Amiga World

So The World May Know

Issue 1
April 2000

Words From The Top

Bill McEwen

Welcome to the first issue of Amiga World, the official newsletter of Amiga Inc. Simply put, Amiga World is here to help readers better understand the new concepts in computing that Amiga is bringing to the world. We are doing this the Amiga way and are proud of that fact. We want you to know the steps and direction we are taking to bring this about, so you can count on Amiga World newsletter to bring you all the details of this continuing process.

We have a lot in this issue. Check out '*Tearing Down The Walls*' to discover how Amiga and Tao will bring the world of 'digital content' to the masses. In '*Beyond The Beige Box*' readers are shown just how this digital content might fit into their lives. You should also have a look at '*The Amiga Is Back*' to find a report on the launch of the Developer Reference Platform and other events at the recent St. Louis trade show. Those who are interested in the more technical aspect of Amiga should have a look at '*Entering The AmiVerse*' and '*Inside The New Amiga*' to get an overview of the concepts and components behind the new Amiga. If you are a developer or programmer, you should have a look at '*Amiga's Developer Support*' for information on how to get involved with Amiga's Developer program. And finally, if you want to get your hands on one of the many commercial Amiga magazines, have a look at '*Amiga Resource Center*' to learn where to find them.

Amiga World is meant to work in conjunction with our new website. Not only can you browse the pages of Amiga World online from our comprehensive website, but you can also download either HTML or PDF versions for convenient offline reading. Amiga World and our website provide a

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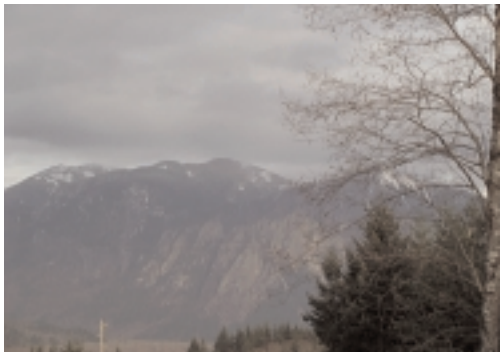
Images clockwise from top right: CEO Bill McEwen in neon mode; the view from McEwen's office; CTO Fleecy Moss in neon mode; and the view from Fleecy's office

Fleecy Moss

Just underneath the famous Space Needle in Seattle, a new building is being constructed. On the inside, it is just another museum. On the outside, it is a tortured collision of bruise and silver. It grabs the attention. It defies what we expect, what we presume, what we have come to know.

In the last fifteen years, computers have gone from being boffin boasters, to corporate workhorses, to essential items in the home. However, they are still computers, still predicated by hardware constructs and designs. Instead of adapting to what we want to do, we have had to adapt to them. Cyclic evolution that carries a legacy albatross. We expect. We presume. We know.

Yet social transformations are not defined by machine or process. We wield the tool; the tool does not wield us. Perhaps this was true in the beginning, but not for long. It merely provides another path, another possibility for our creative urges, and unfortunately our destructive ones as well.



In the beginning, humans remembered and died. Before long they sang, then they chiseled and painted on rock and wood, then they wrote on paper, then they recorded

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Tearing Down The Walls

> "Amiga and Tao together bring a new level of capabilities, portability and scalability that has never been available before"

When a builder is looking for a site to erect a new building, he must search for solid ground. If none of the sites available have a stable base, the builder must mold the ground to suit his needs. He may place caissons, excavate, or compact the foundation until it's just right to build on. Sometimes, he may even need to tear down an existing building on the site in order to accommodate the project.

Amiga's building site is the industry of digital communications, one that has a number of establishments in place—ones that were built years ago but no longer suit the needs of their tenants. As a builder, it is Amiga's responsibility to mold and shape the industry's perceptions of digital content delivery, just as a contractor might cut and fill the ground in order to make room for a new structure.

One of the biggest failures of the digital communications industry has been its treatment of digital content as file-based, platform-dependant material. In the reality of Amiga, however, there is only one universal arena for digital content—an arena that exposes the disservice done to the evolution of digital content technology by "platform computing". In the world of Amiga, a bold new digital content framework eliminates the need for terms like "cross-platform".

Another failure of the industry in the twentieth century was its insistence that consumer electronics devices and computer software ought to be separated by some invisible, theoretical shield. Since computer software frameworks had to evolve to a level where a typical consumer could find valuable functionality in them, the home electronics industry always sat in the shadow of a "computer taboo".

But the perceptions of disconnectedness and fear of integration are being bulldozed by Amiga to make way for an arena filled with digital content and where integration is the norm. As Fleecy Moss, Chief Technology Officer at Amiga said in a recent interview, "[The industry has] done a great job in convincing people that there is a big difference between computers and consumer electronics. In the past that may have been true, but with the advances in microprocessor technologies over the past decade, that is no longer true."

Where there currently sits a global communications network that suffers from the hindrances of formats and platforms, Amiga is building a structure that has doors and windows tall enough—and small enough, for the intense needs of connectivity that the next generation of consumers demands. Said Moss, "There will be, in the close future, just a dynamic environment full of digital content, and producers and consumers of that content. In the end it is all zeroes and ones. Whether you choose to access that environment via a [wireless] phone or a monster workstation is an implementation detail, not an architectural one."

> "We have patents for a just-in-time compilation technology that gives Intent a small memory footprint without sacraificing performatnce"

Where personal computer manufacturers have been pushing down into the consumer electronics industry, only failure has been the result (ultra-small handheld computers with keyboards just haven't caught on). But where consumer devices have pushed up into the computer industry (wireless phones, pagers, and personal organizers that send and receive digital content), there has been a degree of success unprecedented… yet almost totally untapped.

The consumer electronics industry is old, dating back a century to the days of Nikola Tesla and Thomas Edison. Like Amiga, Tesla, and his partner J.P. Morgan, had to steamroll the ideas in the industry in order to break the establishment for the benefit of all.

At the time of the first artificially illuminated homes, the favored method of distributing energy came from Thomas Edison himself. Edison's first direct current electricity distribution system in New York was functional, but was a behemoth to maintain and didn't deliver a lot of juice. It also caught on fire several times. It was Tesla who came up with alternating current, a less fire-prone and more capable delivery system, and Morgan who was able to change the existing political favor Edison carried in order to bring electricity to the world cheaply and safely.

This is Amiga's mission with digital content: removing the barriers to digital content delivery by providing Amiga developers with an integral set of platformless development and delivery tools. A significant part of the Amiga enviromnet comes from the Tao Group, of whom Amiga President Bill McEwen said, "Amiga and Tao together bring a new level of capabilities, portability and scalability that has never been available before."

In support of the Amiga vision, the Tao Group offers Elate, a streamlined deterministic operating system. Elate is the cornerstone to a consistent, connected infrastructure across many different digital appliances for home and mobile networks.

Coupled with the world's fastest Java runtime environment, *J-Engine*, Amiga provides a formidable framework for digital content authors and consumers. Together, these Tao components are called Intent Java Technology Edition. Tao's line of products is already being used to engineer digital content capability into Motorola wireless phones.

Intent Java Technology Edition (JTE) has been called a best in class, according to Tao Group co-founder Francis Charig. Intent JTE uses a superior Just-in-time compiler that allows media applications to run literal circles around other Java virtual machines. Said Charig, "We have patents for just-in-time compilation technology that give Intent a small memory footprint without sacrificing performance." This milestone is due mainly to Tao Group's focus on consumer devices—a focus that is aligned with the Amiga, and coincidentally, is a step away from the computer industry's established ideas about just-in-time technology.

The environment Amiga is building wouldn't be prepared for the new world of digital content without complete scalability and portability. That's why the Amiga solution also uses Tao Group's Virtual Processor, an assembly spec that allows developers on many hardware platforms, using many development environments, to write truly binary-portable applications. Now, the "write-once, run-anywhere" intention of Java is a reality for media applications.

In addition, Amiga architects have reinforced the beams of portability with universal hosting capability by allowing Amiga to run natively on specific hardware, or hosted by operating systems like Linux. There are several advantages to the hosted environment, says Francis Charig. "You may have device drivers on the host platform that are suitable, or you may have a significant investment in the host platform." One appeal of the hosted scenario is the addition of a protected kernel—something most host operating systems can provide.

Since no municipal development goes up without the approval of, and assistance from, the community, Amiga will put the proverbial shovel in the dirt by shipping the Amiga Developer Reference Platform, a Linux-hosted system equipped with a GNU C/C++ development toolset (GCC). GCC, when equipped with Tao Group's portability toolset, gives Amiga developers the ability to generate Virtual Processor code. Native assembler can also be derived from Virtual Processor code. Many consumer devices will soon have mature, hosted Amiga compatibility and never-before-seen media robustness.

Indeed, the Amiga partnership with Tao Group is changing the way the industry views the viability of thin or embedded applications that utilize digital media. This is fresh territory for the industry, and Amiga is at the forefront—shaping the ground upon which the industry is being recreated. Some aspects of the Amiga/Tao partnership have been peculiarly unfolding, as if the Amiga vision was born for the Tao Group's engineering support and ideology.

> "Tao's co-founder Chris Hinsley was an Amiga developer responsible for the notable Amiga video games Automania and Verminator"

Take Chris Hinsley, who co-founded the Tao Group in 1992 with Mr. Charig. Hinsley was an Amiga developer responsible for notable video games like Automania and Verminator. While searching for a way to develop games once for many hardware platforms, Chris began developing the theories that became the modern-day Tao toolset. These developments, born on the classic Amiga frontier, will aide Amiga in giving developers and consumers the capability to expand the digital content universe.

The magnanimous role that developers are playing in construction of the new world of digital content is unique: Amiga developers considering the new offering from Amiga will be integral to the molding and shaping of the new digital content generation. Content creators and application developers who use Amiga will have the distinct advantage of connected, platformless delivery.

> "Amiga developers considering the new offering from Amiga will be integral to the molding and shaping of the new digital content gereration"

Amiga doesn't believe there should be boundaries to the way people communicate. Since existing incarnations of digital media have only hinted at the revolution to come, it is Amiga's vision to enable that revolution, by steamrolling the common perceptions of the consumer and computer markets, and by giving content authors and consumers the toolset that will make it all happen.

The Amiga vision sees the walls of perception being torn down in

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Beyond The Beige Box

Science fiction has given us amazing glimpses of the future of computing. Early on, it was big, intelligent, self-aware computers—Heinlein's Gay Deceiver, Clarke's HAL—that later gave way to ubiquitous computing environments—Stephenson's Metaverse, GibsonCyberspace. Throughout, the lasting stories focused on not just the technology, but on the *interaction*; how it makes us more—or less—human, how it changes our perception and control of our environment. How we go about our daily lives.

And while technology is very good at mimicking real life, let's face it: Technology is still too cumbersome in a lot of ways. It's still easier to pick up a pulp TV Guide than to start up the computer, log on, and find the same information on the Web. It's easier to flip through a print magazine than its digital analog or to call a restaurant rather than making a reservation online. We're lazy, human beings; we'll take the easier route despite any preferred enhanced possibilities.

Neil Gaiman, a British Sci-Fi fantasy author, nailed it in telling Wired magazine, "I am looking forward to the time when I can write a novel with something that looks like a fountain pen and a piece of paper, but lets me save, store, send, et cetera." [Wired 8.01]

It's a subtle shift in perception: We don't want computers that *mimic* real life, computers and languages and applications that *we* have to learn to do what we want to do. We just want to go about our business, letting the computer work in the background to make it easier, faster, or cheaper for us to do so things.

The desktop metaphor, with its files, folders and drawers, its file types, structures, applications and data, forces us to adapt how we think, how we go about doing stuff, in the digital realm. It's the price of admission. If you want the extra benefits made possible over a typewriter you have to learn how to use a word processor.

Metaphor has its place, certainly. It translates things foreign into terms and situations more familiar. It helps us be comfortable amidst the uncomfortable. But taken too far or too long, metaphor becomes just something else to learn. It becomes just another entry fee. Maybe the solution isn't in getting a new metaphor. Maybe the solution is in getting rid of the metaphor all together.

The Metaphor is Dead, Long Live the Metaphor

Charlie Smith unlocks his front door, walks in. The hall and kitchen lights are on and the air conditioning has cooled the house to his preferred temperature, as it's Wednesday and Charlie usually gets home around this time on Wednesday. He picks up a datapad; there are two email messages from his mother. He sends them to the screen in his home office; he'll read them later. A reminder appears—his daughter's play is a week from tonight. His calendar at work is updated, clearing his afternoon schedule to leave early that day. Charlie's wife will be home late and his daughter has rehearsal, so he's on his own for dinner. He queries and the fridge offers some suggestions based on his past choices and what's on hand. He calls up the latest new release by a favorite band and queries the television to save the news broadcast until 30 minutes later—he's hungry and wants to make dinner first.

This is ubiquitous, instant, activity-based computing. It's in real time, on the user's terms and in the user's language. This is technology getting out of the way. This is what Amiga's out to do. Amiga wants to redefine how people interact with computerseven redefine the concept of the computer itself. "If you don't know computers, they all look the same," says Fleecy Moss, VP of Development at Amiga Inc. "Ours will look very different."

How so? Well, we're stuck with the flat screen interface for now, but beyond that, nearly anything goes. The look can be what you want it to be, customized to how you want to interact with it, related to the task at hand, not rigidly bound to some style guide. You can even make an Amiga look and feel just like a classic Workbench, though that's a bit akin to using a Ferrari just for grocery runs.

Eventually, the desktop computer as a central pillar will yield to remote, distributed systems—a black box, if you will, acting as a central nervous system and communication gateway for the home computing environment much like what a circuit breaker box does for electricity in your basement today. Booting up and logging on will be replaced by an always-available Internet connection, again just as in electrical service today. No one wonders anymore, if I plug in this hair dryer will it work? If I pick up the phone, will there be a dial tone? It just is. The technology has gotten out of the way and we're freed to live beyond it.

It won't happen tomorrow, but some of the steps will, and are now. The new Amiga will be a departure from how many perceive computers. Sure, a physical box will be available for the 'power users' to hack away at, but it's the software and the concepts behind that software that will make the machine truly remarkable, enabling us to move beyond the confines of the desktop workstation. This notion that a computer can be anything other than a box on the desk will be hard for some to understand—many are uncomfortable without a keyboard under the fingers—but many more will be in blissful, effective ignorance of how the system works. They'll only know—and care—that it does.

ARexx was revolutionary in giving the Amiga 'typeless data,' freeing us to manipulate it however we needed. The new Amiga will expand that concept to the operating system. Separating applications from the data, and the data from the structure, frees us from having to think like a computer just to use one. No more file formats or file types or concerns about file systems. You know your data in terms of what it is to you—pictures, text, sound, video, whatever. It's all digital content. Separating the presentation from the process lets it look like anything you want it to look like, customizable to the task at hand. Call it WYWIWYG: what you *want* is what you get. Don't describe the interface in terms of what it looks like, describe it in terms of what you're after.

Resource sharing across networks is a simple example of presenting resources and services as brokerages. In a brokerage, sellers hawk their service, quality, speed of delivery, or special deals. Buyers pick the best choices for their needs. The Amiga will bring this concept to the local machine, universalizing the way devices communicate among themselves, the core OS and the user. Intelligent, dynamic querying will move beyond limited keyword-based to context-based interaction. Find what I mean, not what I say. Tell a mobile unit; I am here. Where's a good place to eat nearby?

Sure, a lot of this is possible today, with existing technology. But it's cumbersome, diverse, and expensive. And we're still lazy, so Amiga will put it all together and make it easy to use.

And so...

So the Amiga will change how we perceive the personal computer. It will change how we interact with our information and data, how we affect the environment around us. It won't be understood or appreciated by everyone, at least not at first. It will get out of the way, allowing the most direct connection yet between our imagination and the media. Hmm. Maybe from that standpoint, the new Amiga won't be so different than the original one after all.

Amiga is making it possible, so get ready for the future.

The Amiga Is Back!

A show report from St. Louis

This year's Amiga2K trade show in St. Louis, Missouri, featured the unveiling of the new Amiga Developer Reference Platform as well as a more detailed look at Amiga's partners and plans. Presentations spearheaded by Amiga CEO Bill McEwen, VP of Development Fleecy Moss, and Director of Developer Support Gary Peake outlined Amiga's goal to create a digital environment that is scalable as well as transparent to those interested in the future of digital content.

The show itself featured the usual gathering of Amiga personalities, developers, vendors, and faithful under the expert execution of Bob Scharpe, the show's organizer. In its last year at The Henry the 8th Hotel, the Amiga2K show has become North America's premiere Amiga event. Highlights included the first official Amiga developer conference under the new company, an informative meeting between McEwen and user group representatives, and the formal presentation at the show's banquet.

A Three-Hour Tour

The Friday night before the show, Amiga held its first official DevCon complete with non-disclosure agreements for those in attendance. A good mix of prominent Amiga developers, shareware programmers, and personalities were on hand to hear specifics of Amiga's partnerships, details on the "Ami" programming model, and an outline of Amiga's developer support program. The presentation was quite detailed and lasted three and a half hours.

After a brief introduction by Bill McEwen, Fleecy Moss led things off with a quick rundown of Amiga's vision concerning the future of digital convergence. Moss explained how Amiga is harnessing cutting edge technologies and bringing them into an Amiga environment that is designed from the ground up to exploit digital content. He emphasized that Amiga is uniquely qualified to unite the talents from the Amiga, Linux and Java programming communities and they will do this by combining technology elements from their partners and joining them within an Amiga environment.

Important to Amiga's plans are the partnerships forged by Amiga with TAO-Group, Sun, Red Hat, and Corel. With the growing number of Linux distributions and their growing incompatibilities, Amiga will present programmers with a common consumer layer to attract their support. The Ami environment will significantly reduce deployment of applications and content due to Amiga's partnerships and the integration of TAO's Elate software into the Amiga environment.

The Amiga environment uses TAO's Elate as a foundation. A main feature of Elate is its Virtual Processor (VP) programming model. Instead of concerning itself with the hardware underneath, Elate uses massive abstraction that presents the operating system with a dynamic list of services it will provide based on the hardware below it. These services will then fulfill the requests of the applications above it by arbitrating them. (Please see 'Inside The New Amiga' and 'Entering The AmiVerse' for more details).

Top to bottom: Amiga CEO Bill McEwen(r) and VP of Sales and Business Development Randy Hughes; the crowded show banquet; and show organizers Bob and Diane Scharpe

Moss emphasized that with hardware being treated as a commodity—and citing Be Inc.'s problems with providing drivers for even common items—it was more important to provide programmers with a quick and flexible environment. Because Amiga found a way to combine the best technologies within the Amiga environment, flexibility is achieved. With TAO's Virtual Processor, a programmer can truly compile once and run anywhere. The list of supported VP interpreters includes X86, MIPS, PowerPC, ARM, StrongARM, MCore (Motorola's new embedded CPU of choice), and a growing list of others.

To get programmers familiar with Virtual Processor programming as soon as possible, Amiga announced the details of the soon to be release Developer Reference Platform (DRP). Hosted on a special version of Red Hat Linux, the machine will feature an AMD K6-II 500 MHz CPU, a GeForce Prophet 3D video card, a Soundblaster compatible sound card, 64 megs of RAM, and TAO's Elate software preloaded.

Some points on the DRP should be noted. First, Amiga chose to use less then cutting edge hardware in the DRP to emphasize just how efficient their environment will be. This also reduces the cost of each unit. Second, the Ami environment will be preloaded on all Developer Reference Platforms. This prevents pirating (Amiga will only support developer machines purchased directly from them). Third, while the DRP is hosted on Linux and a X86 processor, Amiga consumer products will most often be run natively—not hosted on another operating system—and therefore, will run much faster then they do on the initial DRP.

Gary Peake outlined a multi-tiered Amiga Developer Support Program (see ADSP in this issue for specific details). The upper layers of this program will be fee based depending on that company's scope of business. "Premiere" developers will pay to receive Amiga's most responsive level of technical support and assistance, while on the lower end a "Scouts" membership is free and tailored more to the valued "bedroom" programmers. All levels of support will require a signed NDA with Amiga, and will allow access to Amiga's developer materials and website. Important Amiga related organizations like the Amiga Advisory Council, Industry Council Open Amiga, and Phoenix Consortium will also play a role in developer support. Amiga also announced there will be five more DevCons this year, and invited all interested parties to register and attend.

For the Community

On Saturday afternoon Bill McEwen met with various user group organizations. The discussion led off with Gary Peake, Wayne Hunt and other representatives discussing the state of Amiga user groups as well as the possibility of sharing resources like newsletter articles between organizations. Amiga plans to use organizations like Team Amiga and the User Group Network (UGN) to enhance the user's experience. Amiga also plans a user group tour to demonstrate the new Amiga technology directly to user groups.

McEwen reiterated that the Amiga community was the reason that he bought the name and, because of the dedicated users, the Amiga still has great value. He encouraged the user community to contact Amiga for assistance in their endeavors. For example, Amiga is willing to partially sponsor local children's sport teams and advertise in user group publications. To take advantage of this user groups should contact Kari at Amiga. Amiga also plans to refer certain inquires back to the local user groups using the UGN's user group database. A substantial portion of Amiga's future marketing staff will implement plans that utilize user groups for their success. Lastly, Amiga will provide publications like Java Programming books through the developer and user group communities. Through deals negotiated with Sun, these publications will be available at cost.

To assist in the transition to the new technology based products next year, Amiga will lower the cost of the existing Amiga 1200 inventory (there are plenty of PAL units left, but not that many NTSC units). These A1200s, along with the new PowerPC accelerators, will allow Amigans to use the current technology as well as benefit from the new Ami environment when it's released. While Amiga is exploring the manufacturing of more A4000 units (and supporting the Boxer), there are no plans to restart A1200 production.

Top to bottom: Merchandise for sale on the show floor; Production Editor Russell Trent (l) and Publisher Mark Hinton from England's AmigActive magazine; and the NCAUG Amiga blimp

Dinner with Dick Van Dyke

The highlight of the Amiga2K show was the banquet dinner on Saturday night. After the meal, McEwen presented show organizers Bob and Diane Scharpe with some nice Amiga Bomber Jackets in gratitude for their efforts. The presentation continued with a video that featured actor Dick Van Dyke; who turns out to be a long time Toaster/Lightwave fan. Van Dyke expressed his optimism for the Amiga and its future and raved about his Amiga's video

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Amiga Resource Center

Just because you don't see a wealth of Amiga magazines lining your local newsstand doesn't mean they are not available. Amiga World sent out a request to the Amiga Community to let us know what Amiga magazines they read, and boy did we get a response. What follows is an initial response to our survey. You can expect more of these lists to appear in subsequent issues of Amiga World as we will continue to let readers know about the wealth of information available in both print and electronic format. If you know of an Amiga resource that should be printed here, please tell us or request that the editor of the resource contact Amiga World at zanjan@earthlink.net. Without further adue, here follows the beginning of a regular column called Amiga Resource Center.

Magazine name: New Amiga

Editor: Boris Volkov,
Country published: Russia
How often published: Bimonthly (6 per year)
Format: A5 B&W, Amiga only
Cover disk: No
Language(s): Russian
Website: http://tok.severodvinsk.ru/amiga.htm
Email contact: tok@severodvinsk.ru
Time published: Since 1998
Subscription price: $15 for 6 issues
Distribution: Russia, Ukraine, Byelorussia, Estonia
Comments: The best Amiga magazine in Russia :)

Magazine name: Amiga Life

Editor: Daniele Franza
Country published: Italy
How often published: Monthly
Format: Color, 68 pages, Amiga only
Cover disk: CD
Language(s): Italian
Website: www.pluricom.it/amigalife or www.alife.it
Email contact: amigalife@pluricom.it
Time published: 12 years as Enigma Amiga Run, 1 year as Amiga Life
Subscription price: 100.000 italian lire ($50 USD or 50 Euro for one year (11 issues)
Distibution: Europe
Comments: The only printed Italian Amiga magazine! Amiga Life is the new Enigma Amiga Run, an old Italian Amiga magazine, which is now called Amiga Life :-)

Magazine name: AMIGA Magazin
Editor: LEO
Country published: Germany, Austria, Switzerland
How often published: Monthly, 12 issues per year
Format: Color, Amiga only
Cover disk: CD included
Language(s): German
Website: www.amiga-magazin.de
Email contact: webamiga@wekanet.de
Time published: Since 1986
Subscription price: 110 German Marks per year
Distribution: Worldwide
Comments: Our magazine is bundled with a PC-magazine called "PCgo" and only avaible by subscription

Magazine name: Amiga Active

Editor: UK
How often published: Monthly
Format: Full color glossy, Amiga only
Cover disk: CD each month
Language(s): English
Website: www.amigactive.com
Email contact: subscriptions@amigactive.com
Time Published: Since September 1999
Subscription price: UK 6 months, 29.90; UK 12 months, 55.90; Euro 6 months, 36.00; Euro 12 months, 72.00; World 6 months, 39.00; World 12 months, 78.00 (all prices in pounds sterling)
Distribution: Worldwide
Comments: Amiga Active is packed with the latest news, the tastiest previews and the best reviews, tutorials and features you'll ever read. Topped off each month with the best CD-ROM in the business with support material for the articles within the magazine, Amiga Active is a truly interactive experience. It's the future of Amiga computing!

Magazine name: AmigaVilag
Editor: Peter Horvath
Country published: Hungary
How often published: 8 times per year
Format: A4, 80 pages, color cover, inside B&W, Amiga only
Cover disk: CD 4 times a year
Language(s): Hungarian
Website: www.amigavilag.hu
Email contact: amigavilag@syneco.hu
Time published: Since Juanuary, 1999
Subscription price: 9200 HUF for 8 issues and CD (about $35-40 USD)
Distribution: Worldwide
Comments: In every issue we include one program which runs under MAC emu (usually a game). We have few pictures but a lot of useful information.

Magazine name: PLANET' MAG

Editor: Laurent BELLONI, Sebastian STASZAK (co-editor)
Country published: France (Canada)
How often published: Bimonthly (roughly once every two months)
Format: B&W (full color cover on deluxe set subsription), 52 pages, Amiga only
Cover disk: No
Language(s): French
Website: www.altern.org/planet
Email contact: planetmag@online.fr or sebsta@club-internet.fr
Time Publishing: since October 1999.
Subscription price: 22 FF ($1 USD = 6.5 FF) per issue (deluxe set 28 FF). Subscriptions available for 3 or 6 issues.
Distribution: Worldwide. Additional postage outside of France
Comments: Each issue have. We cover games, demos, news, development (C and 68k asm), 3D, CAD, and do hardware and software tests. We are supported by a French Amiga retailer (URL: www.sl-diffusion.com).

Magazine name: AmigaScene
Editor: Bruno de Klerk
Country published: Holland and Belgium
How often published: Bimonthly (6 per year)
Format: Two color A4, 40 pages, Amiga only
Cover disk: No
Language(s): Dutch
Website: home.worldonline.nl/~amiga
Email contact: amiga@worldonline.nl
Time Published: 6 years
Subscription price: 30 Dutch gulden (15 Euro or $15USD) for 6 issues
Distribution: Netherlands and Belgium

Magazine name: Amiga Advis
Editor: Jan Kronhøj Larsen
Country published: Denmark, Greenland, Faroe Islands, Norway, Sweden, and parts of Finland.
How often published: Monthly
Format: B&W, Amiga only
Cover disk: No*
Language(s): Danish, Swedish
Web site URL: No
Email contact: amigaadvis@vestnet.dk
Time published: since August 1996
Subscription price: Amiga Advis, 30.- DKr./ nr.; Amiga Advis, Svenska, 35.- SKr. / nr.
Distribution: Worldwide as needed
Comments: We produce two Amiga print magazines, one for Denmark called Amiga Advis and one for Sweden called Amiga Advis, Svenska. *We produce a special CD-Rom about one a year.

Tearing Down the Walls continued from page 3

order to build new portals that will globalize quality digital content. As Moss said early this year, "The Amiga reality says that if a device in the digital world can produce or consume digital content, then it can be connected to other devices, whatever they are, and they can work together."

Amiga has addressed the demands of the unfurling digital universe by doing something the mainstream computer industry hasn't: thinking about quality digital media on small devices. This has been Amiga's mission since Jay Miner ran the first Amiga color graphics demo in 1984. Nobody has ever approached issues of quality in multimedia the way Amiga always has. Only now, the arena is globalized, connected, and driven by social structures that are beyond the control of any single platform. It is Amiga's job to read these social structures, cut and fill the ground of the new digital industry, and form the core of a new digital world.

That new digital world is called the *Amiverse*. As Moss points out, "The Amiga team is busy not just creating an operating system or an interface. Such things are old hat. They are engaged in something much more exciting and revolutionary: the creation of a dynamic digital environment in which people can live, work, and play—all while the technology is made invisible to them. The name of this place is the Amiverse, and soon, it will be a part of everyone's lives."

Entering The AmiVerse

In 1984, the Amiga 1000 burst upon the scene of an unsuspecting world. Such was its revolutionary nature that people only had to use one for a few minutes before they experienced an almost religious shiver down through the soul, as if all the confusion and frustration suddenly went away and everything made sense. The Amiga 1000 was revolutionary because it stepped aside from common convention. It took a fresh, unfettered look at the problems of computing, video, and gaming technology. It worked out the problems, the bottlenecks, the issues, and then solved them in a simple, elegant way.

Fifteen odd years later, we've flashbacked to 1983 were traditional technologies and approaches dominate. Advances are now mainly through process enhancements: Faster processors, faster graphics cards, more memory, prettier operating systems, more utilities and functions. Innovation has stalled because there is too much investment in the past to allow the future to profit.

Yet the future is there. The volume of digital content is growing exponentially, with the demand for that content not far behind it. Access is becoming ubiquitous, broadband is common. In a few short years, the Internet has gone from being a geek oasis to the place we all go to shop, pay bills, send letters, talk and play. We all want to have our digital kingdoms at our fingertips, available everywhere, at any time, and instantly—and yet we can't. Why? Because what we want doesn't fit into the technology of today.

Computers are expensive. Computers are complicated. Computers are frustrating. They were built to handle batch files stored in rigid hierarchies using big applications. In short, the digital revolution has outgrown its computer nursery. To understand the Amiga solution for tomorrow requires a paradigm shift, the acceptance of a certain set of core truths. Otherwise, people will just end up trying to smash traditional ideas against a new model to no avail.

AmiVerse

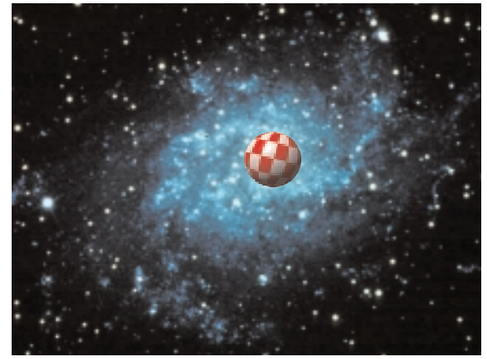
Firstly, there is no such thing as a file. All elements are now just digital matter, a stream of zeros and ones. Second, there are no applications. There are just activities that involve producers and consumers of that digital matter. Third, there is no such thing as an operating system. There is merely a set of services produced by service providers and consumed by service requestors. Fourth, these services, producers, consumers and digital matter exist independently of individual physical devices.

Now these four core truths may seem bizarre when measured against traditional computing architectures and models, but that is an indication of how our view of the world has been warped to fit in with traditional computing paradigms. In fact, our photographs aren't files, our apples aren't files, and our life isn't a directory structure. We buy wine from a store, we don't need to have a vineyard, a winery and a bottle producing factory to get that wine.

Humans have spent thousands of years creating perfectly good models for production, location, manipulation, organization and consumption. The first computers, because of their low power, tied us very tightly to their hardware architectures. That time is now long gone and yet the computer world still holds onto it. Amiga is going to show the world that letting go makes perfect sense.

Introducing Ami™

Ami™ is Amiga's solution for the digital world of tomorrow. Ami™ is a set of digital matter (binary) elements that produce and consume services within a logical dynamic context. That context is called the AmiVerse™. It exists almost as a virtual world in which these binary elements go about their business, passing messages to each other, grouping together, co-operating with each other. The user appears as its own element within the AmiVerse, but with the power to create, manipulate and destroy; a digital sorcerer if you will.



An AmiVerse™ can exist on a single hardware domain, such as a PC, it can share that domain with other AmiVerses™ or it can be spread out across a matrix of hardware domains.

Workstations, PCs, laptops, set-top boxes, games consoles, DVD players, smart TVs and cell phones will all still exist, but as hardware domains (a collection of hardware considered a unit), not as a hardware side of a computing coin. Ami™ decouples the user and developer experience from the hardware foundation. Hardware domains provide hardware services to one or more AmiVerses™, and AmiVerses™ request hardware services but make no assumptions about the location, quality or quantity of those services. Everything is negotiated and brokered dynamically.

The AmiVerse™ is a closed environment. It knows everything that is inside, it is responsible for letting new elements and services in, and for letting them out, via the AmiGate™ and an immigration service. As a result, it is completely self descriptive. This descriptive feature extends far beyond content though. Ami™ makes very heavy use of a semantic mechanism. Not only does the AmiVerse™ know what it contains, it also provides a rich set of resources for describing what they can all do, what they are like, and what they require. Description is a key feature of the AmiVerse and is used as the foundation for organization, location, control, and interaction. This is achieved via Vocabularies and Interface Descriptions.

In traditional computer architectures, organization is tightly coupled to storage, the typical hierarchy of files and directories within a single filing system. The AmiVerse™ completely ignores that model. It presents a structureless sea of binary elements. Structure and organization comes from throwing questions into the sea and getting back the answers.

This querying service is supported by the vocabularies and interface descriptions and uses the concept of sets to process, persist and group. Thus, a user can create a set with the query, "all elements of content type 'gif'" called Gifs, and another set with the query, "all elements of owner 'Timothy'" called MyElements. As a set only contains references, in the form of unique element identifiers called AmiIDs™, a single element can be a member of more than one set. Queries can be static, dynamic, transient and persistent. Instead of some arbitrary hierarchical distinction that allows for only one reference, users can now make associative and relational sense of their digital environment.

How they are stored is the business of the persistence service. It is irrelevant to anyone operating within the AmiVerse™. Their concern is that when they have finished with something it is persisted, and when they want to use it again, it is available. By decoupling organization from persistence, the persistence service can now concentrate on doing a good job of persistence and retrieval intelligent caching, retrieval statistics, combining elements together, using multiple filing systems with each one tuned to particular types of element (large, small, streaming, static, dynamic etc).

There is no such thing as an application in the AmiVerse™. Instead, users perform activities. They may fetch a piece of paper, to write an essay, an email, or draw a picture. They may listen to some music or play a game. They may decide to build an application.

Ultimately, all of these activities break down in service requests and provisions. A typical interaction might see an object ask the AmiVerse™, via the service broker, for a printing service or a 3D service, or an Internet connection service. The service broker then queries its lists of service providers, considers the current state of the AmiVerse™ plus any special request directives, and then hands the answer, a set of none, one or more possible service providers. The object then picks one and starts dealing directly with it, as the service broker steps out of the way.

This has just been a small, very high-level description of Ami™, the new girl in town. As you can see, she is both very different and yet very familiar. This is intentional. By escaping from the legacy albatross, we can start to make the digital age work the way people expect it should. When it works the way you think it should, then you work the way you should, and that is what the digital revolution is all about.

Amiga World

Inside The New Amiga

> It was designed to leapfrog other computer architectures, the way the original A1000 did back in 1984

> Amiga's ability to combine leading technologies into one environment will allow much easier integration of other industry standards

For some time it's been rumored that the new Amiga operating system would consist mainly of TAO Group's Elate software. While Elate is a part of the new Amiga toolset there is much more to it then that. It's almost more correct to say the Amiga won't have an operating system at all. There also won't so much be a new Amiga as there will be an extended Amiga family. However, don't panic. The reason for making such seemingly incomprehensible statements is that the new Amiga is based on ideas much different from the old. It has to be, because the world has changed that much. New ideas are needed to lead in today's computing environment.

Today's computing needs transcend a simple operating system; it calls for an operating environment. The Amiga environment is the set of software that will take the place of a traditional operating system in all Amiga based systems. You could continue to think of it as an OS, but that might lock you into a viewpoint that could hide much of the environment's potential.

The Amiga family will consist of any device with computing power capable of running the Amiga environment. It could be anything from a cell phone to a large server class computer. Will there be Amiga desktop computers? Absolutely. Games consoles? Yes again.

Please keep one thing in mind while considering the new Amiga environment. It wasn't designed this way just to be different. It was designed to leapfrog other computer architectures, the way the original A1000 did back in 1984. Further, it was designed to take the basic Amiga feel and excitement into the next computer generation, rather than allowing it to be left behind.

The Amiga environment consists of several elements. Most of these elements already exist and are being utilized by their various owners for a great variety of uses. However, most of these elements are specific in their scope and serve only a focused function. Amiga recognizes the great potential of these elements or technologies and understands how to bring them all together into an environment that will exploit their power and combine their strengths. Amiga is synergizing these technologies with Amiga concepts under the blanket of an Ami environment. Without Amiga, these technologies would continue to exist as islands, but Amiga is combing them into a continent.

The Elate "Deterministic Operating System" from the TAO Group, is only one of these elements, but a key one. In general terms, Elate is a Run Time Operating System (RTOS). The advantage of an RTOS is in the way it handles multitasking. An ordinary general purpose OS (GPOS) does its best to service each task in the most efficient manner. This can often lead to some tasks not being scheduled precisely, in turn leading to problems such as frame rate variation in videos (in other words, jerky motion). An RTOS uses fixed scheduling, so these variations will not occur.

Another part of the TAO suite is intent. (Yes, it's spelled all in lower case). intent comes in two pieces; the JTE (Java Technology Edition) and the intent Multimedia Toolkit. Quite simply, intent provides the best Java engine anywhere. Java programs work under intent the way they were intended to work; fast, very fast. At Amiga 2K the TAO environment was shown running Doom and Quake at the same time. In fact, several Quake sessions were going at once. Then the demonstrator fired off several utility programs as well. Nothing slowed down. Most impressive of all, each of these programs was running in a separate Java session, and as noted, each was blazingly fast.

Perhaps even more amazing was the fact that the TAO products were executing on top of Linux, so there was another entire OS level between them and the hardware. The hardware was a powerful 500 MHz PC, but you'd certainly not see this level of performance from a standard Windows machine. One secret of the TAO speed is the modular way it handles Java. Only the pieces of code needed to do the work at any given time are actually loaded into memory. As a result, the computer can operate at efficiencies that canbe duplicated by other implementations of a Java engine.

You shouldn't think the use of Linux forces an Intel or similar processor into Amiga's hardware. Buried in the middle of the TAO environment is a concept called the Virtual Processor (VP). The VP really is a concept rather than an actual independent piece of code. In practice, it means that your programs, the TAO environment, the Java Engine—all of it—compile to run on this Virtual Processor. The native hardware is accessed through the VP, which is easy to set up for virtually any real processor made. This allows the actual Amiga environment to be completely hardware independent. As soon as the latest version of any processor family is released, the Amiga can take advantage of it. Being locked to aging or unsupported hardware will never be a problem.

It's also possible to eliminate the host operating system entirely. Linux could be completely removed from the equation, and TAO could run directly on the hardware in native mode. This alone would provide another significant boost in speed and efficiencies, perhaps as much as 35% to 50%.

This hardware independence, combined with the efficiencies of the TAO software, also means just about any processor or computing platform can be used. This is how it's possible to envision the Amiga environment running on everything from cellular phones to the most powerful computing platforms available. In fact, Sun has already demonstrated Java games running on cellular phones using TAO. There's no reason why those phones couldn't carry the Amiga logo of compatibility if desired.

There's another, less obvious, benefit to the user from the extremely flexible approach Amiga is pursuing. This benefit is the use of industry standards currently closed to us. For example, at present Amigans have no real access to Java, except by setting another computer next to their Amiga. The new Amiga environment will not only provide the first useful Java capabilities for Amiga users, it will actually be among the most capable Java running machines on the market. Those Amigans who've gotten PCs just to be able to browse Java based sites on the World Wide Web will be able to do it from their Amiga browsers as well.

In addition, Amiga's ability to combine leading technologies into one environment will allow much easier integration of other industry standards into the Amiga environment. Currently it's possible to view MPEG or QuickTime videos on the classic Amiga, but this depends on obtaining the right shareware or third party add-ons, and how well it works is partly dependent on your specific graphics card. The new Amiga will at last provide a common platform for not only these video formats but such other common standards as Home Audio Video Interoperability (HAVi), a wide variety of audio and other data formats, and, in fact, just about everything PC or Linux owners now use that haven't been available to Amiga users in the past. Furthermore, with an RTOS as part of the Amiga environment, anything in video or audio will work more reliably than on other platforms.

And how will these new Amigas look? The styling of the future Amiga systems will match the innovation of their interiors: sleek and elegant. When conceptual designs were presented to attendees at the Amiga 2K trade show in St. Louis they were impressed. However, these concepts were merely a shell covering an even more impressive interior. That's the part that really shines.

Over the next few weeks more details will be forthcoming on how the TAO environment will come to be wrapped in the Amiga environment. Read 'A Guide To The AmiVerse' in this issue for an overview of how the Amiga pieces will function and relate to each other. Once all these pieces are in place, in line with the plan Amiga is already executing, an Amiga with the zing and feel of the original will assume its place on the computing stage. It will be an Amiga with clear ties to its heritage, but will also be leading the charge into the next generation of computers, just as the A1000 did when it took the computing world by surprise. The biggest problems for Amigans may be to not act as smug as they feel.

> It will be an Amiga with clear ties to its heritage, but it will also be leading the charge into the next generation of computing

> As soon as the latest version of any processor family is released, the Amiga can take advantage of it

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McEwen, continued from page 1

valuable resource for the community and together they represent Amiga's belief that customer support is vital to our success.

While we have been busy with the customer support side of Amiga, we've also been busy establishing our new office in beautiful Snoqualmie, WA—the place where the TV shows Northern Exposure and Twin Peaks were filmed. We're hiring new staff and contractors at a rapid pace. Right now Amiga's Washington staff includes; Fleecy Moss, CTO of Development; Randall Hughes, President of Sales and Strategic Business Development; Vincent Pfeifer, VP of Operations; Matt Fontenot, Product Manager; Gary Peake, Director of Developer Support; Gordon Stone, Director of Information Services; Susan Sutton, Director of Finance and Human Resources; several office support staff; and over 20 signed independent hardware and software contractors. As you can see, we've been busy. More staff will be added in the near future and we'll keep you informed about them in these pages.

Of course, while all this has been happening we've continued working hard on establishing strategic partners and developing the new Amiga. We'll have more about these developments in upcoming issues. Needless to say, you will be excited to learn just whom we are working with to help bring digital content to the world on an Amiga. Stay tuned!

Images clockwise from top right: the front entrance to Amiga World Headquarters; Gordon Stone, Director of Information Services; and new Amiga Inc. recruit Kari

Fleecy, continued from page 1

on magnetic tape. Now all things are being broken down into zeros and ones.

Computer operating systems and architectures try to tell us how to organize, think and store. Complexity, frustration, and confusion rise up to get in the way of what we are trying to do. The digital revolution is stalled behind a logjam of what we have come to expect and know.

The original Amiga brought a new revolution to the world: audio, video and graphics wrapped up in an elegant, common sense design. It worked the way people worked and made sense. It shattered expectations, presumptions and the common knowledge of the time.

Sixteen years later Amiga intends to do the same by creating technology that empowers the individual and puts them back in control, gets out of their way, and works the way they work. It will be technology that makes sense.

My life isn't a set of files stored in a set of folders. My choices aren't limited to a bar of nonsense icons. My world isn't constrained by a window with funny little arrows at the top and sides of it. Why should my computer be that way?

Amiga the company, and Amigans—the developers and users—have always been special, pushing the boundaries back and refusing to settle for second best. Some fear change, and the uncertainty that it brings. Others relish it, charging headlong forwards. The great majority just waits to see what change will bring for them.

I think this change will bring a better way of life.

Amiga Is Back, continued from page 7

and animation capabilities. In closing, the famous actor expressed his eagerness to see the new Amiga based products and wished the crowd well.

The partners Amiga is working with are the cornerstones to Amiga's future. Besides Corel, Sun, and Red Hat, McEwen included other major consumer company names like Sony, JVC and Criterion. He also included familiar companies like Scala, Met@box, Haage & Partner, Hyperion, and Anti-Gravity. Anti-Gravity is of particular interest because they recently announced their purchase of the Boxer design from Access Innovations and hired the board's designer Mick Tinker to finish its development.

Amiga's goal in the scalable consumer appliance model is to function as the common programming interface. Their partnerships with Corel and Red Hat in particular will allow Amiga to hit the ground running using the Linux kernel and device drivers. McEwen used quotes from Sun's Bob Young and Corel's Michael Cowpland to emphasize their eagerness to be part of the Amiga revolution. Also on hand at the presentation was a representative of Espial. Amiga is trying to conclude negotiations with Espial to integrate their Java based web browser, called Escape, into the Ami environment.

Amiga proudly displayed conceptual case designs of Amiga-based computers (both tower and desktop), consoles, and servers. These designs were provided to Amiga by animators that worked for Disney on several projects. While it was disclosed that Disney still uses up to 500 Amigas in their production departments, Amiga did not announce Disney as a partner.

Even though Amiga plans to be a software company only, they will provide hardware references to their partners. McEwen also promised that no matter how successful Amiga may become, they would never impede in their partner's market space. Amiga will never make a spreadsheet, word processor, or game; those things are being left up to Amiga's partners.

A demonstration of the Beta Amiga environment was presented at the banquet. The demonstration highlighted the systems capabilities by running several Java Applets simultaneously at good speed. The systems ease of coding was emphasized by demonstrating Doom and Quake which each took less than an hour to port. Advanced video layer technology was also displayed by applying color filters over running demo programs and by showing the ability to present non-square GUI objects. To demonstrate this feature a Boing ball was manipulated through the transparent face of a clock program running in front of the Boing balls. In spite of the fact that the system took a performance hit by being hosted on top of Linux, the demonstrations ran at impressive speeds.

Happy Trails

On Sunday, many of the show attendees were abuzz with the announcements Amiga made the night before. Many of the exhibitors were reporting good sales and optimism in the direction Amiga was taking. As is common in the close-knit Amiga community, news spread quickly to Amiga related websites. Naturally, the quick dissimilation of news was accelerated by a live video and audio stream from the show, compliments of the UGN.

For the next few weeks Amiga will be focusing on getting the Developer Reference Platform out the door, implementing their developer support programs, and working on their Ami environment. You can find further information from the show on Amiga's redesigned website at www.amiga.com.

Top to bottom: Kermit Woodall from Nova Design; Joe Torre looking at the Boxer board; Deron Kazmaier of SoftLogik; and Jurgen Haage of Haage & Partner

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

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