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IGN – 9.4/10 – Editors Choice Award
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What will the next 20 years bring—cerebral implants, holographic displays, intelligent AI, or just berserk robots drunk on battery acid and silica gel? Take the blue pill and it will all become clear to you, Neo.
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The first images of the multi-million dollar, feature-length: Final Fantasy movie; the Top 10 games of all time; games for freeloaders; profile of John Carmack; Game of the Year front-runners; and plenty more.

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Who Knew?

"The coming explosion in the use of personal computers has just begun. We at Computer Gaming World are excited about being a part of it, and glad that you have joined with us."

And with founder Russell Sipe's words, CGW blinked into existence in November of 1981. At the time, Sipe (who you'll hear from in a few pages) couldn't have had any idea how big gaming would become. How could he? At the time, the PC gaming industry was newborn. Heck, the PC industry was newborn. Consider the following, all of which occurred in 1981:

- Commodore announced the Vic-20 computer, with a whopping 5KB of RAM.
- Microsoft had just bought all the rights to DOS from Seattle Computer Products.
- The first IBM PC was made available. The 5150 featured a 4.77MHz Intel 8088, with 64KB RAM and 40KB ROM for $3,000. The color version cost $6,000.
- Apple released the Profile, the first PC hard drive. Five megabytes set you back $3,500.
- Hayes announced the Smartmodem 300.

And just to give you a little perspective regarding exactly how long ago 1981 was, the following national events all occurred 20 years ago:

- In January 1981, Ronald Reagan was inaugurated president. The hostages returned home on the same day.
- The price of a stamp rose from 15 cents to 18 cents.
- Prince Charles and Lady Diana were married in July.
- In August, President Reagan fired the nation's air traffic controllers, who were striking.

"It is my hope," Sipe says in his first editorial, "that CGW will become a forum for an intelligent dialog between gamers, designers, manufacturers, and retailers." Interestingly, this still holds true today—intelligent discourse on gaming remains our ultimate goal.

You're about to read an extra-special issue of Computer Gaming World. We hope you enjoy it as much as we enjoyed putting it together.

Sources: Thinkquest (library.thinkquest.org), The Augusta Chronicle (sobolevsky2000.augustachronicle.com)

George's Mix

1. Creative's Nomad Jukebox (66GB of music storage!)
2. 2001: A Space Odyssey
3. GIANTS: CITIZEN KABUTO (Interplay)
4. The Authority (DC WildStorm comics)
5. NO ONE LIVES FOREVER (Fox Interactive)

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200TH ANNIVERSARY EDITORIAL

20 Years of Serious Fun

Johnny L. Wilson, former CGW Editorial Director

From the moment that Russell Sipe hired me as a part-time assistant editor for CGW in 1986, I loved my job. I entered into a rarified environment where people had a passion for designing, programming, playing, reviewing, and yes, even marketing games. It was an arena where innovation was king and often rewarded. Not only did we seem to get new games every single day, but we had the privilege of meeting designers and finding out why they built games certain ways. My job was a constant thrill.

I also remember being incredibly optimistic. I was thoroughly convinced that we, as an industry, were going to change the way people play and encourage people to think about life in new ways. I thought we were stealth educators and stealth acculturators. We couldn’t wait to show new games to friends and families. We wanted the whole world to play our games, to be the “New Hollywood” that Trip Hawkins preached.

Playing some of the old games while writing this issue’s “History of Computer Games” feature, I was reminded of how easy it was to experiment when you were designer, artist, programmer, author, and marketer, too. No focus groups or packaged goods salesmen told you what you had to have in the game. Development budgets were low (or non-existent), expectations were limited, and there wasn’t a great deal of risk.

As a result, there were some great games built around unique ideas that aren’t likely to succeed today (ROBOT WAR, ALTER EGO, CHOPFLIFTER, LODGE RUNNER, PRESIDENT ELECT, PLANETKEEPER, BALANCE OF THE PLANET, REACH FOR THE STARS, and M.U.L.E., to name a few). And, as much as I loved those games and even enjoyed playing them while writing the story for this issue, I wouldn’t go back in time and give up the ULTIMA series, SIMCITY, the CIVILIZATION series, SSI’s GENERAL series, HALF-LIFE, THE SIMS, the brilliant iterations of NHL HOCKEY, and the latest version of SAMMY SOSA HIGH HEAT BASEBALL. Today, design visions are not as tightly focused as in the old days, but they reach and affect more people than they ever did before. The Web gives designers a chance to experiment and the mass market gives an opportunity for reward. I love the old days, but I wouldn’t go back.

Johnny Wilson is the Group Publisher of five magazines for Wizards of the Coast, including Dragon, Top Deck, and Wizards.

Russell Sipe, founder and former publisher of CGW

When I was your age..." Sometimes I like to kid my daughter by telling her about the way things used to be before the On switch.

But I’m not kidding when I say that, when I was the age of many of you, not only were there no computer games magazines, there were no computer games, and for that matter there were no personal computers.

Before PCs, gaming enthusiasts played board games like TACTICS II, BLITZKRIEG, and RISE OF THE THIRD REICH. The big problem in those days was finding opponents. We needed intelligent but slightly eccentric friends willing to spend hours setting up hundreds of counters (game pieces) to play complex games that lasted for days or weeks. These folks were often hard to come by.

But then came “microcomputers,” and the Apple II, and Computer Bismarck from Strategic Simulations. Incredible! Now a computer could set up the game for you and be a faithful friend ready to play at the flip of a switch. Who cares if the intelligence in those early days truly was “artificial” in the worst sense of the word? Things were looking up and bound to get better.

When I decided to start CGW in 1981, there were no computer game magazines and very little game coverage in the general-interest computer magazines. The game industry was in its infancy. Programmers were putting their disks (or cassette tapes) in plastic bags along with photocopied rules. That’s how Lord British (Richard Garriott) and Ken Williams (of Sierra) got their start. One high school student brought his plastic bagged fantasy adventure game to my two-bedroom publishing empire in southern California. He wanted me to review it in hopes that storors might pick it up. It had a very cool Frazetta-like painting of a nearly naked woman chained before a fierce giant serpent. The scene wasn’t actually in the game, it was just cool art, he said. That’s how Interplay’s Brian Fargo got his start.

Throughout the magazine’s history, CGW has always been the computer game magazine for thinkers. “We exercise your brain, not your fingers” was one of our informal claims. The industry has changed over the years, not always for the better, but for the most part, what we have today is light years ahead.

And, of course, our expectations continue to grow. Games are becoming even more realistic. Some day you will say to your kids “When I was your age we sat in front of a computer screen to play our simulations.” “Nah,” they’ll say, “stop pulling our leg.”

Russell Sipe is an avid astronomer, writer, and radio-controlled yacht racer. His website is www.sipe.com.
MAJESTIC’s Freaky Links

I would like to thank you for the excellent reporting on the upcoming game MAJESTIC (December 2000). It’s obvious by your undisguised enthusiasm that you already understand the possibilities MAJESTIC offers, but I thought I would share with you a little story of how I’m already “playing” the game.

During a recent lunch with three co-workers, I described your article. Upon returning to the office, I decided to show them your article as well as check any news that EA.com might have. After forwarding your piece, I found the following URL: www.ea.com/worlds/majestic1.jsp. Imagine the rush I felt when, purely by accident, I discovered in the highlighted text the following hidden URL: www.freemlegs.net/~gonpincn/.

That discovery set off a chain of events in my office that had four senior staff members searching the Web for more of these links all afternoon. Talk about a productivity drain. By 6 p.m. we had viewed dozens of pages, some real and some fictional, found more hidden URLs, viewed video,
even made calls to Beaverton, Oregon. I even read IRC Web logs of MKUltra theorists. I don’t even believe in UFOs, let alone CIA mind control!

But there was one thing that stuck out for understanding and for more info. Was it premature? Probably, but all of it was captivating our attention in a way not even our most favorite games had. My “9 x 9” whiteboard of customer information and sales tracking had to be erased so it could be filled with all the newly gleaned knowledge. Websites, names, TCP/IP address, links. I haven’t even paid yet and I’m hooked. Amazing. What will it be like when I’m playing for real? I can’t imagine, but I hope my wife doesn’t divorce me and I don’t lose my job. From this excitement came the personal insight that no matter the rush of PC developers to move to the console systems, the marriage of PC and the Internet will always hold me entranced in a way no console system ever could or will. Long live the PC! Thanks again.

Ken Klitsa

On EVERQUEST Bannings

Regarding the “Banned!” article published in the January 2001 issue of CGW, it really irritates me to continue seeing such actions taken from companies who wish only to cover their asses! Banning a player for writing fiction about a game that she or he obviously loves, because some lazy parent found the content of written fic-
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tion about the game offensive is ridiculous to me. I personally am sick and tired of irresponsible parents blaming computer games and the Internet for their children's intellectual demise. What do the good people at the ESRB bust their humps (or so it seems) for?

The bottom line is this: I used to be a child and my parents always made sure I did not play computer or video games that I wasn't supposed to. They made sure I did not watch certain movies until they were confident I would not want to pick up a gun just so I could be like Tony Montana. They weren't perfect, but that's one thing they did right. I don't see why anyone else can't do the same thing. Children are the parents' responsibility, and the filth should just fly back at them. They should take responsibility for what they allow, directly or indirectly, their children to see and do.

And as far as "intellectual property" goes, dear CEOs and PR people, just remember who it is building your world. If it weren't for players like Mystere and plenty more, EVERQUEST and the entire game world would be nothing more than a good idea.

Alex Ravary

I actually agree with both bannings mentioned in your last issue. The first one was obvious because you just can't let people ruin a game for others. I strongly back that notion; being a victim of that group makes it much easier

---

**Penny Arcade**

Now, we've had to scale back our plans for Freelancer somewhat — but what we've got has a lot of us here at Digital Anvil really excited. We had to lose the space combat, as well as the space, and much of the combat.

Gentlemen, I give you Freelancer Two Point, uh, Wood. We think the mod community will really help shape it.

That's because it's just wood! Wood, for God's sake!

Now, don't be too hasty.

We haven't reached the critical varnish phase — that's when it'll really shine, ba-dum pshhh

---

**I'm going to have a baby.**

**Tropicó**

**Let's form a militia!**

**Smoking should be illegal.**

**All these Yanquis look the same.**
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to understand. The other banning to me was just as simple. I still would like to know what post your editors read because the one I read clearly was inappropriate. The story I read was about torturing and raping a young woman and it was beyond sick and disgusting. It wasn't role playing, it was perversion, and that isn't a part of role playing. Also, Verant has legitimate intellectual properties. They have shirts, action figures, and probably novels and the like coming out, and having stories written by under-sexed teenagers floating around is bad for business. I also strongly believe that, right or wrong, it's their game and you play by their rules. I don't think there's much controversy here. You pay to play and you follow the rules, whatever they may be, and that's that.

RCarreiro

First, let me say I admire you for taking on the tough subject of online game player banning. Second, I will admit to not agreeing with you, although I believe I understand your concerns. Verant has created a game with good and evil in it, but it is done at a less than intensely serious level. Although it may be hard to pinpoint, there is a fine line between hardcore torture and evil and what Verant portrays in its game.

You ask, "Why is it fine when sprites are shown cutting each other to pieces, but when someone writes a story that describes the same thing, it suddenly becomes verbotten?" The point is, you never in EVERQUEST see sprites cutting each other to pieces. You see swords swinging and the loser going down, but these are not graphically explicit. Evil is suggested, even hinted at, but is not explicit. The only torture you are likely to experience in the game is the non-stop music in Rivervale. Even battles between NPCs end with the defeated just vanishing.

The point is, EVERQUEST does have a certain image that is more fantasy and humor than evil and horror. In the case of Mystere, it has simply asserted its rights that Mystere crossed that line with its intellectual property. Even if they did so due to pressure from a particular group of people, it is still within their rights. We hardly expect all writers of fan fiction to be asked to cease. Fan fiction written in the spirit of the game would never be in jeopardy, I would wager.

You suggest Verant is fighting the RPGs. I think they have merely chosen a particular course of action when EVERQUEST's image was put in question. Many, if not most, bannings in EVERQUEST do relate directly to one player's abusing the game at the expense of other players. This was a very special case as far as I know. Verant does indeed support and encourage RPGs both by creating a "tavern" section of its website for role-playing and by creating a particularly RPG-friendly environment in the recently released SCARS OF VELIOUS expansion.

Again, I commend you for taking on a controversial topic and presenting a thought-provoking article.

Gwen Hembrock

Kudos From This Month's Canadian

I have to compliment you guys on your article on Korean computer gaming (January 2001). This is exactly the type of stuff that I wanted to see, since reviews, previews, and hints aren't anything really new. I think that I speak for everyone when I say that I want to see more articles like this. I also think that it would be neat if you interviewed top-ranked gamers - ask them why they like the game, how much they practice, their strategies, and so on. Keep up the good work!

Robert
Toronto, Canada

P.S.: I am not a moose, lumberjack, or beaver, and I rarely use the word "eh!"

So you must be a mountie, right? You didn't say you weren't a mountie!

Politically Incorrect Letter of the Month
A pledge in blood is never to be broken, unless the body has spilt the last of its blood.

Multi-Player Online Game
LINEAGETHEBLOODPLEDGE.COM
If Nicky R. from Canada does not resemble a moose (Letters, February 2001), does that mean she is too young to sport a rack?  

John Walsh

John, John, John. Please. Here at the CGW Letters page, you may make fun of the Canadians all you want — it’s a tradition. But please leave the ladies alone. We have a hard enough time attracting their attention without insensitive guys like you making it worse. Sorry about John here, ladies. Can we buy you a drink?

Bum Rap for RED ALERT 2?

I have been reading your magazine for three years now. It is very well-written, and the reviews are concise and to the point, but my confidence in your reviewers is dead after reading your RED ALERT 2 review (December 2000). Your reviewer gives it a mere four stars; it deserves at least 4.5. I personally took offense at the comment “the 2D engine is getting pretty tired.” Obviously this man has no idea what quality is when he sees it. A game’s quality should not be judged that much from the graphics. The replay value, the experience, the challenge, and the units have a much bigger impact. I have spoken with everyone I know who owns this game, and they say it is the RTS game of the year. People praise it for its excellent challenge and unique tactical opportunities offered by the new units.

The graphics do not make a game!

If you believe that fancy FX and such make a game, you are a thrill-seeker gamer, not a real gamer. I play games that have horrendously dated graphics because they are fun, not because they have cool FX. If STARCRAGT was released now, would you drag it down to three stars because of the poor graphics compared with HOMEWORLD?

Robert Rice

Actually, we think of four stars as a very positive review. It translates to “very good,” and it means that if you buy it, you’ll probably like it. We also agree that it’s one of the best strategy games of the year. It’s a strong contender for the award, and may just walk away with it when we hand ’em out next month.

Jeff Green: Feel the Love

Dear Jeff Green,
I just read your “GreenSpeak” in the February issue, and I feel I’m obliged for the good of the human race to tell you that you suck. I couldn’t be more serious. I hope you get fired.

TidalCool

I would like to say that Jeff Green’s articles are totally twisted and awesome to read. All you other writers could learn a lot from him. He is the center of attention, king of all that is cool, Fred Durst of Limp Bizkit. He is the life and soul of the magazine as far as writers and editors. No offense to the other guys, but are you all asleep when you write, or are you trying to put us to sleep? George Jones, you know what I’m talking about. Robert Coffey, how’d you get this job? Gordon Berg, nice try, better luck next year. You guys should follow Jeff for a day and see how he creates his masterpieces. By the way, who’s the jackass who puts those hilarious but mean quotes at the end of his Greenspeak articles? Or is that really Jeff himself amusing his readers with a form of self-punishment? Last question. I promise. This one’s to Jeff: When can I expect my next bribe check?

Anthony Li

Why HALF-LIFE Is off the Top 40

What’s up with HALF-LIFE being taken off the option list for the Top 40 poll? It is still a great game. Just because it came out a long time ago doesn’t mean it’s no good. If a game has been scoring in the Top 10 for the last I-can’t-remember-how-long, then it definitely does not deserve to be taken off. I throw in my vote for HALF-LIFE to be put back in. Also, you should make COUNTER-STRIKE an option in the Top 40, since it has now gone retail. This is a great game, with more servers than Q3, UT, HL, and TFC combined.

Marto Gaciarz

CGW has officially retired games from the Top 40 after they’ve been out for two years — it’s never an issue of quality. Two years is also the point at which games become eligible for our Hall of Fame. Not surprisingly, that’s where HALF-LIFE lives now.
"The RADEON™ is a total package, combining blazing-fast, spectacular-looking 3D with excellent DVD playback."

MAXIMUM PC, OCTOBER 2000.

You said gimme the ultimate 3D gamer board and ATI did with the award-winning RADEON™ 64MB DDR. RADEON™ 64MB DDR delivers hurricane-force, realistic 32-bit true color 3D graphics, has the most comprehensive support for DirectX® 8.0 so you can play all the top 3D games now and in the future and features industry-leading DVD playback. RADEON™, now you got it. Now you get it — all.
A CALL FOR CHANGE
It's Time to Face Some Neglected Issues and Take a Stand

The surest way to get anyone in the gaming industry to clam up these days is to mention one of three related topics: violence, sex, or the ESRB ratings system. All three, it would seem, are deemed too controversial to merit more than a clipped response or a wistful "No comment."

Why are we afraid of these issues? The obvious and far too easy answer is that being gamers, we're slightly afraid of the real world and its issues. Isn't that why we play games? We reject this notion and its implicit assumptions about gaming. Contrary to the general public's notions, gaming is not a fantasy escape for kids and immature adults.

Gaming is an emerging art form in a relatively early stage of development. Much like teenagers, the industry is struggling to mature, while dealing with sex, violence, and many other real-world issues. It's part of growing up, and the more we try to avoid it, the more corrosive the effects of our neglect.

Right now, we're flat-out stuck on the issue. Fearful of litigation and the stigma of being deemed a dangerous art form, we've sidestepped the issue entirely. Industry-wide, this situation must change. CGW would like to propose the following suggestions as a way of getting back on track.

Retailers, start enforcing the ESRB ratings. The Federal Trade Commission conducted a study last year and found that children ages 13 to 16 were able to buy M-rated video games in 85 percent of 380 stores. We called several major chains and learned that most game stores feel no need to enforce the ESRB system. What's up with that? Babbage's, Software Etc., and Wal-Mart were the only stores that insisted they enforce the ratings. That's pathetic.

Developers and publishers, push the content envelope. Don't be afraid to take risks with more mature content in your games. We're not advocating exploitative nudity. But push the envelope. Jack Valenti, chairman of the Motion Picture Association, has said that the MPAA ratings system was a response to the changing social climate of the 1960s. On the MPAA website, he explains that this shift was mirrored in art—particularly film—in a "new kind of American movie—frank and open, and made by filmmakers subject to very few self-imposed restraints." This is in contrast with gaming, where the themes, topics, and story lines haven't changed much despite major gameplay advances in the last 20 years.

Game marketers, raise your sights. Stop advertising M-rated titles in magazines with a clearly substantial sub-18 readership. It hurts the industry at large by perpetuating the impression that you're irresponsible and exploitative.

Magazines, be not afraid. Let's not be afraid to tackle the big issues, be they sex, violence, or the efficiency of the ESRB ratings. In the February issue of Next Generation, Tom Russo writes an excellent article on sex in the gaming industry. When magazines dig deeper into topics and themes within gaming, we open up issues and provoke discussions that can have far-reaching implications.

MPAA, give it up. The Motion Picture Association, owners of the most recognizable content rating system on the planet, needs to allow other entertainment media access to the MPAA ratings instead of selfishly insisting we all come up with our own systems. After all, what makes more sense to a parent, "Rated R" or "Rated M"? It's the sensible thing to do.

For the health of the industry, we need to stop avoiding these issues. Let's step up to the plate and deal with them.—George Jones

"Let's not be afraid to tackle the big issues, be they sex, violence, or the efficiency of the ESRB ratings."
Great movies and games never seem to make the leap to each other’s medium successfully. That might change with the TOMB RAIDER movie (we doubt it), but it almost certainly will with this summer’s release of Final Fantasy: The Spirits Within, a 96-minute computer-animated extravaganza based on Square’s FINAL FANTASY games series.

Four years in the making, the film boasts unprecedented levels of CG detail that should raise Square Pictures to prominence the way Toy Story did for Pixar. The characters are rendered with such realism that they are indistinguishable from humans—yet none of the imagery was re-created from any scanned source material. Motion-captured facial expressions will help preserve the illusion.

Directed by Hironobu Sakaguchi, the father of the Final Fantasy series, Spirits Within will feature the voice talents of Alec Baldwin, James Wood, Donald Sutherland, Steve Buscemi, and Ving Rhames. The film isn’t based on one particular FF game, but gamers should watch for familiar locations taken from the series.

The premiere is scheduled for July 13, and a sequel has already been announced for 2004. See the trailer at www.final-fantasy.com.
Freakin’ Free Games

No warez, no strings. Good games courtesy of Freeloader and Wild Tangent

We don’t usually get excited about free games. In the past, they’ve meant freeware or shareware, and they’ve often stunk. Recently, Java-based apps from developers like 3D Groove have started to get our attention (January CGW, pg 44), because they’re free, but they don’t match the quality or intensity of standalone games.

Well, the state of the art of freeware has just taken some major leaps.

Wild Tangent, a group focused on developing browser-based content delivery, has an impressive new space combat game called SABREWING (www.sabrewing-land.com). A first-person space simulation in the style of FREESPACE 2, the game features beautiful graphics, a good interface, mission-based storyline, and many of the things you’d expect in a boxed space sim. But it’s free and totally playable in a browser window. The game requires a free download, whose duration depends on the resolution you choose (up to 1024x768). It doesn’t support multiplayer, but it will recognize and support force-feedback joysticks.

Wild Tangent has more than a dozen games that can be played from its site and the www.com, and the company has started to attract some attention. Newsweek recently named browser-based video games one of five new technologies that could change your life (December 4 issue). And some high-profile developers have joined the company, including Paul Shenk and Paul Reede, formerly of Blizzard and id software, respectively. Both say they’re excited at the prospect of creating games in months instead of years—a sentiment that developers throughout the industry are starting to share.

Wild Tangent’s under Alex St. John, Microsoft’s former games evangelist, says, “Games today are made and published like books were a thousand years ago: teams of highly specialized monkeys devote the better parts of their lives to laborsiously construct content that will only be read by a few people. What we’ve invented here is the Gutenberg Press for this industry. From now on great game ideas will be developed for a fraction of the time and cost and published online. Everyone will have the ability to create and publish this kind of content.”

Meanwhile, another company with a very different model makes formerly boxed games available to online users, also for free. Freeloader.com has a more typical dot-com business model, in which it intends to support itself with advertising banners. While the venture capital lasts, you can download games such as HIDDEN & DANGEROUS, MAGIC & MAYHEM, GRAND THEFT AUTO, and parlor games such as Chess, Checkers, Go, Backgammon, and Gin. The company breaks the games up into smaller files for easier download via dial-up. Expect a few pesky questions and banners during the process, but it’s better than coughing up cash, right?

Happy freeloading.
John Carmack

An interview with gaming’s greatest technologist

If you could go back in time and change one of your games, what would you do?
I would have split all the technologies in the original QUAKE into two separate games. The first game would take a slightly tweaked DOOM rendering engine and combine it with the .qc mod framework and client/server networking of QUAKE, while the second game would introduce the true 3D rendering. Instead of one game in 18 months, we probably could have done two in 24 months, and the development would have been a bit less gated on the technology.

DOOM 3 will reportedly feature a much greater focus on the single-player experience. Are you going for a HALF-LIFE kind of game, or something close to it?
Something in that neighborhood.

Ever since Neal Stephenson’s Snow Crash, people have speculated that we will wander the Net someday in 3D virtual space with customizable avatars. Do you think this is viable, and if so, when?
I think the time to be working on that is right now.

After Q3, I made a proposal to have that be our next project, but most of the rest of the company doesn’t feel comfortable with a change in focus from being strictly a game company to being any kind of a technology infrastructure company, and the business case can’t be clearly made.

I more or less expect some company to be well on the way by the time we ship DOOM 3, but if everyone else botches it, I will probably pitch the concept again.

What would your vision be for such an interface?
There are a lot of useful things that could be done with straightforward evolutions of what goes on in QUAKE or EVERQUEST, but there are probably even better things that can be done with more specialized interfaces.

I spent some time thinking about what you could do with a “virtual Slashdot.” Just being able to see icons of different people moving around visual representations of message threads as they grow would be very interesting. I think a reasonable interface could be made that would give both a sense of physical place and fluidly move between the communication modes covered by ICQ, IRC, and message boards.

What will first-person shooters be like in 10 years?
Ten years is almost an eternity to predict in the computer industry. However, I do feel confident in saying that there will still be games that we recognize as first-person shooters.

I will be pleasantly surprised if there are major steps forward in input or display devices, but I won’t be that disappointed if we are still using a reasonably close analog to the keyboard/mouse/LCD screen.

The “nearly human” problem, in which rendered characters look so close to but not quite human that the brain amplifies the differences, is going to be fairly significant over the next several years, but I think that in 10 years the top titles will have it fairly well in hand.

As the level of realism increases, there will be some tension between the feel of the game and the visual presentation. The fast, precision control of an FPS is not realistic, and it will become a greater contrast to everything else in the world.

Accurate dynamics will look good on everything else in the world, but it probably won’t make for the most fun player control. That isn’t a real problem for a single-player FPS, but multiplayer games will either have to change their pacing to become more realistic, or make an intentional break from reality and try to stick with it.

More intentionally artistically stylized worlds will probably become more prominent because they will give more gameplay freedom and should cost less to produce than photo-realistic games.

Third-person gaming will probably continue to take more of the market, because all the tools, skills, and procedures of cinematography will be immediately applicable.

The draw for first-person games will still be the maximum intensity and immersion. All the top games will basically look like theatrical releases, but there will still be the difference between caring about the character on the screen in a third-person game, and caring about YOURSELF in a first-person game. — Interview by Ken Brown
Game of the Year Front-Runners

While you're trying to outguess Hollywood in deciding whether Traffic or Crouching Tiger, Hidden Dragon gets top honors, here's another awards-based guessing game for you to play. Mull over these various front-runners for the coveted CGW Game of the Year honor, and check back next issue for our Best & Worst of 2000.

**Action**
Imagine Godzilla fighting Austin Powers, and you have a good grip on the duel between GIANTS: CITIZEN KABUTO and NO ONE LIVES FOREVER. But don't discount titles like MDK2, ELITE FORCE, METAL GEAR SOLID, CRIMSON SKIES, or DEEP SPACE 9: THE FALLEN just yet. Nice to see the genre open up to be more than just shooters.

**Strategy**
Innovation gets you places in this category. The big shots here are Shiny's immensely odd SACRIFICE and Cyberlore's hands-off RTS MAJESTY. More traditional games like RED ALERT 2, HOMEWORLD: CATAclySM, and SPACE EMPIRES IV round out the genre, and Wright's mainstream wonder THE SIMS throws in a strategic monkey wrench of sorts.

**War**
Six degrees of wargaming here. COMBAT MISSION is 3D. SHOGUN is 3D. COMBAT MISSION takes place in WWII, as does RISING SUN. RISING SUN, like SHOGUN, is full of Japanese people. In the end, you've got a strong lineup in the wargame category, no matter how intertwined with each other the titles are.

**Sports**
The pinnacle of both baseball (HIGH HEAT 2001) and football (MADDEN 2001) will clash in some undoubtedly dirty ceremony here. Upstarts like TONY HAWK 2, FIFA 2001, and PGA CHAMPIONSHIP GOLF are sitting on the bench, waiting for the right time to close in for the kill.

**RPG**
Two fairies, the Devil, and the CIA. Create your own pantheon. Though how else could you describe the competition between BALDUR'S GATE II, ICEWIND DALE, DIABLO II, and DEUS EX? We could've very easily broken into a very merry, yet awful musical number, but we won't.

**Racing**
You'd think that the venerable NEED FOR SPEED: PORSCHE UNLEASHED is the one to beat, but it's the two-wheelers that are seriously gunning for the throne this year. MOTOCROSS MADNESS 2 and SUPERBIKE 2001 are both top contenders, but the vote may ultimately fall on a title like NASCAR HEAT or GRAND PRIX 3.

**Sims**
Can anyone beat COMANCHE vs. HOKUM? B-17 FLYING FORTRESS might. Don't forget STEEL BEASTS, or the Evil Empire's (Microsoft) own COMBAT FLIGHT SIM 2. Hopefully, this category will still be around next year.

**Science fiction/Space simulation**
The Evil Empire dominates, with games like MECHWARRIOR 4, ALLEGIANCE, and STARLANCER jockeying for this trench run. Then again, it could all fall to KLINGON ACADEMY, marking a rare instance where a Star Trek game actually wins an award.

5, 10, 15 is off this month while we wax nostalgic in our History of Gaming feature.
Developer Site-ings

Now that games make more money than movie ticket sales, you'd think that the new entertainment elite would also have glamorous, witty, interesting personalities. Well, not quite. While the digital whiz kids might be smarter than the showbiz kids from Hollywood, their personalities aren't nearly as exciting. That's not to say that there aren't famous game developers or artists, just that you shouldn't expect a gaming gossip column in People any time soon. Meanwhile, check out these developer's sites to get the scoop on all the poop that's definitely not fit to print (at least, not in its entirety).

John Romero
- Who's that?: Former id Software level master, now the genius behind DAIKATANA. Well, sorta.
- URL: www.johnromero.com
- Choice quote: "There will be no pr0n or naked Killeroo pics! :)
- Interesting tidbit: "I will not be cutting my hair!"
- Too much information: In his spanking new Hummer, John has installed a DVD player. Why?
- Does anyone really care?: "The DAIKATANA v1.2 patch for all languages is currently in final testing, as is the DAIKATANA Map Pack (9 Deathmatch maps, 2 CTF maps). After Eidos gives us the OK, we'll release them all."

Stevie Case
- Who's that?: The level designer with breasts and John Romero's girlfriend—and she's pretty good at Duke.
- URL: www.stevane.com
- Choice Quote: "I love cheese."
- Interesting tidbit: "In a brilliant scheme, John suggested we tie Chimpy to the mailbox as bait. So we did."
- Too much information: "With our new place we are even inheriting some new pets—3 peacocks, a dog named Duke, and a cat named Buttercup."
- Does anyone really care?: "I'll be meeting with some fans about possibly making a game with me as the lead character. Wouldn't that just kick ass? :)

Derek Smart
- Who's that?: Self-obsessed creator of BATTLECRUISER 3000 and perennial newspaper gossiping who.
- URL: www.dereksmart.com
- Choice Quote: "If this isn't a clear case of any John Doe with a website thinking that they have some sort of power to wield, I don't know what is."
- Interesting tidbit: "Guys like me who want to maintain 100 percent control so that I can wake up one morning and tell my publisher's CEO to go screw himself..."
- Too much information: "I don't see people clamoring over all the first-person shooters, masked in sheep clothing: Deus Ex, Max Payne, etc."
- Does anyone really care?: From the fan mail section: "Thanks for a brilliant, wonderful SENSATION-AL game! You deserve to be thanked by the president himself for your work."

Dave Perry
- Who's that?: Founder of Shiny Entertainment and all-around gaming god.
- URL: www.dmperry.com
- Choice Quote: "I did private demonstrations to worldwide magazine editors during the 1997 E3 show. After my demo, I challenged them to find any better technology. They could not..."
- Interesting tidbit: "There he headed up the team responsible for hundreds of millions of dollars in retail sales through award winning games like Disney's Aladdin, 7-UP's Cool Spot & Sega's Game of the Year, McDonald's Global Gladiators."
- Too much information: "Being a baby, he is kinda chubby & delicate, just about everything hurts him..."
- Does anyone really care?: "Well, OK, pretty pictures helped out MYST, but that's the exception rather than the rule... BTW, did anyone actually think that was fun??"

Reality Check

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* indicates game has not been rated

And the Winner Is... nearly everything. Geez, what wasn't good this past holiday season? Well, SQUAD LEADER is the obvious answer, along with RUNE. Otherwise, we had solid titles like RED ALERT 2 and a slew of Game of the Year candidates, like THE LONGEST JOURNEY, SACRIFICE, and NO ONE LIVES FOREVER. Too bad this tends to be a Christmas thing; we'll be hurting for good titles come spring.
Remember how the west was won? It won’t help you here.

Set in the wildest days of the Wild West, America is the only game that gives you the means to reshape the landscape of 19th century America with stunning authenticity.

REAL-TIME STRATEGY DATA BECKER DIGITAL GAMWARE

For more information about America, visit www.game-america.com or call 781-453-2340.
**THIS MONTH'S TOP 5 PREORDERS**

**TRIBES 2** (Sierra Studios)
The ultimate team-based experience, set in breathtaking worlds where brainpower and teamwork are the only true keys to survival. Unprecedented innovations in teamplay and tactical warfare will summon your intellect and gaming prowess in unimaginable ways.

**Fallout Tactics: Brotherhood of Steel** (Interplay)
A squad-based tactical combat game set in the Fallout universe and serves as a side story to the series' ongoing continuity. Features many systems native to the series, which will no doubt please those hungering for another postapocalyptic romp.

**Exile** (Building on the surreal style of Myst and Riven, Myst III: Exile features new fantastical environments that made its predecessors immersive, mysterious and beautiful. Exile features five entirely new ages for players to explore and hours of new mysteries to uncover.

**Black & White** (Electronic Arts)
A role-playing game unlike any other you've played before. You play the role of a deity in a land where the surroundings are yours to shape and its people are yours to lord over. Your actions decide whether you create a heaven or hell for your worshippers.

**Alone in the Dark 4: The New Nightmare** (Egosoft)
Dare to enter an intensely dark, strange and frightening atmosphere. Armed with a flashlight and courage, you must locate the necessary items to survive and find clues to help you escape this ultimate nightmare...why are you shaking?

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**THIS MONTH'S TOP 5 RELEASES**

**Evil Dead: Hail to the King** (THQ)
Ash must once again attempt to save the world from an apalling and horrific evil. Survival horror genre is taken to new heights by combining the successful formula of suspense, action, and puzzle-solving with over-the-top bloodlust and signature humor.

**NBA Live 2001** (Electronic Arts)
This game features new player reactions, bench sequences, a realistic stadium environment, links to the Internet where players can be matched up for online competition, and an enhanced franchise mode allows you to execute trades with up to three teams and 15 players.

**Icewind Dale: Heart of Winter** (Interplay)
A more action-oriented "hack and slash" RPG, with combat and character advancement as its own reward. The high experience point cap and the ability to create all six of your party members makes this game a worthy addition to any AD&D fan's game library.

**SimCoaster** (Electronic Arts)
Experience the most gut-wrenching, pulse-pounding roller coaster of all time. You research, create, staff, and manage the theme park of your dreams. An easy-to-use interface and stunning 3-D graphics make it fun to create and enjoy. There's a new thrill around every corner!

**Kingdom Under Fire** (KOEI)
Combines the frantic tension of real-time strategy gaming with the character attachment and story development of RPGs. Travel to the land of Bersia and join the struggle between the elves and humans of the Race of Light and the orcs and ogres of the Race of Darkness.

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Readers' Choice!
The Top 10 PC Games

These are the top games from a poll of 351 titles from 1980–2000 that ran on CGW's website. There were 93,011 votes cast from November 6, 2000, to January 1, 2001. The No. 1 game, HALF-LIFE, was way out front.

To all those who voted, thanks for your participation in the most comprehensive computer games poll of its kind. These truly are the best games of the last millennium.

1. Sid Meier's Civilization
2. Half-Life
3. X-COM
4. StarCraft
5. SimCity
6. High Heat
7. Grim Fandango
8. Quake
9. MechWarrior 2
10. Ultima IV

CGW's Top 10 Games of All Time

Here are our editors' rankings, after the name calling, the shoving matches, guys exposing themselves, threats of castration, and our CD-ROM editor getting kneed in the groin and poked in the eye. In other words, our typical editorial meeting.

1. Sid Meier's Civilization
2. Ultima IV
3. M.U.L.E.
4. Red Baron
5. DOOM
6. SimCity
7. Wing Commander
8. Empire
9. Wasteland
10. Falcon 3.0

Agree, disagree? Bummed that Leather Goddesses of Phobos didn't make the list? Rent your spleen at cgwletters@ziffdavis.com.
Software development is an inexact science, so pinning down release dates is like predicting who’s going to buy Sega next. These dates represent the best available info we had at press time.

If you’re a publisher, send your updates to: cgwpipeline@ziffdavis.com

HALO: “Graphics” is the focus of the Halo team. Most of the developer updates from Bungie have been discussing graphical tweaks and accomplishments, which is a bit worrisome. We still have faith, due to their past history, that they have their design chops. But when will we read more about gameplay and less about the cinematics or the Animatics?

BLACK & WHITE: The game has officially gone alpha, and Lionhead has passed the game on to EA for testing. While you’re waiting: If you use WinAmp, head over to dance.bwgame.com for a goofy little plug-in that some Lionhead programmers made in their spare time.

WIZARDRY VIII: Much like its earlier projects, Sir-Tech is essentially done with the game, but it’s waiting for a publisher to pick it up. It’s in negotiations, and hopefully the game will be published soon. But don’t hold your breath, since another Sir-Tech project—UNFINISHED BUSINESS—was finished last February but didn’t get published until the holidays.

FREEDOM FORCE: The first playable mission is done. The team can now take their design ideas and test them out in gameplay. They’ve also finished building all of New York for the campaign, so most of the environments are ready to go.

CONQUEST: Even though Microsoft dropped CONQUEST, Digital Anvil is still shopping for a publisher. As for the game itself, all that’s left to be done is localization (assuming the publisher is going to release it somewhere other than the U.S.) and good ol’ QA testing.

INDEPENDENCE WAR 2: THE END OF CHAOS: It’s going through an external beta, and might be released just as you read this. We’re hoping that the game will maintain the excellence of the previous title.

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|anniomanex edios| march 2001 |
|arcane sierra| february 2001 |
|battle of britain: rowan software| spring 2001 |
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(and race too.)

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Command a host of new specialist characters to build your team's criminal power and family connections.

Every family's got a few skeletons in the closet.

Gangsters 2
It's Disturbingly Authentic
www.gangstere2.com
Quick Takes on Games in the Works

HOT SHOTS

Command & Conquer: Renegade

Frankly, we were wondering if we'd be seeing these RENEGADE shots on a milk carton, the way the game seems to have fallen into a development black hole. Turns out Westwood was just keeping the shoot-em-under wraps as the title underwent some significant retooling, mostly to make sure the game expressed that special napalm 'n' testosterone C&C ambiance.

The extra attention seems to be paying off. A recent visit to Westwood confirmed that RENEGADE is firmly entrenched in the C&C alternate-reality, with the blistering action knee-deep in the giddy chaos of a full-on war zone. The expression of the C&C universe extends beyond a convenient premise with all the units and buildings from C&C present and operable. Missions are built around military objectives and will reward you for acting like a real commander: Take out SAM sites and air strikes will come screaming in for support.

Anachronox

We finally got our sweaty hands on a playable build of Tom Hall's long-awaited, epic console-style RPG - and we liked what we saw. A lot. This sci-fi RPG, set 700 years in the future, blends elements of BLADE RUNNER, THE MATRIX, FINAL FANTASY, and countless other cultural references into a deliciously complex gaming smorgasbord. The engine, unbelievably, is based on the now-ancient OMAKE 2 code - but you'd never know from looking at it now. We'll take a long, close look at ANACHRONOX in an upcoming CGW. It's shaping up as one of the gaming events of 2001.
Tomb Raider: The Movie

Following in the proud footsteps of the Mario Brother's Movie, Double Dragon, and Mortal Kombat, Angelina Jolie will soon be filling the T-shirt of our beloved Lara Croft on the silver screen. Based on the early footage, we're not seeing a whole lot of game references, aside from Lara's dual-pistol action and Yuen Wo-Ping-style acrobatics. Great for action fans. As for fans of the game... well... there's a cool CG robot. (Why must every Hollywood flick have killer robot death-machines these days?) Other than that, it seems they've forsaken all of the game's plot devices. Considering the quality of recent Lara games, however, that's probably a good thing. The movie premieres June 18, but you can see the video preview now at tombraidermovie.com.

Commandos 2

The level of graphic detail here is somewhere between fanatical and psychotic. In a recent demo at Eidos' offices, members of Spanish developer Pyro Studios told us how they've spent nearly two years crafting every rock, shingle, and button in 3D. The sequel to their million-selling game of stealthy, puzzle-boxed combat is once again set in WWII and will feature a number of dramatically different settings, from castles to frozen ice flows to tropical and underwater missions. You'll use operatives to sneak past guards, ransack houses, drive vehicles, and wipe out legions of Nazis with a large variety of weapons (including a very cool bazooka). Apart from its graphic splendor, we were impressed that Pyro is trying to make the missions less puzzle-oriented. Coming early April.
Emperor: Battle For Dune

Westwood Studios has never been accused of re-inventing the wheel. After all, when the wheel you're pedaling/pedaling is the incredibly successful COMMAND & CONQUER series (see sidebar), why bother? Selling multiple millions of units definitely plays to the "don't fix what ain't broke" mentality. But as well as it's done with the traditional, Westwood is ready to move forward—and to do that it's returning to its roots by revisiting the Dune license with EMPEROR: BATTLE FOR DUNE.

The Emperor's New Groove

The most obvious advance is the sparkling new 3D engine. But big deal. Just about everybody but Mavis Beacon has a personal 3D engine these days. Yes it looks great, yes it's all shiny pretty and new, and—okay—it is kind of a big deal. But let's leave it alone for now and look at what's really new and different: the campaign map.

Looking for all the world like a RISK board, the campaign map sticks a big fat chunk of turn-based gaming into the traditional Westwood RTS mix. Instead of pushing players along a linear series of campaign scenarios, the designers are letting gamers personally shape their play experiences. At the start of the game, equal portions of the map are controlled by the three factions in the game: the defense-minded Atreides, the barbaric Harkonnen, and the Ordo who favor hit-and-run tactics.

From the map screen, gamers will have to weigh several factors before they decide which territory to invade. Which territory will get them closer to their ultimate goal of their enemies’ home planet? Since they'll have to hold territory, which will be easiest to defend should an enemy invade? With reinforcements periodically coming in from bordering territories, should they try to surround a key territory in order to diminish incoming manpower before trying...

FEED ME! It wouldn't be a DUNE game without gigantic frog-killing sandworms.
to capture it?
Players will also be able to decide against holding land, opting instead to retreat and pull back a few forces to bolster other areas. Retreating will be most attractive in missions where the goal isn’t straight-up conquest; for example, you might just need to reach one of the five sub-houses to forge an alliance. Once the alliance is made, you won’t need to keep the territory. The whole campaign map concept radically changes the dynamics of the traditionally canned RTS campaign; with 32 territories and 100 randomly assigned missions, EMPEROR promises far more replayability than other RTS titles.

As the Worm Turns
The rest of EMPEROR is fairly straightforward stuff. Gamers will be harvesting resources, building bases, creating units, and wiping out the enemy. The only other big change to the expected Westwood formula is the aforementioned 3D engine. Frankly, it’s a beauty, showing off great lighting effects, beautifully detailed units, and three kinds of giant, human-chomping sandworms. The perspective is still fundamentally top-down — no MYTH-cam here. The designers felt it would only add confusion to the game mix.

Westwood is making other, very welcome advances as well. A huge effort is being put behind AI programming, abandoning the heavily scripted behavior of previous games in favor of what is basically a skirmish mode AI. The CPU will use scouts, search for and secure chokepoints, and generally try to act like some jerk kicking your ass online. An intelligent waypoint system will make units act, well, intelligently at the end of a series of waypoints: Engineers will take over buildings, infantry will fight, and so on. The interface will incorporate the user-friendly aspects of the RED ALERT 2 interface, and for balancing (and simple fun) players’ primary harvesters and carryalls will be replaced for free.

Of course there will be lots of new units, many with special abilities, pretty much all of them very cool. But again—we’ve all come to expect that. The big news here, Westwood’s big opportunity to once again shape the genre it forged with DUNE II, is in that campaign map. It should be a huge influence on the game—it could be a huge influence on RTS gaming in general. CGW

CGW2000 FLASBACK

Westwood’s Real-Time Legacy

Dune II
Reviewed #105, April 1993
A pioneering title in every sense of the word, reviewer Allen Greenberg called DUNE II “a real-time exercise in every sense of the word” marvelling at the continuous motion of “combat vehicles and flyers constantly crossing the terrain while spice harvesters busily plow the desert.” The equally impressive audio treated you to the shrieks of dying infantry, the thunder of collapsing buildings, and the sound of crushed bone as tanks rolled over infantry—provided you had the right sound board and a whopping 2MB of available memory.

Command & Conquer
Reviewed #137, December 1996
And so the franchise began in earnest.
While reviewer Martin Cirulis deemed it a “good, networkable version of DUNE II,” little did he know at the time just how much networkability would prove to be. C&C’s enormous multiplayer popularity would propel it to sell billions of units and, with the help of IPX emulators like KAI, herald the beginning of the multiplayer phenomenon upon which all other RTS games would have to be built.

C&C: Red Alert
Reviewed #152, March 1997
Again, the big draw in this revisionist historian’s delight was multiplayer, with up to eight players able to compete over the Internet. But RED ALERT is likely to be most remembered for minting the term “tank rush” as multiplayer matches tended to go toward the player who most quickly built up a huge force of attacking armor. It was this imbalance and perhaps a sense that Cirulis was on to something when he expressed disappointment that “RED ALERT could have been a real leap forward instead of a very cool expansion” that drove many gamers back to C&C—after they bought more than a million copies of the game, however.

C&C: Tiberian Sun
Reviewed #188, December 1999
When TIBERIAN SUN finally came out, writer Jason Kapalka likened the game to a cheeseburger, “comfort food for the real-time strategy gamer,” but the bottom line was that C&C had tumbled from the top of the RTS heap, with STARCASTF assuming position as top dog. “Sad,” wrote Kapalka, “the comforting cheeseburger familiarity that makes TIBERIAN SUN surprisingly fun is, in the end, the same thing that prevents it from graduating to sirloin steak.” Gamers still gobbled up over a million copies worldwide.

Red Alert 2
Reviewed #198, January 2001
While RED ALERT 2 offered nothing new, it did mark a return to C&C roots, with fast, furious, and undeniably fun gameplay. Kapalka observed, “This is unquestionably the best title in the series—it’s the game TIBERIAN SUN should have been.” It quickly turned into a multiplayer favorite in the CGW offices.
The question most often asked of any computer gaming journalist by friends or fellow gamers has to be “What’s the next first-person shooter that will best HALF-LIFE?” Despite the low probability of the divine HL’s ever being forgotten in the hearts of gamers, many gaming media outlets have declared Volition Studio’s RED FACTION to be the David to Valve’s Goliath. We would never be reduced to such drooling adulation for a game that hasn’t reached beta stage yet, but the impressive demonstrations of RED FACTION’s highly original technology are definitely making our mouths water.

Breaking Up Is Easy to Do

What sets RF apart tech-wise is something Volition is calling its Geo-Mod™ engine, which allows for, in the company’s words, “real-time, arbitrary geometry modification.” In other words, your weapons will have an effect on the world around you by blowing holes in walls and other structural elements in a realistic way. So say you aim your rocket launcher or some other explosive device at a wall and let fly. Instead of seeing a big scorched-mark texture map, an actual hole will be blown in the wall, allowing you to pass through (granted it’s big enough). It doesn’t stop with explosive devices. Bullets will poke holes in pipes, allowing steam or liquid to stream out, and they’ll cause glass to shatter in realistic spider web patterns. You can reduce entire buildings to rubble with a few well-placed explosives, take out bridges, or redirect streams of molten lava by changing their surrounding geometry. In other words, the world around you is affected by your actions.

But this is far from just advanced eye candy gimmickry. Sure, the first time you boot this game up you’ll spend more time trashing your surroundings than The Who at a Motel 6. But the designers have more challenges in mind for their innovative technology. Faced with the open possibilities for gamers to make their way through the single-player campaign (do I find the key that opens this door or do I blow a hole in the wall next to it and walk on through?), the game designers are now challenged to balance the game properly, considering the freedom players have. As a result, certain things are unbreakable, forcing you to follow a somewhat predetermined path. But in other cases, it will be entirely necessary for you to modify your environment. And considering the fact that you’ll also have heavy-weapon turrets and vehicles at hand, you won’t want for lack of firepower.

In one of the demos THQ has been giving at game shows to demonstrate its Geo-Mod physics and its advanced particle engine, a player damages a pipe and a stream of lava is unleashed on a room. The lava flows where it would naturally—out of holes, through cracks—depending on how your weapons affect the geometry of the pipe. The developers are promising to include situations like this in the “puzzles” you’ll encounter throughout the game.
Born of Fate
Raised by Prophecy
Chosen as a Savior
Destined to Destroy...

Prepare for an Original Epic Fantasy RPG.
Coming Soon

www.summoner.com
What's It All About?

Despite all the cool technology, that's the real question, isn't it? What will you encounter in this game? What will the story be, and will it be more than simple window dressing for the ultra-cool engine? Well, considering Volition's not-too-shabby resume (it did the DESCENT and FREESPACE games) and the fact that one of the first hires on this project was a writer, we're taking an educated guess that there will be a story to sink your teeth into, and a strong plot line that will justify the unique gameplay.

The basic story is this: You play Parker, a young man of the near future trying to find his fortune in the Ulkor Corporation's mines on Mars. Soon after you start the job, you become aware of the horrible situation the miners are in. Unsafe working conditions and disease are rampant. Armed guards hired by Ulkor beat and even kill miners who dare to speak up or protest. Before you can say, "I've got to do something about this," you're contacted by a group of revolutionaries who are carrying out an armed insurrection in the mines and want your help. Settings will range from the deep underground bunkers of the mining complex, to natural Martian caves housing strange creatures, to a huge spaceship orbiting the planet.

Along the way, you'll encounter various enemies inhuman form, from the lowest-level police to well-equipped elite mercenaries, as well as some alien and robotic opponents. The AI for the enemy troops is programmed so they'll operate in squad formations, using advanced squad tactics. They'll also react to changes you make in the environment. Here's an experience I had playing an early version of the game: I entered a small connecting room that had two guards at the opposite end procted by sandbags and a grenade-launching turret. To give myself a little cover, I decided to blow a crater in the floor and get in it like a foxhole. What I didn't realize is that there was another room below, and I had just blown a hole in the ceiling. I could look down and see the guards in that room. Amazingly, they all turned around and looked at me, and started firing at me through their new skylight.

Demolition Derby

Obviously, this technology could provide for some highly interesting multiplayer mayhem. But Volition isn't spending too much time on the multiplayer game, sticking mostly to Deathmatch and Capture the Flag. Of course, the possibility of tunneling your way into the enemy's flag base with some suicidal charges sounds pretty damn cool. The designers, by including a level building tool with the game, are hoping that a mod community will spring up around the game and exploit its multiplayer potential.

It's nearly impossible to predict the success of any single game, but RED FACTION seems to have the recipe down right. Volition has "cred" among gamers because it knows how to make good games. One thing you can count on is this: The Geo-Mod technology is a big step forward for first-person shooters, and it is something that will be included (or just copied) in many games to come. Whether or not it's the greatest thing to hit the genre since mouse look, only time will tell. I know I'll be spending that time smashing stuff up good. G4U
Take the role of a European superpower at the time of the Great Explorations in 1492. Through bold and wise diplomacy, skilled resource management and warfare, you guide your country through 300 years of European history, to the time of Napoleon’s rise to power in 1792.

Features:
- Play France, England, Portugal, Spain, Holland, Habsburg, Prussia, Russia, Venice, Turkey or Sweden and compete for wealth and glory.
- Extensive and advanced options for diplomacy, economy, warfare, colonization and exploration, all based on actual historical conditions.
- Over 700 provinces to conquer and colonize.
- Over 150 historical events and missions.
- Multiplayer options for up to eight players over LAN or the Internet.

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The most thorough historical simulation anywhere.

Computer Games Online
...a definite winner in my book.

Tucows Games 5/5
What a Long, Strange Blip
It’s Been

by Johnny L. Wilson

Illustrations by Steve Wancerk
The Untold Story of the History of Interactive Entertainment, From Mainframes to Mainstream

A lot of people were nervous when I left CGW a little over a year ago to become a publisher at Wizards of the Coast. I'd always said that if I ever left the industry, I would write "The Book," naming names and mapping out where the bodies are buried. Well, they can breathe a little more easily. The following history is not journalism per se. To be journalism, I'd have to identify everyone—even my friends—and show my evidence. I'm not going to do that until I write "The Book." This is merely a brief history of a fascinating industry, tinted with the subjective feelings of an old fart who has lived through much of it. So, if you don't mind reading about practical jokes, stupid marketing tricks, lawsuits, drug rumors, sex rumors, and egotistical executives, continue. I'll try to fill in the gaps with some useful stuff, but you'll have to put up with my less reverent and relevant memories as well.

It Is Rocket Science

They called him "Slug," but not because he was slow at LISP programming. Inspired by E. E. "Doc" Smith's Lensman and Skylark novels, Steve Russell and some friends conceived a Lensman game in 1961. In 1962, Slug actually programmed the game known as SPACE WAR on the PDP-1 mainframe computer at M.I.T.

In SPACE WAR, two "B" movie-style rocket ships (one shaped like a fat cigar and the other looking like a long slender tube) battled in computer-generated space. Players would flick toggle switches to make the ships change direction, and the ships would respond much like the zero-G ASTEROIDS ship of coin-up and Atari 2600 fame in a later era. Each ship could fire up to 31 torpedoes that would, in turn, appear as little dots traveling in the direction of the other ship. If the dot actually managed to hit the other ship, it "exploded" and the ship disappeared. There were no particle effects and no stereo sound effects to mark the explosion. The other ship simply disappeared and was replaced by a mad scramble of dots to represent debris.

With that first game, the battle of realism versus playability was on. Peter Samson decided that the random dot star map was insufficient. He used a celestial atlas to program the star map as the actual galaxy down to fifth magnitude stars. Another student added a gravity option. Another added a hyperspace escape option, complete with a nifty stress signature to show where the ship had left the system. Later, Slug modified the game so that the torpedoes had a calculated failure rate instead of being 100 percent successful.

With some things never change. In an attitude typical of computer gamers today, the experienced players of SPACE WAR preferred the earlier version where they could always depend on the torpedoes. Russell's refinements had leapfrogged beyond his audience. SPACE WAR had also leapfrogged from the campus of its inception to nearly every college campus with a mainframe. Nolan Bushnell, founding father of Atari, became so addicted to the game in the mid-1960s that he built his own dedicated machine (using 185 integrated circuits) to do one thing: play SPACE WAR. (In 1970, he released a coin-up variant of SPACE WAR called COMPUTER SPACE.)

ABOUT THE AUTHOR
Johnny Wilson was the Editor-in-Chief of CGW from 1992 through 1999. A recovering ex-Baptist minister, Wilson began writing for CGW in 1982 while serving as a pastor and professor. He has written extensively about gaming and has appeared on several network news programs promoting game ratings and opposing censorship. In 1999 he became group publisher of several magazines published by Wizards of the Coast: Top Deck, Dungeon Adventures, Dragon, and Star Wars Gamer. He resides in Seattle with his family.
You can play a bit of computer gaming history by going to the SPACE WAR website and checking it out. The website can be found at this address: http://cs-www.media.mit.edu/groups/el/projects/spacewar/

With the attention that SPACE WAR received, it was only a matter of time before other mainframe classics appeared. TREK, a Star Trek-inspired strategy game consisting of a grid of dots representing star systems and using letters to represent starships, was one of the most widespread. Another was John Horton Conway's LIFE (1970), a cellular automata which allowed you to set rules and watch what happened to your computer based "lifeforms." Both TREK and LIFE found renewed life in the personal computer world when Cyanogen Software (to become Interstel) released a slick version of TREK called Star Trek I and Software Toolworks released Life as part of a Golden Oldies package. (You can check out Life at http://cgi.student.nada.kth.se/cgi-bin/d95-ach/get/lifeng#life.)

The Boys Club: Ziplock Bags and Naked CEOs

In 1972, Magnavox unveiled a home-based computer system called the Odyssey. The black and white game system featured several games that looked like you were playing with a television test pattern. (It also looked a lot like a coin-op game that Bally/Midway had turned down.) PONG was a coin-op knock-off of one of those Odyssey games, an admission made in court many years later by Atari founder Nolan Bushnell. Magnavox ended up getting royalties, but the Atari founders made a fortune.

Atari had to create its own competition in those days. Coin-op dealers didn't want to deal with one supplier for fear of monopolistic practices, so Atari's Joe Keenan formed Kee Games to distribute competitive coin-op video games. TANK!, one of Atari's big money-makers, was distributed under the Kee label. The only difference between the two companies was the name on the cabinets. Both companies used the same truck, which Keenan marked with plastic signs for...
Kee or Atari depending on the delivery. (See www.atari-history.com for rumors and anecdotes from this era.)

In addition to the fact that many star designers and programmers for the PC came out of Atari Corporation, the designer of BREAKOUT became one of the founders of Apple. You wouldn't know barefooted BREAKOUT designer Steve Jobs from those Atari days, but without the Apple Computer, we probably would not have had the personal computer revolution that turned computer gaming into a real hobby.

Mainframe computer games continued to impact future personal computer games throughout the '70s. In 1976, Walter Bright wrote EMPIRE, a VAX-based game of world conquest that invaded college and corporate mainframes at this time. It later appeared on a myriad of personal computers in the '80s. The same year, Chris Crawford combined maps from Jim Dunnigan's Panzer Leader, some lead miniatures of armored vehicles, and some of his own FORTRAN code on the mainframe of a Nebraska community college to create WARGY, one of the earliest computer-assisted wargames (later published as TANKTICS by Avalon Hill).

Another pioneer, Will Crowther had worked on a prototype of a fantasy computer game in the early '70s that was eventually completed and marketed in 1976 as a collaboration between Crowther and Stanford hacker Donald Woods. Sometimes called ADVENTURE and sometimes COLOSSAL CAVE, it was the first two-word parser ("GET KNIFE") text adventure game that inspired the original Infocom crew, Scott Adams (not to be confused with Dilbert's creator) and a young woman named Roberta Williams to write their adventures and found their companies. The M.I.T. bunch that formed Infocom loved ADVENTURE, but were so frustrated with the two-word parser that they built ZIL (Zork Interpretive Language) to understand complete sentences. Roberta loved playing ADVENTURE on a remote terminal, but wondered why no one had put pictures with the text.

In 1977, Ken Williams founded On-Line Systems to build mainframe communications software. Ken had originally built an employer about his proficiency and proved autodidactic enough to get away with it and to found his own company. By 1980, they had switched to publishing "Hi-Res Adventures" for microcomputers. These were basically simple on-screen pictures to supplement the text.

**1968**
Data Controls' computer game division sells COMPUTE FOOTBALL for $30 each.

**1969**
U.S. Department of Defense launches Advanced Research Projects Agency Network (ARPANET), which later becomes the Internet.

**1970**
M.I.T.'s Terry Winograd develops SHRDLU, a game where AI moves bricks in blocks. The name comes from a linear order: ETAOIN SHRDLU.

**1971**
Magnavox begins production on Odyssey I home video game machine.

Bally/Midway turns down Nolan Bushnell's PONG.

Atari founded.

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**First-Person Shooter Classics**

**id Software**
Id's importance in the entire shooter genre is asserted virtually every release. It created the FPS with CASTLE VOLTAIRE 3D, introduced multiplayer with the terrifying DOOM, brought 3D and a sense of community to shooters with DUKE, all while defining the art in game engines.

**Marathon**
Bungee's landmark MARATHON often gets short shrift because it was a Mac game. But this shooter was far ahead of its time, with a compelling storyline that actually was a story, great multiplayer options, and the first use of mouse-look.

**Tom Clancy's Rainbow 6**
The first tactical simulation, RAINBOW 6's unprecedented realism radically altered the FPS landscape by emphasizing strategy and teamwork over simple reflexes. Its tense, atmospheric gameplay has inspired a number of imitators including the wildly popular Counter-Strike mod for HALF-LIFE.

**Half-Life**
Transcending the target range mentality of most shooters, HALF-LIFE brought an involving story to life through intricately scripted sequences, unheard dialogues, brilliant level design, and some of the smartest and scariest monsters ever.

**Unreal Tournament**
Future multiplayer shooters will be judged against this game. UT's brilliantly polished multiplayer sets the standard for level design, weaponry, play modes out-of-box, and especially the flexibility and lethality of its bots.
adventures underneath them. By 1982, On-Line Systems was making enough money that it got the attention of a Pennsylvania-based company that had legal right to the name and Williams' company changed its name to Sierra On-Line (now, simply Sierra).

Before On-Line became Sierra, however, Jon Freeman realized the entertainment potential of the computer and founded Automated Simulations (later, Epyx). His first game was STARSHIP ORION, but he is best known for the early role playing elements in the TEMPLE OF APSHAÍ trilogy and RESCUE AT RIGEL. He also published a game in which you played the monster called CRUSH, CRUMBLE, & CHOMP. Epyx later became the first publisher of Lucasfilm games.

On the opposite coast, Robert Woodhead was putting his Cornell University mainframe programming to work. After doing a simple cost conversion program for the firm that his mother worked for, he asked permission to use the computer for his own purposes. Fred Strotzek, the owner, agreed. It wasn't long before Fred's sons, Norm and Rob, saw how many Ziplock bags full of disks and cheaply printed manuals Woodhead could sell on a weekend at a computer fair. Norm decided that there was a real business in computer games and took the gamble of asking Fred to fund a company. Fred funded Sir-Tech Software expecting to lose it all, but thinking that a failure in business was worth the tuition he'd pay to send the boys to Harvard Business School. After several lesser sellers, Woodhead and Andrew Greenberg built the popular WIZARDRY series, Sir-Tech's flagship game throughout history.

As Roberta was publishing MYSTERY HOUSE, THE WIZARD AND THE PRINCESS, and MISSION: ASTEROID, a bored attorney named Doug Carlston designed a space opera-style game on his TRS-80 computer. Since Doug had once taught at an integrated school in South Africa (and was once ousted during the apartheid era for his sympathies), he used many African names for locations and peoples in the game he called GALACTIC SAGA. There was an unsavory group of merchants called the Broodermouth, Afrikkaans for "association of crush, crumble, crump and tear up cities like New York and Tokyo."
brothers,” in both the game and in real-life. Doug and his siblings elected to call their new company Broderbund Software (in spite of the unappealing origin of the name). Broderbund was to garner future millions from the CARMEN SANDIEGO series, PRINT SHOP, and MYST.

Meanwhile, Richard Garriott was programming a Dungeons & Dragons-style game called AKALABETH while still in high school. Later, he would unveil ULTIMA—complete with his Society for Creative Anachronism buddies as non-player characters. At the same time, Joel Billings despaired of convincing Avalon Hill to publish his computer wargames and started his own company, Strategic Simulations, Inc. COMPUTER BISMARCK, the first game, was notable for two reasons. First, Avalon Hill sued SSI for plagiarism and won a settlement. Second, a fellow from Apple Computer named Trip Hawkins talked Joel into moving the program from the Northstar Horizon to the Apple, an economically sound move. Hawkins invested in SSI and became an early board member. In 1980, Ziploc bags were the main packaging medium for computer games. On one occasion, a former computer store owner remembered having Gary Carlson and Ken Williams’ father-in-law in his store, simultaneously hawking Ziplocked versions of their respective games.

Apparantly, Ziploc bags were used for more than games in this era. More than one source has told me that it was common in some software companies to seal deals by snorting a line of cocaine. Allegedly, the publisher of AKALABETH, Lord British’s predecessor to ULTIMA, had the company go up the nose. Tales of drug use and exhibitionism were rife in those days. One executive mentioned a party at which there was a scuba tank of nitrous oxide. EA executives allegedly smoked grass around the dumpster at their San Mateo office. A former software agent told me of a summit meeting between game company executives where several CEOs sat around a pool in the nude (bad graphics in more ways than one, I suppose).

Obviously, the entertainment software industry was a boys’ club in those days. Ken Williams even allowed his wife and design star, Roberta, to pose nude in a hot tub with two other local beauties. Don’t worry, the world’s most famous designer of children’s games was discreetly covered by water, as well as a strategic airbrush stroke. Ken’s younger
brother was suspected of selling the outfits from the photo shoot to *Genius* magazine. Another time, a programmer who was leaving Sierra to work for another company contracted poison oak that had been spread on his keyboard. In short, the game industry had an adolescent mentality even in those days.

**Game Designers as Rock Stars**

The designer's struggle for credit dates back decades. Atari had always refused designer credits for its games. The result was that they lost Al Miller, David Crane, Bob Whitehead, and more. These joined with ex-Hershey's executive James Levy and started Activision in 1979 to compete with Atari. One innovation was giving design credit on each box. Muse Software, Avalon Hill, and SSI let designers have credits in the documentation and within the game, but you didn't usually see those names on the packaging.

In 1981, Russell Sipe decided that there was enough critical mass to create a magazine about computer games. He formed a company in the spring of 1981 and launched *Computer Gaming World* in November of that year. It was the same year that *Electronic Games* and *SoftSide* launched, as well as *Films* magazine in France. All three competitors had deeper pockets than Sipe, but CGW was the only computer games magazine from that era still in existence. (The UK's *Computer & Video Games* still publishes, but it emphasizes console games). One important early practice of CGW was to list the designer of the game with every major review and allow the designers to write guest columns.

Yet, designers were to get significant more recognition. When Sid Meier beat Bill Stealey at a coin-op RED BARON game (with wire-framed graphics, not the Dynamis game) in Las Vegas, they ended up forming MicroProse Software. That wasn't the first name considered, though. It was SMUGGERS for Sid Meier's User Group Software. When SSG broke off from SSI in 1983, the original REACH FOR THE STARS was billed as "A Roger Corman Game" in all advertisements. Indeed, the same Trip Hawkins who talked SSI into going with the Apple as its primary platform began Electronic Arts. Hawkins hired his favorite designers; prepared a product line that would include such classics as ARCHON, M.U.L.E., and PINBALL CONSTRUCTION SET; and proclaimed that these were "electronic artists." According to Trip, game designers would be the rock stars of the future. Not only did the
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designers get credit on the covers of EA games, but the original games were done like small record album covers. In short, EA built its entire power structure on one principle: distribution. It took the music industry’s model and built a huge sales force instead of depending on the kind of distributor patchwork used by other software publishers. Using this muscle, EA picked up auxiliary companies to distribute (EAD, formerly the Affiliated Labels program) and essentially distributed its competitors’ games. At times, it was accused of distributing products in order to steal technology. Two such cases were Bethesda’s successful suit against EA for stealing GRIDIRON technology for JOHN MADDEN FOOTBALL on the Amiga and Lord British’ farewell to EA after he alleged that an RPG from EA called DEATHLORD stole ULTIMA IV code down to the tile graphics.

Ostensibly, being an EA Affiliated Label (AL) meant that your products were worthy of wider distribution. A computer game Hall of Fame of Affiliated Labels (Cinemaware, Lucasfilm, New World, Software Toolworks, SSG, and SSI) joined the Hall of Fame of development alumni (Dani Bunten Berry, Bill Budge, Chris Crawford, Jeff Tunnell, Damon Slye, Jon Freeman, Paul Grace, and more). For EA, though, the ALs were often treated as revenue fillers between EA releases. One EA sales executive stated the philosophy at its most cynical: “I can sell dogshit in a box if it has the right packaging.”

Behind the scenes, it was a wild time at EA. CEO Hawkins entered a conference room one day just as one of his marketing executives was entering an assistant on the table. Hawkins wasn’t happy. In typical boys’ club fashion, the assistant was laid off. But, the legacy of that workplace inculcation was that EA’s conference rooms always had glass panels from that day forward.

Rock and Fold: The Sad Fates of Mindscape, Activision, and Infocom

You would think that with so many new game companies forming that 1983 would be a great year for the industry. Instead, it was nearly a disaster for the console game industry, and it threatened to drag some of the computer game companies along with it. Ken Williams of Sierra swore they would never again do another cartridge game because the cartridge crash devastated Sierra. Activision’s Al Miller and Bob Whitehead saw
the writing on the wall and formed Accolade to specialize in arcade games for home computers. Atari denies having to dump tens of thousands of cartridges in the desert during 1983-84, but lots of Alamogordo, New Mexico, residents claim that they got some great freeware at the dump during those years. Mattel got out of the business and let some liquidators sell off everything to do with Intellivision. Coleco was so basted from Colecovision that Michael Katz was breathing easy that he had left Coleco and gone to Epyx. (Katz' gaming career was finally KO'ed at Sega where he authorized signing one fight heavyweight champion Buster Douglas for an unsuccessful boxing game just before Douglas himself was KO'ed. Katz had bad luck with licenses. At Epyx he was the first to lose money on a Michael Jackson license with a break-dancing game, infuriated tons of parents with a sexist Barbie game, and managed to lose money on a Hot Wheels and G.I. Joe license.)

Yet, PC gaming kept growing. By 1986, Mindscape's Australian founder, Roger Buoy, started an annual tradition that expressed how good the business was getting. During the Summer Consumer Electronics Show, Mindscape would rent out a nightclub and have its annual rock and roll party. It featured big name blasts from the past like Junior Walker, Sam and Dave, and Meatloaf. Dudley Moore played the Miracle Piano System for Nintendo at one such party.

With Commodore picking up the Amiga system before its creators went bankrupt in 1985 and Atari launching the ST in 1986, it was a whole new world for computer games. Better graphics, better sound, and faster processor speeds were the order of the day with the Motorola 68000 series of chips. Electronic Arts pledged a commitment to the Amiga with Trip Hawkins proclaiming that some day, interactive entertainment would wag the tail of the entire entertainment industry. "But," proclaimed Hawkins, "whatever platform we use, it won't be driven by an Intel chip." That promise would later come back to haunt him.

Cinemaware was founded during this era and published a series of games based on classic and pulp movies. DEFENDER OF THE CROWN started out as ROBIN HOOD and soon became a generic medieval story tied together with cut-scenes and arcade games. It had a nudge scene, though it was done in silhouettes and blacked out like the love scenes in a more chaste Hollywood. The important fact about Cinemaware, however, was that it was formed to make multimedia products. Yet, Cinemaware died before CD-ROM delivery became viable for game companies. (Some of the creative folks involved with the original Cinemaware games have just relaunched the company.)

In 1987, Activision decided to emulate Electronic Arts. Dick Lehrberg, a brilliant judge of talent, assembled a heavyweight line of Affiliated Publishers (Dynamix, Interplay, Lucasfilm, New World Computing, and more). A couple of years later, the CEO at Activision (then known as Mediagenic in an attempt to reap "dumb money" in the stock market), Bruce Davis, nearly destroyed the company when he decided that there wasn't enough margin in just distributing these games. He overlooked the fact that the only overhead they had invested in the distribution program was their sales force—a sales force needed to hawk Activision products anyway. In one meeting, he eviscerated Lehrberg, destroyed the AP program, and started Activision down the path toward its eventual bankruptcy—in spite of it becoming the first U.S. publisher to have both a Nintendo and Sega license.

By the time Bobby Kotick's group bought Mediagenic/Activision, the codename for their due diligence was Project Lackoration. Employees would stack aluminum cans in the employee lounge to represent the value of Activision shares on the NASDAQ. Morale was
at an all-time low when Kotick purchased the company, took it into bankruptcy, moved it to L.A., and hauled it out of bankruptcy.

Before those events, though, interactive entertainment companies had some exciting times. Broderbund, Electronic Arts, and Sierra all went public in 1989. Then, in order to set earnings records, EA stunned everyone by announcing that it would be moving into video games. By building an EA Sports franchise on all major platforms (SNES, Genesis and to a lesser extent, the PC), EA was able to avoid the problems faced by Activision.

There were a lot of bad guesses about where the industry was going in those days. Hawkins had originally guessed Amiga. Bruce Davis guessed Apple IIGS and Macintosh.

Ken Williams guessed IBM. That's why Sierra led the way in IBM entertainment. The first EGA adventure game? Sierra. The first sound card support for the IBM (Roland, Covox and AdLib cards)? Sierra. The first VGA adventure game? Sierra. Sierra also had a lead in one of the least loved eras in computer games, which we'll cover next.

**The New Hollywood: Siliwood**

Sierra also led the way in digitizing actors, using professional voice talent in games and making interactive movies. If you want to call this part of computer game history the "Siliwood Era" (Silicon Valley meets Hollywood), Sierra was plenty Sili. At first, its hybrid use of classic animation cells scanned into computers for products like the ADVENTURES OF WILLY BEAMISH and process of filming live actors for digitization seemed beneficial to the world of gaming. Sierra hired professional voice talent and composers from film and television, as well as the music industry. Eventually, like much of the rest of the industry, they were seduced by the idea of making interactive movies.

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**1986**

The computer games market expanded revenue by thrashing tons of low-cost products on the market. Accolade, Activision, EA, Mindscape, and SSI all released budget lines of classics and/or European imports. Modern-to-modern direct play starts to appear with STRATEGIC CONQUEST PLUS (Macintosh only) and Sierra's HELICOPTER SIMULATOR (IBM only).

Original STREETFIGHTER coin-op game gets records for Capcom.

Masque Publishing is established to create card games and solitaire games.

Acclaim becomes first U.S. developer for Nintendo Entertainment System.

Chemobyl reactor explodes, killing 31 and contaminating millions.

Challenger space shuttle explodes.

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**1987**

Activision becomes first U.S. developer with both Nintendo and Sega licenses.

SSI produces the first in a series of official AD&D games: POOL OF RADIANC. The AD&D series goes on to become one of the most popular lines in the history of computer gaming.

Colecov sells for bankruptcy.

Kool Corporation appears in the U.S. with fascinating strategy games using Asian themes. Stormfront Studios is founded as Beyond Software. Stormfront and Cinemaware will eventually go to court over TV SPORTS: BASEBALL. Stormfront's work becomes Tony La Russa Baseball when Stormfront becomes its own publisher.

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**1988**

Millions of otherwise responsible people discover the meaning of addiction with TRIGRS.

Bethesda Softworks' WAYNE GRETZKY HOCKEY sets a new standard in sports gaming.

EA releases groundbreaking adventure game WASTELAND.

Sega launches Genesis just before the end of the year.

Atari's Lynx becomes first color handheld, but loses out in the end to Sega's Game Gear.
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At the beginning of 1991, CD-I was yet to ship, CDTV had missed its Christmas 1990 release, NEC couldn’t finish its TurboGrafx 16 in time to ship, and the CD-ROM industry couldn’t even agree on multimedia standards yet. Hollywood had decided that CD-ROM was the wave of the future and that computer game developers would need help in filling those CDs with art assets. The William Morris Agency, one of the biggest talent agencies in Hollywood, formed a special division for the interactive entertainment industry. Nearly every studio formed an interactive division.

Even the manufacturers of CD-ROM drives and sound cards like Medivision and Panasonic decided that they needed game companies. An alleged arms dealer founded Magnet Interactive (whether for laundering or making money, we’ll never know) and a prosperous dog breeder founded Sanctuary Woods (hoping to tap into the family and children’s multimedia markets). New companies popped up every month from 1991–1994, but they just weren’t hitting the public’s appetite.

Over the next five years, budgets zoomed upward from an average of $200,000 per game to a high of approximately $7 million and $12 million for PHANTASMAGORIA and WING COMMANDER IV respectively. There was no way companies were going to find the right profit margins with those kinds of numbers. There was especially no way when the market declared that control and adrenalin was more important. Even in the console market, the much ballyhooed products like Trip Hawkins 3DO, Atari’s Jaguar, and the Sega Genesis CD (slightly earlier than the former two), failed to capture the attention of gamers.

Windows Pain: The Big Shift

3DO ruled the world from the early 90s to the mid-90s. Computer gamers were quite willing to have three or four different config.sys files on their computers to be able to play games in DOS. We all believed that
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America is being invaded by these top-selling games of challenge and adventure.

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using DOS was the only way to force maximum performance out of our machines. What we didn’t reckon with was Microsoft.

Alex St. John (now the brains behind online streaming technology at Wild Tangent; see pg. 35) was the evangelist for DirectX. He was the Martin Luther, the Savanarola of a new age. We didn’t want to pay any attention to him (neither did Microsoft, in some respects) but the more we saw of DirectX and the more we realized we didn’t have to have a unique config for every game, the more we thought Windows gaming just might work. By mid-1995, we realized that the days of DOS games were over. Our September, 1995 issue of Computer Gaming World asked the rhetorical question, “Are DOS Games Dead?” They certainly were.

Under DirectX, you could suddenly buy sound cards and the new generation of graphic accelerator cards to get enhanced audio and graphics out of your machine. In theory, DirectX made it easy to install these cards because Windows would recognize them and support them. It wasn’t always the case, especially in the early years, and we still struggle with DirectX drivers from time to time. But if you think back to when PC gaming was in 1995, we’ve come an awfully long way toward “plug and play.”

Back to Start

In the last five years, gaming has gone mainstream. Much of this is due to the PlayStation, which has penetrated the market to an unprecedented degree. But even on the PC, titles like MYST, TOMB RAIDER, ROLLERCOASTER TYCOON, and THE SIMS have brought people into gaming who had never played anything other than SOLITAIRE. Even in the traditionally narrow and insular world of roleplaying, games like DIABLO, EVERQUEST, and BALDUR’S GATE are immensely more popular than DUNGEONS & DRAGONS was in its heyday.

Ironically, just as our industry seems to be expanding, money has gotten scarce on the PC. Companies are less willing to take risks on innovative games like THE SIMS (which EA tried repeatedly to kill). This is very unfortunate, because it’s the unconventional games that have the greatest potential to reach a broader audience. (Maybe EA’s execs should resurrect their tradition of lighting up once in a while.)

After 40 years of interactive entertainment, I think we’re just now coming out of the silent pictures era. Although we’ve seen blockbusters on various platforms, the closest thing we’ve seen to a mass market phenomenon in interactive entertainment has been Pokémon. Put your favorite games up against your favorite movies in terms of story, dialogue, and visual quality, and you see part of the reason computer games are never on the cover of Entertainment Weekly.

But that’s going to change, especially with the coming of Microsoft’s Xbox, which will introduce a richer gaming experience to a wider audience of players. Will it mean the end of our favorite platform?

Hardly. Interactive entertainment began with the computer, and many of its greatest moments have taken place on computers. Tomorrow’s PCs will be different and more powerful, but the ability to change your system and modify games means the computer will always be where innovations are born. Just ask Slug Russell.  

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**1991**

- [Origin's WING](#)
  - Commander becomes a PC gaming sensation. It scores the highest reader rating in the history of CFW's Top 100 poll, and forces game companies to buy sound cards.
  - Cyberbunk appears. The goal: Interactive movies.
  - Nintendo finally ships the Super Nintendo Entertainment System.

- [CIVILIZATION](#)
  - Sid Meier releases strategy landmark CIVILIZATION, and the game widow is born.

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**1992**

- [WING COMMANDER](#)
  - WING COMMANDER marks the dawn of first-person shooters.

- [MORTAL KOMBAT](#)
  - Acclaim's MORTAL KOMBAT mortifies parents, and Senator Joseph Lieberman wants to ban pixels with violence, but not pilots (supporting Colt Firearms in his home state).

- [Sega's CD-ROM](#)
  - Sega's CD-ROM falls by dividing the market between the base machine and the peripheral owners.

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**1993**

- [DOOM](#)
  - Doom changes gaming, and gamers, forever.
  - Trip Hawkins unveils the 3DO system in hopes of creating a powerful new hardware standard. It flops.

- [MORTAL KOMBAT](#)
  - Acclaim's MORTAL KOMBAT mortifies parents, and Senator Joseph Lieberman wants to ban pixels with violence, but not pilots (supporting Colt Firearms in his home state).

- [Pop Rocket](#)
  - Disney comes to the conversion party even later than Time Warner. Pop Rocket is founded to produce music video adventure game.
Gaming Moments

The Readers Have Spoken... God Help Us All

Playing the fantastic (and horribly underrated) DUNGEON KEEPER 2 well after midnight, the narrator's voice came on and said something to the effect of “You have proven your perseverance, but, go to bed!” Scared and delighted me at the same time. —Chris Pauer

[In a DUKE NUKEM 3D deathmatch], I was low on health and trapped in a corner with no ammo for the weapons I favored; I had no choice but to whip out the Freeze Gun (which I never really liked). [My friend] began to jet pack up to maneuver for the kill, when I scored a hit with the Freeze Gun while he was in flight. Watching his frozen body fall to earth and shatter into a million pieces, the two of us began laughing so hard and loud I woke up my wife and newly born daughter. —Daniel Homa

After purchasing the first MASTER OF ORION game, I eagerly sat down as the Humans and began to play into the night. It was not until after completing a lengthy campaign against the insectoid aliens that I finally looked at my clock, and to my great horror, the alarm went off...time to go to work! —Ted Fattel

[In X-COM APOCALYPSE] I was unable to spot a single alien. I finally checked the men's room under the stairs in the corner and it was packed with aliens! I threw in a single fragmentation grenade, and between the initial blast and the ensuing explosions from ammunition and weapons cooling off, I destroyed the entire alien infestation for only $25. I also took out the men's room, the ladies' room, and most of the floor above it. —Jayson Grey

This happened to me while playing the “Catwalk” scenario in EA's 688 ATTACK SUB. In fighting a Typhoon with an Alpha escort, I used what I'd learned from reading Tom Clancy's Red Storm Rising and The Hunt for Red October. A few seconds later, the Typhoon's torpedoes locked onto its escort while mine locked onto the Typhoon, sinking both of them instantly. Tom Clancy would have been proud. —Charles K. Ballard

My favorite gaming moment happened online against a squadron

DOOM changes gaming, and gamers, forever. Trip Hawkins unveils the 3DO system in hopes of creating a powerful new hardware standard. It flops.

■ Acclaim's MORTAL KOMBAT mortifies parents, and Senator Joseph Lieberman wants to ban pix- els with violence, but not pistols (supporting Colt Firearms in his home state).

Sony Computer Entertainment of America enters the software development and publishing arena on several platforms.

Intel ships first Pentium processor.

■ Digital dinosaurs amaze audiences in Jurassic Park.

1994

■ Broderbund releases the mesmerizing MYST. Wired calls it "a phenomenon like no other in the world of CD-ROM."

■ Microsoft Network is established.

■ Creative Labs adds WaveBlaster II as General MIDI add-on for Sound Blaster 16.

■ X-COM is the sleeper hit of the year.

■ Electronic Arts acquires Bullfrog Productions.

1995

■ SquareSoft gives Sony PlayStation a big boost by announcing that FINAL FANTASY VII would appear on that platform instead of the Nintendo 64 as expected.

■ Windows 95 changes the face of gaming, prompting us to ask, "Are DOOM Games Dead?" on our September cover. Twelve months later, they were.

■ Nintendo 64 ships with spectacular MARIO product and very little else. Yet, Nintendo captures the younger market while Sony keeps the older.

■ Oklahoma City bombing kills 168.
of actual World War II Tuskegee fighter pilots in WARBIRDS. I spotted a Mustang below me and pounded on his tail. He saw me and executed a perfect climbing turn toward me, not wasting an ounce of efficiency; no wonder he had done this in the actual Mustang 50 years before! I案子 my fighter’s nose to straight up and pirouetted on my tail to “turn in the vertical.” After some shooting, his left wing fell away and he bailed out. The thrill was unbelievable. This was as close to WWII flying as I was ever likely to get.
—Richard Ordway

[In] TIE FIGHTER, I was controlling the joystick while my friend had the keyboard. As we were vaporizing our enemies, out of nowhere appeared a X-wing headed straight for us on a collision course! With too short a time to dodge, we both “ejected” and dove out of the way, landing a few feet straight ahead. Fortunately, our valiant efforts came too late, but we managed to take another Rebel down out of nowhere.
—Bob McElhaney

My roommate and a friend were just starting to get the hang of AGE OF KINGS, so being a somewhat experienced AOK player, I offered to play them 2 on 1 and give them a one-minute head start. I walked into the kitchen to make myself a drink while they launched the game, and unknown to me, my roommate accidentally set his civilization to the same color as mine, which makes me both control the same units. After I returned to my computer with a fresh beverage, I noticed the progress made on my base and realized what happened. So I proceeded to give my roommate the most frustrating game of AOK ever played. I felt like such a Jeff Green.
—André Laroussini

While playing DOOM, I was down to only a pistol full of ammo. Two demons then jumped me; I killed one with my pistol before the other attacked me, and I emptied my last shot into him as he got right in my face and mauled me. I was trapped in a dead end, and had no choice but to stand there and hit him with my bare fists while he chewed me up. After that seemed like forever, I finally managed to kill him, with virtually no health points left for my character. —David Hanson

We were testing the Collector’s CD version of TIE FIGHTER at LucasArts, and I happened to be testing Battle 7, Mission 4, in which you fly a TIE Defender alongside another well-known pilot: Darth Vader. I wanted to test killing him, but the mission builder had made his craft invulnerable—mostly. We collided, his ship exploded, and the crowd cheered. However, it was a primary goal that Darth Vader complete his mission, so I failed mine. But I didn’t care, killing him felt good.
—Darren Johnson

While playing ULTIMA VII, I came across a crashed spaceship in a farm field. When questioning the farmer about the ship, he recalled a stranger mumbled something about “killing someone named Rathly.” Obviously a reference to Wing Commander and the Kilrathi. I felt a certain kinship with Origin and games everywhere that shared a little world (at that time) known as Computer Gaming.
—Jesse Oliver

I was seven and had just conquered my first game of CIVILIZATION. It took me a while to master the economic factors of the game, but one day, fate led me and my board of Babylonian chariots into the heart of the pathetic Egyptian kingdom. Though it was set to Chieftain it still seemed the sweetest victory a kid my age could achieve.
—John Marlin

In ZORK III, I’m at the shore line and I can see a ship in the distance with a sailor on board. I can’t see the ship but I know there’s got to be some interaction with the ship and/or sailor. I hit the parser up with everything I can think of, to no avail. Out of delirium perhaps, I decide to say “Hello Sailor” and to my delight, that did it—the sailor gave me a vial (I believe) that allowed me to continue with the game. Needless to say, I had two objectives for the remainder of that day: continue playing, and forge a sick note because there was no way I was going to school that day.
—Marc H. Strother

It is that moment [in X-COM] where your pathetic troops eventually hurl a live ethereal and research the psi-laboratory. Then you can begin to train in psychic abilities and create a constant chain reaction of mayhem by making a conga line of enemies gun each other down. You have to love the classics.
—Michael Coxson

I was playing NBA LIVE 2000 against my cousin, and it was a pretty up-and-down, high-scoring game that had us really immersed. Then, on one play, while I was trying to defend my basket by double-teaming his post man, he successfully
My then-girlfriend (now wife), Vicki, was interested in DIABLO, so we created a Warrior for her. She started the Butcher quest, went down to level two, and opened the door to the Butcher’s Lair, letting him rush out and say his lines. **Vicki**, at the same time, **screamed at the top of her lungs, jumped out of the chair, and ran out of the room!** This is by far my favorite moment in gaming. —Paul Bender

swung the ball around to his point guard for an oh-so-wide-open look at a three-pointer. I watched helpless as his one of his best outside shooters slowly measured the shot and sent the ball on a beautiful high arc on its way to...out of bounds. He got no rim, no backboard even.

—David Baker

**THE 7TH GUEST!** When I got down in the maze in the basement of mansion, at about the halfway point I became a nervous wreck. I had to get up and turn on every light inside and outside of the house. Even then I kept looking behind me to see if those footsteps were coming from me. I have not been as scared since. Not even when I watched *The Blair Witch Project.*

—Brian Jacobs

The last weekend of my junior year in college, we held a huge **LORDS OF CONQUEST** tournament to name the undisputed champion. After three straight days, it came down to two: my roommate and I. If you recall, the victorious Lord was one who finished a turn possessing six cities. Near the end of the final turn, my roommate owned six cities while I owned five. For my last move, I attacked one of his cities: the winner of the battle would emerge with six cities and the crown. The two properties blinked onscreen while the computer determined the outcome. But before the computer could announce the winner, we heard a pop and the screen went blank! My power supply had blown, and I barely got out of that room alive.

—Jerry Foster

**[IN COUNTER-STRIKE]** with a bomb in hand, I went to the steep ramp next to the terrorist starting point that leads down and under the Counter-Terrorist’s sniper nest. At the top I dropped the bomb, and it slid all the way down just under the sniper area, coming to a stop. I waited for it to explode but I was shot in the back. While dead, I heard the bomb go off, and read all the “WTF’s” and “What the Hell’s” popping up on my screen. Every CT that got caught in the blast screamed about it.

—Shawn Cougar

**Batting a huge demon in BALDUR’S GATE II, it is barely injured and kicking our butts. I gather my party and run out the door (standard RPG strategy) to catch our breaths—but what happens next? The demon comes out after us! This just never happens in an RPG! It chases me all the way across the town, and townspeople are running around screaming. It wipes out a few innocents (and a stray cat) before we finally managed to kill it. I’ll always remember that “Cat dead” message in the status bar!**

—Cong Nguyen

Fairly early in the original **UNREAL**, there is a scripted sequence in which the player is trapped in a hallway after deactivating an alien device. Starting at one end of the hallway, the lights go out one by one—and it goes very, very quiet. Next comes the player’s first real encounter with the leaping, rolling, dodging, ducking, diving Skua—along with some of the most intense music I have ever heard. I will never forget the heart-pounding, blood-pumping adrenaline rush I got the first time I played that sequence. —Ron Beals

Playing **THE 7TH GUEST!** I was on top of the world. I played it day and night for months. I slept maybe three hours a night, lost my girlfriend, and nearly my job (the microscope puzzle was a bitch!). When I finished the game it was 4 a.m., and I ran all over my house screaming, “I beat Staff! I beat Staff!!!!” After the dust cleared I had but one thought: “Man, I’m a loser.” And just in case you’re wondering, I never got the girl back. So Denise, if you ever read this, I’m sorry—I just had to beat this game!! —Mike Dell’Pia Jr.

In **UNREAL TOURNAMENT**, it was an Internet Capture The Flag match packed with 18 players, and it was the last match that many people were going to play since it was 1:34 a.m. Every player fought his or her best, and in the end it was Red Team 3, Blue Team 4. There was a minute and a half left until the match ended, and my team, the Blue Team, was concentrating on defending our flag. Suddenly, every single Red player, fully armed and armored, erupted from the base, guns a-blazing, cutting our defenders down with a crossfire of flak cannons, missiles, and miniguns. I was in the tower sniping, and if I didn’t have that armor vest on we wouldn’t have made it. Their best player, dumbnutz (who had stolen our flag twice), had just stolen our flag and was making a run back to their base. There were five people guarding him from our fire with only 52 seconds remaining. As he hiked it back to his base I took careful aim of his head—only to be shot from behind by someone with a minigun. I introduced some lead rounds into my assailant’s face, and seconds before dumbnutz could enter the safety of his base, I blew his noggins clean off. That let our team counterattack in the confusion, and we won the day. —Tiny65565
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Memory Lane
The Evolution of PC Gaming

by William O'Neal

DEC PDP-1 (1959) A small startup named Digital Equipment Corporation connected a CRT to a hulking computer to create the PDP-1 (programmed data processor). One of the first units went to MIT, where the students quickly exploited it for nefarious purposes. In 1962 Steve Russell's SPACEWAR game became the most popular program. The controls were far from today's fancy contraptions: Players used big toggle switches to control ships' movement and weapons.

Pong (1972) Quite possibly the first "mass-market" game, Atari's Pong, created by Nolan Bushnell, was the harbinger of things to come. A simple game that anyone could walk up to and play without having to read a tome of instructions, Bushnell's brainchild made computer games accessible to so-called normal people.

Atari 2600 By 1982, 10 years after creating Pong, Atari was doing nearly $2 billion in sales, thanks to its hugely successful Atari 2600 game machine and games like PITFALL, BREAKOUT, KAROOM, FOOTBALL, and COMBAT. Many of today's gamers trace their roots back to the good old 2600, with its indestructible cartridges, knobs, and joysticks.

A slew of hits from Activision turned that company into a gaming powerhouse. But most of all, the 2600 gave millions of kids a desperately needed alternative to after-school specials.

1998 (continued)

Epic Entertainment steals Id's multiplayer mayhem crown with UNREAL TOURNAMENT.

1999

Blizzard releases STARCAST, a perfectly balanced real-time strategy game. South Korea goes apeshit.

EA is forced to recall TIGER WOODS 99 PGA TOUR on the PlayStation because someone left an episode of South Park, used to test video compression, on the CD.

Mike Wilson and Harry Miller found the Gathering of Developers.
Apple II/Commodore 64/Atari 400-800
In the late ‘70s and early ‘80s manufacturers began releasing "micro computers." Apple, Commodore, and Atari all came out with home computers that could run BASIC programs and display color graphics. These early systems lacked hard drives, so you had to load each program from a cassette tape or 5¼” floppy disk. The migration from tape to disk laid the foundation for the modern PC.

So what did $1,300 get you back in 1979? An Apple II+ replete with 48KB RAM.

Macintosh 1984, the year of that now-famous Orwellian ad that appeared during the Superbowl. The first Macintosh boasted 128KB RAM; a 400KB floppy, a built-in monitor, an 8MHz CPU, and a thing called a "mouse." It retailed at $2,500. At the time, comparable IBM PCs were selling for around $4,000.

IBM PC Launched in 1981, the original IBM PC was built around Intel’s 8088 processor and came loaded with Microsoft DOS (Disk Operating System). These first machines started around $1,500 and sported 16KB RAM, a floppy disk drive, and scant storage space.

**PC Specs in the modern era:**

<table>
<thead>
<tr>
<th>Year</th>
<th>CPU</th>
<th>RAM</th>
<th>HD</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>286/128MHz</td>
<td>1MB</td>
<td>40MB</td>
<td>$1300</td>
</tr>
<tr>
<td>1995</td>
<td>Pentium 90</td>
<td>8MB</td>
<td>540MB</td>
<td>$3000</td>
</tr>
<tr>
<td>2001</td>
<td>P4 1.5GHz</td>
<td>256MB</td>
<td>286B</td>
<td>$2500</td>
</tr>
</tbody>
</table>

2000

**Will Wright breaks new ground again with THE SIMS.**

Mainstream media and non-gamers rave.

Another HALF-LIFE add-on, Counterstrike, becomes the most popular multiplayer action game on the Internet.

Microsoft announces Xbox, buys Bungie and Digital Amel. Sega starts getting worried.

EVERQUEST reaches 300,000 registered players. Players’ guilds form support groups.

Looking Glass Studios, creators of SYSTEM SHOCK, THIEF, and THIEF 2, goes under.

AMD’s Athlon beats Intel chips in performance and costs less.

Nvidia’s GeForce 2 family wins PC Magazine’s Award for Technical Excellence.

Nvidia buys Tech. PlayStation 2 ships, with fewer units than expected. Lack of compelling content and programming difficulties spark speculation that Xbox will eclipse it.

**BUNGIE**

**TO BE CONTINUED IN ISSUE 250**
It's funny, the things you remember 15 years later.

The first time I heard of Computer Gaming World was when a marketing guy from the magazine called to say he'd seen my reviews in some other game magazines, and how would I like to write for the granddaddy of them all? His name was Bill Oxmar, I never heard from him again.

I did say yes, though, and after a few months of on-and-off conversations with CGW's founder, Russell Sipe, I found myself launched on a course I could not possibly have imagined I'd still be pursuing in 2001.

This was in 1986, and by then I'd already written for more than a dozen publications, most of which had since gone out of business (no connection, I hope). I'd lived through the first two boom-and-bust cycles in the game industry, and at the ripe age of 17 I was something of a grizzled veteran. I ended up assigned to write CGW's first "Year in Review" cover story, followed by a five-part series called "Titans of the Computer Gaming World." "Titans" was supposed to deliver the definitive opinion about the five biggest companies in the industry at the time. As I recall, Activision was furious that our definitive opinion was that many of their games sucked.

They weren't the last. That's the thing I remember most about the past 15 years: not the handful of games we adored, but the piles and piles of them that we hated, the ones so bad they weren't worth the magnet-swipe it would have taken to erase them. What I loved about CGW—and still love—is that no one has ever been afraid to shout loudly in these pages when he saw a naked emperor. Theodore Sturgeon famously said that "90 percent of everything is crap," and this is certainly true of computer games. At CGW we always viewed ourselves as the most fearless crap-spotters in the industry.

Polishing Our Crystal Balls

This doesn't mean we always got it right. In my first CGW article I wrote: "Clearly, 1986 has been a good year for computer games. New innovations [keep] changing the way we look at our software. For instance, this was the year we introduced the third dimension to computer chess." It was also the year Ultima IV changed computer role-playing games forever—but chess, apparently, was what stuck in my mind at the time.

I also called a number of major trends wrong: I thought text adventures would come back, for instance, and that "interactive movies" would go away. Which

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Ardai by the Numbers

- Total years writing about gaming: 20
- Began writing for CGW: 1986
- Number of articles written for CGW: 174
- Number of issues published since Ardai started: 168
- Number of publications for which Ardai has written about gaming: 18
- Number of columns published since Ardai started: 2
- Estimated total words published on the subject of gaming: More than 250,000
- First game reviewed: Kangaroo, for the Atari VCS
- First game reviewed for CGW: Prince of Persia, for the Apple II
- Best tribute received from a game publisher: Can of Vienna sausage from Accelade, 1987
“What I loved about CGW — and still love — is that no one has ever been afraid to shout loudly in these pages when he saw a naked emperor.”

taught me an important lesson — never bite against the newer, better, sexier technology.

This was the big trend we called right: Technology kept improving at an accelerating pace, and every year that passed saw more barriers broken down and more previously impossible goals met. When games started talking, it was a big thing: In the early nineties, I wrote review after review of CO-ROM “upgrades” of earlier titles, with the one added feature being digitized speech. When games incorporated cinematic “cut-scenes,” it was a big thing. When adventure games switched from showing a side view of small, two-dimensional characters to showing Lara Croft from every possible camera angle, it was a big thing. Every time gamers thought the industry had reached a stable stopping point in terms of what games looked like and how they worked, some innovation came along and changed everything.

Tomorrow’s Games Today
It’s easy to think that tomorrow’s games will look a lot like today’s, only maybe a little faster and slicker — but this is always wrong. Here’s a thought experiment: Imagine showing one of today’s games to a kid from the Atari VCS era. Now try to imagine what sort of quantum leap forward a game would have to represent to fill you with a comparable sense of awe and disbelief today. That quantum leap game you’re imagining? Twenty years from now every 10-year-old will carry one like it in his or her pocket and think it’s out dated.

It’s been a fun decade and a half. Many millions of words later, we’re still finding new ways to say, "This game sucks" — and, more rarely, "This one’s really worth your time." I look back and I can’t believe how many of those words I wrote, starting with long-hand manuscripts (yes, really) submitted to legendary CGW editor Johnny Wilson while I was still in high school.

George Jones.

CGW’s current editor-in-chief, pointed out to me the last time I visited the CGW offices that I’ve been writing for this magazine for half my life. I don’t know why this startled me. I do know why it made me proud. In this age when most games are hopelessly out of date in 15 months, the idea that one magazine could establish itself as the leader in its field and hold onto that position for half a lifetime is inspiring.

Happy Birthday, CGW. And thank you Bill Oxner, wherever you are.

Charles Arbut is the CEO of Jundo, which provides free dial-up Internet service. He is married and lives in New York City.

11 Strangest Software Titles in My Years of Reviewing for CGW:

LANE MADDOX VS. THE BLUEBERRIES (Procom, 1989)
ZAK MCKRACKEN AND THE ALIEN MINDBENDERS (Lucasfilm, 1989)
CYBERGENIC RANGER: SECRET OF THE SEVENTH PLANET (Symbi, 1991)
FREDY PHARKAS, FRONTIER PHARMACIST (Scott, 1990)
DAY OF THE TENTACLE (Lucasfilm, 1990)
METAL & LACE: THE BATTLE OF THE ROBO BABES (Megaram, 1994)
THE PSYCHOTRON (Mont Cottman, 1994)
HOBI ’N’ POBI (Wrigg, 1999)
ENDORFIN (Three Witches, 1993)
The Game Was Loaded (Philips, 1990)
STAR TREK: THE GAME SHOW (Sound Source Interactive, 1990)

So You Liked the Game, Right?

From a 1992 review of a game based on Stephen King’s novel The Dark Half: “it is hard to drum up much sympathy for characters who are visually only one step up the evolutionary ladder from the Mario Brothers... The game has more bugs in it than John Gotti’s dinner table...[changes to the novel] have been made with all the delicacy one would expect from teenage vandals finger-painting on the Mona Lisa... THE DARK HALF is not only a bad game, it is easily one of the worst games I have played in the last ten years...”
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Welcome to the Future
PC gaming in 2015
by Loyd Case

MARCH 14, 2009

"Move, move, move!" you scream into the headset. The stock of the pulse rifle seems slick in your grasp, the weight of the Kevlar vest tugs at your shoulders. Fatigue is screaming in your legs as you and your squad dash across the open street. Energy bolts from a light assault gun stitch the tarmac to your left, and you hear a muffled scream as one of your squad members takes several bolts in the chest. You don't turn to look; that would take time, and time is life. You dive and roll into the cover of a burned-out APC. Four of your squadmates slide in beside you; the fifth, Thomsen, didn't make it. You hear Jarilawski swear under his breath, so you yank your imagining visor over your eyes and peek out. What you see sends chills down your spine, as a Medusa Heavy Hovertank rounds the corner.

Abruptly, the entire scene freezes. A ball of light forms in the sky, and a smiling woman's face appears in it. "Honey, time to put the kids to bed."

You sigh, then mutter, "console, save position, then shut down."

A moment later, you pull off the helmet and blink a few moments to accustom yourself to the light inside your home office.

Remember 1992? Back then, the hot new technology was audio for computer gaming. Yep. The Sound Blaster Pro was making waves, and the idea of CD-ROM games was still a novelty. The vast majority of games were still 16-color titles (that's 16 total colors, not 16-bit color).

We're now officially in the era of 1.5GHz CPUs, programmable graphics hardware and six-channel audio. And it's important to note that we have driven much of that progress. That's right—computer gamers have been responsible for all this technological goodness. After all, who needs 3D graphics, multi-gigahertz CPUs, or multichannel audio, unless it's for gaming?

So what do the next 10 to 20 years bring? Certainly the advances over the next few years will make the hardware of today pale by comparison. By the same token, however, some warning signs on the horizon indicate that the more-is-better approach may not hold up in the future.

Strap into your DeLorean—and time travel.

CPU WARS

For the next several years, advances in the central processing unit will be business as usual. Clock rates will continue to increase to obscene rates, and new architectures will emerge. But the area of innovation that's less obvious will be improvements in manufacturing technologies.

One measure of semiconductor manufacturing is how densely circuits can be laid on the silicon chip. The smaller the number, the more densely packed the circuitry. These manufacturing processes have several effects. First, the chip can generally run at a higher clock speed. Second, you can get more chips out of a single silicon wafer. Chips that would have been impossible to manufacture at 0.25 micron are easy money at 0.18 micron.

Current CPUs are all manufactured in 0.18 micron technology. In the next year, we'll see migration to 0.13 micron. Subsequent years will see a move to even 0.1 micron. But at that point, semiconductor manufacturing may hit the wall. It may be literally impossible to go beyond 0.1 micron. Still, at 0.1 micron, chips with literally hundreds of millions of transistors may be possible.
When will AI be indistinguishable from a human?

Tom Hall, Ion Storm: New. Gary Kasperow remarked that in his chess match with Deep Blue, it made a "human" move—one that was slightly better positionally, but less in all other measures. But for an AI to actually respond to you intelligently, like Star Trek's computer? That will be about 2020 to 2030, because there are so many nuances to being human.

Will Wright, Maxis: Depends on the game/activity. For chess, that date might have been around 1980. For a typical real-time strategy (RTS) game, real-time, maybe 2005 or so. For conversation and general interactions, closer to 2050. General AI (not task-specific) has a track record similar to fusion power; it always seems about 10 to 20 years away from practical application.

Ed Fries, Microsoft: Never. I could make an AI today that's better than any human in, for example, a racing game. But what fun world that is? Computers will never behave exactly like humans. We are too strange.

Tim Sweeney, Epic: This is already totally achievable in non-convolutional systems. Given AI is a good example of this, where the computer is inherently much better than a human opponent, such that the challenge is to dumb it down in a realistic way. But when it comes to conversation and natural language comprehension, we're still a long way off. This is the problem researchers have always thought we were 20 years away from solving.

Bill Roper, Blizzard: I do not know if this will ever truly happen as envisioned by Alan Turing. The true mettle of any game is his or her ability to improvise, and this is an unbelievably high watermark to set, especially when you take into consideration all of the rules and variances involved in any game. Only recently have we seen a computer able to best a human opponent in chess, and that is a game with a relatively simple rule set that is played on a board of fixed size. When you then extrapolate the challenges with variable terrain, many more units with many more abilities per piece, you can see that creating true AI for a game is a staggering challenge.

Peter Molyneux, Lionhead Studios: 2004 to 2005. I would say three to four years for limited applications for AI in certain worlds constructed inside computers. It could soon be very difficult to distinguish between humans and computers. But as for conventional AI having intelligence that relates to the real world? That could take a bit longer.

FUTURE WATCH Other technologies are on the horizon, however. Optical computing is a viable alternative that has been gradually inching forward. Optical computers use beams of light instead of streams of electrons to move information. While in its infancy, this technology may be the solution when today's semiconductor-based CPUs begin to run out of gas.

Visual Confirmation

The buzzword in 3D graphics over the next several years is programmability. The major players are all looking to develop graphics chips that allow developers to design their own 3D effects. 3dfx (before its demise) was even talking about a "texture computer," while Direct3D 8 defines a sort of assembly language for 3D graphics. NVIDIA's new part has both programmable pixel and vertex shaders.

One of the complaints that developers of 3D content have voiced over the years is that most 3D games tend to look the same. With programmable shaders, developers will be able to customize the look of their 3D art far beyond what is possible with fixed-function 3D cards.

In addition to adding programmability, look for a bevy of new features to be built into 3D hardware. Higher order surfaces will allow artwork to be defined and sent to the graphics hardware as sets of curves. This improves memory bandwidth and lets artists create objects much more naturally.

But how will the resulting photorealistic graphics that everyone is predicting be displayed?

The short-term trend will be toward wider formats. The classical 4:3 aspect ratio computer display will gradually give way to widescreen format 16:9 monitors. On the consumer side, digital displays will take on many of the characteristics of PC displays. Imagine a 32-inch TV capable of 2048x1024 resolution.

The other obvious trend will be flat—flat screens, that is. Digital flat panels will move beyond the 18-bit color panels of today to fully true-color displays. Prices will come down, and the CRT may be a thing of the past a decade from now.

FUTUREWATCH But what about alternative displays? Work has progressed on "true" (meaning holographic) 3D displays, but the efforts have been unremarkable to date. There's direct retinal imaging. Imagine a laser shining directly on your eye, painting the graphics image. The beam can be focused to create the illusion of depth and distance. Subminiature laser arrays could be built into lightweight headsets or even desktops.

Audiophilia

The sound card is dead. The add-in card, as we know it today, will become an anachronism in the near future. High-end audio gear will still exist, used by pro audio enthusiasts.
who want hard drive recording or digital video, but the sound card for consumers will be absorbed into the core logic chipset. Already, Intel's ICH2 standard is capable of handling Dolby Digital AC-3 audio streams. Future chipsets will even generate interactive Dolby Digital on the fly.

FUTUREWATCH Next-generation operating systems will also natively support A/V (audio/visual) networking through standards such as IEEE 1394. Your PC, your television, your home theater, and your telecom gear will all be on a single home network, all running at high speeds.

MARCH 14, 2015
Your four buddies show up at your doorstep, each carrying a small briefcase or backpack. You head into the family room, where you've set up some tables. Each person pulls a small notebook computer out of a briefcase. Tonight, you're playing a starship simulation, so each person powers up a notebook as a different station on the starship. As the computers power up, they register themselves with your home's wireless server.

Since you've all played the game before, the server is aware of what's going on and autoconfigures itself. On the Internet, other similar small networks are being brought up for tonight's fleet action. Your friends each roll out a small mat that connects to the computer; this is a combination local display and touchscreen input device. Each user sees a control station on the pad. One wall suddenly comes to life as the main display for the simulation. Soon, a fleet of 14 capital ships move into formation and prepare for the upcoming battle.

Today's cable modem connections seem incredibly fast to those of us who remember the days when a 1200-baud Hayes modem was the ultimate in connectivity. But with corporations laying down gigabit Ethernet in offices, the 10-megabit cable modem connection is already starting to look a little anemic.

WHAT IS THE IMPACT OF INFINITE BANDWIDTH?
One impact is being seen already: peer-to-peer networking. Until recently, most networking has been designed around the idea of client-server networking. Servers at big data centers become repositories of applications and data, and clients—home or office PCs—connect in.

Napster turned all this on its head, and tools like Gnutella are sparking a massive underground digital revolution. Even newer tools, such as Groove Networks, will bring the peer-to-peer revolution more legitimacy by transcending mere file sharing.

The Panel Speaks
When will holographic displays exist?

Tom Hall, Ion Storm: Now. Some already exist. They will improve, but will not be in common use, as good old flat displays are better in all light situations. TV's and monitors will get flatter and thinner and cooler, but that much different? Paper hasn't changed much since it found its most convenient form, you know.

Will Wright, Maxis: For experimental prototypes, now. In every living room, maybe next. The more I think about this technology, the less compelling it seems. In overall terms, I think this will be less impressive than color was over black and white at a tremendously higher cost.

Ed Fries, Microsoft: Now. At least I've heard there's a very cool one working in a castle in Germany. I can't say more than that.

Tim Sweeney, Epic: I don't think holography is the next big thing. If you have a unique viewer per display, then stereo-

scopy achieves the same result in a far more efficient way. And practical stereoscopic displays aren't too far off. IBM is already shipping 4000x2000 LCD panels with around 200 dots per inch of resolution for medical displays. That technology could just as easily be used in a 2560x1920 stereoscopic display.

Bill Roper, Blizzard: Since we have had rudimentary holographic technology for some time now, it would not be impossible to see this within the next 10 years. I cannot wait to play a game of chess represented with holographic pieces that battle. It's a fantasy of every Star Wars fan in the world.

Peter Malmeur, Lionhead: This amount very much depends on whether the display relies on LCD or genuine holograms. I think it will take between five and seven years for these to become commercially available at a reasonable price. But real holograms will probably take a great deal longer to become a reality.
The Panel Speaks

When Will We Stop Using Wires?

Tom Hall, Ion Storm: This, oddly, will take a while. Wires are cheaper. For us to go totally wireless, the default shipped-with-the-system solution has to be wireless...and few companies want to give a default system that's more expensive. Also, wireless controllers have been plagued with problems, whether it's interrupted transmission or the constant need for batteries.

Bill Wright, Maxis: For just $99 you can have wireless gaming right now, like the Cylbina. Some of the more annoying wires (headphones and such) will start to disappear in about three to five years as technologies such as Bluetooth start to really gain. However, I'll give you a very specific answer: We'll stop using wires in general at 6:42 p.m. EST on Feb. 25th in 2017.

Ed Fries, Microsoft: Ten years. No one likes wires. The only people still using wires in 10 years will be hardcore purists who are probably also using vacuum tubes. I'd say five years, but I have yet to buy a wireless device that actually works.

Tim Sweeney, Epic: We're almost there already. It's a pretty safe bet that wireless technology will eclipse DSL and cable modems in the near future. You don't need to tear up the street in front of everyone's house to install a wireless network.

Bill Roper, Blizzard: I would earmark 2007 as the year we really start seeing IR technology become fully integrated into our gaming consoles and PCs. This will be especially important in the realm of the all-powerful and elusive "one-stop box" that brings in your broadband connection, your satellite and cable, and is your gaming and communications console as well. Wireless technology not only allows people to sit and play whatever they want, it will also let people download content wherever they are — and because it is a wireless environment (think cellular phone and GPS), that content can even be specific to your geographic location.

Peter Molyneux, Lionhead: 2002 to 2003. With the announcement of Bluetooth from Ericsson and the Intel and Apple wireless networks, this could be possible within the next two to three years. In fact, even now it is possible to almost make a wireless PC.

Think about it: The PC you use today to play MECHWARRIOR 4 has more horsepower than the corporate data centers of the 1980s. Hard drives are approaching 100 gigabytes, and broadband connections make data transfer between PCs fast and transparent. Networks of systems could coalesce, exist for a single purpose (like gaming), then disperse almost at will.

How this power will be harnessed for gaming is anyone's guess. But if you want a peek at the future, titles like Bioware's NEVERWINTER NIGHTS may reshape how we view gaming forever.

Cable modems and DSL have become the standard for users who are heavily into gaming over the Internet. But this is kid stuff compared with what's coming down the pipes...

FUTUREWATCH Already, companies are working to bring 54 megabit wireless to the home. This type of technology will penetrate businesses first, but eventually, every home will have a pervasive, invisible local area network that is seamlessly connected to the Internet. Any device with a CPU will automatically register itself with your network when it powers up.

THE WORLD IN YOUR HAND

As I write this, it's possible to buy a notebook PC with an 850MHz CPU. It's no stretch to postulate 1GHz processors that could fit in your pocket in a few years. But users of today's Palm or PocketPC devices wouldn't necessarily recognize the hand-held computer of the future.

Advances in display technology, for example, will allow you to cram a high-resolution projector into a pocket computer. Coupled with voice recognition and compact, high-density memory, you need never be without a fully capable PC in your pocket. Given this scenario, portable gaming would take on a whole new meaning. A hand-held, ultra-high-performance gaming device wouldn't have to play only games as we think of them, but could be an adjunct to other entertainment experiences. Think wireless real-time games of ASSASSIN or real-life TREASURE HUNT.

Throw in wireless, high-speed networking, and the wearable PCs espoused by MIT Thril (www.media.mit.edu/projects/wearables/), and you have a movable feast.
The Panel Speaks

When Will Bioports Exist?

Tom Hall, Ion Storm: 2005. They'll be used only for aiding impaired people, as this is too intrusive for normal folks. A "sensory projector" should be invented by 2010 or so, which will project images into your brain's receptors at the correct places.

Will Wright, Maxis: In very limited use, now. There are experimental devices for the blind that interface directly to the optic nerve and provide extremely low resolution. In a decade, 2030, still mainly as a prosthetic aid for the blind. For entertainment, 2000: At some point the primary readout will be visual, not tactile. This sort of cyber modification might initially have similar stigma associated with it as do drug addiction, tattoos, and body piercing. There will probably be one generation that makes a wholesale jump to this technology and then slowly learns how to incorporate it into regular life. I'm guessing this will either be my grandchildren or great-grandchildren.

Ed Fries, Microsoft: No comment. I think this is just a trick question to get me to admit that I've been assimilated.

Tim Sweeney, Epic: Biological input seems like the ultimate solution, but it's not yet clear whether this can be achieved in a way that most users don't find scary—whether external brain waves carry the precision of data needed in an open question. So the big question is, will users be comfortable having surgical implants to improve their computing experience? Certainly not in the next 20 years, but I think in the long term, this will seem as natural as wearing a pair of glasses or carrying a cell phone.

Bill Roper, Blizzard: Although I believe that we will see specific applications of this type of technology—such as ways to monitor and fine-tune prosthetic limbs or organs—in the field of medicine, I do not think that it will gain widespread acceptance or use in our lifetime. Too many people have moral or religious issues with the melding of man and machine for this to become commonplace in the foreseeable future, although I would not be surprised to see the military be the first to use this type of technology. Hopefully it will become accessible and accepted by the mainstream population, just as artificial limbs or pace-makers are today.

Peter Molyneux, Lionhead: 2010 to 2015. Bioports are technically becoming more and more possible already. There has been research in the U.K. that has been able to make blind people see, and a computer that can "see" through the eyes of a cat. So I would say that in 10 years or so, this is technically more than possible. But I think the moral questions that surround this technology could take another five years on top of that to be resolved in a responsible way.

The Console Factor

More than anything else, the next-generation game consoles—particularly the X-Box—will really shake computer gaming up.

No, we're not suggesting for a moment that we all scrap our PCs in favor of Microsoft's digital magnum opus. While there may be some overlap, some titles will always work better on a PC than any console. But while it is certainly a threat, the X-Box may actually prove to be a boon for PC gamers everywhere, because it will seriously raise the least common denominator.

A single, $300 X-Box will have more graphics and CPU horsepower than the workstations that created the dinosaurs in the movie Jurassic Park. If you believe Microsoft, the X-Box will be capable of pumping out one trillion operations per second.

But the components inside the X-Box will be available on PCs—and may even be available before the X-Box is. Developers are excited about this console platform because it promises to be a relatively easy development platform and extremely PC-like. Given the performance potential, there's no reason for a game developer to ever develop a title that doesn't take full advantage of its graphical capabilities. By the same token, even PC-centric developers will want to develop titles that compare favorably to the X-Box. And then there's always the possibility of ports...

The Future's So Bright...

Predicting the future is a chancy thing at best. What's sure is that the world of PC gaming will continue to evolve and to generate richer and more innovative experiences that exist across several different media and platforms. When Computer Gaming World hits issue 400, we'll all look back and realize how quaintly primitive Quake III looked. Then we'll all jack in to the Net and engage our imaginations in games we can't even fathom today.
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MARCH REVIEWS

Wow, two hundred issues. What that translates to in number of games reviewed is almost incalculable without going through and counting by hand (and the Supreme Court has already ordered us not to do that) but let's just say it's somewhere between a whole mess of and a big pile of games reviewed. And in all that time, we haven't been wrong once.

Okay, you know what a load of DAKATANIA that is because you yourself have probably written in to contradict us at some point. We get letters pointing out factual errors, disagreeing with our viewpoint or just outright insulting our critical intelligence. But that's mostly from irate fans fanning their favorite game "only" getting a 4.5. We usually stick up for ourselves and defend our viewpoints, no matter how unpopular. Thierry Nguyen took a lot of heat for giving DEUS EX 3.5 stars, but his review made a lot of good points and he really believed that's what the game merited, so we stood behind him. Of course, we can be wrong at times, and we're more than willing to own up to that fact. Just not actually in the magazine.

Sometimes thin-skinned developers jump into the fray. Yeah, it sucks to have some sniveling little whale with a state college English degree dis something you've worked very hard on for the last four years, but threatening us with advertising boycotts, in-game insults, or outright violence won't make your game any better. Besides, we're all just frustrated, underpaid, talentless hacks anyway.

So if you disagree with one of our reviews, and would like to send us a letter letting us know how you feel, here's a handy little template you can use:

Dear (epithet of your choice),

What are you guys smoking over there, (insert drug name)? How could you give (insert game name) only (insert number between 1 and 4.5) stars??? Are you crazy??!! (insert game name) is the best game ever!!! (insert game name) rocks!!! CGW sucks!!! Oh yeah, Jeff Green is the best, give him a raise!

P.S. Are you guys looking for writers?

Everybody hates a critic, but remember: we're as entitled to our opinions as anyone else is. The exchange of ideas and viewpoints that any debate elicits is what's really valuable. If you disagree with us, that's okay. We respect your right to be wrong, too.

MARCH REVIEWS

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HOW DO WE RATE?

Outstanding: The rare game that gets it all right. A must-play experience.

Very Good: Worth of your time and money, but there are drawbacks.

Average: Either an ambitious design with major flaws, or just vanilla.

Weak: Seriously lacking in play value, poorly conceived, or just another clone.

Abysmal: The rare game that gets it all wrong. Pathetic. Coaster material.
Microsoft smashes the competition yet again with its massive Mech brawler

Mech Mine Marvel!

It seems like a one-sided fight at first: a Raven taking on an Atlas. The very concept conjures up images of the mighty Atlas swatting down the annoying, flitty Raven. No one suspected that the Raven had anything more than monkey meat for a brain, nor did anyone expect the Raven of packing a Flamer instead of the stock Small Laser. The wee Raven ran literal circles around the bulky Atlas, spewing gushing jets of flame, managing slowly but surely to whistle the mighty Atlas into a pile of smoldering, cracking chunks of tefor fibrous and silicon (no bone and sinew here).

Right there, that's the essence of Battletech. Strip away the Roman Empire-inspired politics or the Mongolian-styled invasion plot line. Disregard the fact that these titanic tanks-with-legs were used in field skirmishes like any other military vehicle. What Battletech ultimately boils down to is a 30th-century rendition of gladiatorial combat, a one-on-one match where swords and Charlies are replaced with PPCs and autocannons, and superior tactics and knowledge of your opponent yields victory.

MECHWARRIOR 4: VENGEANCE (MECH4) captures most of that essence. There are some significant problems that will bother veterans of the series and possibly newbies, but ultimately, it does a fine job of bringing Battletech to its roots.

Paper Hero

For a series rich with history and backstory, the narrative of this game leaves much to be desired. There are the requisite elements of a Battletech story. You're part of House Davion. Through a series of political maneuvers, your father, the Duke, gets offered and control of the planet falls to your treacherous House Steiner kin. So you're going to spend the campaign hopping around the planet, inciting revolution, and staking your claim on what is technically your planet.

Sadly, those elements are crippled by some of the most embarrassing full-motion video (FMV) acting in a game to date. Let me summarize 90 percent of the FMV in this game: a series of postaged-stamped-sized talking heads babbling about all manner of seemingly inconsequential gibberjibber before each mission. If my integrity as a critic didn't require me to sit through all this, I would've simply skipped it and gotten right into the game. It made me long for the
ARMLESS BUT NOT HARMLESS While some Mechs will have very visual damage effects (like my Catapult here), others will simply turn black - a bit of a disappointment.

GREEN DEATH Even in the plain desert environment, multiplayer matches become a massive fusion of sound, destroyed Mechs, smoke, and light.

textual newbriefs of MECHWARRIOR 2 (MECH2), back in the day. In the area of dramatic intrigue, the ball was dropped - hard for this installment.

Bye-bye Mars
The campaign, composed of 26 linear missions, is fairly good. You end up hopping around various environments on the planet, with three to six missions taking place in each area. MECH 4 does a good job of scaling up the difficulty environment-wise, starting you off in heat-friendly moon and ice locales before ramping up to places like the desert or the crowded city.

The missions are unique and varied; not bad, since it's all essentially "run around and kill everyone who isn't you or your friend." The missions do a good job of making you feel like a part of something bigger; this is largely due to the use of vehicles other than Mechs. I particularly liked the mission in which you must evacuate a town under siege by a pair of battleships, or a desert mission in which you must hunt down and capture a set of supply barges traveling down a river. Both enemy and allied vessels help give you the sense that you're a cog in a massive war machine, rather than just fighting in a Mechs-only vacuum. While the campaign is a bit on the easy side and doesn't quite approach the brilliance of, say, GHOST BEAR'S LEGACY for MECH 2, it's a huge step up from MECHWARRIOR 3's forgettable campaign.

Symphony of Light
Graphically, MECH 4 is beautiful, with only a few snags. The screens speak for themselves. As for the gameplay, longtime MECHWARRIOR veterans may be surprised to see that their sim has morphed into an action game with sim elements. But don't trust in your joystick for a mouse/keyboard combination just yet (in fact, when I unplugged my joystick, the game went into some sort of hyperactive state of confusion, where my Mech blindly ran around, unable to focus on any one thing). The slower, more methodical battles now give way to faster pacing and play.

For example, it's often better to play in third-person camera mode, rather than from the cockpit (which is mostly just the HUD slapped on a minimal "physical" cockpit). There's no tactical map. Heat management, even in the desert, has much less emphasis. Unless you're licensing haphazardly, you shouldn't heat up very much. Chain-firing - a staple in earlier games due to heat management - has been eliminated in this installment. The pacing and feel is a lot faster as well: Mechs sprint around the landscape rather than meander around. Speaking of legs, you can no longer blow individual ones off. Rather than one-legged Mechs hopping around like bunnies, legs are either both there, or both gone.

Overall, AI is mixed. The enemies can be a crafty bunch, yes. They know which weapons to use at any given range, they use the terrain to their advantage, and they've even learned how to zip around on their jump jets. Your lance mates, on the other hand, are navigational nirvans. While most enemies are fine going over hills, your well-meaning lance mates will attempt the long and stupid way to get to a navigation point. Don't ever sprint ahead in a city mission, or your lance mates will get utterly confused in the seas of buildings. I'm both amused and annoyed at how a self-proclaimed sniper lance mate uses long-range missiles with skill, yet ignores a nice, flat valley in favor of scaling a near-vertical mountain.

AINT NO WING COMMANDER That tiny corner is the limit of the horrid FMV. Also, this is the one moment in the game when the campaign branches.

FRAKINSTEIN'S LAB Without crits, Mechs are given weapon-specific hardpoints. Bitish and whire, purists, but this makes the game more accessible to everyone.
Crisis Point

What will annoy veterans the most is the new MechLab. Gone are the criticals. Now, weapons are hard-pointed, meaning that only certain weapons can be slotted into certain slots (with a few omni-mount exceptions). I understand this was to create balance and prevent people from making, say, missile boats in multiplayer. Hardcore Battletech geeks will be annoyed at how FASA's delicate balance has been disrupted. Yet this does make things easier for the newbie, and it levels the playing field. I remember being intimidated by the criticals system for MECH 2, and it took a while to get used to it. This new system maintains a sense of balance, is easier for newbies to adapt to, and consequently lets the game reach a wider audience.

Multiplier is where the game shines. With the easier-to-use MechLab, the expansion of game types, and the tighter network code, it's honest-to-god fun to go out and start smashing Mechs online. While there is no co-op campaign, there's a lot more than vanilla Deathmatch; there's Attrition—which awards damage-inflicted, as well as kills—and the various team-based scenarios like King of the Hill or Capture the Flag. Even 56K gamers will have a very playable experience over the Zone, and giant free-for-alls rival OUAKE-style games in intensity and pacing. What starts as a brawl that resembles archived military footage can become a deadly, one-on-one dance where two Mechs test their piloting and tactical skill, and where, yes, a flirty little Mech like a Raven can take down titans such as Daishis or Mad Cat Mark IIs. If anything, the multiplayer matches most resemble the Mech brawls you'd have in those Virtual World Entertainment Centers (the places with the pods).

Dark Finale

While the single-player options vary from excellent to mediocre, it's the multiplayer that pushes this game into the "recommended" level. In retrospect of the entire series, it does have a different feel that may alienate hardcore, old school Battletech fans. Yet, for the most part, the changes make for better pacing and enhance what really is the heart of Battletech: tall robots smashing and shooting other tall robots. Veterans, look past the changes, and join the newbies in some good old massive Mech mayhem.
Thinking-shooter loses its train of thought

Whack-Job

What's the deal with our cultural obsession with thugs, assassins, and gangsters? Yes, I love Scorsese movies as much as the next guy, and I must admit to listening to my share of gangsta rap as a whelp, but the over-romanticization of people who kill for a living is somewhat disturbing. It makes for high drama in movies, but the genre has heretofore remained mostly untapped in games. Now that the new "thinking-shooter" subgenre has carved a niche with games like Thief and Metal Gear Solid, a way to realistically simulate the precision and stealth a real-world assassin would use to get his job done has been established.

The designers at IO Interactive have taken a lot of inspiration from movies, and it shows in the level design as well as some of the gameplay of HITMAN: CODENAME 47. For instance, there's a mission early on where you have to kill a high-level police officer in a restaurant. The only way to do this and get out alive is by hiding a pistol in the toilet, excusing yourself during dinner, and then coming out of the loo shooting, a la Michael Corleone in The Godfather. It's a well-designed moment of recognition that game designers should take note of if they're trying to create moments in games that are as memorable as the ones from movies. The game overall looks quite stylish, with an interesting graphics engine and skeletal animation system that does right by its cinematic influences.

Somebody Save Me

But the game's central flaw—what ultimately reduces the whole experience to a frustratingly painful waste of time—is an oversight that nobody designing an action game should make. There is no in-mission save. No quick saves, no savepoints, nuthin'. And considering that almost every mission involves multiple objectives that sometimes take a few tries to get right, the absence of a save feature makes playing and replaying entire missions just because of one little mistake exhausting.

Now if HITMAN was an easier game, or if it held our hands a little more when it came to mission objectives, the no-save issue might be moot. But the game designers have set out to create as realistic a world as possible, with intelligent (if a little trigger-happy) guards and police plus bystanders who react to suspicious behavior.

You Just Can't Get Good Help These Days

Unfortunately, the AI seems to be a little less than intelligent at times. It reacts to seemingly random events, but at the same time exhibits such obvious weaknesses, you could drive a Winnebago through the holes in the logic. Guards carrying Uzis will let you sidle up directly behind them and won't do anything as you stand there. Once you pull your strangle wire out of your coat they'll scream bloody murder (how can they see that if you're behind them?), but apparently all of their compadres are deaf lip-readers because their screams will go unnoticed unless you do it right in front of them. Your unmuffled pistol won't be heard by guards on one side of a door, but if another guard in the room with you fires off an MP5 burst, everyone will come running. Of course, you wouldn't even be in that room if everyone didn't take it on good faith that despite the fact that they're all members of a Hong Kong triad, and you're 6 feet tall, bald, with a UPC code on the back of your head, you're wearing a certain uniform so you must be one of them. The AI needs some definite tweaking.

It's too bad HITMAN has the problems it does because otherwise it's a highly original, very stylish, and quite visually satisfying piece of computer entertainment. If HITMAN 2 adds an in-mission save and polishes the AI, I'd play it. But until then, HITMAN: CODENAME 47 sleeps with the fishes.

**CGW**

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<tr>
<td>Stylish, cinematic presentation.</td>
<td>No in-mission save; incomprehensible (at times) AI.</td>
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**Requirements:** Pentium II 300, 64MB RAM, 40MB HDD install. 3D Card. 3D Support: D3, Glide. Multiplayer Support: None

**Recommended Requirements:** Pentium III 500, 128MB RAM, 80MB HDD install.

**Publisher:** Eidos Interactive • **Developer:** IO Interactive • **Price:** $40 • www.eidosinteractive.com

1 1/2 hours Rating: Mature; animated violence and blood, strong sexual content.
GIANTS makes a strong bid for game of the year

The Beast Within

Two-thirds of the way through GIANTS: CITIZEN KABUTO lies one of those profound, immensely enjoyable transcendent gaming moments we constantly seek.

One of the perks of Interplay's latest action game is that you get to inhabit three different characters: a souped-up infantry unit, a lovely Sea Raider, and the Kong-like Kabuto. Right at the beginning of the third act — you've just become Kabuto — you encounter one of the game's deadliest non-boss monsters, the Evil Reaper.

During the game's first two acts these monsters prove quite lethal. They hit you with spells from afar, set you on fire, and generally harass you to death. Two of them together are murder. So when you run into the Evil Reaper, your heart sinks a bit. After all, you're but a wee Kabuto at this point.

Then, in what can only be described as a Raiders Of The Lost Ark moment, you simply reach out your giant paw, grab the Evil Reaper, throw her in the air... and into your mouth, where you eat her alive.

Not too many gamers will be able to resist throwing their fists into the air afterward.

What's truly great about this scenario is that it's not enacted in a cut-scene. Your own actions conjure up your own laughs. In many ways, it's representative of the game itself: brilliant, quirky, irreverent, and highly entertaining. And in its own way, GIANTS is representative of the very reasons we play PC games in the first place.

Fantastic Voyage

Much like NO ONE LIVES FOREVER or METAL GEAR SOLID, GIANTS is an action-oriented experience that masters two of gaming's most essential elements: variance and pacing.

Given the nature of the game, you might think the former to be easy. After all, you do control three different characters, each with their own special moves and attacks, over the course of the game.

As Baz the MECC — basically a futuristic foot soldier — you rely on range weapons, a rocket pack, and your squadmates to complete...
your missions. As Delphi the Sea Reaper, you rely on a Bow and an array of spells. As Kabuto, you rely on your size, strength, your own little Kabuto hatchlings, and your appetite.

But what’s really interesting is that, aside from this obvious form of varying play, the game does an admirable job of challenging you in many different ways. At times, GIANTS resembles a straight-ahead shooter with a variety of mission-types. Other times, it’s a real-time strategy game à la BATTLEZONE. Then you get your hands on the ultimate giant – Kabuto – and the game soars into the stratosphere.

Better still, GIANTS is properly paced. You fight, build, gather resources, search, rescue, escape – the list goes on and on. At one point, you even race on a jet ski. Every mission, it seems, is different from the previous one, both in terms of gameplay and goals. In fact, only toward the end of the last Sea Reaper real-time strategy missions does the game start to show any signs of getting repetitive. This is mostly because all these sequences require the same fundamentals: Set up a base, defend it, get the special weapon the base creates, and then blow something up. But right when this game mechanic starts wearing thin, the Sea Reaper missions come to a close and you take control of the most decidedly non-real-time strategy character, Kabuto.

Surprisingly, GIANTS does an incredible job of making all the different game elements enjoyable. The sidekick AI in the first stages of the game is a nice lesson in game design; your fellow MECCs never get lost, even if that means cheating to stay with you. And while they will eventually perish, they can take a lot more damage than you can. It’s not realistic, but it properly balances the game and eliminates the need to micromanage your units.

Of bigger design concern is the game’s lack of a save feature, which will certainly frustrate gamers, both philosophically and tactically. To be fair, with the exception of the real-time strategy segments, this omission is not a huge deal – the missions are cut into compact chunks and, contrary to most action games, are not impossible the first time around.

Interestingly, a few moments in the game illustrated the positive aspect of not having in-game save. For example, in fighting the final end-boss, I took a whole bunch of damage early rather than load my save game. I had to keep playing and ended up winning the entire game, knowing that a single hit would kill me.

Unfortunately, the lack of save will create some issues if finding concentrated blocks of time is problematic. The strategy missions can take a while, but oddly, while GIANTS does retain your game state (xisting buildings, mostly) when you die, if you quit out of the game, you lose any such progress and have to start from scratch.

Make Me Laugh

At all times GIANTS is hilariously funny. The Planet Moon guys’ slightly warped MDK roots become obvious as you play, given the game’s sense of humor and oddball elements. The tripped-out, beautifully rendered game environments do a great job at creating a sense of the surreal. Supplementing this tone, the laugh-out-loud cut-scenes provide some of the funniest gaming moments ever.

GIANTS is the kind of game that makes you initially wonder, “What drugs were the game designers on?” when they thought of this?” (The follow-up question is usually, “And where can I get some?”) Whatever the case, here’s hoping they don’t stop. PC gaming, long locked into a highly reiterative mode, desperately needs new and different experiences like this.

Unfortunately, one consistent aspect of PC gaming – technology hurdles – appears to have crept into GIANTS. Significant installation and video problems pop up with older hardware configurations (GeForce 2 users should be fine), characters constantly disappear into the landscape, and the game has some pretty high system constraints. Even on a 600 MHz Pentium III with a GoF for 2, we saw frame-rates plummet at higher resolutions when several monsters were onscreen at the same time.

But, like any great PC game, the technological problems are worth the hassle. GIANTS breaks through the typically rigid constructions of the action genre with a rare combination of gameplay elements, bizarre settings, and consistent humor. Additionally, it supports a full range of multiplayer options, including the aforementioned real-time strategy game. Expect this one to surface in the coming onslaught of Game of the Year awards.

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CHICK OF THE SEA

Delphi, the second character you play, has the broadest range; she can cast spells, use her crossbow, and even race jet skis.

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GAMING IRREGULARITY

GIANTS boasts cut-scenes that are sarcastic, ironic, and absolutely hilarious.

---

MONSTERS ZERO

No matter what the medium, sniping is always a kick.

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Celebrity Skin

Planet Moon’s controversial decision to remove the frontal nudity of Delphi, the second main character, can be reversed with one easy swoop. All you have to do is find the ARFFIX.GZP file in the “Bin” folder in your Giants directory and delete, rename, or move it. This should restore the Sea Reaper to her original, topless form. Note that this works only with the US version of the game, as international versions were released uncensored.
If there's a book better suited to being turned into a computer game than Alice in Wonderland, I don't know what it is — unless maybe it's Through the Looking-Glass, Lewis Carroll's even stranger and more explicitly game-related sequel. A century before Mario the plumber used magic mushrooms to make himself grow and shrink, Alice was going through transformations that would make a videogame character envious.

So it is no surprise that someone has finally turned today's powerful game design tools loose on simulating Wonderland and its inhabitants. Nor is it a surprise that this Y2K version of Wonderland is a dark, twisted universe seemingly inspired as much by Salvador Dali and Terry Gilliam as by Lewis Carroll. In a more innocent time, Walt Disney saw the cartoonish silliness in the story; American McGee sees the hallucinatory nightmare qualities that make it a spiritual cousin to movies like The Matrix.

What is a surprise, perhaps, is that the game is as good as it is. Hallucinatory nightmare qualities are easy to overdo — one false step and what was supposed to be bizarre and frightening comes off as silly. Then, too, the high-concept idea of an adolescent Alice returning to Wonderland to kick ass might sound like a joke — how about sending Dorothy back to Oz with a flamethrower while you're at it?

But somehow designer American McGee (whose can-it-be-real name makes him sound like a Wonderland inhabitant himself) has pulled it off. His ALICE is full of over-the-top images and situations, but he deftly manages to avoid taking the story places that are disrespectful to the source material or that leave the player rolling his or her eyes.

McGee's Been at the Caterpillar's Hookah Again

McGee's Wonderland is a place of tunnels and crevices, of bubbling muck, throbbing tentacles, and cracks in the ground that pitch you headlong into the bottomless unknown. The sky is filled with careening constellations. The ground appears and disappears beneath your feet. In some scenes, it's hard to tell which way is up. And that's all before you come to the House of Mirrors level.

Set against this disorienting, acid-trip backdrop is a quest for sanity. According to the game's storyline, Alice has been in a coma ever since losing her parents in a fire — the game's events take place in her damaged mind while she lies in a Victorian...
asylum. The Wonderland she returns to is different from the one she remembers: The Cheshire Cat is scabbard lean, and the White Rabbit darts around like an addict in search of a fix, and all the characters live in terror of a Red Queen who looks more like the queen who tormented Sigourney Weaver in Aliens, complete with a tiny second head inside her gaping mouth. On the way to her final showdown with the queen, Alice has to battle a gigantic, mechanical Mad Hatter (who, in one of the game’s more heart-stopping moments, squashes the White Rabbit underfoot), try to save the White Queen from decapitation in a black-and-white chessboard land (she fails), and tear an eye out of the Jabberwock’s head. Scenes like this give you an idea of why the game is rated M for Mature — while the violence isn’t realistic, it’s twice as frightening.

It’s also twice as interesting. Instead of conventional weapons, Alice wields deadly toys: Her knife is a vorpal blade, of course, and the rest of her arsenal includes a pack of razor-edged playing cards, a grenade-like jack-in-the-box that breathes fire, a blunderbuss that fires cannonsballs, a set of jacks that chase down enemies like homing missiles, and a pocket watch that freezes time. (The game is never more Mario-like than in those frozen-time moments when you can walk through and around an explosion suspended in mid-blast.)

Some of the game’s levels offer a conventional kill-all-enemies-till-you-find-the-exit structure, but the best veer off in entirely different directions. Shrunk in insect size, you have to run through an obstacle course one step ahead of being crushed flat by a pebble that’s rolling behind you like the boulder that chased Indiana Jones. Stuck in a land of ice, you have to clamber down a series of narrow, frictionless ledges without sliding off to your doom. In a room full of giant, spinning gears, you have to leap from one to the next without getting dizzy or losing track of where you’re going. In the chess land, you have to use knight and bishop moves to get to the other side without being impaled on a spike.

Alice’s Shortcomings

At its best, the game is viciously inventive. While it sometimes feels like you’re playing an updated version of the old laser disc arcade game DRAGON’S LAIR, with its giant chess pieces and balls and such, this is not a bad thing. The game is less effective when it hews more to the conventions of modern action games: the section-ending battles against giant boss monsters, the puzzles that require you to pull levers in a certain sequence, and the repeated jumping puzzles. (I must have had to retrace 50 times before I could finish the library level, just because I kept missing the last jump.)

Then, too, while the game’s controls are good, the instructions you get about them are incorrect, making the learning curve needlessly steep. Help the instructions and you’ll think the Enter key opens doors — but it doesn’t do anything to the half-dozen doors in the first scene, and it’s only later that you discover that any doors you can open will open automatically when you walk into them. Similarly, you’re told that a tiny pair of footprint will show you where you’ll land each time you jump — but this terrific innovation functions only sporadically, leaving you to make many of the game’s tougher jumps blind.

Most of the game’s 36 levels are relatively short and extremely linear. There is usually a single path to follow, and before you know it, the level is over. As a result, the game feels more abrupt and less fleshed out than it really is.

And the game’s dialogue is as bad as its graphics are stunning. Heaven save us from game designers who think they’re writers! The Cheshire Cat speaks in riddles, but they aren’t good ones, just ominous claptrap. Various other characters talk seriously about freedom, slavery, and so on, and you just can’t wait for it to end. If you want a penetrating treatment of a young girl’s breakdown, read I Never Promised You a Rose Garden — don’t look for it in a computer game.

But if what you want is a game that looks and feels like nothing else out there, one that will leave your head spinning and your appetite for clever challenges sated, you couldn’t do better than ALICE. In a world of look-alike 3D games, McGee has done what it takes to stand out. It’s more than enough to make you forgive him the occasional misstep or bit of artistic pretension.

DEADTIME STORY Your childhood heroes — all gothed up and splattered with blood. Sweet dreams, kiddies.

(right) WILD BOYS

How sick and twisted is ALICE? Take a look at the exposed brains and Hannibal Lecter masks of these capering insane children and make up your own mind.

(left) HUMPTY JUMP-ty

As spell-binding and unique as its visual style is, ALICE’s gameplay is remarkably traditional — check out this role jumping puzzle and combative combat.

CGW200
FLASHBACK

How do you make a computer game out of a story so famous that your audience knows it backward and forward? Almost a decade ago, Charles Ardai weighed in on this issue in his April 1981 review of Interplay’s THE LORD OF THE RINGS, VOL. 1:

“Attempts to adapt literary properties, sans authorial input, have fared poorly. Some designers how so close to the original that they may just as well have typed the original text into an ASCII file and left it at that. Others are so bold that they attempt to inject their own ideas into the author’s work — a hubristic misstep, since such accretions invariably announce themselves to be just that, by blending into the author’s universe as in conspicuously as a stripper at a wake. Readers of the author’s work escape such games either bored, offended, or in some memorable instances, both.”
id responds to the rabble… almost

**Let Them Eat QUAKE**

It's the latest, hottest mod for QUAKE II. It's ARENA, and it'll cost you 30 bucks. Granted, that may sound a little harsh, but the inescapable fact is this: TEAM ARENA doesn't offer you anything more than countless user-created mods have for previous QUAKE games — for free.

**Are You Happy Now?**

So what do you get with QUAKE III TEAM ARENA? More than a dozen new maps, four game styles, a few new weapons, a couple of new power-ups, and a smattering of new skins. And a nagging sense that id resents you for wanting any of this. It's as if id responded to criticism that QUAKE III ARENA lacked the variety and depth of UNREAL TOURNAMENT the way a petulant high-schooler responds to being forced to attend a cousin’s wedding — “Fine, I'll go, but I won't enjoy it and I'll make sure you know it every step of the way.”

So TEAM ARENA ostensibly gives gamers what they have been clamoring for for over a year now, but begrudgingly. There are new player models, but they're severely limited, amounting to little more than a dozen new heads that can be bolted onto either a red or blue torso. It's a terrific letdown when you compare them with the great models QUAKE III ARENA had.

You get a fair amount of new maps, but they're all rigidly symmetrical and some are so reminiscent of maps from the source game that there were times I honestly thought I'd accidentally failed to launch the add-on. There are some new outdoor, UT-style maps that are absolutely huge, but ultimately that size works against them — who wants to spend five minutes running to an enemy base only to be sniped by a railgun footsteps from the doorway? With large, organized groups these terrain maps shed much of their built-in frustration, but not all.

The game's arsenal has been fiddled with but still comes up short compared with UT's weapon set. TEAM ARENA marks the very welcome return of the bullet-gobbling chaingun, the moderately useful appearance of the proximity mine launcher, and a superlous redesign of the nail gun. More than ever, the action becomes a game of Rocket Arena as the imbalance of the weapons forces players to make build-ins for the rocket launcher at the expense of the lesser guns — UT beat this by offering potential alternate fire capabilities for all of its weapons. And for some reason, the range of the nail gun has been shortened, rendering this difficult but elegant weapon useless on the sprawling terrain maps.

**Jackass Olympics**

TEAM ARENA gives players the option to play four different games: Capture the Flag; a one-flag variation of CTF; Overload, wherein teams must destroy a hitpoint-regenerating skull deep in the enemy base; and Harvester, where you scoop up the skulls of fragged enemies from a central point and run them back to the enemy base to score points.

**HEAD GAMES**
The collected skulls of fragged opponents trail after you as you run them back to the enemy base to score points.

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**QUAKE III TEAM ARENA**
reviewed by Robert Caffey

**CGW RATED**

**PROS**

Brings team play to the most popular shooter around.

**CONS**

It's still half the game UNREAL TOURNAMENT is.

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**SUICIDE SQUEEZE** The crystal skulls dancing around an enemy means the Kamikaze power-up has been collected. Once it's triggered, everything nearby is blown up. The swirling blue banner indicates that the Guard power-up for added armor and health has also been grabbed.

**Requirements:** Pentium II 300, 64MB RAM, 60MB hard drive space, original QUAKE II: ARENA, 3D accelerator required

**Recommended Requirements:** Pentium III, 120 MB RAM

**3D Support:** Yes

**Multiplayer Support:** LAN, Internet (2-32 players), one CD per player.

**Publisher:** Activision • Developer: id Software • 3DO • www.activision.com

**ESRB Rating:** Mature; animated blood, gore, and violence.
THE GREAT OUTDOORS  ARENA features three enormous outdoor maps. 
You'll need a lot of players to enjoy them, though.

THERE CAN BE ONLY ONE One Flag CTF may be the most intense of 
the four games, as you're constantly ping-ponging between offense and 
and trying to stop flag-runners like this one from reaching your base.

back for points. Every game is playable on every map, and while the 
action is rarely less than furious, you're haunted by a sense that the 
game could be better had the map been tailored specifically for the 
contest. How much better would a One Flag CTF match be if just 
reaching the flag were more of a struggle than merely racing to the 
center of the map? Wouldn't straight CTF be more gripping if you 
had true defensive structures and positions?

Then again, the wide-open construction of many of the maps may 
be a concession to TEAM ARENA's bots. Obviously, in an online-
focused game like this you aren't compelled to use bots, but if you 
want to practice, or fill out a sparse team, you'll find yourself plugging 
them in and almost immediately lamenting their presence. Playing 
with you, they're almost worthless and matches quickly become a 
"You Against the World" affair as you capture every flag, thwart most 
meaningful assaults, and round up all the skulls. Playing against you, 
they still cheat, don't coordinate too well, and aren't very good on 
defense; I single-handedly destroyed an enemy's crystal skull in 
Overload and was halfway through killing the next before the oppos-
ing team bothered to try and stop me. You can issue basic orders to 
your bots, which is a nice solution 
for keeping them the hall out of 
your way.

Start the Revolution Without Me 
A half-hearted nod to TEAM 
FORTRESS-style role-based games 
comes in the form of some new 
power-ups. The Scout power-up 
makes you really fast, while Guard 
makes your health and armor and 
slowly regenerates health. My recommendation? Forget the speedy 
Scout pickup and use Guard for flag-grabbing instead, since a player 
of any decent skill can parlay the hit point regeneration into virtual 
inviolability. The handful of other new power-ups are nice, but fairly 
inconsequential.

QUAKE III TEAM ARENA is not a bad game. Its lightning-fast, brutal 
action is undeniably fun, but much of that fun is a testament to the 
rewards and dramatic tension inherent in a team game like CTF. 
There's no escaping the feeling that id was willing to go just so far to 
quell the critics, stubbornly clinging to certain conventions because 
that's the way it's always done things -- how else to explain the 
refusal to implement a user-friendly map cycling menu? Stopping well 
short of the sort of groundbreaking stuff gamers have come to expect 
from id, QUAKE III TEAM ARENA has the feel of a job half-done 
because, well, that should be good enough.

Has action gaming's most important development company decid-
ed to stop revolutionizing gaming? God, I hope not. 

CGW2000 FLASHBACK

A History of the 
Blood-Spattered World

The only real sense of consistency within the 
entirety of the QUAKE franchise has been the 
progress of technology over narrative. While people 
were flatlining in and out of id, one could always 
count on the company to make a fast, efficient 
engine that would make your eyes bleed and be 
playable lag-wise online. Still, it was a bit of a 
jarred switch to go from Romero's dark, medieval, 
Cthulhu-drenched look in QUAKE, to the more tra-
ditional, streamlined, nitty-gritty space-marine future 
of QUAKE II. Even the respective expansion packs 
kept to the theme of the previous game; QUAKE: 
DISSOLUTION OF ETERNITY had you kill a Dragon, while 
QUAKE II: GROUND ZERO focused on your zapping a 
Gravity Well. The already-barebones narrative was 
stripped even further in QUAKE III ARENA's tourna-
ment storyline, but for this latest title, narrative has 
been eradicated altogether in favor of sports-like 
scoring and match play. While the QUAKE series has 
always pushed technology over a fading sense of 
narrative, it'll be interesting to see what id does for the 
DOOM game. --Thierry Nguyen

IT'S ALL MINE 
Throwing a ring of prox-
imity mines around the 
flag in One Flag CTF...

...lets you safely flee 
while fragging anyone 
foolish enough to be late 
to the party.
Activision releases a sequel worthy of the original

**Fool Me Twice**

The first CALL TO POWER was a pale doppleganger of CIVILIZATION. This bold rip-off of Sid Meier’s design was also broken and dumb. But it sold a lot of copies. Go figure. To paraphrase H.L. Mencken, no one went broke underestimating the intelligence of the average gamer. This might explain why many of us believed Activision when the company explained that the sequel would fix the first game’s AI, unit balance, interface, and so on. It didn’t. CALL TO POWER 2 is almost as broken, dumb, and pale as its predecessor.

**Recall to Power**

There are many things that are good about CALL TO POWER 2, but almost all of them were in place a year ago in the first CALL TO POWER. A centralized federal system for empire management, production, farming, commerce, and terrain improvements. An imaginative blend of conventional combat units (musketeers, cavalry, tanks) and whimsical units with special mechanics (slave traders, televangelists, lawyers). A manageable system of trade, crucial to a good economy. These are all important and commendable elements of the basic

CALL TO POWER design.

Then there are some good things about CALL TO POWER 2 that are drawn directly from other games. The concept of national borders is from ALPHA CENTAURI. The flexible diplomacy menu is from MASTER OF ORION. The way you fight with stacks composed of distinct units with special abilities is from SSG’s turn-based WARLORDS series. And, of course, almost all the basic mechanics of gameplay are from Sid Meier’s CIVILIZATION.

Finally, there are a few elements unique
to CALL TO POWER 2. There are hidden “feats of wonder” that will give you a temporary bonus. But after an initial message, there’s no indication of what the bonus is or how long it’s going to last. Keep paper and pencil handy, cities grow using an intriguing model by which they expand their circle of influence as their population increases. This gives empire building an organic feel at the cost of gameplay and elegance. Because influence grows over time, it’s not clear how close you should build your cities together or how they’ll benefit from certain squares and terrain improvements. CALL TO POWER 2 seems to have a lot of fuzzy math hidden under the hood.

**Rewired and Ready to Play**

Unfortunately, you will personally need this advance to deal with CALL TO POWER.

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**CGW Rated**

**Pros**

It’s a game with plenty of good ideas…

**Cons**

…that are either poorly executed or have been done better elsewhere.

**Requirements:** Pentium 166, 64MB RAM, 32MB hard drive space. **Recommended Requirements:** Pentium II 266.

**3D Support:** Yes **Multiplayer Support:** Internet, LAN (2-4 players); CD required in drive.

**Publisher:** Activision **Developer:** Activision **550** www.activision.com

**ESRB Ratings:** Everyone; mild animated violence.
Do You Know the Way to Tomchickville?

Activision seems incapable of tying all this together into a cohesive package. It fumbles some very basic interface issues, things you will notice in your first 10 minutes of play, and you'll think, 'Why on earth did they do it that way?' By way of example, there's a tiny message box that lists events from the last turn. And every turn beforehand. With no indication of when an event occurred. Unless you regularly call up the message box to clear old messages, 'The Greeks have declared war on you!' could have happened this turn or 300 years ago.

There isn't enough room in this box to display the entire message, so you're told things like 'Tomchickville has just built a Granary. Next in the building queue...' Is what? What's next in the building queue? So you click on the truncated message and a little window pops up, locking you out of the rest of the game to tell you Tomchickville has a shine next in the building queue.

There's a little eyeball symbol in the lower corner of the window. Click on it and the map centers on Tomchickville. But the window still stays open and you're locked out of the game until you click the 'X' in the upper corner of the window. Why does Activision think you would want to go to Tomchickville and leave this demanding little window open so you can do nothing else? Why doesn't it close automatically? Why on earth did they do it that way?

In many instances, this interface is even more convoluted than before. Rather than giving you one clumsy way to do something, you are now given your choice of a half dozen clumsy ways to do something. Important information is missing, wrong, tucked three screens too deep, or squeezed into boxes two sizes too small. The manual is broad and general. Because it's short on gameplay mechanics, it reinforces the feeling that CALL TO POWER 2 wants you to just play the game and let it worry about what's going on.

Imbalance of Power

The balance of units is still out of whack. Activision addressed the problem of rampant unchecked unconventional units -- guys like cyber ninjas and corporate branches -- by making them easier to kill. But now that they're expensive and vulnerable, they're almost completely peripheral. The AI does a poor job of defending itself, not to mention mounting any sort of effective attack. This is particularly noticeable in the late game when you can combine powerful units into unstoppable Uber-stacks.

The graphics engine looks almost completely identical to the first CALL TO POWER. It's still slow and brimming with pointless animations. Do we really need to waste processing power on the animation of a slave's fat belly jiggling as he falls to the ground dead? Remember the BATTLE CHESS games, when your knight would come alive and gallop across the board? It was cute the first two or three times, then it was just a waste of your time. CALL TO POWER 2 practically chokes itself on stuff like this; you're much better served by shutting off the animations so you can scroll the map quickly or easily access a city's building queue.

The lesson of CALL TO POWER is that when you sell a quarter of a million units, there's no real pressure to do anything differently. Hence CALL TO POWER 2. On the whole, I'd rather be on ALPHA CENTAURI or back in CIVILIZATION as I knew it.

CGW
Turn-based battles real-time, and no one wins

Embattled Isles

Playing BATTLE ISLE: THE ANDOSIA WAR makes me feel like I have a little cartoon devil and angel perched on my shoulders, whispering into both ears. "It's real-time," says one. "No, it's turn-based," says the other. "Real-time!" "Turn-based!" "Real-time!" "Turn-based!" Stop it, you two! While the short answer is that they're both correct, BATTLE ISLE is really a turn-based game with some real-time elements squinted into it like a kind of secret sauce. In this instance, I could do without the secret sauce.

BATTLE ISLE: THE ANDOSIA WAR is the fourth game in the sci-fi BATTLE ISLE series from Blue Byte. (INCUBATION was also set in this game universe.) You can play through the game's missions as either the cult-based Children of Haris or the establishment military forces led by General Brak. These sides — which feature the usual assortment of sci-fi tanks, hovercraft, and soldiers — are more alike than different, and this cuts into the enjoyment when you decide to replay the game as the other side.

The gameplay is modeled after a real-time strategy game. You build structures, mine resources, conduct research, and pump out units. All of that happens continuously in real-time. The actual combat portion of the game is turn-based. Now, we're talking movement points and a limited number of salvos per side. It's a rather bizarre marriage, melding these turn-based and real-time elements, sort of like Lisa Marie and Michael Jackson getting together. You have to think that Blue Byte did this for marketing reasons rather than to foster better gameplay.

The Seven Minute Itch

BATTLE ISLE gives you seven minutes to conduct your tactical turn. During this time you can move units and fire on the enemy, as well as make your build and research decisions. You can end your turn before the time is up, but as the missions get more complicated and you have a lot of units to fiddle with, you'll find that the time limit sometimes isn't enough.

The AI also gets seven-minute turns, during which you can continue to issue build and research orders. However, since you can queue up these orders, a resourceful player may not have a lot to do during the AI's turn. Time to check email, get some coffee, and maybe wonder why you aren't playing another game. The knock against turn-based games has always been that they're weak in multiplayer, because players spend too much time waiting. For some reason, Blue Byte decided to make players wait while playing the single-player game. Lisa Marie, meet the King of Pop.

Despite this, BATTLE ISLE is still fun if you have patience. The 3D graphics are top-notch, rivaling any we've seen in turn-based games. The camera controls can be a bit imprecise, but it's still exciting to pull in for a close-up of an exciting skirmish. And the combat is turn-based. Yay! There's an intimacy that moving units one at a time, selecting a target, and firing conveys that real-time games never quite manage. In BATTLE ISLE, you get to be the general and make overarching command decisions, but you also get to be the sarge and exult and agonize right there with your grunts as they fight. BATTLE ISLE also features multiplayer options, but online play is limited through Blue Byte's servers. There are no TCP/IP options.

Ultimately, BATTLE ISLE is a turn-based game with striking graphics — and how many of those do we see anymore? There's nothing really revolutionary about it. The turn-based combat is satisfying but not deep, nor shallow, nor innovative — and the real-time management aspects are more frustrating than exciting. Your enjoyment will probably correspond to how hungry you are for something new that's cool looking and turn-based.

(Nota that you can't buy BATTLE ISLE at retail. Blue Byte is selling it direct. Details at the website: www.bluebyte.net/eng/default.asp.)

**CGW RATED**

**PROS**
Great graphics and good turn-based gameplay.

**CONS**
The real-time aspects detract from the game.

Requirements: Pentium II 300, 64MB RAM, 315MB hard drive space, 3D card.
3D Support: Yes 2D Multiplayer Support: LAN Internet through Blue Byte Servers (2-8 players); each $10 per player.
Publisher: Blue Byte • Developer: Blue Byte • $50 • www.bluebyte.net
ESRB (or GSMA) Rating: Pending
Why I'm not re-enlisting as a starship trooper

F Troop

Dear Mom and Dad,

I'm writing to let you know that I am safely returning home after a short 20-mission stint exterminating the arachnids of Klendathu. I should be home before the holidays, and I'm looking forward to seeing both of you.

As you know, it's been over a year since I passed the MI Officer Training School, where I aced the Physical Fitness, Formation Drill, Weapons Proficiency, and Simulated Combat exams. Once I made the grade, the MI quickly shipped me off to the 1st Division under Colonel DuBois' command. I remember thinking I knew everything—that is, until I actually started hunting bugs. Truthfully, the Officer Training course and the Starship Troopers manual really didn't prepare me for what I was about to find out as platoon leader of one to three squads.

In my short career, my job was to basically hop from planet to planet and sector to sector in search of arachnid foes to hunt. The environments we've frequented have been worthwhile to view, and in some cases downright captivating. But they were not worth the time spent hunting the variety of arachnids we're always finding and shooting.

I've earned several medals and experience points for completing 20 missions, which included killing bugs, rescuing citizens, killing more bugs, capturing bugs with the lame Specimen Capture Weapon, killing even more bugs, watching Special Talent Troopers link with bugs, killing bugs, and blowing things up. Frankly, the lack of depth and challenge in all my missions has made my military career really boring.

Instead of the excitement I'd hoped for, our campaign has played out like a linear, step-by-step storyboard. Dad, you know how much I enjoy strategy and tactics, but most missions required neither—odd, considering all the training I endured. All the tactical formations I learned during training were worthless.

For every mission, it was simpler to march around the planet and take on bugs using one close-knit group than to waste my team's efforts on tactical maneuvers. Even though our platoon is strategically capable of splitting off into two or three different teams, we never had to since the bugs don't know any different, and our killing potential is the same no matter what formation is being used.

The arachnids we fought (mostly soldier castes) were plain dumb and less aggressive than what we'd thought. Every once in a while, we'd get a different kind of mission when we captured a new specimen like the chacrif bug (almost impossible because they moved too fast).

Trying to regroup during a poorly botched mission was pointless—any screw-up and we had to start all over again. Sometimes, everything would go blank during a mission, like a 21st-century computer game crashing, then we'd find ourselves starting the last mission all over again from scratch, including hearing the Colonel's mission briefing and equipment check all over again. Talk about weird.

At least our weapons and armor are useful. And the more experience my men gained, the more weapon and armor choices were made available to us, like the Monst Super-Rifle, Flamethrower, Combat Shotgun, Solaric Cannon, and M79 Tactical Nuke Launcher—or the Individual and Command Armor Suits. Sometimes the men gained rank and occasional medals for bravery—I liked that because they seemed to fight better afterward.

Was it really worth joining the MI as a Starship Trooper Officer? Considering I'm always looking for a challenge, and my stint with MI 1st Division lacked the tactical or strategic challenges I sought, I can say that I'm glad I'm coming home. What bugs me is that even my kid sister could have done this.

CGW

STARSHIP TROOPERS
reviewed by Raphael Liberatore

TO HECK AND BACK In this mission, I got to control three squads of 15 troopers, and we overpowered everything we came across. I think Scout could fight this war and win.

BUG ZAPPERS Me and the guys got really frustrated on this mission when the Lieutenant couldn't figure out how to use the bug catcher. After several tries, he finally figured it out.


3D Support: DirectX 8 Multiplayer Support: Yes

Publisher: Microprose | Developer: Blue Tongue | $40 | www.micropres.com

ESRB Rating: Mature; animated blood and violence.
Tiger Woods PGA Tour 2001 improves but doesn’t quite make the cut

Touring With Tiger

Tiger Woods PGA Tour 2000 was easily the most feature-packed golf sim on the market, but several problems prevented it from reaching its potential. However, the stunning announcement that Tiger Woods PGA Tour 2001 would be designed by Headgate Studios (the talented designers of Sierra’s PGA 2000) led to very high expectations. Perhaps too high for the 2001 version.

Hand Me a Niblick

While Tiger Woods PGA Tour 2001 is an improvement over its predecessor, Headgate Studios came on board too late to make revolutionary changes in the game. Although much of the graphics are average to good, some parts of the game definitely lack dated. The edges of traps and water hazards exhibit severe jaggies, distant backgrounds are blurry, and the terrain textures shift during the course of a shot. Tiger’s on-screen persona is nicely rendered, but the other pros are fuzzy and ill-defined. On the up side, the sluggish performance of the 2000 version has been eliminated; graphics execution is quick and fluid. That allows you to enjoy much of what is easily the best camera system in PC golf, a television-style presentation featuring views that switch dynamically to the landing location, the ball in flight, and so on.

The swing interface is handled with either a tri-click swing or a mouse swing. The mouse swing is not synched in real-time with the golfer. Furthermore, it has no mechanism for creating slices or hooks. This odd omission means that you can whale away with impunity, swinging as hard as possible, with no fear of mis-hits. It may lead to low scores, but it sure isn’t golf. The tri-click is well designed, with a clever feature that changes the meter’s scale on the putting green based on the length of your putt. Thus, an 11-inch putt may result in a meter on which a full swing is 3 feet. This prevents the problem that some tri-clicks present in which a short putt is more difficult than a longer putt due to the reaction time required. Also, the Pro level swing meter seems to more “fair” than before—’it’s difficult to hit perfectly, but it doesn’t punish slight mis-hits with outrageous slices and hooks. Once the ball lands, some ball physics problems rear their head. Often the ball just doesn’t bounce right, careening oddly enough to notice—even if you’re not looking to find problems with the physics model. The ball seems to be sliding rather than rolling, particularly on the green. Another oddity on the green is how anxious the ball seems to be to go into the hole, disappearing about three inches before it reaches the cup.

Game options abound, as in last year’s version. The career mode now allows you to play at levels below Pro, which means some weekend duffers may actually make it out of Q School! The new President’s Cup is an international competition similar to the Ryder’s Cup. You select a side, International or U.S., pick a team, and set your panties. The two teams then compete in a series of matches. Nifty idea, but two things spoil the atmosphere. First, the names for the players on the International side are unimaginative appellations like Japan, Fiji, and so on. Second, you have to play the shots for both players on your side. This eliminates the feeling that you’re playing with a partner.

The 19th Hole

Tiger Woods PGA Tour 2001 is basically last year’s game with a few improvements. Unfortunately, with games like Links 2001 and PGA Championship 2000 on the shelves, dated graphics and questionable ball physics make it difficult to recommend this incarnation. Hopefully, Headgate Studios will use the coming year to work its magic on the franchise.

Requirements: Windows 95/98, Pentium MMX or AMD K6 200MHz, 32MB RAM (64MB for audio), 100MB hard drive space (another 250MB required for course images), 7MB DirectX compatible video card or 6MB 3D accelerator with DirectX 7 compatible driver.

Recommended Requirements: 450MHz Pentium II, 128MB RAM, 1.6GB per hard drive space, 16MB video card with hardware acceleration.

3D Support: DOS, Multiplayer Support: Internet, network with BPS/SPP or T1/VP, 2-4 players.
FRONT OFFICE FOOTBALL 2001 puts you in the NFL GM hotseat.

Build Your Dynasty

Have you ever wondered just what in the name of Vince Lombardi's ghost the owner of your favorite NFL team was thinking when he traded your veteran quarterback away for a rookie linebacker and an over-the-hill tackle? FRONT OFFICE FOOTBALL 2001 lets you sit in the general manager's seat and see if you can do any better. In the process, it reminds you just how addictive a game built upon a solid simulation engine — but without 3D holographic graphics — can be.

This is a text sim in which you make the day-to-day decisions required to run an NFL franchise (the full official blessings of the NFL allow for real-life team and player names). The soul of the game is your attempt to build multiblock dynasties that are the stuff of legends. You can start with a top team like the Rams and try to extend its success; or, you might prefer to choose a "new" team like the Browns and try to return them to their glory years. Your new life as a team owner and coach begins with off-season wheeling and dealing, starting with the amateur draft. A significant improvement in this year's version is the ability of your draft choices to develop into stars — or busts — after training camp. As in real life, a highly rated draft pick may not be able to cut the mustard in the big leagues, while a lower-rated pick may blossom into an NFL superstar. Coaches and scouts are critical to everything from evaluating and developing talent to executing a game plan; now, you must compete in a bidding process to acquire the best available stuff. Agents for free-agent players have become tougher negotiators, although an area for improvement would be to create a bigger difference in the salary demands of high- and low-rated free agents.

The game screen has gone through a face-lift, taking on the team colors of your chosen franchise. It takes a while to get used to the menu being hidden on the bottom of the screen, but once you play awhile it becomes second nature. A superb game plan interface has been expanded to allow detailed depth chart control, how often and under which circumstances to play an injured player, every detail of your offensive and defensive game plans, and much, much more. Once you move from the practice field to the game field, you have the choice of fast-simming games and reviewing the results in detailed box scores and game logs, watching your coaches call the plays with a play-by-play description of the game, or putting on the headset and calling your own. The user play-calling interface is much improved. Results are variable but realistic; for example, the league's top running back will usually pick up a lot of yards, but he'll also have the occasional game when he's shut down.

In addition to leading the team, you'll be faced with the business decisions incumbent upon an NFL owner. Keeping the fans happy is necessary if you want to pack the house and rake in the dough, so watch those ticket and concession prices, and be prepared to deal with angry fans if you trade their favorite players. You can even join the ranks of revered owners and move to a new city.

There are a couple of minor issues and one major problem: Some owners of Voodoo cards have reported crashes (odd for a text sim). But make no mistake, FRONT OFFICE FOOTBALL 2001's depth and compelling "just one more season" gameplay makes this a must-have for any sports fan who thinks he or she has the right stuff to run an NFL franchise. Highly recommended.

Requirements: Windows 95, OS 2, NT 4.0, or a compatible operating system; mouse or compatible tracking device; CD-ROM drive; 16MB RAM; 256-color 16-bit graphics.

Recommended Requirements: 75 MHz Pentium. 3D Support: none Multiplayer Support: none

Publisher: Electronic Arts • Developer: Solecism's Software • $25 (available only from www.easports.licensure.com/flip2001/index.asp) • www.easports.com • ESRB Rating: Everyone

Are you up to a challenge?
**STAR TREK DEEP SPACE 9: THE FALLEN**

If you think Ferengi is a new kind of pasta, deduct half a star from the rating. Otherwise, polish up your plastic Vulcan ears, and get ready for a Star Trek action game worthy of the license. In fact, the Star Trek setting saves this game from gaming devices that would be otherwise uninspiring. Staples like energy weapons, invading aliens, orbs of ultimate destruction, and special graphical effects seem logical when used in the context of the Deep Space Nine universe. Should a Cardassian twitch in place before disintegrating into energy particles when hit by a phaser? Of course he should. Is it likely that you’ll find menacing aliens when you’re responding to a distress call? Of course it is. Does Star Fleet recommend storing exploding barrels of toxic waste in corridors? Well, two out of three ain’t bad.

THE FALLEN does implement some new features like the use of the tricorder, which is pretty fresh; and the ability to modulate phaser frequency is not only cool, it’s necessary. Another interesting twist is the ability to complete the game by playing as Captain Sisko, Major Kira, or Lt. Commander Worf. While the missions are all played in parallel toward a final goal, each person has different tasks to accomplish along the way. Although some missions feel a bit similar, the use of variations on a theme is clever and adds to the replay value.

Of course, with the good comes the bad. A few levels quickly degrade into switch/hunt, and gameplay seems formulaic at times. In addition, I had a few lockups, and noticed some minor clipping and collision-detection issues. There is a 32MB fix patch available that hopefully addresses these problems. Despite the flaws, if you are a fan of DS9, you will find THE FALLEN an enjoyable diversion. If you’re not a fan, this might be the game to make you one. —Joe “Biter” Bailey

**TOMB RAIDER: CHRONICLES**

If life as we know it is destroyed by a rogue comet, a bacterial killing plague, or an overly caffeinated Jeff Green, the future of humankind will need some pointers while rebuilding our civilization. So I’ll offer up some tips: Chicken-heading McNuggets are dee-iish, Wesley is a great name for a boy, and milking a game license for a quick buck is better than investing an ounce of creativity.

Okay — so I’m evil, but TOMB RAIDER CHRONICLES is still an infuriating waste of time that will leave the Lara-faithful bitter. Eidos’ fifth installment steals scenes from The Matria, Total Recall, Escape From New York, and more, but still manages to screw it up.

While block-moving puzzles were reused, the developers lazily resort to bigger servings of air duct crawling, key-finding, switch-flipping, and the worst jumping puzzles to date. Offering inconsistent forms of fighting, climbing, jumping, and crawling doesn’t mean a game is witty; it means the hours spent repeating levels proves that the designers have nothing more to offer.

Storylines and settings are reused (villainous collectors, Rome, opera locales) or never explored long enough for full potential. The island level — plagued by a demon Cossack soldier — comes close, but the entire end-fight is a cut-scene! Using iron to fight off Imps is the only clever design departure, but it’s entirely lost when you have to combine a rubber hose with a pitchfork to make a sling-shot.

The game is a laundry list of similar disappointments: an underwater depth suit with torpedo decoys you get to use for just five minutes, a cool rail gun you can’t use, enemies that suddenly can’t be killed, a blatantly stereotyped African-American sidekick, promising METAL GEAR SOLID-ish stealth missions stymied by a multitude of problems. TOMB RAIDER’s signature silly tightrope-walking, lame grappling guns, and modern gun ammo stuffed in ancient tombs are still present, rendered in an outdated engine and plagued by the familiar clipping problems and game-stopping bugs. Not even the level editor could entice me to play more.

A blatant commercial plug for a Tron watch is the last nail in TRC’s coffin. Obviously the Core well has run dry. —Jason Babler
**FROGGER 2**

It ain't no MARIO 64, but FROGGER 2 is head and shoulders above half the 3D platform field: This amphibian-heavy platform game actually has some decent jumping action. What stands out most is the quick 'n' dirty feel of most of the levels. Each level has 25 coins and five baby frogs to collect. While these items would be hidden or challenging to acquire in a game such as CRASH BANDICOOT, in FROGGER 2 they're generally incidental: You may have to go a little out of your way for a coin or two, but mostly you'll get everything while making a beeline for the end of the level. This does have a downside, however: There are almost zero hidden bonus areas, and you'll rarely be caught scratching your head looking up at an out-of-reach ledge.

But FROGGER 2 never tries to do anything but make up for its last incarnation. There's plenty of hand-holding: Once you boat a level, you never have to go back, and there's almost always an extra life around the corner. This is what the first game should have been. While we'll stop short of an all-out recommendation, we will say that if you stumble upon FROGGER 2 in the bargain bin, give it a shot. It's an enjoyable way to waste a few hours. —Alex Handy

**PANZER CAMPAIGNS: KHARKOV '42**

John Tiller has been providing serious wargamers with serious wargames for many years, and the release of the third game in his PANZER CAMPAIGNS series, KHARKOV '42, shows that his commitment to comprehensively researched, meticulously detailed games is as strong as ever. While all three games share a basic engine, Tiller keeps making changes (such as the new Virtual Supply Trucks rule) to polish and improve gameplay. KHARKOV '42 depicts the Soviet spring offensive around the Ukrainian city of Kharkov that was repulsed by the Germans prior to the launching of their own 1942 offensive. Although the Soviets start out on the attack, the potential for offensive operations on both sides gives the game a more balanced feel than those of its predecessors.

The campaigns in this series keep getting bigger, and while this will delight players who want to immerse themselves in a multi-hundred-hour conflict, wargamers with less free time will be unable to take advantage of the larger ones. The smallest engagements are grandly-tactical in scope, but not playing the campaign means you'll miss the massive feel of Eastern Front combat that the PANZER CAMPAIGNS games convey so well.

On the whole, KHARKOV '42 is every bit as good as the previous two games in the series. While play is nowhere near as wide-open as in SMOLENSK '41, there's plenty here to occupy you for a long, long time. —Bruce Geyr
**King of the Hill**

I'll tell you what. This game ain't entirely right. The voice-acting is right: actors from the *King of the Hill* TV show provided the commentary. The characters are funny (until they start repeating themselves). The other thing that's right is the book that's packaged with the game: It's a laugh-out-loud slog through Hill family dysfunction.

The game has two sections: Texas Huntin', and the um, Hootenanny. Huntin' is your typical huntin'. Your task is to shoot stuff and kill it dead. Kill kicky deer, frantic turkeys, scrappy boar, and so forth. I quickly became obsessed with all the many accoutrements (deer decoys, for instance). I put 'em out there to attract animals so I could kill 'em. Turns out I am a master hunter (read: Texas Huntin' is too easy).

Hootenanny is but a slight hoot. You have to ingratiate yourself to the characters at the block party so they'll like you. Some of them will like you exponentially more if you toss them beer. I'm here to tell you that tossing that beer was next to impossible, and that my block-party reputation suffered as a result.

With the exception of mini-golf in Bill's backyard (the golf club makes a superb laugh sound when it meets the ball), the five Hootenanny mini-games are a melee of pointing, clicking, and apathy. I was really good at the paint ball (read: Paint ball is too easy). And I am sure no Bobble pro in real life, but Peggy absolutely destroyed me in the Bobble-related "tic tac toss" and made me feel bad. She was very zesty and I think she cheated.

Get the game if you're a big fan of the show. Go on. Click on your favorite characters so you can hear 'em talk; I recommend Dale and Luann. Then, play some mini-golf.

But aside from those diversions, I think you'll be disappointed—just like Hank is disappointed in Bobby. —Holly Fleming

**Genre:** Hootenanny **Publisher:** Fox Interactive **Developer:** Fox Interactive **$29**

**www.foxinteractive.com/games/kth**  **ESRB Rating:** Rating: Teen (T13+); comic mischief, animated violence.

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**Squad Leader**

Squad Leader, contrary to its advertising, is not an "adaptation" of the overly complex boardgame by Avalon Hill. Instead, it's a thinly disguised update of developer Random Games' SOLDIERS AT WAR, a turn-based WWII game depicting squads of individual soldiers; it was flawed when it was released three years ago. For this game, MicroProse added new graphics, an improved interface, vehicles, and soldier personalities—but they don't make the game much better.

The basic premise is unsatisfactory: Take a squad of soldiers through a series of missions on the Western Front, using a simple system of Action Points similar to that in X-COM or JAGGED ALLIANCE. Unfortunately, SQUAD LEADER is undermined at every turn by slow and jerky animations, homogenous soldiers, and dull graphics that make it hard to distinguish soldiers from trees. Plus, the square grid that regulates movement prevents vehicles from moving diagonally. The resulting effect is akin to playing an old game that you dug out of the back of your closet. —Bruce Geryk

**Genre:** Wargame **Publisher:** Hasbro/Microprose **Developer:** Random Games **$50**

**www.hasbrointeractive.com**  **ESRB Rating:** Teen (T13+); animated violence.

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**Timeline**

**Genre:** Action **Publisher:** Eidos **Developer:** Timeline Computer Entertainment **$40**

**www.eidosinteractive.com**  **ESRB Rating:** Everyone

**W**ith a playing time of less than five hours, TIMELINE is over before it begins. Count that as a blessing. This game offers nothing more than a semi-interactive Cliff's Notes version of Michael Crichton's latest book about time travel. Unfortunately, due to a lack of the essential elements that make a Crichton weave through his best sellers, TIMELINE falls absolutely flat.

There is no tension, no challenge, and no action. Most of this can be attributed to the dumbing-down of gameplay: it presents situations that would test only the most inexperienced gamer. To make matters worse, any hope for challenge or urgency is completely eliminated by your co-adventurer who not only offers advice, but also tells you exactly what needs to be done. So much for the thrill of discovery. Instead, you simply go through the motions, waiting for the next task. When you do face an occasional enemy, instead of feeling threatened, you quickly dispatch it and move on. In fact, you will probably feel a sense of dread only when you realize that the door has been left open for a sequel.

The only bright spot is the attention to historical detail. This is exemplified by an interesting historical walkthrough of the game location, reminiscent of a self-guided museum tour.

There are many ways to waste five hours. You can arrange and rearrange your collection of Pez dispensers, watch a Matlock marathon, take a long nap, or play TIMELINE. My advice? Stick with the Pez. —Joe "Biter" Bailey
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Microsoft removes the veil of secrecy and shows the world its final Xbox design

Behold the Xbox!

After months of speculation, dozens of focus groups, and more first-grade caliber enthusiast sketches than we care to count, Microsoft finally let us in on what its much ballyhooed console system will really look like. In these “exclusive” photos that we stole from our sister publication, Electronic Gaming Monthly, the fellows up in Redmond gave us a peek at the box that Mr. Gates hopes will kick Sony’s ass all the way back to Tokyo.

By now it’s no secret what’s lurking on the inside of the system: a 733MHz CPU, a 250MHz custom-designed graphics chip from nVidia, 64MB RAM, a DVD drive, and the oft-questioned 8GB hard drive. More notably, though, is what you won’t find in the Xbox; namely, USB ports and a 56Kbps modem. After doing buttloads of research, Microsoft has come to the conclusion that gamers sport an Ethernet port. Microsoft is banking that by the time Xbox comes out this fall, the majority of game-savvy users will have broadband access.

With the hardware final, Microsoft can focus on a strong list of launch titles, trying to avoid the same pitfalls that have undermined each Sega launch. We’ll keep you posted as more details emerge.

—William O’Neal

nVidia Acquires 3dfx

Deal worth an estimated $100 million

3dfx, the once high-flying maker of 3D graphics accelerators, has been acquired by former arch-rival nVidia. The deal is for all of 3dfx’s tangible assets, including the Voodoo brand, all patents and intellectual property, and all products in development. 3dfx plans to use the proceeds to pay off debt and dissolve the company.

While both chipmakers were seen as developers of cutting-edge technology, nVidia had begun to make serious inroads into the lucrative OEM marketplace. 3dfx was doing well in retail, but since that market accounts for only about 10 percent of graphics board sales, revenue wasn’t enough to turn a profit. The company’s shares traded as low as $1 last December.

3dfx dominated the 3D chip market up until two years ago. Since then the company changed its strategy and tried to increase profits by fabricating its own boards. The strategy proved costly, while the pace of new chip releases slowed behind that of competitors.
GAME COMMANDER 2
Requirements: Windows 95, 98, ME, or 2000; 486/66
Mhz; 24 MB RAM; full duplex sound card.
Price: $30 if downloaded; $40 CD with Microphone.
Manufacturer: Mindmaker
Contact: www.gamecommander.net

It’s refreshing to find a program that not only lives up to expectations but exceeds them.

Game Commander 2 fits that description, allowing you to replace anything you would do with a keystroke (or combination of keystrokes) with a simple voice command of your choosing. While flight sims are a natural (replacing combinations like “control-shift-a, G, 2” with a voice command such as “arm mavericks”), being able to throw away your keyboard reference sheets and use simple spoken commands makes all genres of games much more enjoyable.

Game Commander 2 sets the standard for performance in voice command programs. First, it’s fast! A lag between your voice command and the game executing it can make the difference between virtual life and death. Another feature that sets this program apart is its ability to determine what program you are running and automatically load the proper command set — no more slapping your head and exiting your program because you forgot to load your voice command set. You can assign a string of up to 256 keystrokes to a single command with complete control over every aspect of the keystrokes applied.

Game Commander 2 also works with every game you can throw at it. There’s no built in chat program, but it works flawlessly with popular freeware voice chat programs such as Roger Wilco and TeamSound.

There are many more features, but the bottom line is that if you are reading this magazine, you need this program. Once you’ve used it, you’ll be baffled at how you lived without it. — Jeff Lackey

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Surrounded by Sound

With more games supporting surround-sound, it's time to grab the earplugs and warn the neighbors as we put six surround-sound speaker systems to the test.

CAMBRIDGE SOUNDWORKS DTT3500 DIGITAL

Cambridge Soundworks is one of the most respected names in home audio and multimedia speakers. Its new top-of-the-line Dolby Digital home theater speaker, the DTT3500, demonstrates once again how it got that reputation.

The DTT3500 brings the digital surround-sound experience to your PC like few others can. Powering the system is a sophisticated looking Dolby Digital (AC-3) decoder amplifier. Not only does this amp provide a multitude of built-in auto-detecting inputs via optical, coaxial, RCA, and DIN, but also a 24-bit Digital-to-Analog converter for simultaneous connections either using PC, console, DVD, MiniDisc, CD, and MP3 configurations.

Just like a home theater setup, the DTT3500's decoder amp drives a total of six speakers: four satellites (7 watts RMS), one center (21 watts RMS), and one subwoofer (30 watts RMS). Speaker response is rich, covering the 20 Hz-20 kHz range, so cranking games like UNREAL TOURNAMENT, RUNE, and MECHWARRIOR or DVDs like The Matrix and Fight Club is quite the home theater experience. Highs and lows come across silky smooth, and 5.1 imaging is crisp. Even at extremely loud volumes (the kind where your neighbors call the police), the DTT3500 delivers awesome clarity.

If your budget allows for taking the Dolby Digital plunge for your PC, then the DTT3500 is tough to beat for audio quality, versatility, and performance. —Raphael Libenore

BOSTON ACOUSTICS BA-7500

At $300, you'd expect a set of speakers to sound terrific, and the BA-7500s do. At $300 you'd also expect them to be easy to set up; and once again, the BA-7500s deliver. When it's time to get your game on, you'll welcome the fact that the BA-7500s support four-channel, 3D positional audio.

There's also a digital coax input that will accept a Dolby Digital (AC-3) stream. Since the 7500s have four flat-panel satellites, the center channel is virtual. But don't get your thong in a twist; since you'd always use them in a near-field setup, experiencing the virtual center channel is no problem.

But enough with the incidental, how do they sound? In a word, excellent. These speakers are capable of pumping out a minimum of 103dB (using a weighted pink-noise sample). I turned up the AC-3 version of the Saving Private Ryan DVD so loud that it made me duck for cover. Surround-sound imaging, too, was uniformly excellent. They won't blow the windows out of your room, but they're more than loud enough for gaming. Music audio sounded clean and sweet, too. When they were playing games that supported four channels, the sound field was almost disturbingly realistic.

About the only downsides are the rather flimsy stands for the rear speakers (though Boston Acoustics also supplies tabletop stands for the surrounds), and the footprint of the satellites is a bit on the big side. And they are pretty expensive for PC speakers, but if you've got the bank, they'll deliver the goods. —Loyd Case

Requirements: Any computer with a 5.1 channel sound card. Preferably SoundBlaster Live! Platinum or X-Gamer 9.1.
- $300
- Cambridge Soundworks
- www.creative.com

Appeal
- Gamers desiring high-end Dolby Digital performance.

Pros
- Sounds like a real home theater system.

Cons
- High-end price tag; compatible only with a 5.1 sound card.

Requirements: Sound card with two outputs; digital output optional.
- $200
- Boston Acoustics
- www.bostonacoustics.com

Appeal
- Gamers who want it all in an easy-to-use speaker system.

Pros
- Pumps out the volume;
- Dolby Digital support; clean sounding.

Cons
- Satellites are a little big; floor stands a bit shaky.

At $300, you'd expect a set of speakers to sound terrific, and the BA-7500s do. At $300 you'd also expect them to be easy to set up; and once again, the BA-7500s deliver.
LOGITECH SOUNDMAN XTRUSIO DSR-100

Logitech is one of those companies that has its hands in so many different pots that you’d think its penchant for playing the proverbial jack-of-all-trades would result in its being considered the master of none.

Well, when it comes to speakers, Logitech has historically been anything but the master—especially when placed next to such heavy hitters as Klipsch, Monsoon, or Cambridge Soundworks. The thing is, though, with its latest offering in four-channel digital surround-sound speakers, Logitech has shown that it, too, can make a set of speakers the likes of which will irritate the old lady something fierce.

We had pretty low expectations for the SoundMan Xtrusio DSR-100s.

Aside from a subwoofer that’s made of aluminum, the rest of the DSR-100’s package was the standard matte-black-plastic that Logitech loves so much; the four satellites and the SoundTouch remote.

We hooked the DSR-100s up to Creative’s SoundBlaster Live! Platinum 5.1 soundcard, installed the included PowerDVD software, and fired up Saving Private Ryan. That was when all of our prejudices against Logitech went down amidst a 100-watt wall of Dolby Digital 5.1—infused German machine-gun fire. In a word, these speakers are the bomb!

Please with the speaker’s ability to handle DVD movies we decided to put ‘em through the music test. Regardless of what we threw at the DSR-100s, everything from Pavement to Mystikal, they passed with flying colors. The same held true with a sampling of games. We cranked UNREAL TOURNAMENT, HALF-LIFE, and QUAKE III: ARENA. Regardless, sound was consistently crisp without a single snap, crackle, or pop.

As critics it’s hard for us to like anything, but we’re at a loss to find flaws with these speakers. The satellites have a small footprint, the remote control has everything you’d need or expect, including a headphone jack. And coming in at a scant $179.95, there’s not much more that we’d do to make the DSR-100 package more appealing. —William O’Neal

CAMBRIDGE SOUNDWORKS FPS2000 DIGITAL

Finding quality speakers below $150 can be an exercise in frustration. As it is, most multimedia speakers contain some sort of shortfall, like under-powered subwoofers, muddled midrange, distorted highs, and/or extreme hissing, as well as any number of other problems not worth mentioning (or purchasing). Enter Cambridge Soundworks’ FPS2000 Digital speakers. Cambridge has been making quality speakers for years, and the FPS2000 system doesn’t stray from its vaunted pedigree: packing four discrete 7-watt satellite speakers, two rear-channel stands, and one 25-watt powered subwoofer that’s built to last.

After spending a scant 15 minutes hooking the FPS2000s up to my PC, I ran a few test games, adding some MP3s and CD music to the mix. The FPS2000’s performance is simply amazing considering its price. In DRAPO II, they produced clear highs and superb midrange when I was dueling Andriel. Playing ROGUE SPEAR, I could actually hear a weapon’s distinct firing action.

Most impressive are the speaker’s thunderous bass for a system that’s so compact and sports such a conservative power rating. Playing UNREAL TOURNAMENT’S Arcane Temple, the speakers delivered excellent clarity from the waterfall and pond outside the temple. But take care. Picking up the redeemer and firing it into the temple woke my wife upstairs because of potent bass reflex. I did notice that the mids, even though clean, became a tad muted with music, especially during Strawinsky’s “The Firebird Suite,” but overall, the bass and highs made up for this tiny imperfection.

The FPS2000 Digital also provides a proprietary Digital DIN connection for Creative’s SoundBlaster Live! - a great way to enhance digital sound from other multimedia sources. So if you have a 4-speaker-capable sound card, and want to spend under $150, then it’s worth treating your ears to the experience of these great sounding speakers. —Raphael Liberatore
When I first heard about these speakers, they sounded too good to be true. A complete 5.1-speaker system with built-in Dolby Digital decoding and a remote control for $199? With tons of input options, including an optical connection? And 2500 watts of total power? Never mind that normal power outlets can't provide that much juice — we just had to see if Jazz Speakers’ Rocco 5.1 Digital Audio System could deliver. Unfortunately, about the only place these speakers sound good is on paper. The minuscule satellites can produce some sweet, rich highs, but come up flat in the mid-range. You would think that the powered subwoofer would mitigate the problem, but, sadly, it’s among the weakest I've ever tested. I had to feel it to see if it was even on, and with a bottom end of 50Hz it's giving up where a good sub would just be getting warmed up. The system is plenty loud, but raw volume not tempered by good fidelity is both meaningless and disappointing.

Although the overall package looks good there are some serious drawbacks to the design. The Dolby decoder hardware is built into the center channel speaker, meaning the myriad cables that plug into the back must reach farther than they normally would. Users will also have to deal with the fact that the included speaker wires are permanently fused to the satellite speakers so there's no good way to lengthen them. The remote is handy and the number of inputs should meet anyone's needs, but this all-in-one kit is obviously aimed at those who value marketing claims over audio quality.

— T. Byrl Baker

Every year, companies come out with slick-looking devices that seem more interested in feeding our Joneses for form than our need for function. Had it not been for our previous experience with Monsoon's products, though, unpacking their latest offering, the MM-2000 Flat Panel Surround System, would've preceded a sigh and a breathy "here we go again." The thing is, though, these speakers strike that oft attempted — yet rarely achieved — balance between form and function. In other words, these speakers sound as good as they look. The kit ships with a solid 100-watt subwoofer, four 60-watt satellites, and a well-designed remote unit that boosts volume, fader, and bass controls, as well as a mute button and a headphone jack. We decided to put the MM-2000s through their paces with our standard suite of...uh..."tests." We played OBLIVE III: TEAM ARENA, UNREAL TOURNAMENT, and HALF-LIFE, and the MM-2000s handled everything from loud explosions in all three games to the low crunching sounds of stepping on HALF-LIFE's extraterrestrial insects.

Sticking with our theme of giving speakers everything we’ve got, I spent several hours — deadlines be damned — watching a collection of DVDs including Saving Private Ryan, Fight Club, and The Matrix. The MM-2000s performed as expected and delivered performance that's hard to knock. The subwoofer boasts two passive radiators that serve to give the system unrivaled low-end performance which makes Saving Private Ryan's opening scene all the more disturbing.

Coming in at just under $300 the MM-2000s are easy to like; they look good, sound excellent, and are manufactured by a reputable company. If only they came with stands for the rear speakers. —William O'Neal
BRUTAL UNARMED COMBAT

- An intense action thriller comes to life with exciting Anime style characters and storyline.
- Revolutionary gameplay blend of hand to hand and weapons combat.
- Easy to learn fighting system with cool, lifelike and realistic moves.
- Arsenal of weapons includes pistols, rocket launchers, energy and projectile weapons.
- Available for PC and Mac.

oni.GODGAMES.COM
Under the Hood

The Hardware Odyssey

By Dave Salvator

Remember when the measure of who had the baddest Kung Fu was how much of your 640k of base memory you could free up? How about running DOOM's then-revolutionary 2.5D engine at the amazing resolution of 320x240? In keeping with this month's 200th issue theme, I thought I'd take a look at how far we've come in the last 20 years. Appreciation of the road traveled not only puts where we've been in perspective, but reminds us that current hardware and game engine technology—ispressive as it is—is just another stop along the way, especially given what's on the horizon with DirectX 8's programmable 3D pipeline.

So here's a brief look back at some of the most significant hardware advances that have changed our gaming lives.

Intel 80386 CPU

Introduced in 1985, the 386 chip was the first multi-tasking processor, meaning that it could run more than one program at once. Its 32-bit architecture also allowed developers to move more data through the CPU, and paved the way for DOS Protect Mode Interface (DPMI), giving game developers access to extended memory using a flat memory model. DPMI-based games included DUKE NUKEM 3D, DESCENT, and WARCRAFT 2, among others.

Ad Lib Sound Card/SoundCanvas

The original PC had a speaker, but it lacked an audio processor and so was limited to "squeak, honk, and fart" audio. But along came a little game called WING COMMANDER that suddenly made it loud and clear that game audio didn't have to squeak, honk, and well, you know.

WING COMMANDER's soundtrack also showed the power of a good General MIDI synthesizer, and the Roland SoundCanvas suddenly found a home in gamers' systems. Special mention should go to the Sound Blaster sound card for creating an industry-wide PC audio standard, and to John Miles and company for creating the much-needed development tools.

Rendition V1000/3dfx Voodoo

Although VESA and the UniVBE driver helped bring gaming graphics a good ways along, it was the arrival of two 3D graphics accelerator chips—Rendition's V1000 and 3dfx's Voodoo—that sparked an irrevocable revolution in PC games. These chips and their proprietary APIs—3dfx's Glide and Rendition's Speedy3D—made games like Pappy's NASCAR and most notably id's QUAKE leap off the screen, and today, games of every stripe have blasted into the third dimension. The early versions of DirectX were shaky, and these companies' APIs were key to making 3D games happen.

Windows 9x/DirectX

Windows 3.1 was an abysmal place to try and run a game, which explains why that era's best games were written in DOS/DPMI. Windows 95 was Microsoft's first step into a 32-bit OS, though its need for backward compatibility meant that it couldn't be a pure 32-bit OS like its big brother, Windows NT. Windows 9x then met up with Alex St. John's brain-child, DirectX, whose ambition was for a game to run on all hardware, and for a piece of hardware to be able to run all games. Oh, there were some acute growing pains along the way, like DirectX occasionally hanging Windows—forcing a tedious OS install. But DirectX has steadily improved, as has the hardware it runs on and the games that run on it.

Aureal Vortex

Creative Labs built an empire in the 1990s, having out- dueled nearly every competitor in its market. And like any good empire, complacency set in, and the giant nodded off to sleep. The rude awakening came from an upstart startup called Aureal, whose Vortex chip brought sound into the third dimension and onto the PCI bus. 3D positional audio was the jump-start PC audio needed, and games like JEDI KNIGHT, THIEF, and UNREAL TOURNAMENT showed this technology's mettle. And, two-channel positional audio paved the way for 4.1 and now 5.1 gaming audio. Sadly, Aureal has since closed its doors, and its patent portfolio was auctioned off to—guess who—Creative Labs. DirectSound3D and Creative's own EAX extensions to that API have become the standard development tools now, but who knows what Creative has in store for this technology.

AGP

At the dawn of the 3D Era, there were signs that 3D graphics' voracious bandwidth would soon outstrip PCTs paltry 133Mfps. Not only did 3D need a bigger pipe for itself, but this bus-hog needed to make way for newer PCI sound cards, network cards, and modems. AGP doubled PCI's peak data-rate and provided new features like AGP pixel texture mapping. AGP texture mapping allows a 3D processor to directly access a piece of system memory, as though it were "additional" video memory. AGP's today stands at 4X, with a peak data-rate of 1.1GB/sec. AGP 8X, due out later this year, will double that.

What technology do you think has made the biggest impact on gaming? Let us know at cgw_hardware@ziffdavis.com.
Oni shines like no other action game on the market." - CGW
"A no-nonsense mix of hand-to-hand combat and double-barreled gunplay." - CNet GameCenter

A dark future... an uncertain past... no one left to trust.

Van de Graf

Mercury Bow

Plasma Rifle

Furious Gunplay

- An intense action thriller comes to life with exciting Anime style characters and storyline.
- Revolutionary gameplay blend of hand to hand and weapons combat.
- Easy to learn fighting system with cool, lifelike and realistic moves.
- Arsenal of weapons includes pistols, rocket launchers, energy and projectile weapons.
- Available for PC and Mac.

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Rocky Mountain High

I live a number of miles from Colorado Springs, and my choices for Internet access are rather limited. While cable and DSL will probably not be an option for a year or more, I have discovered that I can use Sprint's broadband direct. This method is similar to satellite, but it is both upload and download and via an antenna on top of the local mountain range. I am looking primarily for faster access for gaming. I've read that satellite Internet doesn't work well for gaming due to the difference in download and upload speeds. The Sprint webpage advertises typical download speeds of 512Kbps to 1.5Mbps and upload speeds of 256Kbps. Do you think this service will work well for gaming?

I've heard good things about this new type of wireless broadband in terms of its online gaming performance, and you're absolutely right about DirectPC/DirectDial being a bad fit for online gaming. Its data rate is advertised at around 400Kbps, but its latency is unacceptably high for gaming. The newer "cellular-like" wireless broadband supposedly has much lower latency, but talk to a rep at Sprint and explain, using words no more than one syllable, that low latency is really important, and that your ping time to your first hop should be under 30ms. Also mention that you'd like to be able to see game servers with ping times under 100ms. Be careful of the answer because he or she may a) not really understand the question (hence the necessity for nonsensical words) or b) just tell you what you want to hear for the sake of hocking another customer. I'd suggest surfing www.dsireports.com as well as the comp.dcom.xdsl newsgroup to see if other users have reported good or bad news about Sprint's online gaming performance. Another way to search the Usenet is to go to www.deja.com and search for "wireless broadband."

What's the Word? Thunderbird

I'm a little confused. What is the difference between AMD's Athlon Slot A and Socket A chips? What does this difference mean (if any) to computing performance? I ask mainly because of January's "Killer Rigs" article. For both machines an AMD Athlon is listed. The motherboard is an ASUS A7V. As I understand it, this motherboard is for socket-A chips, though I often hear the socket-A chips referred to as "Thunderbird." What's the difference?

There is still some confusion surrounding the current AMD products, but that should go away soon enough as AMD sunsets its Slot A offerings. AMD's Thunderbird CPUs are still marketed as Athlon, and these are the newer CPUs, whose clock is at least 800MHz that go into Slot A. These chips also have 256KB of on-chip Level 2 cache. The Thunderbird Athlon is the CPU you're going to want, and the A7V is both Thunderbird- and Duron-ready, since both chips use the Socket A interface. In terms of performance, having the L2 cache on-chip does help somewhat, and although the gains seen by having it aren't huge, every little bit helps. What's better about on-chip L2 cache is that it runs at the same core clock rate as the CPU, whereas external L2 caches have to be run half, or even a third of the CPU's core clock. The A7V is pretty much the best KT-133-based Athlon motherboard going, which is why we recommend it in both of our Killer Rigs.

Teen Trouble

I have a pretty much extinct system, a Pentium-III 500MHz, 64MB of SDRAM, an ATI Rage 128 16MB. I'd like to get a new 3D card but my dad (I'm 14) won't let me get a new one unless I save up my money. But if I do save up and get one, what kind of 3D card should I buy for my setup? By the way you've got a great magazine, despite what PC Accelerator used to say about your magazine.

Well, I wouldn't say your system is extinct, but let's just say it's probably on the endangered species list. And as far as PC Accelerator, we're still here and they're not. Nuff said. To breathe a little more life into that rig, I'd look at a 3D card that uses nVidia's GeForce 2 MX chipset, like the Hercules 3D Prophet II MX, which retails for about $120. This 32MB board will pace a GeForce 2-based card on almost everything except 32-bit color and high resolution, but if you game at 1024x768x16, you'll be fine. If after making this upgrade you're finding your performance is still kind of pokey, consider another 64MB of system memory. If your motherboard has DIMM sockets, you can get a 64MB DIMM of PC133 SDRAM, and it should work with your motherboard, but check your motherboard to make sure it uses DIMM sockets. At press time, 64MB of PC133 SDRAM was going for about $30 to $35.
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Experience The Next Generation of Award-Winning Voice Control

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Put the power of speaker independent voice control to work immediately without tedious voice training.

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Assign your own sounds and recorded speech to hear your commands being acknowledged and enhance the gaming experience.

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Common commands are available across all Windows applications.

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The right commands are always ready as soon as you need them. No need to fuss with files while you work and play. Or lock one in place and use it everywhere.

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The Game Commander Studio gives you full access to all your commands and supports cut, copy and paste operations to make editing a snap.

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Just type in what you want to say and you're ready.

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Unleash up to 256 keystrokes per voice command.

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Just press the key as you would in the game. Many special Windows keys and combinations are also supported.

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Configurable delay, key up, and key down actions, and step sequencing add more control capabilities than ever before.

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A push-to-talk to switch between Game Commander and popular voice chat programs (Windows 95, 98 & Me only). Or use push-to-talk alone and enable command recognition.

Available voice training
For special cases, strong accents or non-English commands, voice training takes only three utterances.

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Red Alert 2

Ahh, the Chronosphere, previously the least useful RED ALERT superweapon, now perhaps the most useful superweapon. No longer does it transport friendly units only! No longer does it kill infantry in APCs! No longer does it take forever to charge up! These three attributes make the Chronosphere a deadly offensive, defensive, and harassment tool.

Offensive Uses
1. Chronoshifting things where they shouldn’t be Does your enemy have a small lake near his or her base that’s inaccessible to your navy? Perhaps a small plateau with no access ramp? Chronoshift a nice long-range weapon there (with some anti-air backup, preferably) and watch your enemy’s base crumble as you pound it from where he or she least expected it.
2. Chronoshifting Engineers Fill some transports (either hovercraft or helicopter) or IFVs with Engineers. Chronoshift inside the enemy base. Take over and sell his or her buildings. Wash, rinse, repeat.
3. Chronoshifting Tanyas See above. Replace “Take over and sell buildings” with “Blow the 1%!&$?! out of them!”
4. Chronoshifting diversions Use the Chronosphere to place a detachment of armor off to a flank, and attack with it to create a diversion for your main force.

Defensive Uses
1. Chronoshifting things where they shouldn’t be (again) Enemy long-range cruisers cramming your style? Got a detachment of Iron-Curtained Apocalypses running amok in your base? Chronoshift the suckers where they shouldn’t be. In the case of Dreadnoughts or Carriers, chronoshift them onto land, where they’ll immediately blow up. In the case of tanks, chronoshift them into the sea where they’ll immediately sink. If you’ve got problems from both land and sea, chronoshift the ships on top of the tanks. In the case of exposed infantry, just chronoshift the poor suckers anywhere and they’ll die.
2. Chrono-messing-up best-laid plans If your opponent starts amassing really expensive units somewhere in the map, chances are they’re all bunched up. Why not chronoshift a few of them into a deathtrap? Either set up a shooting gallery for your units and defensive structures, or chronoshift the units where the sun don’t shine (underwater).

Harassment Purposes
1. Chrono-harvester-killing Locate your foe’s harvester. Chronoshift it somewhere bad. Repeat every five minutes until opponent goes insane.
2. Chrono-bye-bye-MCV-ing See MCV. See MCV leave to set up new base. Go, MCV, go. See MCV get chronoshifted into the lake. Sink, MCV, sink.

Counters
Most of these tactics can be countered simply by paying attention. You can move things out of the Chronosphere target area before the chronoshift starts, and if your opponent hasn’t bookmarked the place he or she wants to chronoshift your guys or if it isn’t right next door, then you have a chance to escape. Also, make liberal use of the “X” key, which scatters your units. Try not to rally your production buildings to places where the units will bunch up and make an easy chrono-kill. Most of all, keep a watch on your opponent. Remember that the Chronosphere opens up a minute before it can launch. Be alert for this and be ready for a chronoshift.

Be sure to guard all entrances to your base, even just with token units or structures (like walls), and sprinkle anti-infantry units or turrets around your base to prevent Engineer/Tanya chronoshifts.

Or, of course, you could simply prevent your opponent from ever having the time, money, space, or power to build a Chronosphere in the first place. —Tim Gokcen

For writing quite a nice guide on the Chronosphere for RED ALERT 2, we're giving Tim copies of DOGS OF WAR, EVOLVA, and AMAZONS & ALIENS. Enjoy!
**Hitman: Code 47**

Open up your Hitman.ini file, located in your hitman directory. Add the line "enableconsole 1" to the file. When you're playing a mission, simply hit the ~ key. Type any of these codes for the desired effect:

<table>
<thead>
<tr>
<th>Code</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>god</td>
<td>God mode</td>
</tr>
<tr>
<td>giveall</td>
<td>All weapons with max ammo</td>
</tr>
<tr>
<td>infinite</td>
<td>Unlimited ammo</td>
</tr>
<tr>
<td>invisible</td>
<td>Invisibility</td>
</tr>
</tbody>
</table>

**No One Lives Forever**

During the game, press "T" and then enter the following codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>mpimyurffather</td>
<td>God mode</td>
</tr>
<tr>
<td>mpwogoddeathstar</td>
<td>Infinite ammo</td>
</tr>
<tr>
<td>mpgkingofthemons</td>
<td>All items/weapons &amp; unlimited ammo</td>
</tr>
<tr>
<td>mpmaphole</td>
<td>Complete mission</td>
</tr>
<tr>
<td>mpdrdntz</td>
<td>Full health</td>
</tr>
<tr>
<td>mpwonderbra</td>
<td>Full armor</td>
</tr>
<tr>
<td>myouneekkloginan</td>
<td>Add all armor options</td>
</tr>
<tr>
<td>mpgoattech</td>
<td>All weapon upgrades</td>
</tr>
<tr>
<td>mpasscam</td>
<td>3rd-person view</td>
</tr>
<tr>
<td>mpnechau or mpraceboy</td>
<td>Spasm snowtruck</td>
</tr>
</tbody>
</table>

**American McGee's Alice**

Turn on Console Mode in the Options menu of the game. While you're playing, bring up the console and type any of the following codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>god</td>
<td>God mode</td>
</tr>
<tr>
<td>health #</td>
<td>Set health to # (100=Full)</td>
</tr>
<tr>
<td>wugh</td>
<td>All weapons</td>
</tr>
<tr>
<td>notarget</td>
<td>Invisible</td>
</tr>
<tr>
<td>noclip</td>
<td>No clipping mode give all</td>
</tr>
<tr>
<td>all</td>
<td>All weapons and ammo</td>
</tr>
</tbody>
</table>

very valuable. In MECHWARRIOR 4, heat considerations have been reduced to the point that there isn't even a function for the chaining of weapons (firing the weapons in a group in succession rather than simultaneously) to reduce heat buildup. Despite this, there is one way in which heat can become a problem very quickly. The Flamer is an excellent weapon because no matter how well cooled your Mech is, a couple hits from a Flamer can send heat levels into the critical zone very quickly. Some newer MECHWARRIOR 4 players might not even be used to having to deal with heat management and can be quite vulnerable in a situation where they suddenly can't fire their weapons at will.

One effective tactic is to mount the Flamer on a fast Mech like the Osiris and use it to hunt large Mechs. In a fast Mech, you can sometimes get behind an enemy and, in a Mechlike version of the aerial-combat scissors maneuver, remain there by simply turning with it whenever it goes, try and escape you. Since your turning radius will be better, you can simply follow it.

In multiplayer, a couple of fast Mechs with flamers can wreak havoc on a team of heavies when they coordinate with some longer-ranged backup. Using their mobility to close and avoid damage, the Flamer Mechs can hit up the heavies and set them up for the kill by the big guns in the rear. Just don't get picked off on the way in. Make sure you have jump jets for a fast escape.
Civilization: Call To Power II

Under most forms of government, your empire can withstand brutal oppression. On the Empire Manager screen, reduce Rations to the minimum, increase Production to the maximum, and reduce Wages to the minimum. This will lower your base happiness, but the increase in growth, production, and income will easily offset the cost of the Happiness structures you'll have to build in your cities. The minimal food, long work hours, and low pay might cause some cities to riot, particularly newer cities without shrines, theaters, or arenas. In these cases, an entertainer or two from the Specialists tab on the City Manager screen will keep them in line.

The mini-map screen is nearly impossible to read with the Show Terrain Detail activated.

Click this off and select Show Borders to get your bearings. If you Hide Cities and Show Units, the mini-map can be a useful early warning indicator of incoming armies without your having to scroll around the main screen looking for them.

You'll note that lowering your Military State from War to Peace doesn't look like it will save a lot of production (you can click on the Military Upkeep tab to toggle between a percentage of your production and the actual amount), but the amount it saves each turn does add up. Scaling down to Peace levels makes a significant difference when you can afford it.

Organize your units into armies with distinct functions, and name them accordingly.

This makes it much easier to keep track of all your units on the Unit Manager screen. You can click on the Army heading to organize all your units by armies and see who's doing what and where they're doing it.
Sacrifice

Dave Perry kicked our ass in SACRIFICE, and he did it right at the beginning of a game. We asked him to teach us how to do that. Here's his response:

Run for the nearest fountain, casting four mana hoars on the way there. Then speed yourself up and zip around collecting souls. During travel, keep making flying creatures; they'll keep up with you as you're zipping around.

Use the mini-map to help steer the fastest course from soul to soul. Think of it as a land grab: Get out fast, get everything, then teleport everyone back to your altar and gently build up a big force (to make sure all your creatures make it back after a teleport, issue a retreat command).

When you have all your creatures around you, set the mana hoars to group 8, and tell them to guard you in semicircle formation. Set your flying creatures to group 1 and tell them to guard you in line formation. Set your long-range creatures to group 2 and tell them to guard you in semicircle formation. Set your melee creatures to group 3 and tell them to guard you in wedge formation. Now when you face your enemy, the mana hoars and long-range creatures will stay out of harm's way, the spell you've got. This usually will take it out, leaving its creatures at your mercy. Kill them and quickly convert their souls before it gets back.

Remember the best place to fight a battle is with your back to a manalith you own. Tauten the enemy and pull it to where you want the showdown to happen. Bind the spacebar to your basic attack spell so that during a battle, if you see a Sac Doctor carrying off one of your valuable souls, you can intercept it by just hitting the spacebar and clicking on it.

Space Empires IV

As your empire expands, you'll find that ship maintenance becomes a larger and larger percentage of your budget. Ships are expensive to begin with, and as you expand in various directions, the more ships and structures you need for defensive purposes. One way to deal with this is to construct defensive fleets and bases, place them in strategic positions inside your empire, then mothball them. Mothballing will conserve your resources, because mothballed units require no maintenance. But because they're already built, they can become operational immediately and respond to enemy incursions in less time than it takes to build a fleet from scratch.

Mothballed fleets shouldn't be used at the edge of your empire, though, because mothballed units are defenseless. Without any crew or weapons, they'll be easy targets for attackers. Place them behind an early-warning screen and monitor them regularly. Make sure they're out of range of any first-turn sneak attack, or you'll be facing your own Pearl Harbor. Also, make sure not to spend all of the resources you've saved by mothballing your fleets on something else. Mothballed units don't do you any good if you don't have the resources to un-mothball them. In such a case, they're simply sitting ducks.

A good network of mothballed ships and bases can serve as a cheap but effective standing defense force. Just be certain to monitor the tech levels in the game and make sure you're not relying on fleets or bases that have become obsolete. A mothballed defense system can turn out to be a paper tiger if you leave it too long without upgrades. If you're committed to a mothball strategy, periodically pull the obsolete units from your navy. You don't want to find that the fleet you've just revived isn't much more effective now than it was when it was in mothballs.

Escape From Monkey Island

The final battle with LeChuck seems tricky at first. Since both of you regenerate, you two will never be able to inflict enough damage on each other to make for a decisive victory. Remember, back in Monkey Kombat training, what the monkeys tended to do whenever you ended a round in a draw? (Both of you end up in the same fighting stance.) Three draws will result in head-smacking monkey mayhem.
The X-Factor

While you were walking past the sim section of your local computer store during the holiday season, you may have seen a shiny new box on the shelf emblazoned with an X-PLANE logo. X-PLANE (www.x-plane.com) is a civilian flight sim without equal, and the only thing that kept it out of the hands of the majority of sim fans for so long was its formerly high price: nearly $200.

After spending several weeks with the product, I can honestly say it is worth that much, and at its current price of $40 to $75, it's a steal. Where else can you find a flight model that handles everything from scale-model remote-control aircraft to the Space Shuttle with equal fidelity? It took Microsoft years to give FLIGHT SIMULATOR's engine the capability to handle supersonic planes and rotocraft. Those are old hat to X-PLANE, which also models jump jets like the Harrier and tilt-rotor planes like the V-22 Osprey better than any simulation I've ever tested.

Other flight sims give players a paltry number of planes to fly, and even though the FLIGHT SIMULATOR series is open-ended so new planes can be added, it doesn't come close to matching X-PLANE's expandability. The current version comes with more than 40 planes and helicopters that all have distinct flight characteristics. If the aircraft you want isn't included, you can fire up the included Plane Maker software to modify one of the existing planes or concoct your own design. It's a little difficult to use, but only because it is so capable. It's accurate enough, in fact, to have been used as the primary design tool for the real-world Wing Company Atlantica aircraft scheduled to fly this summer. (You can learn more about the Atlantica project at www.wingco.com.)

The amazing thing is that the flight characteristics are based solely on a plane's shape, weight, and power plant. There's no trickery or fudging involved, just accurate math. The game even comes with a Martian environment that does an incredible job of showing how much Earth's atmosphere and gravity differ from that of our celestial next-door neighbor.

So why am I talking about this game in the Homebrew column? Because one extremely bright guy—Austin Meyer—is pretty much responsible for the whole thing. He's been selling the "game" online for years now and putting out new point releases about once a month, and the fact that X-PLANE is now available on store shelves is a testament to both his hard work and X-PLANE's burgeoning popularity. It's simply incredible that a few passionate designers, backed by a legion of fans, can create a product that competes with the stuff coming from big guns like Microsoft and Terminal Reality. If you like to fly, don't miss it.

Favorite Gaming Moments: COMBAT MISSION

Gaming has been my No. 1 priority ever since I got my first Fairchild Channel F system, so trying to pick a single greatest moment is frustrating at best. Sacking Panama with a skeleton crew and retiring as a King's Advisor in PIRATES? Finally knocking the title character on his ass after weeks of failed attempts in MIKE TYSON'S PUNCH-OUT? Winning my first DOOM deathmatch? Experiencing that first session of TETRIS that lasted so long I could still see pieces falling when I closed my eyes?

Those are some powerful memories, but all my years of playing hundreds of games on dozens of platforms didn't prepare me for the impact Big Time Software's COMBAT MISSION has had on my free time. It's the Big One — the game I've been waiting to play for as long as I can remember. It's far from flawless, but no title has done a better job of meshing with my interests and consistently exceeding my expectations.

Throughout more than 100 missions, I've yet to experience one that hasn't surprised me in some way, delivering a new "greatest moment" each time I play. Best of all, with a design team so committed to both improving the product and keeping it open so others can make it better, I imagine this game will continue to deliver the same level of entertainment for years to come.
Days of Future Past

RPGs ARE BETTER THAN EVER, BUT THOSE OLD-SCHOOL GAMES ROCKED, TOO

Seventeen years ago I booked baby Christmas trees that I had stealthily uprooted in a nocturnal excursion to a neighboring forest. The motivation for my clever caper was to scrounge up enough greenbacks to procure a shiny new Commodore 64 so I could play a Sierra On-line game that enthralled me: ULTIMA II: REVENGE OF THE ENCHANTRESS. Weeks later, I used the ring donated by Father Antos to pass unharmed through Minax’s deadly energy barriers and invaded her stronghold, slashing at her teleporting form while evading her fearsome Balrog guards. The moment she was finally dispatched remains one of my favorite gaming experiences, and was worth each and every painful evergreen needle.

It seems appropriate to use CGW’s 200th issue to pay tribute to some of the RPGs that have graced computer screens over the past two decades. Current RPGs look and sound better than older classics, and they’re accessible to a broader range of gamers. But even when the available technology was relatively limited, talented developers found a way to construct worlds and adventures at least as interesting as any found in contemporary games.

In Praise of the Old School

The 64 kilobytes of memory and rudimentary video processors on the hard drive-less C-64 obviously were not as capable of pumping out the same caliber of visuals and tunes as current 256MB, Dolby Digital, and Geforec2-equipped demon machines. Yet when they were initially unveiled, the graphics and music offered by older RPGs were just as impressive as those featured in today’s masterpieces.

The towering frost giants in ICEWIND DALE and the 3D landscapes of ULTIMA IX’s Britannia look remarkable, but so did the gigantic dragon in DUNGEON MASTER and the first-person perspective of the original WIZARDRY game when we saw them for the first time.

Scampering through the exotic locales of 1999’s PLANESCAPE TORMENT was no more enjoyable than wandering through the colorful towns in 1988’s LEGACY OF THE ANCESTORS. Slowly, especially since the buildings in the latter game had those cool disappearing roofs. As haunting as the sound effects were in SYSTEM SHOCK 2, the simple “twanging” of arrows being unleashed in POOL OF RADIANCE was just as entertaining. The simple medieval chimes of ULTIMA III were as effective as the elaborate combat ballads of BALDUR’S GATE. It’s always been rewarding to be able to boot up a computer RPG to hear and see fantasy worlds that pen-and-paper gamers can depict only in their imaginations.

Older RPGs could be incredibly difficult, especially since there were fewer resources for stumped gamers to turn to for assistance. Back then, you either relied on snail-mail hint-zines like QUESTBUSTERS or on sage tips from CGW’s own Scorpio, as you could not get virtually instant answers online. Current gamers may brag about surviving the complex battles in BALDUR’S GATE II, but those melees are kindergarten romps compared to the deathtraps routinely stocked in older RPGs like WIZARD’S CROWN and MIGHT AND MAGIC I. Older games usually gave players only one saved game slot, so it was risky to rely on the save/reload strategy so frequently used today. It was a meaningful accomplishment to complete some of those classic games.

Some fans of action/RPG hybrids may believe that those sorts of games didn’t really exist prior to DIABLO. As anyone who was ever stalked by the incredibly swift vampires that patrolled GATEWAY TO APSHAI will recall, action/RPG hybrids have been around for a long time. Even though an increased emphasis on action shouldn’t necessarily make combat less tactical (as BALDUR’S GATE effectively demonstrated), some veteran fans of the genre are dismayed by the more action-oriented focus of most current RPGs. While there’s no reason current RPGs can’t include detailed tactical combat, older games such as ETERNAL DAGGER and the gold box D&D games made its inclusion seem routine.

A Better Tomorrow

In many ways, developers haven’t yet exploited the potential of today’s more powerful hardware. Each non-player character in ULTIMA V had a unique daily schedule and an individually decorated home, stocked full of interactive items. Inexplicably, few games released since ULTIMA VII have featured gaming worlds with environments as interactive, or inhabited by NPCs as sophisticated. Similarly, while recent games like FALLOUT offer tremendous non-linearity and character variations, no game has featured as ambitious a design as ULTIMA IV’s quest to develop a more ethical age.

A few years ago, the offerings were so sparse that it was easy to conclude that RPGs would never be as good as they once were. But the genre has since impressively rebounded, and its future remains promising; future games should improve on every aspect of their predecessors. But we owe a lot of fond memories to the RPG developers who toiled with less sophisticated tools, yet crafted games every bit as good—and in some ways superior—to those currently available. Thanks for all the great memories.
Massively Multiplayer Memories

T. LIAM MCOOLGUY TALKS ABOUT PONG AND DOOM

A

pparently I misunderstood Poobah Jeff Green's assignment for this landmark issue and wound up writing about the wrong "first experience." So, sadly, my wishful tale of Juanita the Donkey Lady and her Tijuana Trio (shows every half hour) will have to wait for my memoirs.

It's mighty sad to have to admit this, particularly since it makes me feel so damn old, but my very first electronic gaming experience was... PONG. When it was new. Even back then, in the neon mists of the 1970s, it was a fabulous multiplayer experience. Two men. Two knobs. Two dashes. And a dot. It is gaming distilled to its very essence. Take away all their fancy-shmancy graphics, sound, story, characters, dialogue, puzzles, combat, magic, physics, and controls and every game is really PONG. And just when you think the PONG formula is out of date, along comes a title like VIRTUAL TENNIS. VT IS PONG, and is so stupendously entertaining it reminds you that the classics never die, they just get more polygons.

Of course, we don't remain young and innocent forever. Atari and Colecovision and Commodore gave way to my first PC, an 8086, and that's when I really started gaming. For all you young'uns who think that outdated gaming means something that runs on a Monster II card, let me introduce you to the friendlier text parser.

That's right: When we were young, we had to play games without any graphics. My first was LEATHER GODDESS OF PHOBOS, followed by HITCHHIKER'S GUIDE TO THE GALAXY and all the rest. They told decent stories, were usually pretty well written, and they challenged you to think and use objects in an absurdly illogical fashion. This may well be why I had to take algebra twice. I also remember some of them being full of dead-ends that required you to start over if you used an object up at the wrong time. That trend carried over well in the CGA era, and it always puts a pin in my nostalgia balloon. Come to think of it, those early games kind of sucked. I wish someone from Infocom was here right now so I could smack him with a Babelfish.

Text parsers may not have been cool, but DOOM was. It's easy to forget just how amazing this thing looked, sounded, and played at the time. We're no longer innocent in the ways of the FPS, but when DOOM hit, it became my first real computer multiplayer experience. I had made some forays into the dark and sordid world of multi-user dungeons (MUDs), but that was an exercise in tedium to rank, perhaps, with a 7TH HEAVEN marathon. Transplanting RPG gameplay (which had the sole redeeming factors of human interaction and mass quantities of beer and Doritos) to a text-only online version populated by postal workers and 28-year-old college students was just not a good idea. Strangely, many of them still exist, and no doubt Schwongnar the Clynidian is still there with his +18 Mace of Dread.

DOOM, however, made multiplayer real. Forget about it jump-starting the first-person genre. Others, such as ULTIMA UNDERWORLD, did first-person much better. What DOOM gave us was nothing less than the future of gaming. Along with Kali, the software that essentially turned the Internet into a giant LAN, it laid the groundwork for all that was to follow in terms of multiplayer support. If PC gaming is to survive, it will do so because of the Internet. DOOM's contribution to multiplayer gaming was so crucial that it almost makes up for BODY COUNT. Almost.

Star Wars Galaxies

But I want to be Jar Jar

J

ust in case you haven't gotten your fill of mediocre Star Wars single-player games, LucasArts and Verant/Sony have embarked on a plan to take the SW world massively-multiplayer. This will allow many more people to experience gaming joy such as that found in JEDI POWER BATTLES, FORCE COMMANDER, and REBELLION. The first installment of STAR WARS GALAXIES is planned to launch in 2002 (read: 2003). Imagined as a massive RPG along the lines of EVERQUEST, it will allow you shape a character – Jedi, Wookie, Stormtrooper – through a skill-based system. The engine will be fully 3D, drawing on EVERQUEST technology and moving into new turf. Not much else is available in the way of info yet, but you can keep an eye on the game's long, inevitably slow progress at www.starwarsgalaxies.com.
NEVER ASK AN INDECISIVE PERSON TO PICK A DEFINITIVE "FIVE BEST GAMES" LIST. JEFF GREEN BLITHELY IGNORED THAT ADVICE WHEN HE TOLD ME TO PICK THE FIVE BEST ACTION GAMES EVER; I MEAN, I HAVE A HARD TIME SELECTING WHAT TO EAT AT MCDONALD'S. SO AFTER HOURS OF DRINKING, PONTIFICATION, MORE DRINKING, AND THEN SOME HEARTY DEBATE WITH MY NON-GAMING HOUSEMATES AND PLANTS (HEY, I WAS DESPERATE FOR AN AUDIENCE), I FINALLY NARROWED IT DOWN. HERE IT IS, SCOOTER'S OFFICIAL LIST OF THE FIVE BEST ACTION GAMES IN PC GAMING. PLEASE SEND ALL HATE MAIL TO jeff_green@ziffdavis.com.

WING COMMANDER II: VENGEANCE OF THE KILRATHI
A high-concept, summer-blockbuster space opera—that’s the best way to describe Chris Roberts’ magnum opus. There are those who feel that either the third or fourth WING COMMANDER games were the best that Roberts put out, but they’re just plain wrong. WCII did what modern action games are trying to do: It fused narrative and action together into a tight package. It gave you a compelling reason to fly forth and tear those Kilrathi ships in battle. It made you care about its various characters, and then taunted you by killing them off. It also tapped into the inner Star Wars geek within, by providing one of the first opportunities to flitter around in space and blow things up. Hopefully, Chris Roberts will find a way to use current technology to replicate the experience, and not try to make any more movies.

CRUSADER: NO REMORSE
Possibly the only game in which you can paint the walls with the blood of your enemies. While other action games were busy trying to out-Doom DOOM, CRUSADER brought us back to our roots. It demonstrated that you can still make a great action game, even if you were viewing your Crusader from a lofty, isometric perspective. It had some of the most memorable weapon effects in gaming. Not content with making your half-wit targets slump down? You could energize them into dust, tear through them with really big bullets, or light them on fire—all to appease your inner sadist. Though, what really puts this on my list are the destructible environments. If you saw it, chances are you could blow it up. It was extremely gratifying to exercise my flashes of proletarian rage by loading up the level that takes place in an office, and then shooting all the cubicles down.

PRINCE OF PERSIA
There’s been no greater swashbuckling game since this one (well, besides its sequel, but not the more recent 3D edition). PRINCE OF PERSIA had it all: running, jumping, dodging nasty traps involving blades and other pointy things, and swordfights with all sorts of surly fellows. I could probably talk about how it also pioneered the way character sprites are animated. But that would take precious words away from reminiscing, further, about how much I liked to make the little prince jump around, cling to ledges, and generally one-up Lara Croft while she was still an idle, er, "daydream" in some designer’s mind. After all these years, this is still the best platform-style game the PC has ever seen.

DOOM II: HELL ON EARTH
Yes, most people would credit DOOM, or even WOLFENSTEIN 3D first, but here was the pinnacle. After debuting the engine in the previous game, this one went all-out in terms of enemy and level design. Remember the level with the eight doors, each beckoning you to open it and see what the heck the designer had in store for you? Or watching your hard, demoralizing work become undone, thanks to that ever-so-annoying Archive? Or the appropriately absurd final boss, which turned out to be John Romero’s head on a stake? In place of narrative, id simply had you litter the walls with gunshots, enemy corpses, and mayhem. This one is the epitome of the simple—yet elegant—all-action shooter.

HALF-LIFE
I briefly entertained the notion of leaving HALF-LIFE off the list for kicks, but then I realized that I’d be flooded, nay, engulfed in angry or confused email. What could I say at this point? It just got inducted into the Hall Of Fame last issue, so there’s already been a “why this game rocks” kind of write-up for it. Well, while cleaning my house recently, I did find an ancient tech demo (dated 1997) that featured skinnier, older Barney, and a gigantic dancing robot. Too bad that robot didn’t make the cut for the final game.
All About Me
WHEREIN CGW'S STRATEGY EDITOR WASTES AN ENTIRE PAGE TALKING ABOUT HIMSELF

As we've solicited readers for their favorite games and gaming moments over the past few months, I've grown aware of something: The best games become as much a part of the player as any other cultural experience. As vividly as I recall reading One Hundred Years of Solitude for the first time, as clearly as I remember the rundown 30's era movie theater where I first saw Star Wars, I remember games and how a few special ones totally consumed me.

Two hundred issues of CGW and 20 some years of computer gaming will make you reflect on your personal gaming history. These are the three strategy games that instilled themselves most deeply into my life.

X-COM: UFO DEFENSE
A seemingly endless parade of great gaming moments, this Hall of Fame title is probably my favorite game ever. With an ingenious blend of grand global strategy, nuts-and-bolts squad combat, and an RPG-style element of character development, X-COM consumed me like no other game. And when Lil' Jimmy, my grenade-lobbing packhorse, died on Cyclonia while taking out the final alien, it was a bittersweet moment of triumph and tragedy that no game has ever matched.

THE SIMS
The Sims transcends simple play and becomes a subtle, insidious, and personalized commentary about the human condition and your own life. Spend a few hours with this game and you'll start to see every action of your day-to-day life through the filter of The Sims. This is arguably the most terrifying game ever invented—just create a Sim based on yourself and see how you feel when the poor bastard winds up weeping in a fetal position on the bathroom floor.

HOLLYWOOD MOGUL
The best fantasy game I ever played—running my own movie studio. It wasn't flashy, it didn't even have sound, and it definitely needed an Academy Award feature, but this remarkably detailed business sim let me finally prove to myself that I knew better than Hollywood. My fledgling studio slowly grew to profitability, producing a string of low-budget art releases that rode on the backs of a few yearly blockbusters. My biggest box office hits? The gripping docudrama CJ's Last Run, and the sex-and-violence loaded GunFits I, II, III, and IV.

Robert Coffey vs. The World
Who would have thought my words could inspire such vitriol? While I've grown accustomed to my reviews occasionally resulting in the "intense personal dislike" one game designer has confessed for me, I never expected this column to generate the malice displayed on an AGE OF WONDERS Web forum, of all places. The best part of the "Robert Coffey MUST Die" thread at Valley of Wonders is the almost superhuman amount of industry influence with which I am credited—I can't get my own kids to pay attention to me, yet supposedly I have the ear of every game company on the planet.

Look for "Robert Coffey MUST Die" under General AoW Discussion at www.strategyplanet.com/aoaw/board/ and join in the loving vilification!

Why Am I So Damn Smart?
Because I play games, that's why
What have I really gained from all this gaming? Am I in any way better for playing EARL WEAVER BASEBALL, every Gold Box D&D game, and HALF-LIFE? I answer with an unequivocal "Yes," if only because all the things I might never have learned were it not for games.

Thanks to countless shooters, I have a pretty good appreciation for the stopping power of a Desert Eagle handgun. I know more about the roles of specific player positions, thanks to the hours I burned playing TV SPORTS BASKETBALL, AGE OF EMPIRES taught me the usefulness of pike men in stopping cavalry charges; I grasp the peril andutility of an arms race due to BALANCE OF POWER; I understand newspaper editorials about civic growth better because of SIMCITY. And if our beloved Earth is ever menaced by hideous alien hordes from another dimension and every able-bodied citizen of this planet is pressed into service as a starfighter pilot, well, I'd like to think I'm ready to kill every last one of those godless tentacled bastards, thanks to X-WING, TIE FIGHTER, and WING COMMANDER I, II, and III.

In the end, I probably never needed to go to school—I just needed to play games.
Thanks for the Memories

SOME OF CGW'S FINEST REFLECT UPON THEIR FAVORITE SIM MOMENTS

I can honestly thank computer gaming for helping forge who I am today. Maxing the limit on my credit card while in college so I could buy my first computer—strictly to play games—ultimately changed my life. It led me to a new career, to the woman who eventually became my wife, and to covering games as a part-time journalist for CGW. For me, this 200th issue is about giving thanks.

As a way of saying thank you, I thought it'd be appropriate to expand the scope of this column beyond myself for once and give a few of those who've written about simulations for CGW in the past a chance to share some of their favorite moments on a computer. First up is Jeff Lackey, longtime freelance veteran and still occasional sim reviewer for CGW:

"When I started computer gaming more than 20 years ago, most games were arcade re-creations like SPACE INVADERS and PAC-MAN. SubLogic's FLIGHT SIMULATOR was a very austere program, with three crude dials on the bottom of the screen showing altitude, air speed, and direction. The rest of the screen displayed a world consisting of a 10x10 black-and-white grid, a line-drawn runway, and a flat square representing your hangar. Today we gripe that a flight sim is "unplayable" if the frame-rate at 1024x768 is less than 30 fps, yet I remember the first time I hit the 9 key to start down that simple black- and-white runway (at about 0.5 fps), the only terrain being a flat jiggly line on the right, representing a mountain range. The ground fell away, I held my breath, and I was flying. In my mind, that black and white featureless terrain was a world filled with people watching in awe as my Cassa slipped the surly bonds of Earth and danced in the clouds. I was hooked."

Next is a name that was the sim voice of CGW for quite some time, Tom "KC" Basham. Tom says he's likely done with gaming journalism, but he was willing to come out of retirement briefly for this column:

"My most memorable flight sim moment came flying a two-player, cooperative mission in FLIGHT OF THE INTRUDER. On that Saturday afternoon, my wingman, Sticker, and I were reliving the air war over Vietnam in his living room. We had just crossed "feet dry," and I was flying high cover while Sticker rolled in to attack a bridge. I saw this puff of white off Sticker's right 5 o'clock followed by a gray dot, clearly too small to be a MiG. Momentarily confused, I suddenly realized I'd just witnessed a SAM launch and the dot was a missile bearing down on Sticker's F-4. "SAM! Break Right!" I shouted. From my perch at 18,000 feet, I watched as Sticker broke into the missile and it sailed harmlessly past him. It was the first time I'd seen anything like that in a sim."

Finally, what would a 200th issue be without Denny Atkin? I owe a huge debt of gratitude to Denny for recommending I take over for him, and I know I speak for a lot of people when I say his sim observations are sorely missed. Here are his favorite gaming moments:

"THEIR FINEST HOUR: The first time I dove into a flight of Luftwaffe bombers to defend Britain, I really felt I was there. That first game of CIVILIZATION, which ended at 4:30 a.m. on a work night. Flying WW2 FIGHTERS with real-life ace Bud Anderson."

Actually winning three rounds of HALF-LIFE in a row on the CGW offices and listening to Salvador blame it on his mouse. Tagging along with a B-25 bomber squadron in WARBIRDS and using teamwork to rain destruction on the evil Reds. The best, though, was flying EF2000 and FIGHTER DUEL with three real-life Blue Angels in Pensacola. It was thrilling to listen to the fighter pilot banter, and to actually be winning for a few minutes. Lucky for me, we ran out of time just as they started to master the controls."

I'd also like to thank some others who've done their share of sim work for CGW: Robin Kim (we miss you man!), John Nolan, Doug Fick, Mike "Dawg" Weksler, Loyd Case, Dave Salvador, and my apologies to whomever else I'm forgetting.

And for my own gaming memories? Definitely the time when I first loaded up DOOM after having spent forever downloading it from a bulletin board on my 2400 baud modem. That bitmapped backdrop made my jaw drop. As for sims, my favorite memories were probably the very first kill I recorded in AIR WARRIOR (took me over a week to get it), and those first few months I spent on The Sierra Network playing multiplayer RED BARON—a magical time indeed. CGW."
PC Sports Past, Present, and Future

A SPORTING LOOK BACK

It's our 200th issue, but reflecting on the past, present, and future of PC sports games makes me sad in a way. It's no secret that the genre is in trouble. Well, maybe not in trouble, but definitely at a low point. So many great developers and franchises are gone, and so many publishers have decided to focus on the untested waters of the next-generation consoles that the market offers slim pickings for sports fans who game on computers. It all makes me a little verklempt (sniff). Sure, we've still got MADDEN and HIGH HEAT and FIFA, but long gone are Sierra's classic FRONT PAGE series and Microsoft's prematurely aborted sports lineup.

However, the current state of affairs also gives me hope. PC sports games are simply at a turning point, and now is a great time for developers and publishers to reinvigorate the genre by rethinking and refreshing it. So here are a few suggestions:

Story

Somehow, designers need to inject more storyline into sports games. Real-world sports take on plot lines of their own. Everyone has a favorite team or athlete whom he or she follows through trials and tribulations, victory and defeat. Game designers need to take the drama that's inherent in sports and find a way to make us care about our cyber athletes the same way we care about the real ones.

Other Leagues

Especially college-based sports. Whatever happened to them? Sure, we're excited about Jim Gindi's new project THE COLLEGE YEARS, and its prospect of allowing us to experience football all the way down to the high school level, but we'd like to see this concept for more sports. Also, how about more variety of sports? Sure, games like lacrosse have mostly regional appeal, but wouldn't it be possible to take a good soccer engine (as in FIFA) and create mods for it that simulate other goal-based sports like lacrosse or hurling or field hockey? And more women's leagues, please. The popularity of professional women's soccer and basketball are increasing at a significant clip, so there most definitely is a market for those games.

Better AI

The rate of development for graphics has far outpaced the rate of development for player AI. We don't just want our computer-controlled opponents to be smarter; we want them to act more like their real world counterparts do. Yes, pretty graphics sell games, but realistic gameplay will always keep us coming back for more.

All we really want is a rededication to sports games. Sports popularity hasn't waned (nor will it ever), and it's just a matter of time before gamers come back to the PC as a gaming platform. Now is the time to start planning the classic sports games we'll be putting on our top 10 lists of tomorrow.

My 10 Favorite Sports and Driving Games for PC and Consoles

(in no particular order)

1. HIGH HEAT 2001 – This is just about my favorite sports game ever, and easily one of my top five PC games ever. It's got so much of the national pastime's spirit, I dare say it belongs in Cooperstown. Sorry, I've got to go clean my nose now.

2. The entire MADDEN series – Gotta give props to everyone's favorite telestrator-addict. The PC version is slicker than you know-what and the PlayStation 2 version almost makes me want to buy a PS2. Almost.

3. EARL WEAVER BASEBALL – I have to credit EWB with initiating my love affair with baseball in general. I knew who Babe Ruth and Ty Cobb were from the time I was a wee lad, but EWB made me appreciate players like Nap Lajoie, Sandy Koufax, and Roy Campanella.

4. GRAN TURISMO – Taught me how to drive a high-performance sports car. Not that I'll ever get the chance in real life.

5. FRONT PAGE FOOTBALL 96 – The complete package. Great graphics, gameplay, career mode. And no one named Madden was involved with it.

6. NBA LIVE 2000 – Two letters: MJ.

7. NFL BLITZ 99 – A lot of people derided the BLITZ series because it was unrealistic. Well, duh, that was kind of the point.

8. NHL series on Sega Genesis – If you didn't waste innumerable hours of your youth playing one of EA Sport's NHL titles on the Genesis, then you either didn't own a Genesis or you were in a coma. Or both.

9. NEED FOR SPEED III – See GRAN TURISMO.

10. TONY HAWK PRO SKATER 2 – I have my doubts about "extreme" sports on the PC, but THPS2 is too addictive to ignore.
Panzer Leader

JOHN TILLER’S PANZER CAMPAIGNS SERIES KEEPS ROLLING ALONG

Computer wargame engines tend to stick around for a while. While companies are constantly developing new action game engines, a good wargame design can last for years. TalonSoft’s BATTLEGROUND engine made it through 10 (!) iterations, and when it died, gamers were still clamoring for more. A little over a year ago, John Tiller, programmer of the BATTLEGROUND series, launched his own game series titled PANZER CAMPAIGNS. With two well-received installments already published by HPS Simulations (www.hpsims.com), the third one, KHARKOV ‘42 (reviewed in this issue), returns to the Eastern Front and brings with it a host of tweaks and improvements.

The Vision Thing

Part of the reason for the longevity of a wargame design is that wargames don’t sell enough units to support a complete redesign after each game—that kind of resource expenditure would put the developers out of business. Another reason is that hex wargames have years of boardgame design history behind them, and it’s unlikely that dramatically new ideas will suddenly appear. So when you have something that works, you stick with it.

But what works? On a general level, there are several approaches. As John Tiller explains, “In the older BATTLEGROUND games, we attempted what I’ll call a ‘horizontal’ strategy. That is, you develop a game engine and then implement it across various situations in a single era.” For example, the series modeled the American Civil War battles of Gettysburg, Shiloh, Antietam, and Chickamauga. It was then a case of moving the engine “sideways” to depict the Napoleonic era, which required some modifications to the original system. Even between battles in the Civil War, there were “sub-development” issues, according to Tiller, “such as putting gunboats into BATTLEGROUND Shiloh, although they weren’t required for BATTLEGROUND Gettysburg.”

There is a danger, of course, in churning out what gamers will see as a recycled engine with different maps. “The key,” says Tiller, “is ensuring that you put enough development into each subsequent game that customer interest is maintained. In the BATTLEGROUND series, we did some of this, such as going to 25-man strength points and adding an Internet-play capability, but we could have done more, such as adding a scenario editor, something I did on my own later on.”

Going the Other Way

Tiller describes the other approach as “vertical.” This is what we did with the CAMPAIGN series,” he said. “Rather than attempt to develop multiple games using the same game engine, you start with a single game engine product, then develop additional game products that are sold ‘on top of’ that.”

Thus, an original design (EAST FRONT) got an expansion pack, an engine overhaul that was retrofitted to the original product (WEST FRONT and then EAST FRONT II), then more expansions (OPERATION SEALION).

“While this approach appears to be effective relative to a store-based marketing plan, it tends to wear thin with customers over time,” Tiller said. Presumably, the reason for this is that early customers find themselves upgrading their games rather than buying original products.

Going It Alone

Which direction has Tiller taken with his new venture? “I’ve returned to something closer to the original BATTLEGROUND approach,” he says. “However, with previous experience, I’ve learned to include things like a scenario editor so that people have control over each of the games, without providing so much capability that I end up competing with my customers over new games.”

Rather than competing with his customers, Tiller sees them as sources of ideas. “To be honest, more ideas than you can handle, really. But by listening to your customers, you will receive a continual stream of new ideas. The tricky part is identifying which of those ideas have real merit, and which can be easily incorporated into the existing game engine.”

Some new ideas are mechanical, such as the Virtual Supply Trucks rule which was introduced in KHARKOV ‘42 and which can be retrofitted to the previous games. Others are presentation. The current 2D view is too small to display unit information on the counters, so Tiller adapted one of the 3D views for this purpose. I’ve tried out a brand-new beta with this feature and it looks great. With any luck, HPS will have a patch available by the time you read this. And John Tiller will be busy coding his next game, along with all its improvements.
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Group Hug, Everybody!

Old Man Green reflects on his first half-decade at CGW

So think about this little scene; Apply it to your life.
If your work isn’t what you love, Then something isn’t right.
—“Found A Job,” Talking Heads

Four and half years ago, I was sitting in the publisher’s office of a now-defunct Macintosh magazine, announcing my intention to quit. The publisher—who, I now realize, bore an uncanny resemblance to Doarkus, my 7th Level Dwarf Paladin in Everquest—was stunned. Especially when I told him where I was going: Computer Gaming World magazine.

“Maybe you don’t understand what it means to be a sore loser,” he sputtered in exasperation. “We are the world-leading authority in this field. Why would you want to commit career suicide by going to some nichey little gaming magazine?”

Nichey little gaming magazine.

Four and a half years later, this still gets under my skin. As if being a Mac journalist (hey—that’s not a niche!) was somehow more “important” than being a gamer one. As if my goal to follow my muse and do what I thought was cool and exciting was some kind of childish mistake.

Career suicide? Man, as far as I was concerned, I had no career. That was just my job. I did it as little as possible—a few hours a day—and then went home and tried as hard as I could to forget about it.

And I knew, all the time, what I really wanted to do. I fantasized about it constantly. Day after day, slumped over in my cubicle, eyeballs closed with broken toothpicks while editing wretched reviews. I lusted jealously over the possibility of working at a gaming magazine.

Wow—what if I actually got to work on something I loved? I dreamt of it. Who are the lucky bastards who get to do that for a living?

I knew some of the lucky bastards by name. Johnny Wilson. Charles Ardai. Martin Cirulis. Scorpia. Martin Cirulis. Scorpia. Month after month, I read their articles in Computer Gaming World and marveled at their writing. Here were people—grown-up people—who loved games unabashedly, and wrote about them with passion and brilliance, dissecting them as seriously as if they were any other art form.

When my ship finally came in—when all the whining, pleading, death threats, and late-night sexual favors finally paid off and Johnny gave me my shot to come aboard—I heeled into Doarkus’ office and quit the rat race, forever.

Career suicide? Yeah, I’m sure I could probably be doing something more “useful” —whatever that means. I don’t exactly expect the Nobel committee to come knocking to reward me for my groundbreaking review of Soulbringer. All I know is, I took a pay cut and a job title demotion to come to CGW—and it still feels like the best damn decision I ever made.

And here we are at issue 200. Not many magazines get this far, you know, so forgive us if we’re a little extra indulgent this month. And don’t worry—we know it hasn’t always been pretty. Over the years, we’ve had our share of lame covers, blown reviews, and glowing previews for games that ended up sucking or were never even released. We did cover stories on Trespasser, Dakatana, and C&C: Sole Survivor, among other games, which proves that even smartypants gaming journalists can be totally, utterly wrong—repeatedly. We put a bunt vampire chick on the cover, then put bullet holes on her neck. We dressed all the columnists in the same ugly gray shirt.

Only one person—Editor Ken Brown—remains on the edit staff from my first day four-and-a-half years ago. But, to me, it’s the same place it’s always been. Everyone on the staff now is like I was then—they loved this magazine as gamers and as readers first, and came here because they knew they had to work here. We don’t fit in anywhere else—and we don’t want to.

And that, really, is the subtle message underlying each and every issue of CGW. You are not alone. You lie to your friends and family. You stay up way too late. You blow off your work. The best day you could ever have would be to be left alone, at home, in your underwear—where you can play all day long.

We hear you, brother. We are you.

And one last thing.

This landmark issue would not be complete without thanking and acknowledging some of the former writers and editors who, over the years, helped give CGW its heart and soul. Major props to Russell Sipe, Johnny Wilson, Scorpia, Martin Cirulis, Alan Emrich, Chris Lombardi, Alan Greenberg, Denny Atkin, Terry Coleman, Elliott Chin, Loyd Case, Dave Salvador—and many more smart and talented people who led the way and taught us how to do it right.

And now I really have to get back to Doarkus in Everquest. A few more goblins, and Level 8 is mine! Happy gaming, everyone.

What Jeff doesn’t realize is that starting next month, he has a new assignment. Wish him luck as our new modem/router editor at jeff_green@ziffdavis.com.
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