After nearly eight months, I still get mail asking things like, "who are you," and "who is this third Amiga guy?" Well, having enjoyed relative anonymity, I was asked to now put fingers to keyboard to answer some of these questions as well as to tell you a bit more about our direction and goals.

So, who am I, where did I come from, and where is Amiga going?

Before coming to Amiga I was a banker first and foremost, with a strong background in finance and sales management. Most of this experience came from Canadian banking institutions, namely the Bank of Montreal, Royal Trust and the Royal Bank. Upon my departure from the banking industry, I moved to the technology field where I worked for QNX as a sales account manager and ultimately as the regional sales manager. While at QNX I was responsible for opening their office in Silicon Valley and managed several key accounts for them, including Gateway and the Amiga account. Most recently I established the sales and alliances function for an exciting new Java start-up company called Thinweb Technologies, who were just approved by the SEC and by NASDAQ for their public offering.

Not too long ago I was contacted by Bill McEwen and Fleecy Moss with an offer to partner with them to acquire Amiga and play a pivotal role in the building of this company. Presently, I am a co-founding partner and the Vice President of Sales and Strategic Alliances. I'm also the Third Amiga, as many like to say.

Apart from my background in finance, sales management, and a history with both established companies and technology start-ups—which will help Amiga attain its goals—there is an obvious friendship, respect and shared vision between Bill, Fleecy and myself. This carries over to everyone else here at Amiga, too. I am fiercely loyal to my colleagues, to our vision, to our community, to our

brand, and ultimately, loyal to our integrity. I am a gun hired to protect the integrity of our business plan, our future, our brand and that of our partners. I am here to ensure the success of Amiga by dealing with our best-of-breed partners, to ensure that our community is well served and that Amiga is once again a household name recognized for the excellence of its products and its commitment to the community.

The success of Amiga will be as a direct result of applying our values and vision to our efforts. Our success means success for those who use our products. Should anyone doubt my convictions or those of Amiga, just sit back and watch us grow.

Eight months have come and gone with a great deal of activity having taken place. We are pleased to have met our goal of building a team of foundation employees at Amiga. In fact, we have a team that is second to none. Many more things have come to pass, too. Amiga has built several key and strategic alliances. Some of these alliances you already know about, others will be revealed when the time is right. We have realigned and continue to refine our dealer network. We have made the legacy hardware more affordable. We continue to pursue a migration path for the Classic Amiga. Most importantly, we have released the Next Generation SDK, and accordingly have opened the doors for developers to work with us to create the future. This is indeed exciting because the Amiverse represents the first truly visionary change of philosophy in an operating system platform since the original 'Grin Factor' was inspired by the Classic Amiga.

In the coming weeks, you will learn much more about the Amiga Developer's Box and additional hires at Amiga. You will hear the rave reviews that we've been hearing on the SDK and hear from some of the thousands of developers who are using the SDK. You will see profiles on the Amiga movement in the mainstream media. You will feel the momentum and experience the focus and commitment of this team and enjoy the benefits of a rejuvenated community.

Ladies and gentlemen, this is a time of celebration. A unique and revolutionary OS—in fact the first truly binary-compatible cross platform OS—will change the manner in which users think and use their computer. It is called Amiga and it will bring the computing industry together and obviate the need for the plethora of conflicting and redundant operating systems in the world today.
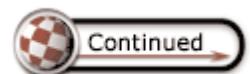
To paraphrase the terribly boring, but always correct management guru, Tom Peters, there are four measures that can be applied to an individual/company/community:

1) One must be a great teammate and a supportive colleague. This is the key to success for all of us, bar none.
2) One must be an exceptional expert at something that has real value. Amiga has provided a platform that is truly remarkable. The community has an unprecedented legacy and expertise in all things multimedia.
3) One must be a broad-gauged visionary: a teacher, a leader, or an advocate. This is the legacy of Amiga and it will continue into the future.
4) One must be a businessperson with business sense. We recognize that our future will not please everyone (though I think that we will). However, please judge the future on its merits. If history is any indication of the future, then we are all on the verge of epiphany.

In closing, I'd like to urge you to support your community and dealers with conviction and remember that my door is always open. We encourage you to share your thoughts and know that you will like what you see.

Randall P Hughes
VP Sales and Strategic Business Development
AMIGA INC.   randy@amiga.com

Contents

AMIGA WORLD®

Dean Brown: Building Legends

You've heard the rhetoric: Amiga will not make hardware. They are a software company. Platform-independence, abstraction layers, and virtual processors: it's all talk about software. Bottom line, though, is if there's going to be an Amiga computer again, there must be hardware specs—rules about what it will be and what it will contain. Therefore, someone must define those specs. Ideally (at least in the Amiga realm), it's someone with the knowledge, experience and vision to carry it off while keeping true to the philosophy that made the original experience so wonderful.

> **leg·end** [léjjnd] *noun*
> **1. old story:** *a story that has been passed down for generations*
> **2. modern myth:** *a popular myth that has arisen in modern times*
> **3. celebrity:** *somebody famous admired for a particular skill or talent*

Dean Brown got his first Amiga 1000 in early February of 1986, coming to the platform after several years running his own consulting and programming business developing for the Tandy Color Computer, Model III, and a MS-DOS clone from Sanyo. Frustrations with 'vapor product' led directly to what would become the legendary DKB Insider, a 1-Mb memory expansion card for the original A1000 computer. The Insider was one of the first peripherals available for this new platform, and the response proved prophetic.

"In early February of 1987, we built 250 boards expecting this to be sufficient for four months of sales, but the entire production run was sold out in two weeks," says Brown, and the response was world-wide. "I was getting calls from people all over the world—France, Japan, South Africa—which to me was just flabbergasting." Selling in excess of 6000 Insider boards in 1987 defined the true

beginnings of DKB Software. That success continued with other products, including the MegaChip and MultiStart that were dear to many Amiga owners' hearts. "I was at one point selling 1700 MultiStarts a month," he says. "They went in, did the job, and people forgot they were there, for the most part."

In many ways, this is the definition of reliability, a topic Brown is passionate about. "In designing a product, you do a timing analysis to find out whether or not things are going to respond within the correct amount of time," he explains. "What I noticed was there were a considerable number of products out in the marketplace using typical timings of the components, rather than worst case. If you go to worst-case timings and make certain that your product works under worst-case circumstances, it will be a more reliable product." As personal computers see huge varieties of less-than-ideal temperatures, electrical service, and operating environments, that reliability becomes essential.

Superior reliability is great, but people still have to buy your products. When the Amiga market dried up during the 'dark time' after Commodore and before Bill McEwen, Brown was forced to seek alternatives.
"I can't say I ever abandoned the Amiga market, but I did de-emphasize it," he says. "In '97 I had to close the doors of DKB as it was no longer supporting my family. For
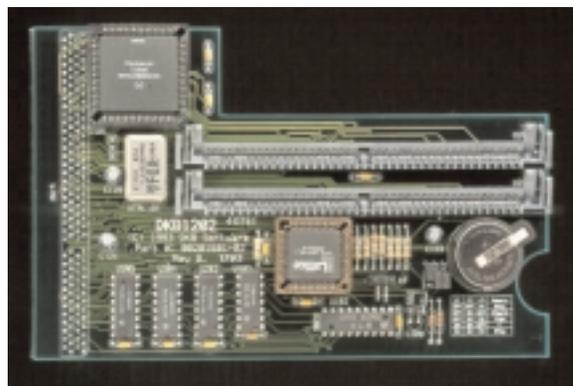
almost two years I supported the market as best I could through arrangements with Joe Rothman of Mr. Hardware Computers." But when Rothman died, that essentially ended.

Brown's passion for the platform remained, and again found purchase in the formation of the Industry Council
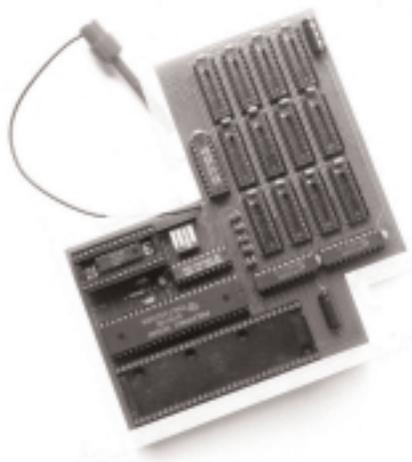
on Open Amiga, or ICOA. "The objective of the group was basically to put together a set of standards by which people could design the next generation Amiga. 'This is the way we're going to do things; this is the standard we're going to set,' explains Brown. And everybody's going to work toward that standard." This focus shifted slightly when Gateway got involved. "The thought then was that we could provide our services as an interface with developers and provide market intelligence about what people were looking for."

Things initially looked positive. In August 1997, the ICOA Steering Committee was flown out to Gateway to present their case. Because Gateway showed an interest, the ICOA backed off a little. "If we had a company that was going to be driving the machine forward, the ICOA's basic focus would no longer be as critical," says Brown. "Unfortunately, it came out that Gateway had no clue what they were doing themselves, nor any interest in furthering the Amiga marketplace, and the end result was the ICOA died a slow and painful death."

Some positive did come out of that phase, at least for Brown. He met Fleecy Moss, first online, then in person at a dealer open house. "We hit it off right away," he says. "We have many dreams in common." Like space exploration and spicy food. And the possibilities of computers, "like how and why the machines of today are not doing the job they should be doing," he says. "For example, user-interfaces are really targeted at tech-heads." He goes on emphatically. "If you're trying to break into a much larger consumer marketplace, you have to provide an interface that's comfortable for people to use."

The synergy Brown and Moss felt stuck with them. "Just prior to Amino Development purchasing the Amiga assets from Gateway," Brown explains, "Fleecy and I began discussing future directions again. It really came as no surprise when I was asked to work with Amiga." Brown first contracted with Amino/Amiga, helping to define and develop Amiga's first products. Then came an offer to work full time. "As of June 5, I am now a full time employee," he says. And his position will fittingly be as Director of Hardware.

> *"You become a champion by fighting one more round. When things are tough, you fight one more round."* – James J. Corbett

The job has several responsibilities. "First and foremost, my job is to create the test platforms that will be used by the internal software teams," Brown explains. This will result (initially) in systems that look very similar to existing computers. "These same platforms, or modifications of them, will be made available to our hardware partners as reference designs. In the medium term, I expect to develop a new architecture that addresses many of the issues that plague current computer systems. Issues that in inflexible operating systems cannot be fixed," says Brown.

"If you look at architectures today, you see a whole bunch of processors running at the gigahertz range. If you actually benchmark performance between a 500 MHz processor and a 1 GHz processor, you'll find the actual increase in performance is very small," says Brown. Small to where doubling the clock rate only results in maybe 20% faster performance. The reason is simple. "The gating factor is not the speed of the processor. It's how fast can you move data in and off the system." What's worse, he continues, is the current trend to drive prices down by speeding up the central processor and having it do more work. It's a centralization trend disturbingly analogous to mainframes versus personal computers.

"Distributed processing is where I want to go." There are lots of problems, he says, "But
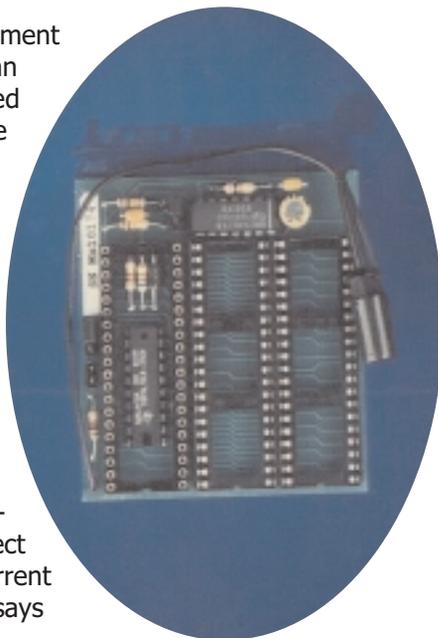
quite honestly, Tao has a big chunk of the problem solved." Tao is able to run software on multiple processors without changing the base code. "At load time, the Virtual Processor translator translates from the VP code to native code, which means that which translator it's loaded with determines which processor it's running on. That's a very powerful thing," Dean points out. "The end result is we can have multiple processors in a single system, and the code can run on whichever processor is best suited for handling it, all decided at load time." Additionally, he explains, where a CPU-centric system has to actively pass data multiple times to execute one action, in Tao's distributed model, the only concern is that the data transfer happened. This allows the use of multiple, smaller, cheaper processors that collectively deliver performance exceeding a 'faster' CPU.

Distributed processing is philosophically similar to the classic Amiga architecture with its custom chips, though there are fundamental differences. "The custom chips were very specialized, architecturally tied to the operating system," Brown explains, "so any time you wanted to make a [hardware] change you had to completely rewrite the OS." Combined with Commodore's misguided encouragement of code that accessed the hardware directly, what resulted was essentially an upgrade deadlock.

"We're not going to let that happen this time. Commodore's handling of the Classic Amiga was haunted by the attitude that all legacy applications had to run on multiple OS and hardware versions. This prevented the Classic Amiga from taking advantage of newer technology," he adds. The abstraction layer methodology central to the new architecture will serve this 'backward compatibility' purpose in the new Amiga, an idea Brown is passionate about. "I promote that applications that attempt to go around these abstraction layers be deliberately broken!

"Shortly after we release our first real hardware that's natively running the new operating system, there will be another machine that is hardware incompatible with it running the same OS." Applications will be tested on both side by side. "Our precedent here is: If it works on both of these machines, we know it's not banging the hardware," and therefore a truly 'OS-legal' program, he says.

> "Everything that can be invented has been invented." – Charles H. Duell, Commissioner, U.S. Office of Patents, 1899.

"We're trying to create something that's brand new," he says. "There will be some missteps along the way, I'm sure of it. As far as I'm concerned, a truly progressive company is the one that's able to look at it, determine what those missteps are, correct them and move on," explains Dean. He sure sounds like his feet are firmly planted on the ground.

It's somehow fitting that Dean Brown, long-time Amiga fan and developer, one of the first Amiga icons, is part of the new effort, poised to influence what very well could redefine computing, as we know it. Lofty aspirations, perhaps, yet we don't usually accuse legends of striving to underachieve. "I 'came back' to the Amiga because of the opportunity to make it something that is far more than what is available today," says Brown. "We have an opportunity to break free of the baggage that retards progress, and I for one am thrilled to be a part of that!"

Inside Haage & Partner

Steadily, the development world is being attracted to the New Amiga Digital Environment (DE). While the New Amiga has great appeal to large developers outside of the existing Amiga community, it certainly has brought with it many of those who are well know for their Classic Amiga development. A good case in point is long-time developer and Amiga software publisher Haage & Partner. They are currently creating an integrated development environment and an ARexx-compatible scripting language for the New Amiga.

Amiga World interviewed Haage & Partner spokesman and Webmaster Markus Nerding and asked him about H&P's plans for the New Amiga. He told us that preparations for a new generation of H&P products began two years ago, a decision which will no doubt place the company in a front-running position when Amiga's new Digital Environment—or Ami as it will be called--becomes available.

"Elate is a great and reliable foundation for our developments," says Markus. "It has continuously improved since we first saw it, and more and more features have been added that will make our programming work easier." The H&P programming team particularly appreciates the unique Virtual Processor that will be at the heart of Ami. The programmer is no

Markus Nerding

longer concerned by the problem of different CPUs, because the binary program that he generates will run without modification on an incredible range of computing platforms—forty different platforms at last count. Other strong points of Ami are its fast Java Environment, and its incredibly small size.

What about programming for Ami? Is it a huge departure from working with AmigaOS? Did the programming team have a big transition to make? Markus replies that there are some new concepts, naming conventions, and calling conventions to get used to. But these are relatively minor, and it's "quite easy" to port Amiga sources to the new system. And when difficulties are encountered, Nerding reports that Amiga's developer support is "quite good" at responding to the problems.

The first product from Haage & Partner for the New Amiga will be StormC, a complete software development environment. StormC has been an ongoing project at Haage & Partner for the past six years, and is already widely known by Amiga programmers. Two years ago H&P decided to make the whole environment more flexible and more portable. The current version for the classic AmigaOS already shows this evolution, with several independent components communicating through a special ARexx interface. This makes the entire IDE (Integrated Development Environment) extremely flexible, permitting it to be easily extended, or partially replaced by other external components.

An example would be the incorporation of a Revision Control System (RCS), a suite of programs that tracks changes in text files and controls shared access to files in workgroup situations. Another example is the ease with which the compiler can be replaced by the GCC compiler from Tao, which outputs Virtual Processor (VP) code.

During the past two years almost all the different components of StormC have been redesigned to make them platform-independent, and also independent of the graphical user interface (GUI) system. Currently Haage & Partner is using its own set of BOOPSI extensions for this (called Storm Wizard GUI Development System). This means that the Storm IDE is ready for an easy port to a platform other than the Amiga classic. As soon as Haage & Partner receives a more mature version of Ami from Amiga, the project will be finalized.

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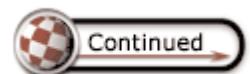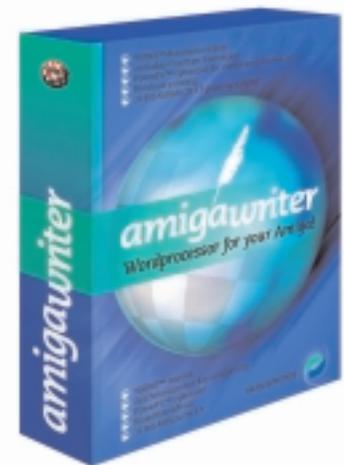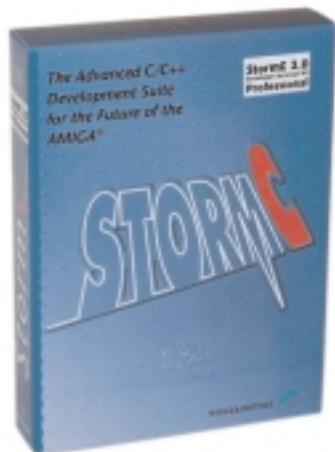
Another product currently in preparation is StormREXX, H&P's own version of ARexx, the powerful scripting language widely used in the classic Amiga world. The StormREXX project was born some years back for a planned AmigaOS running on a PowerPC processor. The original version of ARexx could not easily be ported, having been written in assembly language. StormREXX is compatible with the original, and is enhanced with object-oriented extensions. Use of a third-party Rexx scripting language in the New Amiga system would make it easier for developers to port their classic software and for users to port their custom scripts. And of course, there would be no need to learn another scripting language. "We are on the way to finalizing this project, so StormREXX will run on Ami very soon," says Markus.

Once the development system is completed, Haage & Partner will start to port its classic applications: The word processor Amiga Writer (which recently went to version 2.2) and the graphics processor and paint program ArtEffect (now at version 4.0). Both these products started to be reworked two years ago with future porting in mind. They are now both 100% written in C or C++, so the principal task will be changes to the GUI system. Depending on the characteristics of Ami and its tools, this task could take between three and six months for each product.

Would Haage & Partner be interested in creating completely new products for the New Amiga? Affirmative, says Markus. "There are a lot of products that we can imagine doing for the New Amiga. Most of them are related to the StormC or AmigaWriter projects. But first of all we have to take the first steps. And this also depends on what software other companies do for the new system."

We asked Markus what type of transition plans H&P has in store for WarpOS and PPC boards in regards to the New Amiga DE. "As far as we know Amiga/Tao Group have not yet decided how this can best be done," says Nerding. "We are prepared to help with these matters by drawing on our experience with the PowerPC and AmigaOS. When Tao does a PPC-Linux version it should not be a big task to port that over to PPC Amigas as well."

Concerning legacy emulation on the New Amiga DE, Markus noted that there are several different approaches possible, one being an "abstract" emulation like UAE, which Amiga Inc. is already experimenting with. Another possibility would be to do a more native emulation under the Amiga Environment. H&P is working closely with Amiga Inc. to find the best solution to this important area.

What about upgrades to the classic Amiga OS, and how might they interact with the New Amiga? "Here too there are a lot of possibilities," explains Nerding. "Maybe it is not that obvious to the public, but development on the Classic AmigaOS has never stopped. We are currently finalizing the second BoingBag release, which will contain more features, bug fixes and maybe some new components as well. Most of the parts that we want to see in that release have been in beta test for some time, so we think it can be released quite soon."

More exciting developments are sure to come from Haage & Partner and other companies as the New Amiga continues to mature and build momentum. H&P has always been an innovative, successful company and a strong supporter of Amiga. It looks like they plan to bring their past successes with them into the future with the New Amiga.
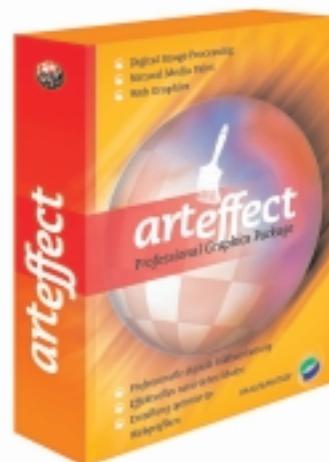
AmiOpen

Having roots in the Amiga community creates a certain mindset in a person. One of these mindsets is the concept of sharing and the word Amiga is almost synonymous with concepts like freeware, shareware, and giftware. The Amiga community abounds with shareware and the repository for this wealth is Aminet. This one institution, with its nature of providing freely distributable software, is arguably the single most significant reason the Amiga has survived as a platform to this day.

Many of the Aminet programs were written by programmers to fill the void left from Commodore's bankruptcy. Today, just as many write programs for the Amiga—with its streamlined and elegant OS—because programming on the Amiga is a joy. They are looking not for profits but recognition and release their work for others to enjoy. They are coding on the Amiga "just because they can." Through these unselfish contributions, Aminet became a lifeline for the Amiga community and this instilled the mindset that the open-spirited Amiga community was a cut above all the rest.

This Amiga open spirit continues today. It should be no surprise that Amiga Inc. wants to carry this open spirit into the future and will do so by providing some portions of the new Amiga Digital Environment, or the Amiverse, as Open Source—or *AmiOpen* as we like to call it. We think this will stimulate innovation and allow any developer to make additions, changes, or advances to the Amiverse, "just because they can." We think this will enhance and strengthen the Amiga Digital Environment (DE). We believe strongly in the value of both Open Source and Commercial software development and intend to put these beliefs into action in our developmental process. The Amiga has always been about innovation, being the best, and doing things "just because you can."

AmiOpen differs slightly from the Linux model of "free software" in that Amiga Inc. will incorporate open source with commercial IP. Most of the utility programs we need as a Digital Environment are open source and easily portable. This gives a wealth of porting experience right out of the box for Amiga DE programmers.

Work for the AmiOpen project is well underway with sev-eral utilities and demos already being ported to the AmigaDE. A few of them are: W3M; Bison Parser Generator; bzip; Chunker; EUAE, a port of UAE; Ewinease; Artix Free Utilities; Gawk; Gzip; Inital IxemulNG Code; Juggler, The Classic 1986 Juggler Demo; LhA; PGP, SOX (Sound Exchange); tar; Tunnel, a simple AVE tunnel effect demo; Units, a Unit System Converter; Externals, Doom and Quake demos; and Jzip, Level9, and Magnetic, which are Text adventures. Work on larger projects is also underway, including a commitment from Doug Mclaughlin to port Stricq to the AmigaDE as well. If you would like a look at what is currently available or would like to upload your own ported work you should visit: ftp.amiga.com/developers.

Amiga Inc. intends to blend AmiOpen and Commercial software development along with hardware independence into the most advanced computing experience possible. The core features of the Amiverse will be handled internally by Amiga and will not be AmiOpen. Residual Amiverse features like tools, drivers, editors, some of the interface layer development, as well as exciting new enhancements like MP and VMM, can easily be enhanced and/or developed by an AmiOpen movement. In addition, there are literally thousands of great Open Source projects that could be ported over in quick order.

Amiga has established several initiatives to further this goal, the first of which is an open mailing list for developers at: open-request@amiga.com. This mailing list is for developers who wish to talk openly about the Amiverse and/or developmental tools, and who would like to assist with or become involved with this process. Our goal is to make as much of the Amiverse as possible easily accessible for all developers while still maintaining intellectual property rights. Amiga believes that a fully closed-source developmental program limits innovation. By opening up some of the Amiverse to the developmental process, Amiga hopes to capture the spark that has always been inherent in the Amiga community.

Shortly, we will implement bulletin board messaging systems that are open to developers so that they can share ideas and
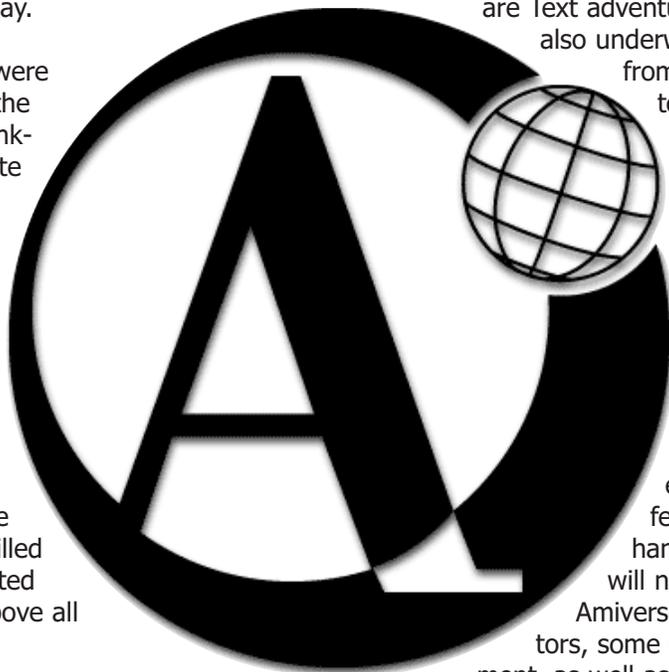
assist each other in the developmental cycle. This will function as a pool of information that developers can reference to help with problems, bugs and software specifics. Other support structures, such as email support (from a staff of support techs located in various time zones around the world), CVS, Bugzilla, and Developer specific news will be available as we move along in the process.

In addition, our web-enhanced support structures will be home to commercial development. We have many commercial developmental partners on board with more coming every week. These partners will add many games, tools, drivers, and applications considered mainstream on other platforms.

We are inviting developers across community lines to come help us build our dream and they are responding to these requests by the hundreds because people are looking to find a fresh alternative to the same old thing. Many former Amiga developers are back. We have developers offering their time from the Linux/Unix, BSD, and many other computing worlds as well. We understand that coding is not just a job to most programmers, but a passion. We hope to encourage this

passion by offering an AmiOpen option with the Amiga.

Few companies take the approach of mixing Open Source and Commercial aspects of software development the way we have chosen, but few companies have the platform independence that Tao Elate/InTent gives us. Some might think this approach controversial, but we think it will offer us momentum, innovation, and positive results.

This is about "The Dream." We need each of you to help build the dream for those of us who have believed all these years. Imaginative developers will recognize real opportunity in writing plug-ins, tools, drivers, and applications for the Amiverse. AmiOpen lets them achieve this opportunity without all the constraints inherent in Closed Source development.

Amiga hopes that the readers understand what we are trying to achieve and encourage you to send in your thoughts. We certainly appreciate the outpouring of response we have gotten so far and would expect nothing less for the Amiga community.

Contents

AmiWest From the Developer's Eye

The Developer's Eye: A report from AmiWest

AmiWest 2000 was gearing up to celebrate its third year as developers and dealers began to arrive on the Thursday and Friday before the show. The usual last minute crisis
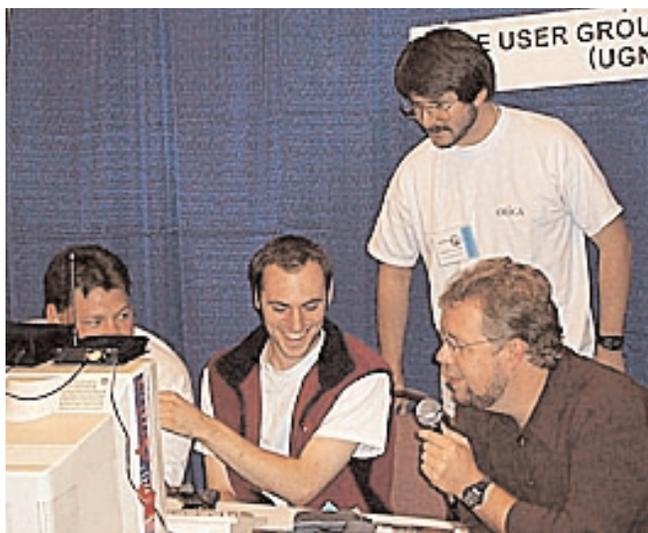
McEwen and UGN members broadcasting live to the Internet

here and there had everyone rushing around, calling their offices and shipping companies, but most everything settled down in time for the show on Saturday. The biggest disappointment was that the new d'Amiga Developer Workstation, which Software Hut had arranged to have at the show, was lost by UPS and didn't make it to the show in time for everyone to see it in action.

Friday night Kermit Woodall (your reporter) hosted an Amiga Developer meeting on the exhibit floor and stage to discuss various issues concerning developers. Compliments were offered to Amiga for the release of the SDK and the d'Amiga Workstation in such a short timeline. It was observed that these, following on the release of AmigaOS 3.5 for the Classic Amiga, had done much for resellers and distributors in the Amiga market.

The passing of Amazing Computing for the Amiga Computer (aka: Amazing) was sadly noted. This magazine had been a mainstay of the U.S. Amiga scene since the beginning and its loss is keenly felt by developers who now lack an advertising source that reached as wide an audience as Amazing did. G&G Publishing recommended everyone to their new Amiga publication, called The NEW AMIGANS. It was also suggested that the User Group Network (UGN) should prompt their member user groups to promote the advertising pace in their newsletters more

aggressively to developers. Perhaps with all of these resources, developers can once again reach their target audience - at least to some degree. There is also the promise of the UK's Amiga Active coming to the U.S. as well.

The meeting ended after some roundtable discussion and hopes were voiced that Amiga might be able to offer more financial benefits and direction for developers directly or some program that might benefit Amiga developers the way current programs are benefiting resellers.

Saturday the show opened with a presentation of the BoXeR Amiga system. Previously announced by Access Innovations and Blittersoft, the rights to this system were bought last year by California-based Anti Gravity, who plans to launch a new line of Classic Amiga architecture systems using far more advanced hardware designs. Mick Tinker, the original designer, has gone on to work for ARM in the U.K., but has continued to work on the design. In a surprise announcement, it was revealed that Anti Gravity had hired former Amiga/Gateway employee Joe Torre some time ago to oversee and complete the hardware design of the BoXeR for them. Joe Torre is highly regarded in the Amiga developer community and his involvement in this project was welcome news for all. Anti Gravity's Dan Lutz and Scott Sutherland had many meetings throughout the show with Amiga developers and the promise of a much-improved and faster Amiga platform, for people using the current architecture, seems much closer finally.

Saturday night Bill McEwen spoke at the show's banquet. He quickly demonstrated Amiga/Elate in a hosted environment under Linux and Windows and showed how the same binary can be shared and run by both systems. While McEwen did not specifically make note of the following, many in the audience observed how much faster and smoother the demo ran under Linux as opposed to Windows on what appeared to be otherwise identical hardware platforms.

Bill showed videos from his recent appearances on CNN:fn and ZDTV to an appreciative audience who for the most part had not had the chance to see these in anything but a small window streamed over the Internet.

He mentioned that the SDK is selling better than forecasted. Amiga have been in contact with numerous major consumer electronics and software companies, including (and I quote) "every major gaming company out

there". Many of these already possess the SDK. Interest from major companies particularly picked up after Bill's two recent TV appearances. Specifically he noted that Amiga was able to directly track the sales of SDKs sold through Amazon.com to several major companies.

The AmigaOne, the next generation Amiga reference platform, is currently targeted at December of this year for release. Based on Amiga's own customized motherboard design, and using standard parts, the AmigaOne will be the first product designed by the in-house hardware division which is led by Dean Brown. Dean, formerly of DKB (an Amiga hardware developer), is creating custom hardware designs for various devices that will be then offered to 3rd parties to manufacture and use as reference designs.

A version of the SDK for Windows will be made available next month and will be sporting a brighter and more upbeat box design. Some have criticized the current SDK box as being a bit dark apparently. Amiga's new SDK box design is quite nice and shows a Boing in the process of being constructed.

Amiga Zone's Harv Laser (L) tending shop at AmiWest

Photo by Harv Laser

The SDK license issues have been of great concern and the focus of a number of informal developer meetings online and off. Bill clarified all of this when he revealed that the license included in the SDK was incorrect and was not intended for release with the SDK. The final information (as of the show) was that no software developers would be forced to pay royalties. The program is a voluntary certification process that they can sign up for. The program puts the software through a certification process, which will result in their products receiving an official Amiga "badge" and the opportunity to have their product co-op marketed by Amiga in various campaigns. This will cost 5% or just $1.50 per sold item.

During a discussion of the d'Amiga Workstation, it was also revealed that the "$1000" developer support package that is included with the d'Amiga would include having a specific developer support person assigned to the developer, a ticket to an upcoming Amiga Developer Conferences and more. Developer reaction to this information was very positive.

Some other tidbits: Red Hat will start selling the SDK next week. Sun has started using Amiga software to demo Java stuff. There are going to be public beta releases of the AmigaDE prior to release. There is going to be an Amiga IPO. Paul Nolan (author of Photogenics) is now doing contract work for Amiga in the User Interface division. Amiga will start offering low-cost promotional merchandise to user groups. An ARM produced (and designed by Mick Tinker) touch screen unit was demonstrated showing Amiga/Elate running in native mode. The prototype was designed for vertical markets and is completely solid-state constructed.

For current Amiga developers one of the most welcome bits of news was that backwards compatibility to the Classic Amiga from the new AmigaDE will be dealt with by an Emulation Layer. They've also ported UAE to the new AmigaDE, but the Emulation Layer is to provide a far more transparent method (compared to Mac OS X's handling of legacy applications) for current Amiga applications to run directly on the new AmigaDE.

Sunday the show closed on a note of optimism. Sales had been brisk all weekend and some developers, such as Nova Design, even sold out of the entire product line they brought with them! Developers are happy with the positive steps Amiga is making and hope this trend will continue. After a long time of tightening their belts, Developers and users alike are finally starting to look to the future AmigaDE with some hope of a bright future.

Contents
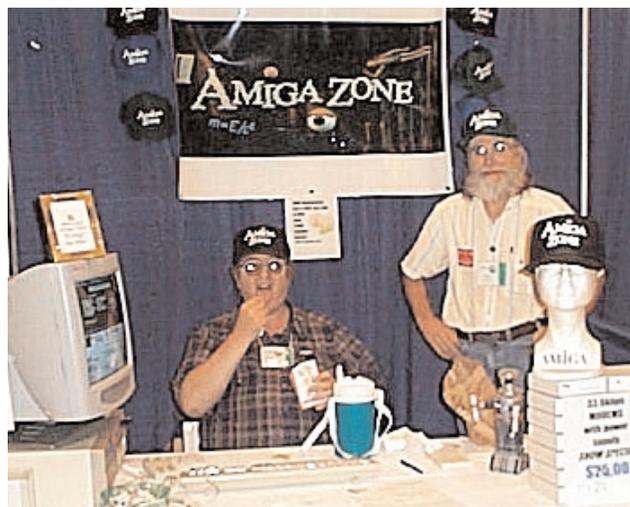
Mesa and The Amiga

Ask any serious graphics developer what the king of 3D graphics programming interfaces is and he will probably say Mesa. Based closely on Silicon Graphics' OpenGL 3D library, the Mesa 3D library offers the highest levels of acceptance, compatibility, and performance, on the vastest assortment of platforms. You are probably already using Mesa on your 68k-based and PowerPC-enhanced Classic Amigas.

Developers use Mesa to deliver 3D applications on Classic Amiga through Haage and Partner's StormMesa implementation, and legions of developers are using Mesa on Linux to deliver blindingly fast high-res video games. Mesa, with its OpenGL roots, is likely the most ubiquitous graphics programming standard in the world.

Amiga Inc. is leveraging the ubiquity of Mesa in creation of the Next Generation Amiga 3D API. Drawing on the best available resources, this new Mesa implementation gives game developers proof that cross-developing on Amiga is easy. In fact, with the appeal of the Amiga's Virtual Processor and the real time nature of Intent, Mesa is the icing on the game designer's cake.

Jonas Gustavsson, Amiga's Head of 3D Development, calls Mesa, "one of the most approachable APIs out there," and adds, "the fact that most game companies need OpenGL (or [something] similar) is one of the main reasons Amiga chose Mesa."
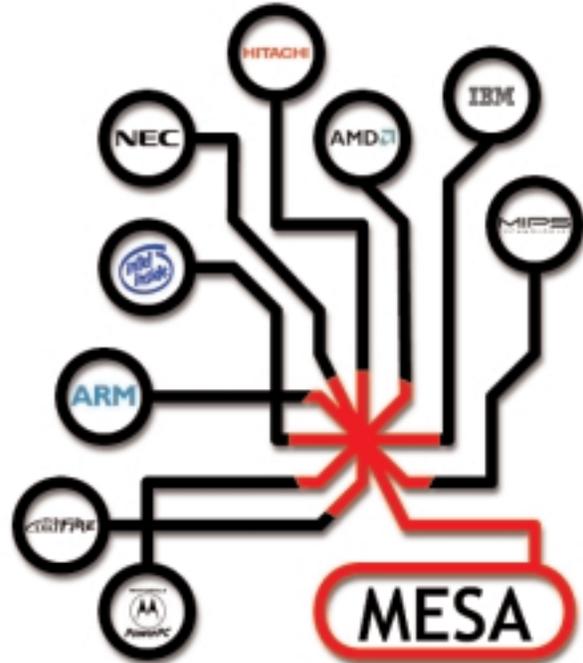
This is confirmed by id Software's John Carmack, creator of such groundbreaking first-person 3D titles as Wolfenstein 3D and Quake and a living legend in the field of video game development. Carmack is a strong proponent of alternatives to Microsoft's Direct3D (a closed, Windows-only 3D API), and has been very vocal about exposing the inefficiency of Direct3D when held up to OpenGL.

In one example, Carmack wrote some code that called Direct3D to perform a simple 3D operation. Then, he wrote some code that called OpenGL to perform the same operation. The Direct3D code was several orders of magnitude larger, both in form and function, than the OpenGL code. Such are the advantages of Mesa.

Thomas Freiden, of Amiga game developer Hyperion, sums up the advantages of Mesa by saying, "Application programmers will find Mesa to be a complete OpenGL [implementation], so they should be happy. Game developers will also be happy with it." Not surprising, considering the origins and development model of Mesa. Thomas continues, "Mesa is a freely available Open Source implementation of the OpenGL 3D API. It's compatible with OpenGL 1.2, minus some seldom-used functionality."

To firms like Hyperion, this means unequivocal gaming compatibility among different types of display hardware, especially as 3D performance in hardware is accelerating at relativistic speeds. But add the new Amiga operating environment into the Mesa equation, and suddenly that compatibility gains a whole new meaning.

At the Java One conference in June, parts of the Amiga operating environment were demonstrated running on a Sega Dreamcast video game console. Coupled together with hardware drivers and Mesa, a single base of compiled 3D code can be run anywhere the Amiga operating environment runs, be it on a Sega Dreamcast, a PowerPC Classic Amiga, a Windows NT PC, an iMac, a Linux workstation, or something we haven't imagined yet. With the Amiga environment and Mesa wrapped around their pre-packaged software products, video game developers won't have to port games between platforms any more.

Of course, the widespread adoption of Mesa doesn't solve the problem of porting applications that use non-compatible APIs like Direct3D. While there are some similarities between Mesa and Direct3D, porting from Direct3D is far more complicated than porting from OpenGL.

Moreover, developers who rely on inline assembler for their particular platforms need to convert that code to VP. While this may be somewhat of a challenge, the advantages of VP are more than obvious: it's the most friendly assembly language you'll ever meet, and it runs anywhere the Amiga operating environment runs. The conversion process is simplified by the development tools provided in the Amiga Software Development Kit.

Jonas Gustavsson points out the appeal of Amiga to game developers, particularly those who use OpenGL or Mesa in their programming. "The whole approach of VP technology (compile once and run everywhere) is most beneficial, but the fact is that desktop PCs today are fighting a losing battle against the consoles. Game companies are more and more hesitant to write games for computers instead of consoles. What Ami [the codename for the new Amiga Digital Environment] and Mesa give game developers is a solution where they write the game for Ami, and ship one CD or DVD with the hosted [or] non-hosted version of the game. The consumer just loads the game as usual."

This approach can be used for any supported platforms—hosted platforms like Linux, Windows and WarpOS/Classic Amiga, or non-hosted platforms like x86, PowerPC, Mips, Sparc, etc. This will likely be extended to include the video game consoles, too, so just one binary is all the gamer has to worry about.

When asked what he thought about the appeal of Mesa to potential Amiga developers, Thomas Freiden says, "Amiga is offering the opportunity to use an industry-standard API, but I don't think Mesa will attract developers to the Amiga. Amiga will attract developers."

Amiga's Mesa development team includes graphics programming experts from around the world, including people from firms like Matrox, Tao Group, Precision Insight, and Hyperion, in addition to Amiga's own interface team. Jonas, a self-confessed home theater junkie and long-time computer graphics engineer, leads the effort. Jonas is versed in the notions of particle effects, character animation, rigging, lighting, and compositing. He's been working for years on television commercials.
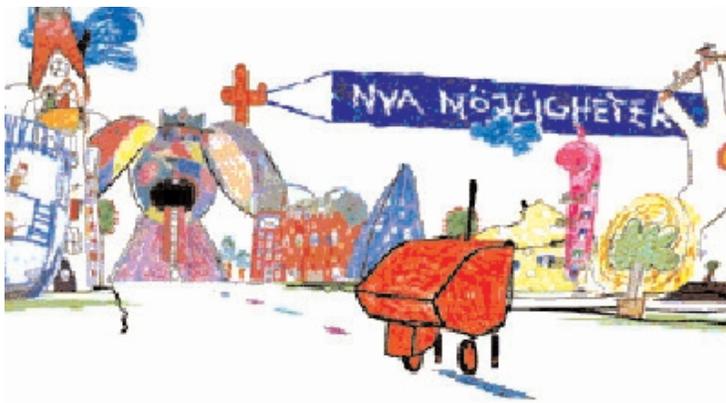
A Still from Jonas' Short Film *New Ideas*

One of Jonas's most recent projects was an advertising campaign for Swedish infrastructure construction contractor Skanska. The video segments animated by Jonas included 3D-rendered animation that resembles a children's crayon drawing. Fashioned using a variety of graphics tools including Lightwave for rendering and modeling, the 50-second piece includes speed and weight controls for animated cars with their own suspensions, weather effects, and automated traffic motion.

The project, titled "New Ideas," won the Best in Show award from the 2000 Virtual Film Festival in its Commercial Film category. Jonas is applying his own new ideas and award-winning principles to the principle development of Amiga 3D technology.

Backed by some of the top engineers in the business, Jonas, along with Vice President of Development Fleecy Moss and the Amiga interface team, are building the most appealing and revolutionary development environment for 3D software that has ever been created. A tall order, of course—but that's what makes it Amiga.

What users of Amiga technology can expect is a 3D system that is portable across platforms (due to the hosted Amiga operating environment), is very easy to develop for (due to VP), and offers stellar performance (due to the tightness of Mesa).

While additional graphics interfaces such as Renderware will become available for Amiga in the future, the Next Generation Amiga Mesa library enters closed beta testing in the next few weeks. Amiga developers can expect the 3D implementation as a part of the next Software Development Kit.
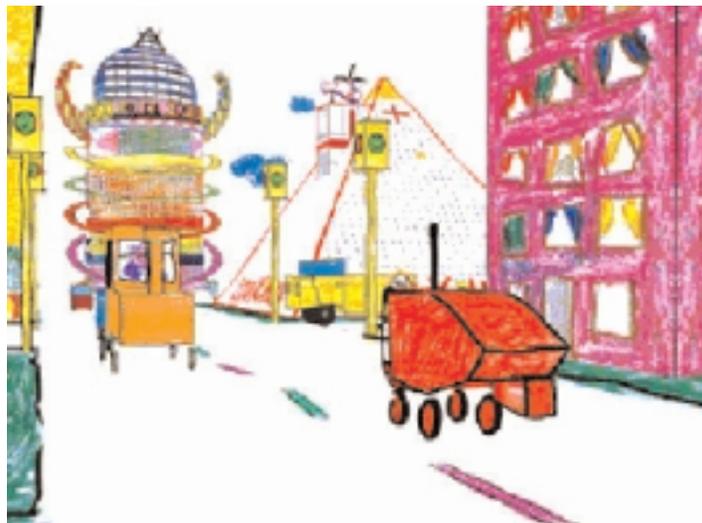
Jonas used Lightwave to Model and Render *New Ideas*

Contents

So The World May Know

The Amiga Digital Environment

The new Amiga Digital Environment (DE), codenamed Ami (pronounced Amie) is much more than an operating system. It is hardware abstraction, persistence, organization, multimedia, connectivity and user experience seamlessly brought together in a distributed service architecture.

It is best to look at the Amiga DE as a set of three layers. The lowest level is the Physical Layer and it is where the set of hardware resources can be found. This Physical Layer can contain anything from processors to storage devices, graphics and audio components to speakers, memory to printers, both local and remote, and on single or multiple devices.

On top of the Physical Layer, and responsible for abstracting that layer, comes the Amiga Foundation Layer, or AFL. Part of the AFL is the intent JTE (Java Technology Edition) from the Tao Group. The intent JTE consists of the Elate RTOS (Real Time Operating System), the AVE (Audio Visual Environment) and the J-Engine; a sun certified personal Java JRE (Java Runtime Environment).

Amiga is currently busy enhancing and expanding the AFL, examples being the Amiga Object Model (AOM) and a port of the 3D graphics library, Mesa—a cooperative venture between Amiga and Hyperion Software. Amiga is also working on a variety of services for the AFL, which include persistence, query, set and immigration. In addition, Amiga is working on a revolutionary common language that unites command line, scripting, control and serious application development.

All of these are necessary in order to allow for the third layer to exist; that third layer is the Amiverse. The Amiverse is a logical set of objects that has no knowledge of the quantity, quality or location of the hardware on which it exists. An Amiverse can exist on a single digital device, it can share a digital device or it can be spread across many digital devices. An Amiverse is first inflated and then users enter it. Once within the Amiverse, user can manipulate existing objects, produce and consume digital content, visit other Amiverses, import and export objects, add objects and services to the Amiverse and create organization and meaning.

The Amiverse becomes a home for elements from the Digital Content Universe: that total set of digital audio, video, graphics, text, applications, and services that are growing at an exponential rate in the world today. The Amiverse will connect and take advantage of all this emerging digital technology and put it at the users command.

The traditional computing model was computer and application-centric, with Digital Content relegated to data that sat on the periphery. The Amiga Digital Environment puts the Digital Content Universe at the center, with the many digital devices surrounding it. These devices provide the vehicles, which give access to that Digital Content Universe. In this way, activity and task are elevated to their correct position at the center of the human-machine equation instead of the user having to be slave to application and OS architectural decisions. Users will no longer have to think like machines to access and use digital content.

Contents

Welcome to the third installment of The Amiga Resource Center. In this issue, we bring you word of a couple of new Amiga print magazines. In addition, we begin our coverage of the huge multitude of Amiga-oriented websites that are just waiting for you to visit. Our space in this issue is limited, so please don't panic if you do not see your favorite Amiga news site or online magazine covered here. But please DO click on this link resourcecenter@amigaworld.com and send us the URL of your favorite Amiga news sites and online magazines for inclusion in future issues of Amiga World.

PRINT MAGAZINES

Magazine Name: **Amiga.Topcool**
Editors: Daniel Orth, Friedbert Baer
Country Published: Austria
How often published: 4 times a year
Format: black/white, Amiga only
Coverdisk: No
Language: German
Website: http://amiga.topcool.de
Time published: First issue in July 2000
Subscription price: 20 Dm/year
Distribution: worldwide
Comments: This is the new German Amiga magazine for only 5 DM.
Amiga World comments: Our German readers should also check out the amiga.topcool website, which is crammed with an enormous collection of up-to-date news articles and information, including exclusive interviews with Fleecy and Petro.

Magazine name: **THE NEW AMIGANS**
Publisher: Bill Griffin
Country published: USA
How often published: Monthly
Format: Black and white (expanding to color in the future)
Coverdisk: No
Language: English
Website: not up yet (will release info when initial website is up)
Email contact: wd8izh@beanstalk.net
Time published: 3 months
Subscriptions price: $24.95 (US), $34.95 (Canada and Mexico), $44.95 (rest of world). Send US funds or Visa/MC (along with full mailing address) to: G&G Publishing Enterprises, P.O. Box 447, Edwardsburg, MI 49112-0447, USA Or, Email your Visa or MC subscriptions to us. US customers can also use http://www.paypal.com and order with Visa or MC using the above Email address as the "Pay To" section (again including their mailing address).
Comments: We are currently holding a contest to come up with a logo for our magazine (co-sponsored by Easy Upgrades). The winner will be announced on the last day of the AmiWest show in California. The winner will receive an A1200 as a prize.
Amiga World comments: North American Amiga users haven't had a native print magazine since the closure of Amazing Computing. Amiga wishes Bill well in his efforts to fill this void.
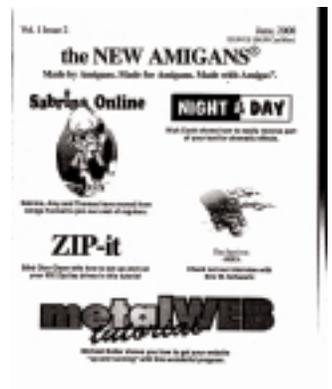
WEB-BASED AMIGA NEWS SITES & ONLINE MAGAZINES

Anyone anxious to write an obituary for the Amiga platform should surf the head-spinning number of news, magazine and "portal" type webpages dedicated to our favorite machine! Amiga World salutes the multi-national group of dedicated and enterprising webmasters who keep these sites rolling. Visit these sites often, email their Webmasters with positive comments, and make those hit-counters spin.

News Site Name: **Amiga Impact**
URL: http://www.amigaimpact.com
Editor : Stephane Campan, Nicso Entertainment SARL
Country of origin: France
Language : French (and English via handy Translator.go.com link!)
Site philosophy: Amiga Impact provides a daily news-service and a lot of useful services (Forum, Classified Ads, Mailing lists, etc.) to the French-speaking Amiga Community.
Time published: Since January 1999
How often updated: Daily
Email: info@amigaimpact.com
Special features: news, product reviews and discussions, events, discussion forums, and more.
Amiga World comments: This is a very professional looking, well laid-out and well-designed site. Beautiful to behold, with valuable resources (such as original product reviews and discussion forums) for French users.

News Site Name: **Amiga-news.de**
URL: http://www.amiga-news.de/
Editor(s): Petra Struck and a huge team of translators and technical helpers (19 people, and all work for free).
Country of origin: Germany
Language(s): Basic language is German with the following translations: English, Danish, Vlaams, Polish and French
Site philosophy: Bringing the latest AMIGA news to our readers
Time published: 2 years (in august 2000)
How often updated: Daily
Special features: We offer the following services: Amiga Link Directory (ALD) in German and English with rating system, Free Amiga Jobs in German and English, Bulletin-Board in German and English (uses helping users), Amiga News Forum, (where the community can submit news online). Amiga-news.de is also reachable via WAP; handy Newsticker via email (mailing list, currently only in German, but soon in English, too). Amiga-news.de is also published on Aminet-CD. Really nice cartoons ;-) Also workshops, reviews and tips-&-tricks area.
Amiga World comments: A huge effort on the part of many people, and it shows. Since the closing down of the old Amiga Web Directory, The Amiga Link Directory being compiled by amiga-news.de is especially useful! Check it out, and add links!

News Site Name: **AMIGART**
URL: http://www.amigart.com
Editor(s): Sinan Gürkan, Dündar Ünsal, Güvenç Kaplan, Çağhan Demirci
Country of origin: Turkey:
Language(s): English, Turkish
Site philosophy: The Show Must Go On... :-)

Continued
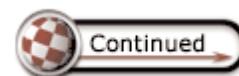
Time published: Since 1997
How often updated: Everyday or every 2 days
Special features: 1. AMIHOO! : Our search engine and Amiga websites database 2. Amiga Linux Pages (Linux APUS Support Pages) 3. Amster (Mp3 Search Client For Amiga) homepage: (www.amigart.com/amster) 4. WinUAE Turkey: The Turkish Mirror of WinUAE (www.amigart.com/winuae) 5. Amiga Postcard: Send Amiga postcards to Your Friends 6. GameArt (Amiga Games Page): (www.amigart.com/gameart) 7. Amiga Sensible World Of Soccer Network: (www.amigart.com/swos) 8. Amigart Forum (Online forum for Turkish speaking Amiga users).
Amiga World comments: a good looking and very up-to-date site with clean design, a solid Links section and a number of unique services. Try the Amiga postcard service, it's fun! :-)

News Site Name: **Amiga Network News**
URL: http://www.ann.lu/
Editor(s): Christian Kemp
Country of origin: Luxembourg
Language(s): English
Site philosophy: Present the latest Amiga news and rumors and let visitors comment on them.
Time published: Since December 28, 1996
How often updated: News added daily, many comments are posted every hour.
Special features or services: Ability to add comments to news items. Online polls & the ability to comment on them. "Unmoderated" news section, open posting for anyone. Visitor can configure different "views" of the site: just see articles on news/files/web-sites/MOTD's/rants, etc. Convenient links to older articles. Ability to subscribe to a Notify list that mails reminders when ANN is updated. "Suggest this article/page" forms to spread the word...
Amiga World comments: Another essential Amiga news site. The unmoderated posting section means that news (and rumors) often appear on ANN before they appear anywhere else!

Online Magazine Name: **Amiga aktuell (International)**
URL: http://www.aakt.de
Editor: Carsten Schroeder
Email contact: aakt@gmx.de and aaktint@gmx.de
Country of origin: Germany
Language(s): German and English
Magazine philosophy: The All-in-one Amiga magazine - 100% made with Amiga! We cover all aspects of the Amiga!
Time published: More than four years
How often published: Monthly
Special features or services: Our magazine is published monthly in English and a German edition. We provide the latest news, comments, product reviews, tutorials, a big games section, a dealer list, software charts, a competition, etc. AMIGA aktuell (International) is distributed e.g. via the Aminet, but we also offer a free subscription via e-mail.
Amiga World comments: You can read the English or German version online, or download an archive of the HTML files (including older issues) for offline reading. This is a "real" magazine, with reviews, opinion pieces and even contests with actual prizes, that just happens to be distributed online (and free at that). Highly recommended.

Contents
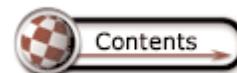
Yes, the Nameplate of each issue of Amiga World changes. What does this mean? It means we recognize that the community is loaded with talent and we'd like to display some of that talent in each issue. What better place to display such artistic works than on the cover of Amiga World?

If you are interested in having your work considered for the Nameplate of Amiga World you should email your creation to: amigaworld@amiga.com with "Nameplate" in the subject. One winner will be chosen by a panel of Amiga VIPs to have their work displayed in a future issue of Amiga World.

The guidelines are simple. Create your nameplate using the Amiga World title and subtitle (So The World May Know). You can use any software you like. It should be created at 72 dpi and be between 500 to 520 pixels wide and between 155 to 165 pixels high. The size in inches should be between 7 to 7.5 inches wide and 2.2 to 2.5 inches high. It can be submitted in PNG, GIF or JPEG formats and should be designed to display in HTML. You will be contacted if you are chosen as the winner. That's it!

The Nameplate used for this issue was created by Shawn Seals (lowgun@ametro.net). He used Amiga hardware and a combination of ImageFX, Aladdin 4D, and CandyFactoryPro on the software side.

Shawn's Nameplate was just one of many submitted for this issue and it was truly a dilemma choosing a winner with such stiff competition. We don't have enough room to show you every submission we received, but we can show you the two other finalists. David Gagely created the top image and the bottom image was created by the mysterious MOVe.

Thanks for participating and don't forget to send in your Nameplate submissions for the next issue.

Contents

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Inside Haage & Partner
Bruce Lepper

AmiWest From the Developer's Eye
Kermit Woodall

Mesa and The Amiga
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Mission Statement

Amiga World is here to provide readers with news, information and insights on the New Amiga Digital Environment and to chronicle the events, activities and projects of Amiga Inc.