AM1_8.HTM

COLLABORATORS			
	TITLE : AM1_8.HTM		
ACTION	*NAME*	*DATE*	*SIGNATURE*
WRITTEN BY		February 12, 2023	

REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

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[Amiga Monitor Logo]

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PowerPC Comes to the Amiga

By Michael Webb

This long-awaited significant boost in processing power for the Amiga finally

lies right around the corner.

The Measure of a Platform

By Michael Webb

In this day and age, it would appear that computer users are being given

continually less choice. But why is this? And is there anything we can do to

stop it?

The Sam Report: Reservations

By Sam Ormes

Has the liquidation delay been unexpected? After so much, expectations may
often give way to one simple question: when will it end?

The Fork in the Road

By Michael Webb

We may, somehow, be looking to a prospective future resurgence of the Amiga;
if this is to occur, there will be many questions we will have to answer
about where it shall go from here, and how.

Happenings in the World of Amiga

By Michael Webb

A roundup of a few current events from the Amiga community over the last
month.

FEATURES

NTSC, the Amiga, and Some Little-Known Abilities

By Bill Graham

This month, Bill Graham examines just what's in an NTSC signal, and how to
extract the most information, and what types of incredible effects can
result.

Introduction to the Cover Disk: The Hardware Book

By Greg Noggle

This month, we include The Hardware Book, a very thorough reference, as our
cover disk. Greg Noggle does the introduction.

The History and Direction of the Computer - A Personal View, Part II

By Jim Kuzma

Jim Kuzma continues his look back through the years of computing, this time
from Sinclair to CP/M and beyond.

Upgrading Fun?

By Paul Somerfeldt

Paul Somerfeldt shares his tales of myriad Amiga upgrades, and all the, er,
"interesting" things that have happened along the way...

REVIEWS

Amiga Browsers: The Big Three

By Michael Webb

A comparative look at the most popular modern Amiga web browers

SPOTLIGHT ON GAMES AND ENTERTAINMENT

Amiga Gaming Retrospective: Part 7 - OutRun

By Michael Webb

The Amiga Gaming Retrospective returns this month with a look back at OutRun,
an arcade classic, and a great Amiga game of yesteryear.

JETPilot

By Anthony Becker

Tone reviews the latest flight combat simulator from Vulcan.

DEPARTMENTS

Editors@HelpDesk

By the Editorial Staff

The staff of The Amiga Monitor tackles your problems and answers your

questions, just like we do every night live on Genie.

Feedback

By you, the readers

The readers speak out about the Amiga industry, Amiga community, and The

Amiga Monitor.

The Tone Byte

By Anthony Becker

Tone takes a quick look at a number of current Amiga products and issues.

Just For Fun

By Anthony Becker

Announcement! The Amiga Monitor's first advertiser is...well, you'll just

have to take a look at our Spoof of the Month to find out.

Lame Humor Department

By Kyle Webb

A satirical, sarcastic, sardonic, and sometimes downright silly look at

affairs in the Amiga community, and life in general...also known as The

Amiga Monitor's comic page.

Next Month

What's in store for you next month in The Amiga Monitor.

The Amiga Monitor: 1996-1997, Excelsior Digital Publishing

The Amiga Monitor's home site is at URL

http://ourworld.compuserve.com/HomePages/MikeWebb/

1.2   staff

```
                 The Staff of The Amiga Monitor

                        Editorial Staff

Michael Webb Publisher, Editor-in-Chief
                      MikeWebb@CompuServe.COM
Samuel Ormes       Senior Editor, Chief Correspondent
                        s.ormes@genie.com
Anthony Becker    Executive Editor, HyperText Wizard
```

Editor's Notes

Well, my fellow members of the Amiga community, it has been just under a
month since I wrote my previous opening comments in this space, and about
half a month since the liquidation deadline of February 28. Needless to say,
that day came and went without event. Of course, I'm sure few people were
truly surprised, after so many other broken "deadlines" over the last few
years.

But is it time to give up? To doubt, to fear that the Amiga may be stuck in
an eternal pit of bankruptcy, liquidation, negotiation, and stagnation? Not
yet. No, I urge you to hold out hope. I don't want to sound like a broken
record by saying every month that "it must be almost over!", but every
passing month brings us one step closer to the eventual transition, whatever
that may be. I won't make any guarantees (who in his or her right mind would
at this point), but I think we're going to hear something soon. Clairvoyance?
Not really...just a notion. One thing is certain: this can't go on forever.
Of course, neither can the Amiga sustain an infinite period of waiting,
waiting, waiting...

But what a journey it has been. It's been almost three years since Commodore
fell apart; could we ever, in 1994, have imagined where we'd be now?
Not likely. If nothing else, those who follow the Amiga situation get to see
plenty of unexpected "plot twists." There have been many.

On a more positive note, the Amiga community continues to sally forth;
Phase 5 recently made a major announcement concerning its soon-to-be-
introduced PowerPC boards for the Amiga (see article below for details), and
significant events continue to occur, such as the Gateway Computer Show
(Amiga 97) in St. Louis this past weekend. By the way, for those of you who

were there, Beth Wise was representing The Amiga Monitor at the event. Some reports and rumors have already begun to circulate, probably the most potentially disturbing of which being QuikPak's last-minute decision not to attend. As of the moment I write this, no hint of a reason is public knowledge. The rumors are flying, of course, and one cannot help but notice that this coincides with the rather dragged-out proceedings in Germany. We will publish a full report on Amiga 97 in the near future, and if all goes well, we'll be able to explain some of the things about it that are still shrouded in mystery.

So are we on the verge of something important? Does resolution stand around the corner? Several things could happen; we can only be sure when we get there. Stay tuned, because we can't be all that far away.

Michael Webb
Publisher and Editor-in-Chief

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1.3 mirrors

Amiga Monitor Mirror Sites

This list is subject to growth and change

Primary Sites

* The Webb Site, http://ourworld.compuserve.com/HomePages/MikeWebb/
    The Official Home Site for The Amiga Monitor. All formats are available
    here. Contains past issues archived, and current issues in online-
    readable form. New issues appear here the soonest.
* CUCUG, http://www.cucug.org/amiga/amiinfo/monitor/
    The main server for the Amiga Web Directory. Mirrors all issues of The
    Amiga Monitor online in HTML format; also contains a topical AM search
    engine.
* Aminet, http://wuarchive.wustl.edu/aminet/dirs/docs_mags.html
    one of the biggest online software archives anywhere; AM can be found
    in the form "amX_Yhtm.lha" and "amX_Yag.lha" (where X=volume number and
    Y=issue number) in the "docs/mags" directory.

                        World Wide Web Sites

*   http://www.livewire.com.au/amiga/cucug/amiga/amiinfo/monitor/
        The AWD's mirror in Australia.
*   http://www.comcen.com.au/~paulm/index.html
        Paul Morabito's Amiga News Page; includes AM in HTML Online and HTML LhA ←
            formats, and may archive various back issues.
*   http://www.vision.net.au/pjackson
        Peter Jackson's web site; includes AM formats HTML Online, HTML LhA,
        and AmigaGuide LhA for current issues, and HTML LhA archives.
*   http://www.nt.net/~darcyb/monitor
        Darcy's MIDI Homepage; includes the current AM issue online, with the
        HTML LhA archive.
*   http://www.vol.it/mirror/amiga/amiga/amiinfo/monitor/
        The AWD's mirror in Italy.
*   http://www.ispid.com.pl/mirrors/cucug/amiga/amiinfo/monitor/
        The AWD's mirror in Poland.
*   http://www.iprom.com/amigaweb/amiga.html/amiga/amiinfo/monitor/
        The AWD's mirror in The United Kingdom.
*   Aminet, http://wuarchive.wustl.edu/aminet/dirs/docs_mags.html
        one of the biggest online software archives anywhere; AM can be found
        in the form "amX_Yhtm.lha" and "amX_Yag.lha" (where X=volume number
        and Y=issue number) in the "docs/mags" directory.
*   The Amiga Web Directory, http://www.cucug.org/amiga/amiinfo/monitor/
        mirrors all issues of The Amiga Monitor in online-readable HTML format;
        also contains a topical AM search engine.
*   Ink's Web Site, http://www.toptown.com/centralpark/ink/monitor/
        Beth Wise (Ink)'s home page, and Amiga page. Mirrors current issue
        online in HTML.
*   Midnight's HomePage, http://nternet.net/~midnight/monitor/index.html
        Phil Beazley (Midnight)'s home page. Mirrors HTML and AmigaGuide
        online, and contains LhA archives of current and past issues. Located
        in North Carolina.
*   San Diego's "Aminet Source," http://www.tmisnet.com
        Carries archives of The Amiga Monitor. Other status information
        uncertain at this time.
*   The Webb Site, http://ourworld.compuserve.com/HomePages/MikeWebb/
        This is the Official Home Site for The Amiga Monitor. All formats are
        available here, and past issues are available in archived format. New
        issues appear here the soonest.
*   World Wide Amiga Online!, http://www.amiga.org/magazine/monitor/index.html
        Mirrors HTML and AmigaGuide online, with AmigaGuide archives. Located
        in Huntsville, Alabama, USA.

                        Bulletin Board Systems

*   WAVE II: Phone #: 813-544-1976; maintained by Lee Jenkin, carries
        AmigaGuide archives.

Online Service Providers

* "The AmigaUser forum on CompuServe,
     http://www.compuserve.com/cgi-bin/exp?amigauser"
     You must be a member of CompuServe, and have your browser properly
     set up for interfacing with CIM, to follow this link. Or, if you are
     a member not using CIM, simply type "GO AMIGAUSER" at the prompt. Once
     there, search the libraries for keywords such as "Webb" or "Monitor."
* The Starship Amiga Roundtable on Genie: you must be a member of Genie in
     order to access this. Type in keyword "Amiga," or "Move 555" to get
     to the Amiga RT, or use navigation buttons if you have a Genie
     frontend program. Once there, search the libraries for keywords such
     as "Webb" or "Monitor."

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1.4   registers

How to Register Your Site as an Official Mirror

Send e-mail to MikeWebb@CompuServe.COM with "Register AM Mirror" as the
subject, and specify the following information:

* A precise URL to be listed as the mirror site
* An e-mail address to which new issues of AM can be sent, and with which
  we can communicate with you
* A short description of the site
* The format(s) you will be carrying (HTML online, AmigaGuide online,
  HTML LhA, HTML ZIP, AmigaGuide LhA)
* Whether you will keep archives of old issues available
* A country or general geographic location of the server supplying your
  site

That's it! If we register your site as an official mirror site, you get a
listing in the mirrors.htm file that comes with every issue, and eventually
on The Webb Site itself. Thank you for supporting The Amiga Monitor.

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1.5 write

Guidelines for Writing for The Amiga Monitor

The Amiga Monitor will gladly publish contributions from other members of
the Amiga community. There are several guidelines we would like you to
follow, however, if you are interested in writing for us.

There are two types of articles we will accept:
1. Prearranged Articles

* Contact our Senior Editor, Samuel Ormes, by sending an e-mail message to
   s.ormes@genie.com, in which you express your interest in writing, and
   briefly explain what type of writing you would like to do.
* A member of the Editorial Staff will respond to your message with
   information about upcoming deadlines, and a general time frame within
   which we would be working.
* You would then send us your article, and assuming there are no serious
   problems, we will publish it. You would be listed for that month in the
   Staff List as a Contributing Writer.

2. Unsolicited Articles

The Amiga Monitor may, at its discretion, choose to publish articles sent to
us without any prior contact between the writer and the AM staff. We prefer
to have you contact us first, but it is not absolutely necessary. If you do
choose to send in an unsolicited article, please remember to include
your name and e-mail address. Anonymous submissions will be frowned
upon; "pen names" and aliases are acceptable, however.

If you do choose to send an unsolicited article, please send it to
MikeWebb@CompuServe.COM.

A few notes on article submission...

* Articles should be written in English.
* Articles should be sent in ASCII format; HTML codes are permissable.
* Images are permissable, and in fact welcomed, as judicious use of graphics can greatly increase the quality of an article. If you do choose to include images, please use IFF, JPEG, or GIF format, and archive your entire article with LhA, LZH, or LZX.
* Personal e-mail signatures, URL's, etc. are permitted to be included in an article.
* Once sent to us, your writing becomes public domain under the AM Reprint Policy unless you explicitly request otherwise.
* We often count on you to come up with specific ideas for articles. Although you are welcome to get in contact with us simply to announce your interest in writing for us, please do not be surprised if we don't have any specific "assignments" for you right away. It is generally best if those who wish to write know exactly what they want to write about.

And lastly,

* It is ultimately at the discretion of the staff of The Amiga Monitor as to whether articles will be published.

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* A member of the Editorial Staff will respond to your message with
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* Articles should be written in English.
* Articles should be sent in ASCII format; HTML codes are permissable.
* Images are permissable, and in fact welcomed, as judicious use of graphics
  can greatly increase the quality of an article. If you do choose to
  include images, please use IFF, JPEG, or GIF format, and archive your
  entire article with LhA, LZH, or LZX.
* Personal e-mail signatures, URL's, etc. are permitted to be included in
  an article.
* Once sent to us, your writing becomes public domain under the AM Reprint
  Policy unless you explicitly request otherwise.
* We often count on you to come up with specific ideas for articles.
  Although you are welcome to get in contact with us simply to announce
  your interest in writing for us, please do not be surprised if we don't
  have any specific "assignments" for you right away. It is generally best
  if those who wish to write know exactly what they want to write about.

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1.7 lists

```
            AM E-Mail Distribution Lists



            Join The Mailing List!
```

You can have The Amiga Monitor delivered to you via e-mail. There are
currently three lists; click on one of the following e-mail links to send a
message to subscribe to the list, or send e-mail to MikeWebb@CompuServe.COM
in which you specify the information given further below:

*   HTML LhA
*   HTML ZIP
*   AmigaGuide LhA


```
            Important Information
```


*   If you have an account on CompuServe, America Online, or Genie, specify
    this to have files transferred to you directly. Otherwise, they will be
    sent in UUEncoded form.
*   Please specify the list(s) you would like to join (if you aren't using
    one of the three links above).
*   Although your name is not required, it helps with our record-keeping if
    you include it.
*   The e-mail address to which you would like the files to be sent

If we successfully receive and process your request, you will receive
notification that you have been added to a list. If you do not receive a
response within two weeks, please check to see that your correct e-mail
address is included with the message, and resend your request.

```
        A Few Notes on the Distribution Lists...
```

Our Publisher sends the AM archive out through his mailbox enough times each
month without it coming in several times as well. Please make his life a
little easier, and do your best to prevent bouncebacks:

*   Please notify us if your e-mail address changes.
*   Also, please make sure your provider can handle fairly large attached
    files. The AM archive currently ranges in size anywhere from 50k to 300k.
    We can tolerate it if you have problems with some of the larger ones, but
    if there are consistently problems with smaller archives, we may have to
    consider finding a different way to deliver the magazine to you.

Also, if you are one of our AmigaGuide readers, be warned that since our
primary format is HTML, there will be a delay in the production of
AmigaGuide-format issues (converting HTML to AmigaGuide is not easy, and we
have limited resources). We hope to narrow the gap between the release of
HTML and AmigaGuide versions, but in the meantime, you should be aware that
there is a delay.

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1.8   reprint

                         AM Reprint Policy

Because the Amiga community must have unity if it is to survive, it must be
able to share information throughout. Therefore, Excelsior Digital Publishing
grants general permission for material contained within The Amiga Monitor to
be reprinted in other publications. We ask that, if you choose to do so, you
fulfill several minor obligations:

*   Please contact us via e-mail to MikeWebb@CompuServe.COM first.
*   Please include the name, position at AM, and e-mail address, if possible,
    of the original creator of the material being reprinted.
*   If possible, at least one of the following URL's should be included:

*   http://ourworld.compuserve.com/HomePages/MikeWebb/
*   http://www.cucug.org/amiga/amiinfo/monitor/

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1.9 suggest

Suggest an Article

Do you know about something important in the Amiga community that has been
overlooked? Is there a story you would like us to cover?

You can suggest something you would like to see covered in the pages of The
Amiga Monitor.

You can check the
                Staff List
                 if you want to send
e-mail to the staff member who is most appropriate for the subject at hand,
or you can just send e-mail to the Publisher at MikeWebb@CompuServe.COM

If you do choose to notify us, please consider the following:

* Include an e-mail address so that we may contact you, unless you wish to
   remain anonymous.
* Grant or refuse permission for us to use your name in connection with the
   article, e.g. to give credit.
* Include possible sources (URL's, etc.) where we may find more information
   about the story, if any are known.

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1.10 reviews

Submitting a Product For Review

Product reviews are as important a part of a magazine as any other. Although
most products we review are those that we have purchased or otherwise
obtained for our own purposes, we often review products at the request of
the company or individual producing or developing them. If you have something
you would like us to review at The Amiga Monitor, you can contact us about

doing so.

If you would like to contact the member of the staff most appropriate to the
nature of your product directly, see the
                    Staff List
                    . Otherwise,
you can send e-mail to the Publisher.

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                         Publishing Information

                         The Amiga Monitor

The Amiga Monitor is published monthly online by Excelsior Digital
Publishing, ©1996-1997.

The Amiga Monitor and Excelsior Digital Publishing are based in
Binghamton, New York, USA.

The Amiga Monitor is published monthly in HTML format, and then translated by
Anthony Becker into AmigaGuide format. The HTML version is posted in LhA and
ZIP archive formats, while the AmigaGuide version is posted in LhA archive
format only.

The HTML version of The Amiga Monitor requires a tables-supporting web
browser to render the HTML properly; however, it should be readable with
other browsers. The HTML code in The Amiga Monitor is currently optimized
for IBrowse on the Amiga.

                         How to reach us:

*   The main address for Excelsior Digital Publishing and The Amiga Monitor
    is MikeWebb@CompuServe.COM. You can contact us at that address for any
    general business or concerns.
*   Those interested in writing for The Amiga Monitor can send e-mail to
    s.ormes@genie.com.
*   The e-mail addresses of all members of the staff of The Amiga Monitor can
    be found in the

Staff List
.
* In addition, you can usually find the e-mail address of the author or each
  article within that article.

Availability of The Amiga Monitor

The Amiga Monitor is available in a number of sites throughout the internet
and other online sources of information.

The primary sites of The Amiga Monitor are the following:

* The Webb Site, http://ourworld.compuserve.com/HomePages/MikeWebb/,
  where all formats are available, past issues are archived, and new issues
  become available the soonest; also the official home of The Amiga Monitor.
* The Amiga Web Directory, http://www.cucug.org/amiga/amiinfo/monitor/;
  mirrors all issues of The Amiga Monitor in online-readable HTML format;
  also contains a topical AM search engine.
* Aminet, http://wuarchive.wustl.edu/aminet/dirs/docs_mags.html: one of the
  biggest online software archives anywhere; AM can be found in the form
  "amX_Yhtm.lha" and "amX_Yag.lha" (where X=volume number and Y=issue
  number) in the "docs/mags" directory.

You can also
                view the current complete list
                 of official mirror sites,
or register your site as an official mirror.

Legal Information

The views expressed within this magazine are not necessarily those of the
publisher, the magazine itself, or of the organization comprising the
magazine. The Amiga Monitor is an independent publication, not legally or
fiscally bound to the former Commodore or any of its subsidiaries, ESCOM,
Amiga Technologies, VIScorp, Phase5, PIOS, or any other company or
organization involved now or ever in the development or manufacture of the
Amiga personal computer.

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1.12 ppc

PowerPC Comes to the Amiga

A significant boost in processing power for the Amiga lies right around
the corner
By Michael Webb, Editor-in-Chief, MikeWebb@CompuServe.COM

The much-anticipated Phase 5 PowerPC accelerator boards may soon be available.

In actuality, this goes back further than Phase 5's involvement; years ago,
when Commodore went bankrupt, people truly began discussing the benefits of
Motorola's RISC CPU platform. After a lot of waiting and uncertainty, PowerPC
has almost finally come to the Amiga.

Rather than paraphrasing the information, I will include here the in-depth
description first published online several weeks ago:

Phase 5 Press Release

Oberursel, February 25, 1997: phase 5 digital products is proud to
announcethe upcoming CYBERSTORM PPC PowerPC-based accelerators for Amiga
3000(T)and 4000(T) as well as systems with compatible CPU-slot. With these
innovative and powerful new accelerators a new dimension of performance is
brought to the Amiga, with performance increases of 10 times and more
compared to the fastest 68k based accelerators available today, resulting in
a breath-taking performance.

Primarily being designed as an upgrade board for existing Amiga systems, the
CYBERSTORM PPC incorporates phase 5's innovative dual-processor technologie,
where a fast PowerPC RISC processor is combined with a 68k processor, in
case of the CYBERSTORM PPC either a 68040 or a 68060 CPU. Both CPUs
dynamically share the memory and system busses, what is necessary for a true
multiprocessor behaviour. While the original AmigaOS 3.x continues to run on
the 68k CPU- as well as all existing applications do, what provides 100%
compatibility- the PowerPC CPU is supported by a comprehensive PPC Library
developed by phase 5, which provides all functionality to integrate the
PowerPC into the Amiga multitasking environment. Software developers can
easily optimze their programs step by step by porting single tasks to PowerPC
code, which then can run parallel with 68k tasks. Many important Amiga
software vendors are preparing ported versions of their software packages
already, so it is expected that a large quantity of software products
supporting the PowerPC will be available soon.

The CYBERSTORM PPC will initially be availabe with the fast PowerPC 604e
processor in clock speeds of 150, 180 and 200 MHz; the socket for the 68k
companion processor accepts either a 68040 or a 68060 CPU. It provides a
64-bit wide, extremely fast memory expansion option (which can be upgraded
by using pairs of standard PS/2 type SIMMs) which is dynamically shared
by the two CPUs. Additionally, the CYBERSTORM PPC comes along with a DMA-
driven Wide ULTRA SCSI controller on-board, which allows transfer rates of
up to 40MB/s and is ready for the most demanding and professional
applications. A 32-bit high-speed expansion connector with DMA access to the
main memory is also provided for later upgradability. The 200MHz version of
the CYBERSTORM PPC provides - only on the PPC side - a raw performance of

more than 350MIPS or approximately 8.1 SPECint95 and 7.1 SPECfp95
(estimations based on Motorola/IBM manufacturer specifications) – a
blistering performance that goes far beyond most PC systems available today.

The CYBERSTORM PPC will be delivered with a comprehensive software package,
which includes the PPC library as well as tools for creative users, among
them a Public Domain GNU C compiler for PowerPC (including sourcecode) and
many demo programs and utilities with sourcecode; in addition to this
softwarefree developer support is available via the phase 5 FTP site. Last
not least a PowerPC-optimized version of CyberGraphX V3 with RISC-optimized
CyberGL/3D and MPEG functions and libraries is included – of course with
comprehensive documentation.

The CYBERSTORM PPC will be selling for a very attractive price, offering a
superior price/performance relation. The suggested retail prices are as
follows:

CYBERSTORM PPC w/ 150 MHz 604e processor
DM 1295,– / GBP 529.00 / USD 698.00

CYBERSTORM PPC w/ 180 MHz 604e processor
DM 1595,– / GBP 649.00 / USD 879.00

CYBERSTORM PPC w/ 200 MHz 604e processor
DM 1895,– / GBP 769.00 / USD 1069.00

Note: All prices are recommended retail prices. English and german price
include local VAT, the recommended US price does not include local taxes. The
prices are without the 68k CPU which is necessary to operate the CYBERSTORM
PPC. 68k processors from existing processor boards can be used on the
CYBERSTORM PPC by pluging these into the provided socket. If you don't own a
68k CPUalready, ask you local dealer for an attractive bundle offer.

Registered owners of a phase 5 68040- or 68060 board will – within the
PowerUp upgrade program – receive special, attractive upgrade offers by mail
during March 97. The handling of these upgrades will be done via local
appointed representatives.

In the second half of the year, an innovative graphic board will become
available for the CYBERSTORM PPC expansion slot which will provide a
functionality subset of the innovative CAIPIRINHA custom chip. By providing
a stand-alone version of the DLRP (Display List Risc Processor) this board
will offer superior display funtionality, highest WRAM-based resolution,
pixel depth and speed as well as the possibility to start developing software
that will support the functionality of our upcoming A/BOX computer system
(please refer also to the project information about the A/BOX project in our
news section).
&

So what does this mean for the Amiga? Is it the beginning of a new road, a
renewed vigor for the platform? Time will tell. I, for one, find the
possibilities to be fascinating. We can be fairly certain that these new
accelerators will offer uncompromising performance; we can only imagine

where it may go from here.

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The Measure of a Platform

In Determined Defiance of a Loss of Identity and the Encroachment of
Windows
By Michael Webb, Editor-in-Chief, MikeWebb@CompuServe.COM

Computers have continued to become more popular as fixtures on desktops
throughout much of the world, and yet these days, there is less "room at the
top" than ever. Everybody who is non-"Wintel" is feeling the pinch. It is
enough to lead one to ask, just where is the computer industry going?

Years ago, it was difficult to keep track of the number of options open to
computer buyers. The various Apples and Commodores comprised most of the
home computer industry, while the IBM PC was gaining recognition as a
business platform. Plus others like CP/M's, Sinclairs, and Ataris
diversified options further. The Macintosh and Amiga soon entered the scene
and offered some new higher-end technology.

But today...? The older ones (Apples, Commodores, etc.) are gone forever, at
least from the forefront of the industry. The Amiga is widely-rumored to be
dead, and although there seems to be hope for a comeback, at this moment, it
might as well not even exist, at least as far as the computer industry as a
whole is concerned. IBM could have upstaged Microsoft with OS/2 Warp, but
instead, everybody waited for Windows 95, and Warp became a niche market OS.
The Macintosh has suffered greater alienation than ever before from various
software vendors and service providers, while its users have become
concerned. Even the grand old juggernaut Unix is losing out in some cases to
Windows NT for the big server systems.

Clearly, then, we have a potential dilemma on our hands: yes, the Amiga is
superior technology, and should be the number one platform in the world right
now; nothing comes close to matching the multitasking power and efficiency of
its OS, and its entire architecture is still remarkable in its high level of
integration and capability. But it would seem that nothing is safe anymore
from the seemingly inevitable infringement of Windows. Yes, say what you
will, Amiga users, but Windows 95 is a very capable and usable OS, with a
good deal of power. It is also the single most asinine piece of software I
have ever seen in that it is user-antagonistic, non-intuitive, not the least

bit object-oriented, and unbelievably draining on system resources
(for Windows NT, and probably Windows 97, take all of that and at least
double it). Windows makes the hardware on which it runs look much slower than
it is. This is the future of computing? Indeed. Where do I want to go today?
Back to the 1980's, if this is how it's going to be!

<p align="center">The Path to Today</p>

It's easy to see, in some ways, why Wintel (an appropriate term, as it would
seem that only Intel and Microsoft will be left standing after the dust
settles) has become so dominant. In the early days, IBM meant everything,
and MS rode Big Blue's coattails to the top, pretending to be rather
innocent and harmless along the way. And while many of us like to say nasty
things about Bill Gates, there are documented actions he has taken that
could easily be labeled "unethical" at best; a rather obscure example is the
deal he (and perhaps some immediate associates) negotiated with many early
PC makers, by which they had to pay Microsoft a royalty for every computer
they sold, whether it had MS-DOS software on it or not. This is only one
example. There's no question Gates is a shrewd businessman, but how far is
too far?

To paraphrase a keen observation by a fellow member of the Binghamton Amiga
Users Group, both IBM and MS benefited from choice of names. Why does "PC"
have to mean "IBM-Compatible"? An Amiga is a personal computer, is it not?
But it's not a PC. From day one, they laid the seeds of exclusion. What does
"DOS" make you think of? Chances are, it's MS-DOS. Not AmigaDOS; AmigaDOS
isn't AmigaDOS until you prepend "Amiga" to the word "DOS." So the only
"real" DOS is MS-DOS? AmigaDOS is just a cheap imitation? Or at least
consumers may have been led to believe. And what about Windows? The Amiga
has windows, but it doesn't have Windows. The same holds true for the Mac.
If the only "real" windows are Windows windows, does that mean these other
things are useless rectangular regions of the video display? I'm surprised
those guys didn't steal "floppy drive" while they were at it. Seriously,
though, advertising can have a profound effect upon consumers, and if a
company manages to associate a fairly generic term with a specific product,
it certainly can't hurt in their attempts at dominance of the market.

As I mentioned earlier, for all its faults, Windows is a capable OS,
attractive to many beginning computer users. Probably the biggest reason is
that it comes with more software than you can shake a stick at, and has a
very bright, flashy interface. A buyer of Windows 95 can start doing a whole
lot of things without buying a single piece of software (and even back in
the Windows 3.1 days, this was largely the case). What can beginning Amiga
users do with a basic Amiga system? I suppose you could write a letter with
Ed or MEmacs and then print it, and with odd use of IconEdit, you've got a
little paint program of sorts; plus, you can even build "virtual applications
if you're good with ARexx. But what else? Well, that's about it. Fortunately,
Amigas these days include some very nice software packages. Still, there's a
difference between "bundled software" and "OS-supplied utilities." Windows
is the king of that. Sure, it leaves an absolute mess on your hard disk, but
do most entry level computer users ever see it? It hums along nicely...well,
until some problem develops itself. But that's not supposed to
happen...

And what is this with Intel? Motorola has been manufacturing superior
microprocessors for all modern time. The 68000 gave programmers many
multi-purpose registers and "wide open spaces" in memory; the 8088 gave them

aggravation. The 80x86 processors have gotten a bit better in those respects through the years, but some of those early architectural "features" still linger in some form. Today, Motorola's PowerPC technology continues the 680x0 series's tradition of intelligent engineering, combined with incredible raw power. And yet Intel still continues to dominate. Is 8088 too much at the heart of the PC world for a change? Or is it something else? One must wonder how things would have been if IBM had used the 68000 from day one.

You would think that superior technology would eventually triumph. We Amiga users feel fairly well assured that had Commodore marketed and promoted the platform to any degree, it would have taken over the market. Can we be so sure? We'll never know now, but analogies exist in the form of other platforms that, today, are struggling.

How Have the Others Done?: A Look at Some Platforms Besides the Amiga

Macintosh

The Macintosh was almost the Amiga's sister, in some ways. Sharing many conceptual and architectural features, the two even followed similar paths of evolution, for a time. The similarities are almost uncanny: 680x0 processors, a fully graphical interface based on the "visual file system" (versus Windows's "configured icon groups") philosophy, a multimedia orientation, and even the Trashcan (or "Intel Inside", as I call it), to name a few. And yet there are differences; the MacOS still cannot truly multitask, the Amiga has better video capabilities, the Amiga's OS is a good deal faster, and while more efficient than Windows, Mac apps have a bit more of that memory-hogging tendency characteristic of PC's than Amigas. Still, the two platforms are remarkably similar.

While Commodore did next to nothing, Apple was busy infiltrating schools everywhere with numerous Apple II's, and later Macintoshes. While Apple marketed their Mac as a computer for all novices, Commodore...well, just didn't market at all. As a result, the Mac got fairly well-entrenched, while the Amiga attracted a small niche audience (it did manage, however, to become very important to graphics and video experts and professionals everywhere, but that still isn't the attraction for most computer users). There never really was any question as to whether the Mac was accepted; the question was always "Mac or PC" when one went looking for software. If availability of software is a good gauge of a platform's "health," the Mac must be in fairly good condition, as there are many applications written for it by major developers, including Microsoft and Netscape.

More recently, however, Macintosh users have begun to feel the crunch of an industry moving more and more to the Wintel "standard." This is evidenced by a number of trends, including a prevailing notion that the Macintosh is a dying platform, but probably more strikingly by the online services. Both America Online and CompuServe Information Services recently upgraded their interface software to version 3.0 (wherein CompuServe changed itself to CompuServe Interactive), and nowhere was there to be seen a Macintosh version, at least at first. It was strictly Windows for the first releases, and quite a delay later, the two began releasing early versions of AOL 3.0 and CSi 3.0 for the Mac. It seems it may only be a matter of time until they no longer produce software for the Macintosh at all.

Although I am primarily an Amiga user, I believe the Macintosh brings a good deal of innovation to the computer industry, and it would be a pity to see it die.

IBM's OS/2 Warp

True or false: Windows 95 was the first operating system to bring "true" multitasking to the PC. False! Truth be told, IBM beat Microsoft to the punch by at least half a year with OS/2 Warp Version 3.0, a product with a tremendous amount of potential that went almost nowhere. It was 32-bit, multitasking, and incredibly object-oriented. It later turned out to be a bit less demanding on system resources than Windows 95. Many Amiga users thought they had found their closest PC equivalent platform. It was still a disk and memory hog, but for PC standards, it was quite good.

Today, however, OS/2 is almost unheard of. Why? Here, there might actually be a few good reasons. For one, IBM didn't advertise it as well as they could have. Also, it didn't include all those neat little goodies that make Windows so immediately usable. A third possible reason is price of software: I always wondered just what software there was for OS/2, and then I looked through the catalog that came with Warp; it seemed to all be very high-priced business management software, in general. The Amiga, at least, never suffered from this; we have always had low-priced software for all purposes available to us.

To extend the online service description, CompuServe used to maintain a software product known as OS/2CIM, quite similar to WinCIM. Today, they have dropped support for it. Apparently, once Microsoft lazily crawled onto the 32-bit bandwagon, everybody flocked to them. It's a sad statement about the modern computer industry.

Still, though, OS/2 Warp is, in many ways, superior to Windows, and yet it suffers today. Has Microsoft grown so large that even the once-grand, once-proud IBM cannot stop it?

In Conclusion

So, just where is the computer industry going? From the looks of it, we've got a growing Wintel tumor that shows no signs of remission. Will we all eventually be forced to either accept a single "standard," or do without?

We must examine the motivating factors involved here. What is the point of "standardization"? It seems almost as if people believe computing will be mproved if everything runs on the same platform. Or at least they are subconsciously working, as a group, to get things to that point. Believe me, "standardization" isn't all it's cracked up to be. There's a place for it, as well as a place for independent, innovative thinking. For a real-life example, it's useful that everybody's body has the same general shape, because it allows for things like development of tools, mass production of clothing, the practicality of musical instruments, automobiles, etc., but if we all thought exactly the same way, the world would be a very boring place. There must be a balance. The multitude of platforms is part of what has made the computer world interesting, and without the variation, things would not only be monotonous, but also limited in capability, and stagnant.

I personally have faith that the computer industry is not doomed to this state of utter decadence, and I urge you to have confidence as well. The

Macintosh may very well survive this difficult period; after all, Apple was
rumored to be in much worse condition about a year ago than they turned out
to be, and now, they have some of their original leadership back, and
multitasking is on the immediate horizon. The BeBox exists. Phase 5's A\Box
promises to bring new levels of Amiga-style performance and power to the
computer industry. Will any of these make it? We can only wait and see.

However, I have saved mention of the Amiga for last now, because above all
else, that's the platform we're really trying to revive here. No matter what
...do not let anybody ever tell you, through words or actions, that there is
no longer room in the world for a computer with a powerful, efficient design,
built not only by people, but also for people, and intended to be pleasant
to use, and to facilitate work and creativity alike. There is just too much
good about this platform for it to simply fall to the wayside. And more than
anyone else, we Amiga users can certainly understand and identify with the
plight of the users of all other minority platforms, and we must cooperate,
for we share a common goal: to preserve the right of variety, and the freedom
of choice, in the computer industry.

So despite Microsoft's encroachment, despite the dominance of inferior
technology, never give up the dream; never forget everything that got us
here in the first place. Because as long as there exists hope, we will
certainly be here to carry it forth.

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                         The Sam Report: Reservations

Has the liquidation delay been unexpected? After so much, expectations
may often give way to one simple question: when will it end?
By Sam Ormes, Senior Editor, s.ormes@genie.com

As Senior Editor of The Amiga Monitor, I have this space reserved for my
monthly musings about the status of our old friend, the Ami machine. I
usually try to be thoughtful and reserved in my meanderings, even optimistic
on occasion. However.....here on the Ides of March......a month and a half
after the deadline for bids, I must confess to having serious reservations
regarding the outcome of whatever it is that was going on in Germany.
Therefore I will reserve further comment on the subject until next month.

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The Fork in the Road

The decisions we face as the Amiga prepares to head into the future
By Michael Webb, Editor-in-Chief, MikeWebb@CompuServe.COM

In the years since Commodore disintegrated, people have looked back and
wondered what went wrong. Some of it was obvious, while other aspects are
most certainly open to interpretation.

Today, the Amiga has overcome inconceivable odds and survived, as a viable
platform, in the intervening period since the bankruptcy, with little
hardware development, aside from the availability of numerous 68060
accelerators and the introduction of some newer graphics boards. Much of
this is doubtless due to how superior and capable a machine it was (and is),
but clearly this momentum will not last forever. We therefore must prepare to
move the Amiga forward if it is to continue to survive.

Not surprisingly, there is difference of opinion within the Amiga community
as to how the Amiga could best be adapted for the future. Perhaps surprising
is how dramatic the difference is, in some cases causing deep rifts within
the community.

In Focus

In this editorial, I am going to concentrate on the issue of
"standardization," or, for example, whether, and how much, the Amiga should
be changed to use more "industry-standard" technology. The motivation behind
my use of all the quotation marks is, to be perfectly honest, a rather
disdainful view of what the definition of "industry-standard" has been
warped to mean in our situation.

Don't let anybody fool you. The Amiga's technology has not hurt its success
in the least over the years. Very few people, when asked, will say they
dislike Amigas; many have fond memories of them from either their initial
successes of the late 1980's or their widespread use in the professional
graphics and video industry from the early 1990's, and the rest will simply
ask you, inquisitively, "What's an Omega?" The only people that really gripe
about it, in general, are the ones that have been, and are using it, and for
one reason or another, are continuing to do so. No, the Amiga's technology

only helped it; what hurt it was a lack of both marketing and decent management.

Also, keep in mind that this entire concept of "standardization" is right in phase with the trend being perpetuated by Microsoft, Intel, and PC manufacturers that may eventually eliminate all alternative platforms from the market, leaving only PC's, and their compatibles. While the Amiga definitely needs to be updated, taking the whole thing too far, and turning it into just another generic PC-in-a-box, will certainly defeat our purpose. Yes, the computer industry is different today from the way it was years ago when the Amiga was young and times were good, but contrary to what some think, I believe the time is better than ever for the Amiga to return embodying its original philosophy of intelligent, efficient, powerful computing. Didn't we all more or less agree that despite some deficiencies, the Amiga was, and still is, the best computer platform? Didn't they always say the Amiga was ahead of its time?

The Custom Chipset

One of the biggest ongoing debates concerns custom chipset versus 3rd-party hardware. For a time, the most vocal people were those who favored the latter, but more recently, greater numbers of custom chipset advocates have begun to voice their opinions. If you have been following the AM Feedback column in recent months, you have probably seen the issue raised; and although it is clear what my opinions are, I endeavor to give representation to all points of view.

Some say the entire concept of the custom chipset is outdated, and would greatly impair a future Amiga's capabilities; the solution, to them, is to replace the chipset with hardware developed and produced by the independent graphics hardware manufacturers who have been developing for PC's for some time now. The idea I, and others like me, have supported is that the custom chipset has always been one of the greatest aspects of the Amiga, not only due to performance considerations, but also to those of versatility and integration. We believe that it can, should, and will continue to be so, and that the current immediate solution is to implement the AAA chipset, initially developed during the twilight of Commodore's existence.

The lack of readily available information, and some misconceptions, have been the primary reasons why a number of people have lost faith in the concept of the custom chipset. I therefore reiterate that yes, the current chipset design is limited and dated. I, of all people, realize this, since I am still using an ECS-based Amiga; and although AGA is a huge improvement over that, it is still hampered somewhat by bandwidth considerations, and mostly by the lack of chunky pixel display modes (and the blitter's corresponding ability to only move bits and not bytes). What many people do not realize is that the AAA chipset would not only significantly increase the bandwidth of the whole system, but also add chunky pixel modes, and full byte-movement capability. All things considered, this would make a AAA chipset-based Amiga quite a powerful system.

Some people cite cost as a reason to discontinue the development of the custom chipset. Folks, that just ain't the case. It may be hard to remember after the rollercoaster ride we've been on, but Amigas were generally available at very reasonable prices in the Commodore years. Three years ago, if you looked in the right place, you could get a base model A4000 for a little over $1000 US, back when it was still one of the best machines on the

market in all ways. The custom chipset has always been an integral part of this design, and the price has not been exorbitant. The higher prices only came more recently, and even now, they're going down again. There is no need to worry about future custom chipsets costing too much to produce or manufacture.

I don't deny that some 3rd-party graphics hardware boasts better numerical specifications than the AAA chipset. But numbers aren't everything. To help explain my views, I will include the following, a section of text from an e-mail message that I recently sent to someone:

"Some PC hardware would beat AAA for sheer numbers, but the AAA chipset also has the benefit of backwards compatibility in hardware, planar screenmodes (despite the utility of chunky pixel modes, planar modes still have their place, especially for video), and the ability to run the Amiga OS with relatively little modification (this is a very big issue right now, since it has been so long since a significantly updated Amiga system has been introduced), to name a few. These are very big advantages, especially considering the fact that the AAA chipset would be quite an able performer, more than enough for most people's needs, even though it may not be the brute-force fastest chipset around. Besides, people must remember that the Amiga has always had an intriguing ability to "defy the numbers.""

...[regarding AGA], I see no cause for alarm. The AAA chipset would be tremendously more powerful than AA (AGA). And even if it's not quite up to par with that, again, the numbers aren't everything; how you implement the technology, and how useful and usable it is, weigh very heavily.

I believe that the OS is the strongest part of existing Amigas, but historically, it was always the combination of the OS with tremendously powerful and well-configured hardware such as the 680x0 processors and custom chipsets that made it so great. I believe there is the potential for this to happen again. I do not like the idea of the Amiga becoming "genericized" (whether through the use of generic chipsets or turning it completely into the otherwise excellent aforementioned Siamese System concept), because it is what has been so unique about the Amiga that has always made it so great."

Again, for those who haven't seen it, the AAA chipset would bring 64-bit architecture, true 24-bit graphics, resolutions to 1280x1024, chunky pixel displays, a newer and more powerful copper and blitter (with byte-movement capability), and 16-bit, 8-channel sound right into the Amiga's native system architecture. Couple that with the Amiga's OS and a fast processor, and you have a force to be reckoned with, as well as the ability to run any reasonably well-written older Amiga software at high speed. What we would gain from 3rd-party hardware would not equal what we would lose.

Anyway, we'll use the processor reference as a convenient segue to our next segment.

680x0 or PowerPC, or What?

Another area of great uncertainty regarding possible future Amigas is processors. For a while, it seemed as if PowerPC was the clear route, but now people are throwing other ideas into the works, like the Alpha, etc.

My general word of advice is "step back and take a deep breath." Some people
are so concerned with increasing the Amiga's processing power that they are
trying to bite off more than we can chew.

I believe the PowerPC is the way to go from here. It is a powerful line of
processors that is being developed and advanced, and it has fairly wide
acceptance, among most modern Macs, for example. The Alpha is simply
overkill, and too expensive to serve as the basis for a full line of
consumer-oriented computers. Plus, it doesn't take much math to see that
without its Cloak of MegaHertz, it's not as astounding as it looks.

And yet, despite this, I believe the higher-end members of the 680x0 series
should still be used in the next Amigas. Why? Well, take a look at the
situation. Considering the awe-inspiring efficiency of the Amiga OS, few
people, with the exception of those who render graphics professionally, are
truly hurting for processing power with the 680x0 series. What we could all
use is some improved graphics speed, as AAA would provide.

So why not use PowerPC's now? They are faster, are they not? Well, yes and
no. Once the Amiga OS is ported to the PowerPC, we can really get down to
business. But now, it's still in 680x0 code, and running it in emulation on
a PowerPC, as early Macs did, could very well result in an OS slower than
the one we run on the hardware we use today. Notice that although Phase 5 is
just about ready to bring their PPC acclerators to market, they are, by
their very nature, dual-processor configurations. The OS still runs on the
680x0 chip, while new applications use the PPC as they become available.

The dual-processing concept is probably a good idea as an extra-cost option
for new Amigas; not only would this give the machines more brute force
rendering power, but it would also encourage a gradual move to the PowerPC.

A few things to keep in mind for future Amiga CPU's:

*   Use something on which the OS can run natively. For now, that is still the
    680x0 series. The 50MHz 68030, 40MHz 68040, and at least 50MHz 68060 could
    nicely round out the line for a next generation.
*   If necessary, allow for multiple 680x0's in one machine. Multi-processing
    would probably be easier to integrate into the OS than an entirely new
    instruction set.
*   It would be best to not split the Amiga line among different processors.
    It would benefit the Amiga to run on various different systems, but those
    actually sold as Amigas should have the level of continuity that a single
    processor family (like the various 680x0's over the years) would provide.
*   Meanwhile, make all Amigas optionally available with a second processor,
    probably a PowerPC, in a multiprocessing environment.
*   Port the Amiga OS to the PowerPC in earnest, and when it is all done
    thoroughly, introduce a new lineup based on the PowerPC. Include a
    certain amount of emulation so 680x0 software can still run, and maybe
    even allow a 680x0 to be added as a coprocessor, but retain as much
    compatibility as possible.
*   Avoid overly-expensive, special-purpose CPU's. The PowerPC will serve the
    Amiga well, and it has a reasonable price. However, there's nothing to
    say equipment couldn't be designed to allow one of those "exotic
    processors" to run as a coprocessor to the system, greatly increasing
    speed for some applications.

* And last but not least...avoid Intel like the plague! Those processors
  have still not entirely escaped the effects of the messed-up architecture
  of years past. Motorola has always made much more competent hardware. It
  means something that many developers of small, self-contained computing
  units with various purposes use Motorola's older, simpler processors. They
  have a legacy in the world and history of computers that precedes them
  and fairly well dictates the design of any processor they create.

                    The Amiga OS: The Champion

Over the years, Amiga users have had to give up one "point of superiority"
after another, as PC's and Macintoshes caught up in various ways. The Intels
got faster, graphics cards began to outperform the AGA chipset, and even in
its field of greatest acclaim, graphics and video production, the Amiga
began to lose out.

However, they still have not been able to produce anything to equal the
Amiga OS. What may be, for the time being, our last, greatest hope, may
never in fact be surpassed by the competition, simply because the trend in
OS's these days seems to be completely away from everything the Amiga
philosophy embodies.

Above all else, any future Amigas must build upon a foundation of that which
has always made the platform great. The OS may be the strongest link of all.

There's no question the OS needs improvement (speaking of the OS in terms of
all the computer's system software, not just the lowest-level routines,
which are fine). The GUI could be updated and improved somewhat, the system
needs better printing and networking support, and the OS could stand to have
a good deal more included software and utilities. Aside from that, however,
very little has to be changed.

Although you have all probably heard it a hundred times, consider what the
Amiga OS is: a 32-bit, preemptively multitasking, multithreaded, nearly
real-time, object-oriented operating system with a full graphical user
interface that, if necessary, will run easily and quickly on a system with
only a 68000 CPU, one 880K floppy drive, and 512K RAM. That is simply
unheard of in the world of "modern" computing. I believe the aforementioned
needed improvements (as well as others like them) can easily be added
without changing these fundamental attributes. How's that? It's fairly
simple: the Amiga OS is incredibly object-oriented, or modular, if you will.
A new, improved Amiga OS with all kinds of software, utilities, facilities,
and capabilities could be shipped on a CD-ROM or larger set of floppy disks,
with the core of the OS still present and usable on just a few disks. That
way, the OS could run on an absolutely base-level model, or take full
advantage of the power of a higher-end machine. If you think about it, it is
done that way now, to a certain extent; you only install the printers and
languages that you need, for example. The same methodology could be carried
to a new level; all kinds of fonts, clipart, printer drivers, graphics,
animations, datatypes, icon sets, etc. etc...you name it...could be included,
if desired. People with systems to handle all that could use it, while others
would simply install only what they needed in order to run the computer.

Some people advocate making huge, sweeping changes to the OS, rewriting it
entirely, etc. I believe that is, in a word, absurd. Why would we want to

change possibly the best thing about the computer, when it is one of the few
things that still truly places it head and shoulders above everything else
out there? The Amiga OS is something to build upon, not something
to throw away and begin anew.

Some features have been discussed for inclusion into a future version of the
OS. While many of them may be beneficial, there are some that I believe we
must avoid altogether:

*   The Question of MUI: There are, as we well know by now, the MUI
    haters, and the MUI lovers. I feel more moderate about it, but one idea I
    will vehemently oppose is that of simply adding it to the OS. First of
    all, credit where credit is due: MUI has done a lot for the Amiga
    community. Previously, many programmers ignored important elements of the
    Amiga User Interface Style Guide (even in OS2/OS3 days), and
    unfortunately, far too many applications had rather poor, or at least
    inconsistent, user interfaces as a result. MUI has taken many elements of
    the style guide and developed its own, perhaps more literal, guide. If
    nothing else, MUI applications have very good-looking GUI's, and they are
    generally very user-friendly and consistent from one to the next. The
    downside, as we all well know, is the extra drain on system resources (a
    personal pet peeve of mine). Perhaps, while MUI is very good for its
    particular types of applications, it provides a bit too much to be adapted
    for Amiga programs as a whole. My personal recommendation, after using
    many Amiga programs over the years (plenty each of MUI and non-MUI), is
    that some of the features of MUI (such as the more attractive user
    interface, greater configurability, consistency in applications, etc.) be
    programmed into the OS. It would be possible to do it without inflating
    things excessively. Amiga programs, as a whole, do need better
    user-interfaces; but as we improve that, we must be careful not to overdo
    it.
*   Full-Time Virtual Memory: One of the truly disturbing trends in
    the computer industry these days is a growth of the mentality that
    consumers don't know a RAM chip from a ham sandwich. Operating systems
    are therefore programmed to be more and more condescending to the
    computer user, and give them progressively (although I hesitate to attach
    any form of the word "progress" to it) less control over what's going on.
    There's no question that Virtual Memory is a very useful thing, perfect
    for giving your computer more "working space" than you can afford to give
    it. And yes, the Amiga OS should have it built-in. But please, I would
    rather not see any full-time, non-user-controllable VM in an Amiga. One
    of the first things I did to my Windows 3.1's setup after expanding my
    PC's memory was to eliminate the swapfile. The system performed much
    better as a result. OS/2 Warp, and other OS's like it, don't let me do
    that, however, so the whole system is sometimes only as fast as the hard
    disk controller. That's one thing the Amiga does not need.
*   Memory Protection: This is so popular in some circles these days
    that some people may instantly dismiss my credibility for suggesting it
    might be a bad idea, but please hear me out.

Once again, I will use an excerpt from an e-mail message I recently wrote to
emphasize the point:

"....that whole field of memory protection/crash protection/resource tracking
is a real sticking point for me. I generally oppose it. The reason is not
only because they do take up system resources, but also because they have
become a crutch for programmers. I've heard of "highly professional" Windows
95 programs that are constantly getting shut down by the system for illegal
operations. Call me an anachronism, but I believe that any given application
should have full access to all the hardware's power at any given time, no
matter how fast the hardware, and that programmers should be responsible for
getting their software free of bugs.

Also, I've used several OS's, and had a chance to compare. While the Amiga
has no memory/crash protection or resource tracking in the strictest sense,
OS3.1 has shown itself to be, in my view, remarkably stable, often able to
recover from a crashed application and let you save your work and then
reboot. It is especially so, as I have watched the evolution from the old
AmigaDOS 1.2 through today. I have used two OS's that have these features
(Windows 3.1, which has a rather mild degree of it, and OS/2 Warp, whose
protection is quite good), and they share two common characteristics: they
are slow, and memory/disk-intensive.

Add to this something I heard from a former Commodore engineer, about how
resource tracking was originally left out of the OS because the 68000 simply
could not have handled it. I fear that adding this to a new version of the
Amiga OS would make any new machines perform like those of yesteryear, and
essentially destroy everything that has made the Amiga OS so great.

If there must be memory protection, however, then I would propose, as an
alternative, such a feature in the Amiga OS that could be toggled on or off.
That way, everybody could be happy, especially since I believe the OS should
continue to be able to run on the oldest Amigas, at least in a stripped-down,
modular form. I know I'd probably keep the feature off most of the time. But
if there were to be no user control over it, we would be much better off
without it, thank you. It's just very frustrating to see that the trend in
OS's these days is to make everything bigger and fatter, and I hope the
Amiga doesn't go down that road."

This is more or less a sampling of some of the more well-known buzzwords
describing features that I believe the Amiga OS should not have.
However, there are others like them. We must only look at any proposed
feature and ask ourselves, will it slow down the OS? Will it take up
considerably more system resources, with no way of being shut down? If the
answer to either of those questions is "yes," then it's probably a feature
we don't need. If I want a heavy, fat, wasteful OS, I can go down to the
department store and buy a PC at a cheap price. Let's keep the Amiga OS the
way it is: incredibly fast, lightweight, user-friendly, and modular; and
perhaps most importantly, unique for its strengths in the entire computing
industry.

<div align="center">All Things Considered</div>

In this editorial, I've taken a look at only three of the many major
questions surrounding any future Amigas, should they in fact exist. And
while it is all well and good to talk about chipsets, processors, and OS's,
what is truly key is the underlying idea. The Amiga was founded, and
continues to exist upon, a philosophy of intelligent, logical, powerful,
and user-friendly computing at a reasonable price. For all the blazing fast
processors and graphics cards, and "feature"-laden OS's, of some other

platforms, few have approached, and probably none have actually attained,
this ideal on the same level as the Amiga.

To accomplish the task of bringing the Amiga to its former levels of success
and beyond, again, we must build upon everything that has helped the Amiga
through the years. One of my favorite expressions, in reference to the
Amiga's current situation, is "Don't throw the lifeboats over the side while
the ship sinks!" In effect, by planning huge changes in the Amiga's
architecture, that is what we are doing. The basic design philosophy is
superior, and should be carried forth as it is now. By its very nature
supremely integrated and modular, the current architecture allows plenty of
room for improvement without revolutionary change.

The Amiga has been down a long road, and may have a significant journey
ahead of it. The path to travel is the familiar one, lain in the days before
Commodore acquired, and did its best to cripple, the platform. When you have
something good, you don't fundamentally change everything about it to try to
bring it back from the brink; you use what works.

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1.16   events

Happenings in the World of Amiga

Announcements, Events, and Ideas over the last month

By Michael Webb, Editor-in-Chief, MikeWebb@CompuServe.COM

When I wrote another article by the same name a month ago, I wasn't expecting it to become a regular item, but I ran across
several interesting things over the course of the month that didn't fit elsewhere.

Softwood Announces Final Writer 97

The long-anticipated update to Final Writer 5 is now available. Most

registered FW owners probably received the customary Softwood flier and

brochure over the last week or so, announcing yet another update to this

well-established Amiga Word Processing/DTP program.

It sometimes doesn't seem like it, but it has been almost 10 months now

since Final Writer 5 was announced. With this, Softwood certainly surprised

a lot of people who were undoubtedly expecting "Final Writer 6" by adapting

the recent Microsoft naming convention of using the last two digits of the

year a product is introduced as a pseudo-version number. Of course, it's

what inside that counts.

If you thought Final Writer had good Desktop Publishing capabilities before, you're likely to be surprised by the focus of this update. According to the mailing, Final Writer 97 "...eliminates at least 95% of the reasons Amiga owners use a desktop publishing program." Included is a list of new DTP-ish features. There has already been some online grumbling by those who wanted to see some more word processing-oriented features in this update. Others, on the other hand, seem quite interested. Not having used a "real" DTP program, I personally look forward to seeing this. At the same time, it will be interesting to see if Softwood made any other little improvements on the side.

The mailing includes several upgrade offers. The base upgrade price is about $29.95 US if you order before April 30, and it can be lowered to $24.95 if you also purchase another Softwood product at a reduced price.

This may be an update to a major Amiga software product, but what is perhaps more important is that an important Amiga company has once again reaffirmed its commitment to the platform, despite recent tough times, while many others left, one by one. Many members of the Amiga community have reciprocated by ordering the upgrade promptly, I among them; I will therefore review Final Writer 97 at the first available opportunity.

Sassenrath's LAVA, now REBOL

In the February issue of AM, I mentioned Carl Sassenrath's new programming language LAVA in the "Happenings in the World of Amiga" article. Several things have happened over the last month.

For one thing, LAVA is now REBOL. For those who don't know, REBOL, according to Carl Sassenrath himself, is "...a small, flexible language for sharing content (documents, databases, programs, multimedia) between people, computers, processes, or networks."

What does REBOL mean? Well...that's just it. It doesn't mean anything, just yet. Carl Sassenrath said it originally meant "Relational Environments in a Basic Object Language." Now, he has decided that it would be best for the language to have contextually-influenced (not absolute) meaning, right in line with the general implementation of the language itself. In any event, there is reportedly a naming contest going on.

The following is a recent press release concerning REBOL:

Date: 13-March-1997

Contact: Cindy Sassenrath cindy@sassenrath.com

Carl Sassenrath Publishes the REBOL Reference Manual, Part 1

The first part of the REBOL(tm) Reference Manual, entitled "REBOL Values: The Building Blocks" is now available on-line at http://www.sassenrath.com

This manual, written for both novice users and programming experts alike,

serves as an introduction to the first and most important concept of the

language. It also includes seven example scripts written in REBOL that

clarify the use of the language.

"With just a glance at the examples it quickly becomes apparent why REBOL is

a simple, yet powerful alternative to the future operation of our computer

systems and the distribution of computer content on the internet", comments

Sassenrath.

He goes on to admit: "I realize that the REBOL language is not for everyone,

but there are a lot of us who believe that personal computers have turned

into a bad dream, with endless layers of bloated software being forced down

our throats by huge stockmarket-driven bureaucracies."

An "educational pre-release" of the REBOL language is expected to be out this

month and is intended for people who want to try a few examples of their own,

using what they have learned from the manual. Incremental releases of the

language will be made over the next few months, with a 1.0 version slated

for June 1997.

Subsequent parts of the manual will be published to the Internet as they

become available.

The development of the REBOL language is being supported by contributions

and will be freely available for personal non-commercial use on a range of

computer systems. Corporate licenses and custom versions will be available

for a fee.

REBOL is a trademark of Carl Sassenrath.

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1.17   ntsc

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NTSC, the Amiga, and Some Little-Known Abilities

Methods to extract the most information from an NTSC signal, and some of
the amazing effects that can result.
By Bill Graham, Graphics Editor, nucmong@primenet.com



The Amiga has some special capabilities, as almost every user knows. All of
us know about the Amiga's custom chips, its unique graphics and sound power,
and more. But there are ways to use an Amiga that are not documented. For
instance, most of us know that the Amiga is an NTSC- or PAL-compatible
machine. And most of us know that means the Amiga is ideally suited to
output either one of those video standards without much of the costly
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hardware necessary for a Mac or PC to accomplish the same thing.

I'm going to discuss the NTSC standard somewhat in reference to the Amiga, but most of this will apply to PAL users also. The current NTSC standard was agreed upon in the early 1950's to accomodate the then-new color television signal. What was possible even then and what we have now in regards to definition and picture quality are very far apart due to the government's insistence that the new signal be compatible with what was the then standard black and white television signal.

Every engineer I've known hates to have to design to older, inferior technology, especially when it is relatively easy to come up with something much better for the same amount of effort. And television engineers in the 1950's were no different. The result is that every color televison signal, whether broadcast, over cable, from live camera, or tape has significantly more information encoded into it than is readily visible. Much of this information was impossible for most people to access until the advent of affordable NTSC-compatible digital technology, namely, the Amiga.

This is due to the nature of the NTSC signal, which outputs 30 frames per second, with two fields per frame, for a total of 60 images per second. With two fields per frame, what is seen every 30th of a second is an interlaced image, with odd and even numbered horizontal scanlines. Since this happens 30 times every second, what we see is a continous motion.

The extra, invisible information encoded into the NTSC signal can be divided into three categories: Color, Detail, and Temporal. First, we'll discuss Color. The Amiga started out with a 12-bit color capability that was unmatched by any other machine. Over time, 24-bit color became the standard. The difference is the number of divisions, or shades, there are in the RGB (red, green, blue) color triplet. With the ECS color palette, there are 16 shades of each. 16x16x16=4096, for 12-bit color. With 24-bit color, there are 256 shades of each color, so that 256x256x256=16.7 million colors, give or take a few. For the Jay Miner historians out there, remember that the old 8-bit Ataris had 8 shades of each color, 8x8x8=256 colors total. The brightest pure red on an ECS machine, 15,0,0, is equivalent to the brightest pure red on a 24-bit machine, 255,0,0, or an old Atari 7,0,0 (remember the Setcolor command, anyone?).

These are RGB digital color values, and NTSC is an analog standard. Its color range, in comparison to the range of the RGB palette, is very limited. It can vary some, but most TV signals, when converted to RGB, fall into the 20,20,20 to 200,200,200 range in 24-bit color space. It can do a brighter white than this, but cannot handle the subtle gradations that RGB can. If you do the math, you'll see that the NTSC signal is roughly equivalent to 5.8 million colors.

In both cases, RGB digital and NTSC converted to digital, the number of colors far exceeds that which the human eye can differentiate. The range of color (note singular) with both is well within human perception, however. So how do we tease the extra color information out of an NTSC signal? By digitising the frames/fields, and "expanding" the limited NTSC converted colors into RGB colorspace. This is done with software like ImageFX and its Dynamic Range command. ADPro, Image Master, and other image processors have this ability also. By expanding the colorspace from NTSC to RGB, you are expanding the total color range. What can this do? Well, detail that was hidden in shadow can become visible. Areas that seemed to be a fairly

uniform color now have subtle gradations. Also, having this expanded range allows you to "push around", or bias the middle color ranges via Gamma and Contrast adjustment, bringing out colors and patterns that were previously invisible. There are lots of possibilities with a good image processor, and the Amiga has the best.

The second type of hidden information in a digitised NTSC signal is Detail. Very soon after the Amiga was first introduced, its HAM color capability was recognized. It wasn't long before someone realized that digitised video was very expensive in processor overhead to animate, even on the Amiga. Fortunately, you can choose between an interlaced and non-interlaced display, thereby halving the amount of information the Amiga has to handle. And, an amazing thing was discovered in the bargain. A non-interlaced animation made from digitised video could actually look better on playback than the original video. Whether it did or not depended on a couple of things. Remember, each frame is actually two images superimposed. Either one of these images is sharper than the two combined. The difference would be the same with a film camera set to 1/30th of a second exposure. If the exposure was actually one image taken in 1/30th of a second, it would be sharper than if it was two images taken 1/60th of a second apart and merged. If the frame was a scaled frame-grab, i.e., a 364x452 HAM image scaled to 364x226, there was no difference in quality, unless the color expansion discussed above was done. But if the original frame was Deinterlaced, and the resulting animation was made from all Odd or Even fields, then the resulting playback was noticeably sharper than the original video. With the advent of HAM8 and the possibility of high resolution-high color animation, the difference was even more pronounced. Combining these two concepts, expanding color space and sharpening the animation by removing half the image soon revealed the way to extract the third type of hidden information from the NTSC signal.

Temporal resolution can take some time to comprehend. In reality time is analog. People apply arbitrary measurements to it, but time is analog just the same. But for movies, video, and computer animation, there are many different measurements. Movies are shot and projected at 24 frames per second. Even though they are shown on a huge screen, the motion is smooth and the individual frames cannot be seen. NTSC television is actually 60 images per second, interlaced as described above. Compared to movies, 60 images per second seems like overkill. Well, overkill equals greater temporal resolution. Using your Amiga, a frame grabber, and ImageFX or some other batch processor, you can grab a sequence of video, deinterlace it and save the odd fields numbered sequentially with odd numbers, then processing the frames again, this time saving the even fields numbered with even numbers. If you have a field capable video board like the VLab Motion or a PAR, this process is even easier, as they will save the fields in sequence. Taking video that was recorded at 60 images per second and playing it back as animation at 24 images per second is an incredible experience. It is not a simple matter of things occurring two and a half times slower. There is a fluidity and smoothness of motion that is both amazing and hypnotic. The normal blurring of hair blowing in the wind is greatly reduced or eliminated entirely. Eye movement is much more discernible. All the things we have come to know as a fast blur like a flag waving or a tree moving with the wind become a razor sharp, easily followed event.

By combining all three of these techniques using a capable batch image processing program, the Amiga user can extract all the information from a given NTSC signal. With enough RAM or a fast enough hard drive, an AGA HAM8

animation can be compiled that is much more detailed, much more colorful,
and much more fluid than the original video and is a wonder to behold, even
if it's just some digitised wedding video.

But, other than artistic merit, what is the purpose of all this? Well,
obvious security or surveillance purposes come to mind. Sociologists and
psychologists could possibly gain some insight with this new perspective.
City traffic managers could perhaps find these techniques helpful in
dealing with traffic problems. It's hard to put a finger on exactly what a
new perspective can do. But with an Amiga and some extra hardware and the
right software, the power is there to experiment with. And to top it all
off, it is truly a lot of fun.

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1.18   amintro

Introduction to the Cover Disk: The Hardware Book

A thorough reference on computing hardware
By Greg Noggle, Telecommunications Editor and Hardware Guru,
g.noggle@genie.com

I was going to write about my new graphics board, but it hasn't arrived yet
:(. So it's time to go with Plan B. Hopefully next time I will be able to
publish a review with my opinions of the Picasso IV. If anybody else wants
me to review something, let me know. Please remember that I am doing this
for fun and am not getting rich doing this. So if I don't have it, don't
feel too bad. If I get something for review, I keep it, by the way. No, I
am not expecting anything, but it was worth a try. The Amiga Monitor is
very much interested and willing to do reviews of hardware/software.

Plan "B" is publishing a document that I found on the Aminet. It contains
stuff that I didn't know. So I think it is useful anyway. The author did a
very nice job, but there are no guarantees.

Download the file "hwb10ami.lha" (650K) from The AM Home Site
at http://ourworld.compuserve.com/HomePages/MikeWebb/hwb10ami.lha

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1.19   kooz

The History and Direction of the Computer - A Personal View, Part II

The Look Back Through the Years Continues

By Jim Kuzma, Contributing Writer, KOOZ@CompuServe.COM

(...continued)

The Sinclair was the first really affordable personal computer for the
masses. Selling for around a hundred dollars complete, it had a membrane
keypad for hands the size of a one-month old, black and white RF modulated
out to a TV set, a decent power supply (many of which I still use today),
audio cables for using a cheap tape recorder to save Basic programs, and a
whopping 1K of internal ram, expandable with an insane 16K plug-in unit
with its very own reference in the manual's index under "glitch". Why
anyone would want this piece o' plastic and subject themselves to the
torture of padding in a whole program and sweating the load command for 10
minutes, praying for a (0,0) was no mystery... it was YOUR cpu and all the
cycles were yours. Never mind that you still couldn't balance your
checkbook because the math routines gave you a balance of .0000001 cents,
or that the misnomered "fast mode" made you wonder if there were squirrels
inside counting on their claws.

It had its fascination, though. That rear connector had most of the pins of
the Z80 processor brought out to the outside world to abuse. I voided the
warrantee as soon as it was out of the box (as is traditional with nearly
everything I've ever owned), and it didn't take long to add an external
keyboard with an array of FET's plugged onto the side of the body, and a
secondhand keypunch keyboard with all the Sinclair symbols epoxied into the
tops of the keys. A ram scoop was protruding from the top of the hood with
a stack of 8 static ram chips soldered together on top of each other with
the chip select wires sticking out. An old Ball monitor had to have a sync
stripper added to get it to work, and a BNC video emitter-follower out of
the Sinclair, but at least the TV set was freed up. The height of insanity
of add-ons was reached when Dave Jones and I added internal circuitry to
each of our Sinclairs that took the audio signal from the cassette port,

remodulated it, and capacitively coupled it to the telephone lines so that
we could transmit programs back and forth with one guy hitting "save" and
the other guy hitting "load". The first time that worked was a true
techno-rush. By this time, there wasn't a cubic millimeter of space left
inside the chassis, and it was getting more than a little warm in there.
The world of software was finally opening up to me, but down in the dirt,
not up in the clouds. This was a Z80, one of the most advanced processors
of its time, with powerful 16-bit addressing and block move instructions.
When I wrote my first line of machine code that moved a string into video
display memory, I can still remember the gasp when it happened. It was so
blazing fast that it was impossible to time. Data was moving around at
hundreds of thousands of bytes per second. The love-hate relationship with
computers was consummated. The hate part was that code had to be assembled
by hand from the opcode charts, and then painstakingly poked a byte at a
time into a basic rem statement by hand:
Books were coming out with hooks into the basic rom for functions, and
system variables were revealed. Grandiose schemes of relocatable code and
an operating system were dreamed up. The character space could be repointed
to ram, and allowed a programmable character set. Asteroids was written by
Dave with a real rocket, bullets, and rocks. Since we were both circuit
designers, and were still laying out boards with "tape-up", thin strips of
opaque crepe tape stuck by hand to clear plastic sheets at four-to-one
scale and donut pads for chips and discretes, and going blind doing it, the
dream of CAD layout seemed doable. But I was more fascinated with this I/O
thing.
You see, Dave had come up with this standard of interfacing to computers by
using address, data, and memory read and write lines called GPIO. Most
machines were writing to ports with specific I/O instructions, limited to
in and out. Once memory address space was mapped to I/O, the whole power of
memory-based instructions could be applied to external hardware, including
block moves and bit manipulation instructions. Instead of an I/O in, an
operation, and an I/O out for every operation, things could be directly
done with one instruction, like increment the port. Decoding memory was a
little more circuitry, but the advantages were huge. Since all the
necessary CPU busses were available on the back of the Sinclair, we had
blazing fast I/O in a matter of days. 'LS374's and 'LS244's were being
wired up like popcorn, and I remember hooking up a 7 segment LED character
driver, and incrementing the location so fast that it just glowed "8" with
some segments a little brighter than others. Dreams of personal X-Y tables

and CNC's producing some widget 24 hours a day, a tireless robot making me

rich without lifting a finger was the irrational goal.

I was still an analog circuit designer at heart, and that skill got me

hooked up with John Bates, who needed a better front end for his signal

processor for speech recognition. I blew his mind by using the Sinclair to

sample and display in video his output data at over 100 thousand

samples/sec. That got me a job in his corporation for the next 6 years, but

that's another story. We acquired a Teletek S100 bus Z80 CP/M system with

8-inch floppy drives and a serial terminal. It had an editor called ED, a

debugger called DDT, a Z80 assembler called M80, a linker called L80, and

some dinky company called Microsoft's Basic interpreter called MBASIC.

There was a lot of CP/M code in the world because the operating system was

popular, and it was portable to various systems because of the magic of

BIOS. No matter what disk or terminal hardware you had, a BIOS call would

get the same results. A GPIO with an A-to-D converter got us audio

sampling, and we called this Teletek our mainframe. It weighed enough to

qualify. It was prone to crashing at the slightest sneeze, and notes were

pasted all over the office to not turn on or off the lights or the fan when

the Teletek was being used, or blood-curdling screams would inevitably

result. You backed up your work as soon as your internal anxiety timer went

off if you were smart, about every ten minutes. The big red button would

honk the machine and get you a new prompt no matter how bad you crashed it.

The boot would take about one second. Ah, for the good ol' days.

But then the world was royally screwed forever by IBM and Intel. Enter the

XT.

(to be continued...)

1.20   upgrade


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Upgrading Fun?

Updating and expanding an Amiga system, and the interesting things that
happen along the way
By Paul Somerfeldt, Contributing Writer, p.somerfeldt@genie.com



This is a one man's story about upgrading his Amiga.

I have an Amiga 2000, and have been slowly upgrading it through the years.
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I bought the machine used from a friend, and he loaned me a ram card for a while. So when I first bought it, it came with a 68000, 1 floppy drive, 2 megs of ram, and 1/2 meg of chip ram. Life was so simple then.

The first upgrade I performed was to add a floppy drive. Easy as all get out to put in the 2000. I wish some of the later ones were that easy (I wish it was easier the second time I had to mess with the very same floppy drives). 6 months later I bought a hard drive, and amazingly enough, that too was an easy install. After that, I took a few years off from buying hardware for the computer, and concentrated on software.

When the prices came down on CD-ROM drives, I took the plunge and purchased a single speed drive. That was a fun toy, but the pesky thing couldn't do Photo CD's. It also didn't have a passthrough connection. Although I got plenty of use out of it, I kind of wish I had waited to buy a faster one.

Against many people's recommendations, I enhanced my machine to an ECS system. I really don't remember the reasoning being not wanting to install the Super Denise, but I did it anyway. Still not a problem. Mainly because it was one of the few installation procedures I let the dealer do, as I didn't have one of those PLCC removal/installation tools to change the Agnus chip.

During the summer of '95 I bought one of those ZIP drives instead of buying a bigger harddrive. Boy, that thing is nice, but for some reason I still can't get the dang thing to work quite right. It works well enough, but I hope to eventually get the thing to work flawlessly. After all, I have all those ZIP disks to use.

A few months later I upgraded to a RENO CD-ROM drive. That was probably the biggest waste of money I have made with this machine. The thing worked fine for a while, but when I changed a few things in the hardware 6 months later, the thing was rendered useless. I am almost to the point of offering the RENO free to a good home, but I wouldn't wish that thing on anyone. Enough said.

Then I was made an offer I couldn't refuse: a relatively inexpensive accelerator card. With a second card, capable of being expanded to over 100 meg of ram. Seems this CBM card didn't like talking to the GVP SCSI & RAM CARD THAT I HAD IN MY MACHINE. SO I EVENTUALLY SWAPPED OUT THE GVP, AND ADDED A CBM 2091 CONTROLLER CARD. THE MACHINE WASN'T AS STABLE AS IT WAS BEFORE THE ACCELERATOR CARD WAS DROPPED IN. BUT IT DID WORK. THE ZIP DRIVE DIDN'T WORK QUITE THE SAME WAY AS IT DID BEFORE, BUT IT DID WORK.

Since the ZIP drive performance was less than satisfactory, I decided to drop a larger hard drive into my Amiga. A 52-megabyte harddrive isn't quite what it used to be. So I dropped in a 520 megabyte harddrive, and finally replaced the RENO with a real CD-ROM drive. And since one of my floppy drives seemed to have succumbed to old age, I decided to make the df1: drive the df0: drive. Easier said than done. I ended up frying the df1: drive (the smoke was a nice touch), and fixed the previously broken df0: drive while in a bit of a panic. And I successfully made sure that the ZIP drive would not work at all. I also managed to get the video display to act a little funny.

I took the computer to the dealer to get the thing repaired. The video problem was easily fixed by removing the chips and reinstalling them.

Dodged a bullet there. The fate of the former df1: was also confirmed. When
I got the computer back (didn't make a fuss about the ZIP, as I figured I
was going to have time to mess with it while on vacation), the computer
worked fine, but the df0: floppy drive stopped working. It never rains but
it pours.

I returned from vacation, and started testing things in earnest. The df0:
drive wouldn't function at all. The ZIP drive was rendered useless, and the
computer would not boot at least one third of the time. Tolerable, but not
a happy circumstance. I tried everything I could with the ZIP, and it would
never work.

I was rapidly closing in on another vacation, and another chance to drop
the computer off at the dealer for repairs, but I got a bit impatient. I
bought a new floppy drive to install on the machine so I would have at
least one working. I bought the ram card for the 2630 accelerator card,
some ram, and finally upgraded to 3.1. The ram card wouldn't work because
the A2630 was apparently manufactured incorrectly, and basically meant that
I couldn't expand beyond 8 meg of 16-bit ram, and 4 meg of 32-bit ram. Doh!
I had to return the ram card. The new OS worked fine, too.

As I sent back the ram card, I decided to buy a new accelerator card, a
GVP-M 2060 card. Installation went well, but I was in a bit of a rush. I
installed the software before I had the card set up correctly. This made
the computer repeatedly guru on boot up. Panic time again. Thank goodness
3.1 has the feature that allows you to boot without a Startup-Sequence. I
narrowed the problem down to AsimCDFS. That piece of software seems to be a
bit temperamental. By removing that reference from the Startup-Sequence, I
no longer guru'd. I reseated the new accelerator card, and then the card
worked. Quickly. I reinstalled the software, and everything worked fine.
But it would fail to boot properly about 60 percent of the time. Ouch.

I took the computer back to the dealer, and they got the floppy drive to
work, and got the ZIP drive to work. At the dealer. When I took the
computer home, the thing would never boot. And when I inserted the 3.1
Install disk, the boot would complete, but nothing on the SCSI chain would
show up. Panic yet again. After an hour, I decided to isolate the hard
drive on the chain, so I pulled the GVP card out of storage, and pulled the
ribbon cable off of it to install on the 2091. Sudden flash of insight: if
the GVP wouldn't work with the CBM accelerator, and the A2091 wouldn't work
with the GVP-M accelerator, why not try the GVP SCSI card with the GVP-M
accelerator? Result: my computer hasn't been this stable in 8 months. I
have not failed to boot in 4 days. The ZIP drive works well, so far. In
fact, I haven't been this happy with my system in a long time.

Is there a moral to this story? I haven't a clue. It seems care must be
spent when choosing how to upgrade your system. I know others who have a
GVP/CBM mix on their systems, and they work flawlessly. It seems one must
tread carefully when upgrading one's system. It would be nice to know what
works with what when choosing options for upgrading one's system,
especially in these days when finding a dealer who is capable of
troubleshooting any difficulty that arises is easier said than done. I am
lucky that I have a dealer that still exists, or rather, a former dealer
that is still willing to do repairs for customers that have dealt with him
for years. For those of you who are not as lucky as I am, choose wisely and
carefully when selecting your upgrade paths. And when connecting the power
connector to the floppy drives, take care to connect it correctly, as the

smell from the smoke is rather potent.

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Amiga Browsers: The Big Three

A comparative look at the most popular modern Amiga web browsers

Introduction

There was a time, not too many years ago, when many Amiga users had to
wonder if their computers could dream of keeping up with PC's and
Macintoshes in the new, emerging world of the Internet. Graphical Internet
connections were soon all the rage, and Mosaic paved new pathways along
with the newly developing World Wide Web.

Amiga programmers had an answer, however, in the form of AMosaic, a
graphical browser capable of using AmiTCP which, albeit difficult to
configure and understand, was effective. While seemingly remarkable at the
time, in retrospect, AMosaic was quite simplistic. It could render
different font sizes and styles, and display images, but that was about it.

Well within the last two years, three major Amiga-native browsers (as
opposed to AMosaic, which was a port of the original Mosaic) have been
developed and introduced. IBrowse, Voyager, and AWeb have all brought
significant improvements over AMosaic, and make almost any Amiga with a
hard disk and some extra memory fully Web-capable.

Getting Down To Business...

In this "Feature Review," if you will, I will be looking at the latest
versions of these three browsers. I would like to say, first off, that I am
by no means an expert at this type of software; I am simply another Amiga
user who uses such programs from day to day. I will be conducting this
review in that context; it will simply be a look at some of the more
"user-accessible" aspects of the browsers, or outside impressions and
features, and what any user is likely to encounter on any given day.

Also, after reading about this upcoming article in the last issue of AM, a

reader wrote in and suggested that I also investigate the various TCP
stacks available for the Amiga, in connection with IBrowse, Voyager, and
AWeb-II. While I would like to do this, the method of charging on my
CompuServe account makes this financially impractical. If I can borrow
access to somebody's ISP account, I may be able to do this in the future,
but for now, it's just the browsers "revving their engines in the garage."

For this review, I am using the latest (as of this writing) demos of
Voyager NG (Next Generation) and AWeb-II. I went ahead and bought IBrowse,
so I'm using the full commercial version of that. However, I will endeavor
to point out which features are unique to the commercial version so as to
avoid any confusion.

And in the Red Corner...

I will now discuss each browser, in sequence.

Voyager NG

[Voyager Screenshot]

Voyager is brought to you by Oliver Wagner and VaporWare. It was first
introduced about a year ago in the form of the freeware Voyager 1.0. At the
time, it looked to have a good deal of potential, although it soon gave way
to IBrowse's superior HTML capabilities. However, in the time after it was
introduced, it developed a strong following, making its way in some form
into the Amiga Surfer package.

Not a group to do things gradually, the Voyager team released Voyager NG
(Next Generation) a bit over a month ago. This new release dramatically
updated the browser's capabilities, not only to include the wonderfully
useful Tables, but also to be the first Amiga web browser to support
Frames, a feature conspicuously missing from the lot before then.

Voyager, like so many others like it, uses MUI, and therefore includes the
excellent configurabilty and quality of user interface that MUI generally
denotes. Voyager strays a bit from the Amiga User Interface Style Guide,
particularly in the layout of the menus, but it's not difficult to learn
and use.

In many other ways, Voyager is "typical web browser"; it has a strip of
navigation buttons across the top, some link buttons, a URL gadget,
transfer animation (an interesting one, if I may say so), scroll bars, etc.
Beyond those, and some other fundamentals, your relative impressions of
Voyager and the others are largely going to come down to personal taste.

What's missing? Well, Voyager's tables are a bit unorthodox, which would be
fine, but it did some poor rendering of some of AM's table code which, as
far as I know, is perfectly HTML-legal. The errors are visually rather
severe in some cases, and a number of the problems seem to be associated
with nested tables. This is an area that definitely needs to be addressed.

It is notable that unlike the other two, Voyager supports e-mail links, and
multiple windows, in its demo form.

All things considered, Voyager NG is a huge leap from the first release,
and it shall be interesting to see where it goes from here.

AWeb-II

[AWeb Screenshot]

At first glance, AWeb stands out in the field of Amiga web browsers for one
reason: it does not use MUI. When most Amiga Internet software
seems to use MUI almost as a matter of course, AWeb boldly defies this idea
and uses a more custom GUI, based on the ClassAct GUI system.

AWeb also appeared more or less within the last year, and made a splash in
the beginning. There are, after all, good reasons not to use MUI, ranging
from speed to system resource use. The author of AWeb gave a rather lengthy
explanation of exactly why this was done in the first version.

The first AWeb was rather simplistic, with the inability to align HTML
entities anywhere but the left side. It was a bit bare in other ways, also.
Of course, not to be outdone by the competition, AWeb has now become
AWeb-II, and sports a wide range of improvements including alignments,
tables, and a primitive recognition of Frames that at least shows you the
structure of a Framed page.

On the subjective side, I like AWeb's mission to avoid MUI (in my opinion,
it is good if there are both MUI and non-MUI products within a general
category, as both offer advantages), but its GUI is a bit spartan
otherwise. It's easy to believe, after viewing enough examples, that the
Amiga is somehow incapable of colorful, complex GUI's without MUI. That
just isn't the case. I, for one, would like to see AWeb with a somewhat
enhanced user interface.

The hierarchy of the program is very thorough and, overall, easy to use. It
performs well, and can be used easily on systems with relatively low-end
specifications. All things considered, it is clearly a significant member
of the constantly evolving group of Amiga Internet applications.

IBrowse

[IBrowse Screenshot]

I believe it is safe to say that IBrowse has been the king of Amiga web
browsers for the last year or so. This is not to disparage any others;
simply, Omnipresence's IBrowse has been in constant development since its
introduction, with updates released more or less monthly. The others just
sat still, although now, they have leveled the playing field somewhat.
However, IBrowse has been the frontrunner right along, which is why, as you
may notice, AM is said to be optimized for it.

IBrowse was the direct successor for AMosaic, which gave it somewhat of an
edge right from the start. It was the first Amiga browser, if memory
serves, to support Tables. The first commercial version became available a
number of months ago, and it has been updated to 1.02 and 1.10 since then.

VaporWare upstaged Omnipresence somewhat with its introduction of the
vastly improved Voyager-NG in February, but IBrowse proved to be right on
its heels, with version 1.10 recently giving IBrowse Frames as well.

The update provides a whole list of improvements and new features. Perhaps

most notable are, of course, the Frames, as well as improved performance
and image dithering routines. It also includes a string gadget that
supports drag-select and clipboard cut and paste, something the Amiga
should have had long ago.

IBrowse renders tables very well, and although I haven't had much of a
chance to test it yet, the Frames support appears good. On a more
subjective note, this is still my personal favorite web browser, despite
recent developments. Beyond that, however, it's often a matter of personal
preference, as to the look and feel and general operation, etc. IBrowse is,
still, a very competent and capable web browser.

What Else?

Voyager-NG, AWeb-II, and IBrowse are all very well-done and capable pieces
of software, and as I have said, your choice of one over the other would
probably fall upon personal tastes and system specifications. However,
there are certain things to note when choosing which, if any, of these will
be your primary web browser.

                                TCP Stacks

I said I couldn't discuss TCP Stacks because I don't use them enough on the
Amiga, but I can give a little background information based on shared
information, and experiences. I have used all three major TCP options for
the Amiga that most people use these days (AmiTCP, Miami, TermiteTCP), and
all work quite well (once configured...easier said than done for the
Internet newbie I was at the time with AmiTCP). However, there are some
things to remember when matching clients with TCP stacks.

*   AWeb, I believe, is intended for use with AmiTCP. Miami and TermiteTCP
    may work, but I have heard of some compatibility problems with TermiteTCP.
    Miami uses MUI, so that kills the whole spirit of things for AWeb right
    there, doesn't it? :-)
*   IBrowse and TermiteTCP are stablemates. They were developed, in part, for
    use with each other, and work quite well together. This is not to say
    IBrowse won't work well with other stacks. On the contrary, it seems to
    do well with all three. However, strictly speaking, it is probably
    optimized for TermiteTCP.
*   I don't know anything about the TCP stack requirements of Voyager, but I
    have used it with both AmiTCP and TermiteTCP, and it seems to have worked
    well in both cases. Again, however, due to the limited time I have been
    able to spend doing so, my results do not reflect all possible scenarios.

                              Other Platforms

Netscape has been essentially the last word on browsers for the PC and Mac
for several years now (and still is, despite the threatened encroachment of
Microsoft Internet Explorer). Naturally, then, we might compare current
Amiga browsers to Netscape to see how we're doing, or to look at where we
have to go from here.

In my opinion, all the Amiga browsers already have an edge on Netscape due
simply to the Amiga OS's supreme ease of use (not to mention coherent
design). As GUI's to the Internet, they often call upon many of a

computer's faculties, and it shows. However, there are some areas in which the Amiga browsers are still somewhat deficient compared to Netscape, or anything like it.

* Drag Select/Clipboard Cut & PASTE: WITH NETSCAPE, YOU CAN SELECT ANY SECTION OF THE TEXT AS IF IT WERE A WORD PROCESSOR DISPLAY. AMIGA BROWSERS COULD CERTAINLY BENEFIT FROM THIS CAPABILITY.
* Cut & PASTE IN FORMS/GADGETS: IBROWSE'S NEW STRING GADGET GOES A LONG WAY TOWARDS PROVIDING BETTER ACCESS TO THE CLIPBOARD, BUT IT CAN BE IMPROVED. IT MUST BE NOTED THAT THIS IS SOMEWHAT THE FAULT OF THE AMIGA GUI ROUTINES, WHICH HAVE ALWAYS BEEN A STEP BEHIND OTHER OS'S IN PROVIDING SUCH SEEMINGLY ESSENTIAL FUNCTIONS AS CUT & PASTE.

There are other features/details Netscape provides that may prove useful to Amiga browsers, but I'm going to leave it at this for now.

There really isn't a long list, however. One must decide this for oneself, but I personally believe the Amiga browsers, as a whole, are on an overall par with Netscape, all things considered.

Conclusion

Again, this review probably isn't as informative as it could have been had I more time and better resources for performing tests and comparisons. However, the goal was to provide a comparative profile of the various web browsers available for the Amiga, from the point of view of somebody who uses such software every day.

The development of Amiga Internet software from the primordial to the present has been fascinating to watch. All three of these browsers have come a long way, and each has its respective advantages and disadvantages. In any event, you must only look at what each gives you, and how, and decide which is best for your needs. Fortunately, they are all available in demo form, so you can test them all simultaneously without spending a cent if you so choose. The choice is yours, and the choices are good ones at that.

You can find information on Voyager at www.vapor.com AWeb-II at www.amitrix.com, and IBrowse at www.omnipresence.com

By Michael Webb
Write to him at e-mail address MikeWebb@CompuServe.COM

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Amiga Gaming Retrospective: Part 7 - OutRun

An arcade classic, and a great Amiga game of yesteryear

Greetings, and welcome back to The Amiga Gaming Retrospective. First, I'd
like to apologize for not keeping this series going as consistently as I
would like to. It can sometimes be difficult to find the time to dig out an
old game, play it for a while, and then do a write-up. I'll try to be more
consistent in the future, however.

March and April are going to be "The Cars Convention" here at The Amiga
Monitor. This month, I'm reviewing OutRun, and next month...well...you'll
just have to wait and see ;).

OutRun was a big hit in the arcades back in the mid-to-late 1980's, and
Sega released their Amiga version in 1988. I honestly don't know how
successful it was in the Amiga community, as I was not paying terribly
close attention to things back then, but I fondly recall many long hours
spent racing against the clock with the bright, colorful three-dimensional
vistas streaking by onscreen and the music pouring out the speakers. I
could almost feel the wind blowing through my hair...well, OutRun may not
have been that realistic, but it did well for its time. More on that
later...

                              The Premise

So what's this game all about? Well, it's a fairly simple car racing game.
You are equipped with a Ferrari Testarossa at your control and your
girlfriend by your side (yes, they were a bit presumptuous about the car's
driver, but, ah well, times were different...). You see everything from a
behind-the-car point of view. You have to pass through a five-leg race in
order to win the game; each leg takes only a couple of minutes to complete.
Your opponent is the clock, and there are other, slower vehicles traveling
the course that are there purely for the purpose of annoying you.

                          Testing Considerations

You may have noticed that I did not include any screenshots with this
review. There's a good reason; OutRun is, unfortunately, another one of
those "take over the whole machine" games with everything including its own
floppy access routines. Most of the contents of the disk are not even
visible to AmigaDOS.

Amiga OS 3.1 (and probably 2.x and above) are out of the question.
Attempting to boot from the floppy under OS 3.1 resulted in some rather
strange video effects, something akin to an old "Outer Limits" intro, or
perhaps a modern MTV video, only worse. So I was fairly well convinced that
I would need to use the good old five-second reboot that would instruct
MultiStart to activate the 1.3 ROM. It works just fine in that
configuration.

I also had the GVP A530 turned off while playing OutRun. A few times, it
seemed to work, but there were some screen glitches, and it ran very slowly
(I've seen this in a few other instances, and generally I assume that the
program is using Chip RAM for everything, which, in the case of the A530,
results in a tremendous bottleneck between the accelerator's 32-bit, 40MHz
bus and the A500's 16-bit, 7.14MHz bus). Later, it didn't work at all. Yes,
I thought that was rather odd, but I figured I'd just run it on the 68000
and get better performance anyway.

So the test machine was, essentially, a plain old A500. Well, it had 2MB
Chip RAM, but other than that, it was just the 68000 and AmigaDOS 1.3. Yes,
it is annoying that OutRun and other games like it were programmed this
way, but it's a sign of the times. System-friendly games were by far the
exception, and even today I would hesitate to say they have become the
rule. Well, in any event, playing OutRun really took me back, and a few
times, I had to even flick the switch on the back of the display enhancer
just to re-experience those good old scan lines.

Controls and Such Things

As was the case with many such games, the game controls are simple. You can
control the car with the mouse or joystick. In either case, you can control
the acceleration/speed, direction, and gear (of the car's two, Lo and Hi).
Top speed is 293 km/h. On some sections of road (the amount of which is
greater in lower levels), you can go full speed around any curve; the tires
squeal, but you stay right on track. In other sections, staying on the road
requires more judicious use of the car's power. The game can be paused, and
doing so brings up a series of Amiga-like, but clearly custom-coded, menus.
They allow you to see the game/programmer information (with a "by-line"
list, including, at the end, "PLAYED BY YOU"), select the music track,
control some attributes of the game, run a demo, restart, show the high
score list, and switch between mouse and joystick.

One little "secret," perhaps, that I have noticed is that if at the start
of the race you gun the engine, you can rev it to high RPM's before the car
starts to move. When it does go, the tires squeal, and you go forward.
Okay, that wasn't the secret. The secret is that if you switch to Hi gear
any time while the tires are squealing, the car will very quickly
get up to speed, as opposed to normal conditions, under which switching to
Hi gear any time before the "right" range (about 100-150 km/h) results in
very poor acceleration until you reach the right speed, just like in a real
automobile. That's just a neat little tidbit to save a bit of time on
takeoff.

Playing the Game

At the aforementioned start, your car is sitting next to a
jeans/tee-shirt/sunglasses/baseball cap-type with a checkered flag. A red,
yellow, and green light brighten in sequence, and then you go.

As previously mentioned, there are many other vehicles on the road whose
job, of course, is to get in your way. There's a whole assortment of types
including Volkswagen Beetles, Porsche 911's, some Sega trucks, and at least
two other kinds that I cannot identify. Anyway, they all just provide a
source of annoyance, or something to crash into.

Speaking of crashing, some features of OutRun are not particularly realistic. That's not necessarily a bad thing; if a certain amount of "unrealism" is suitable to the game as a whole, then it works, as is the case here. For one thing, a two-gear Ferrari transmission is not something you run across every day. And when you crash, a number of things can happen, depending on how fast you're going: the car may slow down, stop, spin out, roll over (hmm...starting to sound like a well-trained dog here), or perform a series of aerial somersaults (nah...not a dog after all) which results in you, your car, and your girlfriend sitting upright, if not a bit disoriented, on or next to the road (if memory serves, in the arcade version, she would get upset with you...gee, I can't imagine why...). None of this hurts you or your car, but only takes up valuable time. In that respect, OutRun is like MarbleMadness!; having your marble fall off the edge only takes up time, and hurts your score a bit. So in OutRun, you can keep going until the clock runs down. Something else you won't see in the real world is an engine capable of running at high RPM's in low gear without sustaining any damage, particularly in contrast to the game I'll be covering next month (a hint for all you aficionados of older Amiga games out there). Again, this isn't necessarily a bad thing; in OutRun, the focus isn't upon the car, but upon your driving skills. In fact, when you crash, you can sometimes maneuver your way out of it and continue along your way with a minimal loss of time. It's all part of the skill of handling the vehicle.

At the end of each level (which, incidentally, vary greatly in terrain type and scenery), the road splits into two sections separated by a row of plants, and then merges once again before leading up to an overhead arch or gate. If you make it through there before time runs out, you advance to the next leg (although sometimes there is a short delay of a few seconds, and other times the next level continues immediately; why this occurs, or what the pattern is, I have not yet been able to discern). From each leg, there are two possible continuations, and which one you follow depends upon which side of the gate you go through. Over the course of the race, each road section splits into two throughout the five legs of the race, but some merge later on, resulting in five total possible ending places.

I would tell you what happens at the end of the game, but I don't exactly remember, and I haven't been able to win yet since I got it out the other day (have to progress along that whole learning curve again...). I think the last levels are really interesting, and at the end, you get a trophy of some sort. I can say that playing this game again has piqued my interest, not only to win but also to explore all the possible routes to the end, something I never previously did, so if I have the time, maybe I'll play it a bit throughout the month and let you know what happens at the end in the next issue.

If you "die" (run out of time), the game displays a Course Map, and shows a little model car moving along short sections of roadway representative of the various legs of the race.

One other interesting little detail is that if left untouched, the game runs a demo, and displays the OutRun logo at the top of the screen, a flashing "PRESS BUTTON TO START!" in the middle, a "C1988 SEGA" sign in the lower right, and a "CREDITS: 1" sign in the lower left corner. Hmm...yep, definitely feels like an arcade port.

 Graphics, Animation, Music, Sound, and Various Multimedia Effects

So just how realistic is OutRun's gameplay? Remember that it was introduced
in 1988. At the time, it was quite good, and even today, it holds its own.
No, it certainly won't keep up with something that takes full advantage of
a 68060/AGA (or better) system, for example, but just the same, it has a
good element of realism. It uses some methods that were fairly common at
the time in order to construct the three-dimensional world: the sky and
background are two-dimensionally scrolling pictures, and various objects,
including the car, are "sprites" (more appropriately termed "bobs" on the
Amiga, as its sprites are, by definition, hardware-controlled) which show
the objects at various sizes and points of view in order to simulate 3D. In
fact, the only part that truly is 3D is the road, and perhaps some of the
areas alongside it, while the rest is simulated in order to save on
computing power. If you're not spoiled by modern 3D, texture-mapped games,
you may very well not notice at first. The result is a game that runs well,
even on a 68000 (although with an Amiga, the OCS/ECS effectively adds the
power of something like a 68020 to the system). Frame rate seems to max out
at about 10, which is not too shabby. I'm sure it would run a good deal
faster if my 68030 had its way, but unfortunately, the game does not seem
to use the Fast RAM like it would have to do in order for that to occur.

The game includes some sound effects for the engine, tire squeal, and
collisions. While the game is occurring, one of three user-selectable music
tracks which, in my opinion, are very well-done, play in the background.
It's a pity about the disk's non-standard filing system, because otherwise
I might try to copy the music files elsewhere for safe storage. After all,
due not only to copy protection, but also to the custom DOS, I cannot copy
the original disk. If it ever dies, that's no more OutRun for me, perhaps
forever. Oh well...again, a sign of the times.

Most of the multimedia effects make full use of the machine in ways you
generally don't see today, particularly in other platforms, where there is
so much raw processing power that some capabilities are probably left
unused. The game does make good use of the Amiga, doing things like
momentarily disabling some audio tracks to accommodate a sound effect, and
other things like that. It makes it seem as though there are more audio
channels than there actually are. All things considered, it includes many
of the characteristics that made many early Amiga games so great.

                                In Conclusion

Some games are just games; others actually take you somewhere, and let you
feel like you're really there. Through its effects, scenery, music, and
general layout, OutRun has a bright, happy, warm-and-sunny-California-like
feeling to it (hmm...I've never been to California, and yet I "know" what a
California-like feeling is; I guess that's TV for ya). This game has a
pleasant ambiance. The feeling of cruising down the highway at 7.14MHz, the
bright blitter sun at your back, the bitplanes streaking by beneath
you...heh, well, you know what I mean. Seriously, though, there is one
brief section of road that really feels realistic, and I mean
really. It lasts for about five seconds, but during that brief
time, You Are There. Now how many games can do that? Better yet, how many
nine-year-old games can? OutRun establishes itself as a unique endeavor.

Playing OutRun again tugged a bit on the memories, in my case, because it
reminded me of not only when times were good and the Amiga was in some ways
on top of the world, but also of when I was younger, and life was simpler.

For goodness sakes, I had to dig my joystick out of the closet just to play
OutRun! I don't even have a games directory on my hard disk anymore. It's
only been nine years, you say? True...but look how much can happen in nine
years, such as in the case of the Amiga. Things like this just go to show
why we should make the time for fun things like this on occasion, and not
let life's worries and troubles pull us down. A good thing to make time for
is an older Amiga game, if you have one. Some of them sure were ahead of
their time. It's a good remedy for the type of Amiga-induced depression
that sometimes sets in after seemingly every company the machine has
touched has gone under in some way, and you begin to wonder if the
difficulties will ever end.P>

Without getting all emotional and melodramatic, now, let's just bring a
sense of closure to this look back through Amiga gaming history by saying
that OutRun was indeed a great game. It may not be the best-known of all
time, but it certainly made its mark on the Amiga's legacy. I recommend
that anybody who has the opportunity try it out (although you would have to
have a sufficiently degraded system). It's the right combination of
simplicity with depth, of ease with intrigue.

As always, any people out there who remember this game are more than
welcome to write in to share their impressions. But that will be all for
now, except, of course, for our customary review breakdown. We'll let the
table tell the rest of the story.

OutRun

Simulated automobile racing game
Sega/Probe Software

ATTRIBUTES	PERCENTAGE	COMMENT
Installation:	N/A	Not hard disk-installable, or even able to be copied
Playability:	95%	Simple, but requiring skill
Graphics:	90%	Good for the time at which it was written
Sound:	97%	Well-done music, good use of sound effects
Documentation:	N/A	Little or no documentation
Performance:	90%	Good for the time at which it was written
Controls:	95%	Simple, but effective

Overall Score:

93.4

A very well-done and fun game; shows its age, but compares favorably
nonetheless

SYSTEM REQUIREMENTS

Amiga, AmigaDOS 1.2 to 1.3, 512K RAM, input device (mouse/joystick)
(Required)
sound system, joystick

(Recommended)
By Michael Webb

Write to him at e-mail address MikeWebb@CompuServe.COM

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JETPilot

Latest flight combat simulator from Vulcan.

The Game

As it states on the box of this latest Mini Series release, in this game
you pilot one of two jet fighters through various practice situations and
qualification missions. These include approaches, landings, and formation
flying to get used to your aircraft as well as target practice to get used
to destroying both air and ground targets. You then get to fly the real
missions. Your two planes are the Lockheed F-104 and the Lightning and the
missions are set in Europe.

Installation

This is probably the worst aspect of this game. Installation to a hard
drive is possible through the game itself. You simply run the game from the
floppy and select Install from within the opening menu. Now is where this
installation process breaks down. You are asked for the hard drive name
from a group of choices. If the drive you want to install this game to has
a different volume name from the choices, you must rename the volume to
continue. An alias will not do. You can then change the name back after the
installation is complete.

Gameplay

You start the game at the group of setup screens. The first one allows you
to change aspects of the game such as detail levels and control method. If
you are lucky enough to have an analog joystick you can elect to use that
instead of the mouse to control the plane. There is no option to use a
regular digital joystick. You can lower the detail levels of the graphics
to speed up game play as even on a 50 MHz 68030 or a 68060 this game is not
the fastest flight simulator. You also select which plane you will be
flying from the two choices, and what mission. You can also change the time
of day and weather conditions from the setup screens. Before flying you can
also check out the online flight manual and detailed statistics on the
different planes including a graph where you can compare flight profiles.

Documentation

In flight, as in any flight simulator, there are many keyboard commands to
remember. The important ones are in the small printed manual that comes
with the game. This is the same type of manual which comes with any of the
Mini Series games. Luckily there is also the online flight manual to help
you learn some of the finer points of piloting a multi-million dollar
airplane.

Graphics and Sound

This game is designed to run on any Amiga with 1 Meg of RAM so don't expect
any AGA masterpieces. There are enhanced static screens for those who
install the game on their hard drive though. As for the actual game
screens, I have seen better in Amiga flight simulators but this game can
still hold its own. The frame rate seems a little slower than would be
expected and is evident in games like Falcon, but other Amiga flight
simulators do not boast plane performance within 10% of the real thing like
Vulcan claims for JET Pilot. I can only guess that this has something to do
with the lower frame rate. You are given the ability to turn your pilot's
head while in the cockpit view to look up and over your shoulder for enemy
planes and can also view from outside the plane from any angle, much like
most flight simulators. The sound includes not only the roar of your jet's
engines but also the Amiga's voice as ground control and your wing men
coming in over your radio. The sounds of the engines is excellent but the
Amiga's voice, while I can understand its use over digitized samples to
save space, is, well, the Amiga's voice.

Future Prospects

You may be taken aback by the choice of only two planes. Well, have no
fear. Unlike many other developers who have left the Amiga platform, Vulcan
is still active and promises future data disks which could easily include
more planes and missions.

Bugs And Other Unforeseen Issues

I have not encountered any bugs, but then again I still haven't even
finished qualifying for real missions. As far as I can tell, this game will
only play in PAL mode necessitating the switching of NTSC Amigas before
starting the game. This said, as you can probably guess, there is no
CyberGraphics support.

In Conclusion

All in all, a good combat flight simulator. Though slower than some other
Amiga flight sims, this one is supported by its developer who promises the
possibility of future expansion with data disks. Many other Amiga flight
simulators are no longer supported by their developers and there is little
chance of them being updated in any way. An important thing to take into
consideration before making a purchase. This one also has a degree of
configurability that you will not find in many of the others.

Results

JET Pilot

Combat Flight Simulator

Vulcan Software Ltd.
72 Queens Road
Buckland, Portsmouth, Hants, PO27NA
England
Paul@vul-soft.demon.co.uk
http://www.vulcan.co.uk/

 ATTRIBUTES PERCENTAGE COMMENT

 Installation: 68% It pains me to have to give a score this low to this
                     game, but I must. There is no reason for forcing people
                     to rename partitions just to install the game. On the
                     up side, it is hard drive-installable.
 Playability: 85% A little slow and as hard as any flight simulator to
                     control. The many views from outside the planes and the
                     degree of realism make this an impelling title.
 Graphics: 80% I have seen better in Amiga flight sims. How's about an
                     AGA version? The graphics are neither great nor are they
                     bad. A comfortable middle-ground
 Sound: 85% Plane sounds are a good or better then other Amiga
                     flight sims and I can live with the Amiga voice on a
                     non-CD game.
 Documentation: 92% Even though the manuals that come with Mini Series
                     games are small by any standards, the online flight
                     manual and airplane data are a very nice touch and give
                     you a wealth of information.
 Performance: 80% A little slower than I had expected even on a fast
                     Amiga. I can't imagine playing this game on a stock 500,
                     or even a stock 1200 for that matter. Hard to gauge
                     though due to the realistic performance of the flight
                     engine.
 Controls: 85% Flight simulators are hard to control and this is no
                     exception but that is what you should expect from these
                     games. Many keyboard controls along with your mouse or
                     analog joystick. Calibrating the joystick is awkward
                     but doable and the use of a digital joystick is no
                     supported.

Overall Score:

82.1

A good flight simulator with the promise of future expansion by an active
developer. As with any game of this sort, it is best played on an
accelerated Amiga.

SYSTEM REQUIREMENTS

All Amigas, 1MB RAM, Mouse
(Required)

AGA Amiga, 6MB RAM, 50MHz '030 or better, Hard Drive, Analog Joystick
(Recommended)

-By Anthony Becker

Write to him at e-mail address commodoreuser@juno.com

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                    Editors@HelpDesk

The Editorial Staff of "The Amiga Monitor" handles your questions and
problems

From the Editor: We received unusually few Editors@HelpDesk
submissions this month. Surprisingly few, in fact. As a result, we will
leave the column blank for this issue, and promise a couple for next month
that we should have ready in the queue by then.

Write us!

Do you have a question you would like us to answer? send e-mail to
Editors@HelpDesk at MikeWebb@CompuServe.COM. You will receive
notification as soon as we receive your message. We do not necessarily
publish all letters, but we attempt to reply to them all.

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                The readers speak out!

This month: Amiga Computing, the AAA chipset, VLab Motion, stories

of PC's, and more.

Amiga Computing Magazine

How in good faith can you recommend Amiga Computing as a magazine when they
have been ripping off and lying to US subscribers? I have been trying to
get my back issues for 6 months. Neil Mohr promised to send them. Ha ha if
you keep telling everybody about it they will get ripped off. It's on your
head. Even Software Hut dropped them and I hear other US advertisers have
too.

Stanley Young

For one thing, Amiga Computing has been having problems with their
subscription database; I, too, experienced this. There is no reason to fear
that they have done this to us out of some kind of malicious intentions. I
am not, however, "letting them off the hook" for it; it is fully their
responsibly to resolve the situation.

For another, I never recommended Amiga Computing. I can think of only one
instance in recent history in which I said anything about them in print,
and it was not any sort of a recommendation; rather, simply a mention. It
was a list of magazines. Just because they're "ripping us off" doesn't mean
they are not a magazine. Nowhere does my endorsement appear.

Michael Webb Editor-in-Chief

The AAA Chipset...Continued

I wrote to your Feedback in the January issue. Your answer then and some of
the comments both from you and other readers in the last issue, left me no
other choice than to write in again.

You said it was hard to say if something is "too slow" or "fast enough".
Well, let me explain what I meant by saying the AAA chipset was too slow.
AAA would have improved on AGA, but is that good enough? The only way the
Amiga can hope to be as successful as it was in the early 90's is to offer
really superior performance at the same or lower price than the PC. Why
should anyone choose the Amiga if it didn't? It's got very little software
support, its future is uncertain, and very few retailers are supporting it.
The AAA chipset will not make the Amiga outperform the competition, and
certainly not beat them on price. As you know (you participated in Dave
Haynie's online conference in March 1996) the 32-bit version consisted of 4
chips, while the 64-bit version used 6 chips. This is hardly very economic,
and I question the wisdom in using it as the "basis of a new Amiga system"
as you wrote in the last issue. AAA was never intended to be used in
anything else than high end workstations. The Hombre was intended to be
used as the low end "chipset". You also stated in your reply to me that it
would not take anywhere near 6 months to introduce a "new powerful Amiga".
REALLY!!!! When you write "new powerful Amiga", I guess you mean a new AAA
Amiga, as releasing a new AGA Amiga before AAA hardly makes any sense. You
expect me to believe that the new owner could finish AAA, adapting the OS
to the AAA, building a new Amiga from the ground up in less than 6
months????? The reason AAA was dropped was because it would take too long
to finish the OS (hardly the easy OS integration you are talking about).

David Pleasance said it could take 18 months to write the remaining. This seems like a very pessimistic suggestion, but anyway, much less than 6 months....? Even if a 3rd party RTG program is used, I doubt this is possible. When the A1200 and A4000 were released in late '92, it took Commodore's 70 or so engineers 9 months to make the CD32. They had around *70* engineers. I doubt any of the bidders for AT got so many engineers. You also commented on what I said about Dave Haynie had written the AAA off publicly: "...although I respect him (Dave Haynie) and his legacy in the Amiga community, we can't assume that just because he says something, it's automatically correct." Well, who do you think we should believe, one of the key persons in the AAA project, or you who I bet doesn't have any other info on the AAA than what he has given you? Doesn't seem too hard to me! This reveals some of the paranoia in the Amiga community: Trust No One. If we all could cooperate we wouldn't be in the present position we are.

Some of your readers wrote in and pointed out that Dave Haynie didn't design the chips themselves. I know he didn't design the chips themselves, but the impression I got, is that the chips themselves were nearly complete, and the problem was getting them to work together, something I believe was Dave Haynie's job.

As I stated in my last letter, I believe the way forward is by using the Hombre as a graphics subsystem, and the PowerPC as the main processor. If desired there should be no problems in including some of the features found in AAA, and if needed the PA processor should be possible to upgrade to a more powerful one. As the original price target was $45, with 0.5 micron technology, with the addition of these, they should still be usable in low end machines. The original schedule was for an 18 month development, but listen to what Dr. Edward Hepler wrote in a mail to me: "If it were to be resurrected today, I might do things differently......."

In the meantime, I think the new owner should release some machines built upon the concept of the PowerUp cards. This will ease the integration of the PowerPC in the Amiga architechture, and ensure availability of software at the launch of the "real" PowerAmigas. The cost of 50 MHz 030's and 603e's aren't any higher than 060's, and it offers more power and a future.

On the other hand, I got to say I like your magazine, even with our difference in opinions.

Keep up the good work!!

Vidar Langberget

Some of your facts are questionable, and you have twisted the meaning of some of my words, so I will clear that up.

The AAA chipset would not just be an improvement on AGA; it would be a dramatic one. It has an impressive set of specifications, which I have mentioned many times before, and coupled with the efficient Amiga OS and a fast processor, it would form the basis of a very powerful system. The Amiga has a lot going for it, and we don't have to worry about beating PC's and Macs on every single numerical value to compete. Why? For one thing, the OS comes into play, and nothing out there is nearly as good a balance of power and efficiency as the Amiga OS. Also, any other graphics hardware would take much longer, and a good deal more trouble, to integrate into the OS than the AAA chipset. The AAA chipset would perform

very well, and not entail a significant cost. When I say the Amiga does not have much extra time to get back on its feet, I mean it; we have to get new models out there as soon as possible. The delays imposed by a dramatic (and unnecessary) change in architecture would surely be the death of the platform.

Yes, I did participate in Dave Haynie's online conference, and although he said a great deal about the AAA chipset's specifications, I have also read about it in many other sources. I believe your chip numbers are not entirely accurate, but in any event, it is irrelevant; the reason the Amiga had three custom chips in the first place, rather than an integrated one, is because to build them into one unit would have been too expensive.

You completely lose my meaning by quoting my statement about Dave Haynie. I said nothing about "trusting" anybody, or "distrusting" anyone, for that matter. I simply said we can't automatically accept everything he says as the last word. Nor do I believe you should automatically agree with everything I say; people should weigh facts and arguments, and formulate their own opinions. To draw an analogy, do you agree with everything your government officials say or do? Even though they are the key people in the nation's political affairs? I certainly hope not. Surely you see what I mean; people have to think for themselves. Incidentally, I have a good deal more information on AAA than what Dave Haynie gave me.

Your statement about "lack of cooperation" leading to our present situation sounds inspiring, but it is unfortunately incorrect. Our present situation is due to incompetent mangement and a lack of marketing. The amount of cooperation and mutual support within the Amiga community is utterly unprecedented anywhere else. As far as paranoia goes, there may be a certain amount as a result of being stung so many times by ineffective companies, but certainly not so much in reference to this.

The idea of the AAA chipset being intended only for "high end workstations" is also incorrect. One of the great things about it is that it could be configured on a number of levels, from low-end (32-bit) to high-end (64-bit). It could be implemented throughout the Amiga line. The Hombre was a completely different animal.

The AAA project was not dropped due to anticipated development times. Commodore pulled out development funds because they just plain ran out of funds to allocate. The AAA chipset was under development right up until Commodore really started going downhill, and otherwise would have been completed. Also, new models using the technology were planned for later in the year, had Commodore survived. The AAA chipset would be relatively easy to integrate into the OS, but would be easier by a truly vast margin than other, 3rd-party systems, which also would offer no backwards compatibility.

Dave Haynie's job was to develop the Nyx prototype for testing the AAA chipset. When development of AAA stopped, development of Nyx probably did shortly thereafter. The chips were nearly complete, and were actually running in the labs, with the next revision supposedly being enough to boot the OS. The next revision, of course, was never given the opportunity to arrive.

I generally agree with you on the subject of processors; I think the PowerPC is the way to move. However, as I said before, moving completely to

the PPC without first porting the OS could result in performance losses and
numerous incompatibilities; therefore, the next models should still have
680x0 processors. I would agree with the idea of using PowerUp for some
systems to ease the transition, but only as an option (standard perhaps on
high-end machines), as it would add to the cost. Any new Amiga should also
be able to accommodate a PowerPC anytime after purchase. In the meantime,
the OS port to PowerPC code should proceed with all deliberate speed.

Michael Webb Editor-in-Chief

AAA is the Right Choice, and the Power of the 68060

Several points. Simple first, the link to mail you at the bottom of
Feedback appears to be a URL call and not a Mailto:

Next, I just read your comments in the preamble section of the IARS site.
All I can say is Yes! Yes! Yes! a thousand times YES! The Amiga should
remain an Amiga, the AAA chipset sounds great (I had never seen the general
specs for it before); as a hobbyist user, it is as much power as I can
conceive needing (at least for a good while) and it's backward compatible
and that *is* important. As a long time Amigan I have a lot of software
that would be a shame to have to replace because a new 'Amiga' wouldn't run
it. I understand that with hardware upgrading you have to lose some
compatibility, especially with games. I understood that when we went from
1.1 to 1.2 (well 1.3, I never did run 1.2 myself) and beyond that well
written software should run with minimal help from mode promoters etc. I
still have some old 1.1 demos around that work fine under 3.0 on AGA;
having to run my old software on an Amiga emulator on a new 'Amiga' would
not feel right. And yes, the 68060 is a good choice of chip; I think some
people still read the 50MHz and think "one third the speed of a P166!" How
untrue. Even less true in light of what I just read in Amiga Report about
Massimiliano Marras' Tornado 3D (AR502 Articles/IPISA 96) with code "finely
tuned for the 68040 and 68060, resulting in an impressive speed of the
software: what other programs render in 10 seconds, Tornado can in a
fraction of a second. The net result, almost miraculous, is that the user
can manipulate the previews in real time with the mouse; and we are talking
about colour previews (full colour or dithered), with flat or Gouraud
shading, transparencies, textures and many other features!"

Last point, on the discussion about Dave Haynie and the AAA chips: even if
he was not on the AAA's design team, as the designer of the system that was
to house them would he not have some ideas about how to use them well?
What's he got to say about this general line of thought (having some stake
in resurrecting the AAA chips)?

Brian Jones

Yes, Brian, you're right; the link at the bottom of the page was malformed
last month. Everything should be set straight now. Thank you for pointing
out that error.

Indeed, the AAA chipset's capabilities are quite impressive, and would
probably serve most computer users' (even some very high-end systems) needs
more than adequately. And although the 68060 may not have the brute force
rendering power some graphics professionals are looking for, some people
may be a bit too quick to dismiss it. It has some impressive capabilities,
particularly evident in the case of code optimized for its architecture and

instruction set. As you indicate, a MegaHertz rating certainly isn't
everything; there are other factors that help to determine a
microprocessor's overall performance. In the case of either the processor
or the chipset, compatibility, as you point out, is quite important. It
would be a shame to flush everything ever written or created for the Amiga
in the name of "progress."

Dave Haynie was, indeed, involved with the AAA chipset in the capacity of
designing the prototype machine. He seems to be of the other point of view,
that the Amiga would be better off with 3rd party graphics hardware. I
don't know what he would say about possible future implementations of the
AAA chipset.

Michael Webb Editor-in-Chief

AGA Bandwidth Considerations

First I'd like to thank you for doing a great job with The Amiga Monitor! I
especially enjoyed the article from Steve Duff "Becoming an Amigan". As a
new Amiga-user he presented a refreshing look on what the Amiga offers a
newbie, and what things that can be problematic.

As a long time Amigan, it can be hard to see these things. It would serve
any new owner of Amiga Technologies well to read this article and address
the things that can be corrected so it won't be so difficult to use/install
for new Amiga owners.

You wrote about AGA in response to Jim Meyer's letter in AM1_7:

"Yes, AAA would, as I have said, be far ahead of AGA. I would have to say
that AGA actually does quite well for itself in most ways, and if anything,
has been hampered by the lack of chunky pixel modes, but little, if
anything, else."

I would like to point out that in fact the problem with the AGA chipset
does not lie in not having a chunky display mode, but rather the bandwidth
limitation of AGA chip-ram which only supports max 7MB/s.

This is a limitation of the AGA hardware that is not easily rectified short
of designing a new chipset. The AAA chipset would have had better
bandwidth, but it will never be finished.

When you say the AGA chipset does quite well, I must say that I disagree.
It was fine in '93 and even today functions reasonably well in lower
col/res-modes. But it's extremely frustrating to use in anything above 64
colours, and that's the main gripe I have with AGA today.

It just doesn't cut it anymore.

Odd H. Sandvik

Thanks for the message and the comments. Part of the Steve Duff's
motivation in writing "Becoming an Amigan" was to show some of the problems
new Amiga users face so, as you say, the next owner of the technology can
(we hope) address the issue. We will be hearing more from Steve in coming

months.

On the subject of AGA, bandwidth is a limitation, and I probably should
have pointed that out; still, though, I believe the biggest problem is the
lack of chunky pixel display modes. Just compare the speed of a 2-color
screen to that of a 256-color screen in any AGA mode, and you'll see the
problem that arises from building screens by stringing a number of
bitplanes together. The two factors are probably inextricably linked
anyway. When I said that AGA does well for itself, I meant it in a relative
sense. It does well in most low-resolution modes, and in high-resolution up
to a certain extent. It has good animation capabilities, and the sound
system compares favorably to even modern devices for other platforms.
However, there is no denying that for many purposes, it is outdated.

The AAA chipset would cure both the bandwidth and the planar mode problems,
and it just might be finished.

Michael Webb Editor-in-Chief

A Quick Market Sketch

Thanks for publishing my letter (Games Support) last month. I was a little
over-zealous perhaps in my 'incitement to e-mail' – I was on one of those
tiredness-buzzes that you get sometimes and I apologize!

Perhaps I should wait a few days before mailing this, in anticipation of
the sale of A.T. Your endorsement first of the official-Amigas is quite
understandable and you are far from being alone. The Amiga name certainly
has a great deal of influence which the A/Box will struggle to match. For
this reason, I hope that should QuikPak be successful in their purchase of
AT, they put a little cash into links with PIOS and Phase-5.

In buying the Amiga name, QuikPak have not just bought technology, but
influence and responsibility and this should be quite enough compensation
for not attempting to solely take on the job of advancing the Amiga. If
QuikPak are sensible, they will produce a PowerPC Amiga OS and use PIOS and
Phase 5 almost like a quango, handling many of the important tasks in
bringing PowerPC Amigas to the market.

I think it extremely unlikely that QuikPak would have the humility to
license the Caiphrinha chip for their Amigas, but this would be the
flip-side of the ultimate solution in producing new, standardised
PowerAmigas. Otherwise, custom extensions could be made to Amiga OS to
support such chips.

Having said this, there are factors elsewhere in the computer world which
could be equally important. While Motorola are clearly doing all they can
to support their PowerPC range and the platforms which use it, there is
talk of scaling down development of the range. Microsoft seems to be
adopting a mixed policy towards the PowerPC range. While they inform us of
their decision to phase-out production of PowerPC Windows NT, they also
embark on an initiative to produce Windows-CE for the PowerPC range.

Their reasons, they report, are because of falling demands for the PowerPC
range. This is not directly bad news for the Amiga-community – I mean who
among us wants to use their crummy O/S's? – and is more likely to be due to
poor sales of *Microsoft's own* PowerPC software or another example of a

hidden agenda towards companies like Apple Inc.

I don't want to place too great an emphasis on this – the PowerPC is still
a fine choice of processor – but it's worth keeping up to date on external
concerns and may be, coupled with NewTek's direction, a factor in QuikPak's
decision to support the Alpha MPU and relative silence on the subject of
PowerPC.

Also, DEC have announced on their web-page (www.dec.com) that their next Alpha ↵
    chip will cost less to produce
than a PowerPC. But what policy will they take in pricing it? Keep it
exclusive and expensive; or challenge Motorola and Intel with an unbeatable
power to price ratio? I expect a tendency to the former, but they're
certainly not making a secret of the production costs.

HiQ have announced that their plans with QuikPak will render the A/Box
rendundant which could be linked with future Alpha pricing. Incidentally,
HiQ seemed rather too keen to denegrate Phase 5 in the interview I read –
kill the opposition may not be the best policy in the present
circumstances.

Whatever the outcome of this speculation – and I may update my comments in
light of any announcements made between now and the March Amiga Report –
Amiga OS PowerPC remains important to the presentation of a new Amiga
brand-image, since I'm not holding out for an Amiga OS 4, Siamese, and
Caiphrihna combined standard!

As for games – I am glad that you agree with the need for a balance and
understand that I am not advocating Commodore's disastrous policies. It was
their bias towards games and the set-top box that prevented more gamers
from discovering decent Amiga applications. They left the Amiga without
accelerators, hard-drives and CD-ROMs; and most never got to see such
wonders, let alone an A3000 or an A4000. I myself, through lack of funds,
qualify for all but the hard-drive ownership.

Even Apple have changed their policy towards gaming, which has not changed
since the Mac's launch, to win the home user to the platform. You are right
to point out that current Amigas are capable of modern 3D games; the
screenshots of Breathless and Alien-Breed 3D-II are a testiment to this,
but don't expect any PC owner or influential developer, ex-Amiga or
otherwise, to believe us. They're the buyers that need to be won and even
if they DO believe us, they're going to need more than comparable graphics
to make the change.

Here's to a sale this month!

Chris Owen

I can't say I'm entirely surprised that the February 28th "deadline" turned
out to be incorrect yet again (incidentally, we received this message
before February 28th). Let's all hope some resolution does come soon, and
that the new owners do address many of the concerns and consider the ideas
that you have brought up here, representative of what many people in the
Amiga community have been wondering, and sometimes worrying, about these
days.

Michael Webb

Editor-in-Chief

VLab Motion Comments

I've seen what a standard VLab Motion can do, and I think Bill is way too
quick to encourage people to dump the Amiga for professional use.

Jason Compton

Since the VLab Motion is a 16-bit board, its throughput is limited to 3mb
per second, and a SCSI-2 controller is needed to get that rate. I have the
default controller in my 3000 with a VLab, and I get about 2.4 megs per
second through. Considering that the VLab works with fields, the VLab has
to move 60 images per second for video. Dividing 3 megs by 60 images gives
you about 50k per image to work with, maximum, which is a lot of
compression.

Since a VLab field is of a pixel size of 640x240 or so, that represents a
typical file size of 400k (IFF24), or a compression ratio of 8:1 (JPEG).
Remember, this is the max, with video only. In actual use, however, much
more compression is usually needed due to limitations of buffer size,
concurrent streaming of 16-bit audio, etc. This makes for typical ratios of
15:1 or higher. This level of image degradation is becoming unacceptable to
most clients.

Since the PeeCee standard has long been 32 bits in video boards, with
64-bit stuff coming on line, this level of compression is clearly out of
date. Most 32-bit boards do 3:1 compression as standard, equal to D2
quality video. These can be had for less than $1000. In addition, doing
digital transitions and effects with an '040 or even an '060 can take all
day with more than just a few seconds of video.

Saying that the VLab Motion board is obsolete is not the same as saying
that the Amiga is no longer good for professional use. The Amiga is
unexcelled for many things still, such as genlocking and titling, and for
controlling analog editing equipment. MacroSystems was working on a VLab
Motion II a couple of years back, which would have been a 32-bit board that
would have essentially turned your 32-bit Amiga 3000 or 4000 into a Draco.
They saw the writing on the wall, however, and decided to put their efforts
into their Draco System.

It would be great to see the Amiga back into new development and marketing
to match, and to see new, more modern hardware for the machine. The VLab
Motion was ahead of its time four years ago when it was first released, but
times have changed. I still use mine, mostly for grabbing video for
conversion into MPEG's or presentation-type animations, but I could not in
good faith recommend that someone buy one now, unless they could get it for
a good price and were doing videos for a hobby.

Bill Graham
Graphics Editor
Hard Disk Transfer Rates and Video Boards

Reading AM1_7, I was really disappointed in the part of Editors@HelpDesk
where Bill Graham replies to a reader's letter. There are NOT hard drives
with "30 to 40 megs a second" transfer rate. Even a Seagate Cheetah with
its 10033 RPM spin speed cannot touch more than 22.1 MBps INTERNAL transfer

rate, that is, when data is transferred between disk surfaces and internal cache. For example, my Western Digital Caviar AC33100 also has 13 MBps internal transfer rate, but even via Bus Master DMA EIDE PIO 4 mode it has 9MBps peak and 4.5MBps stable transfer rates. I have a "not bad" Pentium-166 with Tomato PCI 2.1 motherboard. Maybe with Fast SCSI-2 internal transfer rates the real transfer rate will be closer, but 30 MBps is only our future. If readers found wrong information in AM, that can be followed with troubles, so keep your eyes open and filter wrong ones.

Victor Ulanov

You are right. The speeds and dataflow I was referring to in my answer to the other writer were referring to a 32-bit video board's throughput. It is not simply the amount of data written to and from the hard drive; it is the buffering capacity, time to decompress and recompress, and read/write speeds that determine a board's throughput. The VLab Motion is a 16-bit board, hence its 3 meg per second limit. That is the throughput limit of the board itself, not a hard drive consideration only.

Bill Graham
Graphics Editor

The Amiga Monitor, Amigas, and Binghamton, NY, USA

Hi Michael,

I've just discovered your magazine The Amiga Monitor and am very impressed with it. I'll now put it on my hotlinks to read regularly. I was also surprised to find out that you are based in Binghamton NY, as I spent about 10 weeks in that area (Hancock) last summer. I didn't see much Amiga activity there but I now know better. Are there many retailers in the town?

BTW, I live in Melbourne, Australia.

Thanks again for your work.

Regards,
Randall Gillespie

Thanks for the comments, Randall. Unfortunately, there really isn't much Amiga activity in Binghamton these days. There's the Binghamton Amiga Users Group, I know a few people who use older Amigas, and some local TV stations used to use Amigas (I'm not sure if they still do), but that's about it. I don't know of any Amiga dealers in the area. There was one here for a number of years (Creative Computers, I believe it was...not to be confused with the one in California), but that's now long gone.

No matter how few and dispersed we are, though, we hold on to the Amiga dream as though it were the meaning of our lives (sometimes I have to wonder...). Let's hope this whole mess comes to a favorable conclusion soon. Nice hearing from you, Randall.

Michael Webb
Editor-in-Chief

AM, IARS, and a Commentary on Modern PC's and Just How "Great" They Are

Dear Mr. Webb:

I enjoyed your comments on the IARS page (I also thoroughly enjoy The Amiga
Monitor and look forward to each issue). I agree that, if and when the
Amiga is purchased, the new owners need to get the Amiga produced and for
sale immediately and this means concentrating on the existing technology.

I am tired of the stale arguments in the newsgroups re: Amiga vs. PC. My
husband and I have four Amigas (500, 2000, 3000, and a just purchased used
1200 and new AT 17" monitor, plus we use the 1084S with the 2000 and 1950's
– all accelerated and with 8 to 16 megs of RAM and various enhancements
like the Retina, DCTV, CD-ROM's, sound card, 540 to 1 GIG hard drives,
etc.) and also have an IBM Aptiva with Pentium 100 running Windows 95, 80
megs of RAM, 3 and a half GIG's of hard drive space, a VESA graphics card,
17" Samsung SyncMaster, Sound Blaster Pro and Gravis sound card, a Smart &
friendly CDR, a Relysys flatbed color scanner, a 650C HP color inkjet
plotter and a 660C HP color inkjet printer, a Casio QV100 digital camera
and my old wizard digitizing tablet from my Amiga 'cause I needed it to be
able to draw anything at all on the PC. The PC was purchased so my husband
could bring home AutoCAD drawings from work to earn some overtime pay just
abour the time that commodore was going out of business and he tried to
convert me to the PC by enticing me with CorelDraw and Adobe Illustrator,
Photoshop, and Fractal Design Painter, and all this fancy equipment, but I
kept doing most of my work on my Amiga and transferred the files to the PC
for printing because of the lack of plotter support on the Amiga
(TurboPrint 5 has allowed me to use my HP 660C with the Amiga again – I was
disappointed with the last driver from Creative Focus and sold my HP 855C
to try the 660 instead, but it still did not give adequate printouts).
Quite the expensive printer driver I ended up with, wouldn't you say? And
none of the printouts are as crisp and sharp as those from Final Writer – I
have even tried outputting to Postscript using outrageously expensive Adobe
fonts and was extremely disappointed with the industry "standard".

I have learned how to use all of those high-priced PC programs that have to
be upgraded at least once a year (and run slower with each upgrade!) so I
can speak with some knowledge about how they operate. First of all, as we
all know, Windows 95 is not true 32-bit and it is most definitely not
multitasking with memory-hogging graphics programs – multitasking must be
disabled in CorelDraw 6 programs, for just one example, to do anything with
text frames or even most graphics to avoid a crash. Yes, they do have true
24-bit graphics on PC's – but, try doing anything with a display of more
than 65,000 colors! With 80 megs of RAM, I am lucky when I can work with a
7 meg 3 x 5" 300 DPI 24 bit graphics file displayed in 65,000 colors at 640
x 480 resolution without getting a "this program has performed an illegal
operation and will be shut down error" or a system lock up – either way,
all programs, including Windows 95, must be shut down and the computer
rebooted (which takes approximately 7 minutes if all goes well and I could
write a whole page about the horrors of turning off your computer when
Windows 95 is still running!). As if this isn't bad enough, the memory
management under Win95 is so bad that you don't dare run Photoshop after
running Corel (or vice-versa) because all of the memory for their buffer is
never cleared even with a purge, and none of the programs does everything
that you need it to do, so this necessitates rebooting the computer again
to clear up the memory so you can load the picture into another program. At
least a warm reboot doesn't take as long as a complete shutdown. The memory
problems also exclude having any success at all using OLE except between

programs of a "suite" like Lotus Approach and Freelance, for example. None
of the graphics programs on the PC perform the neat functions of HAM, of
course, and it is impossible to do a true rubthrough for easy composites
although it can be simulated with layers and a lot of extra work. The
gradient fill options, even from Kai's Power Tools, are not as flexible as
those on the Amiga. Our video camera does stills and the pictures brought
in with DCTV look better than those done with the Casio on the PC so now
that my husband has replaced the motherboard in the 1084S monitor we are
going to hook up DCTV again and try it with the Casio, too (DCTV also
produces less scan lines than their PC version, Snappy – my brother bought
Snappy for his PC 'cause he always coveted our DCTV). Yes, AGA graphics
take a long time to load but you get a true full screen display with over
260,000 colors in high res – PC graphics load in at 1/4 screen and the
amount of time I spend zooming in and out for absolutely everything could
be better spent on drawing and image manipulation like I can do on the
Amiga with my full screen displays. Anti-aliasing also sucks on the PC –
The Windows 95 logo screen is a disgrace!

PC's have 16-bit sound but they are not capable of utilizing it. If a MIDI
track has more than 4 instruments you don't get to hear them all at once
and those old (and new) Amiga mods sure do sound great in comparison. Read
the docs for the Gravis sound card for a little boost...

And, hey, SCSI on the PC is a joke...we have two SCSI cards in ours because
Windows 95 refuses to accept a second device on either card. Plug and Play?
And can ISA SCSI cards really be SCSI or are they just a SCSI adapter for
parallel input?

I read a lot of PC propaganda magazines and I have found nothing to
convince me that the new MMX is worthwhile – it actually slows most
applications and seems to benefit only games (I chuckled for days when the
C64 emulations finally came out for the PC after the Pentium processors
made the PC fast enough to finally handle them – and the Amiga was derided
for being "just a game machine."). My husband is the resident computer
guru at work, and they have several dozen Pentiums of various speeds, and
none of them run faster than the Pentium 100 that he uses...some of the
"faster" ones are actually slower – but that's because they are really just
doubled 66's or 75's, etc. and unless every bit of hardware is optimized
for the system everything slows down relative to the slowest component;
what I call "the least common denominator" effect. This is why I cringe at
the thoughts of common hardware/chips/OS a la PPC. The Amiga has always
been unique and to reduce it to the least common denominator technology
prevalent in the rest of the PC industry would destroy or eliminate all the
quirky features that I have come to love, respect, and appreciate.

So...what is the Amiga lacking? Nothing much really as far as the computer
itself goes, for the home user or even for most businesses, although I
admit it would be nice to reduce rendering times in VistaPro and I've
stayed away from Imagine and animations 'cause I already spend too much
time playing with my computers. What the Amiga needs is a company that will
promote it enough to "legitimize" it in both the retail outlets and with
the computer peripheral industry so that we can get software drivers from
manufacturers for printers, scanners, digital cameras, plotters, CDR's,
etc. so I can dispose of that expensive computer I use for a peripheral
interface. Granted, we do have excellent shareware support for a lot of
products (after they have been out for a while) but I lack freedom of
choice to buy new peripherals (I've been drooling over the Alps MD2010

printer and the printouts are beautiful, but...) and even people who are
amazed with our Amigas and the work we do on them still turn around and buy
IBM compatibles because of the ability to buy stuff locally in any computer
department that will work with their computer without their having to be a
programmer.

Thanks for being on the Internet and supporting the Amiga.

Audree L. Karlosky
Naples, FL

Thanks for the comments on AM and IARS, Audree, and also for your
observations on PC usage. What many people don't realize is that PC's
haven't really come so far in some ways. Some people are luckier than
others, but many have to face performance problems, incompatibilities, and
unreliabilities. These platforms have a long way to go in these respects,
and the Amiga has quite a lot going for it, even if it is
"outdated" in some ways. All it really has to do is to maintain the
straight and true, and with a little support, it might just make it.

In the meantime, good luck with that problematic PC of yours, and I hope
you continue to enjoy your Amigas for years to come.

Michael Webb
Editor-in-Chief

A Declaration?

Editor's Note: We have confirmed that the following message is most
definitely not from "the" Dale Larson (whose middle initial is "L." and not
"J."), i.e. the one well-known throughout the Amiga community as a former
Commodore employee, "el presidente" of IAM, and the author of the book
"Connect Your Amiga!" It would be an amazing coincidence to have two Dale
Larson's within the Amiga community, so we were naturally a bit suspicious,
but were not able to confirm anything else at this time. We thought it
would be worth including here, however, so take it as you please. Because
of the rather unique nature of the message, it has been left completely
unedited.

Please spread this message. I will not be assimilated by Bill "The Borg
Leader" Gate resistance is not futile. AMIGA IS STILL # 1!!!!!!!!!!

Dale J. Larson

So what are we to make of this? A zealous reader? Somebody trying to make
Dale Larson look strange? Or simply a frustrated Amiga user, strained to
the limits by our platform's stagnation, angered by the apparent onslaught
of the "Wintel" world, and driven to the point of saying something,
anything, to carry forth the cause and show some hope of overcoming these
obstacles? I don't know any better than you do. But in any event, it
certainly isn't something you see everyday.

Michael Webb
Editor-in-Chief

Write us!

Do you have something to say about the Amiga, the Amiga community, the
Amiga industry, or The Amiga Monitor? Send e-mail to "Feedback" at
MikeWebb@CompuServe.COM Note that we do not necessarily publish all the
letters we receive.

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Tone Byte

Roamings in the Amiga world.

Amiga Myst: For real this time?

You might remember this article that I wrote for the September 1996 issue
of The Amiga Monitor: "Myst Preview: Amiga Community Bitten by Fake Preview
of Broderbund Hit Title". Well, that was true then but this is now and
clickBOOM, of Capital Punishment fame, are bringing it over to the Amiga,
slated for an early summer release.

The September article was about a "preview" of Amiga Myst which was written
by a Polish programmer. He essentially wrote an Amiga engine to use the PC
datafiles and released his preview to Aminet. This unleashed a flurry of
calls to Broderbund who denied that any Amiga version was planned. That was
all true. The folks at clickBOOM have obtained rights now to port Myst
officially to the Amiga.

When I asked Alexander Petrovic about any relationship between the hoax
preview and their upcoming release, he stated that this is an original
clickBOOM project and has no relationship to the illegal demo.

For those who don't know, Myst is a popular puzzle game from the PC. It
incorporates rendered screens with small animations and sound effects. To
get through the game, you must solve puzzles to accomplish goals. This game
spawned many "Myst clones". Can this be the harbinger of more popular PC
games ported to the Amiga by enterprising developers? Maybe.

Contributed by: Anthony Becker

The Darker Side of Operating System Installation

Oh no, there it was. A fatal error and the need to reinstall the operating system. No big deal, but one of the update disks was bad, so I picked up a full install set. "How different can they be?" Well, there I was; starting the installation went alright. After about ten minutes of checking out the hardware and onto the second install disk, it decides to check to see if there was enough space on the disk, which there wasn't. So it's back to the beginning after deleting enough to free up the required 50 Megs of hard drive space, even though it will be overwriting many existing files. Through the ten minutes of hardware tests again to the input of a protection number. Of course I left the manual from this specific copy at home, but I have two others with me so it should be no problem, right? Wrong, it will accept neither of them; they are too new. After a trip home and back and ten minutes of hardware tests, again the number is accepted, but, NO, this machine has an operating system installed; the gall! You need a different disk. After one trip to the computer store for an "update version" and ten minutes of hardware tests, AGAIN I'm finally into the thirty minutes of installation. I can now use the computer again.

A crazy recursive dream where each step seems to bring you back to where you started, seemingly never able to get anywhere? Nope, a true story. If you were unable to guess, I am not talking about my Amigas. I'm talking about my computer in the office. A 100MHz 486 Gates Crate running Windows 95. On Tuesday of this past week it was only able to come up with a message saying it was unable to load Explorer, a major part of OS, and Windows needed to be reinstalled. That started my two-day start and stop installation where each misstep leads you back to the very beginning of the process, complete with hardware examinations and Scandisk scans of every hard drive. The setup process doesn't even make sure you have enough space to install until the second disk and 10 minutes or more of your time. This is a procedure I will remember well. Even some of the worst Amiga installer scripts I've seen don't come close to the poorness of Windows 95's setup.

Just one more piece of evidence to the power of a small, fast operating system. Thought I should share it with you all.

Contributed by: Anthony Becker, Executive Editor

Vulcan Software Announces Amiga Hardware

Vulcan Software have decided to enter the arena of Amiga hardware with two announced games-related products. One is an analog joystick adapter which is just perfect for the game reviewed this month, JET Pilot. The other product is a parallel port adapter to allow you to plug in two extra joysticks for multiplayer games. Just perfect, I would guess, for Vulcan's multiplayer demolition derby in the future, Burnout (to be reviewed next month). These products should be available wherever you find Vulcan's software sold. You can find out more from Vulcan's web site at http://www.vulcan.co.uk.

Contributed by:Anthony Becker, Executive Editor

-Edited by Anthony Becker-
Write to him at commodoreuser@juno.com

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Just For Fun

To while away the weeks while the trustee ponders.

As the Executive Editor, I would like to welcome The Amiga Monitor's first advertiser.

The Gates Crate!

Have you ever left the computer store wondering if the box you bought has what it takes to run the latest in bloated operating system, only to get home and find out that you needed hundreds of dollars worth of add-ons to be in compliance before the setup utility would let you use your new toy? Have you ever asked the question, "But can't I just upgrade my old machine to run the new software?"

Well, we at Gates Crate have ended the endless questioning. We have put together all you need to run the latest from Microsoft. What kind of video card does it have? You don't need to ask because you don't need to know. Through our crack engineering staff's years of pondering we have finally come across the one big truth behind the PC myth. The hardware is merely a casing for the sale of a Microsoft Operating Systems. Which one, you ask? Well, the latest one, of course! As we all know that is the only one that matters. We have even eliminated that pesky human urge to deny progress by either trying to upgrade the old crate to hold the new OS and, dare we mention it, the rumored attempts by end users to use old, wornout operating systems. How have you done this great thing, Gates Crate, you ask? Our Gates Crates, much like your milk, have an expiration date. Yes, after an operational lifetime of 2.5 years your Gates Crate will demand its deserved rest, giving you one month to purchase your new Gates Crate. Does the Gates Crate come with the latest operating system, you ask. Of course! Is there any other operating system? We didn't think so.

So, run right out and take the hassle out of computer buying. Get a Gates Crate today!

-Executive Editor, Anthony Becker takes all responsibility for this. In his ↩
    defense, the original Gates Crate idea was originated by one Robert Calabro, ↩
    former Commodore Regional Product Demonstrator.
Write to him at e-mail address commodoreuser@juno.com

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Lame Humor Department

                            [Comic]

                          By Kyle Webb

Kyle Webb, ©1997; Excelsior Digital Publishing, ©1996-1997

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                          Upcoming Stories

What you'll see soon in The Amiga Monitor:

* The next edition of The Sam Report
* The next segment of The Amiga Gaming Retrospective
* The continuation of Steve Duff's "Becoming an Amigan" story
* Review of Final Writer 97
* The continuation of Jim Kuzma's series on the history and direction of ↩
  computers
* How innovative use of PC parts can give CD-ROM capability to a maxxed-out Amiga
* Amiga Online Options
* Review of Burnout
* Coverage of Amiga 97
* And more!

Look for Volume 1 Issue 9 in Mid April

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                    Amiga 1200
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                    Blacks Editor v1.01 by Marco Negri

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