



February 2004

Games and Entertainment

Megan Morrone

Today you can use the same machine to organize your finances, create a presentation for your boss, and defend the Earth from flesh-eating aliens. But let's be honest: Even with the crazy advances in software, organizing your finances and creating a presentation for your boss are still not half as much fun as defending the Earth from flesh-eating aliens. That's why we've devoted the entire month of February to the noble pursuit of games and entertainment for PCs, Macs, game consoles, and PDAs.

I know what you're thinking. You're thinking that you can skip right over this chapter because you're not a gamer. Gamers are all sweaty, pimpled, 16-year-old boys who lock themselves in their basements sustained only by complex carbohydrates and Mountain Dew for days on end, right? Wrong. Video games aren't just for young boys anymore. Saying you don't like video games is like saying you don't like ice cream or cheese or television or fun. Are you trying to tell me that you don't like fun?

If you watch *The Screen Savers*, you know that each member of our little TV family has a uniquely different interest in games. Morgan loves a good frag fest, whereas Martin's tastes tend toward the bizarre (think frogs in blenders or cow tossing.) Kevin knows how to throw a cutting-edge LAN party, while Joshua and Roger like to kick back with old-school retro game emulators. I like to download free and simple low-res games that you can play on even the dinkiest PC, whereas Patrick prefers to build and rebuild the perfect system for the ultimate gaming experience (see February 13). And leave it to Leo to discover the most unique new gaming experience for the consummate early adopter (see February 1).

This month we review games for all platforms and all personalities, answer your gaming tech support questions, show you where to find the coolest games online, and review all the latest gaming peripherals. Morgan even shows you how you can cheat at Solitaire. Unfortunately, she doesn't tell you why you'd want to.

From text-based games to high-end virtual-reality 3D graphics, video games let you use your imagination to do something you could never do or be someone you could never be. In the following pages, you can learn how to become Zeus, a caveman, a pirate, or a Jeopardy contestant. You can solve jewel puzzles, drink beer with aliens, placate camels, kill giant insects, escape from evil monsters in the mall, and pull goofy-foot ollies off the rooftop of City Hall.

So, do you still think you're not a gamer? Maybe you just haven't found the right game.

Leo's Pick: The Pyramat PM300

Leo Laporte

Get some comfort to go along with your gaming with the Pyramat PM300 from Pyramat (www.pyramat.com). The Pyramat is a futon with speakers—pardon me, I mean a high-density foam reclining system with sound reinforcement.

Relax and Play

The Pyramat contains a three-speaker sound system and 50-watt amplifier in the headrest, and a handheld wired remote control. When you're ready to play, unroll it, lie down, and pump up the volume. The PM300 is compatible with all video-game consoles, computers, DVD players, MP3 players, and anything else with audio out. Around \$150, it's only a little cheaper than my Xbox, but it's a lot cheaper than the recliner I usually sit in to play video games, and it sounds a lot better.

The Pyramat PM300 is one gadget I'll take lying down.

Scary Games

Roman Loyola

If you're looking for an interactive (nonhuman) way to get a good old-fashioned scare, read on:

- **Fatal Frame (PS2)** (www.fatalframegame.com). The scariest thing about Fatal Frame is that it looks like Resident Evil meets Pokemon Snap. Its scare factor alone is reason enough to play this game.
- **Aliens vs. Predator 2 (PC)** (<http://avp2.sierra.com>). If you want one of the most entertaining single-player experiences of the year and some solid and original multiplayer fun, it's right here.
- **Eternal Darkness: Sanity's Requiem (GCN)** (<http://cube.ign.com>). This M-rated title earns its rating not through gratuitous gore or cheap sex, but by presenting a story line that's adult-oriented in its complexity and thought.

- **Bruce Lee: Quest of the Dragon (Xbox)** (www.universalinteractive.com). The only thing scary about this game is that it was made in the first place.

Download of the Day

Maelstrom 3.0.5

Megan Morrone

Save your quarters for laundry. I have an updated version of the ultimate Asteroids clone. And get this: It works on Mac (OS 9 or higher), Windows, Linux, and BeOS.

It's called Maelstrom 3.0.5. Ambrosia Software created the original Mac version (shareware, or \$15 to purchase) and allowed Sam Lantinga to port it to Linux and Windows for a school project.

Download the file, unzip it, and start playing. Use the Tab key to shoot and the arrow keys to move. If you don't like that setup, press C (or click the C button) when you start up to configure your controls.

Important hints:

- Turn up your speaker volume for the full arcade experience.
- To add a little oomph, try one of the Star Wars or Star Trek sound packages. Both are available along with additional sounds from <http://www.devolution.com/~slouken/Maelstrom/add-ons.html>.

Maelstrom for Windows and Linux (www.devolution.com).

Maelstrom for Mac (www.AmbrosiaSW.com).

Leo's Pick: There

Leo Laporte

Gertrude Stein once said of her childhood home, "There is no there there." But at There (www.there.com), there's plenty of there there. There is an imaginary world that's a lot more fun to visit than are many real-world places I've been.

Five years in the making, There is the brainchild of Will Harvey, a Stanford computer science Ph.D. and game developer, and Jeffrey Ventrella, an expert on artificial life from MIT's Media Lab. The two raised \$33 million from a who's who list of techies, including gaming legend Trip Hawkins, Kevin Ryan, and Bruce Leak. Harvey and Ventrella built an elaborate 3D virtual world and invited people to come and play.



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You Are There?

There is massively multiplayer, but it's not a game like EverQuest. It's a free-form community. There has clubs, nightly activities, contests, and races, but the chief activity in There is chatting. The avatars are surprisingly lifelike, and you can use gestures and facial expressions to get your point across.

The world of There has its own economy. When you arrive, you're given 10,000 There-bucks. Be careful how you spend them. You can buy a new wardrobe or hairstyle; toys such as paint guns, hover boards, and dune buggies; and even a pet, but everything is expensive. Even a T-shirt can cost hundreds of There-bucks.

You can earn more bucks by selling your There creations, or you can buy more with a credit card. The current exchange rate is around 1,700 There-bucks for each American greenback. The company isn't sure if it'll eventually charge a monthly fee for There, but it'll undoubtedly make a pretty penny on There-bucks. And it's already signed on a number of real-world designers, including Nike and Levi's, to make There items.

There lends itself to community. I rented a clubhouse for 3,000 There-bucks a week and invited my friends to stop by to pet the dog, relax in a hot tub, or play a brisk round of paintball.

I'm ready to rock when There goes public. There's no word from management when that will be, but I'm guessing it can't be too far off.

Address: **Site of the Day**

The Advertising Slogan Generator

Here are some of the slogans this mechanized marketing marvel came up with for *The Screen Savers* (<http://thesurrealist.co.uk/slogan>):

- Whatever You're into, Get into Martin Sargent.
- Choosy Mothers Choose Martin Sargent.
- There's First Love, and There's Megan Love.
- America's Most Trusted Megan.
- See the Face You Love Light Up with Morgan Webb.
- The Curiously Strong Morgan Webb.
- I am Stuck on Patrick Norton, 'Cause Patrick Norton's Stuck on Me.
- It's Shake 'n' Patrick Norton, and I Helped.
- *The Screen Savers*, the Other White Meat.
- Little. Yellow. Different. *The Screen Savers*.

The All Seeing Eye

Kevin Rose

When I've hosted *The Screen Savers* LAN parties, the no. 1 complaint I get is that players can't find our games online.

Why does this happen? Thousands of online games are taking place at any given time. By the time you download the list of more than 4,000 games, our servers are full.

The solution is called the All Seeing Eye (ASE, www.udpssoft.com/eye). It's a great little shareware application that lets you bypass your slow in-game listing method and replace it with a fast and easy way to find the server of your choice.

Here are some of the ASE's features:

- Knows the geographical location of every server. You can filter out far-away servers without wasting time pinging them.
- Has a buddy tracker that's always up-to-date.
- Uses data compression. On average, it cuts server refresh times by 10%.
- Includes support for dedicated "pingers," which can be set up on your ISP or some close-by server on a fat pipe to do all the server pinging for you.
- Instantaneously applies filters and switches between server lists. You'll never see the hourglass icon.
- Updates itself automatically when a new version is released.
- Draws player names with game font (all games supported).
- Has remote console and admin features for server admins.
- Includes support for helper programs such as QuakeWorld/Quake 2 proxies and Half-Life PunkBuster.

If you play a lot of online games, this will save you hours of time. The application is shareware. If you like it, kick down the \$10. It's well worth it.



Laporte Support

Internet Game Consoles

Will game consoles that provide Internet access eventually take over PCs as the primary web-access device?

Gaming consoles that provide Internet access, such as the Xbox and the PlayStation 2, are more convenient than PCs, but they have severe limitations. Many technologies that people use on websites—video, MP3s, MIDI, Flash—aren't supported by game consoles. They will support them eventually, but the number of people using a game console for Internet access is so low that developers aren't rushing to adapt their technologies.

For now and the near future, the primary Internet-access device will be the computer. As technology for game consoles evolves, more people will use them for access.

Trick Out Game Boy and Game Boy Advance

Roger Chang

Nintendo's Game Boy and Game Boy Advance represent the pinnacle of handheld video-gaming for many people. They're small and portable, and they sport a relatively long battery life and great games. Thanks to a collection of ambitious programmers and enthusiasts, you can now do more than just play games on the Game Boy. Would you believe you can read books, paint pictures, and even play games created by fans? It's all possible.



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Cost

Currently the only way to load software into the Game Boy or Game Boy Advance is via the cartridge slot. Although the software you need is free, the hardware that lets this all happen is not. You'll need a specialized reprogrammable cartridge, and, yes, this miracle of Game Boy innovation comes at a price. What's the rub? About \$150.

The Flash Advance Linker is the best-known cartridge, but several similar products are available, including the EZ-Flash that I used.

Is It Legal?

There's a running debate on the legality of these products, mainly because they're advertised as a way to "back up" GBA games. However, Flash Advance Linker also includes the phrase "development device" in its description.

I'm under no illusion. I'm sure piracy is committed under the banner of fair use. But I'm also excited about good, free, and useful apps created by dedicated enthusiasts. In any case, the law is at issue.

How Does It Work?

1. After you purchase one of these flashable game cartridges, install the flashing software and cartridge cradle on your PC.
2. Obtain some Game Boy Advance ROM images. A ROM is a copy of the software usually located in a ROM (read-only memory) device, such as a video game

cartridge. In this case, it's the software you want to load onto the flashable cartridge in a GBA-compatible format.

To find ROMs, do a search for PD or public domain ROMs on Google. PD ROMs are free, easy to find, and, most important, legal.

3. When you have the ROMs, launch the flashing application and insert the flash cartridge into the cradle. The application should list the contents of the cartridge. If it's new, there should be nothing on it.
4. Load a boot loader image. This lets the GBA "know" what to do with the cartridge. You can find the boot loader image on the driver disk that accompanied the cartridge. Then click Burn to store the image on the cartridge.
5. Follow the same process for each ROM that you want to load. To delete a ROM, remove the item from the list in the flash app.

GameBoy Book Reader (www.mqp.com), a nifty little application, lets you turn any text into a self-contained e-book that can be read on your GBA. The e-book is rendered out into a GBA ROM file. Install it as you would any other GBA ROM.

1. Run the MakeBook software.
2. Open a text file or document.
3. Select where you want chapter points, title, and author descriptions.

That's it. You now have a handheld gaming device capable of much more than playing games.

Play Video Formats on Your Mac

Roman Loyola

The Internet is littered with thousands (probably millions) of videos that you can download and view on your computer. The problem is that, for every video, there seems to be a different video format. It's disappointing to wait for a video to download on your Mac, only to have it not work.

Video Formats

- **QuickTime** (www.apple.com/quicktime). This is the de facto standard on the Mac. QuickTime 6 plays QuickTime files, of course, but it can also handle MPEG-4, MPEG-2, DVC Pro PAL, and a lot more. You should be able to play most videos using the QuickTime 6 player. You can find a list of video codecs supported by QuickTime at www.apple.com/quicktime/products/qt/specifications.html. Third-party components also are available from companies such as Pulse (www.pulse3d.com) and iPix (www.ipix.com).
- **DivX for Mac OS X** (www.divx.com). The DivX codec is a proprietary technology based on the MPEG-4 compression standard. To play DivX files on your Mac through QuickTime, you need the DivX QuickTime component, which includes a DivX Validator that fixes AVI-based DivX files so they will play in QuickTime.
- **RealMedia** (www.real.com). To play RealMedia files, you need RealPlayer 8 Basic for Mac OS 8.1 or higher or RealOne Player for Mac OS X.
- **Windows Media**. There are two different players for Windows Media. The one you need depends on your OS (see www.microsoft.com/mac/download/ and scroll to the bottom of the page).

Download of the Day

Blobby Volley

Megan Morrone

Daniel Skoraszewsky and Silvio Mummert's 3D German gem consists of two colorful blobs (also known as extraterrestrial jelly babies) playing beach volleyball (see <http://home.t-online.de/home/mummertathome/blobby.htm>). Use your mouse to control your blob. Right-click to jump.

If you're really adventurous, you can play others online or host your own blobby tourney.

Most of the instructions on the game's splash page are in German, but you can select English. Please to switch.



Laporte Support

Wi-Fi for Gaming

Is Wi-Fi fast enough to play games between two computers, and is it fast enough to play games online?

You betcha. It is a bit slower than Ethernet, but I doubt you'll notice. On *The Screen Savers*, we often play Quake online through a Wi-Fi network.

Some of the most addicted gamers at TechTV claim they don't get the best performance out of their gaming systems over Wi-Fi. You'll have problems if you invite 50 of your buddies over to play on your Wi-Fi setup. It can be a problem for Ethernet, too; that's why offices and huge LAN parties segment their networks with routers.

Which Console Should You Get?

Adam Sessler

I'll bet you want one of those new-fangled video-game consoles that all the spiky-haired weirdos on television are yammering on about. While not complete, here's a breakdown of the various consoles' strong points.

Xbox

The Xbox is more an investment in the future. Yes, there are some strong games, especially Halo, but there's little else to distinguish it from other consoles and their equally strong titles. If you want online gaming, this is your best bet.

Some exclusive games help give definition to the system. Primarily, they are the Sega titles, such as Shenmue II, Panzer Dragoon, Gun Valkyrie, and Jet Set Radio Future. Microsoft wants to appeal to the hard-core Sega devotee, so if you were committed to your Dreamcast, it's worth considering (www.microsoft.com/xbox).

GameCube

When you buy the Nintendo GameCube, you buy Nintendo games. That's its undeniable strength. This is the only place you can get Mario, Zelda, Perfect Dark, Star Fox, Donkey Kong, and Conker's. So if those are your favorite games, this is an easy choice.

There are a couple of misconceptions about the GameCube. The big one is the "kiddie console" problem. Kids may like Nintendo games, but that doesn't mean Nintendo games are just for kids. When did bright colors and bloodless gameplay become so unappealing to people? The gameplay in Mario 64 and Banjo-Kazooie is near perfect, and anyone can enjoy it.

That said, Nintendo realized that the N64 lacked the same number of darker games that the PlayStation had, and Eternal Darkness and two exclusive Resident Evil games should be out by the time you read this.

The other misconception is that there will be a shortage of titles. Nintendo has won back the third-party publishers it lost with the N64. The DVD-format is cheaper to produce than the cartridge. Plus, there's good reason to assume that large multiplatform franchises will appear. In addition, developers like the ease of making games for the GameCube (Factor 5 says it took only nine months for Rogue Leader), and this should allow for a far larger library (www.nintendo.com/systems/gcn).

PlayStation 2

You can have confidence in the number and variety of games for the Sony system. Plus, if you want a console with an established library of games, PS2 is the way to go. Some titles now take advantage of the system's power and benefit from longer development cycles.

Yes, the PS2 has been out longer, but it has not been rendered obsolete by the GameCube and Xbox. One look at MGS2 or Ico should lay those anxieties to rest. And, yes, it most likely will be the first console to see a next-gen upgrade, but there's a whole lotta good gaming to be had until then.

If the PlayStation was your primary gaming console and you liked the games, those trends will continue. Don't expect to see the Final Fantasy games and other titles from Square on any other system because Sony bought a significant share in the company. In addition, Sony has managed to produce some impressive first- and second-party titles, such as Gran Turismo 3 A-Spec, Ico, and Twisted Metal Black, making Sony games something you can't get for any other system and a reason to consider purchasing the console (www.playstation.com).

Twisted List: Video Games

Martin Sargent

I'm the kind of guy who loves everything to be brand spanking new. I buy a shiny new Lexus every year, I never wear the same shirt twice unless it's made of a meshlike material, and I still love to dance to the New Kids on the Block at clubs that have just opened. Same goes for the video games I play.



- **Beat Ball** (www.imphenzia.com). A new take on the arcade classic Breakout. It's fresh, exciting, and terribly action-packed! Actually, it's just Breakout set to techno and ambient music, but it's somewhat reminiscent of playing Arkanoid at a rave.
- **Fly or Die** (www.gamedale.com). I love video games with brilliant titles. That's why this one is right up my alley. The object of the game is to fly, or you could die. You've never seen anything like it. Adam Sessler of Extended Play writes, "It will start a revolution in the game space comparable only to the birth of the first-person shooter." I played this game after a particularly intense round of Beat Ball and worked off 15 pounds. I haven't done that since Richard Simmons came out with "Sweating to the Oldies, Part Three." I don't know how Chubby Checker wasn't built like a stick!
- **Pickman-3D** (www.alawar.com). Here's a game with a concept that makes you say, "Why didn't I think of that? I'd be a millionaire!" The concept: Merge the arcade classic Pac-Man with the role-playing game Dungeons & Dragons. That's the crux of the game. It's a whole lot like Pac-Man 3D, except that in the intro it says you're in a fortress full of orcs rather than a maze rife with ghost monsters. I've got an eighth-level awful good Pickman!
- **Super Methane Brothers** (www.digitalfan.com). You've all heard of Super Mario Brothers, but how about these guys? It's just like the original Super Mario, except with this variation on the old Amiga game: Instead of being a plumber, you're apparently part of a sibling extermination duo that fires methane gas at bugs. It's pretty brilliant.
- **Atomic Superball, the Chicken Edition** (www.tetriscity.com). The game is very similar to Breakout, but with a mind-bending twist: You need to kill a chicken before advancing to the next level.

Talkback

Do Video Games Belong in Gym Class?

Dave Roos

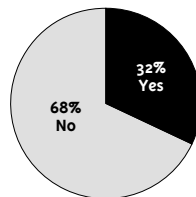
Geeks and gym class do not mix. Mention the words *dodge* and *ball* to any member of *The Screen Savers*, and he's likely to respond with a tragic tale of wedgies past. One school in California has added highly entertaining and mildly aerobic Dance Dance Revolution machines as a substitute for less entertaining exercise options, such as floor hockey and laps. "My waistline has gone down by 1 inch," one satisfied gamer says. "In, like, two weeks, I've lost 15 pounds," adds another formerly pudgy player.

The machines, which cost \$8,000 a pop, are apparently mobbed with students who complain when gym class has to end.

Do video games belong in gym class?

Yes 32%

No 68%



Goodies That Won't Break the Budget

Josh Lawrence

It can be hard to buy cool tech gear on a tight budget. Don't worry, there are plenty of great goodies for less than \$50. Here are Megan and Morgan's picks:

- **Unreal Tournament 2003** (www.rockstargames.com). This massively multiplayer first-person shooter has been a favorite of our weekly LAN party fragfests.
- **Grand Theft Auto: Vice City** (www.rockstargames.com). The controversial car-, motorcycle-, plane-, and helicopter-stealing simulation for PlayStation 2 has climbed to the top of most gamers' lists of all-time favorites.
- **Tony Hawk's Pro Skater 4** (www.activisiono2.com). Hop on your board and prove you have the skills to go pro in this game for PlayStation 2, PlayStation, Xbox, and GameCube.
- **Atari 10-in-1** (www.jakkstvgames.com). Want some old school gaming goodness, but don't want a old school bulky console? The Atari 10-in-1 packs 10 Atari 2600 games into a single controller that plugs directly into your TV.
- **Zip Zaps** (<http://zipzaps.com>). These speed-demon remote-control minicars can be bought in your local Radio Shack. Choose the model you want at the Zip Zaps showroom, and the site can point you to your nearest local store.
- **CDs and DVDs**. Of course, CDs and DVDs are always a good bet for less than \$50 as well. For instance, Morgan recommends the Platinum Series Special Extended Edition of *Lord of the Rings: Fellowship of the Ring* DVD set.



Martin's Tips

Top Five Games to Play While Mostly Paralyzed

While vacationing deep within the Amazon River basin over the weekend, I inadvertently infuriated some local savages by wearing a culturally taboo racing-stripe loincloth. This caused the tribal chieftain to blow a poison dart into my neck.

The poison paralyzed my entire body except for two fingers on my right hand, throwing me into a panic. How would I be able to play computer games on my laptop while I lay in the jungle waiting for the paralysis to lift?

Luckily, I had installed five games on my laptop computer that require only simple mouse-clicking to play, on the off chance that just such a situation would arise.

Without further ado, I bring you the top five games you can play if a poison dart paralyzes most of your body in the Amazon:

1. **Spear Toss** (<http://games.alentus.com>)
2. **Among the Clouds** (www.orisinal.org)
3. **Helicopter** (www.ebaumsworld.com)
4. **Poke the Penguin** (www2.gamesville.lycos.com)
5. **The Mouse Click Game** (www.stupid.com)

How to Cheat at Solitaire

Morgan Webb

We all like to win, but why do we bother when we're competing against ourselves? Man's battle against himself is the noblest form of competition, but it's often debased by our wish for the easy victory. We must ask if it is human nature that makes us revel in this self-deception. We must ask if we merely crave some visceral satisfaction that comes from achieving even a conspicuously empty victory. The moral questions involved, however, are yours alone to answer. I merely give you the tools you need to cheat at Solitaire.

Solitaire Cheat

1. Open Solitaire. Go to Game and then Options, and choose to draw three cards.
2. Any time during gameplay, if you hold down Ctrl+Alt+Shift while you click the deck, you will draw one card rather than three. High scores will be yours every time!

Freecell Cheat

1. When you get stuck in Freecell, hold down Ctrl+Shift+F10.
2. When the user-friendly interface appears, choose Abort.
3. Make any move, and you will automatically win the game!

Bonus: Freecell includes some hidden games. Press F3 or choose Select Game from the Game menu; where it asks you to select a game number between 1 and 32,000, enter **-1** or **-2**. You get two strange new Freecell games to play.

Address : **Site of the Day**

3D Tetris

The classic puzzle game enters a new dimension of fun. (www.andre-michelle.com/old_studies/tetris3d.htm).

Talkback

Do Video Games Fry the Brain or Sharpen the Senses?

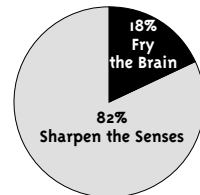
Josh Lawrence

Ever since kids started pumping millions of quarters into Space Invaders stand-up arcade games in the 1970s, worried parents and pundits speculated on whether electronic games were going to turn their brains into action-addicted sludge.

Surprisingly, many have claimed that video games are beneficial to players' brains. Dr. Margaret Chotton suggested in the now out-of-print *Computer Addiction?* that video games increase a player's manual dexterity and hand-eye coordination, and speed up the activity of neural pathways.

So when you or someone you know sits down to play a video game, what do you think is the main effect? Do you believe that brain cells are being challenged and enhanced, or simply being boggled and blasted into stupor?

Do video games
fry the brain or sharpen
the senses?
Fry the brain 18%
Sharpen the senses 82%



Classic Arcade Gaming

Ed Lee and Roger Chang

Did you know you can relive part of your childhood in the form of these classic games for free, thanks to the Internet? What's more, these games are downloads—yours to keep and cherish forever.

Emulators and ROMs

Emulators are software programs that essentially duplicate the innards of old video game machines, as well as classic consoles such as the Atari 2600. ROMs are the games themselves, extracted from the source code of the originals and zipped up to be read by the emulators.

If this seems a bit confusing, don't worry. Some excellent sites are devoted to this nostalgic pursuit. At ClassicGaming.com, you can find a variety of emulators and hundreds of ROMs to download.

Mame

By far the most popular type of emulator, according to ClassicGaming.com site director William Cassidy, is Mame (www.mame.net). Mame and its Windows counterpart, Mame32 (www.classicgaming.org/mame32qa), emulate more than 1,500 classic arcade games such as Joust, Centipede, and Pole Position. There's also a Mac version called MacMame (<http://macmame.org>). Here's how to use Mame:

1. Download Mame. Download the binaries, not the source code, unless you're interested in programming.
2. Download the game ROMs. The legalities involving ROMs are far from resolved, so you'll have to find the ROMs on your own.
3. Install or unzip the Mame file. Notice that in the newly created Mame directory, there's a subfolder called ROMs.
4. Put your downloaded ROM files into the ROM folder in the Mame directory. Do not unzip the ROM files. Mame was created to accept ROM files in zip format.

5. Start Mame. From the File menu, select Show Only Available. If you don't follow this step, Mame will list every supported game, whether you have it or not.
6. You can customize controls within each game's properties. These include sound, game controller, and video settings.
7. Select the game you want to play and click Run. To skip the first warning screens, type **ok**. The game will need to boot up in Mame.
8. Here are your game's controls: 5 and 6 insert quarters into the game; 1 and 2 select one or two players; during the game, adjust specific game settings by hitting the Tab key; Esc exits the settings menu.

Console Emulators

Most other emulators focus on one console, such as the Atari 2600 or the Nintendo Entertainment System (NES). Some of these include Stella (an Atari 2600 emulator), ColEm (ColecoVision), Genecyst (Sega Genesis), and NESTicle (NES, www.classicgaming.com). "Virtually all console systems before 1995 or so have been emulated," Cassidy says.

Emulate Multiple Consoles

The only emulator that handles multiple consoles successfully is called Mess (<http://mess.emuverse.com>). Most people would rather find the emulator that gets their favorite games just right.

Emulators for the Mac

Emulation.net is the one-stop shop for Mac users interested in emulating classic and not-so-classic game machines, including such greats as the Super Nintendo, the Atari 800, and, of course, Mame.

So, this community of enthusiasts has given these games a whole new lease on life with emulator technology. But at this point you might be asking, are these games legal? Isn't someone, somewhere, going to want to be paid?

Games for the Graphically Challenged

Nicole Carrico

You might have the impression that we at *The Screen Savers* are obsessed with finding the latest and greatest in graphical gaming. But that's not entirely true. Granted, we drool over those breathtaking visuals as much as the next geek, but there are plenty of games out there for those who haven't invested in the latest 3D graphics card.

Here are a few of our favorite old-school games. They're all free and fiendishly addictive, and they can all be enjoyed on any computer, no matter how small the screen or how slow the system:

- **Super Collapse** (<http://games.yahoo.com>). This innocuous little game from Yahoo! comes in the form of a 1.2MB download. The goal is to eliminate the blocks entirely, or to prevent them from stacking to the top before your time runs out. Try it, and you'll discover what every member of *The Screen Savers* team has learned the hard way. We're starting a 12-step group in an attempt to break this horrible addiction, but no one can make it to the meetings: They're too busy playing. This game is free to try and \$19.95 to buy.
- **The Land of ZZT** (www.autofish.net). Web producer Josh Lawrence turned me on to these ASCII-based games. Published in 1991, ZZT is a freeware computer game designed by Tim Sweeney with a built-in editor, allowing any user to create new games. Don't let the grainy graphics fool you! You can spend many, many hours in these custom worlds, and you don't need a souped-up system to enjoy them.
- **The Hitchhiker's Guide to the Galaxy** (www.the-underdogs.org). For my money, text-based games don't get any better than Infocom's classic *The Hitchhiker's Guide to the Galaxy*. It's based on the infamous five-book trilogy by Douglas Adams. I grew up playing this game, and the Solid Gold edition released in 1987 manages to improve the experience without interfering with the original. (Another Infocom favorite is the popular *Zork*, also at Home of the Underdogs.)

- **Doom** (www.idsoftware.com). Leo would never forgive me if I failed to mention *Doom* from id Software. This obscenely popular action game offers a fast, simple 3D graphics experience on virtually any system. So load up your shotgun and get ready to shoot some demons! It's free to try.
- **Bejeweled** (www.popcap.com). Last, but certainly not least, *Bejeweled* is easily one of the most popular free games on the Internet. The 1.6MB download packs quite a punch and earned the title of "Most Popular Game of 2001" from the MS Gaming Zone. If you aren't already hooked on this one, you don't know what you're missing.

Download of the Day

Farnsworth Ferret's Fun Pack for Kids 1.3

Megan Morrone

It's never too early to teach your child how to use your computer. I'm not going to promise that they won't throw up on the keyboard, but I can't promise that about myself these days, either. Morning sickness means my baby's going to be healthy, right?

Farnsworth Ferret's Fun Pack for Kids (<http://download.com>) is a collection of five games that you can play for free. The games are for kids as young as 4, but because you can change the difficulty level, older kids can have fun too.

Twisted List: Alien Games

Martin Sargent

I know they're out there. In psychotherapy this morning, I uncovered several repressed memories involving a cornfield, a UFO, and several little green men wearing big white coats.



I will never wear a kilt on the farm again.

Anyway, to help me work through the trauma, my therapist suggested I create a list about alien games.

- **Whack an Alien** (<http://download.com>). This is a new take on the classic Whack a Mole, ingeniously renamed Whack an Alien. I feel kind of guilty because the aliens never even attack. They just wave their heads back and forth and writhe like hippies at a Dead show.
- **PetWings** (<http://download.com>). How many times can we remake the arcade classic Galaga? Wasn't Galaxian enough? You can remake it at least one too many times, if PetWings is any indication. Again, you feel bad blasting the space critters—they're cute. That is, until you realize that their leaders are giant space bees that shoot fireball stingers at your head. Exterminate!
- **A-Blast 3D** (www.shockwave.com). I wanted to be an astronaut when I was a kid, but then I found out they wouldn't take me because I have 20/400 vision, and if you lose a contact in zero gravity, you're hosed. Not to mention the mess the saline solution would make. A-Blast 3D lets you fly through space and shoot alien vessels. But, it's just not the same as the real thing. I've seen Battlestar Galactica, so I know.
- **Spacebar** (<http://download.com>). Here's a funny premise for a game. You walk into a brew pub in another galaxy, and aliens offer

you cocktails and frosty, delicious, refreshing mugs of beer. Your job? Destroy the drinks with a shotgun. The future has never looked so bleak. Rumor has it that the game was created by a Czechoslovakian company on a government mission to curb teenage drinking and, apparently, to encourage teenage shootings of bars with shotguns.

- **UFO III** (<http://download.com>). We're so used to defending the Earth from aliens; wouldn't you like to experience the other side? In UFO III, you're the creature in the spaceship attacking Earth using advanced technology. Like most aliens, you mainly want to kill us for no good reason. All of your victims are driving Porsches, however, so you could be alleviating the unequal distribution of wealth in this country—unless you're a believer in Reaganomics and that whole supply-side thing, in which case you're really screwing up our economy.

Download of the Day

Alley Cat

Morgan Webb

Ah, the good old days, when the best sounds you could muster from your PC were blips and bleeps from your internal speaker and 256 colors seemed a dreamlike impossibility.

Now you can relive those simpler, halcyon days with Alley Cat (www.dosgamesarchive.com), a classic (and free!) DOS game written by Bill Williams in 1984.

The object of the game is to leap around the alley of an apartment building, collecting mice and other kitty delicacies while avoiding dogs and other perils of feline street life. Note: This game is definitely abandonware; our research indicates it's freeware, but download at your own risk.

Ultimate Gaming Machine 6.0

Roman Loyola

In case you're not familiar with the Ultimate Gaming Machine (UGM, for short—we pronounce it “ugh-um” on the show), it's a PC we've put together for the best gaming performance and experience.

Core Components

We didn't go for the most expensive, fastest parts. Instead, we considered price as well as performance. Here's a parts list:

- **CPU:** AMD Athlon XP 2800 (www.amd.com)
- **Motherboard:** Asus A7N8X (www.asus.com)
- **RAM:** Corsair (www.corsairmicro.com) XMS 3500 DDR 433 MHz (two 512MB sticks)

Storage

Storage gets more affordable every day, so why hold back? What might seem gluttonous now will be the norm in six months.

- **Hard drive:** Western Digital Caviar 200GB (www.westerndigital.com). A 7,200 rpm drive with an 8MB buffer. You have to partition it to properly use it.
- **CD burner:** Lite-On LTR-52246S (www.liteonit.com.tw). The fastest CD burner in the world: 52X write, 24X rewrite, and 52X read speeds.
- **DVD-ROM:** Toshiba SD-M1612 (<http://sdmswb01.config.toshiba.com>). 16x DVD playback.

Optional Hardware

Although we didn't include the following items in UGM, we did consider them and had them in for benchmarking:

- **Hard drive:** Fujitsu MAN3367MP (www.buyfcpa.com). A 36.7GB SCSI drive rated at 10,000 rpm.
- **SCSI card:** Adaptec 29160 SCSI card (www.adaptec.com). A single-channel Ultra160 SCSI card that uses a 64-bit PCI interface. This is for our Fujitsu drive, plus future expansion options.

Sound and Input Devices

People often try to save money when buying these components. But because gaming is an interactive activity, it makes better sense to get good input devices and sound components. When sound draws you in and the controls work smoothly, you've got a great gaming experience.

We picked products that offer good price and performance. Picking input devices comes down to how they feel in your hands, so what's comfortable to us might not work for you.

- **Mouse:** Logitech MX700 Cordless Optical Mouse (www.logitech.com). No dirty mouse ball or cable to slow us down.
- **Keyboard:** Logitech Elite USB Keyboard (www.logitech.com). Instant access buttons for quick access.
- **Joystick:** X45 digital joystick and throttle (www.saitekusa.com). For when we feel like flying.
- **Gamepad:** Microsoft Sidewinder Gamepad Pro (www.microsoft.com). It's comfortable and it looks cool.
- **Sound card:** Turtle Beach Santa Cruz (www.turtlebeach.com). Offers six-speaker support.
- **Speakers:** Klipsch ProMedia 5.1 (www.klipsch.com). These are the speakers we used with UGM 5.0. We liked them so much that we decided not to change them.

Video

The video card is a crucial component for the gaming PC's performance. Here's what we picked:

- **Video card:** ATI Radeon 9700 Pro (<http://mirror.ati.com/products>). According to TechTV Labs, it's the fastest card on the market.
- **Monitor:** Princeton Arcadia AR3.2FTX (www.princetongraphics.com). Combines XGA-computer compatibility, HDTV compatibility, and a built-in NTSC TV tuner in one monitor.

UGM 6.0: Benchmarks

Patrick Norton

How fast is the PC we've put together?

We went for the best numbers we could get on FutureMark's (www.futuremark.com, the benchmark company formerly known as Mad Onion) 3D Mark 2001 SE (build 330), a solid, all-around 3D performance benchmark. We also tested with Unreal Tournament 2003, the most power-hungry game we've seen yet.



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Preliminary Benchmarks

Before we built UGM 6.0, Yoshi grabbed the two fastest chips and the two fastest graphics cards, and he came up with these benchmarks (tests run at 1,024x768 screen resolution).

We said Intel's 3.06 PIV ran 3D Mark 2001 a shade faster. It also costs nearly twice the price of the speediest AMD Athlon XP processor. Also, the Athlon XP ran UT2003 faster. Costs less? Runs the real game faster? We went for the AMD Athlon.

A faster hard drive helps load games faster. It'll help you change levels faster as your CPU sucks the info off the drive and into main memory. But it's not gonna help many games much (if at all) while you're playing.

The next stop for our UGM? Overclocking, definitely. Then more benchmark tests. Then?

UGM Benchmarks

These were the final benchmark numbers on our tweaked but not overclocked UGM 6.0:

3D Mark 2001 SE: 15057

That score is almost identical to the 3.06 PIV we tested. UGM yielded 80 frames per second on Unreal Tournament 2003 Bot Match (full version of the game, not the demo). Not bad.

Frankly, you'll notice nearly no difference in those benchmark results up there.

3D Mark 2001	3.06GHz Pentium 4	AMD Athlon XP 2800+
NVidia GeForce Ti 4600	13429	13281
ATI All-In-Wonder 9700 Pro	15054	14756
Numbers are based on Futuremark's 3D Mark 2001 SE benchmark.		

Behind the Numbers

Is UGM 6.0 that much faster than other top-of-the-line systems out there? Not really. The truth is, most games run in the CPU, memory, and the graphics card. The motherboards that make a healthy difference in performance simply connect those parts better than other motherboards (I'm oversimplifying here).

Unreal Tournament 2003 Bot Match	3.06GHz Pentium 4	AMD Athlon XP 2800+
NVidia GeForce Ti 4600	73.1	76.44
ATI All-In-Wonder 9700 Pro	75.2	80.77

Twisted List: Top Five Free Arcade Games

Martin Sargent

My anthropology Ph.D. thesis advisor, Dr. Kwame Jeyifo, had a theory that you can learn a lot about a nation by looking at the free games the people of that nation download off the Internet. Of course, he was a post-structuralist, and we all know how they are. Regardless, let's see what we can glean about America by inspecting the top five arcade-style games people downloaded from Download.com.



1. In **Natomi Bottle Rockets Extreme** (www.natomic.com), the object is to destroy spaceships using bottle rockets. It's fun, but just remember, kids, that if a bottle rocket can destroy a space vessel from a civilization that's clearly more advanced than our own, just think what a bottle rocket will do if it explodes in your fingers.

2. I can never decide what I like more: foul-mouthed, flatulent schoolboys or Italian-American plumbers who eat magic mushrooms.

Well, I don't have to decide if I play

South Park Super Mario Bros

(www.gamewizardpro.com), a version of the classic Super Mario Brothers. Instead of Mario or Luigi, you play Kyle or one of the other *South Park* hoologans. But beware—the game is buggy as all get out and tries to mess with your system. I cannot recommend it. There, I said it.

3. Dr. Kwame Jeyifo used to say that people play computer games in part because they can become something they've always wanted to be. A wizard. A god. A fighter pilot. A beer truck driver.

In **Beer Truck 1.0** (www.mrgoodbeer.com), you steal a beer truck and try to get it back to your trailer without getting nabbed by the fuzz and tossed in the hoosegow. The gameplay is primitive, akin to *Spy Hunter* after slugging a sixer of Coors Light, chasing each one with some Jaeger. Man, that brings me back to when I lived with my mom.

4. This is a shocker. Apparently, we Americans are pining for a simpler time, unencumbered by the weight of enjoyable video games.

That's the only possible explanation for why this really crappy version of **Pac-Man** (<http://download.com>) is on the list. This version came out more than 20 years after the original, yet it is to Pac-Man as Zinjanthropus man is to homo sapien man.

The only worthwhile twist in this version is that if your Pac-Man drinks a beer, he gets drunk and becomes difficult to control. And believe me, a drunk Pac-Man is messy.

5. The object of **Grand Theft Auto** (www.take2games.com) is to complete missions while car-jacking innocent drivers and smacking into any pedestrian in your path. You actually get points for running over people. It's disgusting.

I mean, wake up America. Why are you wasting your time on this old version of *Grand Theft Auto* when there is so much more potential for killing and spilling blood in *Grand Theft Auto 3*?

Address: **Site of the Day**

Electrotank Mini Golf

Try your hand at Electrotank Mini Golf (www.electrotank.com), quite possibly the most realistic putt-putt simulator ever created.

Sub-\$500 Gaming PC

Patrick Norton

I know that if you already have a PC with an ATX case, a 300-watt (or bigger) power supply, a CD-ROM (or CD-R/RW, DVD, etc.), and a hard drive, I can help you build a kick-ass gaming PC for \$362. If you need a case, a power supply, a CD-ROM, and a hard drive, well, it'll cost a whopping \$471.

At the core of our cheap gaming PC is an AMD Athlon XP 2100+ CPU, a speedy MSI nForce2 motherboard, 512MB of PC2700 RAM (if you can find PC2700 in 128MB sticks, you can save money by getting 256MB of RAM), and a DirectX 9-ready ATI Radeon 9500 graphics card.

The Parts That Count

Most games live in your processor, main system memory, and graphics card. The hard drive and CD-ROM drive are there to feed those parts the data.

A faster hard drive loads your game levels faster, and a faster CD-ROM drive loads your games onto your hard drive faster.

With this in mind, scrounge! Call every local computer store. Hit Price Watch (www.pricewatch.com). Shop at companies that offer super-cheap or free shipping. Don't order anything overnight. Be patient.

Inventory

- **CPU:** Athlon XP 2100+, \$71 (www.amd.com).
- **Motherboard:** MSI K7N2-L, \$90 (www.msicomputer.com). The MSI K7N2-L has the NVidia nForce2 IGP chipset, built-in 10/100 Ethernet, audio, five PCI slots, and USB 2.0.
Want FireWire and the SoundStorm APU surround-sound audio? It'll be a bit more—say, \$137 for the Asus A7N8X Deluxe (www.asus.com) or \$147 for the MSI K7N2G-L (www.msicomputer.com).
- **Memory:** Two sticks of 256MB PC2700, \$65. If you can find 128MB sticks, buy a pair instead. You need two sticks of DDR RAM to take advantage of the nForce2's Dual Channel DDR.



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Willing to spend more money? You'll get better performance from the CAS2 PC2700 than the CAS2.5 that comes with most generic DDR RAM.

- **Graphics card:** ATI Radeon 9500 Pro, \$136. You could go with an nForce2 motherboard with onboard graphics. The motherboard will cost \$30 to \$40 more, but newer games, such as Unreal Tournament 2003, will bring the onboard graphics to its knees. ATI's Radeon 9500 is the cheapest DirectX 9 graphics card.
- **Hard drive:** 60GB EIDE drive, \$66. On Price Watch, 20GB drives start at \$49 and often aren't listed with a brand. 60GB drives start at \$66 and are usually Maxtor or Western Digital.
- **CD-ROM drive:** Generic 40X CD-ROM, \$25. If you're using the CD-ROM drive only to install games and listen to the occasional audio CD, don't break the bank. If you want faster audio extraction (for making MP3s) and the ability to burn audio discs and data backups, get a CD burner (\$50).
- **Case and power supply:** Generic parts on Price Watch, \$18. Recycle an old case. Buy a case from a yard sale. Watch for the best power supply you can get.

Small-Time Gaming with Linux

Chris DiBona

PC gaming is getting better for Linux users. Games such as Quake and Unreal Tournament can be played natively on Linux machines. Others, such as Jedi Outcast, can be played via Transgaming Technologies' WineX emulator.

That's all well and good, but what about Tetris, Tetravex, or plain old Solitaire?

These games, while small, are some of the world's greatest diversions. Got a few minutes to kill? A game of Minesweeper is a wonderful distraction. As it turns out, when it comes to small-time time-wasters, Linux users are a lucky lot, with a ton of titles to choose from.

I've listed some of the most addictive little games and a few of the larger time-wasting wonders that come with an installation of Red Hat Linux 8.0 (www.redhat.com).

Tetris Clones

In the Tetris-like game category, we have a number of offerings, including Ksirtet, Ksmiletris, and a fun little twist on Tetris called KfoulEggs. As you can probably tell, I'm concentrating mostly on KDE apps because KDE is what I run.

Mahjongg Mayhem

- Shisen-Sho
- Kmahjongg

Card Sharks

- Patience
- Poker
- Skat

Board Games

- Go and Reversi-style games
- Chinese checkers (Kenolaba)
- Chess
- Backgammon (personal favorite)

More Action

If these games are too slow for you, I suggest some of the faster-paced games included with Red Hat, such as KSpaceduel, which is based on the old SpaceWar games, and Kasteroids, which is an Asteroids clone.

Even More Action

These games are pretty fun, but a few even cooler games come with Red Hat, including Chromium, a space shooter; Tux Racer, a sled-ding penguin game; and Freeciv, a free version of Civilization.

Find More Games for Linux

Freshmeat.net and Happypenguin.org have even more free games for Linux. Most of these games, including the very addictive Frozen-Bubble, are included on the Knoppix Linux demo CD, so if you don't feel like installing Linux, you can still play all these great games.

Download of the Day

DX-Ball

Megan Morrone

Amiga fans will remember MegaBall, a popular Breakout-like game that ran on just about any Amiga. Now you can download a MegaBall clone called DX-Ball (www.blitwise.com) for free on Windows 9X/NT/2000 or Mac OS 8/9/X. The website doesn't mention XP, but it ran fine on my XP machine.

The game (created by Michael P. Welch) is similar to MegaBall and Breakout. If you've played Hardball for Palm, you'll also see similarities. The object of the game is to hit the ball with your paddle (using your mouse) and knock out the pyramid of blocks. When the ball hits the ground (or the bottom of the screen), you lose a life. The twist to DX-Ball is that not all blocks are created equal. When you first start up the game, you'll see a key to the secrets that each special block contains. Try it. You'll like it.

Help Yourself: Game Peripherals

Eileen Rivera

So you say you got da skills, huh? Well, why not make your gaming experience a little more interesting with some of these peripherals?

VR-1 Virtual Racing Chassis

It's a seat, folks. No steering wheel or pedals, and it's about \$300, but it sure is comfortable! It's really designed for the racing game aficionado or someone who has a lot of money to burn. All you do is hook up your steering wheel, and you're ready to go (www.bobear1racing.com).

Nintendo WaveBird

Don't you hate it when people trip over your controller wires when you're playing a game? If you're playing with the GameCube, the WaveBird eliminates that problem. It uses an RF signal, so you can play wirelessly several feet away from the TV. It's a fine investment for every GameCube owner.

Magic Box

Now even after they gave us the S-controller, some people still have problems with their Xbox controller. Well, here's the solution. Plug the Magic Box into your Xbox, and it becomes a conduit, allowing you to use a PS2, Dreamcast, and Saturn controller to play Xbox games. Very cool!

It can be useful for very specific games, primarily fighting games. Bear in mind that Xbox games are designed for the Xbox controller, so you might run into problems if you use your entire library. You'll find the Magic Box only at a video game import store or site, such as www.lik-sang.com or www.levelsix.com.

Airflo

Sometimes after playing for hours on end, you end up sweating all over your controller. Nyko's (www.nyko.com) controller fixes that problem. Inside the handle are fans that blow air and thereby keep your hands nice and cool.

It really doesn't work too well for playing the games, but if you are a really sweaty boy, this might be something to look into.

E-Dimensional 3D Wireless Glasses

These promise a 3D experience right out of your monitor. Well, it's 3D kinda like *Jaws 3D*, and we all know that was a quality film.

Also, if there's any text in this game, it's nearly impossible to read it. You will suffer eyestrain (www.edimensional.com).



Laporte Support

Speed Up a Celeron-Based System for Gaming

Download the Belarc Advisor (www.belarc.com) to find out what CPU and video card you have. You need this information to determine what you can upgrade. With a Celeron-based system, you don't want to get the latest and fastest video cards. Your CPU can't keep up with the processing of GeForce4-type cards. You can probably upgrade to a GeForce2-level card.

You have to open the case to see if you have an AGP slot. If not, you need to get a PCI video card. To get AGP and to be able to use GeForce4-level cards, you'll have to upgrade your motherboard and processor. You need to have at least a 1GHz CPU to take advantage of the GeForce4.

Address: **Site of the Day**

Adrenaline Vault

This is arguably the best gaming site: www.avault.com. Get the latest reviews, free downloads, and much more.

NVidia GeForce Chips Explained

Patrick Norton

I love the fact that NVidia has pushed the limits on 3D performance (NVidia's drivers aren't bad, either). The company has established its reputation by releasing new products every six months or so. The downside? With new chips coming out and older chips still on the market, that means a lot of NVidia-based boards on the shelves.

TNT2-based boards are cheap; I still see them on shelves for up to \$50. Same thing for GeForce 256, the first generation of GeForce processors. For that money, you can get the latest generation of GeForce4 boards, at least the low-cost MX versions.

That said, the GeForce4 MX-based boards might not be the best way to go. Don't get me wrong: Every board listed will play games (especially pre-DirectX 8 games). Read Tom's VGA Charts (www17.tomshardware.com) for a comparison of almost every graphics card sold in the last three or four years. Look closely; you'll see that the GeForce3 and GeForce3 Ti 500 generally outperform the newer GeForce4 MX boards and pretty much trounce them on Aquanox, a DirectX 8 game.

GeForce3 vs. GeForce4

The GeForce3 is actually more advanced technology than the GeForce4 MX, which is essentially a souped-up GeForce2 MX processor. The GeForce4 doesn't contain the nfiniteFX engine (NVidia's vertex shader), which means it doesn't fully support DirectX 8.1. All GeForce3 cards pack this feature. That's one reason the GeForce4 MX is cheaper.

The main differences between the GeForce4 MX and the GeForce2 MX cards are the clock speeds and the GeForce4 MX's Light Speed Memory Architecture II. The GeForce4 MX's implementation of this memory controller has half the segments of the GeForce3 and GeForce4 Ti, and thus considerably less memory bandwidth and performance. While we're going over gadgetry, the GeForce3 boards have a single vertex shader, compared to the GeForce4 Ti's pair of shaders.



For a few dollars more than the GeForce 4Mx 460, you'll get heaps better performance and a longer life with a GeForce4 420Ti board (or, for less money, the late GeForce3 boards), especially if you regularly buy new games. The GeForce4 MX boards are missing those crucial vertex and pixel shaders. That's not a problem with today's Quake, but soon games will demand Direct X 8 or Direct X 9. Avoid the bottom of the barrel GeForce4 MX420; it will barely outperform the GeForce2 MX400.

GeForce Bargains

The best bargains are GeForce3 boards if they're priced under GeForce4 MX cards. The GeForce4 420Ti is the best deal on a top-of-the-line video card. The GeForce4 420Ti is an ideal choice for a middle-of-the-line video card. The GeForce4 MX 440 is a good deal, as long as you pay less than \$80 and understand that you'll want to replace it in a year.

If you're running less than a 1GHz processor and already have a GeForce board, you should upgrade the processor first. Or, upgrade the processor and the video card in tandem. Thinking about a top-of-the-line GeForce4 Ti board? You're wasting money if your processor can't feed it, and 1GHz is pretty much the starting point.

Wil Wheaton's Favorite Games

Wil Wheaton, who played Wesley Crusher on *Star Trek: The Next Generation* and Gordie in the film *Stand by Me*, is a gamer as well as an actor, and is a long-time friend of *The Screen Savers*. These classic games delight his inner and outer geek. Be sure to visit Wheaton's site (www.wilwheaton.net).

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My Top Five Atari 2600 Games

1. **Kaboom!** (www.geocities.com/elvis8atari). I'd score it higher, but it's just too damn hard on the higher levels.
2. **Combat** (www.atarihq.com). One word: Invisible tank pong with maximum walls. Close your eyes and make the sounds in your head. Now just try to be unhappy.
3. **Circus Atari** (www.atarihq.com). If you don't already have a paddle controller because of Kaboom!, you'll get it for this game.
4. **Pitfall!** (www.thealmightyguru.com). Please tell me I'm not the only person who tried to get to the "end" of this game.
5. **Yar's Revenge** (www.thealmightyguru.com). The best giant-insects-attacking-the-base-while-trying-to-use-the-big-ass-cannon-that-you-can't-fire-from-the-neutral-zone game ever!

My Top Five Role-Playing Games

1. **D&D Basic Rules** (www.acaeum.com). Color-them-in-dice, The Keep on the Borderlands module.
2. **GURPS Autoduel**, including all the Uncle Albert's Catalogues (www.sjgames.com).
3. **GURPS Illuminatti**, with a bit of Horror (www.sjgames.com).
4. **D&D 3rd Edition** (www.wizards.com).
5. My friend Terry's **GURPS Space Adventure** (www.sjgames.com), circa 1989, when I got a critical success roll while trying to disguise myself as the president, who I was trying to assassinate. The critical success made my disguise perfectly match the person I was trying to kill, so I totally messed up the entire campaign by walking around firing the president's entire cabinet.

Download of the Day

Age of Mythology Demo

Megan Morrone

This beautiful game is part of the Age of Empires series (www.microsoft.com/games/empires). In the demo, you can play only Zeus. But hey, who's better than Zeus?

This download is a hefty 345MB. If you don't have broadband, go watch *The Two Towers* on DVD; when it's over, the game might be finished downloading.

The Age of Mythology trial version is available at www.microsoft.com/games/ageofmythology/egypt_downloads.asp.

Address: Site of the Day

Rooftop Skater 2.1

Martin Sargent

Dude, there's nothing like jumping on a killer deck and shredding the steps of City Hall pulling goofy-foot ollies and front-side nose-blunt slides. Obviously, I have no idea what I'm talking about. Sure, I like to pretend I'm a skateboarder, but my body is just too delicate, and baggy pants don't flatter me.

To fill the skateboarding void, I play this great game called Rooftop Skater. You can customize your skater, edit rooftop levels, and pull wicked tricks from building to building. It's all the fun of real skating without the brain-scrambling concussions (www.newgrounds.com/porta1/view.php?id=30329).

Are Emulators Legal?

Ed Lee and Roger Chang

Emulator ROMs are the code for the games, so they're like individual cartridges for the emulators, which represent the game consoles. The code is converted into binary and fed through a custom-made device into a PC that turns it into an archive. "Often the cartridge reader and software is strictly a homemade affair, so a ROM archivist has to be very technically inclined," William Cassidy of ClassicGaming.com says.

Classic Video Game Sites

- **Mame World** (www.mameworld.net)
- **ClassicGaming.com Hosted Sites** (www.classicgaming.com/sites)
- **Zophar's Domain** (www.zophar.net)
- **Mame.dk** (www.zophar.net)
- **Atari Gaming Headquarters** (www.atarihq.com)
- **ClassicGaming.com Newbie Guide** (www.classicgaming.com/cgng)
- **Intellivision Productions** (www.intellivisionlives.com)
- **Classic Video Games Nexus** (<http://home.hiwaay.net/~lkseitz/cvg/nexus/>)

The ROM-making community is quite small and, as a result, not nearly as visible as the music file traders. Although the two forms of digital entertainment are quite different, the legal ramifications of sharing intellectual property are similar.

"This is a thorny issue," Cassidy says regarding the legalities of emulators and ROMs. Because emulators are simply reverse-engineered original software that is usually not bundled with ROMs, they are perfectly legal, much like the Gnutella software is considered legal because it only acts as a conduit.

But the ROMs are a different matter. "The program code of a cartridge or arcade machine is the intellectual property of the game's designers or copyright holders," Cassidy points

out. Creating a ROM is permissible by the same laws that allow you to make backup copies of software you own—an important caveat being that you cannot then sell the ROMs. "Some people sell ROM packages anyway, but this is almost always illegal. Likewise, you cannot legally download a ROM file unless you own the game in another form," Cassidy explains.

Some intellectual property holders have officially relinquished their rights over their games, and thus these games are considered "free." For the arcade game Robby Roto and the entire library of the long-discontinued Vectrex home console system, the possibility for profit has long since been abandoned, so why make the games available?

"The issue is legality vs. preservation," Cassidy says. "For every game (such as Pac-Man) that is still supported by its owners (Hasbro) and has profit potential, there are hundreds of games that would likely never see the light of day again if it weren't for ROM distribution."

Consoles such as the Amstrad CPC computer, the Bally Professional Arcade console, the Turbografx-16, and hundreds of less famous arcade games might have vanished without the Internet, Cassidy claims. "They would likely disappear forever if people didn't participate in quasi-legal ROM distribution. In these cases, distribution hurts no one's profits (often the companies involved have long since disappeared), so emulation proponents argue, what's the harm?"

When video game companies or intellectual property holders have asked sites to remove the ROMs, they quickly complied. "I am unaware of any legal action being taken against these sites," Cassidy says. "Most of them are perfectly willing to remove the ROMs once they realize that someone actually cares."

It's a sharp contrast to the perceived copyright violations obsessing the music industry. It's most definitely a reflection of the makeup of the different communities and corporations at play.

Warcraft III Strategies and Tips

Dave Roos

Bill Roper and the folks from Blizzard Entertainment (www.blizzard.com) were nice enough to slip us some insider info on how to master their real-time strategy epic Warcraft III: Reign of Chaos. All of these tips (and many more) can be found at Battle.net as part of Marn Thunderhorn's Warcraft III Strategy Guide.

1. Warcraft III is a game of learning. When you lose, you should know why. By knowing why you lost, you can find areas to improve upon on in future games. Watch game replays to figure out where you went wrong, and look at areas in which you can improve. If you are stumped, give replays to your friends and ask them for advice.
2. A hero's skill point should be spent as soon as you get it. Watch the portrait in the top-left corner for the hero's skill points. Don't let them add up. Don't leave them unspent for very long. While in rare situations you might want to save skill points, usually you want to spend them as soon as you get them.
3. Just because your town is gone doesn't mean the game is over. In previous games, a player was eliminated when all of his buildings were destroyed, but in Warcraft III, a team will live on until all buildings from all the team members are destroyed. This means all players should stay in the game until everyone is eliminated. Share unit control and fight until the end. Also, you can still get a win if you and your ally are able to beat the enemy. If you manage to win, you both get a win even if all of your (but not your allies') buildings and units were destroyed.
4. Always make sure the worker or hero has a way of getting out when you build a building. If you're not careful, you can end up walling in your worker or hero with buildings or trees. If this happens, you either have to destroy a building, kill the worker, or purchase a Goblin Zeppelin to get them out. You can also kill the unit to free up food.
5. If you have to leave a game and your allies continue playing, open the allies' menu and give all your resources to your ally. Allies will be able to control your buildings and units after you leave the game. This may help them win the game.

Must-Have Games

Adam Sessler

Every home should have these games:

- **The Sims** (PC, <http://thesims.ea.com>)
- **The Legend of Zelda: Ocarina of Time** (N64, www.zelda.com)
- **Tetris** (NES, www.tetris.com)
- **Ico** (PS2, www.icothegame.com)
- **Rayman 2** (DC, www.rayman2.com)

Download of the Day

Icy Tower

Megan Morrone

Icy Tower (www.freeLunchDesign.com) is a fast and free game from Free Lunch Design. You're Harold the Homeboy, and you've found a tower made of ice that you would like to climb. Use the arrow keys to run. Use the spacebar to jump.

The basic version of Icy Tower is small and contains itty-bitty sound files. To listen to the music, download the 2.8MB .dat file or the 6.9MB .dat file and drag it to the C:\games\icytower\data folder.

Twisted List: Dinosaur Games

Martin Sargent

In *Heart of Darkness*, Joseph Conrad taught us that deep within even the most restrained men are primal, prehistoric urges that might some day bubble forth, overtaking and Neanderthalizing any refinement we humans have collectively accumulated through thousands of years of civilization.

Maybe that's why I often make believe that I'm a woolly mammoth. (But in my pretend games the woolly mammoth always beats the Tyrannosaurus Rex, so it's actually a lot cooler than it sounds.) I also fulfill my primal urges by playing these five prehistorically themed computer games.



5. **Dynomite** (<http://download.com>), also known as Egg Sucker, is like the unbelievably addictive game Snood or the arcade classic Bust-a-Move, but with a dinosaur twist. The object is to line up sets of three like-colored dinosaur eggs, causing the eggs to explode. If you can't destroy the eggs quickly enough, a huge dinosaur stomps on you. Highly recommended.
4. **3D Caveman Rocks** (<http://download.com>), just as Dynomite was a rip-off of Snood and Bust-a-Move, this is a shameless revision of the arcade classic Donkey Kong. You're a caveman climbing up tilted terrain, jumping over and smashing barrels, trying to reach the top where a big gorilla awaits you. It actually gets a little less Donkey Kong-esque as you advance through the levels, but it never really gets much more fun.
3. **Rampage** (www.shockwave.com) isn't a rip-off of an arcade classic, because it is an arcade classic. In Rampage, you play one of three monsters: a gorilla, a wolf-man, or a dinosaur. The goal is touring the United States and destroying the downtown areas of major cities. The premise of the game wouldn't be so sinister if there were as many Starbucks coffee houses when the game was created as there are now. At least you'd be doing some good when you toppled a building.
2. **Caveman Cards** (<http://download.com>). I've been playing this a lot since I bought the DVD edition of one of my favorite all-time films, *The Flintstones: Viva Rock Vegas*. In Caveman Cards, you can play a range of casino-style card games, taking on Gar, the dealer. Unfortunately, the game is published by Zapsport, which is notorious for flooding your system with garbage and popping up ads during the game. Unless you want to lose 20 pounds or regrow your hair the herbal way, you might want to avoid Caveman Cards.
1. And no. 1 is **Carnivores** (<http://download.com>), in which you hunt dinosaurs or get hunted. Some of the dinosaurs are so easy to kill that you occasionally get the feeling that you've just clubbed the equivalent of a baby seal. You'll need to pay for the full version.

Address: **Site of the Day**

Smilie Games

Find terrific time-wasters right in your browser at www.smiliegames.com.

My Cheating Heart

Morgan Webb

Why not cheat? You'll only be hurting yourself.

When you're stuck in Hearts and you don't know what to do, just take a little peek at everyone else's cards. I won't tell if you won't.



Note: This involves hacking the Window's Registry, which, if you do wrong, can mess things up. If you don't feel comfortable mucking with the Registry, don't do it.

1. Go to Start, Run, and type **regedit**.
2. When you're in the Registry Editor, find the following string: HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Applets\Hearts.
3. Go to Edit, New StringValue, and name your new string **ZB**.
4. Type **42** for its value.
5. Open Hearts. Select to be the dealer, and then press F2 to begin a game against the computer.
6. Hold down Shift+Ctrl+Alt+F12 at the same time. Your opponents' cards will be revealed.
7. Hold down the key combo again to hide them.

Note: If you can't find the string for Hearts in your Registry, make sure you've run Hearts at least once on your computer. Quit out of the Registry Editor, run Hearts for a bit, and then exit out of it and start at Step 1 again.

Don't you feel the least bit guilty? I don't know about you, but I sure don't.

Download of the Day

Dink Smallwood

Morgan Webb

Ladies and gentlemen, the adventure games we all miss so much are back. Or maybe they never really left. Dink Smallwood (<http://rtsoft.com/dink/index.htm>) is an older adventure game that will run on practically any current computer (it runs on 486s and up). The game features a good-natured guy trying to make his way in the Middle Ages (or thereabouts—the exact age is never really specified). You have to talk to people, gather information, and start adventuring in the wide world.

Dink Smallwood was released as freeware by Robinson Technologies for the world to enjoy, so take advantage of it. The graphics aren't stunning and the game is not the most advanced, but the story is good and it is lovingly crafted and maintained. A word of advice: Ctrl is the default select button. Other than that, the game is quite intuitive. Enjoy!

Address: Site of the Day

Map of Middle-Earth

As this *Lord of the Rings* fansite so eloquently puts it, "There is no limit to what a bored nerd can do!" Enjoy the product of one man's freakish obsession (www.taylorcustom.com/localinks/mearth/mearthmap.html).

February

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The Commodore 64 Is Alive

Joshua Brentano

Network your Commodore 64 to your PC and run your favorite old games right off your hard drive.

In 1982, Commodore Business Machines introduced the Commodore 64 home computer. It came with a whopping 64KB of RAM and 20KB of ROM, with built-in Microsoft BASIC, custom sound, and color graphics, all for a mere \$600! During 1983, the price of a C64 dropped to \$200, and it quickly became one of the best-selling computers of all time, reaching more than 20 million units sold.

And that's when my dad bought us a Commodore 64.

It used a dazzling, beautiful array of 16 colors. We'd never seen anything like it. (It certainly kicked Atari's butt!) Those colors created some of my all-time favorite games, and we quickly amassed a collection of hundreds of games.

Just the other day I stumbled across our C64 carcass, and it prompted me to revisit my favorite games.

We all know that you can download the Mame emulator, load up any C64 ROM you want, and play all those old games in Windows. But I want to run them from my Commodore computer, authentic-like.

Step 1: Hardware

1. Find your Commodore 1541 floppy drive (www.64hdd.com/c64-proj.html).
2. You'll need an XE1541 cable. You can buy one or build one (<http://sta.c64.org/xel541c.html>).



3. Sacrifice an older PC to the cause. Because of the internal timings of your C64 and PC, they have difficulty talking to each other. And unfortunately, the newer and faster the PC, the more difficult this becomes. I recommend an old Pentium/486 class PC for this project.

Step 2: Setup

1. Download and unzip 64HDD (www.64hdd.com/c64-proj.html). The trick is getting 64HDD and the ROMs you want copied to the older machine. Many users have successfully set up 64HDD on machines running Windows (details can be found at the 64HDD website). However, I recommend formatting the HD and installing any pre-Windows version of DOS.
2. Download ROMs that you want to play. My favorite site is c64.com. (Note that you need to own the original game to legally use a ROM.) If you download many of them, like I did, break them into smaller subdirectories—say, alphabetically.
3. Burn the 64HDD directory and the ROMs to CD.
4. Copy the 64HDD directory to C:\ (C:\64hdd).
5. Copy the ROMs to C:\ROMS.
6. Connect the C64 to your PC's parallel port using the XE1541 cable.
7. Connect your C64 to a TV and turn it on.

Address: **Site of the Night**

How to Make Lembas

Megan enters the freaky stage of her *Lord of the Rings* fandom by following this recipe for fictional hotcakes: http://greenbooks.theonering.net/moonletters/recipes/files/r060102_01.html.

The Commodore 64 Is Alive (continued)

Step 3: Running 64HDD

64HDD is a server that acts like the 1541 floppy drive. It emulates a floppy disk.

The most difficult aspect to this project is getting the software running. Every PC is slightly different and may require a slightly different command-line string.

Be sure to read the documentation included in 64HDD.

To start the 64HDD server, (on your PC at the DOS prompt) type this:

```
64hdd +8 C:\ROMS -rst -xe +lpt 1 -
fastest +p
```

Now the server is running.

To load a ROM, such as ARCHON.T64, (on your C64) type this:

```
LOAD "$",8
```

This loads the current directory that specified on the PC into C64 memory:

```
LOAD "$A",8
```

This loads the A: directory into C64 memory:

```
LIST
```

This lists the contents of the last loaded directory. The ROMs appear in the 8.3 file format, so you might have to rename them to fit that format. The C64 sees those ROMs as any other directory.

```
LOAD "$ARCHON.T64",8
```

This loads the Archon directory:

```
LIST
```

This lists the contents of the Archon ROM. Then load the game just like you did back in the day:

```
LOAD "*",8,1
```

Bring the C64 to Life—Multiple-Disk Games

If your ROM spans multiple disks, it's a trickier process. Included with 64HDD, in the utils directory, is a program for the C64 called

MULTIDSK. MULTIDSK defines partitions, to which you assign ROMs that you toggle on the PC as the C64 prompts you for them.

Load MULTIDSK and list the program. You'll see several lines, but you have to change only a few, depending on how many ROMs you need to assign.

Defining partitions:

```
20
OPEN1,DV,15,"$C:/64HDD/DEMOFILE/
DUCKS.D64":CLOSE1
22
OPEN1,DV,15,"$C:/64HDD/DEMOFILE/
DUCKS.D71":CLOSE1
```

Change to:

```
20
OPEN1,DV,15,"$C:/64HDD/DEMOFILE/BARD1.D64":
CLOSE1
22
OPEN1,DV,15,"$C:/64HDD/DEMOFILE/BARD2.D64":
CLOSE1
```

If there are more than two disks, add another set of lines (you'll see what to do when you look at the MULTIDSK program). Tip: Create a partitioning program for each multidisk game.

Run those multidisk games:

1. Start the 64HDD server as normal.
2. Load the partition program and run it.
3. On the PC, F12 toggles between the disks you have defined in the partition.
4. Load the game from the appropriate partition.
5. When the C64 prompts you for the next disk, press F12 on the PC.

There are many other features and tips and tricks to 64HD. So read the manual, read the manual, read the manual. Practice, practice, practice—and good luck!

Hot Wheels

Robert Heron

For modern PC wheels, force-feedback (FF) technologies enhance the driving experience by simulating the texture of road surfaces and gravitational forces. While the overall qualities and support of FF effects are left to game developers to implement, the force-generating hardware within a wheel determines how these effects translate into the user's hands.

All the wheels we looked at utilized Immersion Corporation's (www.immersion.com) TouchSense technology for the FF engine. We tested all wheels and accessories with our AMD test box equipped with an Athlon XP 2800, 512MB DDR memory, Radeon 9700 Pro, and a fully updated installation of Windows XP Pro, including DirectX 9, as well as the latest device drivers.

And the winner is...

Act Labs: Force RS, GPL USB Shifter, and Performance Pedals

The Force RS wheel (Windows) has been TechTV Labs favorite for years because of its heavy-duty design and near-perfect FF response. Despite its rather plain-looking exterior, gripping the leather-wrapped steering wheel imparts the feeling that this isn't a kid's toy.

The Force RS offers seven programmable buttons and a hat-switch on the spokes of the wheel, with three more buttons on the simulated dashboard. An F1-style shifter is integrated just behind the wheel. The included pedals are affixed to a rubber-covered metal base that is slip-free with most floor coverings. The pedals have a limited range of travel compared to the "performance pedals." Act Labs should offer its wheel with a choice of pedal designs.

The GPL USB Shifter and clutch pedal are designed to work with any steering wheel, but software support is another issue. Only NASCAR Racing 2003 Season properly supported simultaneous, multiple controllers—

wheel, clutch/gas/brake, and shifter. Act Labs' racing products support USB as the primary connection, but with three or more USB racing devices connected simultaneously, software developers must incorporate support for "odd" axis assignments as well as specific gear shifting.

Despite the wheel/clutch/shifter support, the Force RS is the most convincing wheel we have ever used. It takes up more space and weighs more than the others, but its LEGO-like toughness and great mounting hardware deliver crisp, precise effects.

Thrustmaster F1 Force Feedback Wheel

Considering its worldwide popularity, F1 racing might as well be the official religion of motor sports. Thrustmaster's F1 Force Feedback (Windows) racing wheel does an admirable job of mimicking its namesake's aesthetic style, but the single-purpose design and unremarkable force feedback engine left us wanting more.

A real F1 steering wheel is a sub-\$50,000 custom contraption complete with digital readouts and plenty of controls. Thrustmaster mimics the same "9-3" hand positions with the shifter placed perfectly for fingertip use. Unfortunately, the gas and brake levers, located beneath the shifter mechanism, travel to within less than a half inch of the wheel itself. Drivers with average-size digits had to reposition their hands or stick with the floor pedals.

Even with the force effects set to maximum level, the F1 Force Feedback couldn't match the variety of effects or strength offered by the other wheels.

As the more expensive wheel in this comparison, we expected better FF quality from Thrustmaster's F1 wheel.

Patrick's Favorite Free Games

Patrick Norton

Here at *The Screen Savers*, we love games. Games help us punch through writer's block, fill our copious free time, alienate our spouses/boyfriends/parents, amuse our friends, and provide an easy escape from the terminal condition commonly called life.

The only thing we like better than games? Free games. Here's a list:

- **Grand Theft Auto** (www.rockstargames.com/classics/) is free. You know a game company is having a banner year when it repackages the game that started it all—and gives it away. It's a whopping 328MB download. Download it, install the latest version of DirectX, and find out how far Grand Theft Auto has come.
- **Puzzle Pirates** (www.puzzlepirates.com) is brain-frying puzzles, many centered on the classic Tetris stacking style, all in a pirate setting. After playing dozens of hours, I can safely say that this game makes no sense. Empty the bilge, swordfight, navigate, and sail, all by puzzle. It's curiously engaging.
- **FlightGear** (<http://flightgear.org>) is seriously cool. It's an open-source multiplatform (Linux, OSX, Windows, and more) free flight sim. Very, very cool.

Address: **Site of the Night**

Overclocked Remix

Martin Sargent

You might not think of chirpy, MIDI-like videogame music as high art, but scores of digital musicians are trying to change that. At Overclocked Remix (<http://remix.overclocked.org/index.php>), you can find hundreds of videogame sound tracks remixed into jazz, reggae, electronica, classical, and most every other musical genre. There are also tutorials on the site that instruct you how to make your own videogame remixes. Unfortunately, the site is loaded with pop-up ads.

- **Mall Monster** (www.gamehippo.com) is an oddly compelling little game. You're a kid trying to escape the evil monster in the mall. Run too much, the monster hears you, you die. That's just a tiny tidbit of GameHippo.com. This site is heaven for low-budget gamers. No shareware, no demos. All free games, all the time.

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Download of the Day

Progress Quest

Morgan Webb

When I was younger, I spent a year playing Phantasy Star 3, and I loved the game because it was a role-playing game, and there was the potential of beating my older brother's scores. All I needed to defeat him was massive amounts of time, and, at that age, I had plenty of it.

Unfortunately, because I have a career, some friends, and my own laundry to do, Phantasy Star, Everquest, and the rest of these role-playing games have fallen by the wayside (though they will always be my first love). Fortunately, I recently discovered Progress Quest (www.progressquest.com). It is a free role-playing game that streamlines your quest.

Slay Monsters, Collect the Gold

You pick your character, roll the dice for your stats, and launch yourself into a world of demons, monsters, and mystical objects. The best part of Progress Quest for a busy woman like me is that the game plays itself.

You slay monsters and collect gold and loot, which you then sell to purchase better loot. You accomplish small tasks (such as "fetch me a sock" or "placate the camels") to accomplish larger tasks and collect experience along the way. The game minimizes to your system tray. Check in once in a while to see how many teenage Fairy Dragons or demon Bacon Giants your great warrior has killed. It's all the adrenaline rush without the commitment.

Xbox Mod Chips

Kevin Rose

Why mod the Xbox? Well, the Xbox is more than just a gaming machine. It's the most powerful computer you can purchase for \$199. Under the hood, the Xbox is equipped with a 733-MHz Intel Pentium III processor, an NVidia graphics subsystem, hard drive, Ethernet, and four USB ports. Modding the Xbox turns it from a gaming console into a fully functional PC that can still run games.

Important note: Xbox mods aren't supported by Microsoft and may be illegal under the DMCA. If you mod your Xbox, you're willingly voiding the warranty and potentially breaking the law. If done improperly, modding could damage your Xbox.

Choose a Mod Chip

There are close to a dozen varieties of mod chips, all with different options and features. Rather than bore you with the details on each chip, here are the best mod chips on the market:

- **Xecuter2 Pro v2.2 Plus.** This chip has a parallel interface so you can flash the BIOS directly with your PC. The Pro lacks a BIOS and needs to be manually flashed before using.
- **Xecuter2 Lite v2.2 Plus.** I prefer the Lite chip because it's pre-flashed. Be careful when purchasing your mod chips online. There are lots of shady fly-by-night websites that are just out there to take your money.

Solder the Chips...or Not

Another reason to like the Xecuter Plus chips? Unlike most Xbox mod chips, you don't have to solder the chip to the motherboard. All you have to do is align the chip and screw it down. Once you've screwed the chip into place, boot your Xbox. You should see the Xecuter logo instead of Microsoft's. If you see this, it means you installed the chip correctly and it's functioning.

I've found that Xbox-Scene (www.xbox-scene.com) is the best resource for Xbox tutorials on the web. Other good sites are The Console Corner (www.modchip.ca) and www.xbox-modchips.com.

Talkback

The Mess over Mod Chips

Dave Roos

Lik Sang International (www.lik-sang.com) used to be one of the most popular sites to purchase mod chips for Sony's PlayStation 2, Microsoft's Xbox, and Nintendo's GameCube, but it was forced to halt sales of its mod chips due to a lawsuit filed by Sony, Microsoft, and Nintendo.

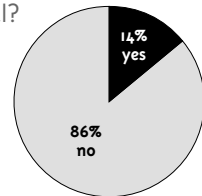
In the United States, the best argument for keeping mod chips legal is that they let gamers play backup copies of their own games. This is the same argument that's used in the fight against strict copy protection of CDs. Many gamers and music fans believe they should be allowed to make copies of their property according to common "fair use" guidelines.

Should mod chips be stopped? Do most gamers use mod chips to play pirated software? Does Lik Sang have a chance against the "big three" of gaming?

Should mod chips be illegal?

Yes 14%

No 86%



Address: **Site of the Day**

Yahoo! Games (<http://games.yahoo.com>)

This site is responsible for single-handedly sucking more productivity out of *The Screen Savers* staffers than anything else, except maybe UT2003 (www.unrealtournament2003.com).