><u>Income for the Year</u></b>	<b><u>5173.70</u></b>
<b><u>Total Funds</u></b>	<b><u>7216.16</u></b>
<b>Less expenses</b>	
Workbench	1030.75
Meeting Room Hire	470.80
Insurance	526.00
Auction Share Megatron	525.00
Sydney Comdex Promotion	191.45
Sundry expenses	150.40
Bank Fees	41.00
<b><u>Total Expenditure</u></b>	<b><u>2935.40</u></b>
<b><u>Closing Balance</u></b>	<b><u>4280.76</u></b>

It's been a great year for AUG. Memberships have been increasing, the amount of people attending meetings is increasing and we consolidated our position as Australia's largest Amiga User Group by far. The coming year will promise to be even better with the arrival of the AmigaONE, OS 4 and Amithlon V2. Again AUG will be at the forefront of Amiga developments.

### Last Months Meeting Pictures

Yet another good meeting last month. Vice from Comrepair was in attendance with a table of goods to purchase. It's always a good idea to bring some cash to the meetings as you never know what you might miss out on. We also set up a basic network and demoed Lan AmigaQuake and FTP daemon configuration and file transfer.



**In this short interview with Ben Hermans of Hyperion, Amiga fan John Davis posed several questions to clarify a couple of aspects of the development of OS4.**

John Davis  
johndavis@vizzavi.net

**John Davis:** *PPC native CD Filesystem with limited Mount Rainier support (use your CDRW as a floppy) I'm fully aware what CD-MRW is, but I'm just wondering what is limited?*

**Ben Hermans:** I should first of all point out that the CD filesystem supports UDF bridge which basically allows you to read all current DVD's.

The Mount Rainier support will be limited (initially) in the sense that you can only use it with FFS2.

A CD-RW may be formatted with FFS2 and files can be written to it/read from it in FFS2 format.

This isn't compliant with full Mount Rainier which calls for a UDF filesystem to be used.

UDF formatted CD-RW's could be read by any platform unlike FFS2 formatted CD-RW's.

This is why we intend to supply a small ISO 9660 back-up utility for interchanging data with other systems.

**John Davis:** *BTW, I'm pleasantly surprised by this as it was totally unexpected. Would I be right in thinking that it's the first OS out of the box, with CD-MRW support built-in?*

**Ben Hermans:** I would not go that far as we don't adhere completely to the Mount Rainier specification.

This is planned for 4.1 where a UDF filesystem will be introduced.

**John Davis:** *PPC native datatypes. Is there a list of the datatypes that have been done/are to be done?*

**Ben Hermans:** The datatypes are being handled by Oliver Roberts (WarpDT's) and will basically be OS 4 compiled versions of these datatypes (JPEG, GIF, PNG etc.)

**John Davis:** *Also, will 68k versions still work? There are lord knows how many DataTypes out there and surely you're not converting them all?*

**Ben Hermans:** They should still work as we are not

tinkering with the actual datatype-system yet (this is planned for 4.1 where we will introduce streaming support in the datatype system but there too we are planning for backwards compatibility).

**John Davis:** *Networking Capability. Obviously TCP/IP has been mention as being improved. What about general networking to other machines?*

**Ben Hermans:** We hope to include a new port of Samba by Olaf Barthel with OS 4.0.

**John Davis:** *Well, carry on with the good work. Hopefully the fruits of all your hard work will see the light of day soon.*

**Ben Hermans:** Still plenty of work to go around but we're getting there.

Best regards,

Ben Hermans  
Managing partner Hyperion  
Entertainment



## Floppy TV & computer displays

By Tony Mulvihill

### Have you ever seen the movie “The Red Planet”

Probably not. The movie wasn't that notable even though it was filmed here in Australia and starred Val Kilmer.

In the movie a group of Astronauts are forced to abandon their space ship and crash onto the surface of Mars. From then on their mission is one of survival and like most Hollywood sci-fi movies is filled with strange

creatures and cool toys. As usual in these type of movies only one Astronaut makes it back to the ship but the movie itself was not what fascinated me. What did fascinate me was some of the cool toys the Astronauts were equipped with.

One of these toys in particular was a computer screen that rolled up much like a holland blind and was around the size of a gladwrap box.

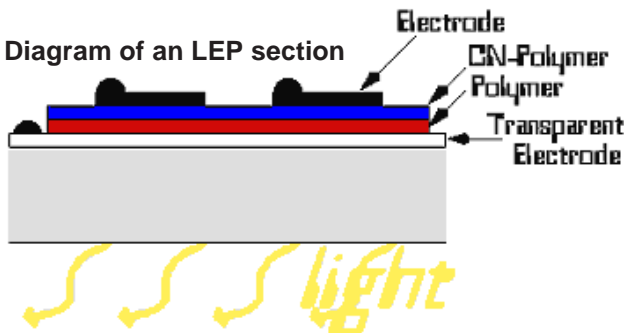
Guess what? These types of screens do actually exist in development and prototype form.

We've pretty much all seen the cool, thin LCD displays that are becoming more common place. Previously only seen on laptops, these displays while thin, light weight and not very power hungry, are plagued with production problems that means only a certain percentage of those produced

are actually usable. In fact to produce them requires very high heat and a vacuum, both of which are a high contributing factor to the yield of usable LCD displays produced.

Now lets take a step to the future. In the near future, possibly only a few years, you'll walk into a store to purchase a display and it will be printed out for you. You'll roll it up and take it home. Sound too far fetched ? Some of the giants of technology are already producing just such displays. The thing that makes all this happen is the new developments of plastic transistors and LEP or Light Emitting Polymer, which is basically light emitting plastic.

By creating a polymer “sandwich,” researchers have been able to charge two plates, fill the insides with polymer molecules, and then paste the sandwich onto either a glass or plastic surface. A polymer sandwich housed on plastic translates to a wafer-thin display you could roll up and put in your pocket or simply read like a large sheet of paper at the breakfast table. And because the technology doesn't require backlighting, the colours remain bright and vibrant from any angle.



Best of all, an LEP display is created by an inkjet printer.

Seiko-Epson has come up with a speciality printer that can spray red, green and blue polymer inks (the base colours necessary for creating every colour the human eye can distinguish).

Using three separate cartridges, and then mixing with a fourth cartridge that contains a conductive polymer, the printer “prints” small drops of the four inks onto a thin screen, which combined with electrodes make an LEP display. They are also working on large scale printers capable of printing displays up to around four metres across.

Think of the applications of such technology. Wallpaper that is actually a television screen, a photo or print hung on the wall can be hundreds of photos or prints that change each day. You’ll be able to stick a screen up just about

anywhere and the resolutions are superb as well. All normal computer displays have a standard resolution of 72 dots per inch. With printable LEP

displays that resolution is upped to around 200 dots per inch.

Currently the technology is still in development but a small full colour screen is in commercial use in mobile phones.

**Above:**  
An LEP screen in use in a mobile phone.



Technology is producing some pretty amazing stuff these days. Just look at some of the recent advances.... New theories on the speed of light may mean Einstein’s famous theory of relativity will be blown out of the water and the human race *will* be able to travel at faster than light speeds. Also, look at the Australian researchers who have performed the worlds first teleportation. I have to say I’m excited.

Next month in “Future Tech.” we’ll take a look at a product that stands to revolutionise books as we know them. “Electronic Ink”, will it change the print industry forever?

**Below:** A possible future mass production line of LEP display screens being printed.





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Hosting from \$199.95+GST/yr  
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Dedicated Servers from \$4999.95+GST/yr  
**Thylacine USB only AUD\$134.95+GST**

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DFx : Amiga-PC Floppy Reader/Writer

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Email: sales@anythingamiga.com

### **Amiga Innovations**

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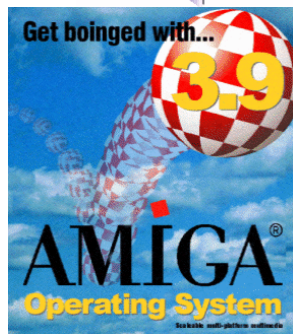
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## AUG Contact Information

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## About The Group

The Amiga Users Group Inc. is a non-profit association of people interested in the Amiga family of computers and related topics. We do not support or condone software piracy. To contact us

<http://www.aug.org.au>

## Membership

The AUG Inc. membership year runs from August to August. If you are joining in:

August-September .....	\$25
October-November .....	\$21
December-January .....	\$17
February-March .....	\$13
April-May .....	\$33
June-July .....	\$29

Mail to.

**Amiga User Group**  
**PO Box 2389 Seaford Vic 3198**



## Amiga Disk and Book Library

AUG has a collection of Amiga books, magazines and programs. Members can borrow for a period of one month. The library is available at most meetings.

## World Wide Web Access

The vast array of internet providers can make choosing a provider for yourself a difficult task. The AUG can help with advice and a helping hand with setting up your own internet access.

## Members Mailing List

The AUG moderates a members mail list at Yahoo Groups. Help, advice or anything Amiga related can be discussed.

[http://yahogroups.com/group/Amiga\\_Users\\_Group\\_Vic](http://yahogroups.com/group/Amiga_Users_Group_Vic)

## The Dead Letter Department

The AUG's BBS run by Craig Hutchison has access to all the latest AmiNet files as well as other goodies. Registration is free to all members.

Phone: (03) 9571 7194

## Meetings

The Amiga Users Group meets at the Moorabbin Arts Centre Complex, 979 Nepean Hwy, Moorabbin (see map) on the 3rd Sunday of each month from 2:00pm to 6:00pm. There is ample parking at the rear of the complex off South Road. Meetings are held in either Workshop 1 or the Sun Room. Ask at reception if you get lost. Cost: \$2.00. This is to cover some of the rental costs.

## Membership Form

First Name:.....Surname:.....  
 Address:.....  
 Post Code:.....Email:.....  
 Phone (AH):.....Phone (BH):.....

*I have enclosed a cheque or money order as outlined in the table above. Once admitted as a member of the Amiga Users Group (Vic) Inc. I agree to abide by the rules of the association for as long as I continue to be a member.*

Signed: \_\_\_\_\_ Date: / / 2002

If joining by mail please allow 2-3 weeks for your membership to be processed. (The following is optional)  
 Year of Birth: \_\_\_\_\_ Amiga models: \_\_\_\_\_ Occupation: \_\_\_\_\_

Where did you hear of the AUG ?:

Can you assist the AUG to provide services ?: