

VOODOO

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BATTLEZONES



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3dfx™

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BATTLE ZONE II

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Look for Battlezone II™ this fall. Screenshots courtesy of Pandemic Studios.



The "kill-zone" as seen by a standard 350 dpi mouse.



The "kill-zone" as seen by the 1000 dpi Razer Boomslang.



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SOMETIMES I GET SO MAD, I JUST WANT TO BREAK THE WORLD!

As I sat down to ponder the topic of this month's column, I was once again swept with waves of nausea and revulsion. Why? Because as I clicked through the internet, I accidentally stumbled across an image from the Will Smith/Kevin Kline/Barry Sonnenfeld atomic death-blast of garbage cinema, *Wild Wild West*. Some of you may have seen an interview that Entertainment Weekly did with Sonnenfeld shortly before the movie opened, where he blamed "bad reporting on the internet" and a sneaky sneak preview (people were told they were getting to see an advance screening of "The Matrix" and got WWW instead) for pre-release negative buzz.

Now, I was there for that screening, very excited at the prospect of seeing *The Matrix* two weeks early. When we filed into the theater, they sprang the news on us that we weren't going to see Keanu kick some kung fu ass, but instead see Will Smith as a cowboy. "Ok," I thought. "I liked *Men In Black*. This can't be too bad." If you were unfortunate enough to also have sat through those excruciatingly awful seventy minutes, then you know it was far worse than you ever could have conceived it to be.

After grimacing through WWW and then actually seeing *The Matrix* a few weeks later, I felt doubly cheated. *The Matrix* was reportedly shot for about \$70 million, which ain't half bad for a sci-fi/action movie of that caliber. WWW, on the other hand, was ratcheted out for over twice that amount — reports put the budget anywhere from \$160-190 million. Obviously, more money does not equal a better product. In fact, it seems that the more money spent in development, the worse the final results are. *Waterworld*, *Godzilla*, *The Phantom Menace* (c'mon, take away the lightsabers and it wasn't that great), *The Blair Witch Project*, which was made for about \$60,000, took in over \$28 million on its first weekend of full nationwide. Hooray! That same weekend, *The Haunting* (fick!) made half as much money, even though it was showing on more than twice as many screens.

And because video games are a form of entertainment, we can see almost the exact same thing happening in our part of the industry. Sure, there are mega-budget game smasheroos like *Final Fantasy VII*, *Resident Evil* or *Mario*, but for every WWW, there is, occasionally, a *Titanic*. Or, -god help me, I'm about to do it again - for every *Tetris*, there is a *Trespasser*. Also, those types of big money projects tend to happen more on consoles and their captive audience than they do on the PC.

Look at the games that we're currently inflamed with desire over. *Giants*. *Quake 3 Arena*. *Team Fortress 2*. *Oni*. These games are made for less money than was spent on the pancake makeup for Salma Hayek's cleavage (front and back) in WWW. There are six people working at *Planet Moon*, cranking away

at *Giants*, which pulled in multiple accolades during this year's E3, including several "Game of the Show" nominations. *Quake 3 Arena* is going to be a huge title, but how many people work for id Software? Probably about as many as there are at Valve or Bungie.

Does it suck having to crank out a huge project with so few people? Yes and no. It's always nice to have extra bodies around, but with less bodies to manage, everyone can focus on the project at hand and not have a whole lot of wasted time left over for politics, infighting or sexual liaisons with the office admin. Almost every one of the greatest PC games have been designed and coded by less people on the development side than the publisher has marketing the title.

Dimension Publishing is also a great example of the DIY small-team approach. Unlike some of our competitors, which have the equivalent financial backing of a small European nation-state, we do things lean and mean. Nine full time people and a small band of crazed, underpaid freelancers create three magazines — *Voodoo*, *PS Extreme* and *Q64* — as well as countless video game strategy guides (*EverQuest*, *Dino Crisis*, all the *Tomb Raiders* to date). I'd love to have a huge full time staff of writers and artists dedicated solely to working on *Voodoo*, but the truth is I'd only end up spending my extra time playing more games and being even less productive than my quarterly nature would lead you to believe. I also like being able to control every aspect of *Voodoo's* production, from assignments to writing and editing to design suggestions and screen capturing (although grabbing screen shots is a tedious and boring affair).

So in conclusion, *Wild Wild West* sucks ass and for some weird reason I feel it's my duty to make sure that the movie fails in every form. Dunno why I feel like this: Will Smith never cut me off on the freeway and Barry Sonnenfeld never egged my house. It just happens to be the biggest black hole of suckitude that Hollywood tried to ram down our collective throats this Summer. This box office bomb is indicative of everything that's wrong with the entertainment industry as a whole, including video games. Why does \$180 million dollars need to be flushed down the toilet in one gigantic load, when the same amount of money can be used to produce three or four excellent projects? If great works like the *Blair Witch Project*, *Giants* and (ahem) *Voodoo* can be created with tight teams and smaller budgets, why are we paying ten dollars to see bad movies, sixty dollars for weak video games and eight bucks for crappy magazines? Next time a clerk at a corporate record store asks you to fork out twenty bucks for a CD because Whitney Houston needs a new private jet, give him the finger, go to an indie shop and buy anything from Superchunk, Wilco or the Replacements. Keep games bitchin', people, not bloated.

CHRIS KRAMER



Get off the tire, dork.

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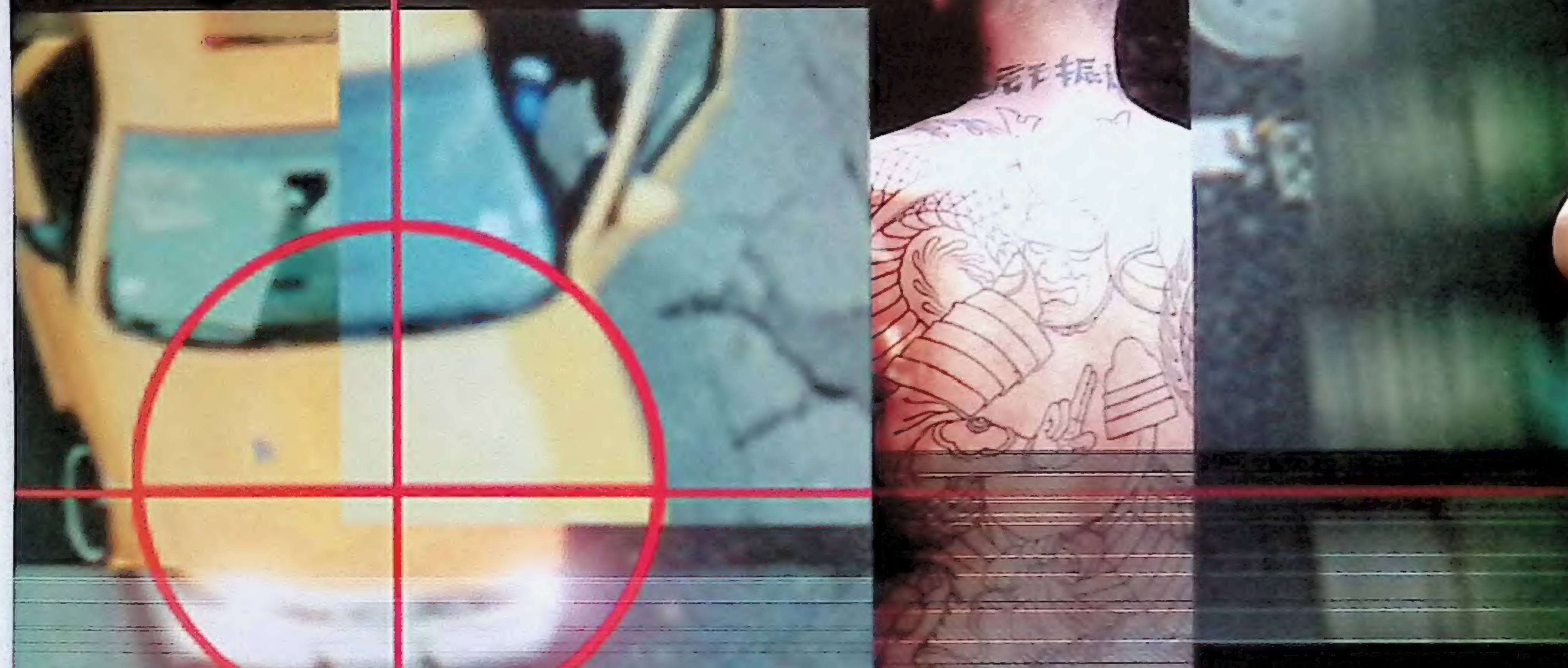
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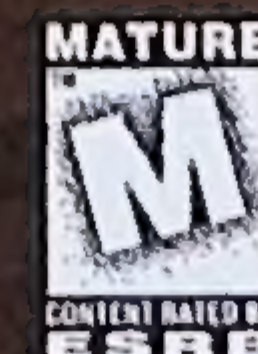
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MEET THE VOODOO EDITORS

Andrew S. Bub

Occupation: Professional Freelance PC and Console game journalist. Office: Home, Milwaukee Wisconsin. Age: Wise beyond his years. Works for: Voodoo Magazine, PC Gamer, GameCenter, Happy Puppy, GamePen, peanuts. Dress Code: Boxer shorts and a ragged T-shirt, sometimes nothing at all!
Wife: Incredibly tolerant.

- System Shock 2 • Braveheart • Descent 3 • NFS: High Stakes • Age of Empires 2 (beta)
- Milwaukee House Hunter 3D

Joel Durham

Joel Durham Jr. is a full-time freelancer. He takes long, hot showers every morning, visits with his wife and plays with his 15-month-old son for a few hours each day, and spends his "work" time playing computer games. He wants everyone in the world to know that, whenever you read an article about computer games, the author probably sits around playing games all day. That's it. That's all he does. He never does any actual work, such as scheduling phone interviews around developers' drinking habits, troubleshooting beta revisions so that they run on his PC so he can write a preview in time for deadline, playing all the way through long games in a ridiculously short amount of time so he can write a fair review, working until the sun comes up to make a deadline, traveling to distant cities on a moment's notice to talk to boring nerds about lame products, and so on.

- System Shock 2 • F-22 Lightning • Total Annihilation: Kingdoms • C&C: Tiberian Sun
- Hidden and Dangerous

Tom Ham

Tom Ham has been a freelance writer and contributing editor for the past five years. He not only covers the PC and videogame industry, he also handles personal technology (cool toys) and hardware. He presently writes for over eight publications including USA Today, The Washington Post, Maxim Magazine and ESPN the Magazine. Suffice it to say, Tom reaches more people than most gaming magazines put together. When he's not playing games, Tom enjoys traveling, gourmet restaurants and fine wines. He can also be found late at night playing Quake III or Kingpin on GameSpy.

- Unreal Tournament • Quake III • Tiberian Sun • The Wheel of Time • Age of Empires II

Chris Kramer

As usual, Kramer has waited until almost the last freakin' minute to start putting together the Fall issue of Voodoo, even though he's supposedly had three months to get it done. This time has, again, been squandered playing games, travelling to remote locations to see unplayable software and catching the occasional live show.

- EverCrack (help... me...) • Shadow Man • Drakkan • House of the Dead 2 (Dreamcast)
- Duke Nukem: Zero Hour (N64)

Josh Krane

Joshua Krane lives a meager existence as the managing editor of the All Games Network. He has been snookered into writing about hardware since 1996 and when he is not working on (or in) his machines he enjoys spending time with his wife, Beth and his dog, Guinness.

- Half-Life (TFC) • Soul Calibur (Dreamcast) • Drakan • NFL Blitz 2000 (N64) • NFL Fever 2000

Greg Off

Even though Greg pleads ignorance about computers and technology, he's still enough of a gamer to know how to make the big-time PC games play on his system. Like all true gamers, Greg cares little for the actual platform that the content is delivered on and is more interested in great games, regardless of the box that runs them. Despite being the Death of Technology, Greg has been known to partake in the rare Unreal Tournament or Quake 2 deathmatch sessions in the office. We're always happy to have Greg contribute to Voodoo, but he's usually busy being late with his own magazine, PS Extreme.

- Half-Life (still) • Dino Crisis (PlayStation) • Wip3out (PlayStation)
- Crash Team Racing (PlayStation) • House of the Dead 2 (Dreamcast)

Dave Whittle

Just when gaming seemed to be getting boring, Sega throws another piece of future-closet-space hardware our way. In spite of the fact they make some...um... "strange" hardware decisions (PowerVR over Voodoo? What were they thinking?), Dave still feels like a giddy schoolgirl when he thinks of the Dreamcast. Send all offers for psychological help to the Dimension Office care of (his magazine).

- Darkstone • Mario Golf - N64 (shaddup, it's fun!) • Quake III Arena Test
- Daytona 2 Championship Edition - Arcade • anything and everything on Dreamcast.

Scott Wolf

Three men stood at the opposite end of the target. One was tall, with brown hair; the second was tall and had brown hair; the third had brown hair and was tall. All three were holding powerful recurve bows except the second man, who held a large broadsword, and the third, who held his breath. On the count of Monte Crisco they burned down to the ground. Ten years later an oak litter basket was erected in their honor, though nobody was quite sure why.

- Dawn of Aces (Still) • Aliens Versus Predator • Husker Du • Need For Speed: High Stakes
- How To Talk Dirty And Influence People

Yiggy Yigston

Yiggy is a friend. You know he is good friend of mine. But lately, something changed which is hard to define. Yiggy's got himself a girl and I want to make her mine. And she looking at him with those pretty eyes. I wish that I had Yiggy's girl.

- Star Fleet Command • EverCrack • Let's Localize Packaging!
- Harass The Wimmen-folk and the sequel • Traci and Kara, Please Stop Hitting Me

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What I Did On My Summer Vacation

Hello there,

I was wondering if you sell back issues of your awesome mag. I know you are wondering why I didn't start buying it earlier, but I am a kid and I don't have that much allowance. But now, after my summer job, I have a buck or two to spend so, I was wondering if you know where I can get some back issue of your mag. Thanks keep up with the good work!

James

It does our hearts good to know that young Master James has spent his summer toiling away, mowing lawns, washing cars and selling human organs on the black market in order to make enough money to buy back issues of our magazine. "Sniff! It's enough to bring tears to our eyes."

James, if you or any of our other intrepid readers have managed to miss one of our stellar earlier issues, you can purchase them for a paltry amount by contacting the fine folks that run our subscription office, Sketch and Pops. Go ahead and give them a call at (916) 989-0171, Monday through Friday from 7 AM PST to 4 PM PST and they'll hook you up.

More Praise for VoodooMag.com

Welp, I got in this morning at about 12:45 AM after a long day and night of having fun, and decided to check my e-mail and surf the net to unwind. I ended up at your site and I gotta tell ya folks, I THOROUGHLY ENJOYED EVERY DAMN SECOND OF IT!!! Everything I read completely held my attention. That's a pretty impressive feat at nearly one in the morning.

Your site has also helped me to make up my mind to not buy an Nvidia Riva TNT2 Ultra card. My friends have been wanting me to dump my Voodoo Banshee (which I take for a walk twice daily and love like a family member) and get a TNT2 or TNT2 Ultra. As a faithful 3dfx follower, I've been able to hold out thus far. But it's getting harder and harder, when I think of the Voodoo 3 not supporting 32-bit graphics. It probably shouldn't be that big of an issue for me, but I have this really annoying habit of thinking far into the future. Anyway, let's just say that I had the Viper 770 TNT2 Ultra in my hands today and was ready to whip out the good old Master Card, but just couldn't justify spending 250 bux when I could get a Voodoo 3 3000 for \$180. I decided to just leave without looking at anything else and think it over.

After visiting your site, my loyalty once again belongs 100% to 3dfx. As a first time visitor to this kick-ass site, I can't hardly describe the rush I got when I saw the announcement about the "next generation" technology. Needless to say, I won't be getting that TNT2 now.

At any rate, so much for surfing the net and unwinding. I'm all hyped up now after my visit. I'll definitely be back tomorrow... the next day... the day after that... and...

Keep up the good work and take care,
George....

I'm glad that you were able to focus on our website at that hour of the morning after "a long day and night of having fun." Usually by that time, the staff of Voodoo Magazine has a hard enough time keeping their eyes open, and are nowhere near being able to focus on reading tiny print on a monitor.

If you haven't checked out our website, you've been missing out. Since our redesign earlier this summer, we've added daily 3dfx-oriented news, managed and maintained by Dave Whittle. We've also had a huge user response to our bulletin boards. The "Ask 3dfx" section has been particularly popular for those needing quick answers for common acceleration problems. Stop looking at all that porn and point your browser to www.voodoomag.com for all things 3dfx-related.

And another thing, regarding the entire 32-bit issue. We have a Creative Ultra TNT 2 in the office, which we've been using to test out 32-bit games that are currently available. Despite all the screen shots we've seen and the stuff we've read on the internet, there does not seem to be any great deal of difference between 16-bit color and 32-bit color in the current crop of 3D games. Yes, we have seen some new titles coming up in 2000 that show what 32-bit color can do for a game (see our preview on Bungie's Halo on Page 33 of this issue), but the Quake-based stuff (which is about the extent of 32-bit color in games) hasn't really blown our gaskets in 32-bit color.

The trade-off in speed for minimal color quality improvements just isn't worth it, especially when playing the Quake 3 Arena test online. It's hard to stop and say, "Oh look, these colors are a bit sharper," when some mouse-crazy mandroid from Mississippi is on your butt with the Lightning Gun. In the future, 32-bit color is going to be a lot more meaningful (which I'm sure you'll see when you read the article on 3dfx's new technology in a few more pages), but right now, it's not. End of story.

Make \$1 Million - Fast!

Hey! You want to make a lot of money with your Voodoo 3 cards? Make a deal with Blizzard Entertainment! They could make a specialized Starcraft game for the Voodoo 3!!! It would be amazing!! You will make tonz o' money! Thanx!

Peter

Great idea! We'll get right on it! We'll call it "Voodocraft!" If anyone from Blizzard is reading this, please give us a call!

Gimme, Gimme, Gimme

Can I have one free trial mag? Your 3dfx Voodoo Magazine looks great, but I usually want to see what I get before I buy it!

Jontonkon

No.

Accelerating the Internet

I've had a nagging question, eating away at my brain for the longest time...But NO ONE HAS ANSWERED IT (probably because it's a stupid question) — I have a 56k modem, K6-2 300 3D NOW!, 64megs of RAM, and all the goods — but I have a cheap old Monster 3D(the first one). If I upgraded to a Voodoo 3 3000, would it help improve my internet gaming (I know it would definitely improve "normal" gaming).

Concerned Gamer,
Mrs. L

The only online benefit you'll get out of a Voodoo 3 is faster game performance. Having rock-solid 3D acceleration really helps out when playing FPS games like Quake 3 Arena and Half-Life. You'll have the advantage of a

clearer picture to help you aim at your opponents. But, video cards don't do a whole heck of a lot for internet speeds. If you wanna go faster on the net, see if your cable TV service offers cable modems, or call your phone company and ask about DSL.

Rollcage Has Great Music, Though

Hi, your magazine's awesome. But, in your Rollcage review, you said the game has only one camera view.... Well, it has three (bumper, close up behind the car, and further behind the car). They are not called "camera views" though, they are "zoom in" (the + key) and "zoom out" (the - key). Also, you said you need a P2 300, 128MB Ram with a Voodoo 3 to run at 1024x768, and it still screws up. Well, I run with my P200 (non-MMX), 16MBs Ram, Voodoo 3 2000 at 1024x768 with all the graphic options "on", "high", and "much" with no problem. I use the Demo version, but that probably doesn't matter. Just wanted to say that so you should bring the Overall score up to a "8" or something, because it a truly awesome, original, and very FUN game!!!

Adrian

Dave Whittle has since been called on to the carpet and beaten with an old Number 9 video card (which moved really slowly and didn't have enough polygons to do lasting damage). He became all too aware of the camera views after he reviewed the game and we have since downgraded him from "hardcore game nut" to "buys Deer Hunter at Wal-Mart." Our apologies. Also, you'll notice that the minimum specs for the game (listed at the top of the page) call for a P166, but Whittle was merely belly-aching about the performance on his system. While we feel that the score of 7 overall was the right score for the game, we do appreciate you taking the time to point out our shortcomings.

3dY2Kfx?

Hello,

Who do voodoo? We do voodoo. We all do voodoo(LOL). I love you all. Any ways is Voodoo going to have a bug during Y2K?

Wai-Ho Cheung

Funny you should ask, you weirdo. 3dfx has actually been working on the Y2K problem and has found away around it. Your card will be fine right up until December 31, 1999 when, at 11:59 PM, it will burst into flame and melt your system. By destroying your PC and forcing you to go out and by a new one, 3dfx hopes to help the world get around the Millennium Bug.

Brett's On the Ball

Hello Gentlemen,

I have just finished reading through the new issue. Just one thing I wanted to bring up and maybe I am even wrong, but it doesn't hurt or cost money to send email. Anyway with regards to the letter sent in by a reader concerning his 120 inch screen and hooking up his computer to his sound system, your reply was that you have hoped to find such a sound card with the right outputs for Dolby Digital sound. I did some looking on Diamond's web site and found that their Monster Sound MX300 does have the capabilities and also now has a

daughter card that you can buy that does have digital outputs for true 5.1 digital sound. Like I said, maybe I am wrong, but it is worth the shot. Let me know if I am mistaken on this one.



Avid reader since day one.
Brett Campbell

Good Gravy! Thanks, Brett, for pointing this baby out, you're dead on with this. Several of us are sporting Monster Sound cards on our gaming systems and this new upgrade looks pretty spiffy. The Diamond Sound MX25 is an upgrade card for the Monster Sound which has full 5.1 channel digital audio output via a coaxial SPDIF output. This means that Mike (who wrote in last issue asking about combining his PC with his Home Theater) can finally get true Dolby Digital from his PC. Combine this sound card with one of the several true progressive scan MPEG decoder cards coming out and you just might have a fairly impressive home theater PC.

Check out more info on the MX25 on Diamond's website at <http://www.diamondmm.com/products/current/mx300.cfm>

Oh, The Agony of Playing Games

Just read the letters in your Summer 1999 column, where you stated your editors were searching (slowly) for a game as bad as Trespasser.

Let us suggest... Space Bunnies Must Die.

Yes, it's accelerated. And only \$5 at Electronics Boutique. And cheesier than the state of Wisconsin (I can say that, I grew up there). Oh, and yes, it does need a boost on anything under, say, 333MHz systems (Cheese and molasses, what a combination).

Try it out, I think you'll agree it's a ... uh... worthy companion to Trespasser.

-Eric and Leah McCann

Thanks for taking the time to bring up old games we hate. You know, this job isn't always as glamorous as you'd think, because we're sometimes forced to play games like Space Bunnies (so horrible, we didn't even think of reviewing it) and Skydive! (which is so bad, we reviewed just for fun). Playing games for a living means that you have to play ALL games for a living, which can get really tiresome when you see just how much crap Wizard Works and Head Games put out each month. Of course, doing this does beat real work.

Bringing a Halt to Athlon Bashing

Ya, I got a question regarding the PentiumIII vs. AMD's new Athlon chip. Seems like everywhere I go, someone says AMD is better than Intel. In my opinion this is not true, especially when it comes to games. Sure, AMD can run Windows 98 a little faster, but who cares, big deal. I'll be talking to someone and they say, "Athlon is better and faster than Pentium,"

and then I will say "But the PIII runs games better," and then they will say, "No, the AMD Athlon runs games better." At this point I just want to smack the person on the side of the head. Dumbass!!!

I've seen the difference between the two. PIII runs games a lot smoother, while AMD runs choppy. I think people have been brainwashed into thinking AMD is better by magazines claiming it's faster than Pentium and by the simple fact that AMD is cheaper. Since it's cheaper, more and more people are getting AMD chips, but they just don't want to hear that their computer sucks. My question is, am I crazy for thinking that the PIII runs games faster and smoother than AMD? I want to know if I am really the dumbass that needs to get smacked on the side of the head. I know you guys play a lot of games, so I thought you guys would be the experts in this field. Thanks.

Katpuggy

Kramer says...

Sounds like it's time to relax a bit, my man. Perhaps you don't need a smack in the head as much as an open mind. While there has been some problems in the past with AMD processors, I've got to tell you, I love the 600MHz Athlon that I'm currently using. AMD's newest chipset has become my current gaming platform because it's as fast and stable as the P3 (as far as I've seen) and because it's a heck of a lot cheaper. Running W98 faster is a big deal to me, because I do a lot of other things on my computer than simply play games - I also use my system to write about games, send email to video game companies demanding that they send me free toys and occasionally browse the internet to rip off exclusive information from other game sites. 3DNOW! support has really come together and reminds me of the early days of 3D acceleration, when 3dfx went from having to beg developers to include Glide support, to having more games than they knew what to do with.

Unfortunately, we didn't really have enough time with our Athlon to do a scientific comparison of the two processors for this issue, but my time with it has lead me to believe that the Athlon is more than capable of handling all your gaming needs. We're not down on Intel, but it does seem that AMD has forced the silicon giant to rethink a lot of its strategies lately. And we've always been big fans of the underdog.

Man, He Loves Those Goons

I know you probably hate the game Pandemonium by Crystal Dynamics, but it was the first 3dfx title I purchased because it was one of the few out at the time. Anyway, I want to play it and it won't seem to run on my Voodoo 2. It runs in DOS, but I love all the flashy lights and things. Do you know where I can get a driver to make it work? I long to hear the familiar "duh, DUH, duh!" of the goons, accompanied by the beautiful graphics that only 3dfx can bring me!!!! thanks

Erick Styron
(only voodoo!!!)

Hate is such a strong word, Erick. We tend to reserve our hate — to store it up, if you will — for games that are

much more deserving of scorn and derision than a two-year-old PlayStation port. Tell you the truth, our president, Dave Winding, was such a big fan of Pandemonium that Dimension Publishing actually produced a strategy guide for the game. The book consisted of a hundred pages and thousands of screen shots, but can be boiled down into seven key words to get you through the game: Go To The Right And Jump. There you go, we just saved you nineteen dollars.

As to getting Pandemonium running on your Voodoo 2, you're probably out of luck. Tech support at Crystal Dynamics tells us that they're pretty sure that Pandemonium was created for the first Voodoo Graphics cards and was never patched for later versions of Glide. They did point out that you could still run the game in its software mode, but you might as well load up Bleem! on your PC and just play the actual PlayStation version of the game. So, unless you want to yank your Voodoo 2 and drop in a Voodoo Graphics card (which can be purchased online for approximately six juju-fruits and a Lemonhead), it might be time to let Pandemonium go. However, if you like playing games with flash and sparkle, you can always pick up Croc 2, Hype: The Time Quest or Sid Meier's Civil War Run 'n Jump!

With A Name Like "Dutch," He Can Probably Kick All Our Asses

Hey Guys!

My name is Dutch, and I'm new to the world of PC gaming, 3dfx and internet play. I got hooked on games a few years ago when I was stationed in Korea. I'm writing because I just bought a computer with a 3D Blaster Banshee and I wanted to get your thoughts on what setup might get the most out of my computer. Some basics: AMD 350 K62 3D Now, 64 megs ram, 100MHz bus board, and Windows 98.

I am a sim freak! I currently own Longbow Anthology, Falcon 4.0, Jane's F-15, M1 Tank Platoon II, and Navy Fighters 97. I currently am using the reference drivers from the 3dfx site. What would you guys recommend as far as drivers, and what's your opinion on using Glide versus Direct3D?

I know you guys probably get 10 million letters like this a month, but as I said earlier, I'm new to this stuff and would appreciate all the help I can get. After seeing my friend's 3dfx setup on his computer, I couldn't get rid of my Sony PSX fast enough! Oh, and if you guys are interested, I spent 10 years in the military in aviation and armor units, so if you're looking for a sim reviewer, I'm sure my experience and addiction could serve you guys well. I've been looking for a career change, anyway. Thanks for your time.

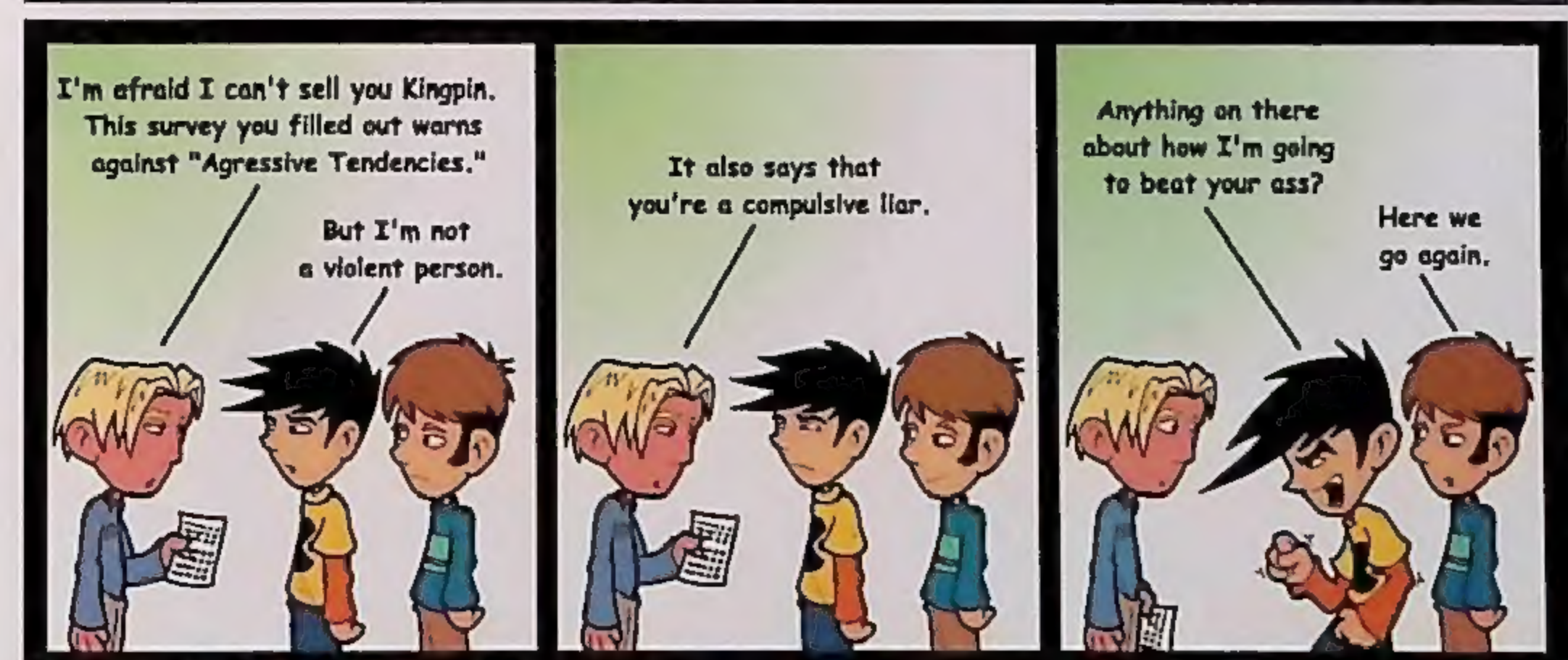
Dutch

With a name like Dutch, we figured that you A) had spent time in the military, B) were a cheap date or C) were a small but vitally important country in the Netherlands. Believe me, as low as the armed forces salaries are, you're making more than we pay our freelance reviewers - some of whom play games on the PCs at Kimko's because we don't pay them enough for them to own their own computer.

Always use Glide. That's our thoughts on the subject. D3D is fine if you have a general 3D video card, but us real players know that our own little API is the only way to go. For drivers, since you have Blaster Banshee, I'd suggest sticking with Creative's stuff, as they've been surprisingly good at updating their software with all the latest fixes.

Sims are going to be big in the next few months, as there will be several new Jane's titles (US Airforce, F/A-18) as well as Ka-52 Team Alligator from GT Interactive, Dynamix's Desert Fighters and a whole fleet-load of tank and war games.

If you're crazy enough to send more mail, send it to:
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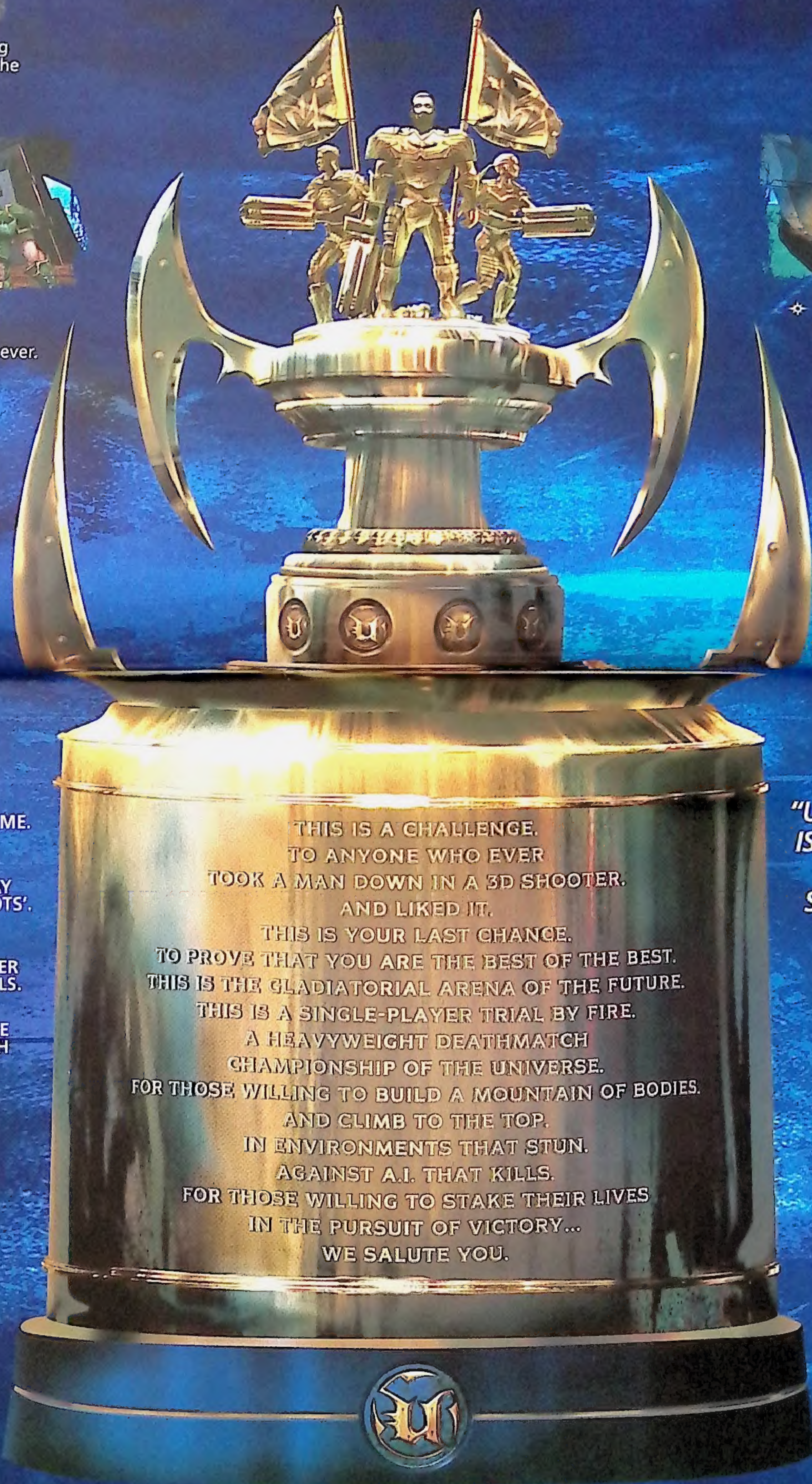
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Q. Let me say that I usually find biased journalism a load of crap, but I have the strong belief that 3dfx has built the 3D acceleration market to what it is today, and that they DO produce the best products available. That said, congratulations on a very good magazine and I hope that you have a very long and successful future.

I have a question, one that I thought could be best answered by the experts. I currently own an AMD K6-2 333 (not overclocked), with 64MBs 100MHz SDRAM and Voodoo Rush 3D accelerator (Intense 3D by Intergraph). Unfortunately, my 3D accelerator is the slowest part of my computer and I wish to upgrade to the Voodoo 3. The reason I'm writing is because I had heard that upgrading from a Voodoo 1 to a Voodoo 2 without the complete removal of everything (including going into the registry; something I don't like doing) concerning the Voodoo 1 card would cause the Voodoo 2 card to not function. As far as I know this is true, and would like to ask if the same is true for upgrading from a Voodoo 1 card to a Voodoo 3? I was planning on purchasing the new card fairly soon (by the end of July) and would appreciate a response via e-mail as it will reach me faster than the release of the next publication.

Thanks for your time,
Keith

A: The same issues might occur for any kind of equipment/driver upgrade you could do. It really depends on the state of your registry at the time of install. In the vast majority of cases, all should go smoothly but in the event you encounter any issues, there is a file on <http://www.3dfx.com> called DELV.INF that will remove registry entries for your previous Voodoo adapters for you without requiring you to do a manual REGEDIT.

Q. Why I can't run Quake III with my Diamond Monster Fusion (Banshee) Card? Is GLSetup compatible with this card? I'm having problems with this card on Linux too, you can help me please?

Thanks.
Tarik Della Santana Mohallem

A. Make sure you have the Quake III Test compatible drivers from <http://www.3dfx.com>. You will need these drivers specifically to run Quake III Test.

Linux is a user-supported operating system, so there are many places to go for help in configuration and installation of drivers that specialize in the Linux platform. In addition to the many Linux user groups, there are some 3dfx newsgroups where you should be able to find help for Linux:

3dfx.glide@linux
3dfx.products
3dfx.products.voodoo3 (since it uses Banshee drivers under Linux)

Q. First of all, I have a P-III, 500MHz, Hewlett Packard computer that I recently bought early this year. The computer came with a ATI RAGE PRO TURBO card (agg) and the DVD-drive that my computer had was in some way associated with ATI

(because every time I started up the DVD program to watch a DVD on my comp. It would show the ATI logo). So I bought a Voodoo 3 (v2000) — I disabled the ATI RAGE TURBO CARD and I installed the V3 in my computer and it works great! But I can't use my DVD any more. Every time I start it up it says to change the resolution and stuff. I changed the resolution to every single one I can. Then I took a look at some of the stuff the Voodoo 3 came with. There was a slip that came in the box and said sign it and mail it off and you'll receive a MPEG-2 player. I signed and sent it off over... I'd say about over 2-3 months ago. And it said allow 4-6 weeks. Can you tell me when I will receive this MPEG-2 player, because I'd really like to use my DVD player on my comp.

Thanks!
—Chris Buckley

A. 3dfx records show your receipt as having been received. We apologize for the delay in shipping of some units. If you have not yet received your DVD player, please call the toll free support number.

Q. Hi! I own an ATI-All-in-Wonder PRO AGP (ATI RAGE PRO CHIP) with 8MB of memory. I would like to know if I can install a Voodoo 3 2000 PCI video card with it. Will there be any problems? Which considerations should I have? I own a Pentium II 350MHz 128MB with a SE440BX-2 motherboard system. Also, can the Voodoo 3 2000 PCI video card work as a DVD decoder?

Thanks!
Carlos Mendoza

A. Providing your system has the latest BIOS to allow a multiple video adapter setup, there should be no problems running both cards in one system. The Voodoo 3 does support multiple monitor configurations. The Voodoo 3 itself has no hardware DVD decoding capabilities (it features hardware assist, not decode), so you would need some kind of DVD decoder in addition to your Voodoo 3. You can use either another card or with your processor and configuration a software decoder should provide ample playback capability. The Voodoo 3 3000 ships with a coupon for WinDVD by Intervideo.

Q. I love your magazine, it is very informative and hopefully you can help me out. I have 2 Diamond Monster 3DII cards running in SLI with a Matrox Millennium G200 AGP as my primary card. About a month ago all my games started to have a pink tint to them if I tried to run them in 1024x768 resolution. I have uninstalled and reinstalled the cards, used the reference drivers and even got 2 new cards from Diamond but I still have this problem. I re-installed games that I had removed that I never had problems running in 1024x768 resolution, but these games suffer the same problem. I have noticed quite a few posts concerning this issue on the message boards but nobody has been able to solve the problem.

Thank you,
Mark Boyajian

A. Double check that you are set up for allowable refresh rates with your monitor. If this happened with both sets of cards, then it may be time to have the monitor looked at. This is a fairly common early warning sign of monitor failure.

Q. I recently purchased a Voodoo 3 card and learned that my DVD decoder card is not compatible with the Voodoo 3. It seems that the Voodoo 3 only accepts data in the CCIR 601 format while my decoder card sends data in the CCIR 656 format. I am having trouble finding a DVD decoder card that sends the data in the correct format. My sound card is the Turtle Beach Montego II and my DVD-ROM drive is the Toshiba SD-M1202. Do you have suggestions on a compatible DVD decoder card? Any help would be appreciated.

Thanks in advance,
Brian Smith

A. Actually, most DVD decoders support CCIR 601. Only earlier cards restrict the format to 656. Chances are you can use the same brand of decoder, just get a more recent one.

Q. Hi, just got through reading your mag. I have some questions. I am running a Voodoo 3 2000 PCI. However, I will be getting a Voodoo 3 3000. Why? Well, I watch full length movies, which are in ASF format. Also, I use Win 98 codex to watch these movies on my 'puter. Your mag says the Voodoo 3 3000 AGP has TV out. With an RCA adapter, I want to plug into my VCR and watch these movies on my big screen home theater. However, my Voodoo 3 2000 board also has an S-video connection on it. What is that for? And since I'll be changing over to AGP from PCI, what are the benefits there? Also, will you be coming out with software to tweak the Voodoo 3?

Robert Bockman

A. The Voodoo 3 2000 does not have an S-Video connector, but the 3000 does. I assume that is what you are referring to. In that case, the jack is for TV Out, like in the 3500. Changing from PCI to AGP should result in an overall performance gain in most cases, as the bus bandwidth doubles (from 33MHz to 66MHz). Also remember that you'll be moving to a faster card. As for software to tweak the Voodoo 3, check out the current drivers. They have numerous tweak options in the tools.

Q. I currently have two Diamond Monster 3D II cards (12MB each) installed. They are connected to each other with the short ribbon cable for SLI. I have found that some games and flight simulators don't appear normal when the Diamond drivers (v. 4.10.01.0207) are installed in the cards. The Diamond control panel does, however show that "SLI is Detected"; the Frame Buffer Memory is 8MB, the Total Texture Memory is 16MB and I am able to select 1024x768 resolution in Need For Speed III (for example). With these facts known, am I correct in saying that both cards are, in fact, in SLI mode, working together? I decided to try something different, so I downloaded & installed the file

DO YOU HAVE A 3DFX RELATED TECHNICAL QUESTION?

Ask 3Dfx: 1175 chess drive, suite e, foster city, ca. 94404 mail@voodoomag.com

"RKV2DX6" (v. 4.11.01.0350-2.18) from the 3dfx Interactive web site. Everything seems to be normal, except the "3DFX Voodoo 2" control panel. It is saying that SLI is Detected but the Frame Buffer Memory is 4MB & the Total Texture Memory is 8MB. Isn't this saying that only one (1) card is being sensed? Or is this a normal indication if 3DFX, Interactive drivers are installed into Diamond cards? Other elements of my system are: PIII 500, 384MB PC100 SDRAM, Diamond Viper V550 16MB AGP, (2) IBM 7200 RPM 14.4GB hard drives, Win 98 & DirectX 6.1. 3dfx Interactive drivers in 3dfx Interactive cards may make a difference, for the better I hope; since they are the industry standard. What's your opinion on this? Please clear up my confusion concerning the 3dfx Interactive control panel.

Thanks
cygnus8

A. You are correct that both your Diamond Monster II 3D cards are working together in SLI. However, due to differences that may occur in third party configurations, chances are you can ignore the memory report of the utility. The best confirmation of SLI working properly with either driver is functionality. If you can do 1024x768, the memory is there. As for your hardware switch from the Diamond Monster II 3D SLI setup to the 3dfx Voodoo2 1000 SLI setup, you are going from one Voodoo2 SLI to another. Except for warranty and support coverage, they will be identical in performance and capability.

Q. I'm running an AMD K-6 2 with 3DNOW! and over 150MB of RAM. There is also an integrated video card on the motherboard which Win98 will let me disable but not uninstall. I recently bought a Voodoo 3 2000 PCI and installed it. The card works excellent on most games, but on some games using DX6 and above, the display adapter does not initialize. What can I do? I've tried everything and nothing seems to work. Soon my store warranty will expire and the card will be going back. All suggestions are welcome!

A. Make sure you have the latest patches for your motherboard as well as the latest BIOS. Also make sure you have the latest drivers from 3dfx and the latest patches for the games. But most importantly, make sure you have those system updates.

Q. Between the Banshee and the Voodoo 2 cards, what are the megatextel performance differences? I know the Banshee only has one texel unit and that it does around 100/125 megatexels, but what can the Voodoo 2 do, since it has two units? I know that megatextel performance is just as important as polygon.

Mike Hobbs

A. The performance can vary depending on the manufacturer, but in most cases you are looking around 180 Megatexels/second. Remember that overall performance is the key. Look at the whole picture when deciding on what is best for your needs.

Q. I have a V1 with a Stealth 220 2D/3D board, which I replaced it with the PCI Voodoo 3000. I have a Pentium 233 with 64MB of RAM. My computer kept shutting down, so I returned it and got another board and guess what? It kept shutting down. The CD tray worked, but the monitor shut down (this is on an ATX Asus motherboard board). I had both boards checked at the computer store and they were so hot an egg could have been cooked on the board. I then picked up a Voodoo 2 STB Black Magic card and so far it runs very well, but not as fast as the Voodoo 3. I was one of the first in the computer store where I work to buy the Voodoo 1 and was responsible for a number of people buying the card, since my personal review of it was great. You say that the Voodoo 3 does not need a heat fan, which I think is wrong. I have returned two Voodoo 3 cards and had to settle for a Voodoo 2 for the moment, until I can afford to upgrade to a Pentium 3 with a board that includes an AGP slot and a large fan or two. I was told at EB (where I used a gift certificate to buy the Voodoo) that a number of Voodoo cards have been returned due to heat problems. If 3dfx is so interested in the consumer who are not techies and have to pay to have a fan or fans installed, why doesn't the card come with fan and/or a heat sink that works? Don't get me wrong, they are great cards, but where is the concern from 3dfx about the heat? I'm not interested in leaving my case cover off to accommodate the Voodoo card. I have had no problem with the Voodoo 1 or the Voodoo 2 so far. Thanks for reading this note of concern.

Fred Galinsky

A. The Voodoo 3, like all current generation graphic adapters, is supposed to run quite hot. In fact, not being able to touch it due to the heatsink being hot is not unusual on a card that is operating properly; the heatsink is there to dissipate heat, not to be touched. This issue was tested rigorously before the product shipped. We realize that it is easy to think of the heat the card generates as a sort of default source of problems simply because previous cards did not run as hot. However, thousands upon thousands are using the Voodoo 3 without an additional cooling fan (even overclocked) with no problems. That would simply not be possible if a fan was needed. And it is important to remember that the only reason previous cards did not run as hot is because they did not do as much. Chances are that with your card and with the others that were returned because of "heat problems" that the actual source of the issues was not overheating.

There are two very good reasons that a fan is not included:

1. The Voodoo 3 does not need a cooling fan. Ample cooling is provided by the heatsink in a properly ventilated computer case.
2. Fans break down, heatsinks do not. The inclusion of a fan would necessitate a less efficient heat sink for space constraints. With a less efficient heatsink, proper cooling would be solely dependant on the fan's operation. Once the fan fails, the card fries shortly after. With the existing heatsink, the Voodoo 3 will be cooled adequately and properly as long as the heatsink is attached.

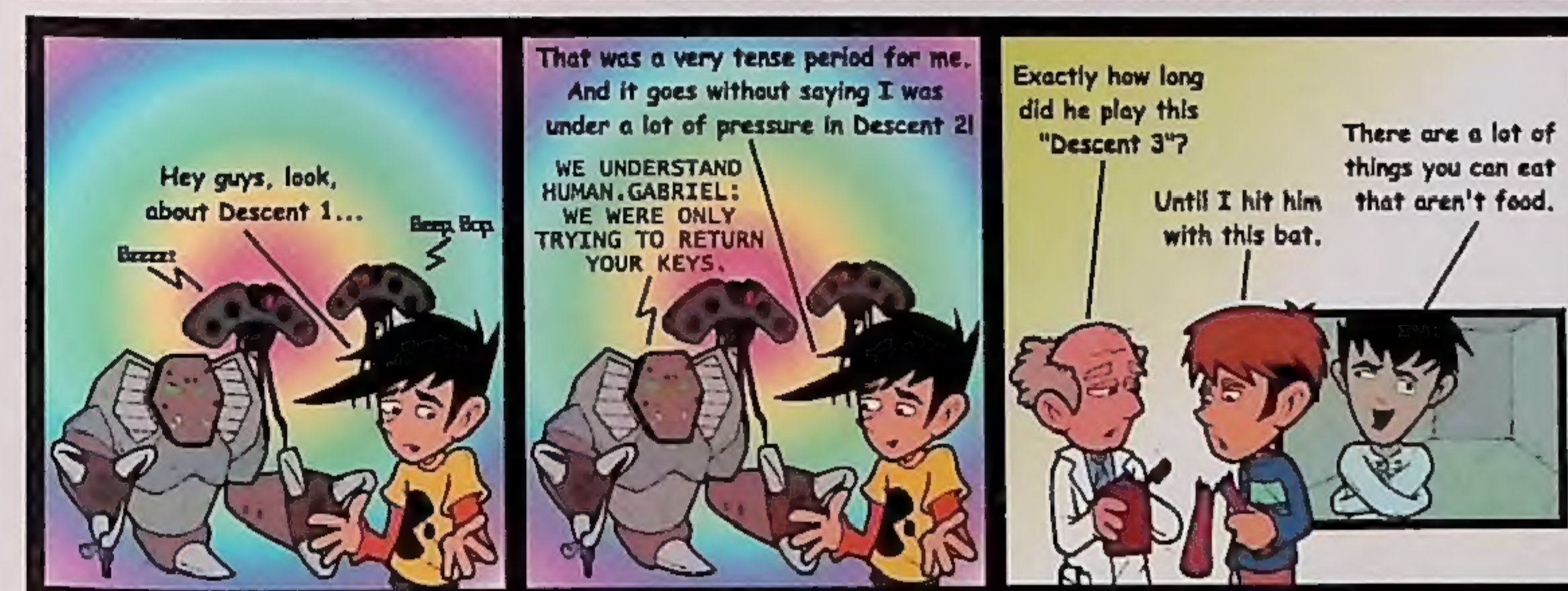
Q. Ok, whenever I play any of my games after maybe after an hour or so, the frame rate suddenly accelerates for about a second. This is noticeable when I look in another direction or whenever I run. Instead of a drop in frame rate it accelerates. I already defraged the HD and reinstalled the V3 drivers, but with no change. Does anyone else have this problem?

My system: Monitor MagDX21F, PIII 500MHz, Asus P2B Bios 1009, V3 3000 clocked at 175MHz, 160MB PC100 SDRAM, 20Gig WD HD, CL PC-DVD and SBLive

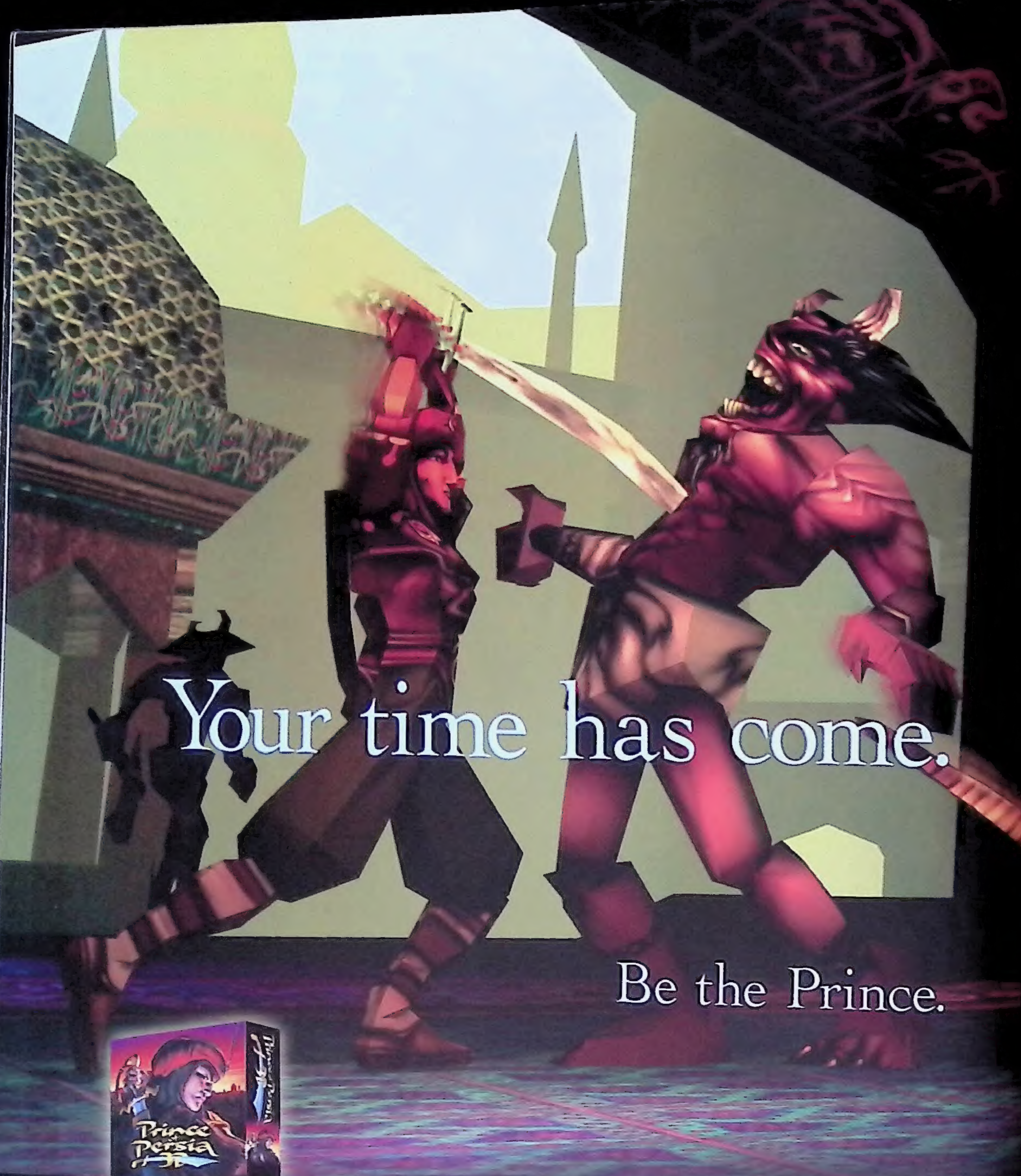
Cerebro

A. Chances are that some kind of background process is going on the entire time you are gaming and this "hiccup" is caused when the system pauses in the background task, freeing up the resources. This could be a CD in the CD ROM drive (for music), chat programs, internet cache files or modem usage during multi-play. This is really a game issue/system configuration issue and the best people to ask what a probable cause might be would be the game vendor.

This issue, we'd like to extend a warm welcome and a big pile of gratitude to Alf Covey, 3dfx Interactive's Online Technical Representative. Alf started with STB back in '95 and is stationed in Richardson, Texas. Alf began doing tech support on the internet in his spare time. With the 3dfx/STB merger, his position became an official one. Welcome to Voodoo, Alf!



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Prince of Persia 3D

Is it in you?



VOODOO REVIEW

Greetings Voodoo fans....

It's time once again for a romp around the world, searching for the latest Voodoo news. This issue of the Voodoo Review is fortified with 9 essential vitamins and minerals for growing Voodooheads of all ages. Grab a spoon and let's dig in!

Voodoo 3 Sales

If you bought a Voodoo 3 card this Summer, you are not alone. According to PCData's tracking of video cards purchased, the 2000 and 3000 models are the top two selling video cards for the months of May and June. As a matter of fact, 3dfx's sales were twice as much as their closest competitor in May. Voodoo 3 outsold Creative Lab's TNT2 board by 89% and Diamond's TNT2 board by 55%. And that's just the retail numbers. 3dfx has acquired numerous OEM (Original Equipment Manufacturer) deals, including Dell and Gateway. Voodoo 3 cards have also been listed at the top selling video card in Japan by two different sources. Millions of Voodoo fans can't be wrong....



3dfx Controllers

Here's an interesting item.... gaming controller-maker InterAct Accessories has announced a "3dfx" line of controllers. These will be computer game controllers with the 3dfx logo on them. The first two available will be a handheld force-feedback steering wheel called the "FX Racing Wheel" and a gamepad with analog controllers and vibration effects called the "Hammerhead FX". The Hammerhead thingy looks like an imitation of the seriously cool PlayStation controller. These bad boys haven't shown up at the Voodoo offices yet, but when they do we'll pass along reviews in the Test Lab section in the back of the mag.



T-Buffer

You are going to be hearing a lot more about this "T-Buffer" thing (head to page 52 for a full report). To put it simply, it's a new technology that will only be seen in future 3dfx cards. 3dfx's intention is to make games more cinematic and realistic, so they are giving game developers the tools they need to help them create a more immersive world for us gamers. Details on the T-buffer were just unveiled before this issue went to press, but you should be seeing the next generation Voodoo card on the retail shelves very soon. Keep your eyes peeled!

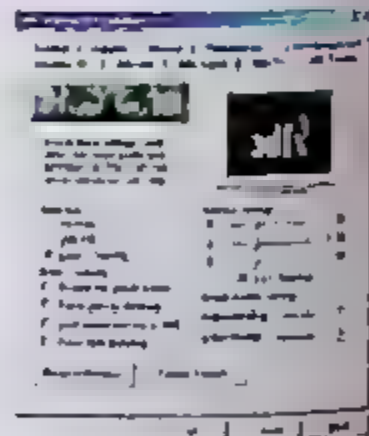


Velocity 100/200

3dfx is all about games. After all, the company was built on the excellent 3D gaming their chips make possible. But now that they have grown, they're moving beyond gaming cards to include other types of products. They aren't forgetting us gamers of course, since we keep them on the cutting edge. But they are introducing two new cards called the Velocity 100 and 200, aimed at OEM and business users. The 3dfx Velocity 100 board is a 2D/3D board like its Voodoo big brother and is priced at \$69. The 8MB, AGP 2X video card is capable of supporting resolutions of up to 2046X1536 pixels. The 3dfx Velocity 200 features 16Mb of high-speed SGRAM memory for maximum 2D and 3D performance in an OEM card. If this is confusing, keep this in mind: Voodoo = games, Velocity = business. Both are the best at what they do.

New Drivers

3dfx has released new drivers for the Voodoo 3 cards. Not being content with just fixing game and desktop issues, the Voodoo magicians have improved visual quality! You might hear that a certain card looks better because it has 32-bit rendering, but before you buy into that noise, compare a Voodoo 3 with these new, improved drivers with one of those 32-bit cards and see for yourself! You'll be surprised just how good 3dfx can make 16-bit, not to mention how much faster it is.



Mac Support

3dfx is making an effort so that millions of Mac-fans will have the best in Voodoo acceleration. According to a press release, 3dfx has released Mac Voodoo 3 drivers for game developers so they can support the best in 3D acceleration on Mac. Not only game developers can use these drivers, however. The archive includes a flash ROM updater for the Voodoo3 2000 PCI to make it Mac compatible. Also later this year, MacToll Corporation will be releasing a Mac-specific Voodoo 3 board. Who knows, someday Mac gamers and PC gamers may be fragging each other in perfect harmony.

AMD Support

In a little bit of a cross-promotion press release, 3dfx has announced that they are making driver optimizations for CPU-maker AMD's "Athlon Processor." If you aren't up on your CPUs, Athlon (the CPU formally known as K7) is AMD's counter to Intel's Pentium III. Reports have it that the Athlon's improved floating point processing make it an excellent gaming CPU. And with 3dfx optimizing their drivers for the CPU can only improve things — or make it even harder to choose between Intel and AMD.



Spanning the globe for the latest 3Dfx news.



AvP Patch

For those of you who read the last issue of Voodoo cover to cover, you may have noticed that we were one of the few magazines that didn't completely gush over Fox Interactive's licensed frenzy, *Aliens Versus Predator*. One of the main concerns Kramer had with the game was the inability to save during the long and complicated levels. Fox has heard our cries and has released a patch for the game that allows limited save games anywhere in a level. If you own this game but put it aside because you just couldn't get past that certain level, be sure to pick this patch up. http://www.foxinteractive.com/avp/sys_reqs.html

Quake3: Arena Test

Every once and a while a game comes along that demands to be played, no matter (*ahem*) what kind of deadline you are under. Personally I'm not much of a multiplayer online gaming fan, so I didn't think Carmack's latest epic would be much for me, but lo-and-behold, I'm JUST the type of person that *Quake3: Arena Test* is for (ed. note: we sincerely hope that *Quake 3 Arena Test* is geared for more than just Whittle's type). First of all, it's easy to connect, easy to learn and the experience isn't geared solely towards people who play 10 hours a day. The graphics are a lot more bright and interesting and the action is more along the lines of a fast-paced arcade game. Even a newbie can log on and start racking up frags after a couple minutes. If you are crazy enough not to have tried it yet, be sure to download the most recent test and give it a whirl. <http://www.quake3arena.com/>



Voodomag Website

Not to toot our own horns, but if you haven't been by the Voodomag website lately, please check us out again. We have added daily (ok, semi-daily) news, so you can pop by while you are surfing the web to find out just the Voodoo news you need to know. Don't expect 50 posts a day about every little thing that's irrelevant, this is just the info you will want to know. Plus, we have a happenin' message board (a great source of tech help), the on-line version of this column and more. Cheers to Anders Hammervald for the great design. <http://www.voodomag.com/>

3dfx Gamers Website

Speaking of websites, 3dfx has responded to the increased amount of Voodoo zealots by unveiling their hella-cool new "3dfx Gamers" website. You can find it all here — chat with 3dfx developers and management, check out exclusive demos of new Voodoo-accelerated games, read gaming news — the works! This is going to be 3dfx's connection to you gamers, and a vast improvement over the boring corporate site that just has press releases and drivers. Great work, Jason, Valerie and the rest of 3dfx Gamers crew. <http://gamers.3dfx.com>

Sinistar Unleashed

Looking for some eye-candy to throw into that Voodoo card of yours? Check out the new 3D version of the old arcade classic *Sinistar*, now called *Sinistar Unleashed* (previewed back in our Spring issue). It runs native in Glide, which means tasty Voodoo goodness. If you have the time and/or bandwidth you can nab the 48meg demo at this address: <http://208.192.104.180/Downloads/SinistarUnleashed.exe>

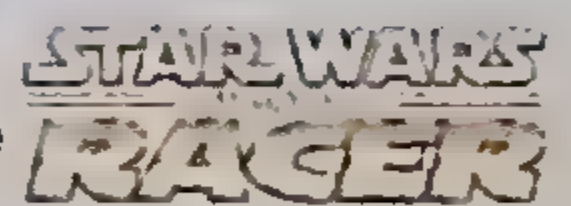


F-22 Lightning 3

We aren't much on flight sims here at Voodomag, but the new *F-22 Lightning 3* looks pretty bitchin' (looks like Joel Durham agrees; see his review on page 82)! Glide support means it will rock on Voodoo cards, plus other goodies like weather and lightning effects, "Voice over Net," etc., make this one worth looking into. Head to Novalogic's site for more info and a demo. <http://www.novalogic.com/games/lightning3/index.html>

SW Racer

Speed is the name of the game with pod racing. In fact, there's so much speed that very few humans can keep up. Oh, and there's that Anakin guy everyone has been talking about lately, but what about you? Think you can handle blinding speed, killer graphics, fun gameplay and live to tell about it? Then head here, and don't say we didn't warn you. http://www.luasarts.com/products/starwarsracer/racer_demo.htm



Wasn't that column yummy? Good and good for you. If you have anything to pass along in Voodomag, please send all website info, news items and free goodies to vr@voodomag.com and we'll see what we can do. Bribery is encouraged! Until next time-

Voodoo ON!

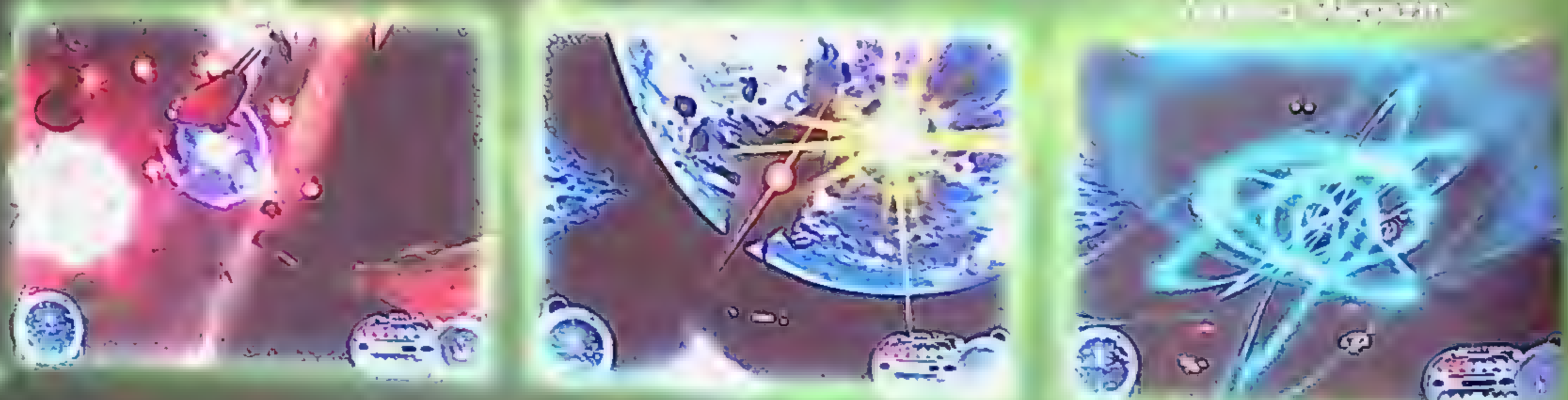
-Dave

If you want the most up-to-date Voodoo news, be sure to subscribe to the Voodoo Review newsletter. It's free, it's safe, and it's easy. Send a blank e-mail to voodoreview-on@mail-list.com and you're set. For more information about the newsletter, point your browser to: <http://www.voodomag.com/vr99/faq.htm>

"IN 1982, HE TERRIFIED A GENERATION OF ARCADE PLAYERS AND BECAME A CULT FIGURE."



"Sinistar Unleashed is a technical powerhouse of a 3D shooter" *GameSpot*



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SUMMER 1999

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UNLEASHED

HE'S BACK.

RUN, COWARD, RUN.



A life of action, a life of strategy

By Chris Kramer

Pandemic Studios has what I can only describe as One Sweet Deal with Activision. In May of last year, the majority of two internal development teams within Activision decided to break off and go solo together. This wasn't some sort of bitter Ion Storm-style departure with spite and derision being flung across the internet from one group to another, far from it. Whereas most teams who bolt to form their own companies would rather pluck out their own eyes than work for the publisher who spawned them, the newly formed Pandemic was more than happy to continue to work with Activision and vice versa.

"The decision to branch off was made by Andrew Goldman before I even joined," Josh Resnick, President of Pandemic, tells me. "At that time, I was the director of Dark Reign, while Andrew was the director on Battlezone. Andrew had started to make it known that he wanted to take off. He was fascinated with the idea of going off on his own, but he didn't want to deal with management issues, he just wanted to make games. Andrew actually converted me to his cause over breakfast one morning, then we went to Activision and told them our plans and they were actually OK with it." More than just OK, in fact. Activision was so OK with the idea that they gave the fledgling start-up some cash to help them find their feet and eventually ended up signing a five title deal with Pandemic.

"Activision was very supportive of the idea and they allowed us to take both teams. Personally, it was a very hard decision for me to make, since I had in my mind this whole other career track going, I eventually wanted Bobby's (Bobby Kotick, Activision's CEO) job, because I have an entrepreneurial background."

"Activision was very interested in the idea, though, and you can see now the company's focus towards shifting to an entirely out-of-house development focus. We presented real strong financial reasons why this made sense for them as much as it did for us. And for us, it was perfect, as we got to create our own company culture and will now see greater rewards for doing it on our own."

"Activision knew that at some point, talent outgrows even the best of companies. It becomes much harder to satisfy everyone, there are individuals that don't fit into a structure and they didn't want to lose this pool of talent entirely. Not every company is so flexible and there is a lot of this, 'You want to leave? Well, screw you!' mentality out there."

Activision has seen the damage done to other companies when their star team leaves."

"There are a lot of reasons why we went our own way. We wanted to have a lot of fun with what we're doing, to set our own hours and to take our own approach to making games. I think it's important to have a very relaxed atmosphere and culture at work and we really empower our people. There is no 'I am Management' layer here, we really let people do what they've always wanted to do, which is make great games. Everyone who works here gets a piece of the royalties and that way they have a stake in the company. We really wanted to create a comfortable, profitable, yet fun environment."

Josh Resnick — President, Pandemic Studios and Producer of Dark Reign 2

"Pandemic's global philosophy is to make great games. Not games that merely suit the moment, but games that catch the public's attention, are different and make money. We really want to be like Blizzard. Every game from them, people buy, regardless of type or genre. People buy their games just because they see the Blizzard logo on the box and we want Pandemic to be like that, where people buy our games just because they see our logo on the box and know it'll be great."

"The one thing we really take seriously is the structure of a game. Having a small, core group at the beginning of a project is really important. The way we know that we have a great game early on is if we can relate the idea in a simple manner and people get excited. We spend a lot of time in the prototype phase making sure that anyone can sit down in front of the game and with a simple explanation, get into it. We want our games to be accessible to anyone, be it management, press, hard core gamers or casual types. Only when we have it nailed down do we go into full development."

When asked if the two teams were less excited to be working on sequels, Josh said, "I don't think so. With Dark Reign, we've moved the game from 2D to 3D, so everyone saw the opportunity for new experiences and the chance to work on the cutting edge. And with Battlezone, the first game was so new that a lot of energy was put into enabling gameplay through the interface and there wasn't a lot of time for the fun stuff. This time, they have a lot more room to explore without having to worry. 'Can we even make a game like this?' We're really lucky and I think it'll show in the final product."



Next, I am taken over to Greg Borrud's office for a look at Dark Reign 2. Greg, the game's director, begins with an explanation of DR2's conception and evolution.

"At the time we started working on Dark Reign, the two targets were Command and Conquer and Warcraft, as well as the three dozen other wannabes that came along afterwards. Our mindset was to do more than these other games in terms of AI, waypoints, queuing, while adding more levels to the gameplay. That did end up creating more layers to the menus and more buttons to push, but with DR2, we're able to give you all those levels without having to shove it in your face. Things pop up as you need them, partially not to overwhelm the player and partially because of our new technology. It's a lot

on. We've seen games moving in that direction and knew that's where we wanted to be. We're excited by the sense of immersion, because it does feel like a real world and the strategies make more sense. We're taking all the features of 2D and making them really apparent in a 3D world. We don't want to turn off the standard RTS player, but we're totally evolving the genre, taking it forward with giant strides.

"The potential hindrance was getting too involved in 3D controls and getting the player lost in controlling cameras. People get really nervous about the jump to 3D and they assume it will require all new controls. In DR2, everything is there that you would expect from a 3D RTS, but you can play from Mission One all the way to the end of the game without ever



DARK REIGN

2

more intuitive to get to the commands you need."

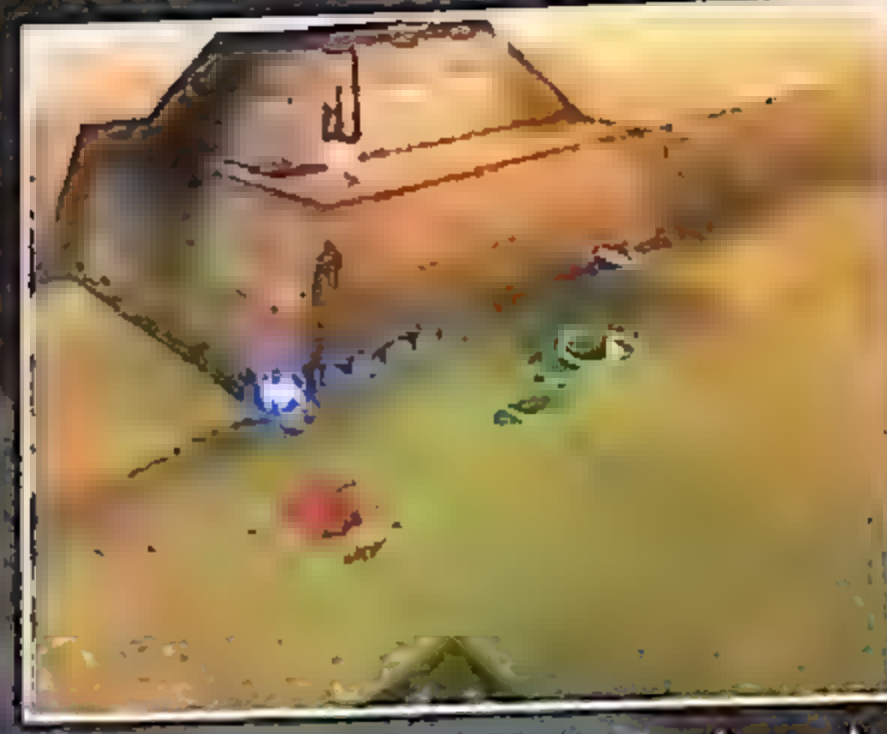
"Even though the game is now in true 3D, this is not a massive departure from the comfort zone of a traditional RTS. If you've ever played a real-time strategy game, you'll be able to get into DR2 and be comfortable right away. We've finally put the RTS genre in a 3D environment and made it truly compelling. The game's feeling is the same, just one hundred percent more dramatic because of the 3D battlefield. We wanted to deliver the richness of a 3D world without forcing you to read a huge manual."

"We decided to take the battlefield and make it the most important aspect of the game, to make it really exciting to be in and play

once having to touch a camera. Even though the game is playable from the traditional view, we encourage players to learn to use the camera system. As players get into the game and learn its intricacies, they're going to want to start experimenting with the cameras."

"DR had true line-of-sight, but since the game was in 2D, it wasn't very obvious. Now you can see the terrain, the fog of war and the importance of high ground. We're focusing on real, true scale for all the elements of the game. Unlike some games, where you have infantry units that are the same size as tanks or houses, we're preserving the sense of scale and damage is all relative." To demonstrate this, Greg shows how a huge barrier cannot be



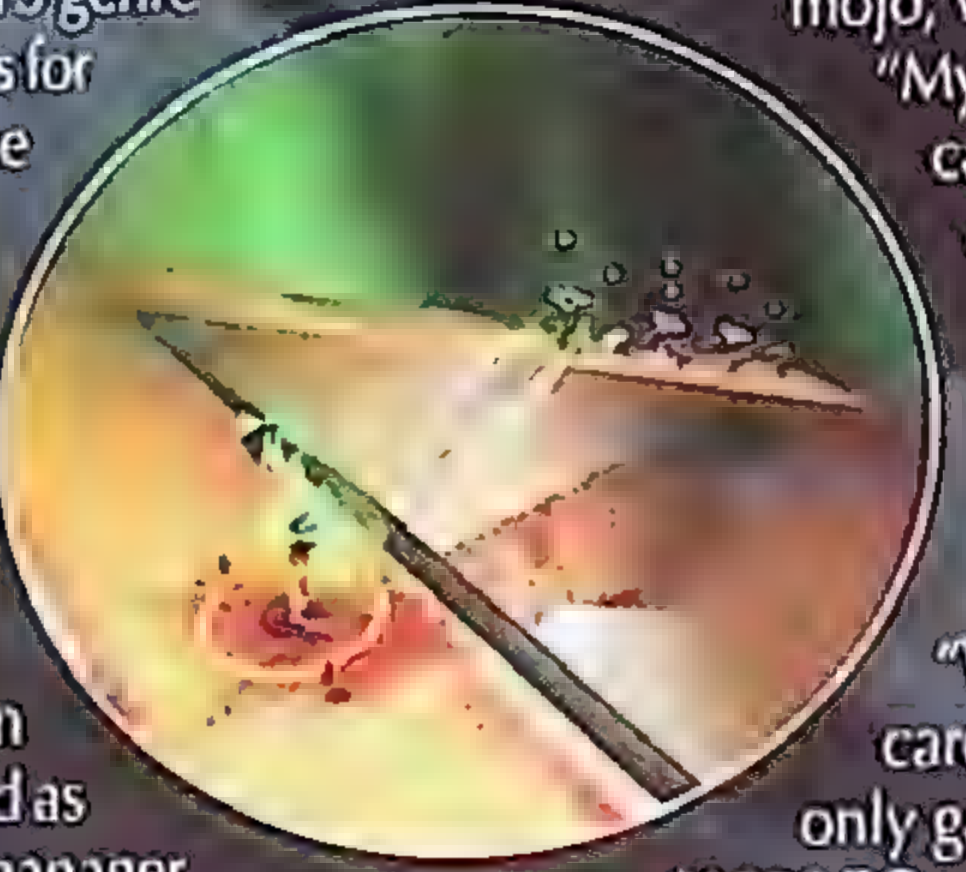


destroyed by the smaller soldiers and calls in the heavy artillery to blow open the doors.

"Naturally some things had to change. We couldn't have thousands of units going at each other in massive battles anymore. As a result, our new

game is more about infantry-based combat than vehicles. We've been able to get through without changing too much and we've really gained from the move to 3D. We're able to tell a much richer story through the game engine since we have an incredible set of tools to manipulate the environment."

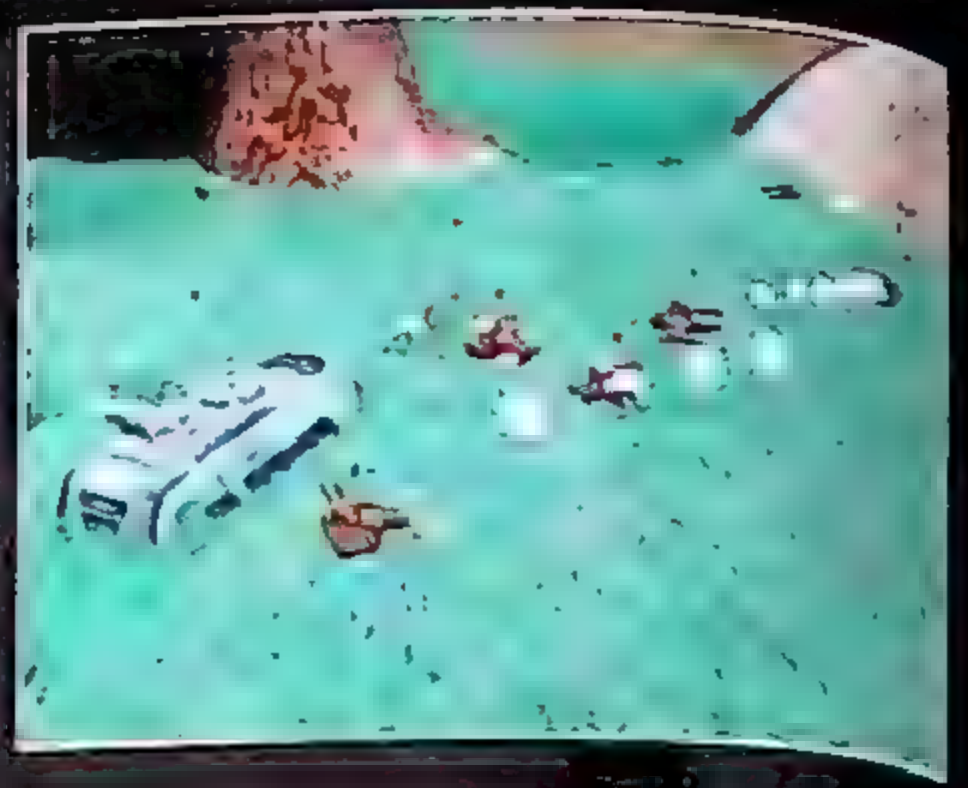
One of Dark Reign's biggest improvements to the RTS genre was its unique approach to assigning AI and behaviors for each individual unit. "We're going to have all the signature AI settings that we included in the first game, but now they're going to be more squad-oriented than individual. You'll still be able to tweak every individual unit, but the squad-based AI makes it much easier to move groups of units around together and manage them in combat."



"Once you group units as a squad, they will maintain coherence and you'll pass all commands to the squad as a whole through the squad interface. The squad manager gives you a visual indication of your group and will show the number of units, where they are and their current status. Double-clicking on the squad icon will take you right to their location, which is great if you have a group getting attacked somewhere off the screen."

Greg shows us some examples of different types of units. "On the Sprawler side, the basic infantry unit is the Rumbler. These guys are good against almost anything, but not really great at any one thing.

You're going to want to build a lot of these guys at first. The next level up is the Judas. These guys were former JDA who were kicked out and forced to live with the Sprawlers. They're good at taking out heavy stuff, but not really great against other infantry. Their specialty is their self-destruct mode. If you've got a bunch of these guys getting seriously hammered, just run them into the middle of the opposite side and make them blow up."



The Sprawlers also have a Vodun unit, a sort of medicine man. Their primary role is as a medic, but their secondary role is to cast mojos. There's a building to be created that acts as a research center for mojo, where you learn spells to be cast on the battlefield.

"My favorite mojo right now is the Berserker, which you cast on the enemy. Those units hit lose their concept of friend or foe and to start shooting at anything, including their own buildings and teammates. You cast this on your opponent's forces in his bases and watch him lose complete control for about twenty seconds."

"We're aiming at a P166 with a first generation 3D card. For a long time, we didn't want to do a hardware only game, but everything changed last year when sub-\$1000 PCs came along. Also, Europe accounts for a decent size of our sales and, while the situation is changing rapidly, there's still a lag in adoption over there. But we knew for DR2 that we really wanted to be riding the cutting edge and really wanted to impress, so we had no choice but to go 3D. I'm sure our audience will be limited somewhat by this decision, but it's impossible to figure how much more we gained from 3D acceleration and what it allows us to do."

BATTLE ZONE II

From Greg's office, I move on to check out the second game currently under construction in Pandemic's studio, Battlezone 2. I'm introduced to George Collins, Battlezone 2's director. George is obviously stoked to be working on Battlezone 2 and is more than happy to have the opportunity to show off the game to an appreciative audience.

"Battlezone was the first and only game so far that has really succeeded in putting strategy in a first-person game. It's certainly a well-liked game and we've done a lot to improve it, but not really change it. We asked people on the Internet if they wanted to see more action or more strategy in the new game and the results came back and said: both. There's still the core functionality of the first, but we've added more."



"There were two things that we felt were really important to fix in this new game: it was really hard to group units and the interface was considered to be really intimidating. Now it's both easier to command multiple units and use the game interface. We've moved to a more icon-driven menu system, which we've found is a lot easier for action gamers to understand and makes the game more 'jump in-able.'"

The first game had players sticking around our own planetary cluster, but the direction in the new title is a bit more extreme. "There are seven worlds in the game, each having different effects on the gameplay. There's Titan, Pluto, the Dark Planet, Mire, Bane and Rend (the requisite video game "ice and fire" worlds) and Core, which is a world entirely



within a giant computer. There's all sorts of real-time lighting and super-duper fireworks. I don't think we have a rival in terms of graphic quality, at least in terms of an outdoor game. I think we're sort of the Unreal of outdoor games."

"The enemies this game are the Psions, who are related to the enemies from the first game. They're sort of like humans who have been infected by the bio-metal and they've been way off in space, merging with their technology. While the Earth ISDF forces will look familiar to people, the Psion ships are more alien in appearance. They'll morph and have a much more bio-technological look to them. Our artists really struggled to come up with something that obviously wasn't based on Earth designs, but didn't look like fish or birds of something. Where the ISDF ships will have headlights, for instance, the Psion units just kind of glow."

As you can tell from the image on our cover, there's more to action in Battlezone 2 than hover tanks. The essential vehicle of the Space Defense Forces still plays a primary role, but there are a lot of new toys to control as well. There are huge two-legged mechs, traditional tanks with rotating turrets and large treads, hover cycles and a number of other vehicles. "Tracked vehicles stick close to the ground, while some combat vehicles have articulated turrets. This makes it kinda more like a mech game, since you're constantly circling around and shooting. We also included a greater system of armor class, which lets us make fast, light scouts and heavy, tough tanks that move slow and take a lot of hits. This gives a whole new dimension to the game."

"There is a huge variety of vehicles in the game, but you can still hop out and run around on foot. It's great because you get to command this whole army and still get out and be a badass. You've got a sniper rifle, demolitions, a bazooka, a jetpack... You're the commander, but also the super-stud. That's the fantasy of Battlezone — you control things, but you're also in the center of the action."

"We put in all sorts of alien life on the different worlds. These creatures aren't troublesome when you're in a vehicle, but they are very dangerous when you're outside on your own. We made the world really dangerous to the player on foot. You're going to get hunted down and killed if you stick around. In the first game, there was really only

one mission where we forced players to get out of their vehicles, but we found that people were just doing it on their own and really enjoying it. So now we've included a whole bunch of missions where you'll have to carefully sneak around and snipe at the enemy. It's a total break from the rest of the game."

"We've done a lot to improve enemy AI, to make them seem more like you're playing a human. They'll now do things that make it almost impossible to tell if you're playing against a computer. They'll jump, change their weapons, strafe out of the way of your fire, drop mines, everything a person would do in a multiplayer game."

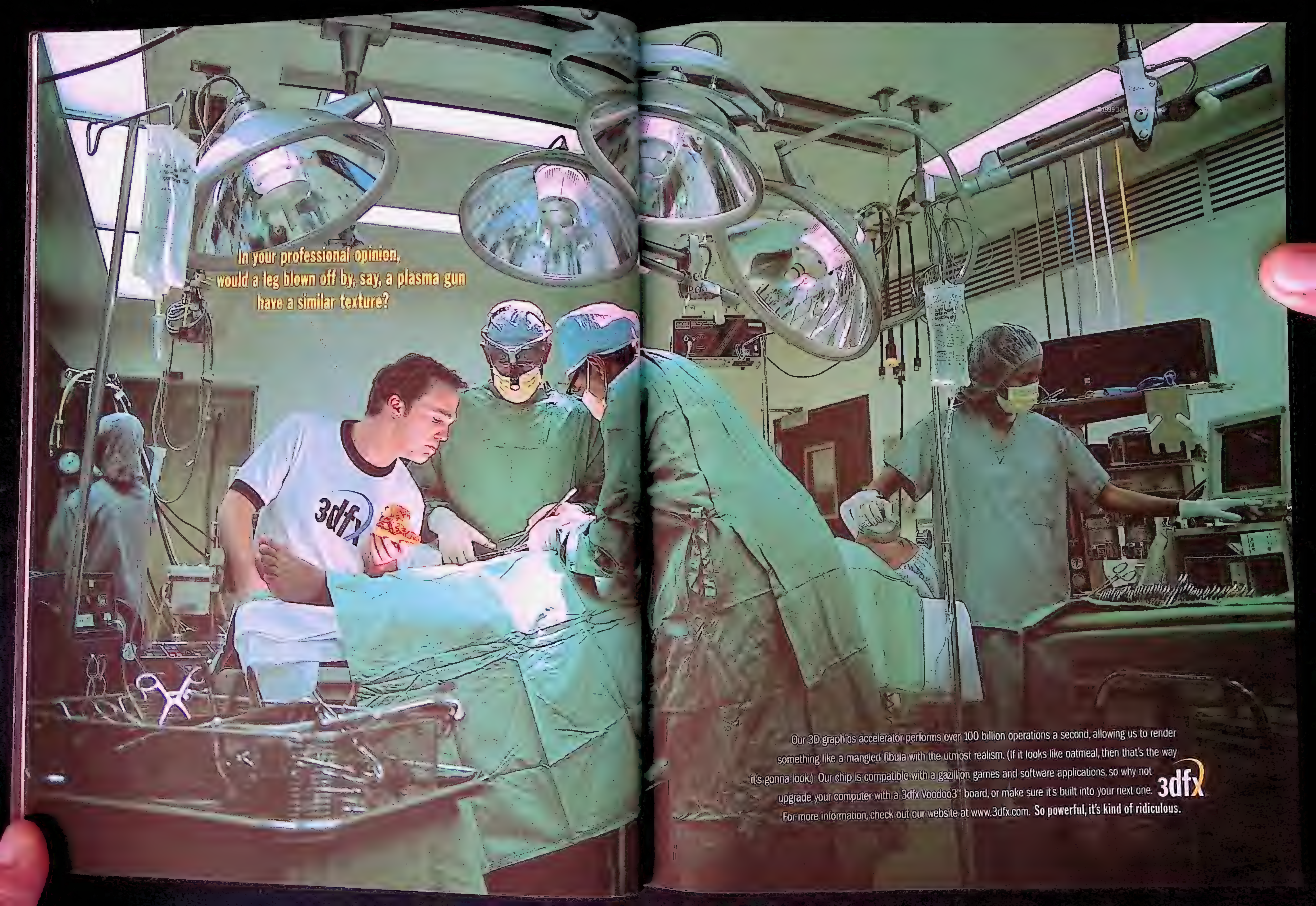
"Once you create a building, you can interface with it in unique ways. You can point to it and use it, or you can get out of your tank and actually go inside. I'm really excited about this effect. Battlezone was pretty complex and we want to make it deeper without overwhelming

players. The key to this puzzle was using the buildings. It's clear and makes sense that things in the world can be used for a separate interface. You can go into the factory and there's a terminal which you can use to customize the design of your ships and choose the types of units you want to build."

"This engine is a real revolution in the things we can show. We have four times the amount of polygons in this game, even though we're targeting a P166 with a first-gen Voodoo card. Of course, there are all sorts of features that you'll only get with the right kind of card, like the multi-texturing. With the new 3D engine, we're able to create tunnels, bridges and destructible things all throughout the environment. Buildings and objects are actually set into the world; they look really fixed, not just dropped on top of a plane. We use multi-texturing for the terrain, which helps us avoid a tiled look with repeating textures."

The vibe at Pandemic is really cool. Just by stepping into their office space (cleverly camouflaged as a meth lab so as to not attract unwanted attention), you can feel that this group is not only dedicated to the tasks at hand, but genuinely enjoy what they're doing. From the signs, this is definitely translating into their games, which are not only gorgeous, but look like they're going to be a hell of a lot of fun to play. Currently charting high on our list of "Games We Want Now, Dammit!", Battlezone 2 and Dark Reign 2 will undoubtedly shake up their respective genres this Winter.





In your professional opinion,
would a leg blown off by, say, a plasma gun
have a similar texture?

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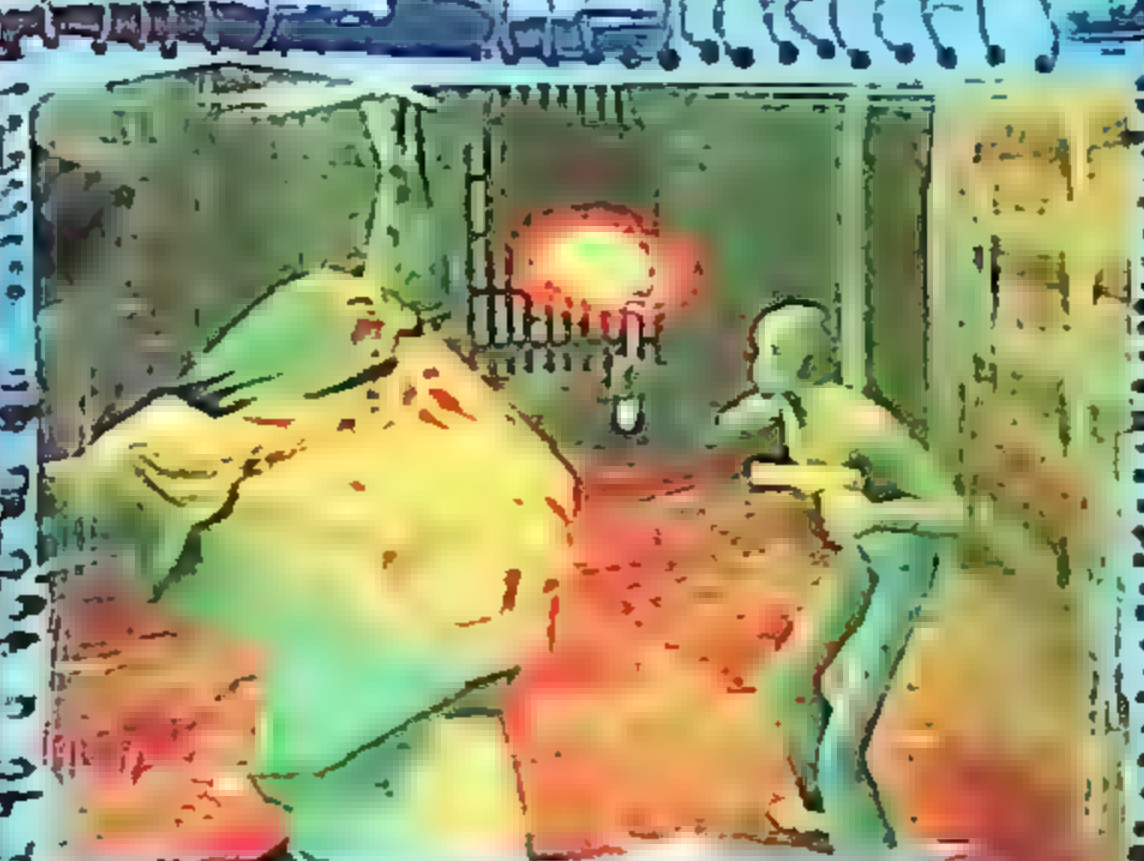


He is coming.
Walking between worlds...
Traveling the road of souls from Liveside to Deadside
And back again.

A dead man is coming, skull in one hand,
flambeau in the other...
a voodoo mask in his chest
and lines of power in his back.

A possessed man is coming,
stalking evil in tenements and deserts,
subways and swamps,
spirit world and real world.

Shadowman is coming...
To stop the Apocalypse.
To save your soul.



SHADOWMAN

Walk on
the Deadside



Warning:
This game
is recommended for
mature audiences only.
It contains adult content.



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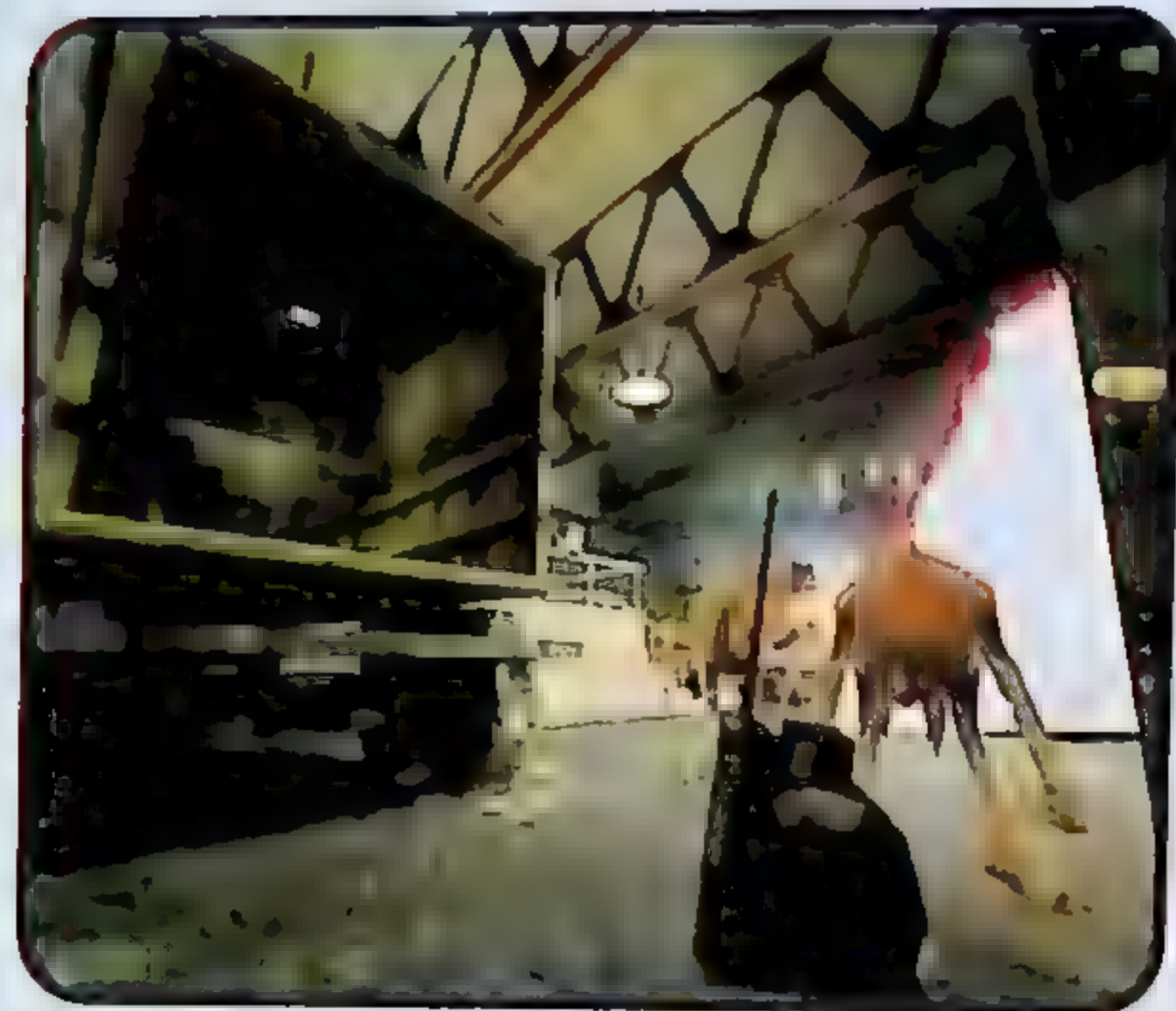
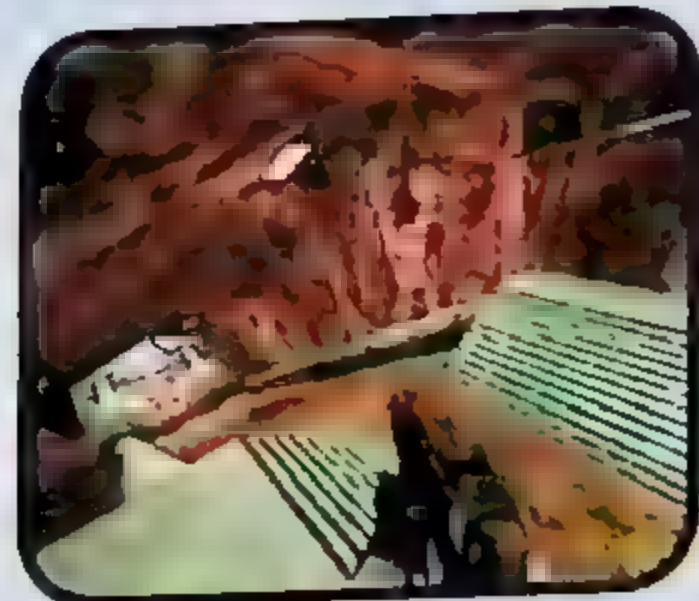
HALF-LIFE: OPPOSING FORCE

PUBLISHER: CENDANT DEVELOPER: GEARBOX DATE: FALL



We liked Half-Life. It was all right, you know, kinda cool, whatever. Screw that — we, like everyone else with a working brain and a 3D accelerator, love Half-Life and still spend far too much time playing wacky little mods, sniping foreheads with the crossbow online and generally leading our teams to victory in Team Fortress Classic. While most expansion packs and add-on discs leave us cold and out twenty bucks (see our review of the Unreal expansion pack on page 76), we're excited about Half-Life: Opposing Forces (or OpFor as the cool cats call it). Randy Pitchford, lead designer (and darn nice human being) on OpFor came by our offices to give us a private, mouth-watering demo of the game.

"The basic concept of OpFor is the same as Half-Life. It takes place at the same time, in the same place. We really wanted to be consistent with the themes of the first game, while delivering a new experience. This time, instead of playing as Gordon or one of the other scientists, we've decided to have people play from the point of view of a soldier, Adrian Shepard." Adrian was a member of the crack troopers that caused Gordon so much trouble in H-L.



However, on the way into the Black Mesa Research Facility, the Osprey tilt-rotor he and his comrades were riding in is summarily blown out of the sky. Adrian is the only surviving member of his unit and crawls away from the crash site to try to hook up with the rest of the armed forces. Turns out that Adrian was shot down before his team received their final orders, so he's unaware (at first) that he's supposed to be mowing down the facility's scientists and security instead of helping them. But our old pal G-Man isn't going to let Adrian get away quite that easily. Looks like there's a whole new



race of aliens that need to be dealt with before Adrian gets out of Black Mesa.

Throughout the first third of the game, Adrian is running through Black Mesa at roughly the same time as Gordon Freeman. While the two characters are on opposite sides of the facility, their paths will cross slightly at different points, including a scene in which it becomes apparent that Gordon's jump to Xen has actually caused a major rift in the ever-abused space/time continuum, allowing the new "Race X" aliens to begin invading Black Mesa. "While the Xen aliens are motivated by obscure political reasons (which will be made more apparent in later Half-Life games), Race X has more of a biological motivation. Sort of like the creatures from the 'Alien' movies; they hunt and kill and act like badasses because that's what they know."

"We needed to thicken the plot some. There's all this stuff happening around you with the G-Man and aliens and the black ops soldiers and female assassins. You're being subtly used by G-Man to take on this new alien race and you come to realize that his goals aren't quite the same as the government's. The government wants to shut everything at Black Mesa down and the black ops guys are to you what the normal soldiers were to Gordon. G-Man is purposefully trying to manipulate all these forces in order to find his heroes."

"We wanted to push the Half-Life experience to the limits. What everyone really liked in the first game were the scripted events, what we call 'moments.' Every BSP in OpFor will have a 'moment' of some type, so there's constantly going to be things happening. There are forty BSPs in the game, which is less than Half-Life, but we're not going to have quite

as much travelling around with nothing happening in the game." Randy demonstrates a particularly crazy scripted sequence in which he walks into a room, only to be suddenly trapped by the doors slamming shut. A huge beam weapon begins to destroy the floor, as the lower level fills up with electrified toxic sludge, forcing Randy to back into a smaller and smaller amount of space. Just when it seems that he's completely out of luck, the beam knocks down a section of ceiling, which creates a ladder to the second floor. Randy runs up to the door, which is locked from the other side. Moving slightly to the left, Randy spots the face of G-Man grinning through the window at his sudden discomfort. Randy masterfully sums up the situation: "Wow, I'm screwed."

What is the first thing you're going to want in a first-person shooter? Weapons. Gearbox has got 'em for you. In multiplayer, every weapon from the first game will be available, but since some of the stuff that Gordon picked up was on the experimental side (the Egon rifle, the Gauss gun) or



just plain weird (the hornet gun), those probably won't be available.

And then there's the new stuff. A pipe wrench replaces the familiar crowbar. The wrench naturally does more damage, and you can also use the alt-fire to wind up for a big smackaroo. The default pistol is a .357 Desert Eagle, a big, inaccurate hand-cannon that gets a lot of aiming help (but slows down) with the alt-fire laser sight. For room sweeping devastation, you just can't beat the M-249 SAW, a belt fed, Marine-designed machinegun that actually shows the remaining ammo (you'll see your last few rounds disappear into the breach as you blow off the belt). On the alien front, there's the Spore Launcher, a living alien weapon that works as either a rocket launcher or grenade launcher, the shock rifle which wreathes targets with electricity and will make them pop like a poodle in a microwave, and a barnacle, those irritating tongue critters from the first game, which can be used as a grappling hook to pull you up to new levels. Two new experimental weapons also grace the game, including the displacer, which will teleport opponents (or you) to Xen.

Since Adrian is a Corporal, he gets to boss around other friendly soldiers that he comes across. What that means for you is the ability to "use" other troopers, forming squads of compatriots into teams of up to six men, unlike H-L's limit of two helpers. Your new team will do everything that soldiers do, including ducking, calling for support, throwing grenades and attempting to flank the bad guys. There's also a medic unit, who will heal both you and your team mates with a timely injection. "We really wanted OpFor to be about squad level combat, with teams of guys facing off against each other. I can't think of any other first-person shooter that allows you to square off with a squad of six men fighting on your side against a horde of aliens."

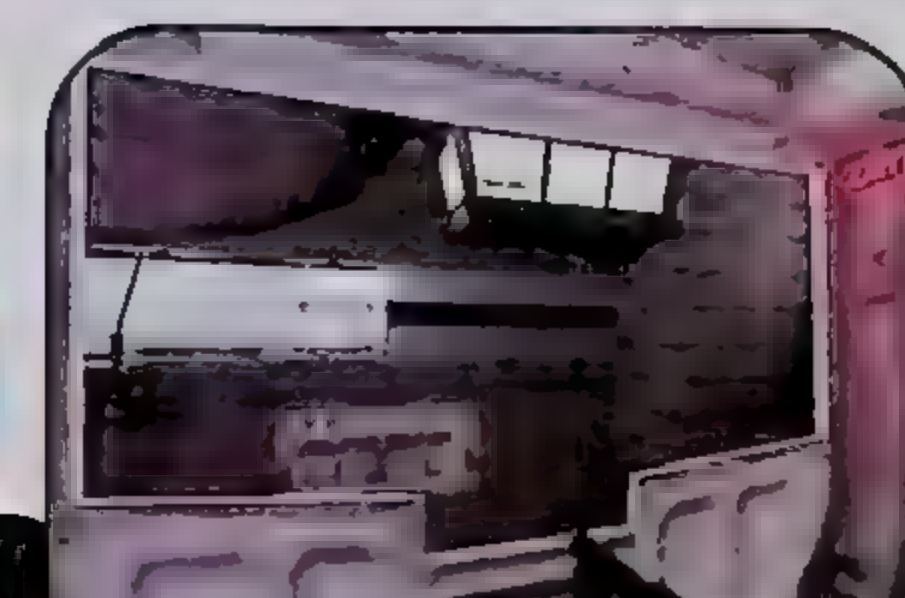
There are multiple bodies and faces for the soldiers, which means that Gearbox can mix things up a little. "Our goal is to never have the same guy appear twice in the game. We want every single NPC to be a different character. I don't know if we're going to be able to pull it off because of memory constraints, but we're almost there."

The headcrab zombies have been expanded to include Barney and

soldier corpses, and there are new types of Barney's as well (including "fat Barney," which Gearbox has thoughtfully dubbed "Otis"). There's also an in-between mutation stage, somewhere between headcrab zombie and the dreaded testicle-enhanced Gonarch they turn into. You'll stumble across scientists in clean suits, soldiers with cutting torches to open doors and your Drill Sergeant, who bears an audio resemblance to the tough-as-nails DI from "Full Metal Jacket" (which you should immediately buy on DVD). "People are going to get a kick out of the Sergeant, because he's funny and they might recognize the voice. We got the guy who did Duke Nukem's voice to do the Sergeant's lines." The Sergeant appears in the new training missions, which have been dubbed "Boot Camp."

Along with the familiar critters, there's a menagerie of new life forms to take potshots at. Pit drones, horrid spiky monsters that fire darts from their foreheads, scuttle about in packs of four and five, can smell dead bodies and feed on gibs. Large four-armed Shock Troopers will fire at you with their lower arms while lobbing grenades with the upper pair. Voltigores, huge galloping creatures that resemble nuclear-irradiated grasshoppers, fire incredibly powerful bolts of energy that need to be avoided at all costs.

"People really liked that the first Half-Life wasn't all about killing. There were lots of puzzles and places to explore and even people to talk to. We want to give people even more stuff to do." To that end, Randy demonstrates a long and complex puzzle that requires the use of a crate, pushing it from



room to room in order to reach out-of-the-way places that would not normally be accessible. You'll also be able to swing, climb and rappel on ropes, just as the soldiers did last time around. Adrian can even use the various radios scattered about the levels to receive new orders, listen in on things happening elsewhere in the base and gather information.

"There are some soldiers and scientists who will help you and there are some that will run away or open fire on you because they've seen the other soldiers at work in Black Mesa. I liked the fact that in the original, you could go around and kill all the scientists and Barney's if you wanted to. In this game, you'll be able to do the same thing. If you want to be a bad guy and act like that, the choice is yours to make. Of course, I'm not condoning this type of behavior, but it happens." Of course you aren't, Randy.

Wow. All that and a dozen all new multiplayer maps, including some done by guest all-star developers (Rituals "Levelord" lends his talent to one create one). Half-Life: Opposing Forces sounds like something that H-L fanatics simply cannot afford to pass up when it's available later this Fall.



THIEF 2: THE METAL AGE

PUBLISHER: EIDOS DEVELOPER: LOOKING GLASS DATE: WINTER

PREVIEW

Last Winter, Half-Life seemed to overwhelm the first-person genre. Despite the seeming omnipresence of Valve's game, there was one other first-person game that took up a lot of Voodoo production time. Looking Glass' Thief: The Dark Project was one of our favorite games of '98 and we were stoked to hear about Eidos' commitment to the series, promising four more Thief titles (at least) over the course of the next two years. Steve Pearsall, project director of Thief 2: The Metal Age, graciously took time away from his work frenzy to guide us through the new game's darkened corridors.

"Thief 2 is set a few years in the future from the end of the first. We have some great plot twists in store for Thief players. I don't want to spoil anyone's enjoyment of the story, so I don't want to say too much. I'll just say that you can think of Thief 2 as a three act play, where Garrett moves from a focus on simple thieving on to an investigation of the sheriff's intrigue, leading to confrontation, failure, and personal redemption. Thief 2 is set to take place within the confines of the city, so you'll see missions that take place in areas you'd expect to find in a city—a bank, city streets, mansions and warehouses."

Although Thief was a top-flight game, the 3D engine was not exactly the cutting edge of technology. That will change with Thief 2. "We're



"The stealth gameplay that makes Thief stand out is based on a sophisticated AI system that convinces the player that hiding from the AIs is a believable and fun challenge and that won't change. Since a lot of the gameplay in Thief comes from the players' interactions with the AI, we have to be very careful about improving the AI, as that will also make Thief a harder game to play. The unique gameplay in Thief comes from being weaker than most of your opponents and we don't want to change that, so you will still be a Thief, not a fighter, in Thief 2. We've received feedback from some folks who thought that Thief was already pretty hard, while at the same time we've also heard from some



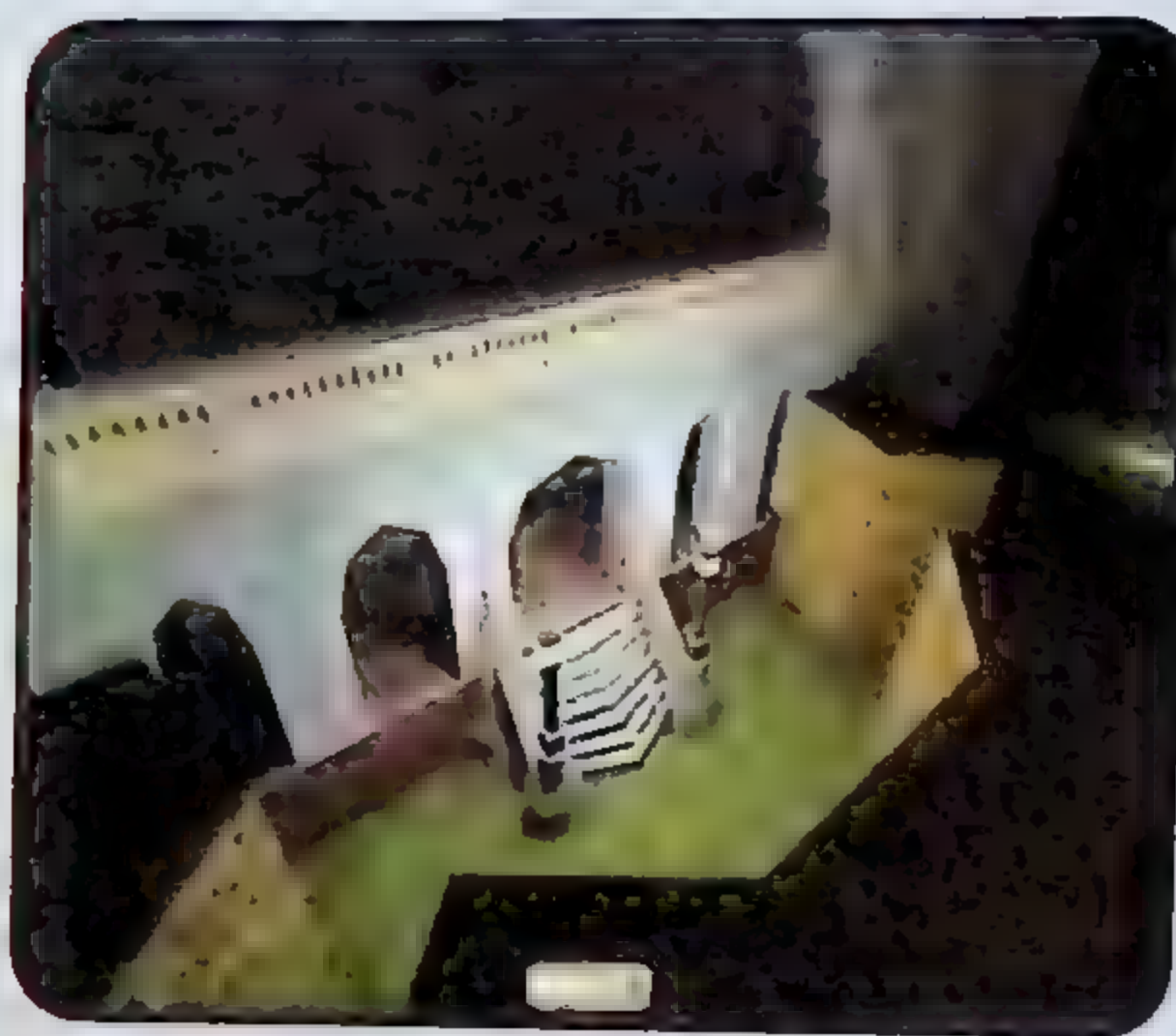
players who want more realistic AI. What we want to do is to tie in the AI capacities into the difficulty system, so that on normal difficulty, Thief 2 won't be frustrating for everyday players and on expert settings there are more interesting challenges."

"In Thief: TDP we were really experimenting with a new type of first person game, something we like to call a "first person sneaker". While we did a great job with Thief, we know we can take the first person sneaker concept to a new level based on our experiences with Thief and from the great feedback we received from our fans. We're really trying to focus on the stealth gameplay concepts we introduced. The new features and changes that we are planning for Thief 2 are basically centered on making Garrett a better thief, not a better fighter. We want to provide Garrett with a better set of tools for scouting ahead—casing the joint, so to speak. This will allow the player opportunities to do more advanced tactical planning. Another design goal we had in Thief was to keep the user interface clean and direct. We felt like it was very successful and we don't want to do too much to it. You know what they say - "If it ain't broke, don't fix it."

"We really wanted to use sound as an important component of the game and I think we did a great job. So naturally we are looking at new ways to use sound in Thief 2. A couple of the things we are looking at are giving the player the ability to use sound to cover any noise they are making. For example letting the player turn on a noisy machine to cover the sound they make when moving. We are also going to give the players the ability to listen through doors by leaning into them. This should be really cool with the hardware support for obstruction and occlusion that will be in EAX 2.0. And of course, we already supported 3D positional audio in Thief 1, so of course that will still be in there."

The biggest missing component (perhaps the only missing component) of Thief was multiplayer. It would have been really cool to play cooperative levels, breaking and entering with other thieves or to race against other players to bag an item and get out before being caught. "Support for multiplayer was added to the Thief engine for System Shock 2, but we want to ensure that we come up with a solid design that makes sense in the context of Thief before we announce any definite plans about multiplayer for Thief 2."

"The biggest challenges are the most exciting aspects of doing any game, or anything else for that matter. The biggest challenge of all is to take all of this powerful computer technology we have at our fingertips and blend it with a great design to craft an immersive, compelling world for the player to lose themselves in. If we can make you forget that you're sitting in front of your computer and get you to live for a while in our world in Thief, then we've really done something."



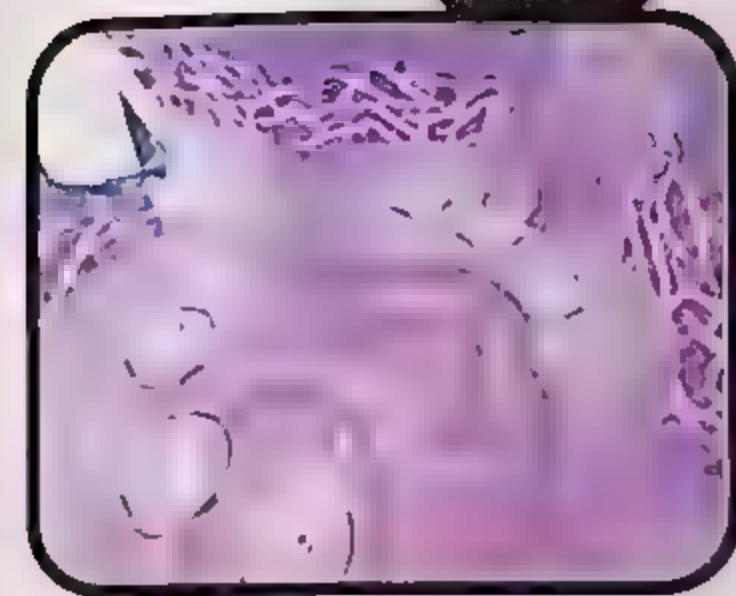
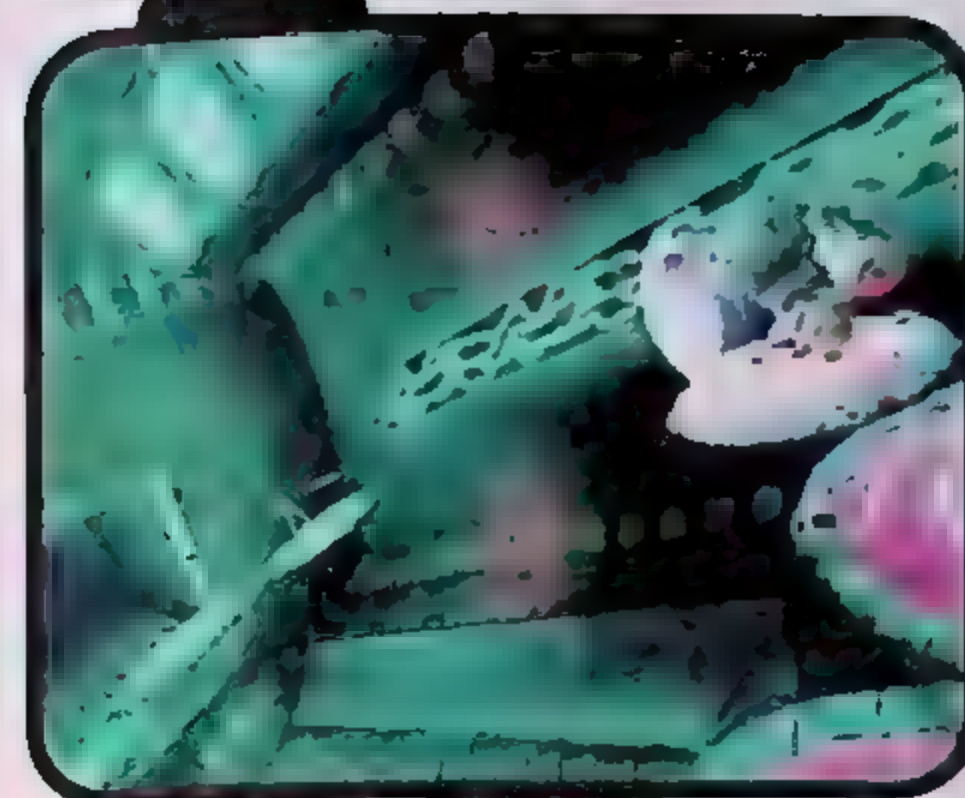
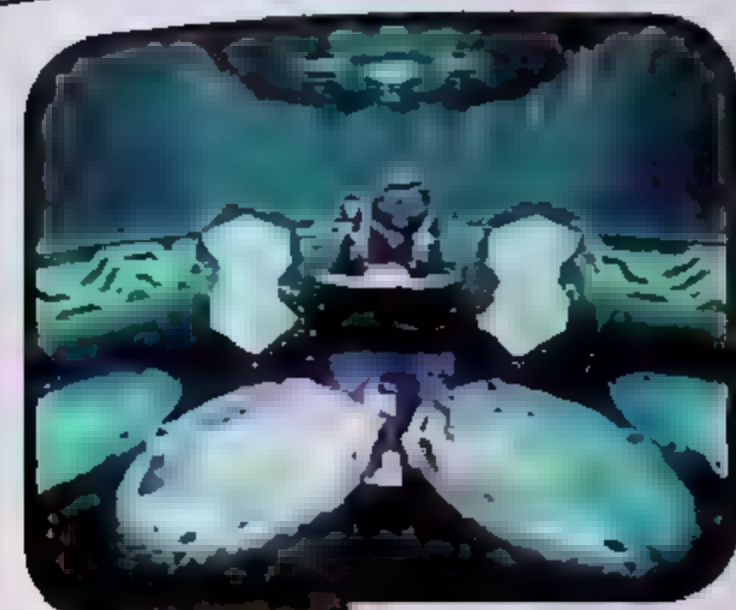
starting with the improvements that were made for System Shock 2, colored lighting, 16-bit textures and higher poly counts, to name a few. Right now, we're planning on requiring a 3D accelerator card for Thief 2. We are in the process of adding some new features, such as 32-bit blending and an improved texture mapper. We are also looking at features that will be supported by the next generation of video cards, but I can't really talk too much about that as we are under NDAs with the hardware guys. With the improvements above and beyond the Shock 2 enhancements, the engine will appeal to Thief fans as a new one in comparison."



DRONEZ

PUBLISHER: NONE DEVELOPER: ZETHA GAMEZ DATE: 2000

PREVIEW



Voodoo's main production guy, Tim Lindquist, is a hard-core arcade game collector. Tim goes to crazy auctions, spends an unhealthy amount of time surfing eBay and has all sorts of nutty friends that he buys, sells and repairs games for. Editor in Chief Kramer has repeatedly asked Tim for one thing over and over: to find a nice Discs of Tron arcade game (circa 1983). Well, Tim finally found one, and the jerk kept it for himself!! Those games are like gold, for good reason. Not only is the "environmental unit" a sight to behold, but the game itself is still one of the all-time 80s classics, up there with Robotron, Defender and Ms. Pac-Man. Well, if Zetha Gamez manage to get their game DroneZ published in the US, maybe Kramer won't have to keep looking for a Discs of Tron arcade unit.

DroneZ is in no way related to Disney's classic "cyber-space" movie, but it certainly does seem to bear a passing resemblance to the game it inspired. But where the Bally/Midway game relied on lo-res 2D graphics projected onto a black light background, Zetha's game is in smokin' OpenGL accelerated 3D. Which is why we're writing about it.

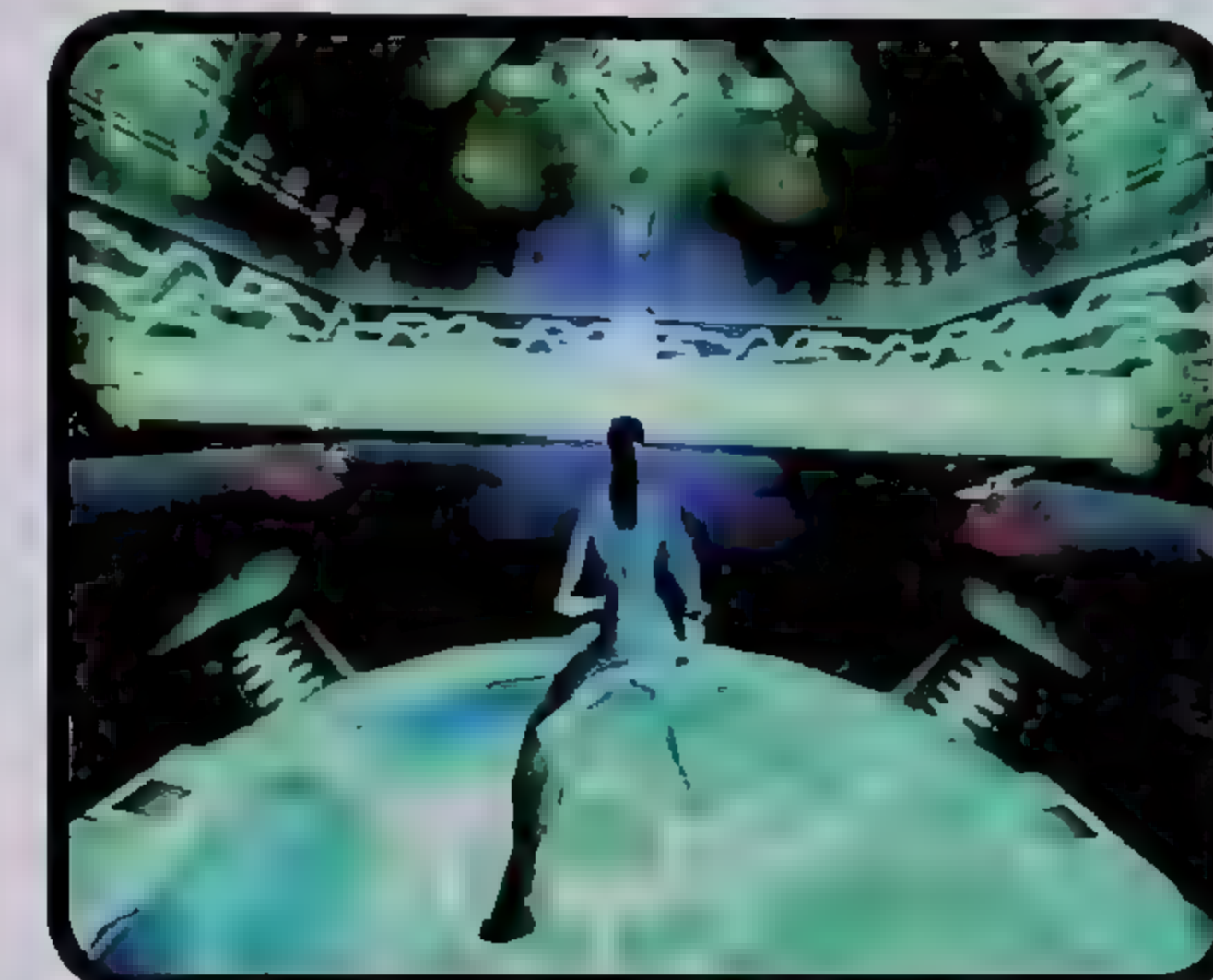
Here's their setup for the game: in the near-future, pollution has turned our peaceful planet into a cesspool, an intergalactic Wal-Mart of gunk and decay. Humanity has been forced to turn inwards, hiding out in force-feedback virtual reality suits, living life solely on the global computer network. Instead of watching hockey or building ships in a bottle, most folks spend their time partaking in a virtual sport, where their avatars jump about platforms, shooting bolts of energy to knock their opponents off ledges.

So, the basic game concept is to stick to your side of the arena (not like you have much choice), jumping from platform to platform, using your precious supply of energy to shoot projectiles at your opponents, to erect a momentary forcefield to protect yourself, or even to reflect the incoming

shot back towards the person who fired it.

The gravity in "V-Space" is relative to the person affected, so it is possible to have other players oriented at completely different heights or angles, even to be fighting someone who appears upside from where you're standing. Your shots can also bounce off walls, explode, or pass through harmlessly, depending on the type of barrier or obstruction. The developers will be tossing in pick-ups for momentary boosts.

From both the description of the game and the screen shots, it's easy to see that they're channeling the same gameplay idea, but updating and redefining it for our accelerated world. This could be a good thing, if done correctly. DroneZ is currently without a publishing deal in the US, but Zetha is saying that the game will be done and ready to go sometime in the year 2000. If you'd like to learn more about the game, check out their web page at www.dronez.com.



HALO

PUBLISHER: BUNGIE DEVELOPER: BUNGIE DATE: SUMMER 2K



We're going to make you very, very excited and very, very angry in one fell swoop (or one swell foop, as Helen Keller Plaid would say). Take a moment to check out these screen shots for Bungie's new baby, Halo. Yes, they are real. No, they aren't renders. Nope, they're not taken from some kind of intro movie. These shots come from actual gameplay in their engine. Now that you're all aquiver with anticipation, sit back and pop some relaxation aids, 'cause Halo won't be coming home with you until sometime in mid-2000. We know, we know; we're just as bummed as you are.

"When we make a game, we start by creating an environment, then adding terrain, physics and then creating the actual game," said Doug Zartman, Bungie's PR maven. "We're currently at the end of the first stage of development and we're about to move on to world creation and multiplayer balance. Once we've got all the weapons figured out, we'll start working on the single-player game."

You play a space marine in the future, chased by a group of aliens. Humanity is currently embroiled in an interstellar conflict with this alien race, called the Covenant, and they're hell bent on wiping you out. So intent are they on stomping you like a bug, that this battle group chases you across the universe to a previously unexplored section of the galaxy, where both human and Covenant ships end up landing on an alien ringworld.

If you're unfamiliar with the idea of a ringworld, then you're obviously not watching enough Star Trek. Imagine a huge ring that stretches around the circumference of a friendly M-class star, like our own sun. When the ring is rotated, it develops its own natural gravity, while the huge scope of the artificial world holds the equivalent area of many hundreds of planets the size of Earth. This strange construction leads to a rather unique "horizon," as it

would be possible to see the world actually curving up and away into the sky. "The scale of the world is huge and we intend it to be one single, massive environment, with no level breaks or separations," Doug tells us as our jaws drop. "The play will be nonlinear and the player is able to choose how he wants to fight."

Bungie isn't just pushing 3D acceleration; they're actually booting the entire concept down a steep hill. Almost every feature of the new 3dfx chipset (with the exception of some of the T-Buffer stuff) will be kicked, tugged and tried on for size by Halo's engine. The game is hardware required, naturally, and features full 32-bit color, with multipass rendering across all surfaces (no less than three levels of texture are applied to every object in the game), per-pixel environment and reflection mapping, animated textures and support for texture compression. The final game will even support hardware transformation and lighting. Halo will also have deformable terrain meshes, inverse kinematics, skeletal animation and a real-time 3D level editor. Golly!

We've often wondered what the next step in 3D graphics and acceleration will look like and Bungie has just shown us the future. We've not been overly wowed by 32-bit color in current games (since most of them seem to include the feature as an afterthought instead of a target), but Halo is the first real demonstration of what an extended bit depth will do for you. And we haven't even gotten into the killer gameplay elements. Bet your life that you'll be seeing more on this title as it nears release sometime in the middle of 2000.



TRIBES 2 AND TRIBES EXTREME

PUBLISHER: CENDANT DEVELOPER: DYNAMIX DATE: Q1 2K/FALL

PREVIEW

Calling Tribes one of Voodoo Magazine's favorite games last year (and this year, to boot) is in no way an understatement. We chose Tribes to grace the cover of our Winter '98 issue because we were in awe of the revolutionary gameplay as much as we were with the gorgeous graphics. If you have not played Tribes yet, you either A) are without a modem, 3dfx card and internet provider, most likely live in a cave and have only picked up this magazine by accident or B) suck. None of us wants to fall into either of these categories, so make sure you rectify this situation post-haste, will ya?

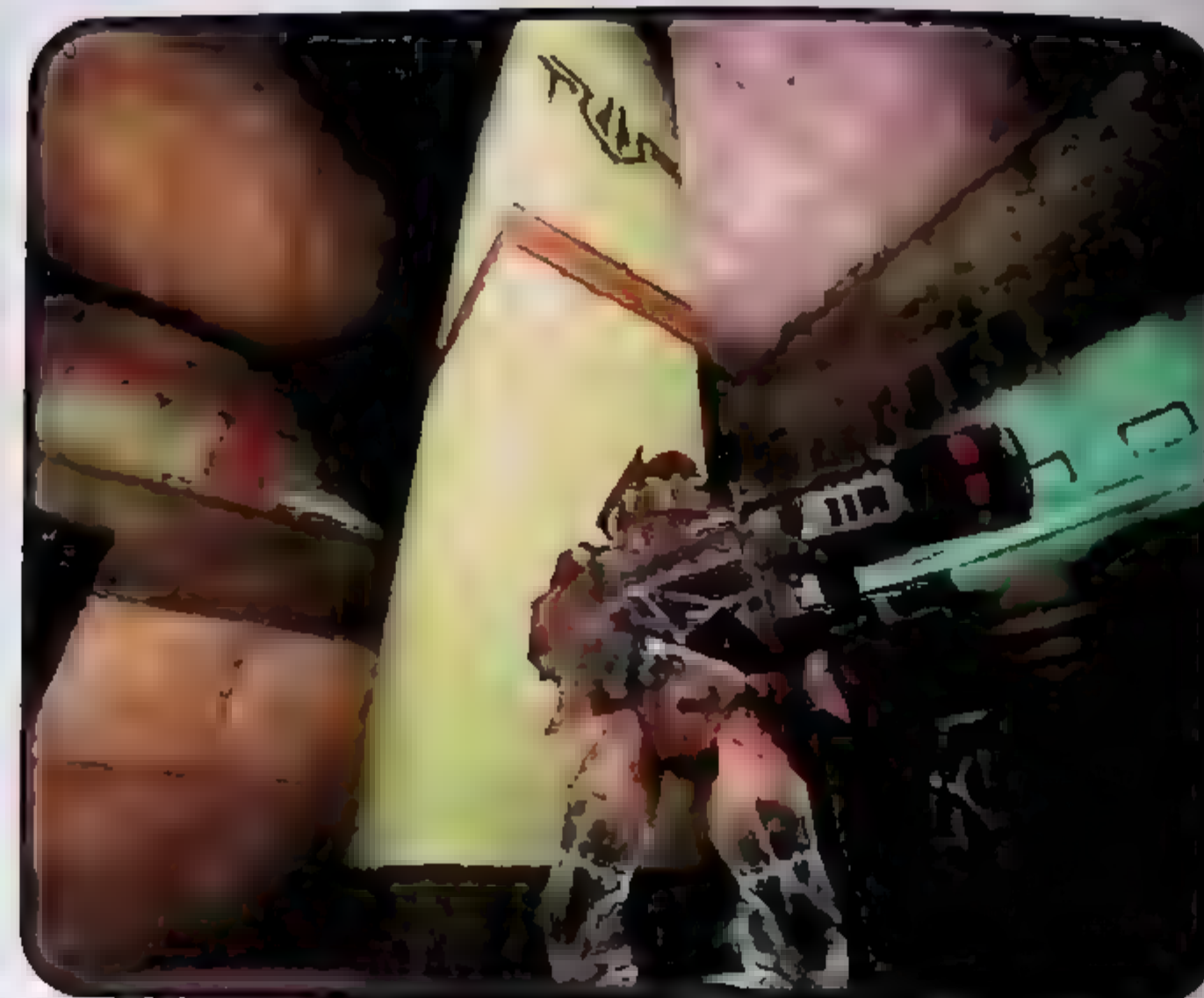
Tribes was predictably a big success for Dynamix (who also cranked out Starsiege, a game which all lovers of giant robot combat should also own) and they've wasted no time in prepping the next two games in the series. Tribes 2 will be more multiplayer team-combat craziness, while Tribes Extreme will take the game off-line and surround the core game with a tasty single-player candy shell (something that anti-net Luddite gamers have been clamoring for).

Maintain your skills on the first Tribes, 'cause Tribes 2 won't drop until early 2000. But we'll be mighty happy when it does.



Tribes 2 will run on both Mac and PC right out of the box. Oh yeah, there'll be a slew of new weapons and toys for you to blow up other players with.

The biggest news for Tribes players will be the addition of a whole new Tribe, the BioDerms. The BioDerms shouldn't really be "new" to anyone familiar with the Starsiege universe; the 'Derms have been around since the original Earthsiege game. BioDerms are essentially no-deposit, no-return clones, replaceable frontline cannon fodder grown in vats and maintained by a special diet of Twinkies and that delicious electric orange 7-11 nacho cheese. At



this far-off point in history, the 'Derms have thrown off their shackles and demanded their rights to life, liberty and internet porno. As such, they don't really get along with the rest of the humanoid Tribes and intend to wipe them from the face of the universe. Throwing off the limitations of the human form, the BioDerms now build massive, biomechanical bodies, all the better to beat you senseless with.

Tribes Extreme, on the other hand, is going to be both a bit more and a bit less of a social experience. Dynamix has decided to do something different for this fall release; instead of releasing an easy "add-on" pack of questionable value, they've decided to really go back and give players what they felt was missing. There will be multiplayer portions to the game, but, for the first time, you'll be able to truly play Tribes by your lonesome. That's right — no pesky ping times, no profanity-spewing teenyboppers and, best of all, no one to witness your pathetic playing skills. Fortunately, there are a bunch of new training missions to help you work on said skills. These training missions have been greatly enhanced from the originals, which were hard to understand even for experienced players. Teams can now practice together as well, as new AI routines allow a squad of players to fight against a team of computer-controlled baddies.

There's a bucketload of new multiplayer enhancements packed onto this disc, which should give the online Tribes community a real kick in the armored shorts. There's been a lot of work put into these new missions to make sure that one side doesn't have an unfair advantage or suffer from an indefensible position, which will make it easier to run tournaments and ladders. These missions are made up of new maps, including new environments and objects, which should change the look of the usual Tribes battlefield.

But the biggest element is going to be the single-player portion of this game. Tribes Extreme will contain a three-part battle, spread over many individual missions, each with specific goals that relate to the overall storyline. You'll be fighting the Grievors, a gypsy-like band of honorless scavengers and pirates that has wiped out your Tribe family like a vicious band of Sandpeople. You begin the adventure on your own, lacking in the Big Guns Department, but slowly gain new weapons and hook up with your own Tribe of AI buddies. You'll be able to control these squad mates, assigning them roles (sniper, scout, assault, defense) and issuing orders as you would to an online team.



FINAL FANTASY VIII

PUBLISHER: SQUARE/EA DEVELOPER: SQUARESOFT DATE: 2K

PREVIEW

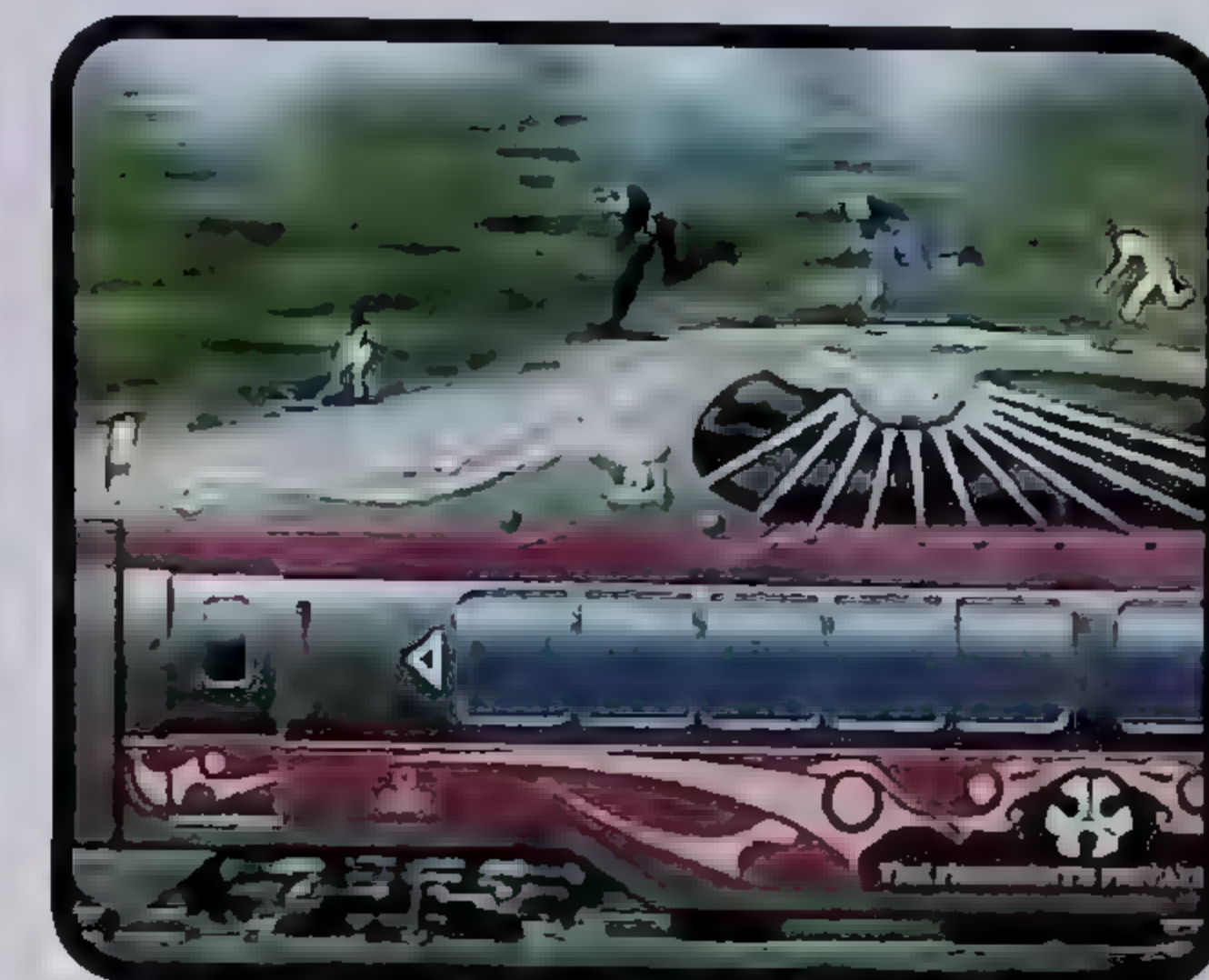
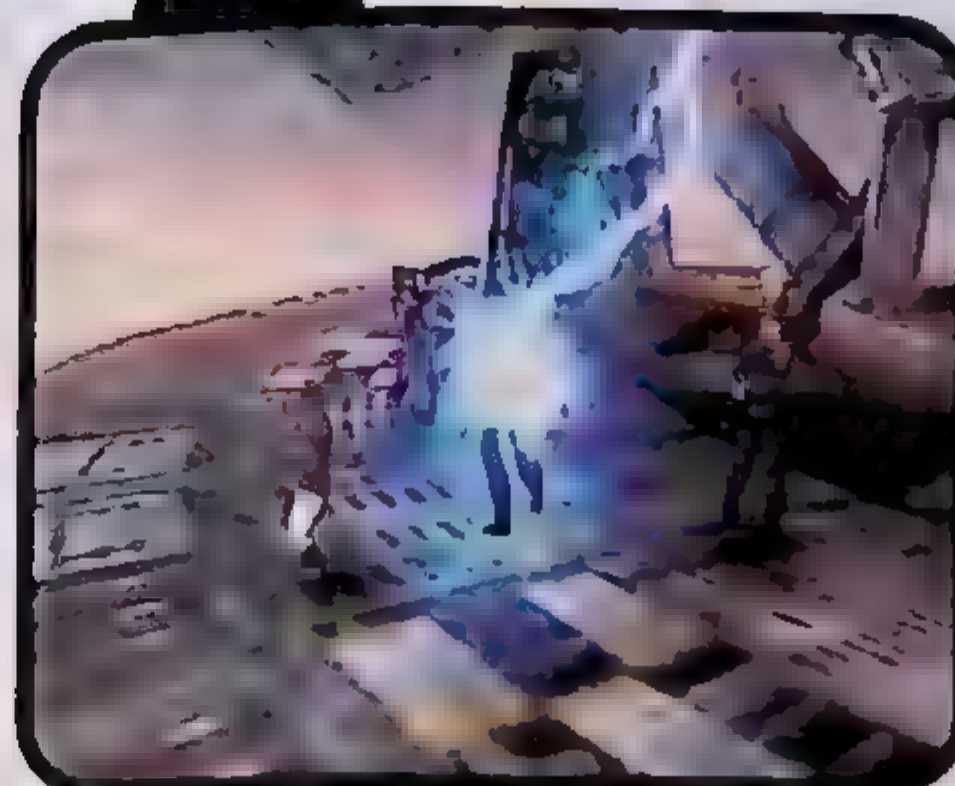
Final Fantasy VIII is one of those games that is undoubtedly going to receive a lot of hype. The game is highly anticipated, it looks spectacular and the series, even on the PC, has a following of fans. Credit also has to be given to the media blitz that both Sony and Eidos funded for Final Fantasy VII. Were it not for some amazing marketing work on their part, this title might have slipped underneath a lot of consumers' radar.

Here's the premise: The world of Final Fantasy VIII is a world of magic, but a world where sorcery is feared. The last known sorceress was the cause of a great war that nearly destroyed the planet. Because of this, there was great concern when the President of Galbadia announced that their new "peace" ambassador was going to be a woman named Edea, a woman who was a sorceress. It seems that Galbadia never planned for peace, they simply wanted to use the sorceress as a threat to ensure they could simply crush any opposition. SeeD is possibly the only threat to the sorceress' reign of power. As a group of special operatives, SeeD members are highly trained in all aspects of warfare. Knowing that they don't have the manpower for a full scale assault, SeeD sends in a small group of operatives to take out the sorceress. If they can assassinate her the world will be saved. If they fail, everyone will fall to the power of the sorceress. It is up to you to ensure the SeeDs do not fail.

As you can see from the accompanying screens,

visually, Final Fantasy VIII is a treat. The backgrounds are, once again, fully rendered and the characters are polygonal, but there are no more super-deformed people. All of the characters are portrayed as realistically as possible. The multitude of spell animations are amazing to watch (at least the first time through) and the CGI work is up to Square's expected high standards. If the work here is any indication, the computer animation in the upcoming Final Fantasy Movie should be excellent.

While not a typical RPG in the truest sense, like part VII, FF VIII should appeal to a multitude of gamers — hardcore and first timers. Already shipping for the PlayStation, the PC version will be hitting retail shelves in early 2000.

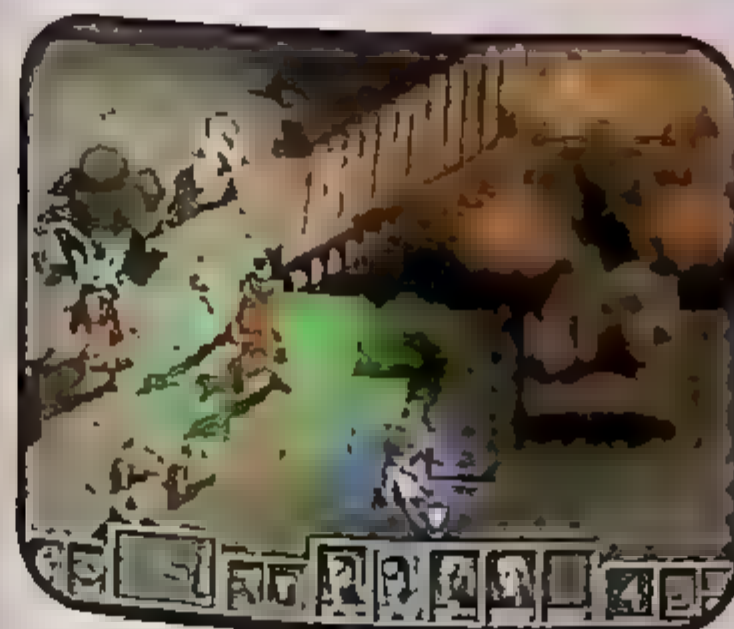


ODIUM

PUBLISHER: MONOLITH DEVELOPER: METROPOLIS DATE: WINTER

Much like Final Fantasy VIII, Oidium is made up of 3D polygonal characters set in 2D environments. This set-up is advantageous for two reasons: the 16-bit color backgrounds are much more detailed than they would be if they had been rendered in 3D and the static camera angle means that each model can have many more polygons (about 2000 per character). The result is very nice looking and captures the intensity of the dangerous urban environment that the game is set within.

Oidium sucks players into a oily, dangerous urban sprawl, within a military city destroyed by forces so far unknown. You take on the role of Cole Sullivan, a lieutenant of a shadowy group of NATO special operations-types who have been dropped into the city in order to ascertain what has gone on. The city is a secret training ground within Poland, an exact replica of a typical US town, where Eastern Bloc soldiers train for street-level combat. Once within the city, you find that the town has been trashed by inhuman creatures and must find a way out before you become Mutant Chow.



and meeting up with the scared and sneaky survivors. Metropolis has taken great care to keep the game from being a "mouse-hunt" type of adventure, where you're forced to scroll your pointer over every object on the screen to see if there's anything to use or interact with. As you approach interactive objects, they blink to draw your attention. The backgrounds are very well done, made up of extremely high-quality artwork and it could be quite a chore to have to scroll over every millimeter.

When it's time for combat, the game switches into a much more 3D-intensive mode. Combat zones are still 2D, but more 3D characters will appear on the screen. Battles are all turn-based, run in much the same way that combat is handled in X-Com. During your turn, you are able to move your characters about within their limits and take one action, whether that action be shooting, handing off an item, healing yourself or any of the many other options. Your characters will carry out your commands as soon as you input them, so it's important to take your time and think your way through each situation before immediately diving into combat. You will be able to control up to five characters in your group at once, with many people joining and leaving your party throughout the game.



NEED FOR SPEED: MOTOR CITY

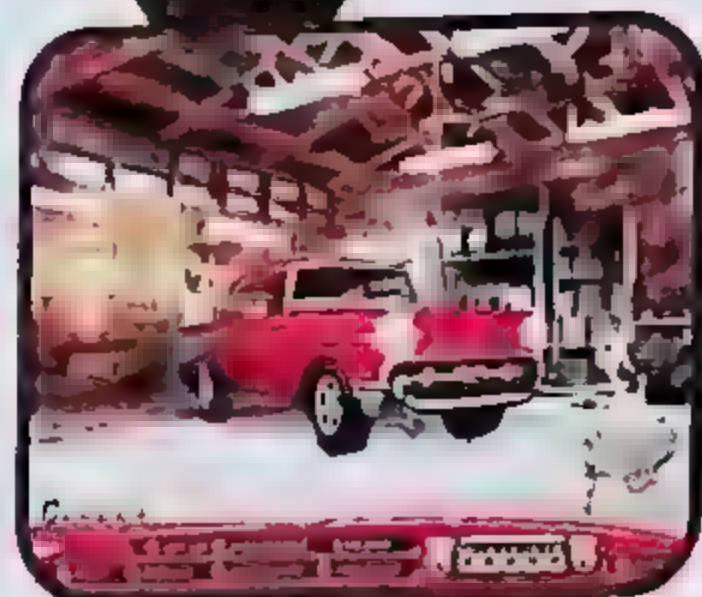
PUBLISHER: EA DEVELOPER: EA DATE: WINTER

PREVIEW

In the last issue, we took an early look at Motorsports Simulations and their plans to build an online racing environment. Looks like they're not the only people committing to internet racing. Electronic Arts is now waving the checkered flag for their own online racing. But EA's got one major thing that MotorSims doesn't—the Need For Speed brand.

Need For Speed: Motor City is going to be EA's second big push for a persistent world, this time focusing on the gearhead-and-grease aspects of American car culture from the 50s and 60s. "While we developing NFS 3, we split off a bunch of the team to start building what would become the Motor City product," Peter Royea, Motor City's producer, told us. "Our basic idea was that we wanted to take NFS to an online realm and have it make sense as best we could within that category. Racing is inherently difficult to communicate over the internet, so we knew we needed to do something different, so we took a look at the best online environments; not just the gaming, but the community aspects and being your own person. We wanted to bring the automotive world to the PC and provide opportunities for people to get involved in this world as deeply as they wanted to."

Today, most car owners don't even change their own oil because cars have become so complex, but in the 50s, drivers were comfortable modifying their rides to all manners of extremes, from changing tires to adding superchargers and blowers. Motor City will sport some 30-plus cars from that era, including fly rides



where citizens can sell their cars.

There will be a "limited" singleplayer game, which should allow first-time players to get the feel of Need For Speed's game style, but the emphasis is all on the internet play. When you enter Motor City for the first time, you create a character and are given a small amount of cash, enough to net you a junker that you can begin racing and a garage to store it in. Once you've got your first set of wheels, you start racing, entering either "sanctioned" events or the less reputable drag races through city streets.

Sanctioned races are designed for the serious racer who likes to have set rules and courses and pay entry fees. These types of races take place on marked off tracks through different areas of the city. "Those who like NASCAR and sim-type



racing games will prefer the sanctioned races with their set leagues and rules. People who prefer to play in an action environment will appreciate the greater opportunities for high speed chases of the Challenges."

There are all types of races in Motor City, on a number of different "tracks." There is a sanctioned racecourse that loops around the park, where they have closed off the streets. Most of the Challenge races run through the heart of the city, on the other hand. The unsanctioned "Challenge" races are set up between players (for money or pink slips) and happen on crowded city streets, where drivers have to spend as much time watching out for oncoming traffic and angry cops as they do the course itself. Wherever you race, the intent is to feel like you're within the Motor City world, with a heavy focus on the urban environment around you.

With the Challenge races, the potential is there to really bang up your wheels. "You absolutely have to pay for damage," Peter affirms. "Damage affects cars in different ways, both in performance and looks. After a race, you'll have to take your car back to the garage, get an estimate on the various repairs and then choose what you want to have fixed. The game is set up so that you can't really run out of money. In every sanctioned race, the minimum payout should be enough to get your car repaired, no matter what state it's in."

There are several "hubs" throughout where players can go to look for upcoming sanctioned races, check out other cars and challenge players. Hubs fit within the overall theme of the game, such as Mel's Diner, where players can pull up their car, hang out, chat, compare stats and boast. "Through the hub, there's an opportunity to get some degree of information on other players' cars, but you'll also be able to pull up some stats for each racer based on historical performance. Motor City is not like UO, where you're exposed publicly to someone who's been playing for two years and kills you on sight. A newbie will not want to race against someone who has been online for twelve months and has won 90% of his races. Everyone will be playing the game differently. We're doing everything we can to protect newbies and novice gamers."

Incredibly, while other publishers are rubbing their hands together and salivating over the idea of charging players monthly fee for continuous service, Motor City will be free. From the moment you get the game home, you won't pay another dime, no matter how much time you spend racing. "The online experiences to date have been reminiscent of series that have been around since PC games were only meant for hardcore players. We've found that racing games are growing and becoming more mass market. We're offering something much different from fantasy D&D stuff, with a low barrier to entry."

Need For Speed: Motor City is currently in a closed beta test stage and, if all goes well should be available at retail in time for Santa to drop a copy in your stocking.



like the '57 Cadillac Eldorado, the '64 Chevy Impala, '49 Mercury Coupe and the '67 Chevy Camaro. Additional cars will be added after the game launches as more licenses come together and new models are created.

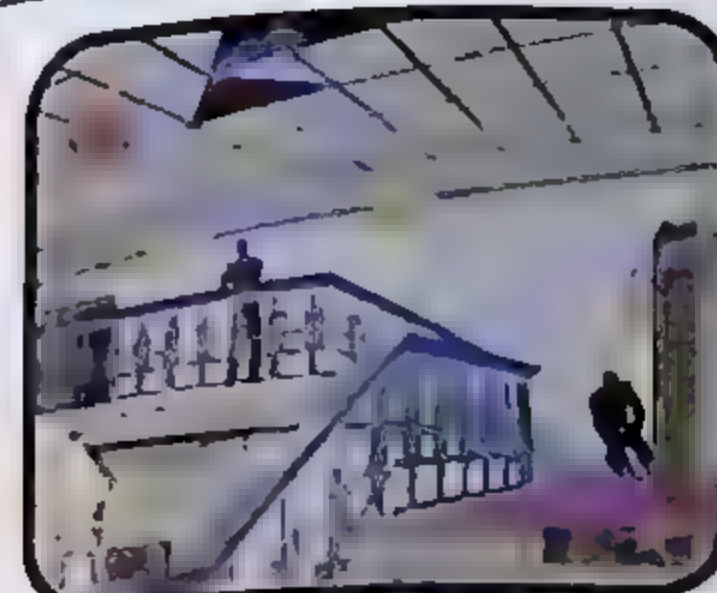
Cars can be purchased from used car lots, dealerships and even other players. Supply and demand will drive a good deal of the car collecting frenzy, as certain cars may be offered only on rare occurrences, which means that savvy players will be able to make money as collectors, selling off rare big-ticket cars to other racers. Every day, the "Motor City Gazette" will be emailed out to all registered users, with news, updates, league standings, race announcements and "classifieds,"



DIE HARD TRILOGY PART 2

PUBLISHER: FOX INTERACTIVE DEVELOPER: N-SPACE DATE: WINTER

PREVIEW



The original Die Hard Trilogy offered up three separate games in one package (3rd-person action, shooting and driving). The game chronicled the misadventures of policeman John McClane who, by pure happenstance, always seemed to conveniently end up at the same place as a group of terrorists looking to rob the US blind.

Since the original was based on all three of the Die Hard movies, we figured a sequel wasn't even a consideration. Apparently, Fox Interactive did, and have been secretly hard at work on a follow up game for release on both the PC and PlayStation this fall. Instead of recreating a new game using the old storylines from the film, Fox, along with new developers n-Space (the original was developed by Probe), have created an all-new storyline, while keeping with the basic game design from the first. The story is set among the neon lights and arid desert landscape of Las Vegas, where Lt. McClane is taking some much needed R&R (this business of taking out terrorists can be taxing on the body).

While in town visiting his old friend, Kenny Sinclair, McClane stumbles across a diabolical plot masterminded by (who else) a multi-national group of terrorists with the means of wiping Tacky Town off the map if their demands are not met. Once again, it's up to one man with the chips stacked against him, to thwart this new legion of hi-tech terrorists in a race against time.

As with the original Die Hard Trilogy, part two will feature three different game engines in one game. Taking

it one step further, Fox has implemented two modes in the game: Movie and Arcade. In the new Movie mode, gamers will be given the chance to play through a story-driven adventure that seamlessly combines the three genre styles into one comprehensive game. Alternatively, the Arcade mode will be similar to the first Die Hard Trilogy, where you can choose to play each of the games separately. While not straying too far from the arcade look and feel of the original, the sequel will offer new and advanced 3D engines for all three of the different games. In addition, the game features more in-depth gameplay—a must to be successful on the PC platform. As with the first, Fox is striving to give players a lot of bang for their buck.



RE-VOLT

PUBLISHER: ACCLAIM DEVELOPER: ACCLAIM DATE: FALL

Acclaim's highly addictive RC car racing game, Re-Volt is currently one of the most downloaded game demos on the internet. Despite being only a single track, this little beauty is a heck of a lot of fun to play and already has legions of mini-drivers begging for the full release.

On a sheer eye candy basis alone, Re-Volt takes top honors. The textures seen throughout the game are a sight to behold, obviously digitally captured from the real world and compressed down. The streets, lawns and sidewalks look like the real thing, especially when you're hurtling over them at 60-plus frames per second. A motion blur has been added to each of the car's radio antenna with a comic book-like feel of speed. There are all sorts of reflections from smooth surfaces, colored lighting effects and excellent blending and filtering. All for a toy racing game, isn't that wacky?.

Re-Volt's controls will definitely take some getting used to. Those of us who are spoiled by the Need For Speed series have a hard time getting their heads around Re-Volt's super-sensitive control scheme. The



slightest tap on the controller is enough to send you car power sliding around a corner, while the light vehicles have a tendency to spin out at the drop of a hat. It takes a few laps to get the hang of driving, but

the effect is ultimately one that lends itself to these vehicles. Anyone who has ever played around with fast RC cars can tell you that the power packed into their stubby chassis is surprisingly greater than the sparse weight can handle.

A whole slew of nasty little weapons and power-ups make it even more difficult to stay on course. Driving through the lightning bolt symbol will randomly drop one of the power-ups into your control, allowing you to fire bottle rockets at the cars ahead, drop an oil slick, boost your speed or knock all the other cars onto their backs. And that's only the tip of the iceberg; there are more surprises to come in the full version.

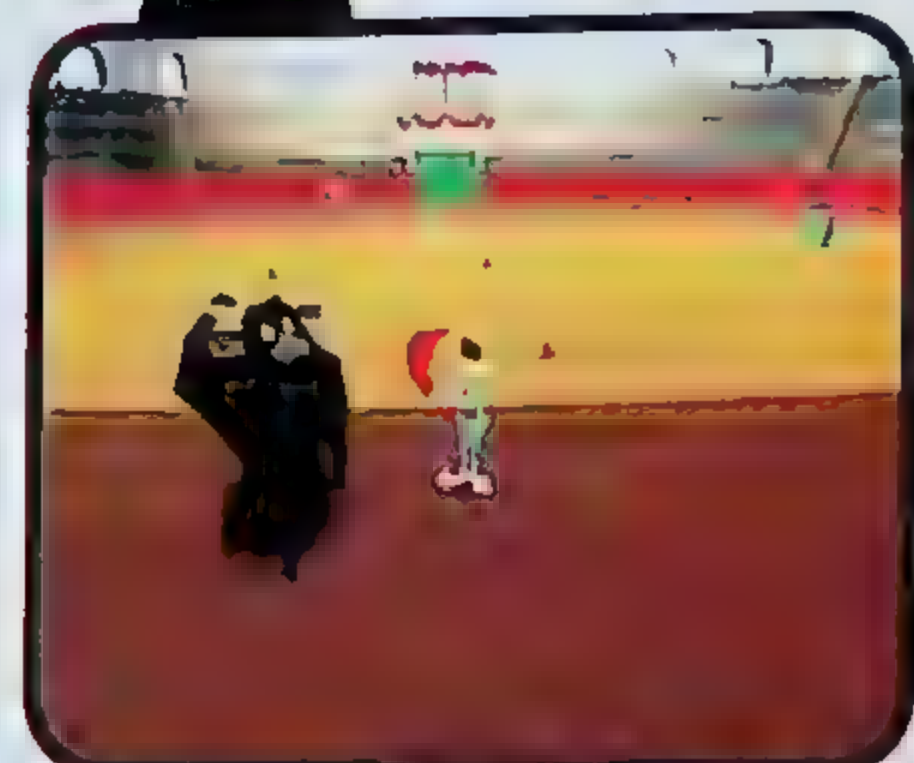
The racing environments are very cool, giving you a real sense of scale. Instead of dumping you on dirt tracks, Re-Volt's races take place through neighborhood streets, toy stores, museums, gardens, ghost towns, supermarkets and even on to the deck of the "Toytanic." There are fourteen tracks to start out, with a few more hidden arenas that will open up as you play. Re-Volt is even going to ship with a simple track editor so you can piece together your own race courses and upload them to Acclaim's web site. There's also a huge number of radio-controlled cars to choose from, each with different strengths. We're definitely looking forward to getting a few laps on the full release, which should be available by the time you read this.



BUGS BUNNY LOST IN TIME

PUBLISHER: INFOGRAMES DEVELOPER: BEHAVIOR DATE: WINTER

PREVIEW



As proud members of the generation of American youth raised, nurtured, loved and target-marketed by television, Bugs Bunny holds a very dear place in our hearts. After all, what single entertainer taught us more about history, brought Shakespeare to such rich life, introduced us to classical music and gave us the single most important phrase for a lost traveler to utter: "I shouldn't have taken that left turn at Albuquerque." That it has taken this long for someone to finally do a 3D Looney Toons game should be a crime. That it took a French company to do it should be an embarrassment to US game developers.

Regardless of the nationality of the game's development, Bugs Bunny Lost in Time still manages to capture the essence of the five-decade-old wabbit while transporting the familiar cartoon icons into a 3D environment (without having to suffer through Michael Jordan's "acting"). The game's action is geared towards the Chuck Jones/Fritz Freleng-style of animated mayhem, full of in-engine animated cut scenes and dialogue from all the 'toons (sadly, not the voice of Mel Blanc).

As you'd expect from a game like this, our hero has managed to trip over his big lucky feet and land in the seat of a busted time machine, which commences to whirling him about the infinite reaches of time and space. Well, not truly infinite, as there are only five time periods to explore, while looking for magical clocks, which Merlin will use to send the intrepid bunny back home. The Stone Age (with Caveman Elmer), Medieval Times, Pirate Years (with the rootin'ist, tootin'ist pirate ever to swab the seven seas), the 1930s and Dimension X are all open for adventure. Some levels require you to explore big outdoor areas, jumping into rabbit holes and tunneling underground, while others have you driving cars or racing motorcycles.

Infogrames has managed to jam a lot of the familiar faces and places into this game. Fans of Warner's wacky toons are bound to recognize the big names like Bugs, Elmer Fudd, Daffy Duck, Yosemite Sam and Marvin the Martian, but

plenty of old-school supporting characters make appearances as well, including Rocky and Mugsy the gangsters, El Toro the bull, Witch Hazel (her name shows the age of the cartoon's legacy: it's a pun on a product that isn't even produced anymore) and that creepy lookin' green alien bird thingie.

As a warning, this game is going to be little more than a PlayStation port, so don't expect the greatest in breaking acceleration technology. Of course, if you look at the old Looney Toons cartoons, they're not exactly on the cutting edge of animation, either. However, the look of the classic Warner Bros. animation is represented well: flat, colorful backgrounds that keep the focus on the characters and action in the foreground.

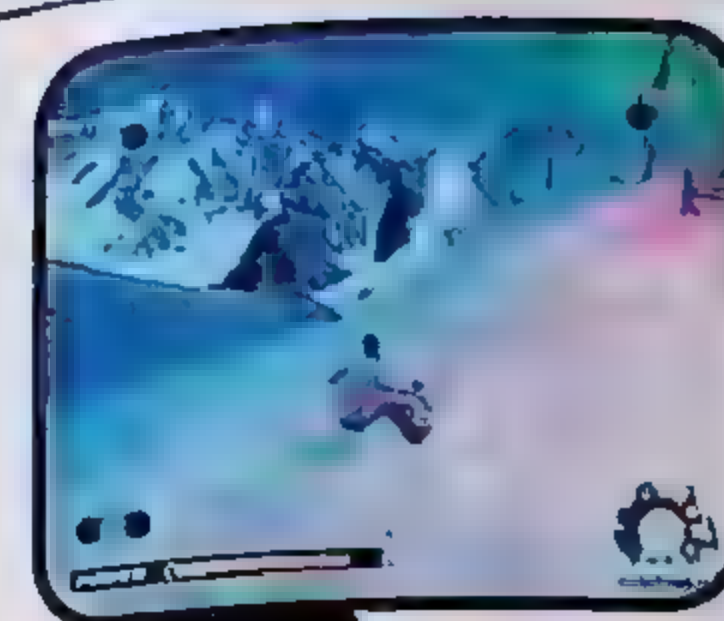
Our sister publication, PSExtreme, went wild for the PlayStation version of Bugs Bunny Lost in Time, but then they're suckers for any type of 3D platform game. We'll give you a more distinguished, educated look at the title after it ships for the X-Mas holidays. Whoop! Whoop!



BOARDER ZONE

PUBLISHER: INFOGRAMES DEVELOPER: HOUSEMARQUE DATE: WINTER

PREVIEW



God bless those crazy Finns. Nothing like living in a land of ice and snow (and vodka!) to either drive a man inside and turn him into a Class-A coder or to convince him that he is a Viking god and can conquer the elements. Looks like our buddies at Housemarque have combined their Nordic skills to bust out Boarder Zone, what looks to be the first really good 3D accelerated snowboarding title.

According to Housemarque themselves, "Our humble goal is to make Boarder Zone the coolest and fastest computer ride down the slopes!" And after playing with an early version of the game, we think that they're on to something. Boarder Zone has a serious arcade/console feel to it, which, for this type of game, is a good thing. The game is designed to provide a good, fast break from daily stress, not engross you in hours of mindless twitching. There are three different areas (Alpine, Forest, Village), each with unique courses and ways to race down the mountain. You'll be able to race against the clock as well as compete for trick points in the Half Pipe and grab sky in Big Air.

You may remember Housemarque's name from the very first issue of Voodoo (which we're actually somewhat embarrassed to look through now; thanks for sticking with us). At that time, we covered a software demo they had done, Shot, which was little more than a shooter-on-rails type of arcade game. We were more impressed with their 3D technology than with the gameplay, however, and we can see signs of the same sort of excellent effects being engineered into Boarder Zone. Skeletal character animation systems make the riders bend, flex and face-plant just like the real thing. Parametric curved surfaces give the courses a smoother, more realistic look, with out jagged polygonal joints and seams ruining the environment. Volumetric lighting and

shadows are really impressive, especially in the night courses, which are lit up like Vegas. There's even support for both AMD's cool 3DNOW! and the PentiumIII's SSE technology.

Sure, we've seen snowboarding games on the PC in the past couple of years, but most of them have been atrocious. Housemarque lives at the top of the world, so if any current game developer should understand the basics of physics on snow, you think it would be these guys.

Currently, Infogrames is dealing with snowboarding companies to get a bit of a kick from the old licensing cross-promotional shim-sham. No word yet as to whether the game will have any licensed professional riders, clothing, equipment or music. Snowboarding fans, your day may hopefully come when Infogrames releases Boarder Zone in the US this Winter.



HYPE - THE TIME QUEST

PUBLISHER: UBISOFT DEVELOPER: UBISOFT DATE: FALL



If you're one of the biggest software developers in Europe, it makes a certain amount of sense that you would want to work with some of the biggest licensees that do business in that loose conglomeration of nations. But you can only get clocked over the head so many times with poor sales figures in the US for games that include soccer, F1 racing or yet another incomprehensible French graphic adventure before you wise up and go for something with meaning on a global scale. That's exactly what Ubisoft set out to do when they approached German toymaker Playmobil and offered to combine efforts. Playmobil is huge both in Europe and the US for their quality toys that appeal to all age ranges. There's even Playmobil Theme Parks in Florida and Germany — not quite DisneyWorld, but what else are you going to do with the family in West Palm Beach, FL, or Zimdorf, Germany?

Since it's probably going to be a few years before we start seeing UbiWorld theme parks, we're just going to have to make do with their software. Ubi's managed to build quite a name for themselves in the past few years, generating a reputation for clean, wholesome family entertainment and brain-blasting graphics. While Hype isn't quite on the same level as Rayman 2,



it is a sweet looking game in its own right.

With Hype, you enter a world of medieval action and adventure, without all those pesky plagues and religious fanatics. Ubi's managed to capture the fun elements of the Dark Ages

(magic, swords, dragons), while removing all the icky bits (syphilis, revolutions, casual attitudes towards bathing and cleanliness) and whacking in a fun action/platform game to boot.

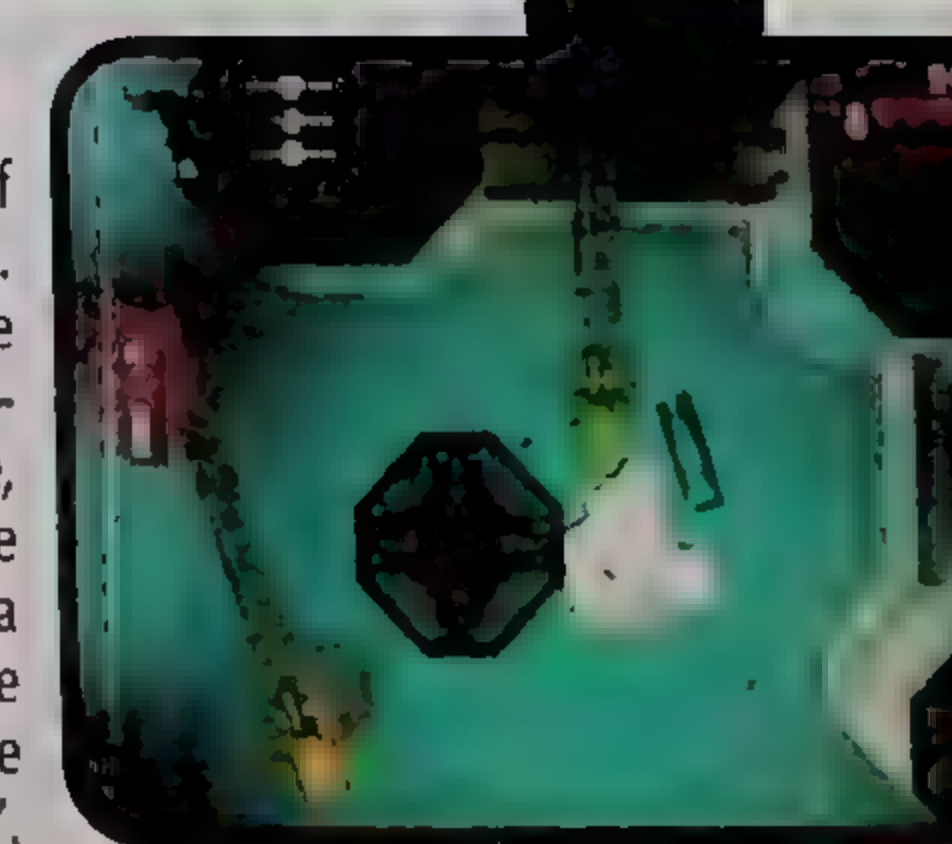
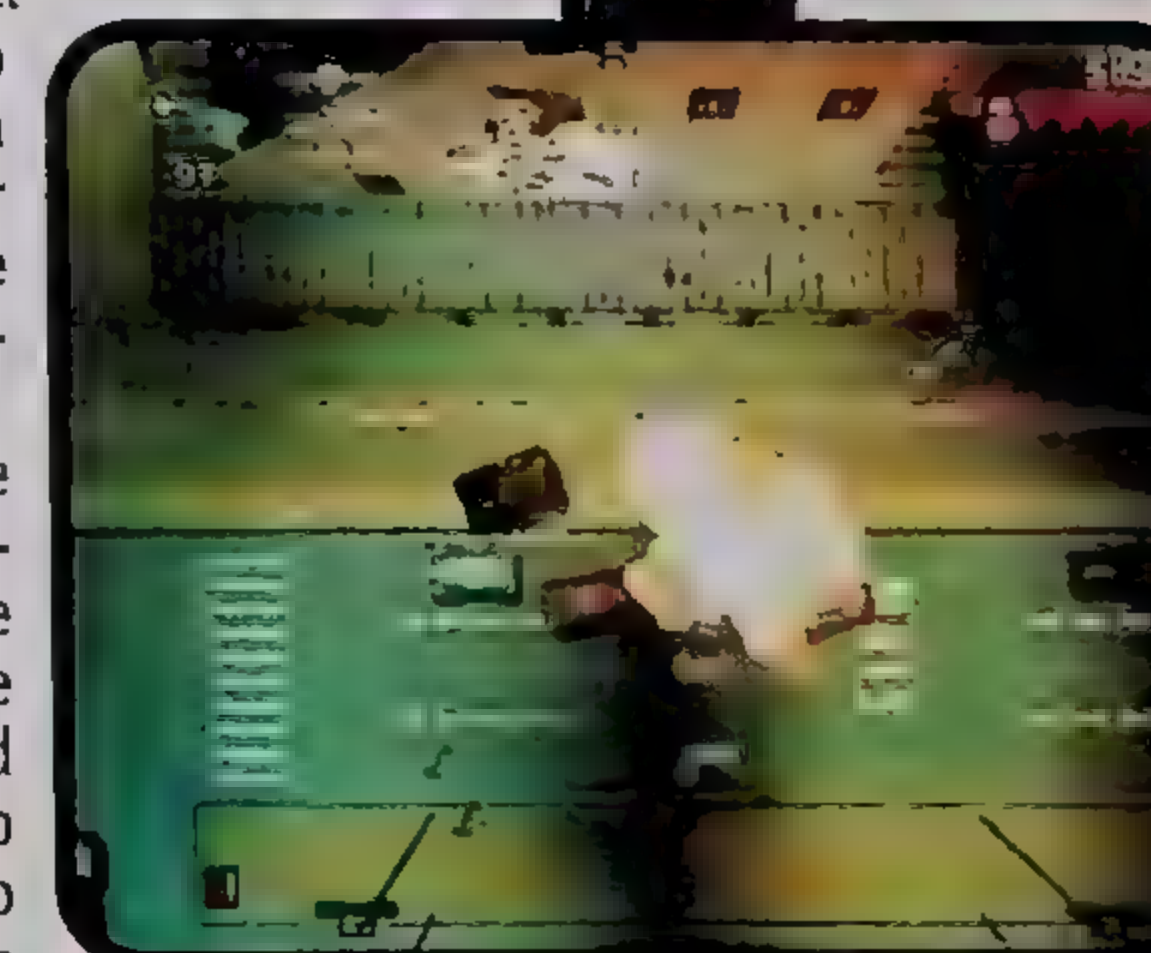
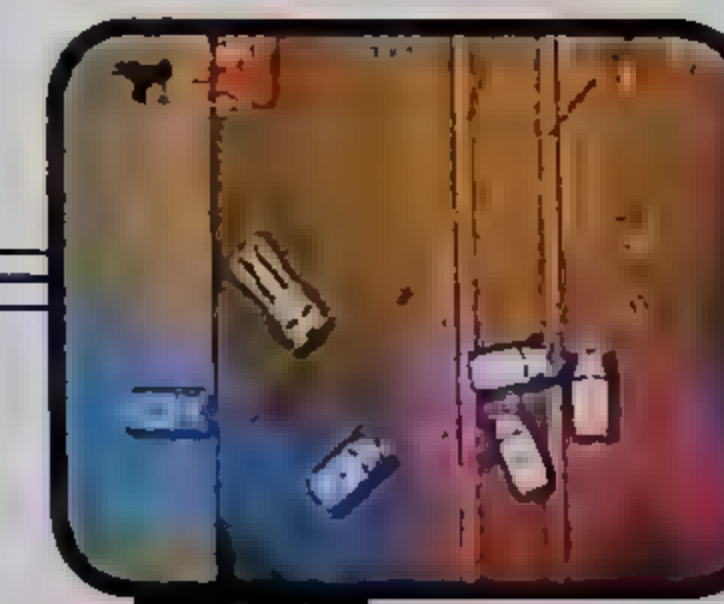
Hype follows in the grand tradition of Mario and his 3D brethren. You control Hype, the kooky little knight, who has been zapped into the past by the Black Knight's magic. You need to battle through the game's fourteen worlds in order to defeat the Black Knight and to return to your own time.

Sure, the emphasis of the game is definitely on the action side, but there is a smidgen of role-playing elements tossed in to keep you on your toes. You'll meet people wandering about the areas who will sell you magic items, interact with you and give you quests to complete. Ubi is promising in the neighborhood of 80 characters that you'll meet, greet and beat throughout the course of the game. There are plenty of in-engine cut scenes, replete with voice-over dialog for those pre-literate players.

The game's settings include dungeons and fortresses, castles (naturally), forests, and a lost city inhabited by skeletons and ghosts. Eeek! While this game seems perfect for kids, it is very entertaining, even for those of us more familiar with lopping off limbs and rocketing heads in our 3D PC games. Did we mention that Hype also requires 3D acceleration? The game is filled with all sorts of cool magical effects and lighting tricks, which just wouldn't look the same in plain old 2D. Ubi has even thoughtfully included a Glide version of the game, so once again, 3dfx owners will get the nicest version of the game. Hype shall starteth his quest this Fall.

GRAND THEFT AUTO 2

PUBLISHER: ROCKSTAR DEVELOPER: DMA DATE: WINTER



Ah, wonderful. Just when the "violence in gaming" thing is starting to simmer down a bit from the annual hooah and uproar that comes once a year, Rockstar Games, those brash boys from New York, have decided to wheel out Grand Theft Auto 2. Nothing like running from the law, carjacking and backing over innocent pedestrians for points to set the always-panicky and chronically under-informed mass media's antenna twitching.

As in the first game, you run about the city, helping yourself to other people's automobiles, trucks, motorcycles, buses, racing from one end of town to the next to complete various missions and objectives for the shady underworld types that you encounter. DMA is also adding more "on foot" missions, in order to break up the gameplay a bit.

Not content with simply making you carry out the wishes of random mobsters, DMA is introducing the concept of a "gangster meter" into the game. Three rival mob factions — the Japanese Yakuza, the businesslike Zaibatsu and the wacked-out Loonies — are running things in this town and it's up to you to make friends with them in order to earn more dough. Of course, being pals with one group, like the Loonies, often requires you to do things like roll into the Yakuza territory and blast the sushi out of a few of their boys. This, in turn, makes the Yak less likely to send you cards come Christmas and more likely to go out of their way to cause you grievous bodily harm.

DMA is attempting to make the city more of a liv-

ing, breathing place, so there's going to be all sorts of incidental things going on that have absolutely nothing to do with you. You'll see people being mugged at random, ambulances tearing off to your last scene of carnage... you can even get carjacked if you're not careful. You'll also be able to interact with a lot of this ambient life, like hitching a cab and driving around picking people up in order to generate more cash. You'll also be able to ride the cities subways or take the bus, both literally and figuratively.

One of the funny little things they did with the first game was the way the in-game music was handled. Whenever you hopped into a new ride, the music would change to match the type of vehicle you just boosted. This time 'round, Rockstar has used their connections to the music world to hook up with some bonafide record labels and are going to include some techno, drum 'n bass and hip hop tunes from artists you may actually have heard of (if you're into that sort of thing).

For some reason, there do actually seem to be fans of this game, who will undoubtedly be happy with the sequel. Instead of going crazy and actually developing a new engine or evolving the game style or generally doing much of anything to the GTA code, DMA has adopted an "If it ain't broke, why bother" attitude towards the sequel. While there have been some improvements (some new lighting effects and a few play elements), we were really hoping to see DMA take the GTA mentality into a true 3D game environment, like Reflections' Driver, but with more violence, crack and cussin'.

GABRIEL KNIGHT 3

PUBLISHER: CENDANT DEVELOPER: SIERRA DATE: WINTER

PREVIEW



The setup for Blood of the Sacred, Blood of the Damned (which we'll just call GK3 for sanity's sake) is based on an actual historical myth that took place in a small village in a remote area of France, Rennes-le-Chateau. The actual history there is too long and interesting to relate in this small space, but we'll break it down into the most important parts: in 1891, during the restoration of his church, a priest, Bérenger Saunière, uncovered sealed parchments that had been placed in a stone altar. These parchments contained coded messages, some of which have not been deciphered to this day. Saunière brought these parchments to Paris, where he allegedly conducted meetings with members of secret occult societies. When he returned to Rennes-le-Chateau, he began spending millions of dollars constructing and renovating the church and surrounding areas. He spent his days on secluded walks in the countryside, and then died mysteriously a few years later. There have been multiple theories surrounding the secrets held within these documents, but the most popular, and slightly heretical, held that the parchments revealed details of Jesus Christ's life not mentioned in the Bible.

Gabriel Knight is invited to the little town as the guest of former Scottish royalty. But once arriving in Rennes-le-Chateau, Gabriel becomes involved in a series of bizarre events that begin with the kidnapping of the royal heir and leads to a bizarre cult of vampires, a tour group of treasure hunters, and the possible location of the Holy Grail.

From what we've seen so far, GK3 isn't "played" in the traditional sense of a video game, but unfolds more like an intricate novel or complex film that you can explore and interact with. Camera control is one of the biggest elements of the game, as you need to be con-

stantly aware of your surroundings, just as a real detective must be. By manipulating the camera and paying close attention to the world around you, you're able to discover small details and hidden clues without having to click around the screen like a spaz.

The gameplay is based on "timeblocks," where events happen within a certain period of time. You must complete certain key things in order to progress to the next section of the game. During this time, you're free to explore as much of the game as you want, which will help you unravel the mysteries, but there are plenty of things that you'll have to keep your eyes open for. This inventive style of gameplay should cut down on the frustrations of becoming "stuck" in the adventure, a major stumbling block for most gamers — complete your basic objectives and you move onto the next area of the game. It's certainly different.



TOMB RAIDER: THE LAST REVELATION

PUBLISHER: EIDOS DEVELOPER: CORE DATE: NOVEMBERISH

PREVIEW

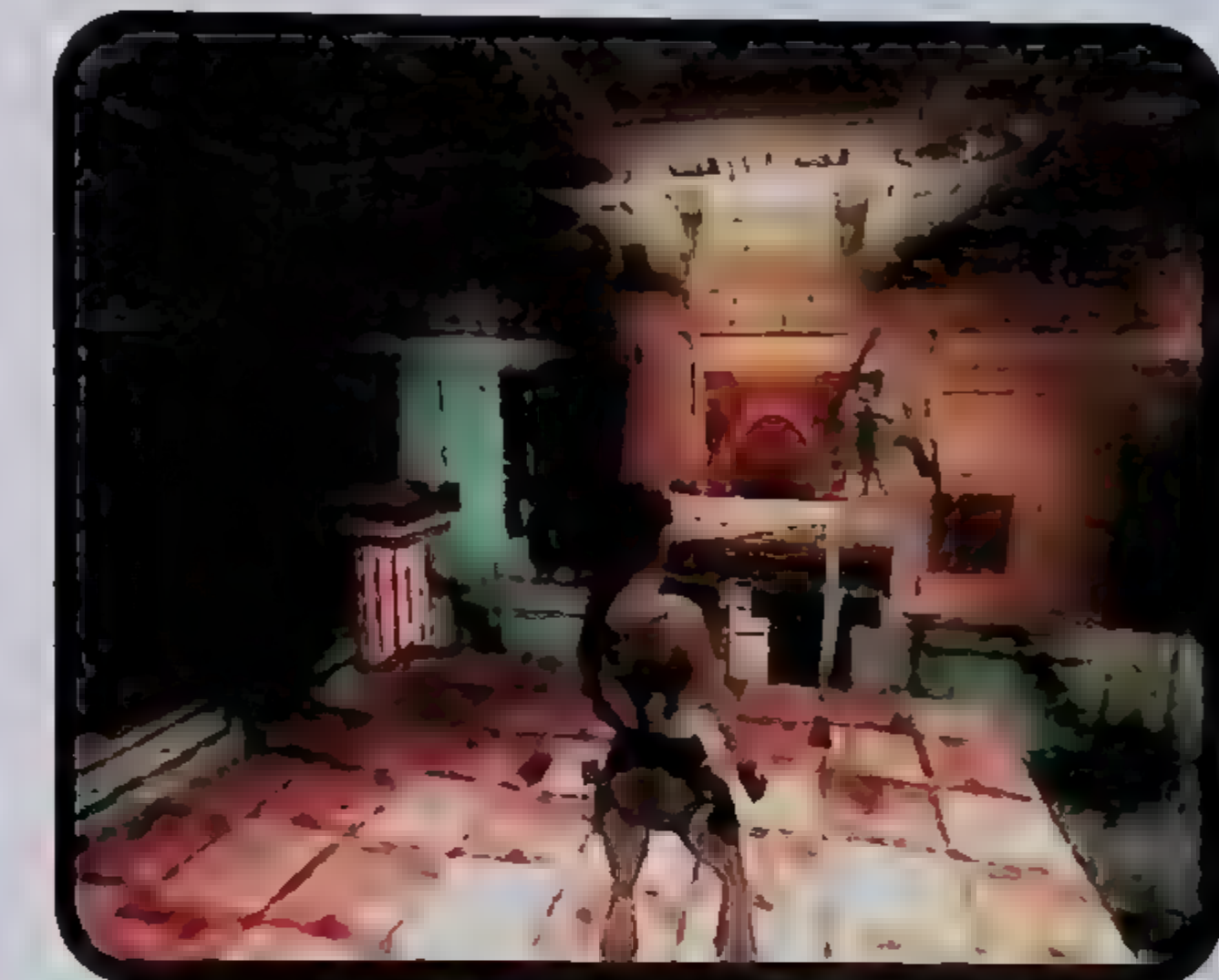


After last year's Tomb Raider III, the vivacious, busty and typically ubiquitous Lara Croft took a sabbatical and went into seclusion for a bit. Being a no-show at E3 this year (except for a few members of the press who, under strict NDA, got to see an early glimpse behind closed doors), there was some speculation that there might not be yet another sequel to this long-running series. Whether it was due to Eidos' fear of overexposing the character (now there's a good setup for a boob joke), or maybe they didn't want to show the game too early (a rushed and very dark demo of TR III was shown the year before at E3, and received its share of negative press because of it), Tomb Raider IV was decidedly held back from being announced as a release for this holiday season. Finally, Eidos has decided to let the first few screens and information about the game out to the gaming public. While there's not much information to talk about yet (there are certain cool things we know about the game that Eidos has asked us not to reveal at this time), there are some new features we can talk about.

For starters, the title of the game is officially: Tomb Raider: The Last Revelation. The game's release date falls into the same month and time frame as the past Tomb Raiders — sometime in and around November of this year (most likely hitting shelves around the all-important Thanksgiving shopping weekend). The development team working on the game is comprised of members from the past three Tomb Raiders (Core) and, once again, they

have re-worked the graphic engine.

Expect a much cleaner looking environment. In addition, Lara herself has been re-modeled and is now showing off single skin technology (no visible polygon "joints"). Instead of offering a quest that takes place in a variety of locales, TR IV will take place in one location — Egypt. Some of the other new features in the game will be all new puzzle mechanics (blocks and switches have been all but eliminated), a new interface and inventory system (weapons and items can be combined together, similar to Resident Evil 2), new moves and animation (Lara can climb and swing on ropes), and an easier difficulty level (some complained that part three was too hard).



HOMEWORLD

PUBLISHER: CENDANT DEVELOPER: RELIC DATE: FALL

Oddly enough, we haven't really talked about Homeworld within the pages of Voodoo. In fact, the only time we've mentioned the game was all the way, way back in the Summer '98 issue, where we spared the game about four sentences and a couple of screen shots. Shame on us! In the year since then, we've had several encounters with both the game and Alex Garden, the very cool CEO of Relic Entertainment. After seeing this title at a number of shows (ECTS, E3, GDC) and having had a few drinks (and hamburgers in London at 3 AM) with the charismatic Mr. Garden, we're pulling for this game to be one of the big hits of the year.

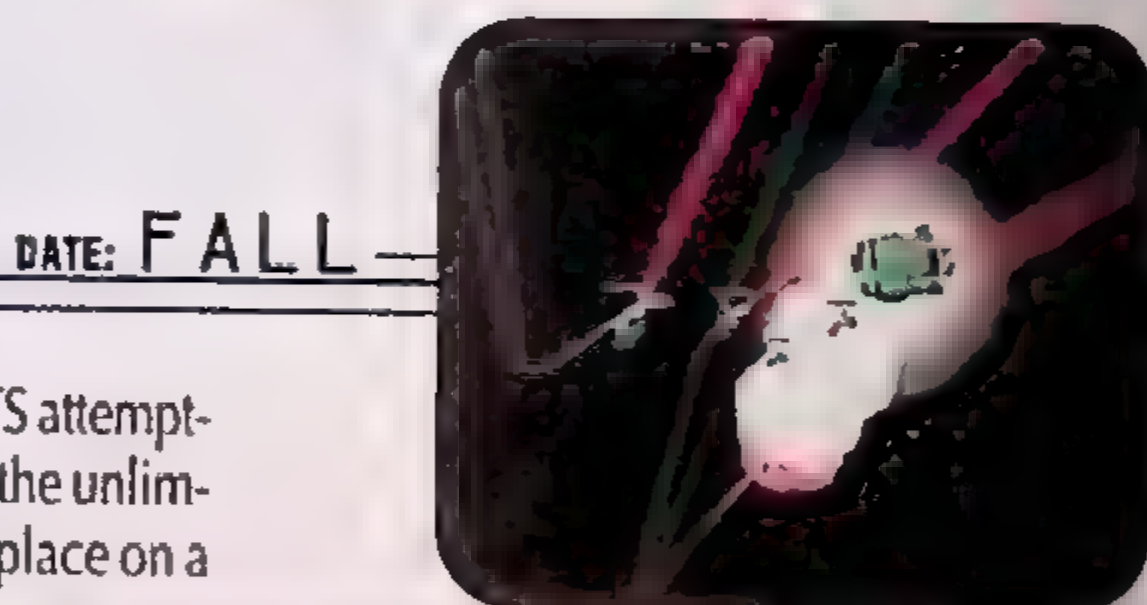
The game begins with an introduction to the planet Kharak. The people of Kharak have recently uncovered the ruins of an ancient spacecraft, which indicate that humans are not native to the world. Inside the wreckage, the scientists find the ship's engine, which contains a hyperspace drive, allowing the humans to plan their return to the world of their birth. Sound familiar? There may not be Cylons on this trek home, Starbuck, but you're going to have to face down the wrath of other, angry starfaring races on your way.

Homeworld's biggest departure from the standard real-time strategy genre is the control interface. Sure, we've had a couple of 3D accelerated RTS games in the past year (Myth, Machines, Warzone) and have even had one or two 2D space-based RTS titles (like that game Starcraft,

which you may have heard about), but never has a RTS attempted to capture the feel of ship-to-ship combat through the unlimited boundaries of space. Homeworld does not take place on a flattened plane of space like Starcraft, but allows you to twist and turn through a full 360 degrees. In fact, a great part of the strategy will come from being able to attack and defend in all directions.

Your ships also have settings for their formations, tactics and other orders. Formations are important for attacking ships, allowing you to arrange groups in such a way to maximize your damage while offering the enemy the least amount of exposed hull to fire at. Formations include a wall of in-rushing ships, an arrow-like Delta, a surrounding Claw and a deadly Sphere for defensive coverage. The three levels of tactics (Evasive, Neutral, Aggressive) determine the power output balance for the ships, routing more or less power to the engines for running or the weapons for fighting.

The only thing that tempers our exuberance about Homeworld is the game's continued delays, coupled with the absence of playable code until a few weeks ago. Several tentative release dates have come and gone with nary a sight of the game, which is never a good sign. Cendant and Relic have both acknowledged that these delays were introduced in order to tighten and improve the single-player version of the game. Hopefully, the extra time being spent on the story and missions will translate into gameplay as thrilling and captivating as the visuals. We're crossing our fingers and waiting for Homeworld's release.



KA-52 TEAM ALLIGATOR

PUBLISHER: GT INTERACTIVE DEVELOPER: SIMIS DATE: FALL

Helicopters, like 3D accelerators, are one of those mysterious technologies that seem to work despite common sense and laws of physics. Watching a helicopter in flight usually brings about thoughts like, "Jesus, how does that thing stay up there?" or "I bet if I stand here long enough, it'll plummet out of the sky and explode. Where's the video camera?" Military choppers go that next step of extreme irrationality; not only are the improbable aircraft buzzing around, but they're firing rockets and blowing up tanks and buildings. And if you haven't figured it out by now, Voodoo Magazine is all about things exploding in glorious 3D. With Ka-52 Team Alligator, flight sim mavens Simis (creators of Team Apache, second only to Longbow 2 in terms of chopper sims) seem to have grasped this simple concept and are creating a game that not only flies beautifully, but makes stuff blow up real good.

The helicopter in question, the Ka-52, is so new and startlingly high-tech that it doesn't even really exist at this point in time beyond a handful of prototypes (sorta sounds like Daikatana, doesn't it?). The Russian military, for whom the Ka-52 is being developed, won't even begin receiving these babies until Y2K, but that's not stopping GT from getting a foot in the door with this revolutionary new chopper. Although something about an attack helicopter designed by Russians for Russians doesn't exactly fill our nights with sleepless terror ("Boris, the military does

not have enough rubles for air fuel. Flap your arms instead."), the Ka-52 is supposedly the Ruskies answer to the Longbow. A two-seater, the Alligator is designed as a "battle management command helicopter," and is a "high payload, high agility and highly armored

attack helicopter, designed for multirole and nighttime operations." Woo, mama.

Since it's a flight sim, you know the game is going to come with the requisite bells, whistles and blinking emergency lights that come on as you approach the ground at high speeds, but the core 3D technology behind the game is mighty exciting as well. Team Alligator will be one of the first pieces of software to take advantage of hardware accelerated Transformation and Lighting, a new and spiffy feature that will be exposed by DirectX 7 and undoubtedly a feature of 3dfx's next generation of technology. Even without T&L acceleration, the game still looks beautiful, especially the trick Simis has used for the blurred look of the Ka-52's rotors in action. There's also a nice terrain engine that tessellates the amount of polys onscreen to keep the action hot, as well as being fully deformable, so missile strikes (and the impact of your wildly out-of-control bird) will leave craters and scorch marks, while weather effects will change the look of the surroundings (snow piles up, water forms pools, etc.).

While American choppers usually fly solo or in support of armor and ground troops, Ka-52 pilots fly in evil group formations, the better to bomb the beejeezus out of you. Successful ops depend on joint actions taken by groups of combat helicopters. As the group commander, you've gotta take responsibility for both your own hide and the Siberian-numbed booties of your fellow pilots. Team Alligator will let you take control of up to 16 choppers in real-time, issuing individual and group commands, as well as the ability to interact with air and land forces using triggered, timed and interrupt orders. Look for the simulator, but not the actual helicopter, to land this Fall.



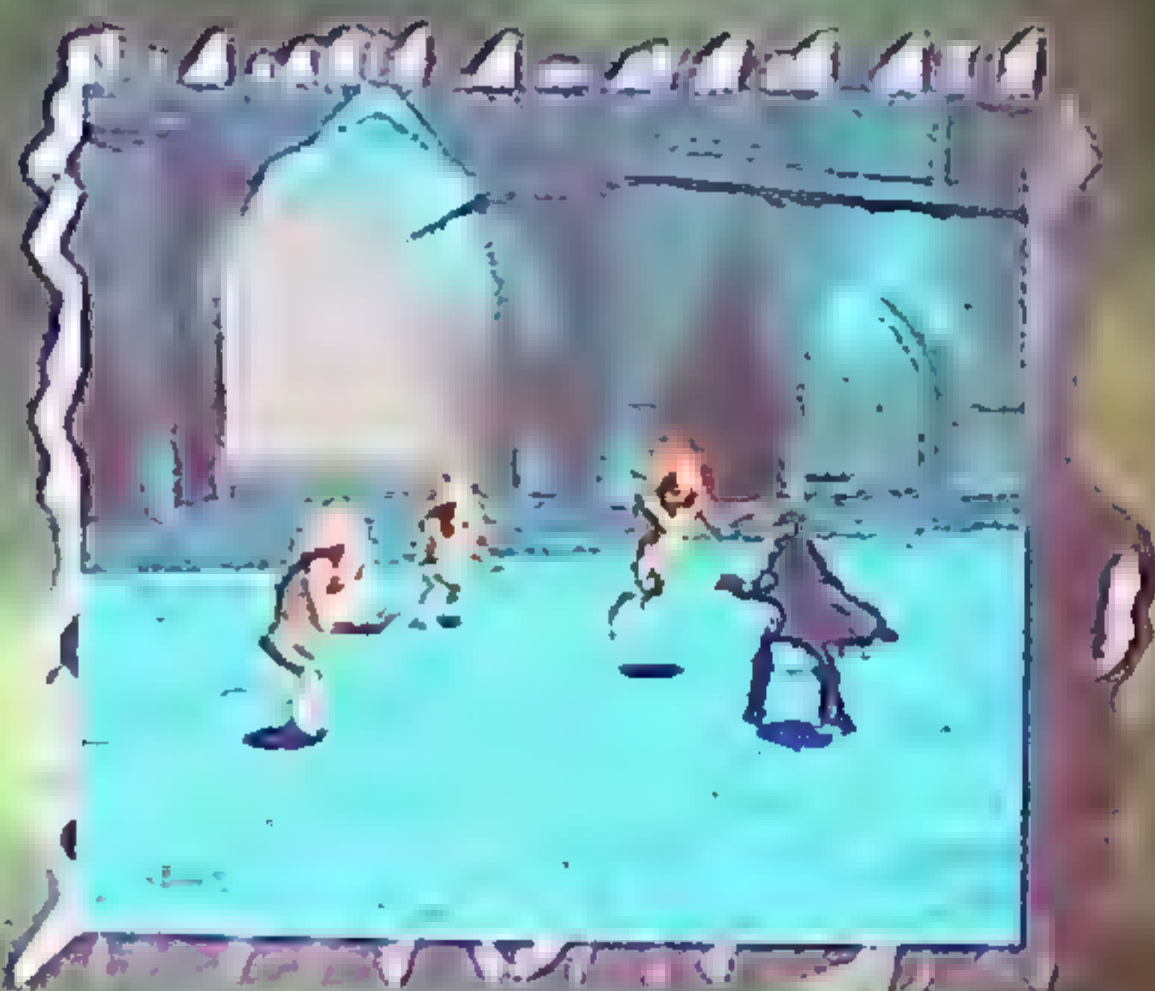


DESTROYING YOUR ENEMIES
ISN'T ENOUGH...



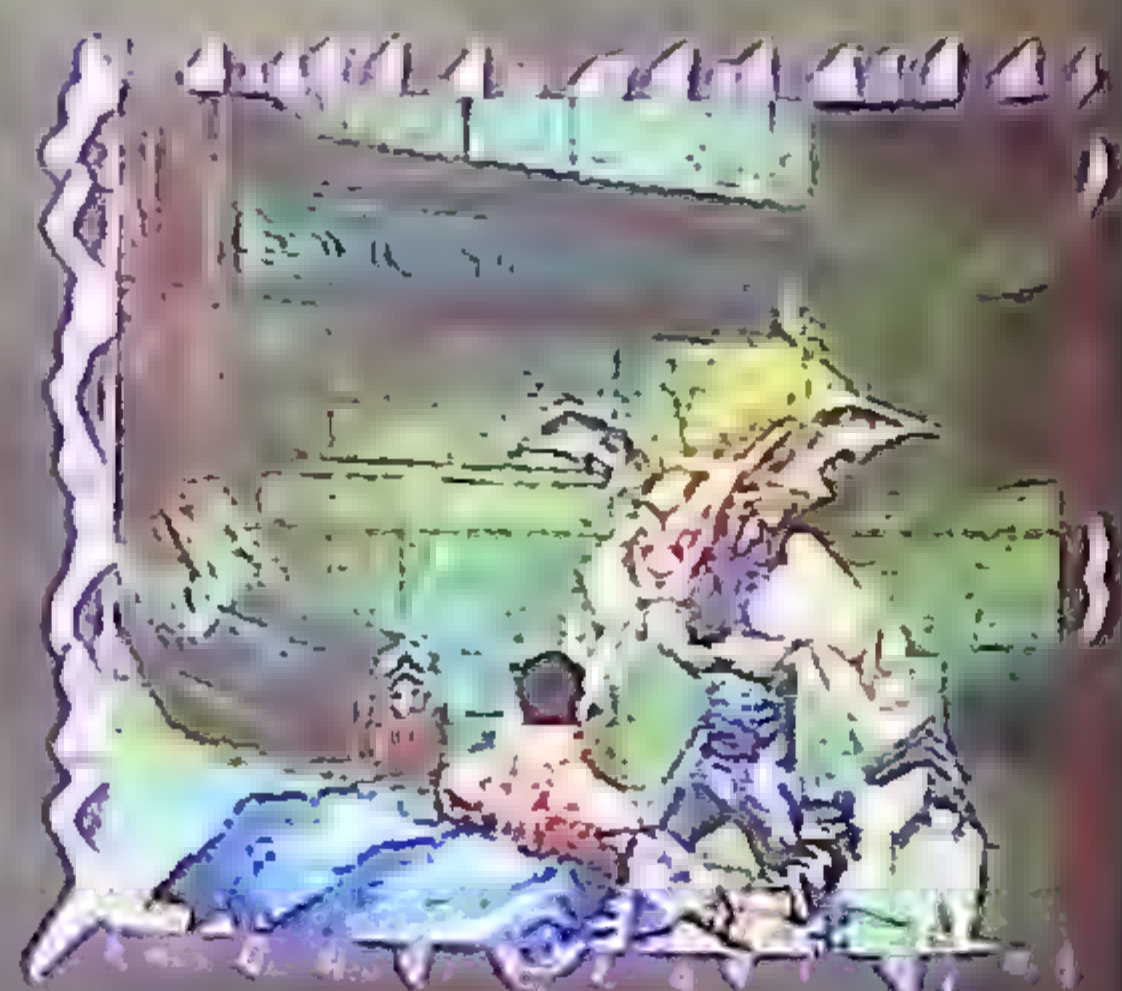
"...very impressive indeed."
-EGM

As Raziel, stalk the shadows of Nosgoth hunting your vampire brethren. Impale them with spears. Incinerate them with torches. Drown them in water. No matter how you destroy them, you must feed on their souls to sustain your quest – the ruin of your creator, Kain.



Morph onto the spectral plane and confront unique enemies and gameplay challenges

- Seamless gameplay: No load times
- Shift real-time between the material and spectral planes
- Dark gothic story



"Vampire fans get ready – Soul Reaver could be the ultimate thriller..."
-GamePro



...YOU MUST
DEVOUR THEIR SOULS

LEGACY of KAIN™
SOUL REAVER



SHADOW MAN™

By Tom Ham

When you look at the box for Shadow Man, you can't help but think that this game is going to be different. Come on, think about it — a world of the dead, powerful weapons and voodoo magic? Take our word for it, the game is truly original and more importantly, it's totally engaging and addictive. Shadow Man has a huge backstory that unfolds as the user plays and in the end, there's a really interesting twist that will probably catch some people by surprise. The fact that a movie is being made based on the Shadow Man license is testament to the rich lore and that Acclaim is pulling from. The great thing about Shadow Man is the nonlinear gameplay — you're really going to have a lot to think about when you play. The game doesn't force you out of town, more paths you can take as you explore, even and gather from the environment to figure out which way to go next.



So how did Shadow Man come about? Well, it's a long story. Simon Phillips, CEO of Acclaim, was talking about the development process and how it brought the game to life.

Q: What is the history of the Shadow Man comic book?

A: Shadow Man has been around in several guises for some years as part of Acclaim's Valiant Heroes line of comics. In March 1997, Acclaim relaunched their entry comic book line (including relaunching the younger Turok — Joshua Fiercest — as seen in the N64 games). One of the comics relaunched was Shadow Man — written by Garth Ennis and illustrated by Ashley Wood. It originally began as a Mature Readers horror title.

Q: How much does the game tie in with the comic book?

A: The game ties in with issues #1-6 of the relaunched Shadow Man comic book, since we had to decide on a point where we could split off from the continuity. With the exception of Mike LeRoi/Shadow Man, Jaunty, Nettie, Mike's dead brother Luke, his teddy bear and the concept of Deadside, everything else — enemies, locations, powers — we had to create uniquely for the game. For example, Deadside in the comic book is a black "non-place" that characters simply drift in and out of — our artists and designers had to create a complete three-dimensional world for the player to explore.

Q: Did you do much research into real voodoo for Shadow Man? What were your sources?

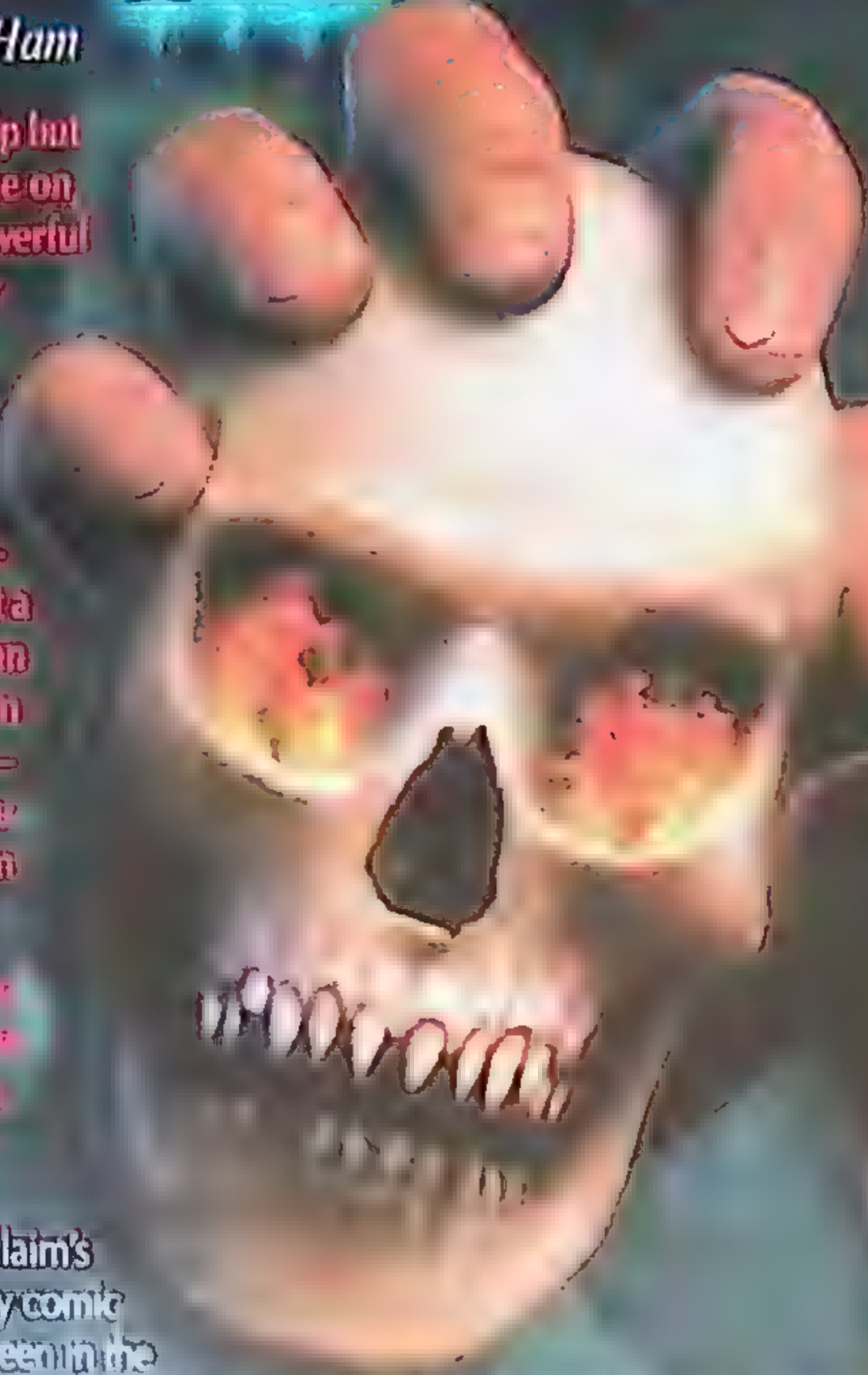
A: We did a variety of research, both in books and on the Internet, though reports of actual voodoo practices at Acclaim Studios Teeside are greatly exaggerated.

Q: How does voodoo feature in the game?

A: Well, the whole game is steeped in voodoo — all of the weapons and magical items are based upon real ceremonial items from the Voodoo religion. For example, the Baton is a short ceremonial spear, the Calabash is a gourd which holds spirits or magic within it and the Asson is the term used to describe the sacred rattle of the Mambo (voodoo priestess). To protect him against fire, Shadow Man must obtain Gads — a form of tattoo or skin marking that offers protection. A great many of the symbols within the game incorporate the style of the Veve — the intricate curlicue markings that are drawn onto objects to give them power. What we tried to do is to draw inspiration from all of these symbols and designs and then asked the questions, "What would voodoo magic really look like?" The most difficult question was "What color is it?"

Q: What is Mike LeRoi/Shadow Man's background?

A: Mike LeRoi is a failed English literature student who was paying off his college fund by working as a taxi driver in Chicago. An amount of cash was left in his cab one night and he took it for himself and headed home for New Orleans.



There, the mob caught up with him and attempted a hit. Unfortunately, his family, including his little brother Luke, got caught in the crossfire, leaving them dead and Mike in a coma. When he finally recovered, the amnesiac Mike fell into the seedy underworld of New Orleans and became a professional hitman. It was then that Mama Nettie found him — a blank canvas for her terrible schemes. She overcame him with her powers and forcibly implanted the Mask of Shadows into Mike's chest, which effectively killed him and turned him into her zombie slave. The Shadow Man, on the other hand, is the Lord of Darkside. Bearing the glowing Mask of Shadows within his chest, he protects our world (Liveside) from evils that pass across the barrier from the World of the Dead (Deadside). Mike can become the Shadow Man when darkness falls on this world or voluntarily, by crossing over into Deadside using his little brother's teddy bear to project his soul into the world of the Dead. The teddy bear originally came from the comic book, but we use it to great effect in the adventures.

Q: What is the difference between Mike and Shadow Man?

A: Mike is very much a mortal human being. Long falls kill him, holding his head underwater will drown him and he can't do magic. Shadow Man, on the other hand, is more athletic, he can survive long falls (in Shadow Man we encourage you to take impossible leaps into the blackness, 'cuz there's usually a reward at the bottom), he can't drown and oh boy, can he do magic...

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Q: Who is Nettie?

A: Agnetta "Nettie" Dubois/Mama Nettie is the 400-year-old voodoo priestess that created the Mask of Shadows. She can't enter Deadside like Shadow Man, but having created the Mask that he bears, she has control over him — at least in this world, so she uses Mike/Shadow Man to do her deeds in the World of the Dead.

Q: What are the influences behind Shadow Man? We have heard things mentioned about Bruegel's Tower of Babel, films like Silence of the Lambs, even poetry!

A: The game has many, many influences. To make the whole experience richer and more interesting we chose sources outside of those normally drawn upon for games.

Q: Does Shadow Man have a first-person mode?

A: No, the intention behind Shadow Man was to create a third-person adventure in which the player would relate to Shadow Man as a character that they were interacting with, rather than simply "being themselves" in Shadow Man's world. There is first-person "snipe" mode, but you can't move around in it, since we feel that this would conflict with our intention.

Q: Will Shadow Man have a multiplayer feature?

A: No, Shadow Man is a single-player adventure. We decided to focus our energies on making it the best adventure possible, rather than splitting our time developing a mutually exclusive network or multiplayer mode with its accompanying set of levels.

Q: Does Shadow Man have a training level?

A: No, all of the training is done within the game. We believe it's better to get you



Q: What part does Nettie play in the game?

A: She is one of two recurrent characters that you can visit for advice throughout the adventure. In Nettie's case her advice is strange and mysterious. She fears that a Dark Prophecy is coming about and so has charged Mike/Shadow Man with stopping it from happening.

Q: Who is Jaunty?

A: Jaunty is a snake with a skull for a head, wearing a top hat. He is one of Nettie's servants in Deadside. Unfortunately for Jaunty, being so horribly deformed means that he can only tell Nettie what's going on in Deadside — the Shadow Man is her warrior in the World of the Dead.

Q: What part does Jaunty play in the game?

A: He's the other recurrent character that the player may visit for advice. He resides in Deadside, at the Marrow Gates, the gateway to the World of the Dead and knows the place like the back of his hand. Although he too is Nettie's servant, Jaunty doesn't trust her, and so is on hand to give a more balanced view of Nettie's advice.

Q: How many people have worked on Shadow Man?

A: When we began there were 13 people working on Shadow Man, but this has expanded as the Studio has expanded, and at present there are no less than 60 people. Practically the entire Studio was working to finish Shadow Man's three different versions.

Q: How many hours of gameplay will there be in Shadow Man?

A: Around 70-80 hours.

Q: How many levels are there?

A: There aren't levels as such. There are 16 separate areas that gradually unfold themselves to comprise the worlds of Liveside and Deadside, all of which are completely reentrant, meaning that you can always go back to them once discovered with more and more powers and items, to uncover more and more areas within them.

Q: Does Shadow Man use the Turok engine?

A: No, although all of the Acclaim Studios share technology and assistance, Shadow Man uses Acclaim Studios Teeside's specially developed VISTA engine (Virtually Integrated Scenic Terrain), which was designed to eliminate any need for fogging.

Q: Can you elaborate more on the VISTA engine?

A: One of the cool things about it is that it allows potentially limitless game environments that let the player see, often literally, as far as the horizon without the need for an obscuring depth-cueing fog. With this groundbreaking technology, epic panoramas unfold before the player, ranging from the gator-infested bayous of Louisiana to Deadside and the terrible mile-high citadel that is the Asylum.

All characters within the game are depicted using a highly advanced "soft skin" system, which allows them to be accurately depicted to the highest detail. Characters also feature realistic muscular definition and deformation effects and are brought to life using Acclaim's Motion Capture technology.

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A: No, all of the training is done within the game. We believe it's better to get you

into the game quickly and then steadily train you without you necessarily realizing we're doing it. For example, you begin the game in the swamps without any items at all and must find your way to Nettie. Amongst other things she gives you your first weapon — your handgun, which allows you to use weapon aiming and learn how to load up one of your hands with a weapon. From there, you go over to Deadside, learning some of Shadow Man's powers, including the use of the handgun (which becomes the Shadow Gun) in Deadside. After that, it's onto your next area, your next weapons, items and powers, and so on and gradually the game expands, making it less and less linear. Also, one of the features we have implemented is that all of the items you collect have a training area seamlessly built into the level around where you get them, which you must complete.

Q: How many weapons does Shadow Man have?

A: There aren't that many weapons in Shadow Man. That is to say, items that have no other purpose than to dispatch bad guys which are just pure weapons, but everything else has primarily a puzzle-solving purpose. Mike gets a hold of a couple of machine guns and a shotgun. The Shadow Man can get a hold of "The Violator." In total there are 11 items that can be used as weapons, but as I say, the majority have a far more important purpose in the adventure.

Q: If there aren't that many pure weapons — can you give examples of this?

A: The Shadow Gun fires screaming wraiths at its target. This is the only item in the game that can take the soul of a creature, so you have to use the Shadow Gun to take out the Dark Souls from the immoral creatures that cannot be killed by any other weapon. There's the Baton, a voodoo spear that can be used to activate teleporters, as well as fire lances of voodoo. The Flambeau is a voodoo torch used to light your way and it can be used to fire fireballs, but these fireballs are best used to burn through certain magical barriers. And then there's the Marteau, that's an effective "shockwave" weapon, but its primary purpose is to sound the trios of Rada drums in the temples of Deadside to access certain areas.

Q: What weapons do you get early on?

A: You actually start the game without any weapons at all. You must first get to Nettie's church in the middle of Bayou Paradis in Louisiana as a part of the built-in training where you get your first weapon, a handgun. You exit the church and can practice using the gun in the swamp, but you will learn that you can't just shoot everything and not suffer the consequences. Try shooting the dogs outside the church and find out. From there you can go to the Deadside and become the Shadow Man and you learn that the handgun becomes the Shadow Gun, his signature weapon. As Shadow Man's powers increase, his Shadow Gun can fire more powerful shots and by the end of the game it's awesome.

Q: Speaking of the end of the game, what's at the end of the game? Are there multiple endings?

A: I cannot say. There are two alternate endings depending upon how you play. Oh, and a savage twist-in-the-tale, but I cannot tell you what... you'll have to play the game to find out.

Q: Do you use "hub architecture" in your levels?

A: We use a great many techniques, far more sophisticated than just having a game made up of focal points with linear sections leading off them. Shadow Man's entire design is based around the desire to create an entire world, not just a sequence of levels or linear sections. In Shadow Man, we give you the freedom to go back to any area with new powers to uncover previously uncharted areas of the game. This extends all the way through the game. In fact, even right up to about 90% of the way through the game you'll be able to go back, even to the swamp, and find something you didn't know existed.

Q: Are you using scripted AI?

A: The AI in Shadow Man is as sophisticated as it needs to be. We have specific intelligence for specific types of enemies, which get more sophisticated when you get to characters like the serial killers. Regarding using one specific technique — there isn't one. It's a combination of scripted actions and other stuff.

Q: You say that Shadow Man has complex puzzles. How complex are they?

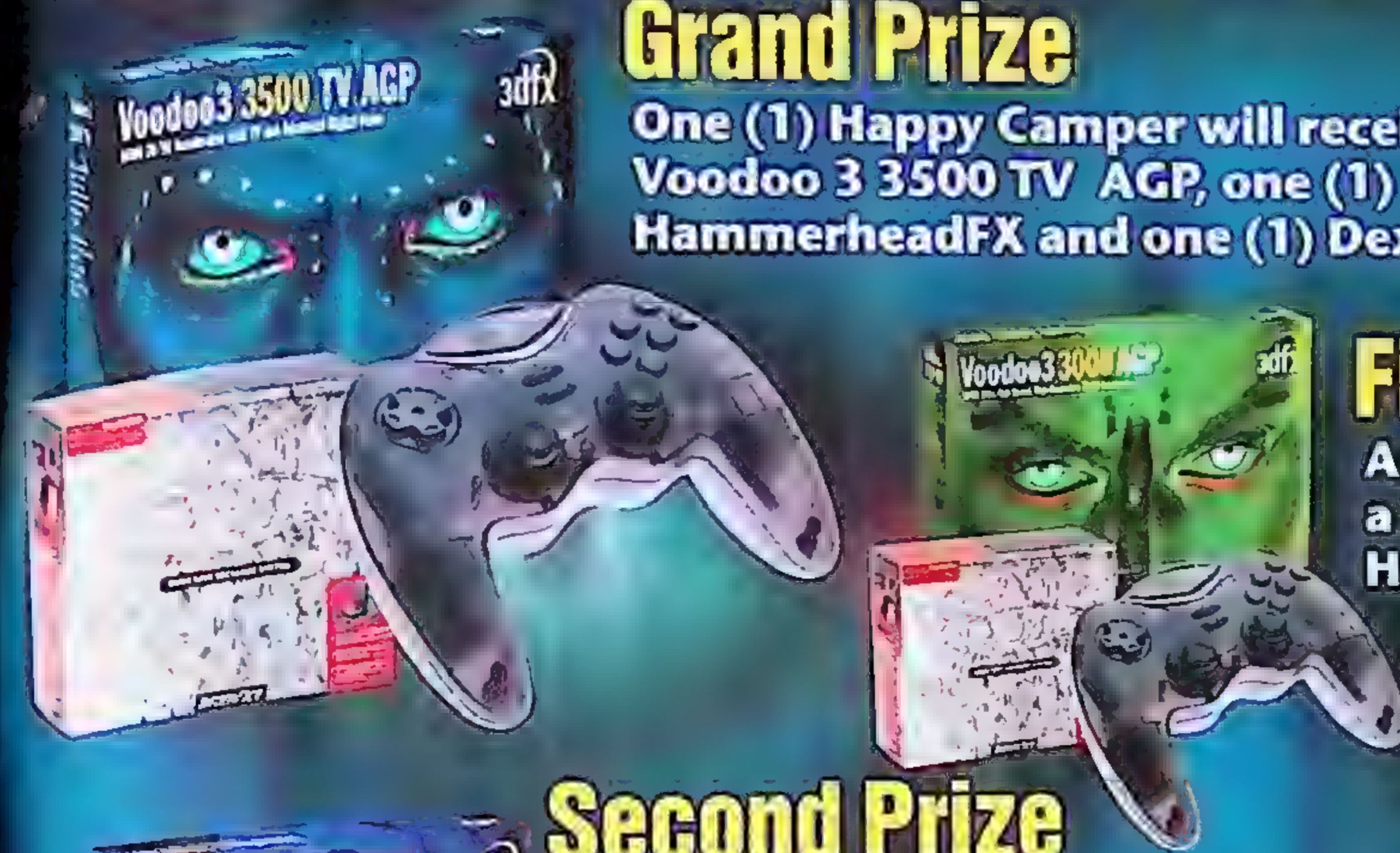
A: It depends on what you consider a complex puzzle. The whole game is a gigantic, interlocking puzzle. There are individual sections where you must solve individual puzzles with the powers and items you've obtained to allow you to get through them, but how "complex" they are is open to your own personal opinion. But how about having to sift through a bunch of serial killer profiles, Prophecy Cards or even Jack the Ripper's Journal written in 1888 for clues as to how to solve stuff within the game.



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"I have seen the enemy, and it is ourselves" — Walt Kelly

VIOLENT GAMING UNDER SIEGE

By Andrew S. Bibb

Conflict, action and violence. These are the essence of drama and are found in all art forms. Throughout history, the use of these elements has engendered scrutiny and criticism from masses of people who, while well-meaning, fail to truly understand the media which they are quick to criticize. From childhood, we all can remember rushing to form a ring around any combatants in the schoolyard. Watching a fattened lip form or a bloody nose gush was something that held a fascination for almost all of us. This is not necessarily a male thing, a female thing, a child thing or an adult thing... but it is a human thing. Literature, sport, art, sculpture, film, media, and video games all contain (in many cases, must contain) these elements, or they lose their impact. But those unfamiliar or disinterested with that particular art form see no reason to defend it, much less try and understand it.

Until recently, gaming has seemed immune from this scrutiny. Sure, there was Senator Joseph Lieberman (D-Connecticut) and his anti-Mortal Kombat crusade here, an unflattering news article there, but gaming, while lucrative, has enjoyed a very low-profile nature. Until recently that is. The real world was shaken profoundly by a singular tragedy soon after the video game world posted an astounding estimated 6.4 billion dollars in profit for 1997. The events that occurred in Columbine came as a shock to everyone, including parents, kids, teachers, lawmakers, Hollywood, comic book writers/artists and even action gamers. What made it worse was how the perpetrators weren't personally blamed as much as was their fascination with Hitler, easy access to guns, their parentage and video games like Doom and Quake. Never, seemingly, the boys themselves.

If you were like me and you saw footage of Doom or Quake broadcast on the nightly news in relation to the Columbine horror, you likely scoffed more than a little. You may've even laughed. Doom and Quake are violent, but know how outdated they are. Did you breathe a sigh of relief that they didn't show footage from Carnageddon 2 or maybe the then brand-new Kingpin demo? Had the advances in 3D technology been showcased in these journalism pieces or on the TV news, the public and lawmakers would have been shocked even more. We hardcore gamers have been playing under a rock for so long, counting bloody gibs, bragging about framerates and blood spray, discussing ballistics, and "fragging" each other nightly over the phone lines that if they really knew what we were up to things would be that much worse. Pandora's box cracked a crack back in late April and as more gamers joined our ranks and more lawmakers and politicians began to pay attention, the microscope we had on our hobby was magnified.



Braveheart the game is as full of violence as the movie

misunderstanding of what goes through a "normal" person's mind as they frag (either computer-controlled opponents or the guy playing on the internet in Chatahoochee), due to shoddy journalism that paints a hazy, biased, picture and incessant bad pop-psychology. In fact, according to a recent article found in Salon's technology section, entitled "The Shooters and the Shrinks," "Results suggest that aggression in the context of a video game discharges children's aggressive impulses in a socially acceptable way, leaving the children less defensive and more assertive." Such findings fly in the face of the irresponsible journalism we've been seeing. For one thing, rarely if ever is a gaming expert interviewed for a counter-point during such reports. And claims, which I saw multiple times, that "most fans of violent games don't become homicidal," are misleading. Most fans? How many other have there been? How about this? All but two fans of violent games do not become homicidal. That sounds just a bit more accurate given the statistics at hand, doesn't it?

A broken person needs only a single straw to shatter the dam of insanity. For Mark Chapman (who murdered John Lennon), it was J. D. Salinger's "The Catcher in the Rye." For John Hinckley Jr. (who shot Reagan), it was Jody Foster and the film "Taxi Driver." Countless examples - from the Crusades to the recent attacks on Jewish synagogues in Northern California — can be attributed to the Bible and other religious texts, for goodness sake! A movie, game, or book doesn't cause society's ills, but it is a really easy target for the morally arrogant, the quick to judge, and those seeking a fast PR boost from ignorance and fear.

I am not arguing that violent media does not adversely affect impressionable minds of any age. But media cannot be censored to protect society from those that are already a few missions short of an add-on pack. Children, especially, should be restricted from viewing, or playing, with things that are by nature disturbing and need to be educated as to why they aren't allowed to see these things. Parents need to be educated that some games, particularly Mature-rated PC games, are not intended for the young. Such restriction must take place in the home. Any other way skirts the fine line between freedom and censorship.

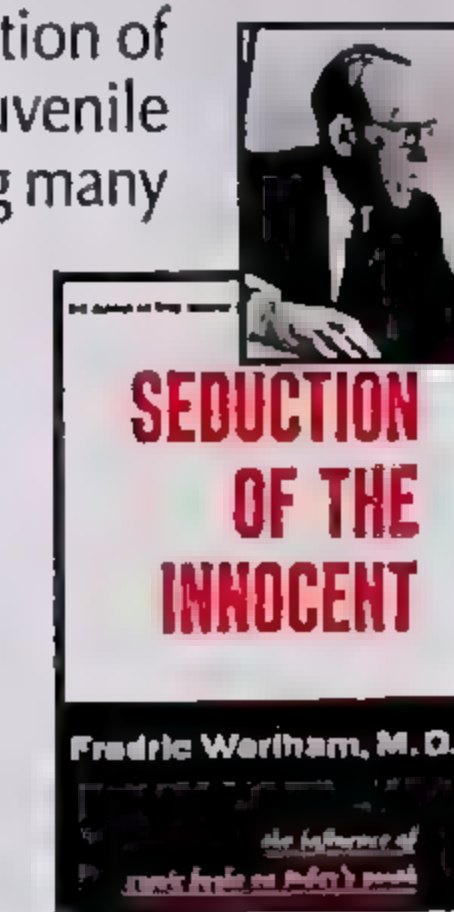
But it is not my purpose in this article to vindicate gaming, that is something that I feel does not need to be proven here. I simply want to shed some light on a little history and point out a potentially greater danger to the gaming industry than the Moral Majority, Democratic or Republican Senators, or parent's groups. And that danger comes from within — it is the danger of self-censorship.

The U.S. Senate and Congress, in recent history, has never judged against a creative medium.

However, in most cases the public pressure has hurt that industry, even destroyed it, through reactionary self-infliction of guidelines.

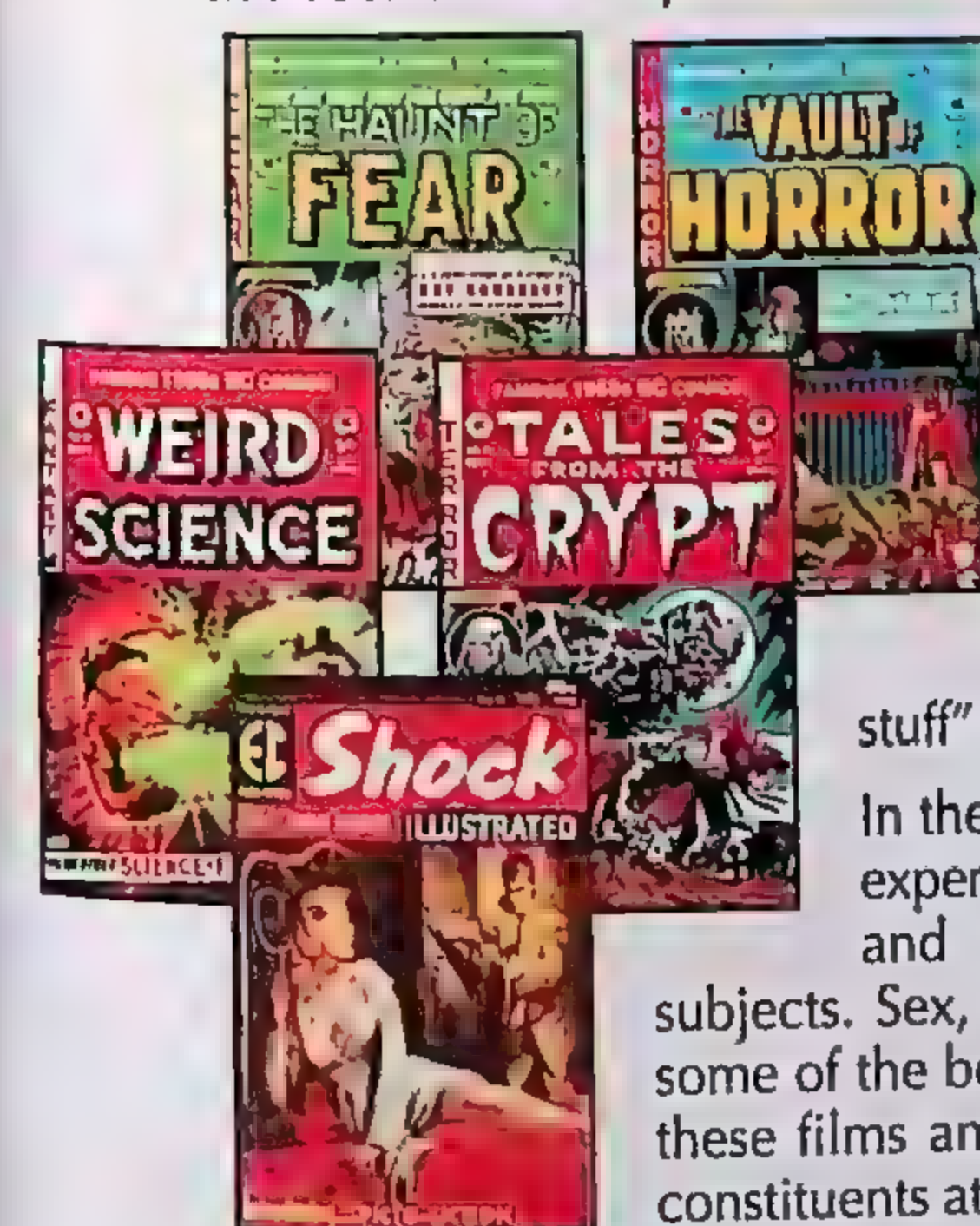
Starting with the Red Scare and Blacklists of the late Forties and early Fifties, Senator Joe McCarthy (and others, including Senator Richard M. Nixon) subjected several Hollywood actors to unjust scrutiny because, allegedly, they were at one time members of the Communist Party. Many writers and producers went to jail, but not because of this. In fact, they were jailed for not answering self-incriminating questions that hindsight and history have shown to be Unconstitutional. The point is, these Senators weren't after possible Red sympathizers — they were after their influence as film directors. A shiver went down Hollywood's spine and a rule-book was quickly drafted. You couldn't tell stories that portrayed Big Business, or bankers, in a bad light. You couldn't have the underdog (financially) win. Insanities like that. Fortunately that didn't last, but the quality of film suffered during this period.

A better example involves a Psychologist named Frederic Wertham, who published a book titled "The Seduction of the Innocent" in the mid 1950's. His book blamed juvenile delinquency upon the reading of comic books, citing many examples from the more adult-oriented crime and horror titles of the day. The subsequent Senate probe into the matter was concluded in the comic industry's favor but the damage had already been done. Comic companies, fearing the public outcry (and some suggest they were jealous of the power EC comics wielded), created the Comics Code Authority. By persuading distributors and retailers to sell only Code approved titles, EC was wiped out (all their comics were based on war, horror and crime). The Code demanded that the villain return to jail every issue, that nobody could be killed in the comic, no blood was to be shown, and the words "crime," "horror," "fear" and other titillating adjectives could not appear in the title.

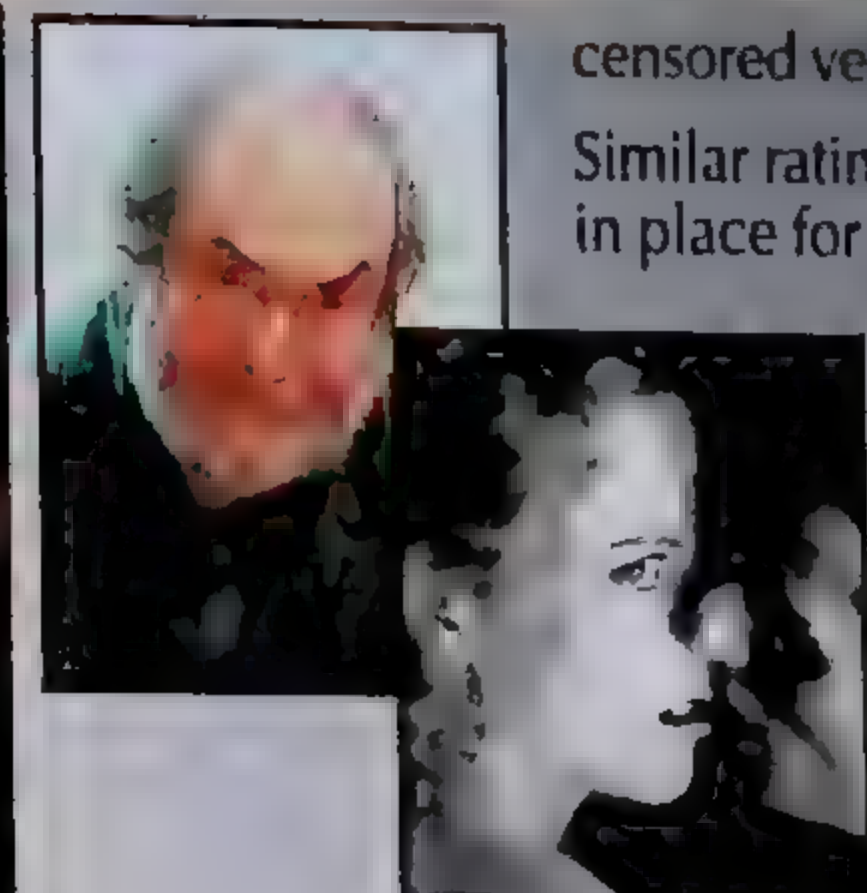


Frederic Wertham and his attack on comic books

This lead to the dumbing down of comics all through the late 50's and into the early 70's. The Joker went from a homicidal maniac to silly clown guy in a matter of weeks. Art was destroyed and the company producing the best comics of that era (EC Comics), was also utterly destroyed. Self-censorship dramatically hurt the industry and it still suffers from "kid-stuff" prejudice because of it.



In the Sixties, film-makers began experimenting with more realistic, and thereby more offensive, subjects. Sex, drugs, and violence led to some of the best films of this century, but these films angered lawmakers and their constituents at the time. The result was the MPAA ratings authority we are all familiar with today. Back then the ratings didn't mean much and didn't much deter the intended audience. Take, for example, the film "Midnight Cowboy." It was rated X in 1969, enjoyed a wide theatrical release and won that year's Academy Award for Best Picture. Since the ratings system was new, the X rating didn't hurt the film's chances. Today's equivalent would be an NC-17 rating, something that would be a huge financial detriment to a movie studio. Why else was Stanley Kubrick's final film, "Eyes Wide Shut," cut after the auteur's death to give it an R rating? Kubrick, a noted perfectionist, is likely rolling in his grave and American audiences are the only people in the world who have to watch the



Director Stanley Kubrick's final work was censored for him after his death

censored version.

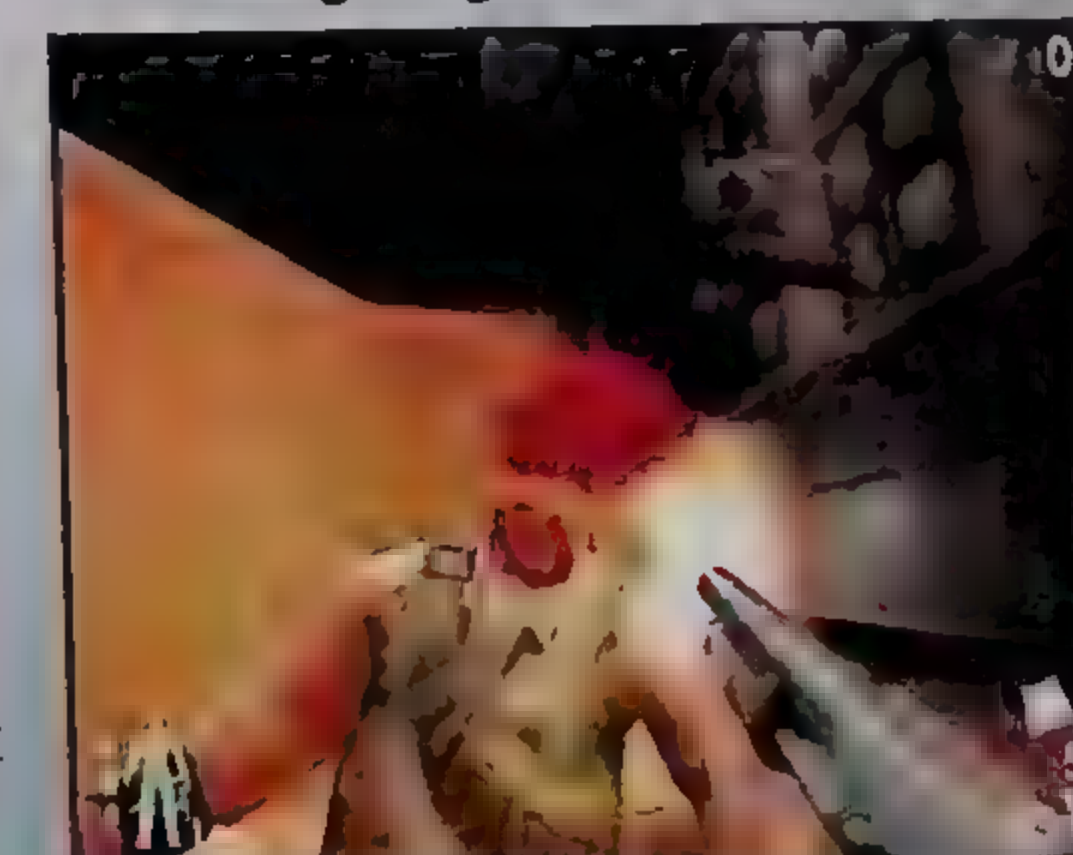
Similar ratings systems have been voted into place for comic books, music, television, and video games. These ratings systems have been largely ignored, do not hamper sales overmuch and, in fact, seem to enhance them. Would you buy a hardcore rap CD with a "violent lyrics" advisory? Or a horror comic or 3D shooter rated suitable for small children?

All this leads us directly to what I consider the great danger our hobby may be facing very soon. The danger may come from government. Already there are Bills circulating that propose criminalizing the sale of violent games to minors in various states. Congressman Henry Hyde (R-Illinois) proposed a Bill that would make the sale or lending of violent media (books, films, magazines, games) to anyone under 17 a crime. Thankfully, Hyde's proposal was shot down due to its flagrant First Amendment violations and its obscure definition of what exactly "violent media" constituted. Another proposal that is still alive is called the "21st Century Media Responsibility Act." This Bill, proposed by Senator John McCain (R-Arizona) and noted video game opponent Senator Joseph Lieberman (D-Connecticut) would group all media together and offer a single ratings system to encompass them all. This new system would include an age range and then punish any retailer who sold to an under-aged patron with a \$10,000 fine. This Bill's prospects are also bleak, but a scaled-down version might be enough to change things as we know them. Other potential problems our industry is paying close attention to are a study ordered by Congress on the effects electronic media (games) have on children, and a study President Clinton commissioned to look into the way our industry advertises. Both these studies didn't exist until post-Littleton and both smack of more than just a bit of election-year politics.

The problem isn't what they find, or what laws they succeed in getting passed (if any). The problem is how the industry is already reacting to the scrutiny. The real danger could actually come from our industry itself. In early July, Interplay released Kingpin (reviewed this issue) and they did so with sticker upon sticker proclaiming it as an offensive game, as well as warnings inside the box and during the installation process. Stickers are a double-edged sword; they warn the easily offended, they attract the easily titillated (especially teenagers). My local Best Buy doesn't carry the game at all. When I asked why, nobody there knew what I was talking about. My local Babbages is selling it, but the box is kept out of reach behind the counter and the clerk seems required to warn customers about the game. I've even heard reports of gamers being carded for it. This is certainly a first in gaming and the reason for it can be traced to this recent scrutiny.



Kingpin's violence, while extreme, is duly noted on all the packaging and during the game's installation



Interplay and Xatrix swear

up and down that Kingpin is a mature game, intended for a mature audience. But is it? In Kingpin you play a hardened gangster, shooting up the hood. The ultimate goal is to rise to power in the underworld, kill all the bad guys, smack-talk the "bitches," and listen to grade B rap band Cypress Hill. Face it, this isn't the Godfather. Sounds to me like the game is being aimed at fourteen-year olds who buy Eminem and Limp Bizkit CDs. How about other releases over the past couple years... Rainbow Six is an action simulation that places you in the role of an anti-terrorist operative; the game is bloody, and very realistic so far as ballistics go. But as a sim, with a story, goals, and even ennobling victory conditions (in Rainbow you rescue hostages, in Kingpin become the bad guy), one could better argue that this is a game aimed at mature tastes.

Violent content, in all media, is easier to accept when the story is deep, the cause just, and the player is the Good Guy. In Postal, you play a crazy person shooting innocents; in Grand Theft Auto, you are rewarded for car-jacking and murdering civilians; in Carmageddon you run down grannies for points. Even anti-hero movies like Deathwish featured characters more sympathetic than Caleb, the main character in GT Interactive's Blood. Part of the reason violent games are hard to defend is that situations and stories are so childish in most action games that it doesn't look as if the game is aimed towards or developed by adults at all.

Regardless of this difficult to defend position, the truth is, especially on the PC front, most games are sold to people in the age range of 25-40. Games are prohibitively expensive, especially given the quick technology turn-around of



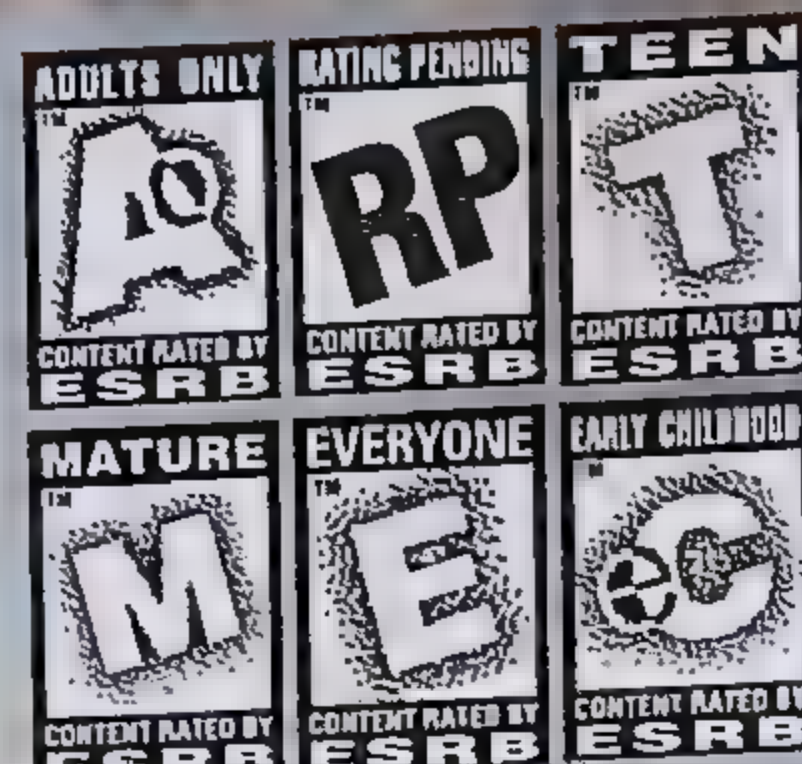
Postal — a violent, crappy game



Carmageddon's violence was played up in the advertising

a good question because too many parents don't get involved. An action game touting anti-social behavior and realistic sex or violence will always attract teens and will seem to be aimed at teens, in much the same way mature films do. Ultimately the parents are the only ones that can protect children from their interests. Laws and even industry self-censorship, whatever form it takes, cannot effectively manage this. Some want to make the ESRB rating larger and "inform" the public what these ratings mean... Why? Does a name like Postal or Blood really need an explanation? What part of a "Mature" label are people confused about exactly?

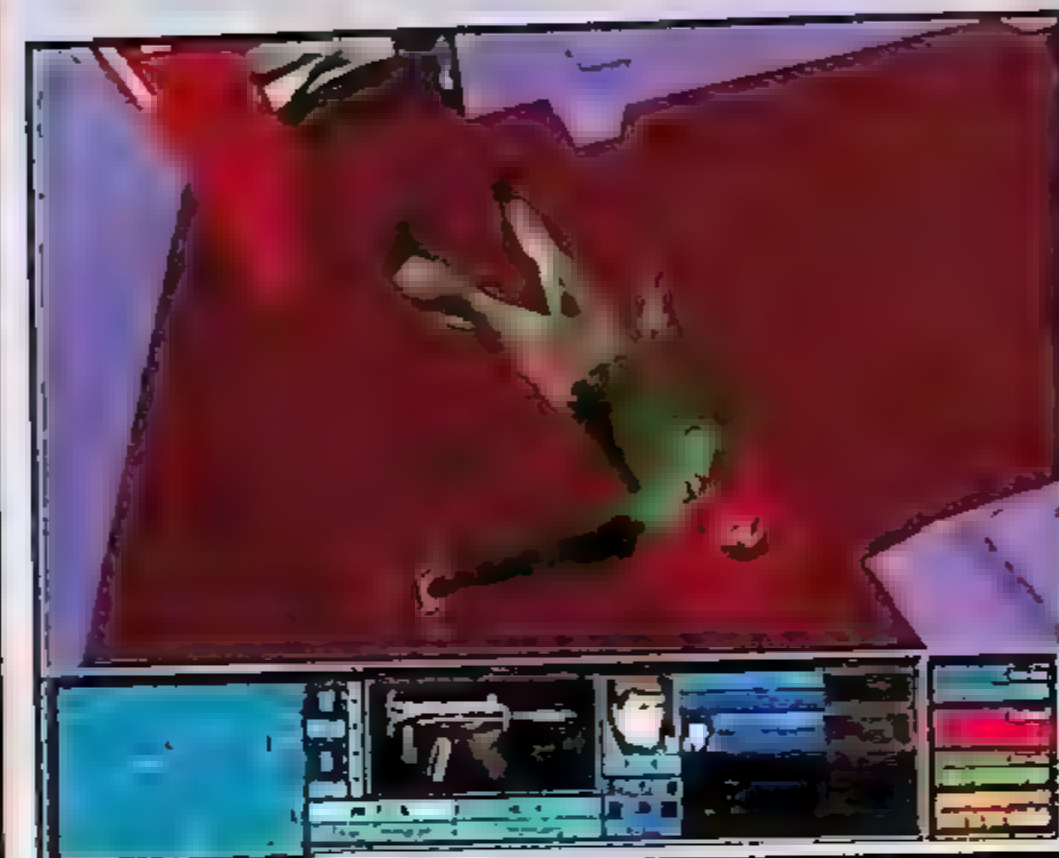
Still, despite the adequate status quo, the industry is already reacting,



The ESRB's rating symbols

children under 13 would have to gain their parents written permission to access EA sponsored web-activities. Those under 13 will have to get a downloadable "permission slip" for their parents to sign, those 13-17 will be sent an electronic warning and their parents will presumably be given the option of removing their child from the list. My question is a simple one... why would a child trying to register his mature game use their correct birthdate?

Game-blocker software and true enforcement of the ratings system aren't the real danger here. The real danger is that the industry will begin



Rainbow 6 — realistic, fatal action



Grand Theft Auto — unrealistic, cartoonish action

Game development is too costly for it to go the straight-to-video route, as most NC-17 and X-Rated films do, or underground as offensive comics do. There's always the net. A person of any age can download the Kingpin demo, but it will likely be a long time before a game maker can recoup a development cycle's cost, from net sales alone. A policy of arbitrarily rating games and then attaching a sales stigma to the rating, could rob us gamers of potential classics. Games that push the edges of experience for us. It is worth enduring a Postal if a Half-Life is also possible.

NOTE: In no way is the author arguing that small children, whose world outlook haven't been tempered by experience and reality, be exposed to violent content in gaming or any "intense" media. His own future children will find it equally hard to view his DVD copy of Pulp Fiction, as they will to play his copy of Kingpin. Also, his opinions are his own, and not necessarily shared by this magazine, 3DFX or Dimension Publishing.

trying to pre-empt any government legislation, or public outcry. Microsoft has announced a game-blocking feature on the forthcoming version of Windows 2000 and Electronic Arts has added a new security system to its registration process. This system, created by the Interactive Digital Software Association, is called the Children's Online Privacy Protection Act of 1998. The idea behind it is that

those policemen, the writers of those guidelines, will not be gamers, developers, press, or consumers: they will be businessmen. The enforcers of the guidelines will be retailers. Imagine if you heard that Half-Life 2 was being delayed because the ESRB gave it an Adult rating? Since major retailers won't sell games with that rating, perhaps Sierra might decide that content must be removed from the game. Certainly this isn't a bad thing when you think of terrible "controversial" titles like Postal, Grand Theft Auto, or Beat Down (which are mainly offensive because they are such bad games), but it is terrible when you think of games like Doom, Quake, Half-Life, Myth, etc.,

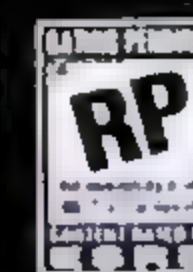
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TITANIC

B. Dove Whittle

A CRYSTAL CLEAR LOOK AT 3DFX'S NEW OCULAR ENHANCEMENTS

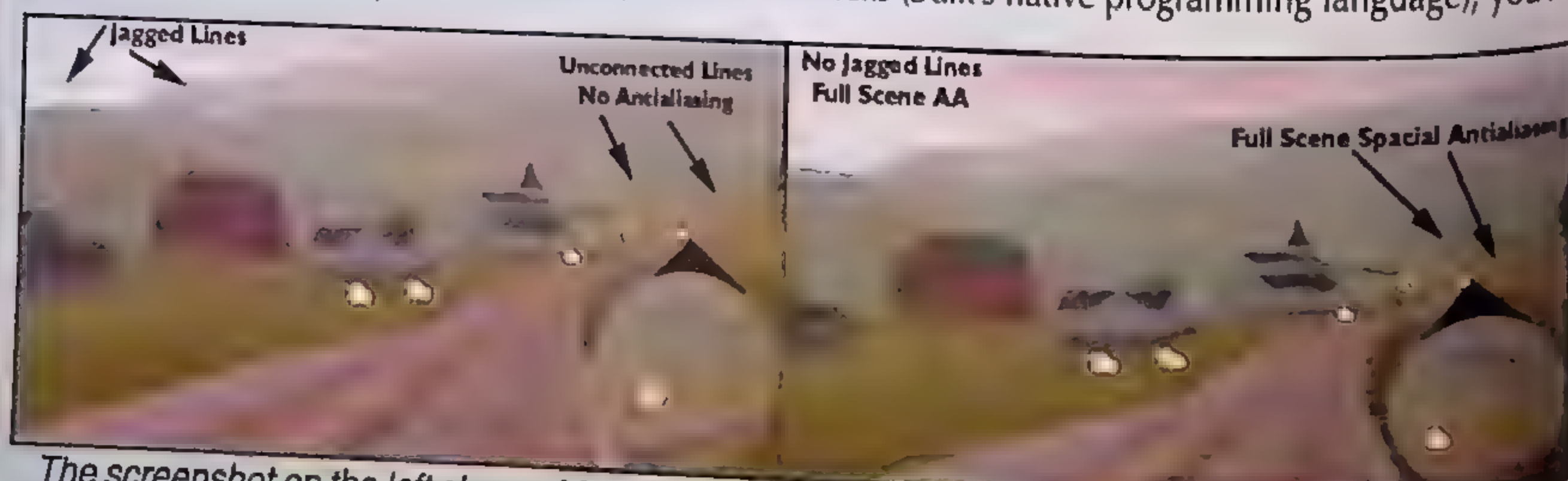
3dfx's main goal, their reason for being, is to push 3D technology forward. Those that have been playing PC games for years can realize just how far things come over the last couple years, but non-gamers or people just entering into gaming have a different perspective. Movies like Titanic, Jurassic Park, and especially Pixar movies Toy Story and A Bug's Life have raised the bar as to what computer graphics should look like. Of course, we can't have a photo-realistic dinosaur or even a cartoony feature film ant running in real-time on today's computers and probably tomorrow's for that matter. Movie studios have rooms full of computers and time to render the scenes out frame by frame. We gamers know that, but not everyone else does. Ever try to show your non-gaming significant other how cool Quake 3 Arena is, just to have her reply, "Ummm... yeah... neat..." without much feeling? She might not know how to explain it, but there are certain things about current real-time gaming that tell the untrained eye (or even the trained one) this is not reality. There are various real-world visual cues missing and that's what makes today's games look "computery," for lack of a better term.

Someday, the line between good-looking polygons and a realistic image will be removed and 3dfx is most likely the company that will take us there. 3dfx is dedicated to raising the visual style of computer games to the cinematic level and has been from the moment of its inception. Their cause is to bring games to the point where they don't look fake or artificial, or even if they don't look like reality, they are immersive in the same way you forget you're watching computer animation when you see "A Bug's Life." 3dfx wants to see the day when the game's intro CG movie and the rest of the game look exactly the same. A new tool they are using to advance gaming is "The T-Buffer"

Huh? "T-Buffer"....? Well, this process has to be called something, so they sort of played on the famous "Z-Buffer" term ("Z" is a coordinate in 3D space and the Z-Buffer is the portion of the 3D accelerator that stores depth values for all objects on screen) and used the first letter of the last name of their Chief Technical Officer and creator of the technology, Gary Tarolli. Hence, T-Buffer. You can read Mr. Tarolli's take on his own technology in "The Final Word" column of this issue (see page 96).

This new technology is addressing the various, often not obvious, clues that pull you out of the immersive world of 3D graphics and remind you that you're just looking at a computer screen. These visual artifacts include:

- **Aliasing "jaggies"** — This is where the computer monitor can't render a straight line and stair-stepped jagged edges appear.
- **Polygon popping** — When a polygon (like a far away lamppost or a mountain in the distance) repeatedly appears and disappears or sections of it are broken.
- **Inconsistent frame rate** — Ever been playing a game at 60fps and hit a section where the frame rate drops lower? Uggg! This is especially obvious in complex first person shooters, when loads of enemies or other players appear on the screen at the same time. Slow down is the constant enemy of game design.
- **Strobed animation** — Not enough samples are being taken of an action and it looks choppy or doesn't give the illusion of true motion.
- **Shimmering** — Aliased edges will sometimes flicker or shimmer as you move around.



The screenshot on the left shows Mango Grits' action game "Barrage" without any love from the T-Buffer. On the right, you see the benefits of the technology's "behind-the-back" Anti-Aliasing.

In addition to fixing these visual artifacts in games, the T-Buffer also adds a new dimension to the games by supplying a camera-like "focus." Movie directors and cinematographers have been using this practice for years to guide the viewer's eyesight towards something on the screen. Remember the scene in the first Star Wars where Luke Skywalker was looking through his binoculars at the Banthas in the distance and suddenly a blurry image appeared in front of him, and when the camera pulled back it revealed the Tuskin Warrior? Soon that effect will be able to be done on a 3dfx card!

So the key elements to the T-Buffer's additions to real-time 3D graphics are:

- **Full-scene Anti-Aliasing** (getting rid of the jaggies)
- **Motion Blur**
- **Depth of Field Blura**
- **Soft Shadows**
- **Soft Reflections**

One thing to keep in mind is that the game developer controls these added elements, regardless of what API they choose (hopefully). If you think these are Glide tricks (3dfx's native programming language), you're

wrong. These goodies will be added to Glide and will hopefully be implemented into DX7 and have extensions written for OpenGL. It's up to the programmer to use them in whichever API he/she uses.

FULL SCENE AA

Let's go into a little more into detail. What is "Full Scene AA"? Haven't we seen this before and were not too impressed with it the first time? No. Video card manufacturers like to claim Anti-Aliasing as a feature (3dfx has been guilty of this as well, mind you), but up 'til now, everyone has used a software driver or application (game) tricks. The software driver or application (game) tricks. The AA we've seen in games in the past has slowed down the game tremendously. This was usually "edge AA," which required the developer to put in scene markers to show what to smooth out, which resulted in slower game performance. Edge Anti-Aliasing came about as a way to check off a box in WinBench testing without necessarily being able to do true full screen AA. Older gurus might remember that an early patch to the original Tomb Raider had this feature and just how much it sucked. No one turned the feature on because it destroyed gameplay. The other lame AA method (that some chip manufacturers try to sell you is "Oversampling AA." This method renders the entire area at a higher resolution and filters down the image to fit the screen. Even if the developer could get this to work properly, it still slows performance down because your computer is working as if the scene is bigger than it really is. Blech! Scrap both of those AA methods. If you see a video card touting them as a feature, just chuckle to yourself because we now know how lame they are.

3dfx's Full-Scene Spatial AA, the only good affordable form of real-time AA, smoothes out all the jaggies (no stair-stepped edges) and eliminates popping and shimmering polys. Best of all, it can do it on any game, old or new! When you upgrade to the next Voodoo card (Voodoo 3 owners immediately groan and start recycling cans to earn extra money), your entire collection of games will immediately look better.

How does it do this? When you hear the term "T-Buffer," think "multiple frame buffers." With current video cards, whether Voodoo 3, TNT2 or whatever, the Raster engine feeds a frame buffer and that frame buffer in turn makes the picture on your monitor (ok, that's oversimplification, but you get the point). With the T-Buffer method, the Raster engine feeds into this T-buffer and it feeds many frame buffers. Those multiple frame buffers put the image together, smoothing out areas that need it at the sub-pixel level. What you see is a blending of all the frame buffers into one improved image. Is there a performance hit? Very slight, but it's one 3dfx is not afraid of. They recommend for us in the future to do all of our benchmarking with Full-Scene Spatial AA enabled at 32-bit color resolutions (yes, you read right.... 3dfx finally goes full 32-bit) because the ever-so-slight performance hit is next to nothing, and the image is greatly improved.



In this sequence, we see Depth of Field in action. On the left, the scene is centered the sneaky cop. On the right, the focus has shifted to the soon-to-be-busted drag racers. The simple change of focus draws your eye in a way quite familiar to movie-goers, but never before available to game developers.

What about the other things, like Motion Blur, Depth of Field Blur, Soft Shadows and Soft Reflection? If the game developer works these into future games (and they will), this will extend AA's improved image quality and give the picture a more "cinematic" feel.

MOTION BLUR

What will Motion Blur do for a game? Imagine standing still as a Quake 3 teammate races by you, notices you, stops, turns around and runs in your direction. If a movie camera was recording that same action, he would be blurry as he ran by, sharp when he stops and turns, blurry as he runs up to you and sharp again when he stops. This blur is created because the film in a movie camera uses a chemical process that simulates the way the eye works, so when the object is going faster than the click of the camera's shutter, the image appears blurred. The reason this looks "right" to us is because our eyes do the exact same thing. However, games were not able to simulate this effect... until the T-Buffer. The multiple frame buffers render several different versions (the number and duration is up to the developer) of a character running and then blends them together when he is running, thus the illusion of speed. When the character stops, the multiple images line up without any blur. Keep in mind that a company like id Software has to choose to implement these

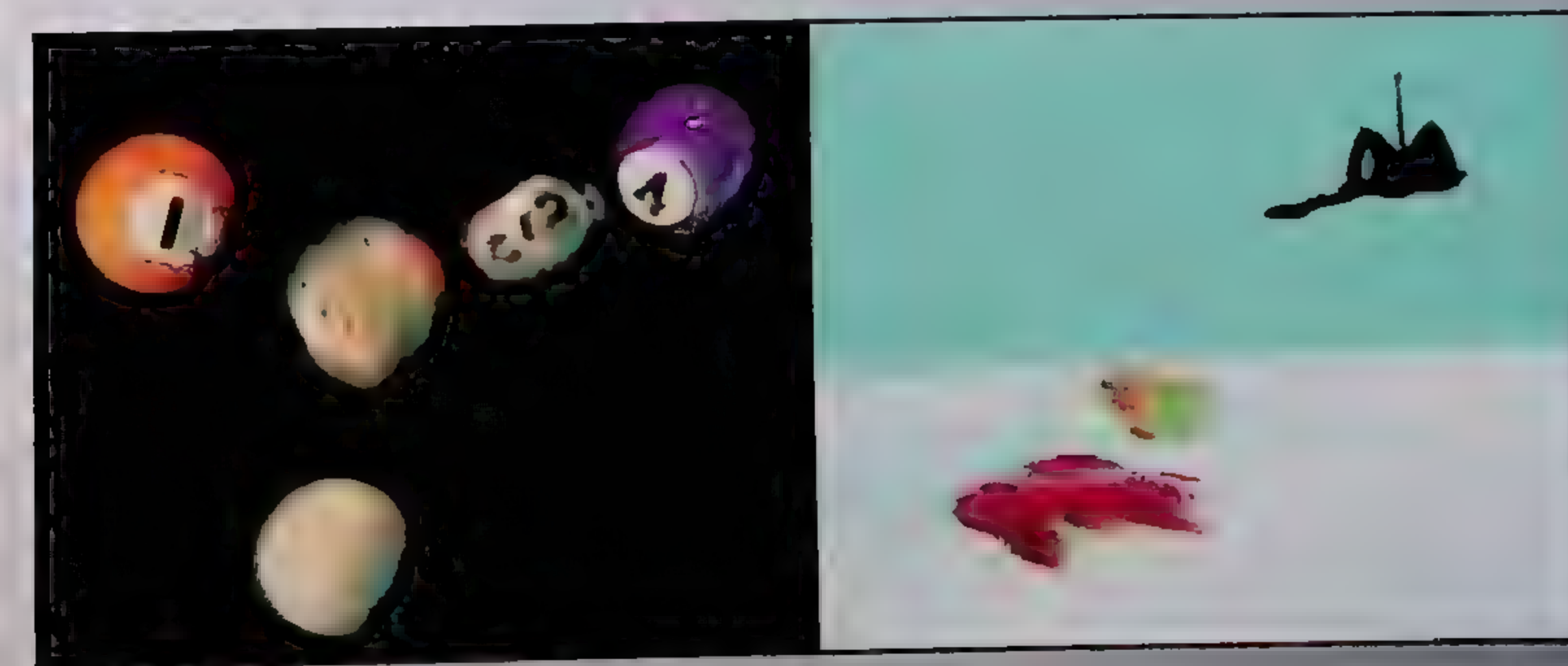
changes into the code first and they haven't announced any T-buffer support yet.

DEPTH OF FIELD

Depth of Field is like the Star Wars example I gave earlier. Since Luke's eyes were focused on the Banthas far away when the Tuskin Raider appeared right in front on him, it was blurry at first. This looked right to us, because that's how our eyes work. However, computer games don't do this... all objects appear sharp no matter how "far away" they are. After all, everything on screen is just polygons, right? While some developers have attempted to use fog tables to indicate distance, the T-Buffer simulates this out-of-focus effect by creating multiple versions of the "out of focus" object(s) and blends them together. The game developer can add "where" on the z-axis (how far away) the Depth of Field is, and all objects in "front" or "behind" that object will be out of focus in varying degrees (not unlike z-buffering or LOD mip-mapping). Can you imagine a level of a shooting game where you have to snipe a bad guy in the distance and part of the process is to focus your site on the object? I can see some very clever game developers taking advantage of this, especially in racing games and flight sims.

SHADOWS

OK, here's another thing that annoys people not used to games. Everyone thinks shadows in games

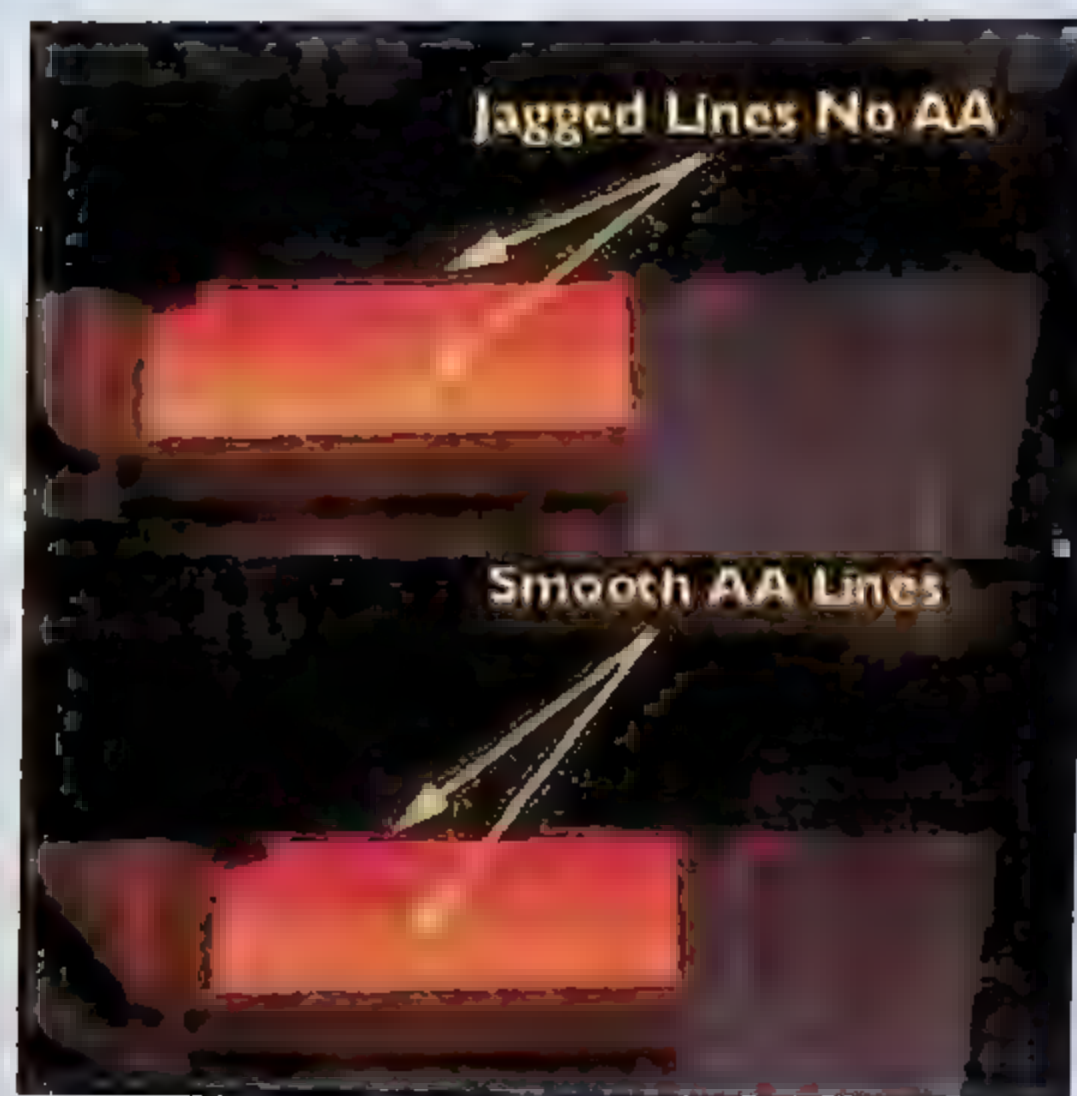


The picture on the left shows a moment in time, capturing their motion. This is what you would see if you could take a still image of your retinas as they process light into vision. By using the T-Buffer, this representation of motion can be included in a 3D game.

are a good thing because they help establish a player's connection to true "3D" space. However, take a look at your real shadow. Is it composed of solid, hard-edged, black-filled polygons? Of course not. Now look at the shadows in Quake. They really don't look real, do they? They're better than nothing, but still... they could be improved. Mechwarrior 3 tries to be better with software shadows, but they still aren't entirely convincing. Enter T-Buffer. The multiple frame buffer system can create semi-transparent shadows with soft edges with no problems at all. If you see other cards bragging about "Stencil Buffers," ignore them. Stencil Buffers can only do hard shadow edges, i.e. inferior to 3dfx's solution!

REFLECTIONS

The last added feature that a developer might want to add is soft reflections. Reflection in mirrors have been around in games for a while (remember the first time you saw your own reflection in Duke Nukem 3D and shot at the mirror?). Those mirrors add to the realism of the games, but imagine how much more realistic the scene would be if other things had a "semi-gloss" to them? They wouldn't reflect the entire scene — only certain things, depending on how close the object was to the reflective surface. This would give the illusion of the difference between finished wood, stainless steel and other semi-reflective surfaces. Think of some of the games lately where you've seen your reflection on a marble floor below you. This reflection is usually mirror-perfect, not the blurred look it should be.



Quake 2, as seen before and after the inclusion of Full Scene Anti-Aliasing. Nice, huh?

Again, the best real-time affordable way to do this is 3dfx's T-Buffer. Manipulation of multiple frame buffers can deliver soft, realistic reflections from real-world surfaces.

SUPPORT

When will we see these new features in games? That's up to the game developers. If they want to add support for the T-buffer in their games and utilize the features correctly, it could be very cool, especially for game-engine cut-scenes. If you think developers won't use a

technology created only for 3dfx cards, read these quotes from a few game developers:

"We intend to use this new technology from 3dfx to its fullest."
-Malcolm Johnson, director of technology at LucasArts

"The ability to achieve real-time effects such as... (Motion Blur and Depth of Field) on a consumer graphics product is exciting indeed. Unreal Tournament will look amazing with full-scene anti-aliasing."
-Tim Sweeney, direct of technology for Epic Games

"The T-Buffer technology will allow us to deliver yet another major leap in visual quality at the usual raging-on frame rates from 3dfx."
-Scott Crouce, VP of technology for Electronic Arts

3dfx is intending to push the real-time graphics visual bar forward. They have always kicked butt in the fps (frames-per-second) department and now they are building on the features of the graphics. As the original Voodoo Graphics card had features that were untapped at its release, the next generation has visual cinematic enhancements that have huge potential. They are giving these tools to the developers, so it's up to the developer to show us if 3dfx has once again pushed PC gaming forward.

We can't wait to see what the development community makes of the T-Buffer.

WHAT ELSE HAVE WE LEARNED?

The T-Buffer announcement and demo by 3dfx was very interesting. We also managed to learn several other exciting things from the course of the presentation.

During the technology summit, 3dfx basically "non-announced" the new product, rumors of which have been circling on the net for months. While most of the online buzz has been referring to the new chipset as Proprietary Napalm, we feel that this is more of an unofficial internal code name than the actual product's moniker. A news report from a semiconductor conference had a quote from Greg Ballard, President and CEO of 3dfx, which he referred to "Voodoo 4," but 3dfx would not confirm this name by the time we went to press.

Scott Sellers told us, "In the future, 3dfx will not even bother benchmarking in 16-bit color. For us, our new standard will be 32-bit color running at 60 frames per second at 1024 by 768. Anything else will not be acceptable." When Scott is this serious about something, you can guarantee that it's not just a hollow promise, but a glimpse of things to come.

To pull off this kind of performance, of course, is going to require a lot of memory for the chipset. The current Voodoo 3 and Banshee boards are sporting 16MB of RAM and we know that these chips are not capable of producing 16-bit color. When we asked Scott how much memory would be required to run his proposed benchmarks, he hedged at first, saying "Obviously, this will require more RAM." When pushed a bit further, Scott caved a bit and told us that, "Cards with the T-Buffer technology will come in a few different configurations. Most likely, the low-end configuration will have 32MB of RAM, and will be comparable in price to the entry level Voodoo 3." The Voodoo 3 2000, the budget-priced V3, retails for \$129.99 at stores like Electronics Boutique. A 32MB board for around \$150?

Will we end up seeing new cards with as much as 64MB of memory on them? Those of us who have been on board with 3dfx since the beginning are amazed at the way RAM prices have sunk through the floor. Remember, the very first 3dfx card available, Diamond's Monster 3D, had a paltry 4MB of memory on board and retailed for \$300! In fact, for the purposes of the demo, 3dfx was running a Quantum3D Heavy Metal System, which is actually eight Voodoo 2 chipsets strapped together with 96MB of available memory. While the Heavy Metal can be yours today, you might balk at the price: about \$15K.

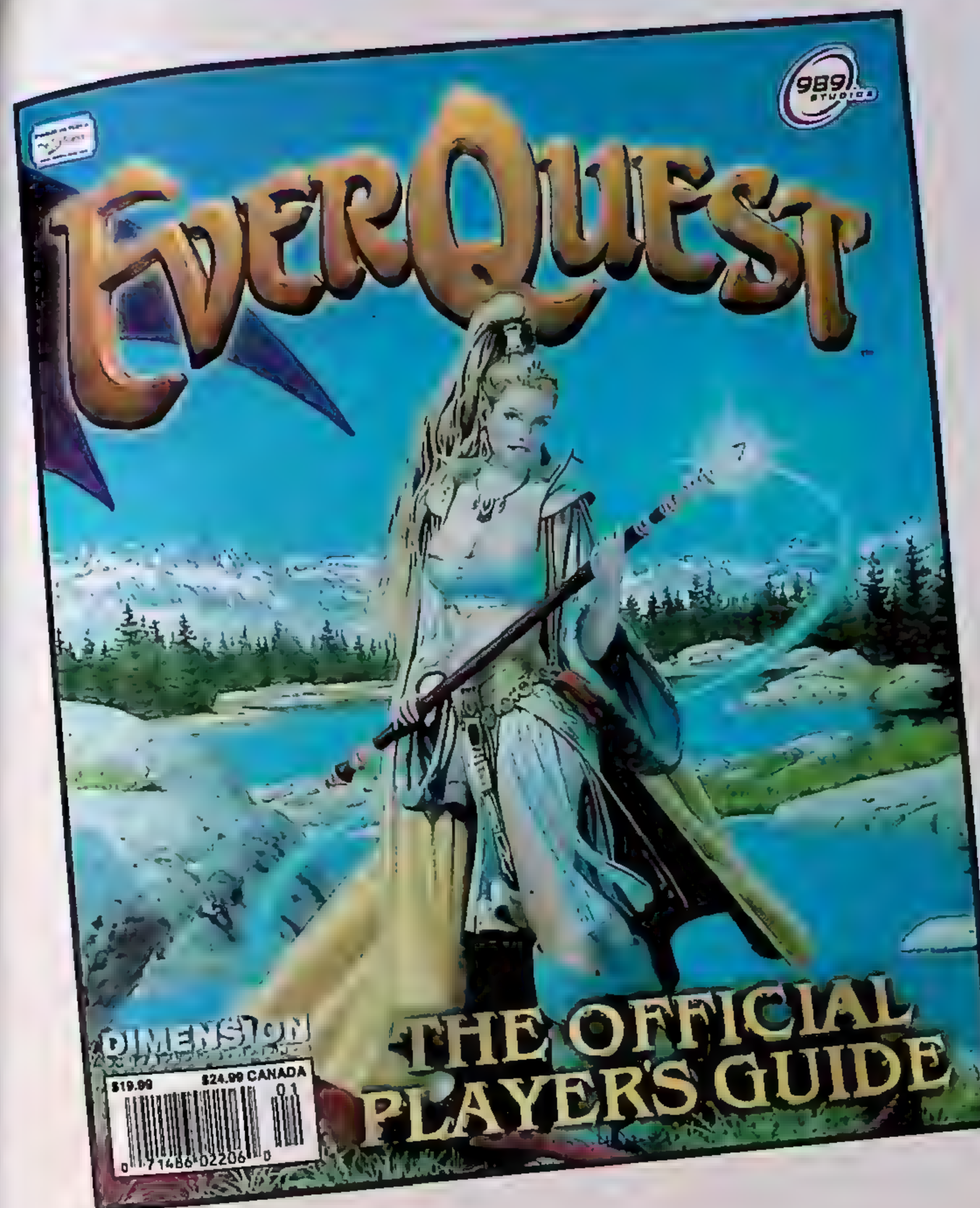
Also, the T-Buffer is based upon the idea of combining outputs from several different frame buffers. Does this sound familiar? To us here at Voodoo, this sounds very much like our old friend Voodoo 2's ability to do Scan-Line Interleaving, which combined two cards to render scenes faster. Does this mean that we'll be able to combine two or more cards with T-Buffer technology? Obviously, there are no double slot AGP motherboards, but the frame buffer setup would seem to hint towards SLI capabilities.

3dfx is well aware of the fact that they have slipped a bit in the technology curve and are working like maniacs to regain the crown of King Accelerator. Toss in their recently announced commitment to continue to optimize their drivers for AMD's 3DNOW! and Athlon instructions, as well as Intel's SSE enhancements and we should see some first rate technology on par with the technology they became famous for. What else will they need to pass up the competition? Faster clock speeds on the chips (a given considering the outputs they're giving), larger texture sizes (256X256 is simply not going to cut it in the future), greater OpenGL support, AGP4X compliance and support for DX7's many new exposed features, including hardware Transform and Lighting and DirectX texture compression.

Scott also told us that "cards with T-Buffer technology will be available in quantity for this Christmas season." Greg Ballard essentially said the same thing. The latest round of Voodoo 3 drivers already produce an amazing visual display, with quality unmatched in by any other contender in 16-bit color. We're sure that come the end of the year, 3dfx will once again be the unmatched leader in 3D acceleration and performance.

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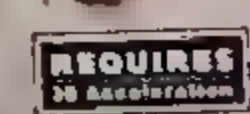


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MECHWARRIOR 3

Glide, D3D
 Supports resolutions up to 1024x768
 Keyboard/Joystick/Mouse, 8 players online
 Minimum Pentium 166/32 megs of RAM

In the small, but suddenly bustling, Giant Robot combat genre, one title stands some thirty feet above the rest. That title is, of course, MechWarrior 2. Based on FASA's Battletech universe, fans have had to wait an awfully long time to revisit this unique combat and simulation universe. There was also much dismay when Activision, who was so good both to and for the series, lost the license. The wait is over and it turns out that newbie developer Zipper Interactive has done a bang-up job with the series... provided all you really hungered for was a dramatic facelift. Sadly, the graphics and a few extras are all that are new here, but it has been so damn long since we've thought about heat management and torso-twist our way to brutal victory, being an also-ran is not such a bad thing... or is it?

Where MechWarrior succeeds and other Giant Robot sims fail is in terms of its story. Having several novels and countless expansions and refinements to a very popular miniatures gaming system to draw upon serves it better than any game involving HERCs or Gears. Battletech, and the copyrighted nickname of 'Mech, place any MechWarrior game in an enviable position, one almost comparable to Star Wars-based space simulations. Battletech is what we think of when we imagine giant robots beating the hell out of one another.

And beat upon one another they do, through one very impressive gameworld after another with pilots housed in spectacularly



detailed war-machines. The weapons are all familiar, as is the concept of battleground salvage. 'Mechs are as customizable as before and this is done in a simple yet pleasing way. Further, the configurable controls are well thought out, easy to modify and show again how far we've come since Mech 2. New joysticks with a twist axis (like the MS Sidewinder Pro, or the superior Force Feedback Pro) prove to be far superior to the finger-twister torture of the old keyboard layout. Torso-twisting with the twist joystick, multiple buttons for firing and a throttle for speed make the 'Mechs a pleasure to drive. In fact, even with the keyboard, the interface is such a pleasure that it borders on a piloting or driving simulation rather than a simple action game.

The graphics are a wonder to behold. The twenty levels are each very different looking, sporting some brilliant touches throughout. The fully textured sky, ground, buildings, rival 'Mechs, and your own Lancemates make for a gigantic leap over MechWarrior 2 or Mercenaries and it really makes you realize just how much time has passed.



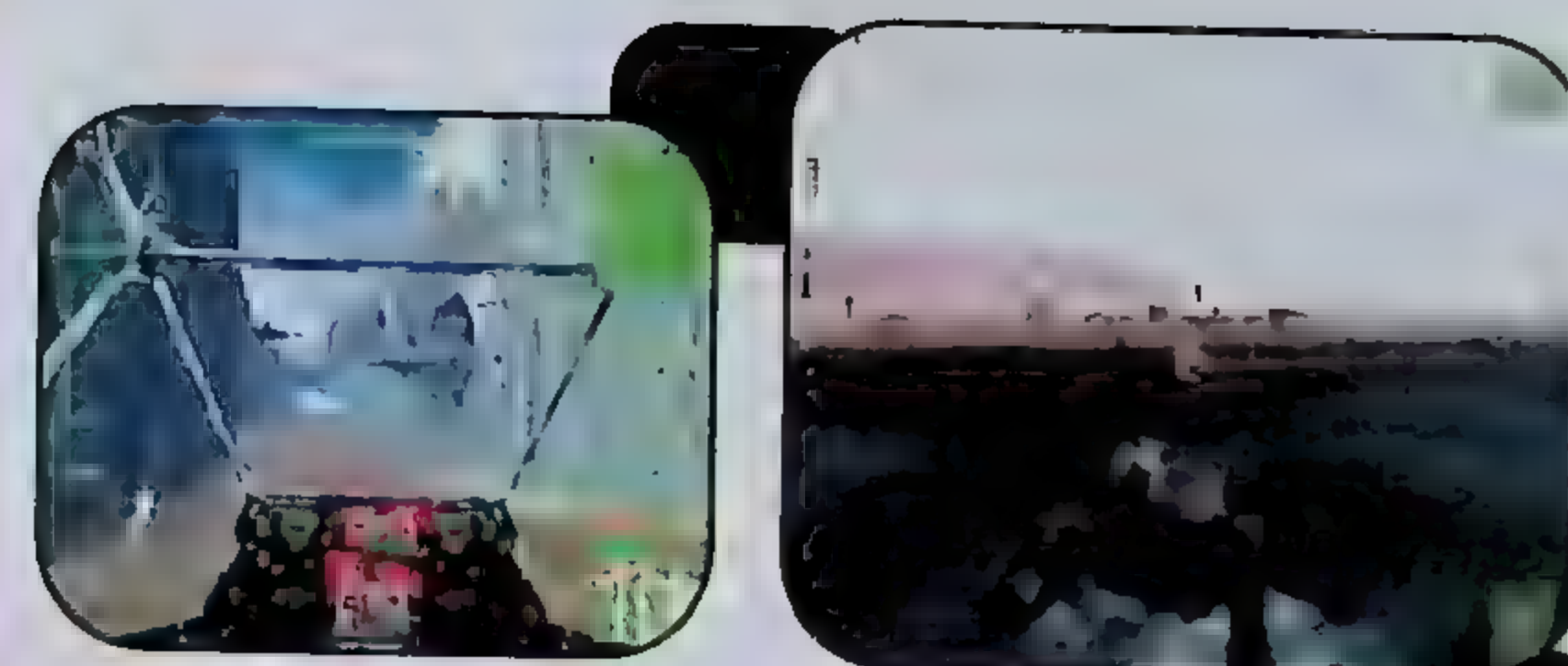
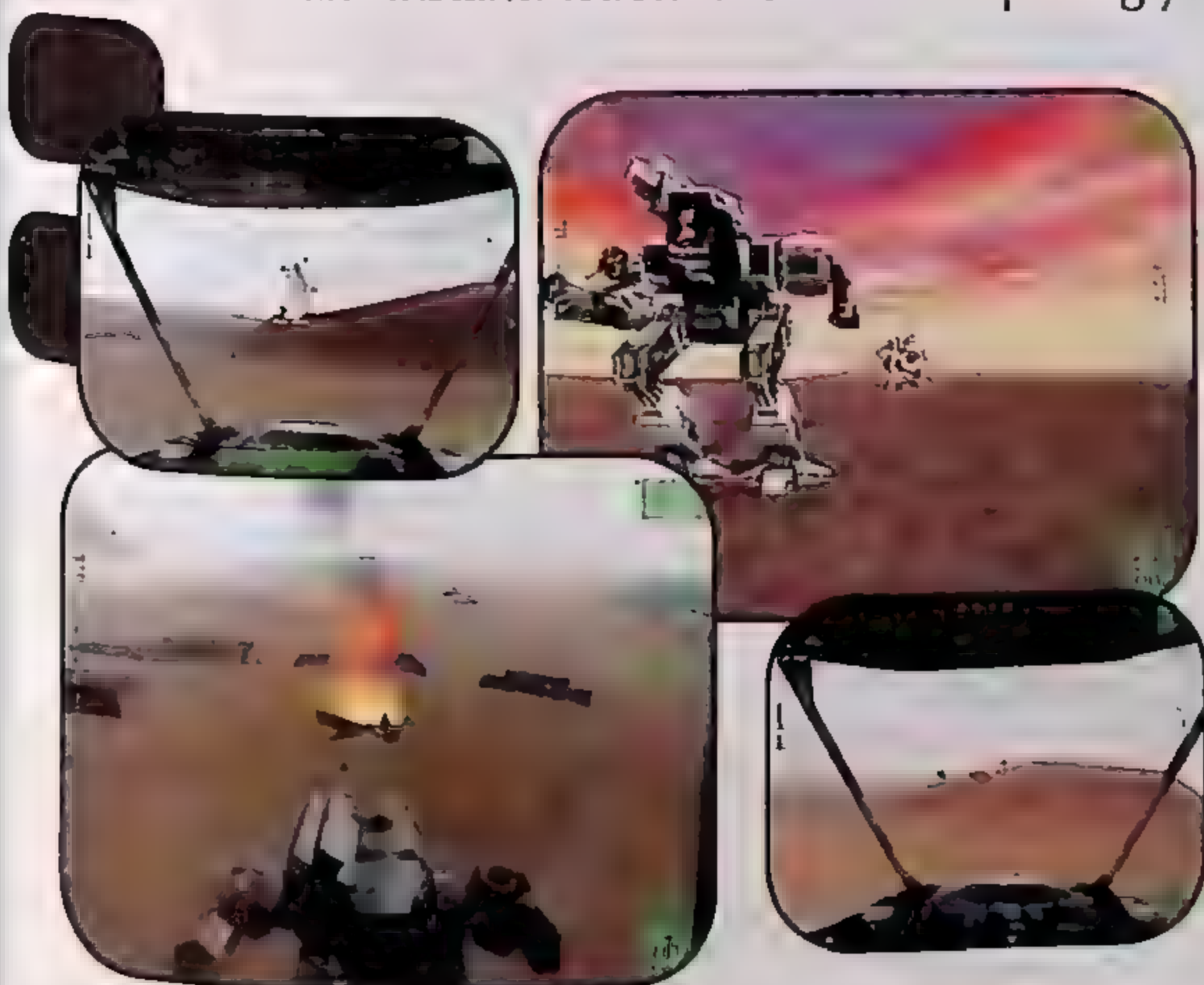
The biggest problem by far is that if Mechwarrior 3 were a human being, it would be the proverbial, stereotypical, ditzzy blond.

There are lots and lots of "kill anything that moves" objectives in the game, of course, but Zipper has tried to make all that killing at least somewhat interesting. One of the best series of levels has you piloting your Mech into an enemy stronghold, blowing up their impressively huge mining equipment and then following the shaft underground and popping up on the far side of the base. The 3D engine handles the transition between open environments and enclosed ones quite well.



Another fun level has you tromping through a city, laying waste to buildings at will, allowing you to get in touch with your inner Godzilla.

Time may have passed and technology may have advanced but one thing never changes: the high drama of the Battletech universe. The single-player campaign consists of twenty missions, which is about five missions longer than Descent 3, but sure doesn't feel like it. While these missions are complex and take a while to complete, they are kind of dull, fairly easy and very repetitive. Never have twenty missions felt so short, and potential felt so unfulfilled. A forthcoming add-on may spice it up a bit. Until then we do have an "Instant Action" mode and surprisingly



stable multiplayer to enjoy.

The biggest problem by far is that if MechWarrior 3 were a human being, it would be the stereotypical ditzzy blond: gorgeous, nice curves, shiny hair, with no brains whatsoever (female readers, just imagine Fabio and you'll have an equally apt description). The AI primarily consists of predictable scripted responses and area-of-location reactions. This means it becomes quite simple to nail any 'Mech with precision as it covers the same ground, reacts indecisively, and performs its standard "fire, run in place, moonwalk backwards, fire, repeat" maneuver. At times, the enemy doesn't react at all if you snipe at it from afar. Your Lancemates are no better and sometimes you'll find them a hindrance as they repeatedly wander into your field of fire or peg you from behind. Naturally, this is all redeemed in multiplayer, where you'll find MechWarriors of substance to fight with or against in a blessedly lag-free environment.

The look, feel, audio, and implementation of the game are adeptly handled by Zipper Interactive. And a few new innovations like the handy zoom targeting sight and the coolant dump ability are certainly welcome. But Zipper stumbled big time with the short campaign and moronic AI. Despite the lag in content, MechWarrior 3 certainly looks beautiful. Full Glide support complements the gorgeous graphics and lighting effects. An add-on is in the works; here's hoping it's more than just a couple new missions — let's hope it also teaches the AI pilots how to drive their impressive machines. Face it, MechWarrior 3 deserves to be the best, not just the prettiest, of the Giant Robot genre.

MECHWARRIOR 3

Publisher
Microprose

Developer
Zipper Interactive

Author
Andrew S. Bub

Graphics

9

Sound

8

Gameplay

7

Overall

8

KINGPIN: LIFE OF CRIME

Open GL
Supports resolutions up to 1600x1200
Keyboard/JoyStick/Mouse, 32 players multiplayer
Minimum Pentium 133/32 megs of RAM

I make two promises to you with this review. First, at no time will I try to inject urban coolness by using "gangsta" slang in the body of the text. Secondly, I will review this game independent of the violence in media hoopla which is currently vexing the gaming world. With those promises made, let's move on.

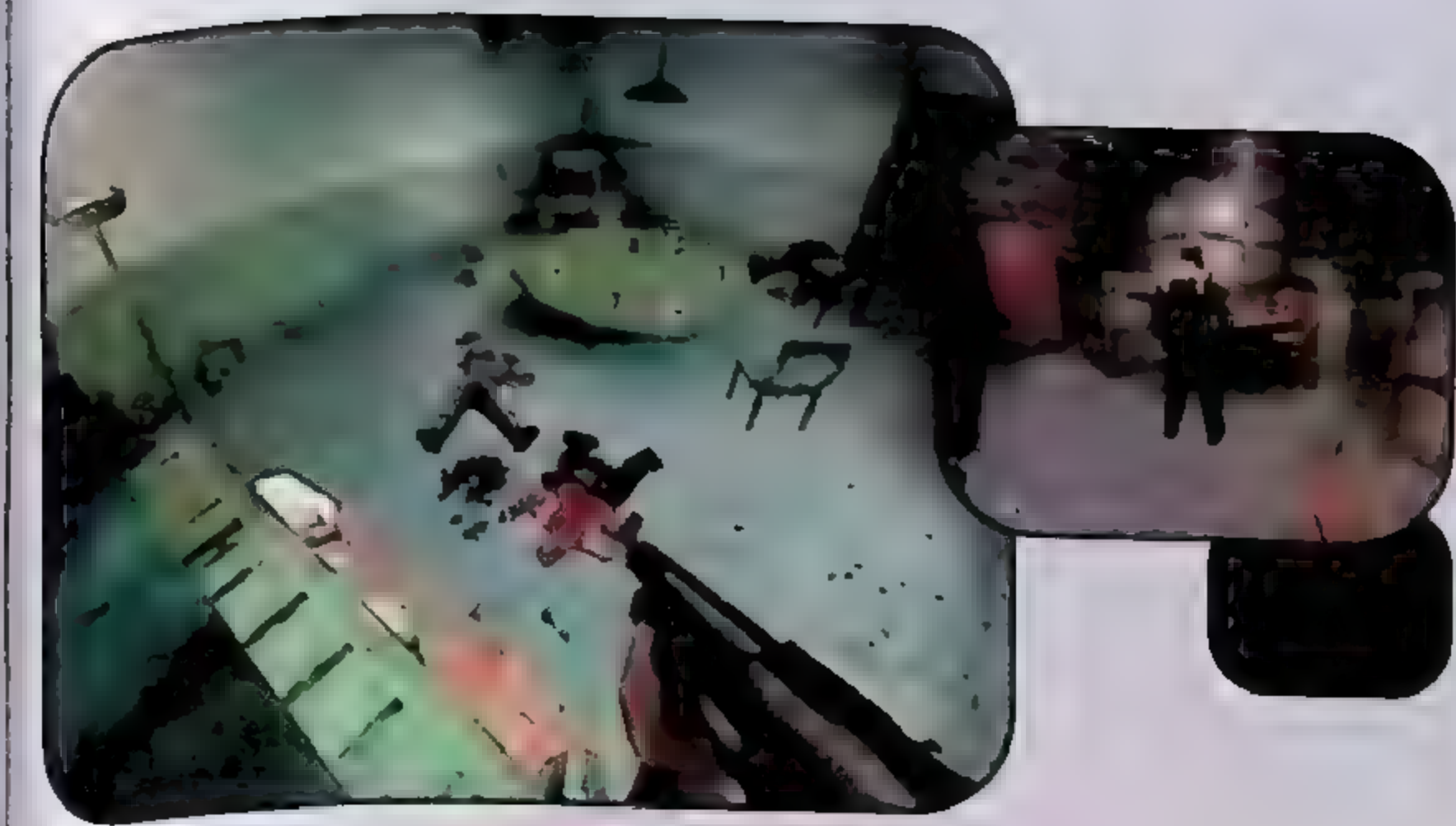
When the Kingpin demo was released a few months back, I was completely blown away by the game. I was very enthusiastic, telling people left and right that Kingpin might be the successor to Half-Life. Well, it's not. Kingpin is good, but nowhere near the same caliber. In fact, Kingpin is a far cry from the game that I had hoped it would be, coming somewhere closer to Ritual's Sin than Valve's excellent title.

In fact, the Sin comparison is very apt, since beyond the usage of the Quake 2 engine, both games share similar development woes. Interplay obviously pressured Xatrix to hurry the development of the game, with lack of final bug testing being the obvious result. Kingpin is riddled with bugs, many of which are similar to the same problems found with the initial release version of Sin. Kingpin's load times are horrendous, both between single-player levels and during deathmatch play. The load time is much more frustrating during the single-player game, since Kingpin uses mini-portals throughout the game, which should ostensibly cut down on such long delays. The game also crashes infrequently and seems to have a nasty sound-related bug that causes my system to freeze up entirely, forcing me to hard reset my computer. There are numerous gameplay bugs in the release version as well,



which can pepper you with bullets through solid walls or keep you from successfully completing a mission. This was all very disappointing, as I had been looking forward to this game with very high expectations.

I was also disappointed with the overall level design of the game. If you've played the demo which was released a few months ago, you've essentially played all of Kingpin, minus a few weapons and a lot of different textures. Each city is almost exactly like the one before it, with slight changes brought on by the "theme" of the city (the steel mills were full of rusted machinery, the docks had some water in the middle, the slums were slummy). You usually begin very near the local bar or club, which you make your way towards to learn of your mission or missions for that particular area. There are usually a few guys near the bar — never any women that I came across — that you can hire as protection (one of the coolest ideas in the game). From there, you work your way out through the spiraling level, looking for buttons and switches to throw to open doors or move objects to lead you to the item you're questing for. Complete one or two small errands and you move onto the next level. Sure, most first-person

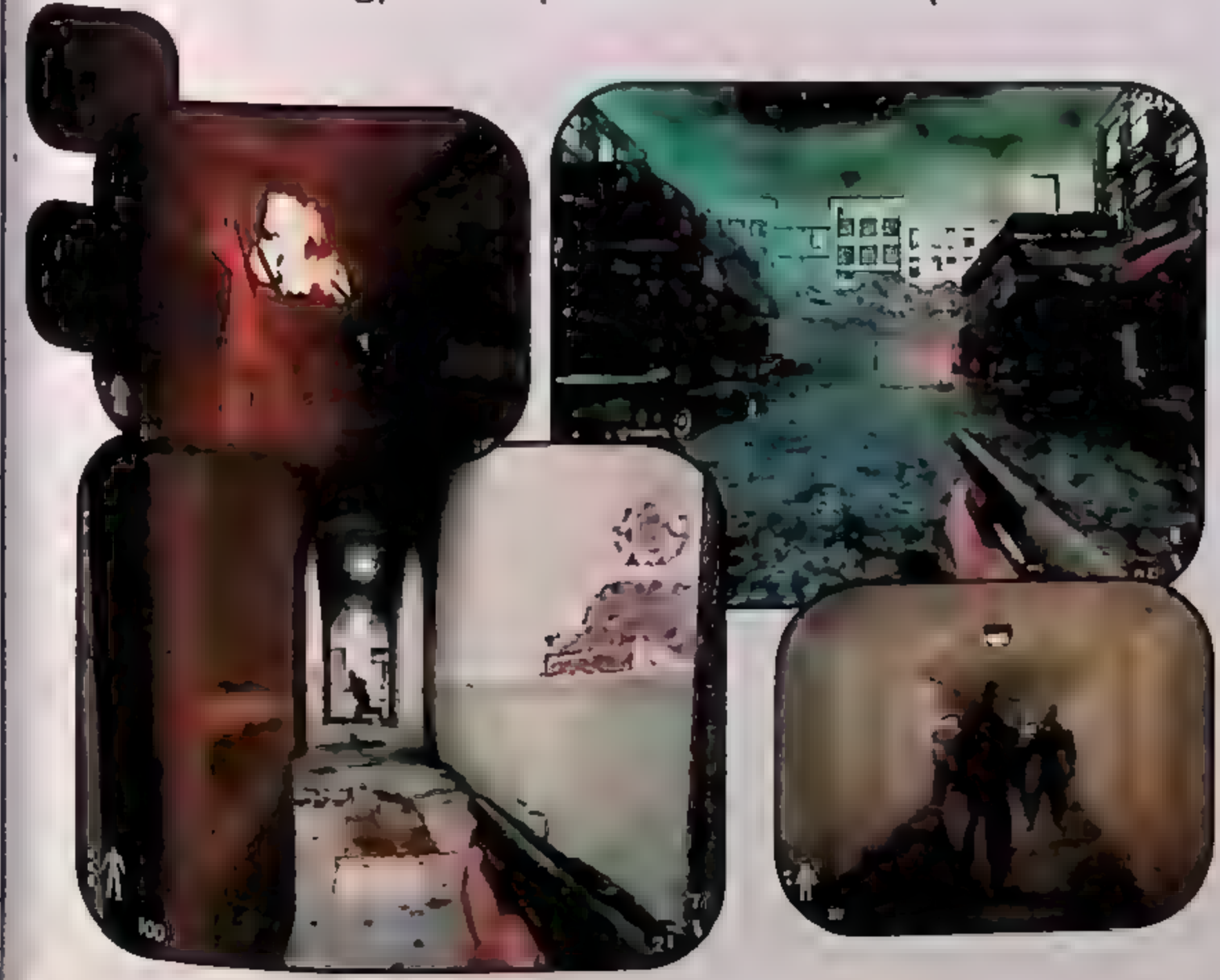


Kingpin is riddled with bugs, many of which are similar to the same problems found with the initial release version of Sin.

shooters can be broken down like this, but Kingpin really feels like a broken record in this category. To give the game some props, the quests are usually a bit more interesting than simply finding the red key to open the red door. The items you pick up include a battery to start a motorcycle, a key hidden on the body of a man who "sleeps with the fishes", and the head of a local gangster's girlfriend.

Weapons are what you've come to expect from a first-person shooter. Pistol, tommy gun, a heavy machine gun which fires a three-round burst, a spectacularly useless grenade launcher (grenades do not explode on impact), rocket launcher, bazooka and a flamethrower. Xatrix provides an interesting take on the flamethrower, but it doesn't really work properly and does out way too much damage when an enemy turns it on you. Despite claiming to have an accurate aiming and damage system ala Half-Life, it doesn't seem that way to me. Enemies absorb way too many carefully aimed shots to the grape before falling down and dying, while blasting away at a torso is about as useful as using a paperclip and rubber band. Limbs and items like hats and cigars will go flying if shot off, but usually need to be prompted by stunningly close range violence in order to do so.

Kingpin really shines in the art department. The



backgrounds contain some of the greatest textures and art I've seen in a 3D game and are very striking. The environment perfectly captures the mood that Xatrix is trying to achieve in the game. The models are similarly swanky, but I noticed that textures ripple across animated 3D objects, which produces a nauseous underwater effect (Sin had the same problem). The models are supposed to show accurately placed damage across the body, but I think that's more of wishful thinking on Xatrix's part than a practical reality.

Multiplayer is in a sorry state; the DM levels are nothing spectacular and the game suffered from bad ping times and would sometimes mysteriously crash when I pressed the left mouse button. Being able to mix and match body parts to create unique online characters was really cool, however.

This is definitely not a game for the sensitive. If you enjoy hyper-violent, curse-filled films like Scarface or comics like Frank Miller's Sin City (thanks for the recommendation, Bub, good stuff). This mature game is a must-see. Of course, the first time you play Kingpin, the rampant profanity comes as a bit of a shock/surprise. Not since the Duke graced us with his 2DVGA presence over five years ago have we heard such eloquent verbal abuse flow from the digital lips of a video game character. I also felt that Cypress Hill's music is under used in the extreme, but that may be because I'm such a big fan of their stuff (Little Known Fact: I can be seen in the crowd in the "Insane in the Brain" video). I liked the gruesome ability to search corpses for cash, but you never really need to buy anything from the Pawn-o-Matic. By the time you read this, there will be a patch available for the game to hopefully correct a lot of the problems, but even taking the technical issues into account, Kingpin is still nothing more than an average game.

KINGPIN: LIFE OF CRIME

Publisher Interplay	Graphics 9
Developer Xatrix	Sound 8
Author Chris Kramer	Gameplay 5
	Overall 7

DESCENT 3

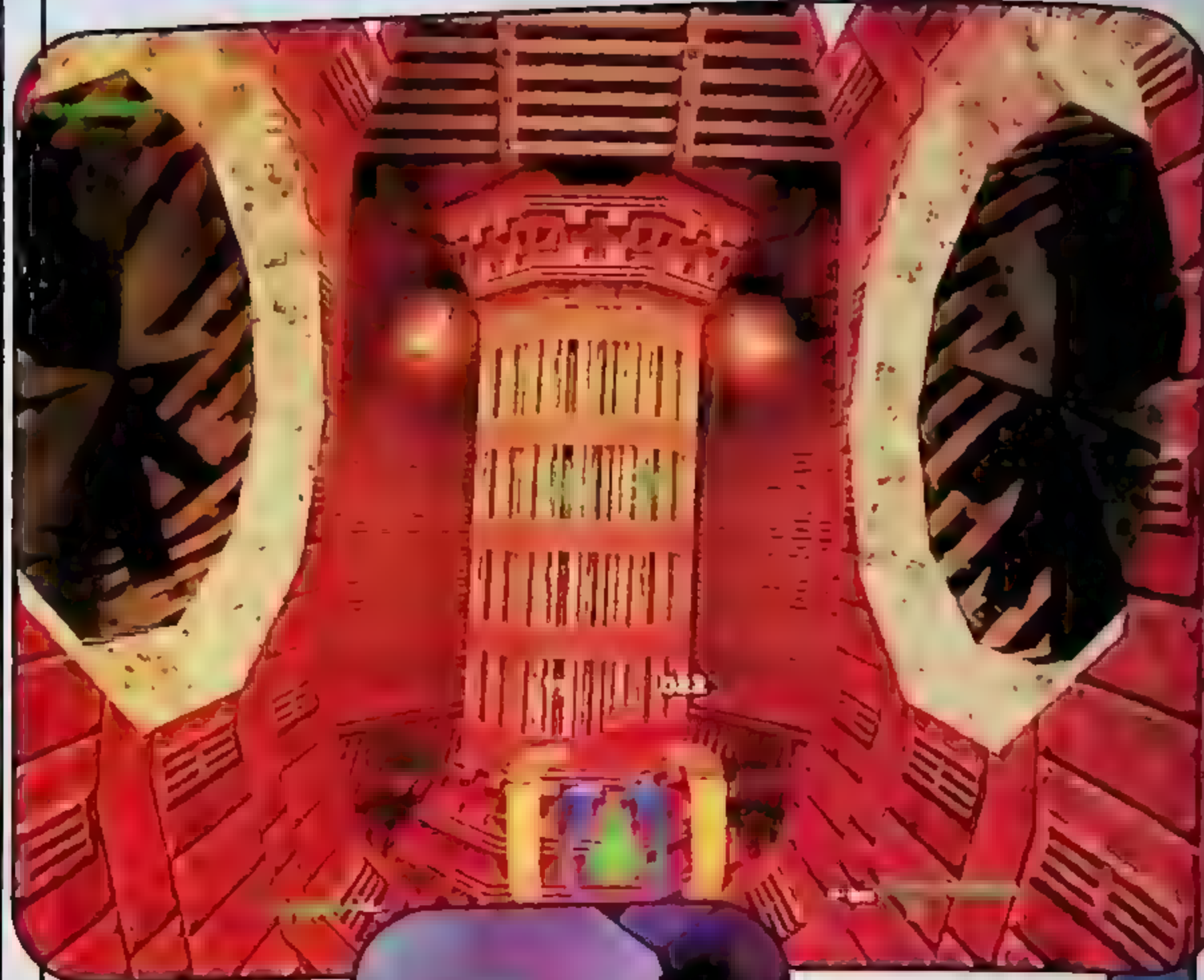
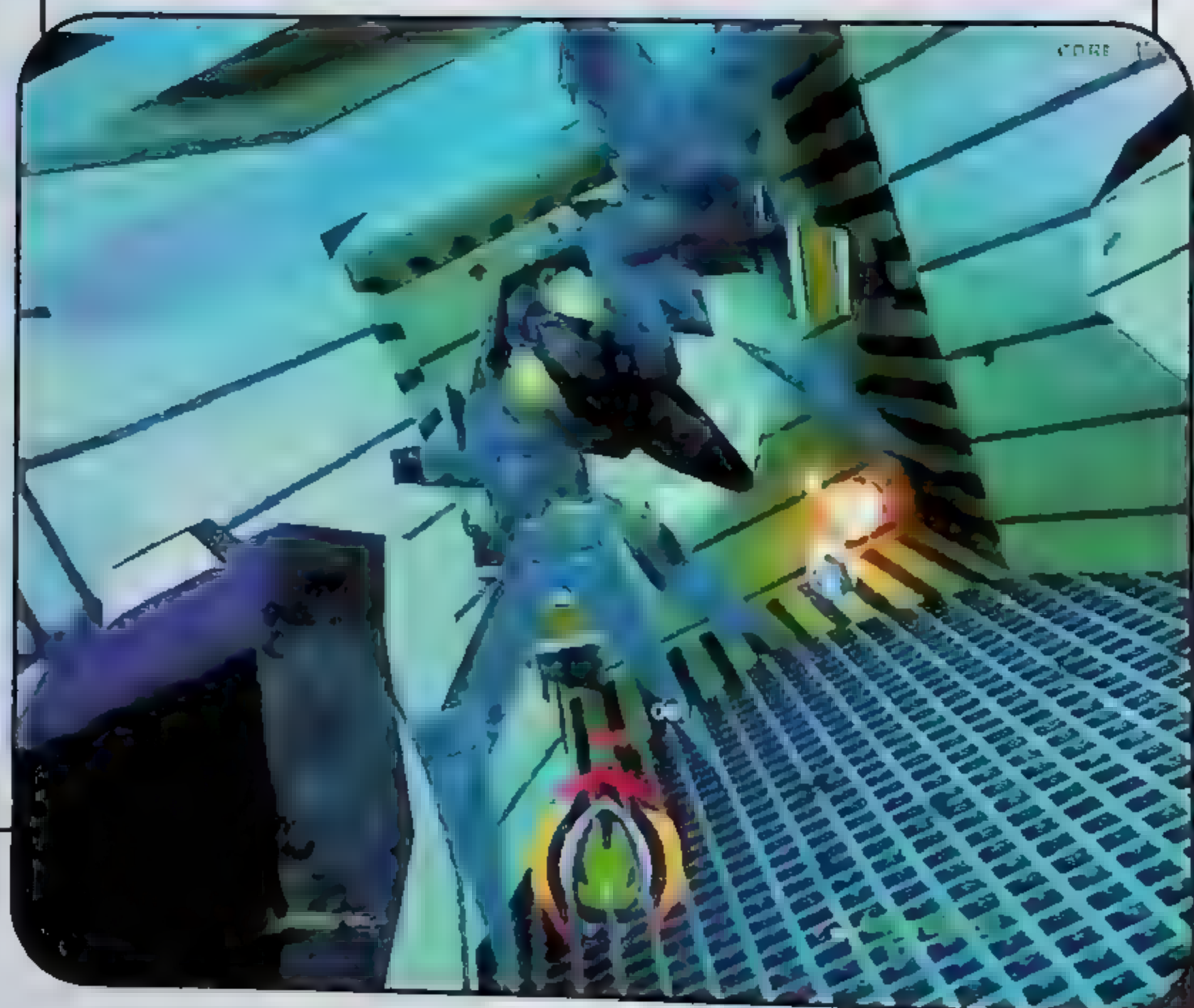
Glide, OpenGL, D3D
 Supports resolutions up to 1600x1200
 Keyboard/Joystick/Mouse, Force Feedback, 16 players online
 Minimum Pentium 200/32 megs RAM (3D hardware required)

Are you ready to go down yet again? The Descent series was the first to include 6 full degrees of movement: left, right, back, forward, up and down in a true 3D environment. Gamers used to Doom had to learn new tricks as they fought deadly robots (and each other) in the twisting mines of Descent and Descent 2. Some died quickly, gave up and went back to their first-person shooters, not wanting to worry about that pesky "up and down" (until Quake came around that is). The brave souls that became skilled in Descent grew to love the fast action and superior control it offered.

All that seems like a long time ago. Since the days of Descent 2, we have seen an accelerated (no pun intended) advance of computer graphics. Acclaim's Forsaken burst on the scene with wildly colored lighting, awesome explosions and Descent-like gameplay. We almost forgot about the two games that launched the revolution — until now. After a long absence, the Descent series continues with part 3. Not only does it continue with the features that made Descent 2 such a great game, but continues to evolve even more improvements. Graphics, sound, control, multiplayer, single player — the whole package is an example of computer gaming at its finest.

If you've seen the ads for this game (how can you have missed them?), you'll know that the big advance for D3 is the new dual-engine technology called the "Fusion Engine." When the player is lurking through the tight corridors and tunnels of the indoor levels, the game is using an engine optimized for that environment. Then when a passageway opens up to a vast outdoor scene, the game smoothly transitions to a different rendering engine optimized for open space. There are levels that combine both engines. Windows and glass tunnels view the outside world while you're fighting indoors.

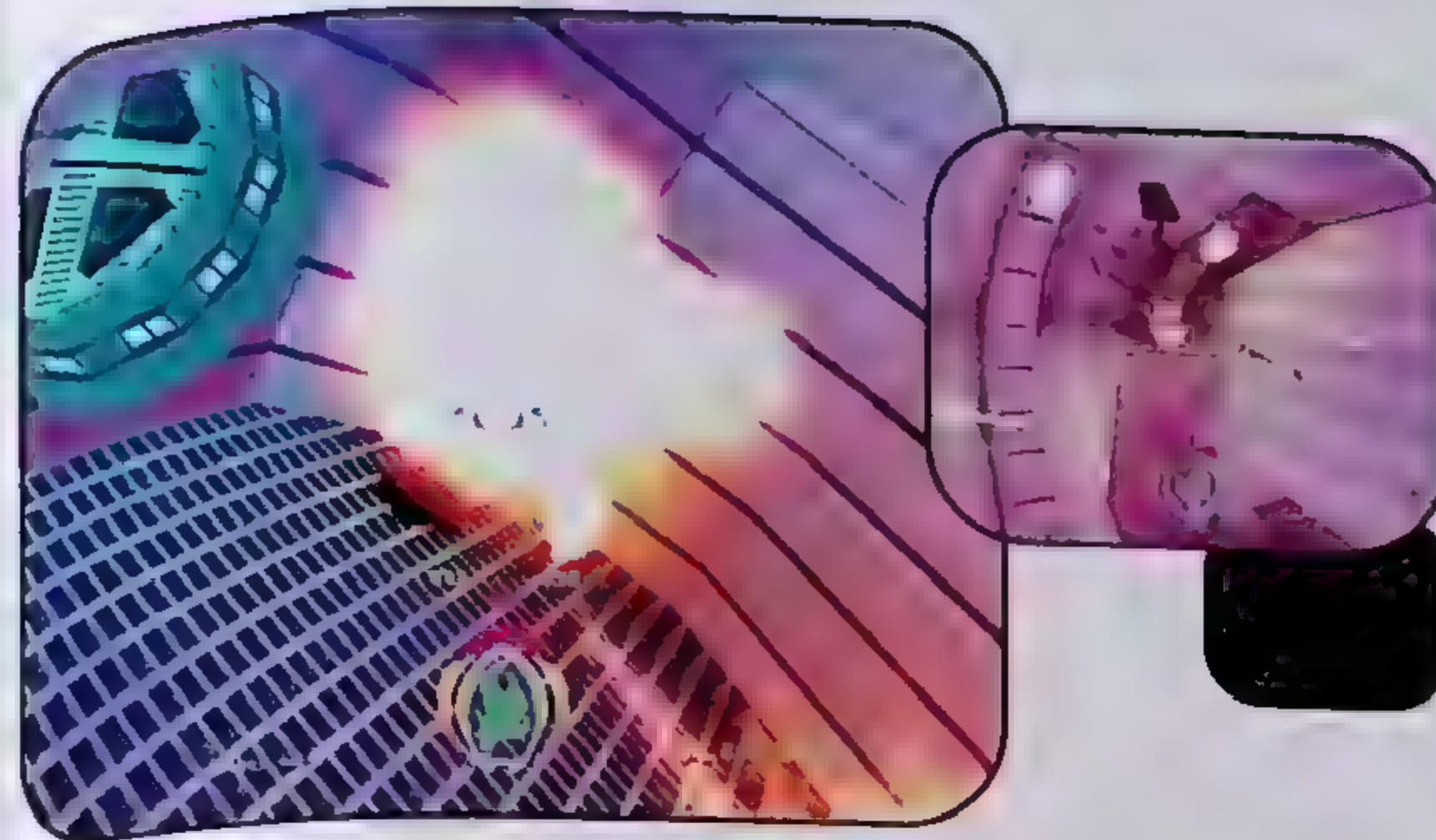
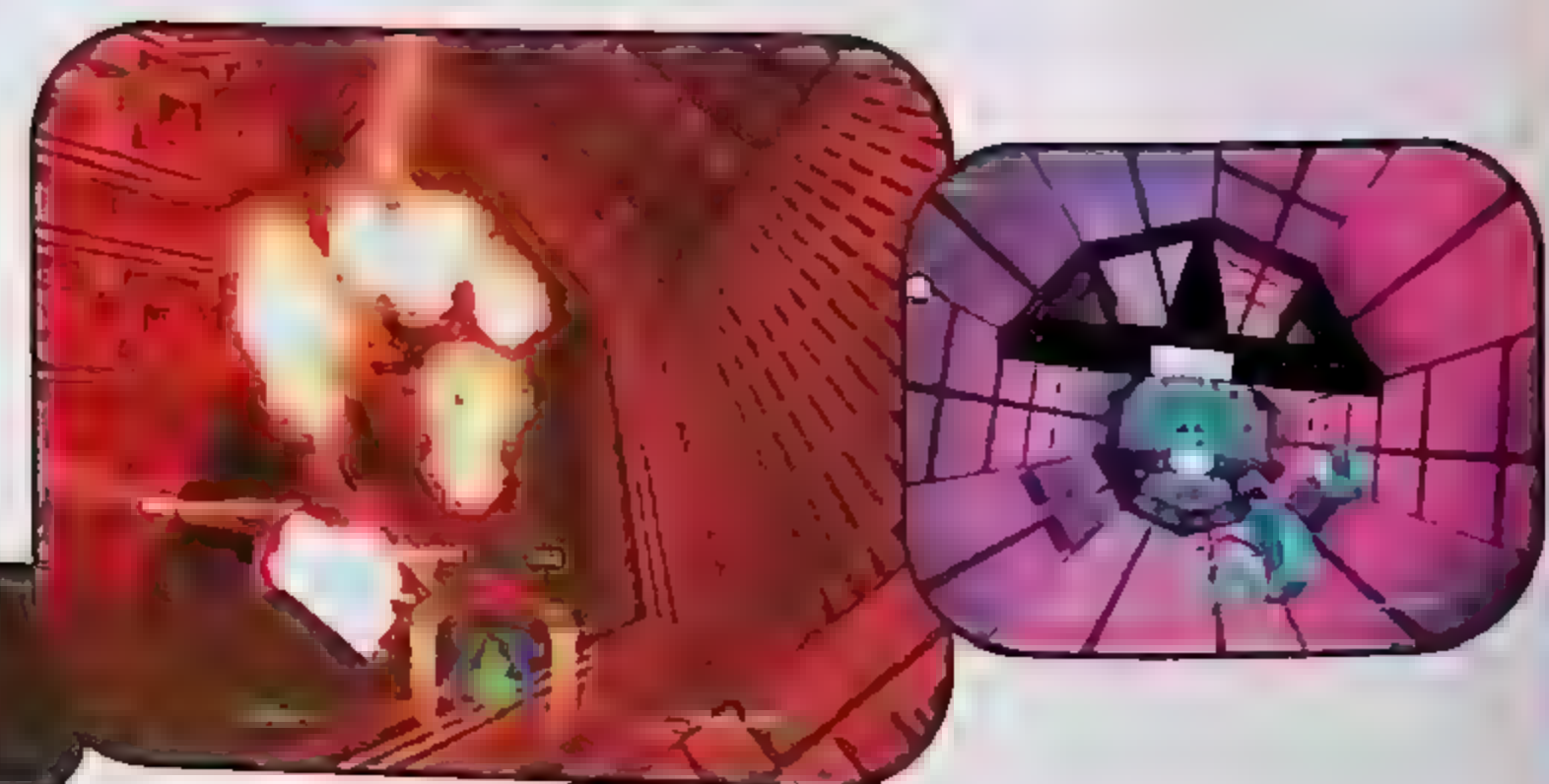
Speaking of the game engine, the graphics are



brehtaking. If you have the computer horsepower, this game treats you to high detail terrain, specular mapping (the shininess on walls and objects), mirrored surfaces, dynamic lighting, fog, procedural (animated) textures — the works! All of these features come at a price; if you aren't gaming with a top-of-the-line CPU, plenty of RAM and a Voodoo 3, be prepared to turn down a couple details or suffer playing a slideshow. D3 has some of the best explosions I've ever seen in a computer game and the details still look good even with a few features turned off. If you've been thinking that it might be time to upgrade your computer, this game just might be enough to convince you.

The programmers have created a very believable "feel" with this engine. Blasting a killer robot is an extremely satisfying experience. If done correctly, the enemy will start to stutter and glow before blowing apart in a shower of pieces. There are 20 weapons and missiles to choose from, including all the favorites from D2. If you're using a force feedback joystick, you'll notice that certain weapons have a kick when fired, and others have a stronger kick when you're hit by them. Combat is the name of this game and D3 has both a great feel and a variety to the battles.

The single-player game includes over 30 different robots programmed with one mission — to prevent you

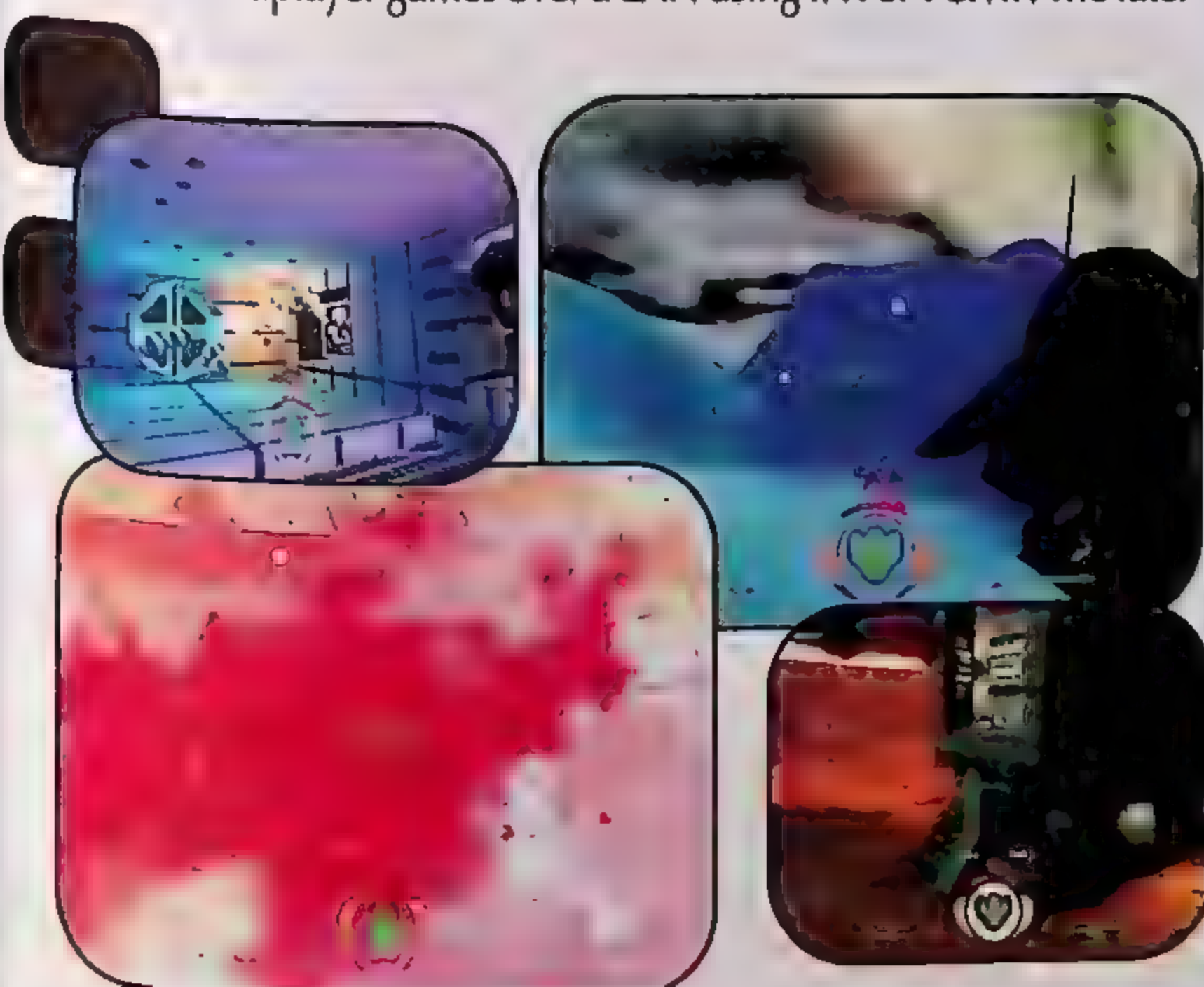


The retail box promises the "best multiplayer out of the box," and that's not very far from the truth.

from reaching your goal. These robots range from big rocket launching "Tubbs" to small pesky purple sharks that eat your ship. There's even a huge walker robot that bears more than a passing resemblance to the Star Wars "AT-AT." Fortunately you are not alone — making a return from Descent 2 is the friendly "Guide-bot." This little guy is an extremely valuable helper. He can be commanded to find the next goal, power-up, robot or whatever is needed. D3 adds interesting power-ups for the Guide-bot, so he can assist with those annoying robots as well as putting out fires. The Guide-bot is often a hindrance during battles since he's prone to get in the line of fire, but the player can repair him with shield energy.

A killer gaming rig should have a great sound card, and D3 is equipped for the best. The game supports DirectSound and DirectSound3D, and if you are fortunate to have an Aureal A3d or Sound Blaster Live! card, there's native support for those chips as well. The Sound Blaster's "EAX" sound is especially cool, with different reverb levels in each room and wild Doppler effects. It's a shame that the music doesn't quite hold up to the previous games, especially D2's great techno-metal soundtrack. In fact, the music in D3 ranges merely from pretty good to quite annoying. The sound effects are excellent, however.

The retail box promises the "best multiplayer out of the box," and that's not very far from the truth. Options include DirectPlay (one-on-one) over a serial line or modem, or multiplayer games over a LAN using IPX or TCP/IP. The later



can be used for internet battles, and it's no problem to setup and find a game to play. There are various types of multiplayer games to play such as: "Anarchy" (simple deathmatch), "Hyper-Anarchy" (capturing a hyperorb gives bonus points for kills and to the person that kills the player with it), "Team Anarchy" (two to four teams), and "Robo Anarchy" (computer robots join the deathmatch fun). Other multiplayer games include "Hoard" (kill a player, collect their orbs and carry them back to a base for points), "Capture the Flag" (traditional CTF), "Monster Ball" (think soccer), and "Entropy" (too complex to describe in a sentence). Each game has many options decided by the server (time limit, kill goal, respawn rate, etc.) so there's never a danger of getting sick of one style of multiplayer.

So besides the occasionally lame music, is there anything else that brings this game down? You can tell by the final score that it isn't perfect. Many action fans will be turned off by the puzzles. D3 tries to be more than a "find the key, get to the exit and blast as many enemies along the way" game. We applaud this effort; however many of the puzzles are vague and (especially at the later levels), just plain frustrating! More than once, I had the awful feeling of not knowing what to do next while the Guide-bot wouldn't offer any help. It's a real shame to be in a fast-paced action game flying around knowing what you are supposed to do, but not how to do it. Be ready to check the internet for game playing help! The mouse control works well for the most part, but it's nearly impossible to do a 180 degree turn without lifting the mouse up. Also, I had a problem with the game stuttering while using a Live! sound card. That turned out to be a problem with Creative Lab's "Creative Launcher" software.

Descent 3 was a long time coming, but thankfully it was worth the wait. Killer gameplay, fantastic graphics and sound, and loads of multiplayer options make this a real treat. Even though there are a couple factors that keep this game one step from a masterpiece, it still deserves a place in every gamer's library. That is, if they have a computer that can handle it.

DESCENT 3

Publisher Interplay	Graphics 9/10
Developer Outrage	Sound 8/10
Author Dave Whittle	Gameplay 8/10
	Overall 8/10

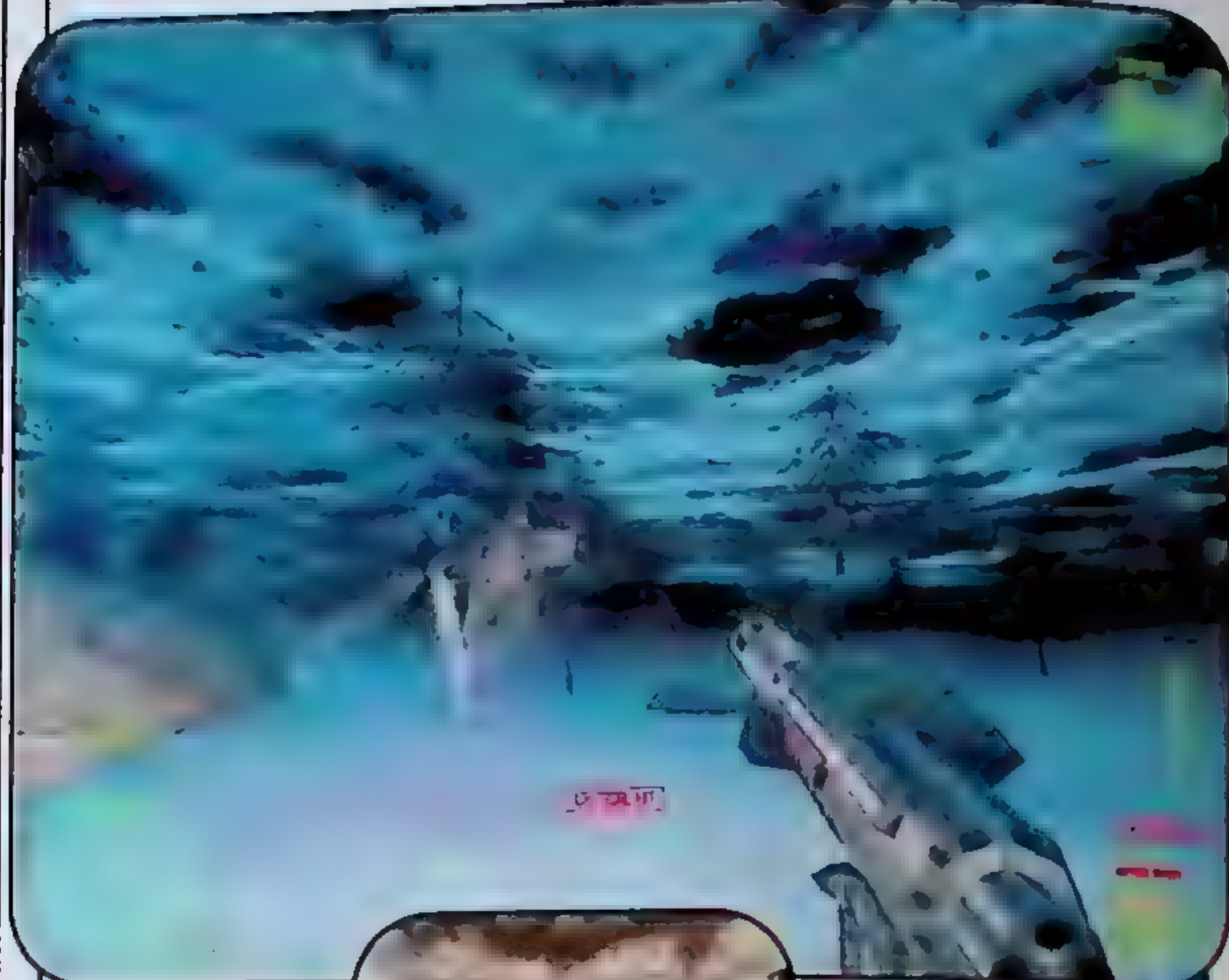
HEAVY GEAR 2

Glide, D3D
Supports resolutions up to 1024x768
Keyboard/Joystick/Mouse, Force Feedback, 5 player multiplayer
Minimum Pentium 166/64 mega RAM (3D hardware required)

Before this reviews starts, let's get one thing clear. I know the giant vehicles in this game and others like it aren't true "robots" per say. People argue that these things are more like a tank or armored suit than a robot, but since the vehicles resemble robots and there's really not a good substitute for the word, please forgive me if I misuse the term. I know better, so no flames please!

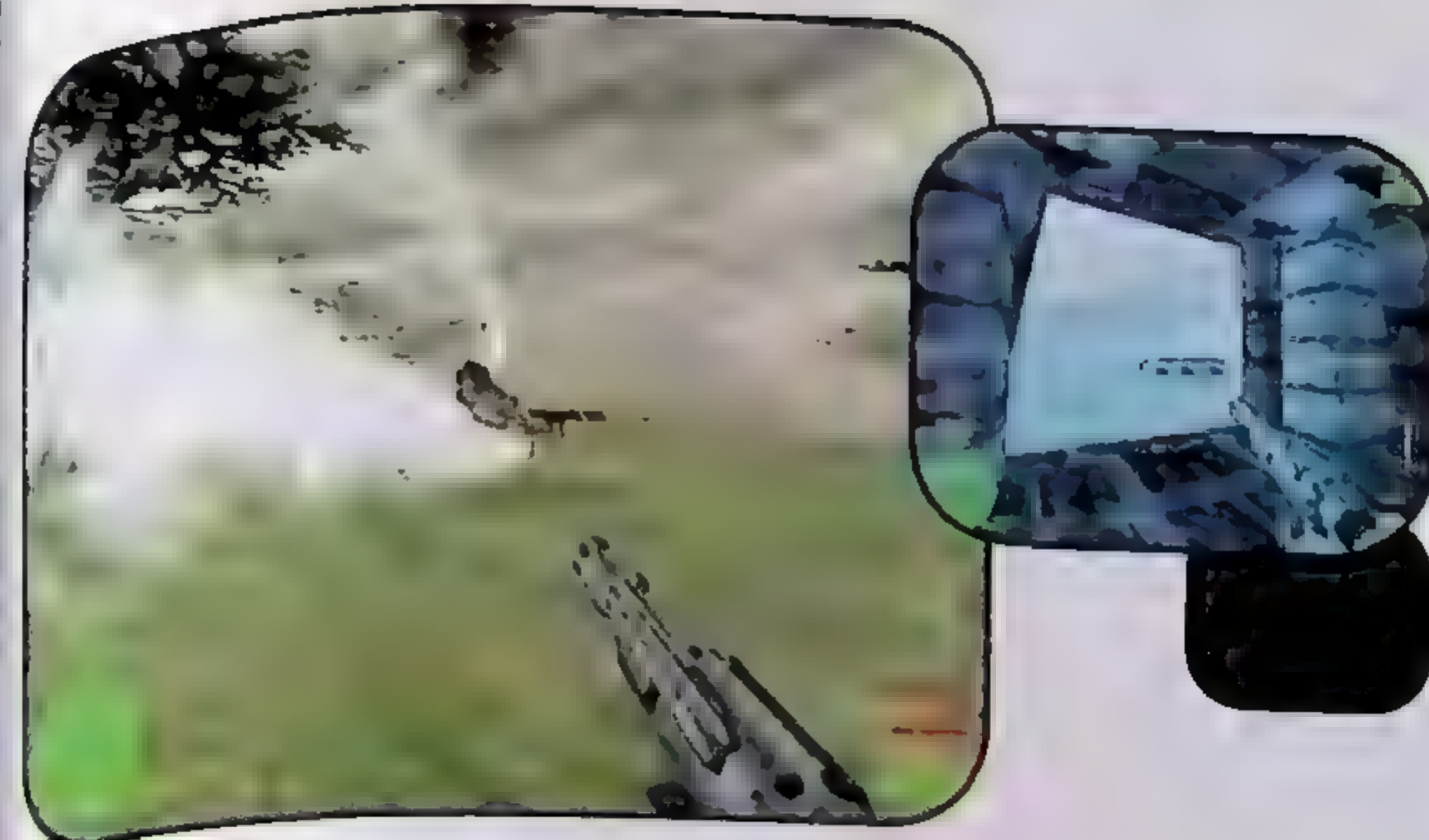
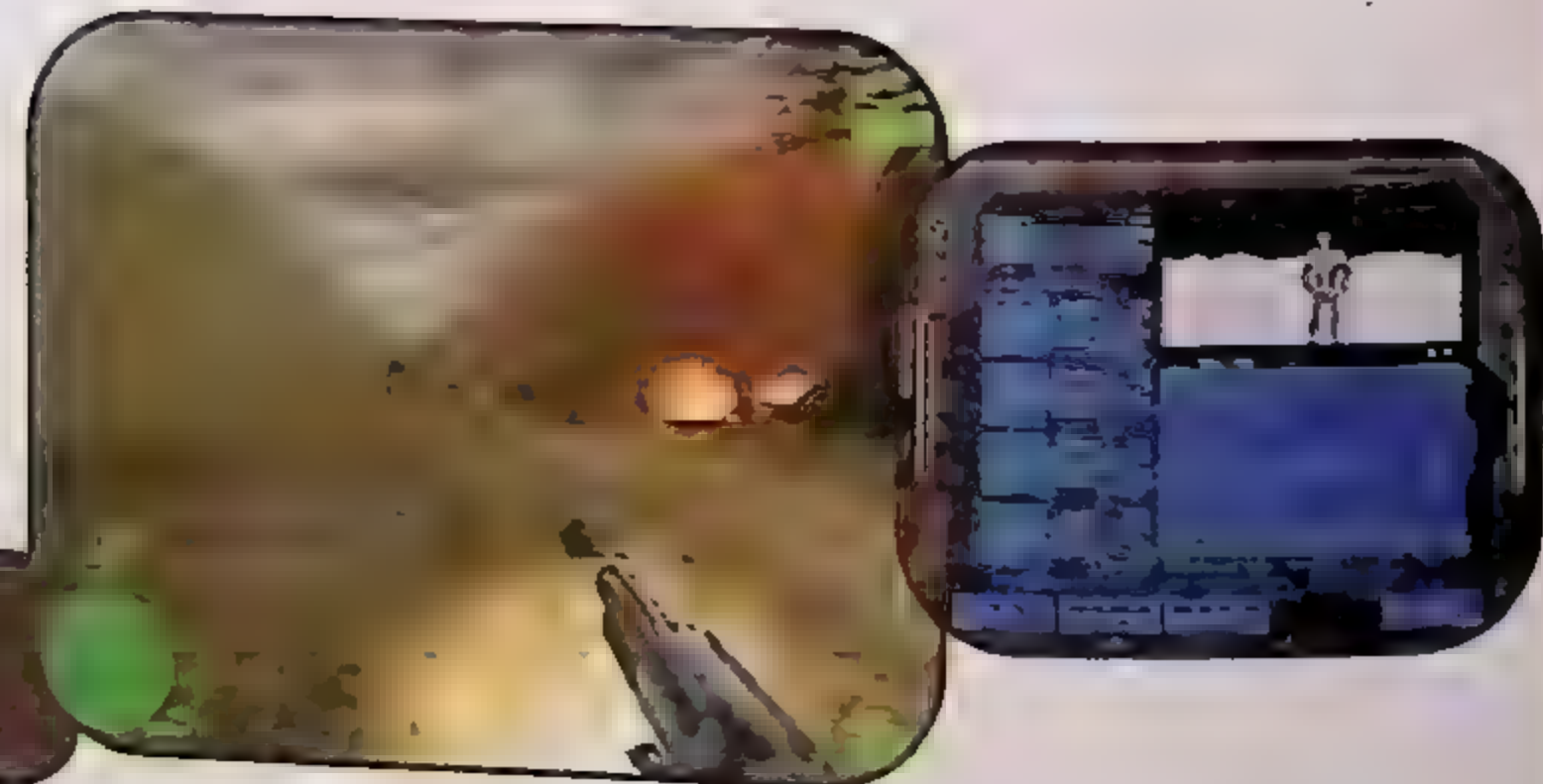
Before there were 3dfx accelerators, Activision released Mechwarrior, followed by Mechwarrior 2. Based in the Battletech universe, MW2 was the finest example of a PC game at that point in time. Part sim, part action game, and with a great story to boot, MW2 still ranks as many people's favorite game. And with all successful games come the imitators. Sierra was one of the more successful with Earthsiege (now Starsiege), but the Battletech universe defected from Activision to Microprose. Activision needed to reclaim the top Giant Robot game crown, so they turned to the Dream Pod 9's "Heavy Gear" universe. The first Heavy Gear game almost worked — it was unique enough to be considered fresh and the HG universe gave Battletech a run for it's money. However, the code just wasn't finished when it shipped and whatever potential the game had was reduced by the frustration created for the player. Learning a lesson, the original game was scrapped and Heavy Gear 2 was built from the ground up with a brand new engine called the "Dark Side." The good news is HG2 is a much better game than its predecessor. The bad news is, compared to other Giant Robot games, Heavy Gear once again almost, but not quite, makes it to the finish line.

Gameplay for HG2 is similar to Sierra's Starsiege, with a nod in the direction of first-person shooters. The same complaint I had about Starsiege I have for HG2,



as the player almost needs three hands. The training missions point out the default (and presumably best) way of controlling a Gear — one hand on the mouse for targeting and the other hand on the number keypad for piloting. The trouble is targeting, radar, squad commands, etc., need a hand too! The player will have to lift his hand off the steering controls to activate these buttons, which is a computer gaming sin. Another problem — most people use the mouse with their right hand, and look at where the number pad is on the keyboard. To use the number pad with the left hand is very awkward unless you have room to move the keyboard.

If you get used to the awkward controls, or find another one that suits you better, things improve from here. One of the impressive things about HG2 is that it has a real variety of combat experiences. The simple addition of the crouch-and-crawl modes makes combat more interesting. The game includes a level of stealth, so sneaking up on the enemy is all part of the battleplan. The faster you are traveling, the more likely it is your Gear will be spotted. And if you are traveling in a crouched or crawling position, there's a lot better chance of getting within firing range without being detected. That way, you can use terrain to your advantage. Climb up a side of a hill and lay down to

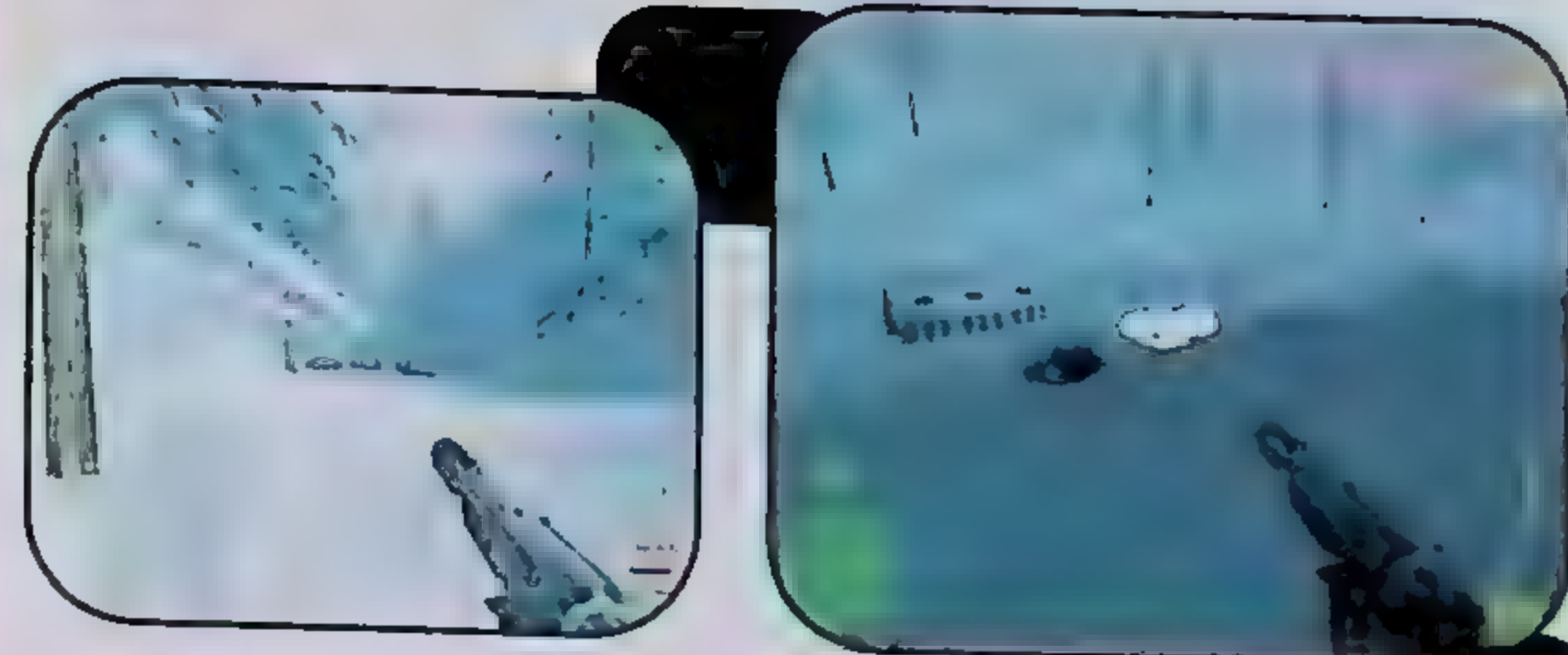
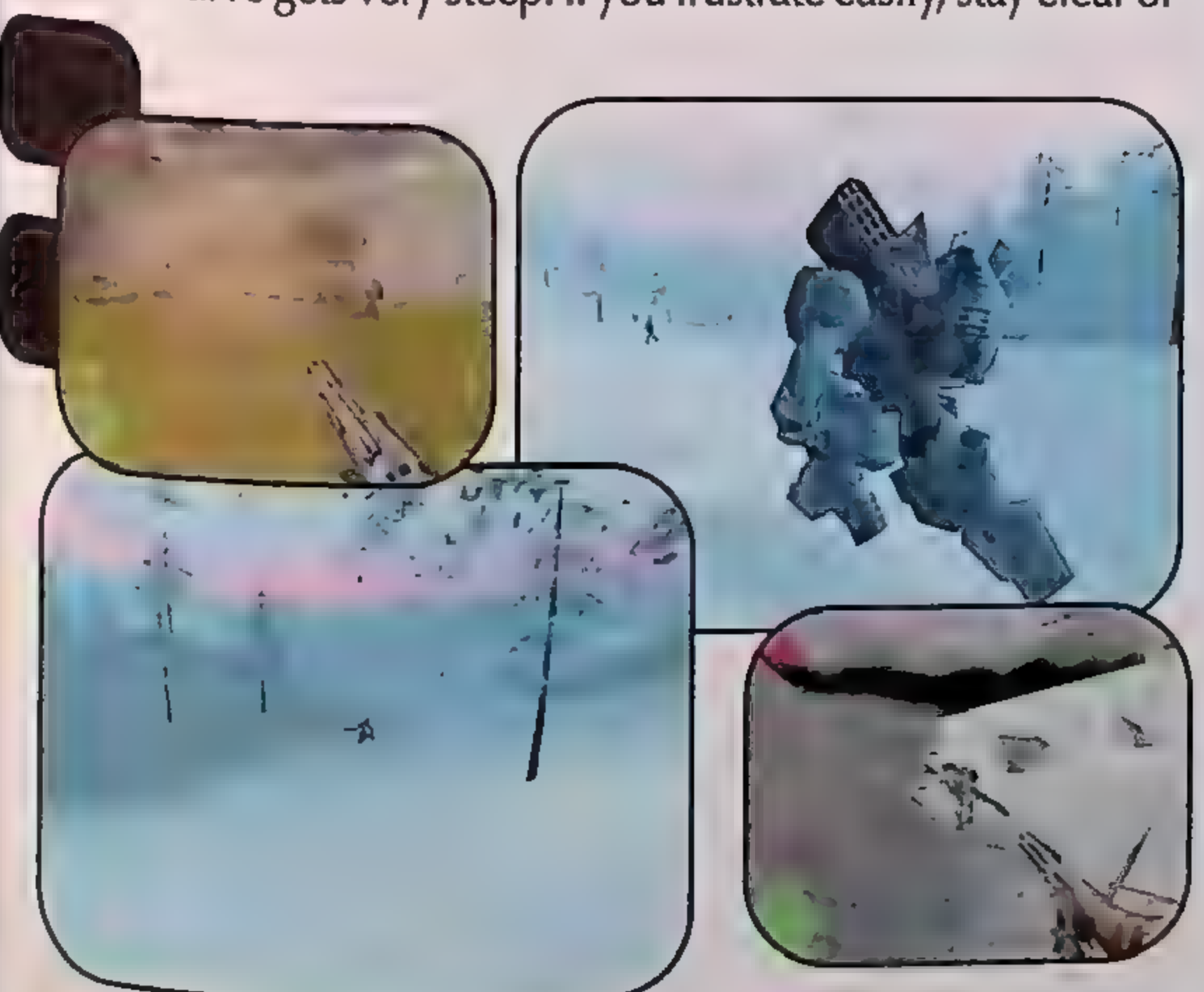


The bad news is, compared to other Giant Robot games, Heavy Gear once again almost, but not quite, makes it to the finish line.

take aim at the enemy installation below, just like a military sim. This kind of strategy is unfamiliar in a robot game, but it works great.

Movement is equally impressive. As in the original Heavy Gear, the vehicles are equipped with a set of wheels. If a great distance needs to be traveled, these wheels can be deployed and the vehicle starts cruising. Once again, steering defaults to the keypad, which takes a lot of getting used to.

Battles are usually quick because these Gears don't have the shields and the variety of firepower found in other Giant Robot games. A few well-placed shots from the enemy will result in an odd view of the ground, if you get what I mean. Gears are smaller than Mechs or Hercs, so the action resembles more of a first person shooter than a Giant Robot game. This is both to the game's advantage and disadvantage. The advantage is that the style separates it from those other games and gives it a unique battlefield feel. The disadvantage is that there seems to be a tendency to want to play the game like Quake, which just doesn't work, considering the controls. Ground-based battles can include squad formations, a very unique and interesting addition to the Giant Robot genre. When the game shifts into outer space, the controls are even more wacked out. Zero-G makes for some interesting battles, but the difficulty curve gets very steep. If you frustrate easily, stay clear of



this game (case in point: EIC Kramer threw his keyboard on the floor and stomped on it after playing the game for thirty minutes).

Graphics are pretty impressive, thanks to the new Dark Side engine. Ground terrain is very rolling. The terrain seems to go on for great distances and there's very little pop-up or fogging. The engine's handling of shadows is very nice — the soft-edged, semi-transparent shadows follow the contours of the ground, creating a believable light source. The atmospheric special effects are excellent. Thunderstorms feel like thunderstorms and the lightning effects are spectacular. Snowstorms are equally impressive. The main complaint with the graphics is that the polygon count doesn't seem to be as high as it should be, creating a sometimes sparse battlefield. Also note that due to a strange bug in the shipping version, the game won't allow resolutions above 640x480 if the desktop is set at 32-bit color (setting the desktop at 16-bit fixes this).

Sound is also very good. Activision games are famous for some of the best redbook audio CD music from any publisher and the music in Heavy Gear is superb, even for Activision's high standards. The game includes a lot of speech with excellent voice acting, and the combat sound effects fit the bill nicely. If your card has A3d support (like Diamond's MonsterSound cards) there's native accelerated support, but alas no EAX for the Sound Blaster Live! cards.

Heavy Gear 2 is an improvement over the original HG in every way. The gameplay is a strange mix of first-person shooter and Giant Robot combat, with a lot of military squad fighting thrown in. If the controls were better and more intuitive, this game would have easily scored a point higher in the gameplay and overall department. As it stands now, HG2 will find fans that want a little more military in their Giant Robot game and who either have three hands or who can adapt to some crazy controls.

HEAVY GEAR 2

Publisher
Activision

Developer
Target/Dream Pod 9

Author
Dave Whittle

Graphics 8/10

Sound 8/10

Gameplay 7/10

Overall 7/10

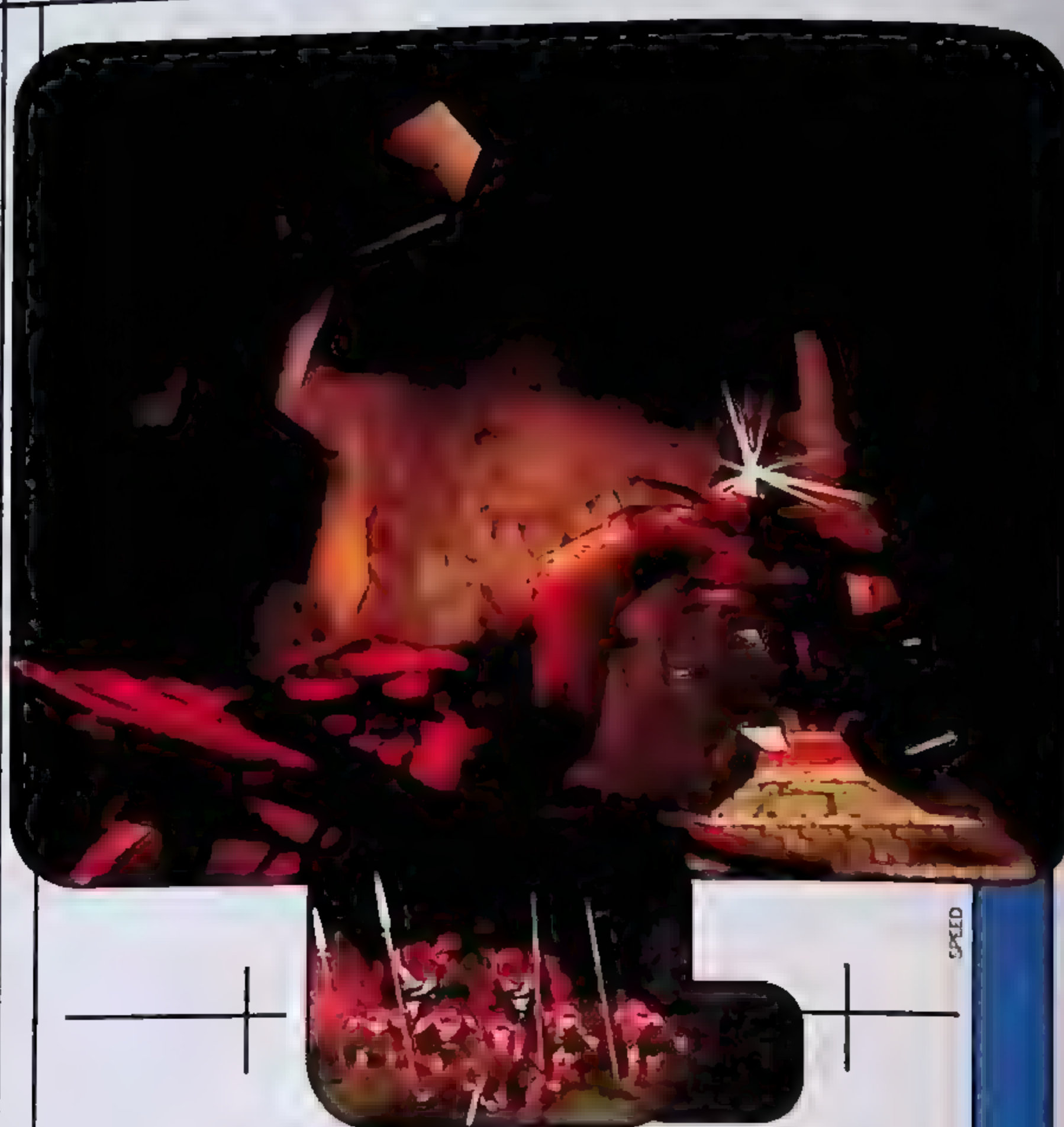
DRAKAN: ORDER OF THE FLAME

D3D
Supports resolutions up to 1024x480
Keyboard/Joytack, 8 players multiplayer, 3D sound
Minimum Pentium 166/32 megs of RAM (3D hardware required)

Dragons hold a primal fascination for us all and so do bad-ass shapely women... well, for some 49% of the population anyway. For this reason alone, Drakan is going to get noticed. It has both a gorgeous dragon character by the name of Arokh and an absurdly shapely femme-fatale named Rynn. Certainly Barbie's measurements are pure fantasy, as is Lara Croft's cup-size, but Rynn has a body that is so skinny that it makes Calista Flockheart look like a charter member of Rosie O'Donnell's "Chub Club!" All of which have no bearing on the quality of the game in question, of course. There is a far geekier reason to buy this game — you get to ride a dragon, folks!

The plot is paper thin, a "save the damsel in distress" cliché. Interestingly, in this game the "damsel" is actually Rynn's little brother! It seems some ancient bad guy has returned and brought back all kinds of mayhem, monsters and evil dragons to the land. A dying friend bids you to take his magic book to the lair of Arokh and summon him. Naturally you do this within the first two levels of the game and soon Rynn and Arokh bond, becoming separate but one (if one character takes damage, they both do, sharing a single life bar and you both begin getting medieval on the bad guys' collective ass.

In many ways, Drakan is two games in one. Rynn's portions of the game involve swordplay, jumping puzzles (surprisingly, not annoying ones), key and item gathering and the consumption of many, many health potions. In this way, it's less like Tomb Raider and more like Raven's excellent Heretic 2. Mouselook lets you look around, your wide variety of weapons dispatch the monsters and



a handy inventory system (Rynn turns to face you as you switch weapons) make most of your tasks easy. The second portion is a simplified but robust flight-sim model which places Rynn on Arokh's back, employing his devastating breath weapons.

Due to the inclusion of a wide variety of rolls, ducks, and weapons, Rynn is fun to control in combat. She uses swords, bows, maces and axes with equal dexterity and, in a nod to Diablo, most of these weapons will break after a while (she does have an unbreakable default sword, but it is wimpy compared to the fragile implements she finds). You constantly find new weapons and armor throughout the game, with cool magic items rewarding the particularly intrepid gamer who takes him time to explore every nook and cranny. The game becomes strategic at times, in that you have to choose from the weapons, which have different attributes, such as a slow and heavy axe, a longsword of moderate speed and damage or an unbreakable and swift shortsword.

Arokh is also a pleasure to control. He has three major breath weapons and can hover, climb and dive extremely well. All in all, aside from one annoyance, control of the two disparate combat elements is fantastic. The annoyance I mentioned

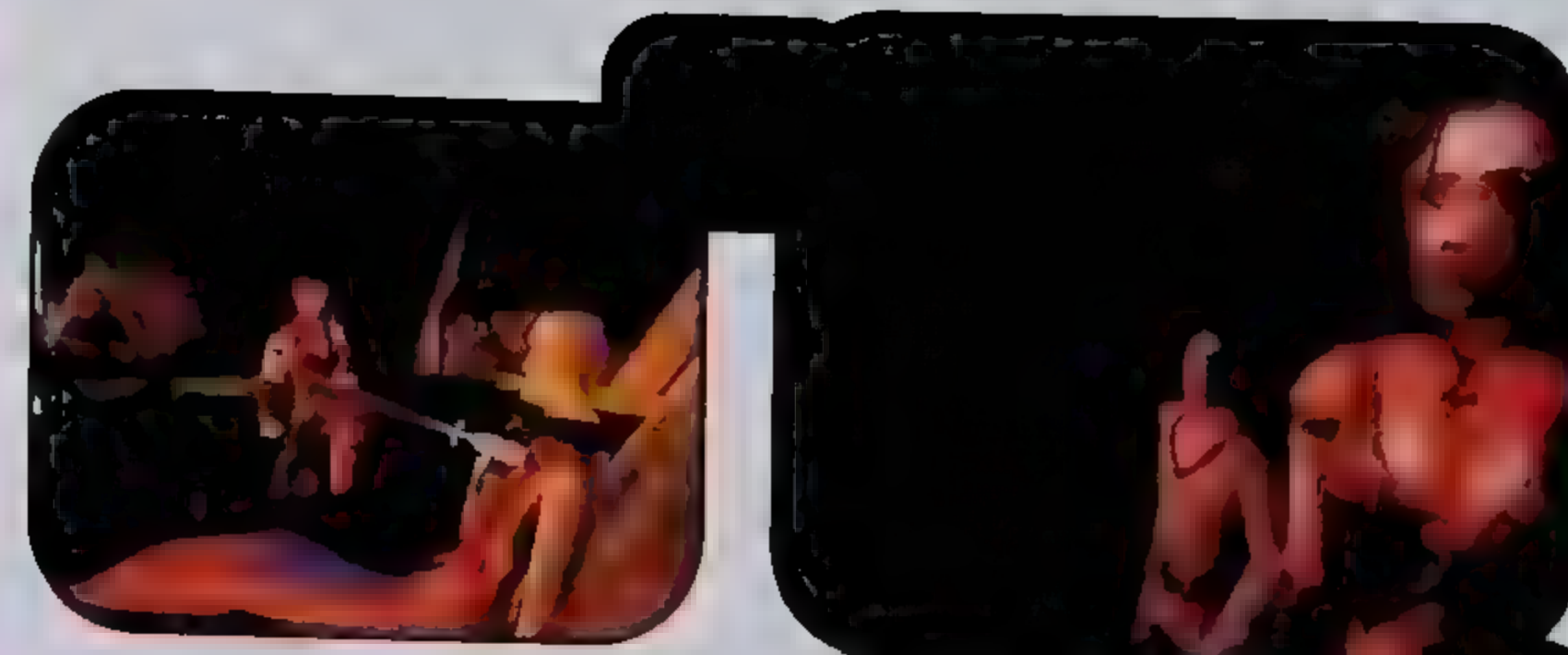
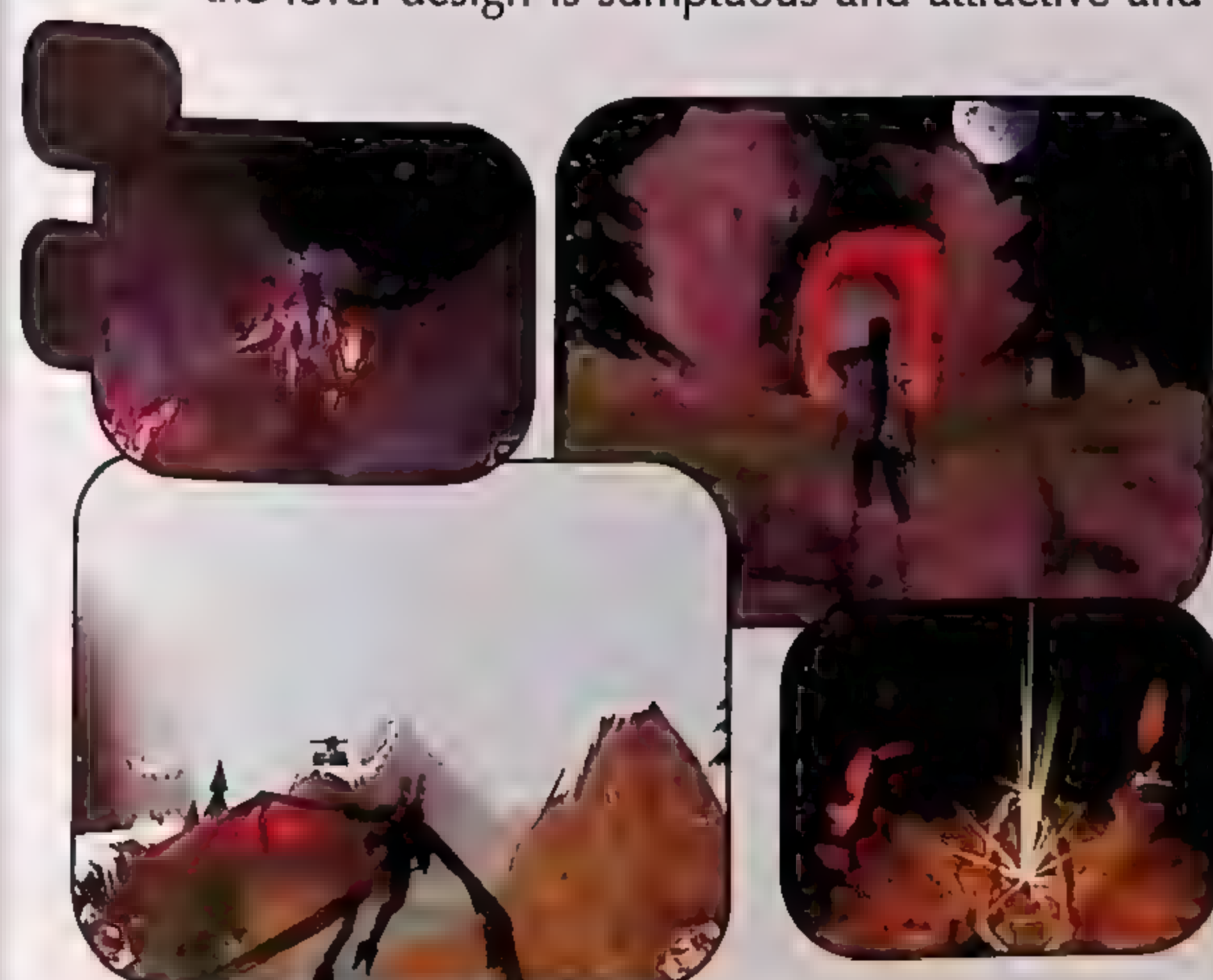


Dragons hold a primal fascination for us all, and so do bad-ass shapely women...

is that the mouselook is on the opposite axis to which I am accustomed. Move the mouse forward and you look up; backward and you look down... There is a button in the setup which looks like it should change the axis, but it never worked for me. Likely, the reason for this is because "mouse forward = up" approximates a flight stick and it is intuitive when astride the drake, but I spent altogether too much time looking at the sky when the enemy ducked during swordplay. Maybe there is a way to change this, but I couldn't find it, mostly because I was too busy playing and enjoying the game (one does get used to the control after a while).

Taking a cue, perhaps from some of the console games, Drakan even has a few "semi-scripted" sequences. You'll come across a couple of monsters involved in a boxing match while their fellows cheer them on, or an ambush where some orcs try to squash you with rolling rocks. Unfortunately, these scenes aren't Half-Life quality; you cannot, for example, rescue a villager receiving a beating. He simply dies and you can exact revenge on his adversary. This is too bad, as I often wanted Rynn to be the rescuer.

Graphically the game is flat-out gorgeous. Rynn and Arokh are animated well (as are the monsters), the level design is sumptuous and attractive and



different areas look vastly different. Lighting and shadows combine to give admirable depth to distant objects and the sky is likewise detailed and inspiring at times (I especially liked the two full moons at night). This is even better illustrated as Arokh takes wing. He can fly amazingly high and the engine shows the outdoor environments (which consist primarily of valleys and tunnels on foot) in stunning detail. Best of all, nicely rendered fog enshrouds the ground the higher up you go, which makes for a very realistic effect. All is not perfect, however. At times you can see through walls, the clipping plane is sometimes visible, and a couple times I actually went through a wall and ended up near the beginning of a level!

Sound is very well done, especially the voice acting for Arokh and the bad guy. Rynn could use some acting lessons, but nothing she spoke was too grating, methinks. The music is appropriately grand and fantasy-oriented.

Where Drakan succeeds is on the action front. Tomb Raider was too easy, while Heretic 2 was too action oriented. Rynn can crouch, roll and even deliver some chained attacks to devastate her foes with a number of cool weapons. Further, Arokh has more than just fire to fling from his jaws. If you find certain power-ups, he can also spew lightning, poison gas and other hazardous elements. Circle-strafing is the way to go, as enemies aren't the best shots, but dragon combat is thrilling to say the least!

All in all, this is the second action game this year that I've played that tried to mix two disparate genres (the other was Redline, which mixed racing and FPS). Unlike Redline, this one gets both right, largely better than the competition. Drakan isn't perfect, but it comes damn close. It is also sure to please. Draw your sword and mount your wyrm; time to let the fireballs fly!

DRAKAN

Publisher
Psygnosis

Developer
Surreal

Author
Andrew S. Bub

Graphics 8

Sound 8

Gameplay 9

Overall 8

SYSTEM SHOCK 2

D3D
Supports resolutions up to 1024x768
Keyboard/Mouse, 3D sound
Minimum Pentium 200/32 megs RAM

Whenever you stumble upon one of the many "Best Games of All Time" lists that crop up in gaming mags and internet sites, you'll encounter the game System Shock. If you don't, then the list was written by a wet-behind-the-ears-whelp who never played the game. Simply put, System Shock was one of the greatest first-person games of its time. It introduced a complex, plot based, role-playing element to the genre, which was dominated by Doom clones at that point, long before games Half-Life and Quake came along. The atmospheric game combined intelligent puzzles, plot twists and 3D action to create one of the most immersive computer entertainment titles in history.

The ultimate mad computer story, the original System Shock placed you in the shoes of a hacker, blackmailed into battling a nearly-omnipotent, very-insane computer called SHODAN. System Shock 2 is set in the distant future, forty years after the first game. SHODAN survived the initial assault, and its presence has extended beyond the orbital Citadel that served as the setting for the first game.

The role playing element has been greatly enhanced, which is apparent from the first moments of the game. The opening sequences are spent defining your character's skills and attributes, but not through traditional dice rolls. Through the game's first-person POV, you join one of three branches of the military, each of which focuses on different skills. The Marines focus on weaponry and brute strength, the Navy trains its legions in technical skills, and the OSA centers around the use of one's psionic powers. You then choose your first three tours of duty, each of which enhances one attribute (strength, dexterity, and so on) or skill (weapons, hacking, psionic abilities, etc.).

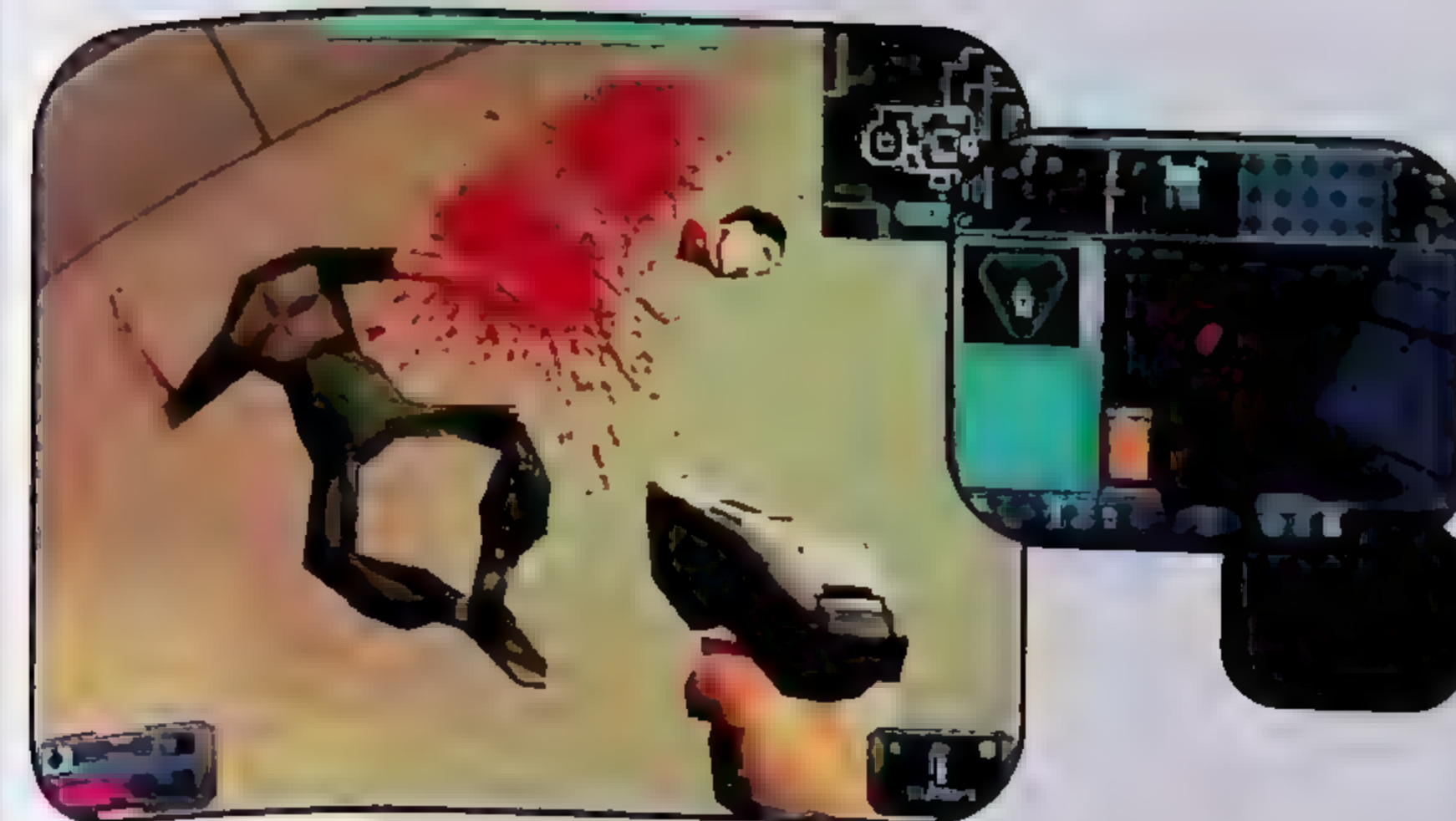
Your fourth tour of duty takes an unexpected turn. You've been assigned to the Von Braun, the very first faster-



than-light starship. You're placed in cryogenic sleep for part of the mission, but when you awaken, things aren't as you expect. You discover that you've received cybernetic implants, robbing you of recent memories. The ship is in shambles. Zombie-like beasts are roaming the decks and the security systems are hunting you down. Worst of all, the computer has developed a sadistic personality, and you're on its bad side. Most of the game takes place on the crippled starship, and it's appropriately spooky and claustrophobic. The atmospheric sounds are especially effective, and they take advantage of EAX and DirectSound3D for a robust audio experience.

As you make your way through the game world, your skills will determine how you handle yourself. If you're a good hacker, you'll be able to disable the security systems, breach secure areas, open locked crates, and perform other tasks. Different weapons require different skills to operate and with further skills you can repair or modify them. Psionic powers can be used for attacking enemies, pushing and pulling distant objects, and other Jedi-style tasks. You can upgrade your character as you play, through the use of cybernetic implants and upgrade stations.

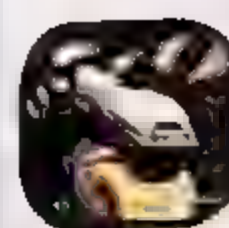
You manage your abilities, inventory and other aspects of the game through an outstanding interface. There's a lot to keep track of besides your character's attributes: you need to keep tabs of money, cybernetic



The most shocking thing about this sequel is how the shoddy gameplay so effectively spoils the sweet anticipation laid out by the character development and the snappy interface.

upgrade units, items, weapons, data logs, and all kinds of other bits of information, and the single screen makes it a snap — with a simple learning curve to boot.

The role playing elements are the strong point of the game. You get a better sense of your character than you do in most RPGs, and your skills and attributes really do make a difference as to how you go about playing. Unfortunately, the game itself doesn't live up to the sturdy infrastructure provided by the deep character elements and the spiffy interface.



The problems start with the graphics engine. It looks marvelous, but its rendering speed leaves something to be desired. My test machine is a Pentium II 450 with 128MB of RAM and a Voodoo 3 3000. You'd think it would be powerful enough for just about any game, but apparently it's not. At 640x480, the lowest hardware accelerated resolution offered by SS2, the frame rate was marginally acceptable, but plagued by pauses that occurred every time I entered a new room or encountered an enemy. Higher resolutions were barely playable. Let's face it: the published minimum system requirements have to be a joke.

The controls are the same as any first-person shooter, with the addition of a plethora of shortcut keys for health kits and hypodermic boosters (speed, strength, psi-power, and so on). In the style of Thief: The Dark Project, you can also lean around corners and over precipices. Your favorite Quake config will work with some modification. The



downside is that it always feels like you're moving in slow motion. This isn't the same effect that you experience when switching from Quake or Half-Life, in which you run at 30MPH, to a realistic game like Rainbow Six or Thief; SS2 actually feels sluggish. Even when you jump, you seem to float through the air in slow motion.

If the gameplay itself were comparable to the original, these last complaints would be forgivable. Unfortunately, it's surprisingly stale. There's a heavy emphasis on action, to which the soupy engine doesn't do justice. What's more, the game is exceedingly difficult, even on the easier levels; there aren't enough opportunities to replenish your health, there isn't enough ammo for weapons, the monsters and security turrets are really tough and the baddies have a habit of sneaking up behind you at the most inopportune moments. You're going to die a lot; be sure to save often and try not to break your computer equipment in a frustrated rage.

The high frustration level proved lethal to my enjoyment of the story. There's plenty of intrigue and the puzzles, for the most part, are superior to the "find the key/switch/access card" type, but they don't make up for the difficulty. You stop caring about breaching the main engineering section to restore power to the ship's lifts after having to reload twenty times to get past one goddamn maintenance droid (which can take 12 shotgun blasts without wincing). And after hours upon hours of such frustrations, it's easy to come to the conclusion that System Shock 2 needed a lot more play testing.

A more efficient game engine, or a less pronounced action element, would put this game on par with its predecessor. As it stands, though, it is an overwhelmingly disappointing exercise in frustration. System Shock 2 certainly is a shock to the system, but not in the delightful way the original was. The most shocking thing about this sequel is how the shoddy gameplay so effectively spoils the sweet anticipation laid out by the character development and the snappy interface.

SYSTEM SHOCK 2

Publisher
Electronic Arts

Developer
Electronic Arts

Author
Joel Durham Jr.

Graphics 7

Sound 9

Gameplay 5

Overall 7

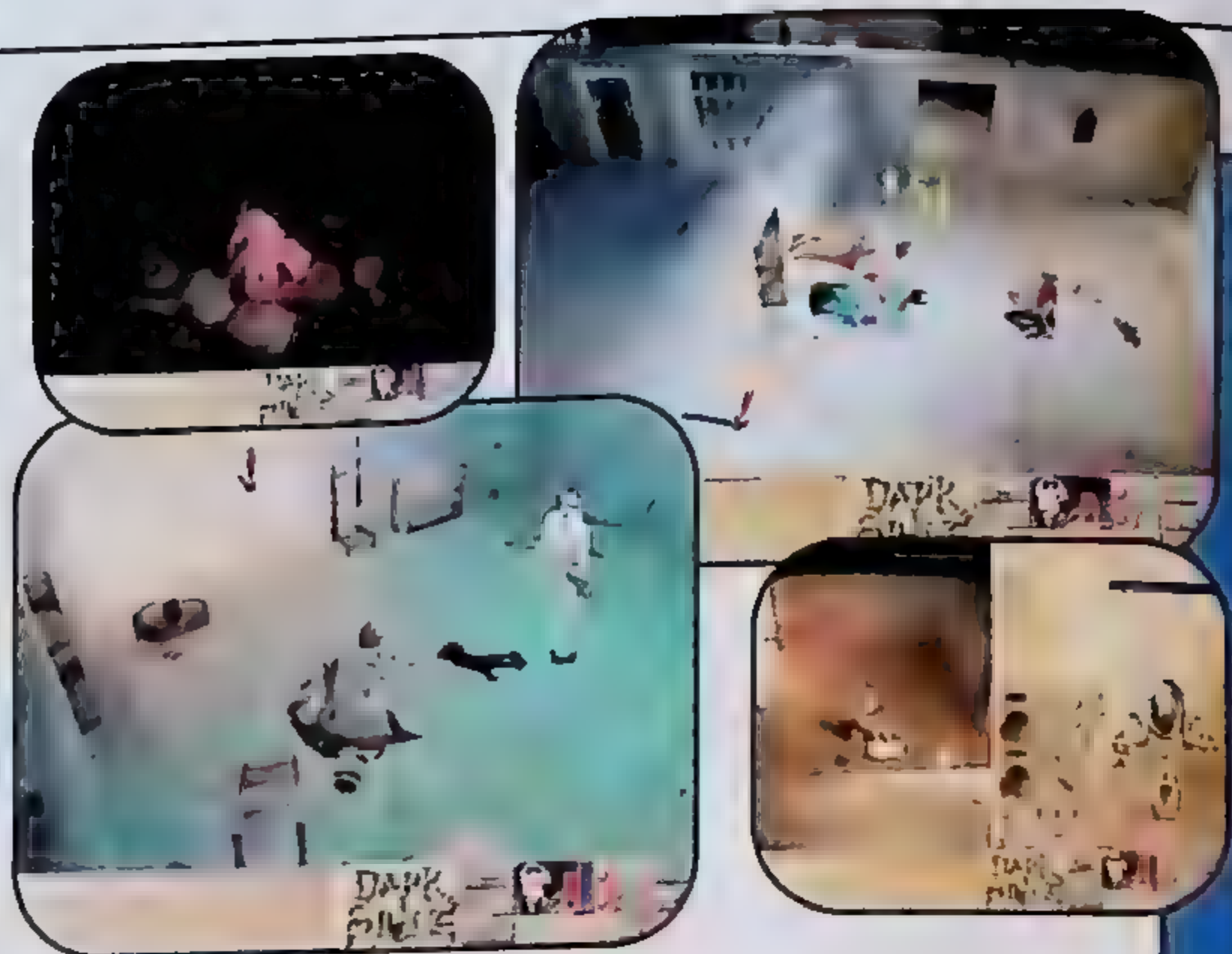
DARKSTONE

D3D
 Resolution up to 640x480
 Mouse/Keyboard, 4 player multiplayer
 Minimum Pentium 233, 32 megs o' RAM

Delphine Software International has brought us some very fine PC and console games in the past. If you're a long-time gamer, you probably have enjoyed at least one of their titles. Flashback was a brilliant side-scrolling platformer, Fade to Black a unique 3D adventure, and MotoRacer set the standard for motorcycle arcade racing titles. Now DSI unveils a role-playing game that may not be as unique and groundbreaking as those games, but at least proves that they still know how to crank out a killer game. As with all other RPGs, this one involves choosing a character and guiding him through various quests, learning skills and spells while progressing through the story. The story here involves reclaiming seven crystals to empower a mystical orb in order to defeat Draak, the evil dragon. Loads of mini-quests and evil minions will try to stop your character in his tracks through each dungeon, including various bosses and sub-bosses.

If this sounds familiar, it's because we played it before when it was called "Diablo." A short review of this game could simply be "Diablo 3D," but I don't think my editor would let me off that easy. Since Diablo sold a gazillion copies, I think it's fair to assume that you have played it. Darkstone plays exactly the same as that smash from Blizzard, from the point-and-click combat and icon-based equipment system, down to the distribution of skill points at a "level-up." In fact, the similarities between the two games are almost embarrassing. From Delphine's fine track record, one would expect that they would be a little more innovative. However, innovation isn't necessarily the most important thing in computer gaming (Quake III Arena, anyone?) and Darkstone is proof of that. In fact, when it comes down to the single-player game, Darkstone is even better than Diablo!

Graphically, Darkstone looks like it's years old. Any 3D game that can't go above 640x480 resolution should have been updated somewhere during the design process. This low-polygon Direct3D game has no graphics bells and whistles, except for some nice use of lighting. The pixilated trees look



downright horrible. Audio effects sound like they are sampled straight from Diablo and there's plenty of embarrassingly cheesy voice-acting.

A shameless Diablo copy with outdated graphics and sounds made me eager to tear the game apart for this review; however, as I played on there was one thing that Delphine proved they are still masters of — tweaking gameplay. As I progressed further in my quest and started building up my character (a wizard), I found myself drawn in. After a couple more quests, I was hooked. Spell management, navigation and mapping is all handled very well. Traveling to a place that the character has already visited is brilliant — one simply clicks on a menu and selects that location. This helps avoid traveling to the same dead end room over and over trying to find an exit to the level. The difficulty level increases at a perfect rate. Best of all, the player can control two characters at once for some serious dungeon hacking.

Diablo...er, I mean Darkstone is a fun, brilliantly designed and incredibly addictive RPG. If we were playing this game in the summer of 1997, we would be talking about a landmark masterpiece. As it stands now, it's a highly derivative but excellent quest game. In spite of the dated graphics, fans of the hack-and-slash dungeon romp will be eating this one for breakfast, lunch and dinner.



DARKSTONE

Publisher Gathering of Developers	Graphics 6
Developer Delphine	Sound 6
Author Dave Whittle	Gameplay 9
	Overall 8

STARFLEET COMMAND

D3D
 Supports resolutions up to 1024x768
 Keyboard/Mouse, 6 player multiplayer
 Minimum Pentium 200 w/ 32 megs o' RAM

While only slightly more socially acceptable than shooting up crank, the "Star Trek" addiction is a lot harder to kick. Try removing the show from an average Trekkie's life and you'll soon find him curled up in the corner of a darkened room, petting a Koosh ball while reciting dialog from "The Trouble with Tribbles." Particularly sad are Trekkie gamers who nervously circle the aisles of the software store, waiting for any PC title emblazoned with the Starfleet emblem to beam into sight. Once they score the latest Trek title, they hurry home to slap the CD in their PC in a vain attempt to hit the ultimate high. Unfortunately, for the last 20 years or so, that high has lasted just as long as the opening credits. Undaunted, Trek addicts have to take what they can and move on. But they all dream of the day that a game will finally give them the high they experienced when they saw Star Trek II: The Wrath of Khan for the first time ("Kaaaaaaahhhn!"). And for now, they have set their hopes on Star Trek: Starfleet Command by Interplay.

Based on the table-top strategy game Star Fleet Battles, Starfleet Command finally gives Trekkies what they have always wanted: control of their own starship. But don't expect to be able to scream, "Sulu, get us out of here" and have your helmsman plot an elaborate set of evasive maneuvers. No, that's just not going to cut it here. It seems that the original Star Fleet Battles game was one of those pencil-and-paper strategy games that's a micro-manager nerd's dream. In it, you controlled everything from helm and weapons control to main engineering. Thankfully, Starfleet Command has removed the need for the pencil, the paper and the six-sided die. Unfortunately for most, that's the end of the simplification. Beaming onto the bridge of your starship for the first time, you'll marvel at the vast number of systems at your disposal. Then, after the first few dozen times helplessly watching your starship explode, you start to realize that you better start paying attention to all of them. The 140 page manual in the box wasn't included for nothing.

Shield, Weapon, Helm and Damage Control soon take over your life, as you busily jump from station to station, allocating and re-allocating the limited amount of power your mighty starship can produce. Moments of triumph are quickly savored and forgotten as you scramble to slow down your ship because your photon torpedoes don't have enough power to charge. Once charged and fired, you might find them speeding wildly past the target because you forgot to allocate a couple watts of power to the Electronic Counter-Counter Measures. Such is the life of a Federation Captain. Or, for that matter, a Klingon, Gorn, Romulan, Hydran or Lyran Captain. All the races have their own ships, unique weapons systems



and the strengths and weaknesses that go along with them, but for each race the game is essentially a constant ballet of energy allocation. Sure, there is a speed slider which can slow the action to a crawl so you can deal with everything exploding around you, but there comes a point where you just don't want to see your starship limping around the screen like a garbage scow anymore. But if you want to be the next James T. Kirk, you damn well better suck it up and deal with it. And I think most players would be more willing to deal with the complexity of the game if Starfleet Command actually made more use of the Star Trek universe.

Yes, the Star Trek name is plastered on the Starfleet Command box, but that doesn't mean the game captures the Star Trek universe any better than X-Wing vs. Tie Fighter captured the Star Wars universe. All of the ships that you'd expect are here, modeled in wondrous 3D, but the game lacks any kind of story with which to capture the soul of Star Trek. Star Trek fans aren't looking for Shakespeare, but we at least need to have some sort of back story to get the blood pumping and pull us through the missions. As it stands, all that you can expect is the same explosions and the same music playing over and over again as you struggle to complete random scenarios which boil down to, "Enemy in sector — Go destroy." Now I enjoy throwing a tractor beam on an enemy ship and dragging it into a black hole as much as the next man, but frankly, it's much more satisfying to do that to someone I know in the multi-player game.

Somewhere between the bloated story of Starfleet Academy and the overblown complexity of Starfleet Command there is a balance which most gamers will be happy with. As it stands, I just hope someone finds it soon. And when they do, I'll be wandering the aisles of the local EB waiting for it like everyone else.

STARFLEET COMMAND

Publisher Interplay	Graphics 7
Developer 14 Degrees East	Sound 6
Author Yiggy	Gameplay 7
	Overall 7

SHADOW MAN

**Support resolutions up to 1600x1200
Keyboard/Joytick
Minimum Pentium 200/32 mega o' RAM (3D hardware required)**

Most of the time, when a company tells me they're creating a "multi-platform" game, I cringe. The history of PC/PlayStation/Nintendo 64 crossover titles is riddled with the corpses of really bad games. Most of the time, a publisher is smart enough to know that they're going to sell roughly ten times as many copies on the consoles as they will on the PC. So we poor PC players get stuck with sub-par ports that usually arrive much later than the console version. Originally, I had written off Shadow Man as being from the same "Throw it onto the PC and we'll see what happens" school of thought. But once I actually plugged the game in and began to play with it, I found much more than I expected.

Mike LeRoi is the "hero" of this world, an assassin-for-hire transformed by Mama Nettie's voodoo magic into the Shadow Man. Mike has the ability to travel back and forth between the Liveside, where normal humans go about their affairs, and the Deadside, the dark world of departed souls. It's in the Deadside where Mike comes into his own as Shadow Man; he is able to wield powerful magical weapons, travel from place to place and is nearly invulnerable to harm. After all, what's the use of being Lord of the Dead if you have to worry about dying?

Despite being of questionable moral character (having been a hired killer and all), Mike is forced to keep Liveside free of the evils that occasionally seep over from Deadside. Mama Nettie has a dream of death and Apocalypse and sends Mike into the Deadside to collect the "Dark Souls," which are spirits of pure evil that have been sealed and hidden within the twisty realms of Deadside. Shadow Man must collect these Dark Souls before Legion, the incarnation of evil, is able to use them for its own undoubtedly nasty purposes.

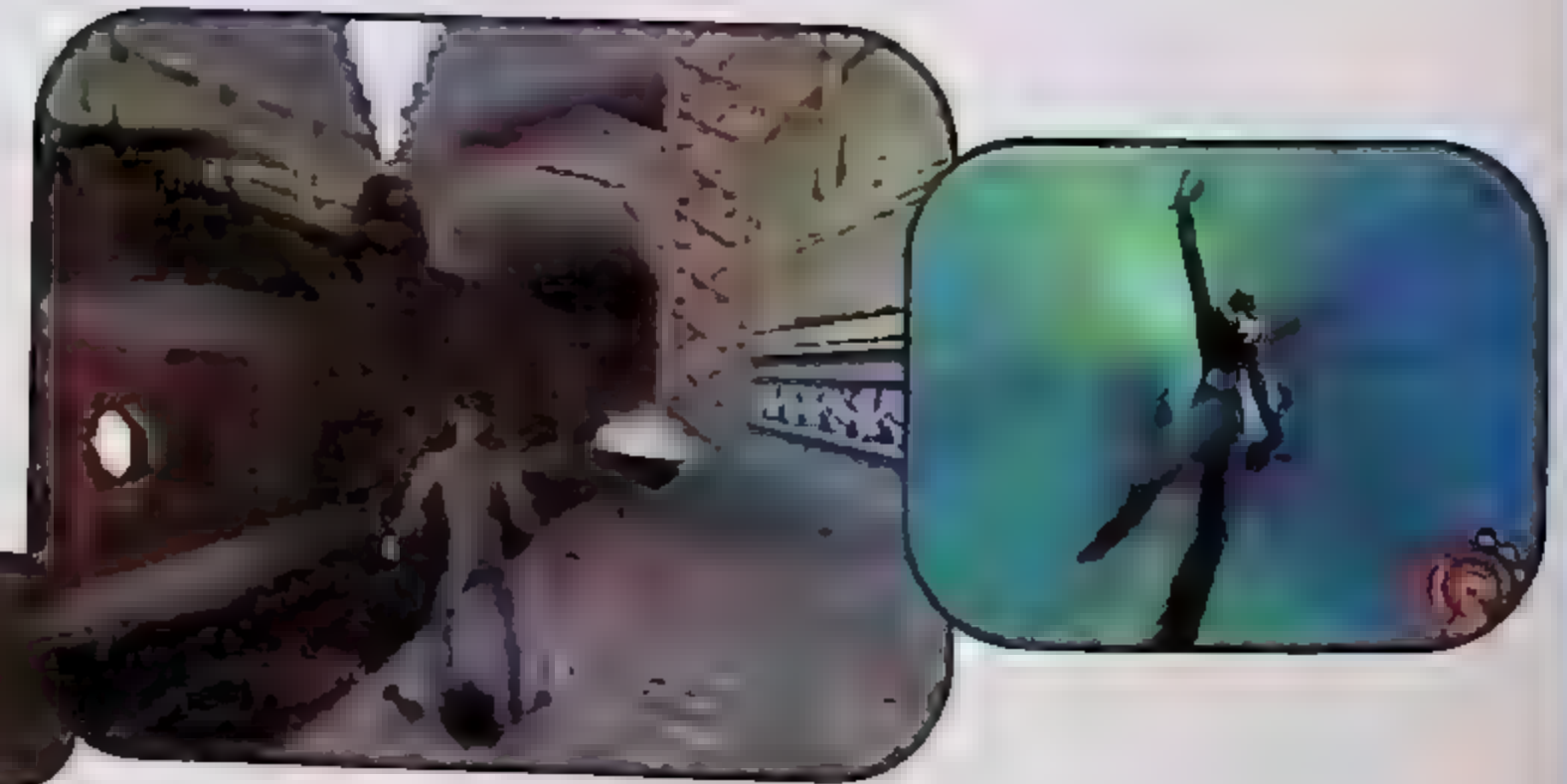
This is a third-person action game that, for once,



concentrates on action as much as it does on exploring. One of the major complaints about the endless Tomb Raider games is their feeling of "loneliness," where players are essentially running around huge, empty areas throwing switches and making complicated jumps without really having much opportunity to use those guns so prominently strapped to Lara's bod. Shadow Man is very much the opposite. You're presented with all sorts of targets, sometimes more than you'd wish for. There are a bunch of weapons that you'll pick up and you're given plenty of chances to play with all of them.

But this isn't just a shooter. The areas in this game are huge and complex and there's lots of running around to be done in order to complete the mini-quests (finding a key to unlock doors in the asylum, raising stairs to enter the temple) and to ultimately find and absorb the myriad Dark Souls. One of my complaints with this game is that there's a little bit too much running around for my tastes. I found myself losing track of where I was in some of the larger areas, since the textures and architecture tend to look very similar. I hate having to criss-cross back and forth through areas I've already explored, looking for the one hidden lever I've forgotten to pull or the out-of-sight doorway I needed to go through.

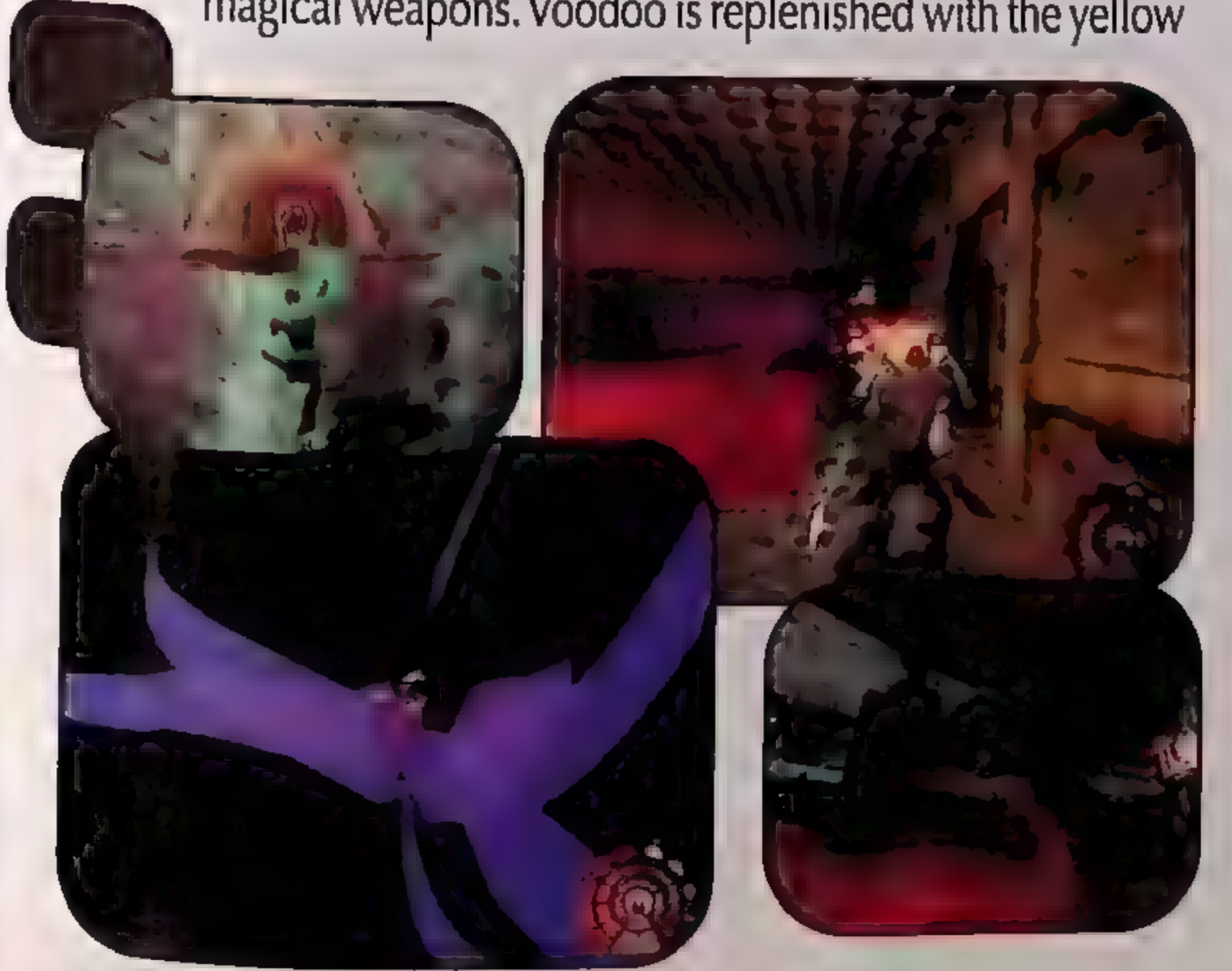
You're also expected to return to areas that you've already been through as you gain new weapons



With all this Voodoo stuff, it's only natural that we find some interest with this game.

and abilities. There are three magical markings that can be earned by completing tasks within the Temples. Once acquired, the Gads will let Shadow Man do things that were previously out of the question. "Toucher" lets you grab hold of flaming ledges and burning objects without taking damage, as well as move red-hot boxes that block certain passageways, "Marcher" lets you walk across hot coals and "Nager" will actually allow you to swim in lakes of fire and walk through sheets of fire. When earned, the Gads appear on Shadow Man's body as lines of red tattoos that cover his arms, legs or back. There are also magical bracelets that will let you climb up the Bloodfalls. With these new powers, you'll finally be able to go back to those areas where you were seemingly stopped by these impassable obstacles and find what lies on the other side.

As you free the Dark Souls, your power is increased in a number of ways. Your base weapon, the Shadowgun, can be charged by holding down the fire button. The more Shadow Power you possess (which comes from collecting Dark Souls), the greater the amount of damage your gun will dole out when charged. Your level of Shadow Power also determines which coffin gates can be opened. A purple line across the gate corresponds to the necessary level of power that it will take to burst it open. In this way, you open up new areas of the game as you collect the Dark Souls. Shadow Power also spills over into the amount of voodoo magic you're able to call upon, which determines the amount of energy you have to fuel your magical weapons. Voodoo is replenished with the yellow



skulls scattered throughout the game. Equipping Shadow Man is a snap, since he's truly ambidextrous, which means that you can sort any of his weapons into either one of his hands for different combinations of firepower. While the Shadowgun can be used either Liveside or Deadside, the majority of the weapons you pick up will either be for one realm of the other. So those machineguns you find are not going to be effective against undead critters, while for the most part the voodoo weapons won't even work in the daylight. The voodoo weapons are cool, low-tech devices that spray blasts of fire, release explosions of pure voodoo power and shield Shadow Man from incoming attacks. There are a handful of weapons that will work in both worlds, but those items are hard to come by.

One of the newest and smartest things to be implemented into the game is the "Lock-on Strafing" control, which should be instantly familiar to those of you who have played around with the Legend of Zelda on the Nintendo 64. When Shadow Man locks on to a target, you're able to move him around without having to turn away from it. This makes it a snap to fire away at the baddies while jumping ducking and strafing out of their way.

With all this Voodoo stuff, it's only natural that we find some interest with this game. Shadow Man is a refreshing third person adventure that takes me back to the first time I played Tomb Raider. Since this game is intended to move onto the console systems, it does control very well with a standard Sidewinder pad and the configuration screen makes it easy to set up the button array to your own liking. But with all this in mind, this is not a game for everyone (especially considering the adult tone and design). The console mentality does come through in several instances, but doesn't negatively effect play as has happened in games past. If Lara Croft hasn't been pushing your fun buttons lately, definitely check this one out.

SHADOW MAN

Publisher Acclaim	Graphics	7
Developer Acclaim	Sound	8
Author Chris Kramer	Gameplay	8
	Overall	8

RETURN TO NA PALI

Slide
 Supports resolutions up to 1600x1200
 Keyboard/Mouse/Joystick, 3D sound, 32 player multiplayer
 Minimum Pentium 200 / 32 megs of RAM (requires Unreal)

Getting you back to the planet on which Unreal took place makes the Ripley-cloning plot device upon which Alien Resurrection was based look totally natural. Right after you escaped from the dreaded planet, your ship was discovered by the intergalactic Marines. When it's discovered that you're an escaped felon, you're offered a deal by The Man: return to the planet and use your experience there to locate yet another crashed ship, or take a walk out the nearest airlock without a space suit. In a wink, you're back.

At least this time you're better prepared. You land on the surface with an extra long-lasting scuba tank and your arsenal had been expanded. Besides the weapons from the original game, the Marines are arming you with three more effective weapons: a grenade launcher, a rocket launcher, and a JED gun. Of course, they don't just hand them to you — they're dropped to the surface of the planet in big boxes bearing the Marine logo. You get the JED gun almost immediately and it's the most effective of the three new weapons. Unreal still lacks a one-shot-kill weapon, but the JED holds 400 bullets and fires them at an incredibly rapid rate. Ammo is limited and the JED gun eats it up fast, but it cuts right through Skaarj beasties, Brutes and other evil vermin.

A few new baddies join the fray, too. Tiny, pack hunting dinosaurs, pared down versions of Jurassic Park's compys, gnaw at your kneecaps. Their diminutive size and fast, jittery movements make them hard to hit, and they're intelligent: when you encounter only one or two, they run away to find more and attack you as a group. Later in the game, you'll square off against other marines. These are easily the most challenging enemies in the game, acting more like multiplayer bots than typical first-person shooter enemies. They strafe, dodge, pick up health and ammo, and generally display more intelligence and agility, than the rest of the creatures you'll face.

New stuff aside, Return to Na Pali is just that — a return to the familiar environments of Unreal. Everything here is familiar, and the first few levels are so nondescript they could easily be mistaken for the less remarkable levels from the original game. Some of the same devices are used to inspire awe in the massiveness of the environments: there's a cliff with a waterfall splashing into a deep ravine, just like the one you



encountered in the original after you escaped from the crashed prison ship.

The level design doesn't start to show true inspiration until you find the downed spaceship. The gigantic craft is almost as intriguing as the Nali Castle and its damaged state forces to navigate it both inside, through its detailed halls and rooms, and outside on its sprawling hull. It's by far the most exciting part of the expansion pack.

The entire mission pack spans six full levels, most of which are as large as the biggest maps from the original. The design is a bit less linear than most of the Unreal single-player maps, so there's more exploring to do before you find your way through each one. That serves to extend the total play time, but nonetheless, the gameplay only lasts eight to ten hours on a moderate difficulty level.

Graphically, the mission pack is brilliant. New textures and locales take full advantage of the sparkling goodness that the Unreal engine has to offer and on a current system (Pentium II 300+ with a Voodoo 3) it runs smooth as a baby's rear end. The one disappointment is the lackluster polygon-based explosions created by the grenade and rocket launchers — they're about as effective as those infamous Quake II mushroom clouds.

If you're hopelessly hooked on Unreal and the plethora of amateur levels available on the Internet haven't satiated you, this mission pack is worth a look. There's plenty of new gameplay that's familiar enough to fit like an old slipper, but that's intriguing enough to keep you interested through the ending.



RETURN TO NA PALI

Publisher GT Interactive	Graphics 4
Developer Legend	Sound 5
Author Joel Durham Jr.	Gameplay 7
	Overall 6

OFFICIAL FORMULA 1 RACING

Slide, D3D
 Supports resolutions up to 1024x768
 Keyboard/Mouse/Joystick/Force feedback, 8 player multiplayer
 Minimum Pentium 133 w/ 16 megs of RAM

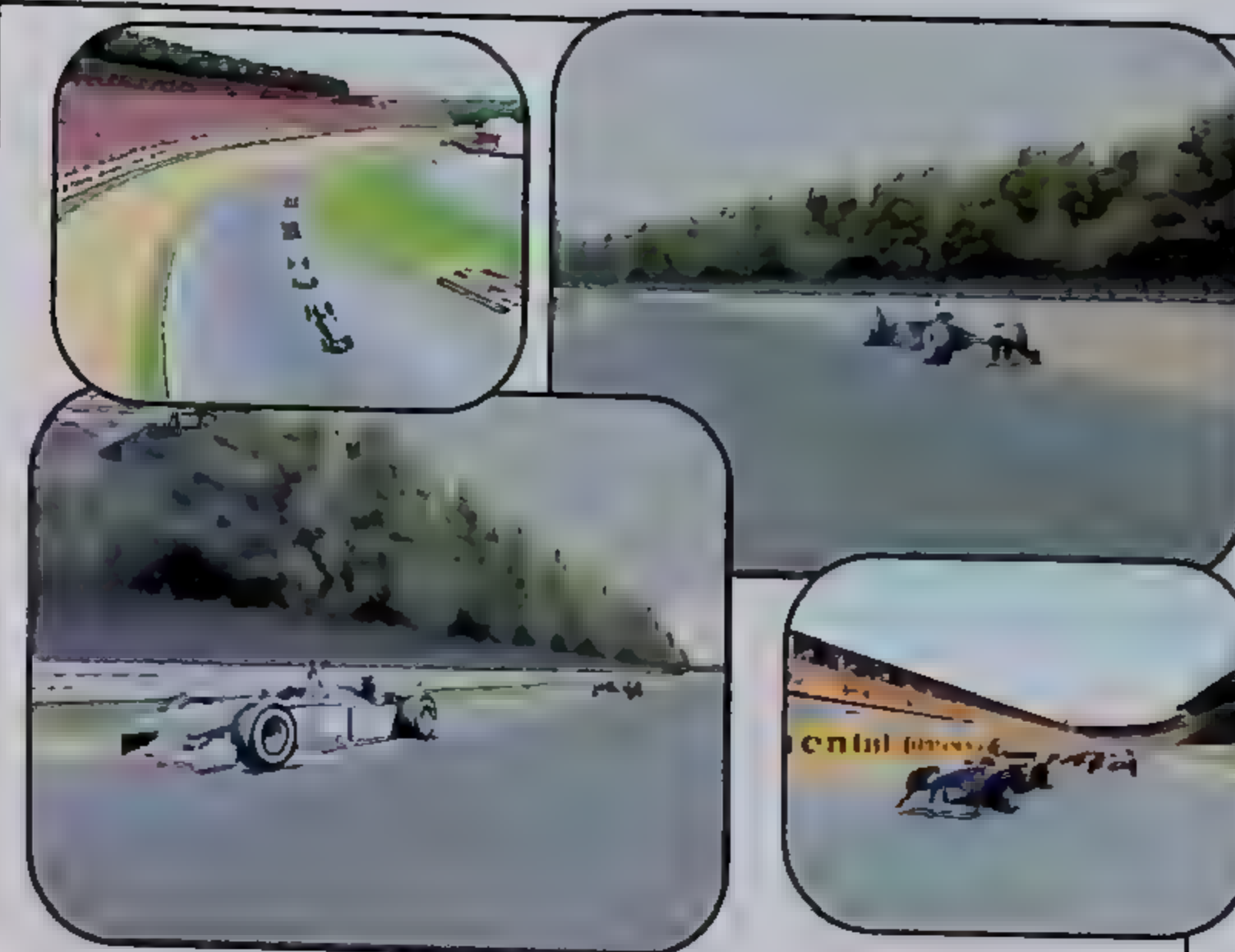
Official Formula 1 Racing is sanctioned by the FIA and completely based upon the real world drivers, stats, cars and tracks of the 1998 Formula One World Championship. Yes, all eleven teams, twenty-two cars and sixteen tracks are here and simulated. But it doesn't try to simulate everything down to the last lug nut and shock absorber. This is an entry level racing simulation and serious purists may find it light as a feather, but those new to the sim world will likely find it quite engaging.

Part of the reason for its accessibility is just how much of the game can be tweaked to make things easier, starting with the option to use a full arcade mode or three other levels of difficulty/realism. You can opt for a quick race, a full weekend of racing or a championship season culminating in the World Championship itself. Your inner grease monkey can indulge in tweaking the shocks, brakes, tires, suspension, etc., to make their ride a little faster and a little stronger in the dangerous curves ahead. A full range of "driving assists" is offered as well.

Lankhor threw in a generous range of camera angles (over twenty) and all are customizable, which lets you view a replay from any angle you desire. You can rotate, zoom, raise or lower the camera view at will. You can even use these views during play! Setting the camera to zoom out when you accelerate and zoom in when you brake is a thrilling addition to any racing title. The 3D cockpit is well implemented, with readable instrument information and a rearview mirror that will make you wish all driving sims had one.

The graphics aren't the latest and greatest, nor are they the gratuitous eye candy and colored lighting developers seem to be growing more and more fond of. Instead, the game offers visuals that are stately, somewhat photo-realistic backgrounds with a good sense of depth and range. They aren't anything to write home about, but they sure are nice to look at. A cockpit view allows you to look around with surprisingly realistic range, which really helps on corners.

Sound is equally ... nice. Nothing fantastic, it isn't 3D positional, but the engines sound right and you can hear them whine and protest. You can even hear the wind whistling past your helmet



as you gain speed. Nice touches, realistic, but not too flashy.

By now, you may be wondering why I warned off the "hard-core" racers who may be reading. Well, put simply, even with all realism options "on," the game never plays very realistically. The cars hug the track with an unshakable death-grip that cannot be broken by the worst driver out there. The 3D mechanic options may look great, and be implemented well, but they don't work in completely realistic ways.

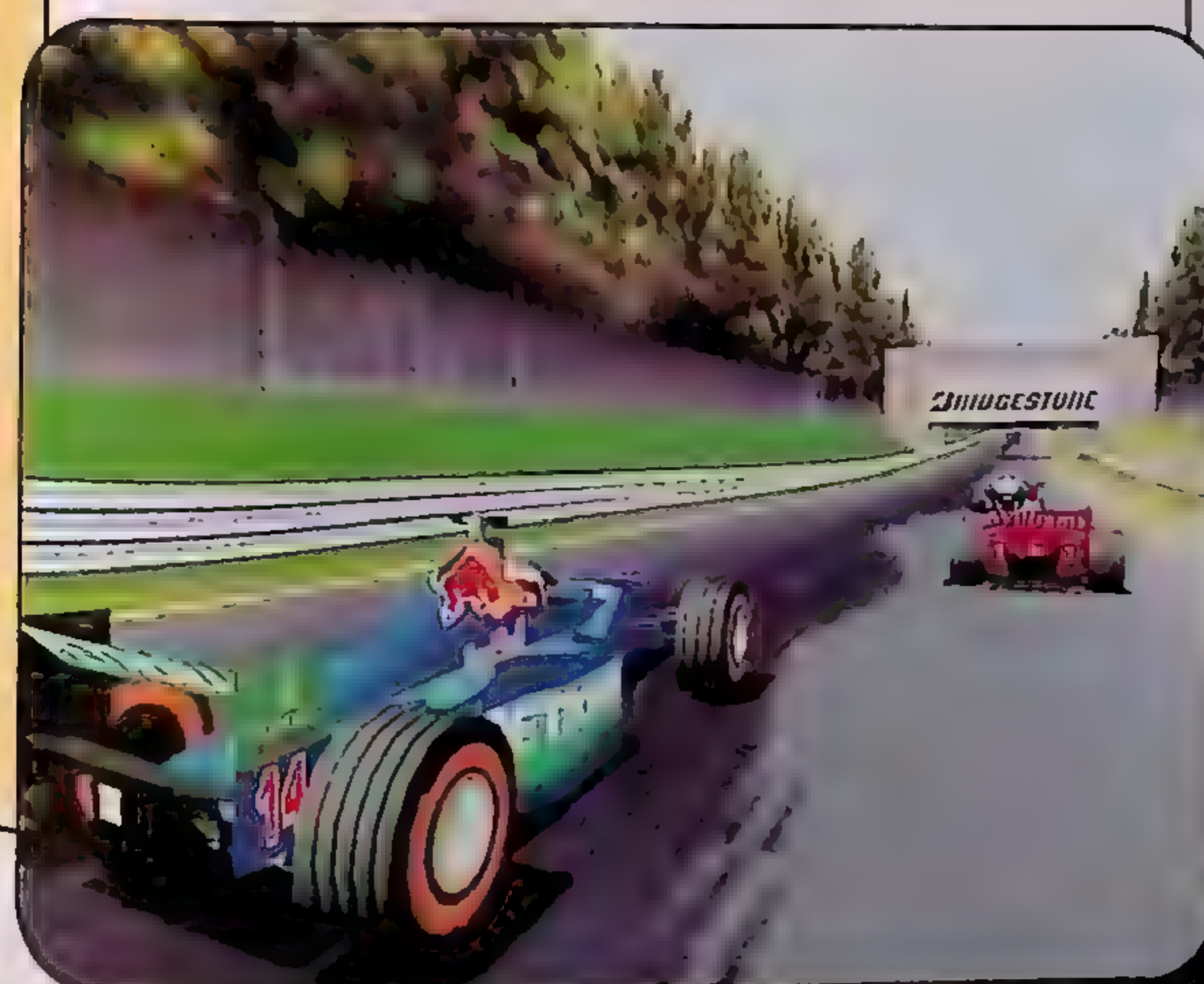
Where the game really passes muster is in the "feel" of the road and the handling of the cars. Again, this isn't extreme realism like Grand Prix Legends, but it sure does feel good. In arcade mode, it is solid and fun, in full sim mode, it feels just easy enough to keep you smiling. Not perfect, but no real problems with it either. The only flaw I could find is that my joystick wouldn't recognize the throttle as an accelerator/brake combo, something I vastly prefer over using buttons or the stick itself, but it handled digital pedals just fine with my wheel. The force-feedback implementation was likewise top notch.

If you are interested in simulation racing, particularly Formula racing and you aren't too anal about realism, then we have your game right here. It looks good, it sounds great, it is user friendly. Best of all it adds official tracks, teams, cars, drivers, and a well implemented 'Championship mode' to its already interesting mix. Drive, I say, drive!



OFFICIAL FORMULA 1 RACING

Publisher Eidos	Graphics 8
Developer Lankhor	Sound 8
Author Andrew S. Bub	Gameplay 8
	Overall 8



TOTAL ANNIHILATION: KINGDOMS

Glide, D3D
Supports resolutions up to 1600x1200
Keyboard/Mouse, 4 player multiplayer
Minimum Pentium 233/32 mega RAM

feel like I've been here before...

A few years ago, Cavedog Entertainment unleashed a mildly remarkable real-time strategy title called Total Annihilation. A sci-fi spin on the proven RTS formula, TA rode on the success of titles like Warcraft II and Command and Conquer: Red Alert.

The long awaited follow up is here. Total Annihilation: Kingdoms doesn't seem to warrant the first part of its title; it's not a sequel to the original, and barring the they fact that they share a genre, the two games aren't even similar. Kingdoms is set in a fantasy, sword-and-sorcery world, quite a departure from its sci-fi predecessor. Perhaps Cavedog was trying to capitalize on brand recognition. After all, it worked for Activision with Civilization: Call to Power, which, although Sid Meyer wasn't involved and the game was sub-par, was snapped up like hay by enough bovine consumers to make it an overwhelming success.

Kingdoms doesn't deserve to be rewarded similarly. It's not a bad game; it's as playable as TA and even a tiny bit addictive, but it brings absolutely nothing new to the RTS table. In fact, it sets the genre back in some ways.

The back story is an interesting yarn, told both in the manual and in pre-rendered cut scenes. Garacaius, immortal ruler of the land of Darien, grew tired of ruling and dolled out the land to his four children. Each of them also received a magical relic which granted them immortality. Shortly after (and without warning), Garacaius vanished, leaving the rule of the land in the hands of his children. Over several hundred years, they first grew apart and then grew contemptuous of each other.

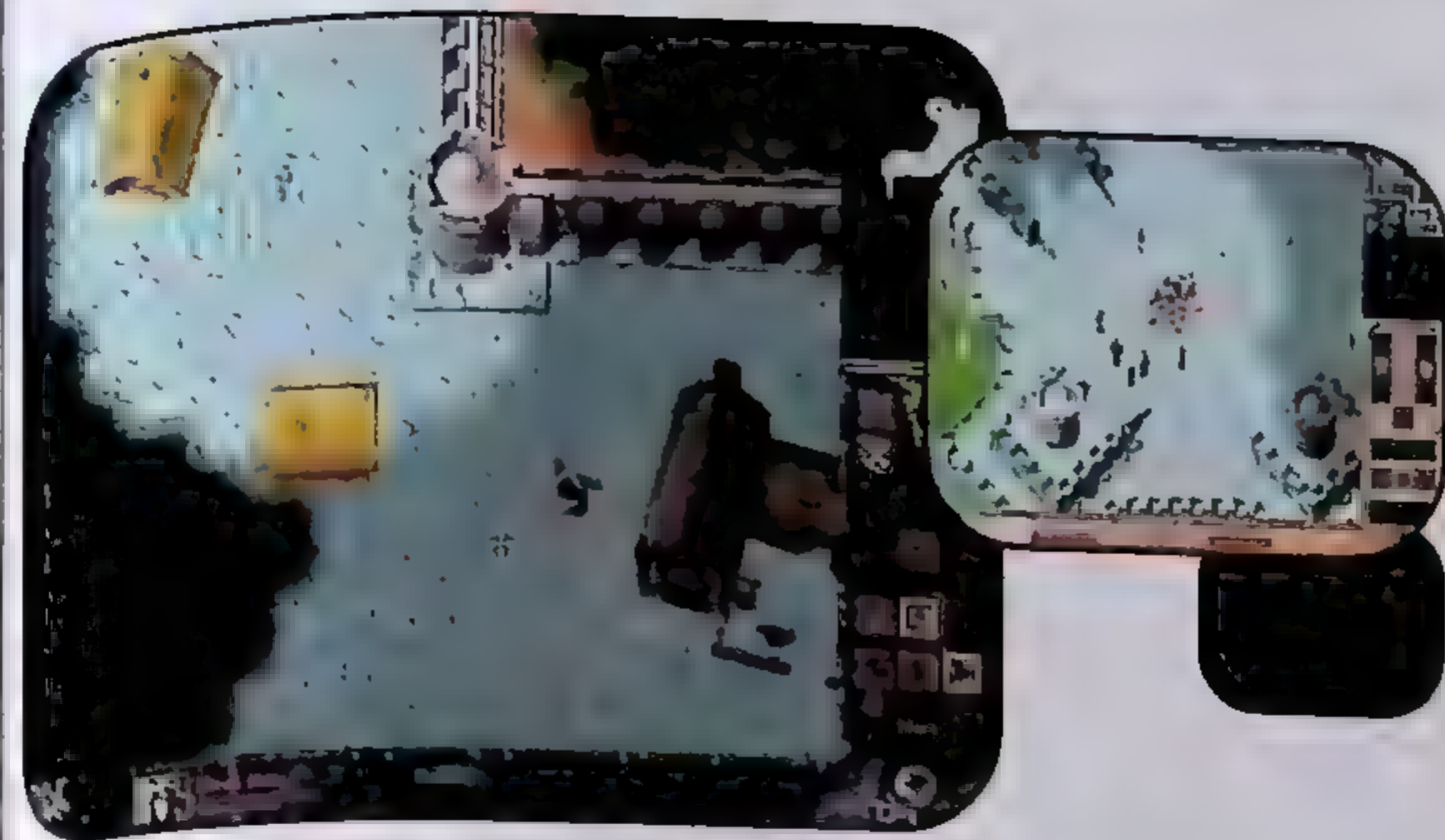
It's these four factions that make up the armies you command in the three modes of play. The factions are



each unique and bear their own strengths and weaknesses, but the units within them are rather bland. For example, Elsin, (who, incidentally, rules the land of Aramon), commands the most conventional forces. Playing him, you can create swordsmen, horsemen and archers and barbarians. The forces of Veruna, ruled by Elsin's sister Kirenna, have similar units such as warriors and crossbowmen, but she has a better naval presence than the other factions, so she also commands skiffs, harpoon ships and man o' wars. Thirsha, ruler of Zhon, commands mystical beasts like goblins, trolls, harpies and basilisks, while the last sibling, Lokken, deals in undead creatures like zombies, skeleton archers and fire demons.

The problem is, within the actual armies, the units are very basic. There are hand-to-hand units, missile units, airborne units and sea based units. For example, Elsin's swordsmen and barbarians are so similar, both in appearance and function, that they might as well be only one unit. Bowmen, crossbowmen, archers... what's the difference? There's little in the way of the inspiration seen in current RTS titles. The lack of variance might have worked years ago in Warcraft II, but that was then; we've seen this all before.

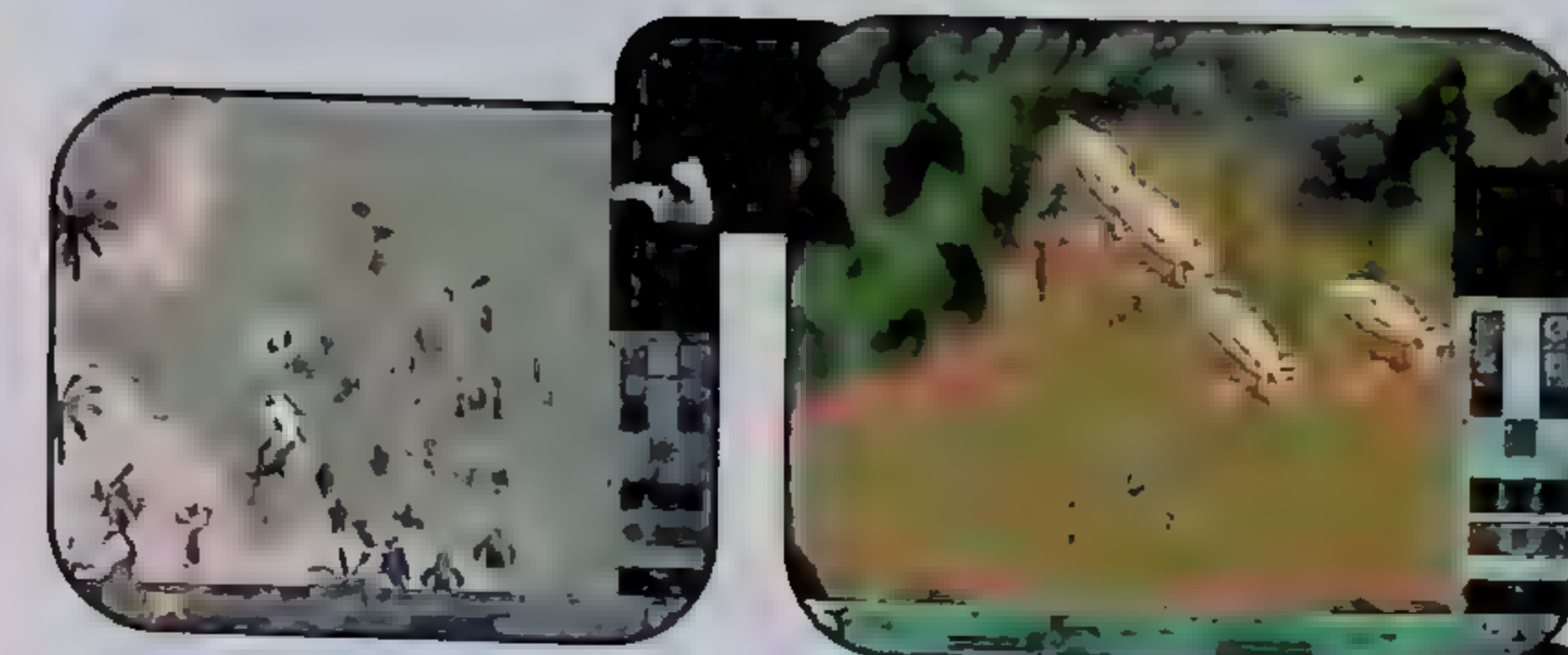
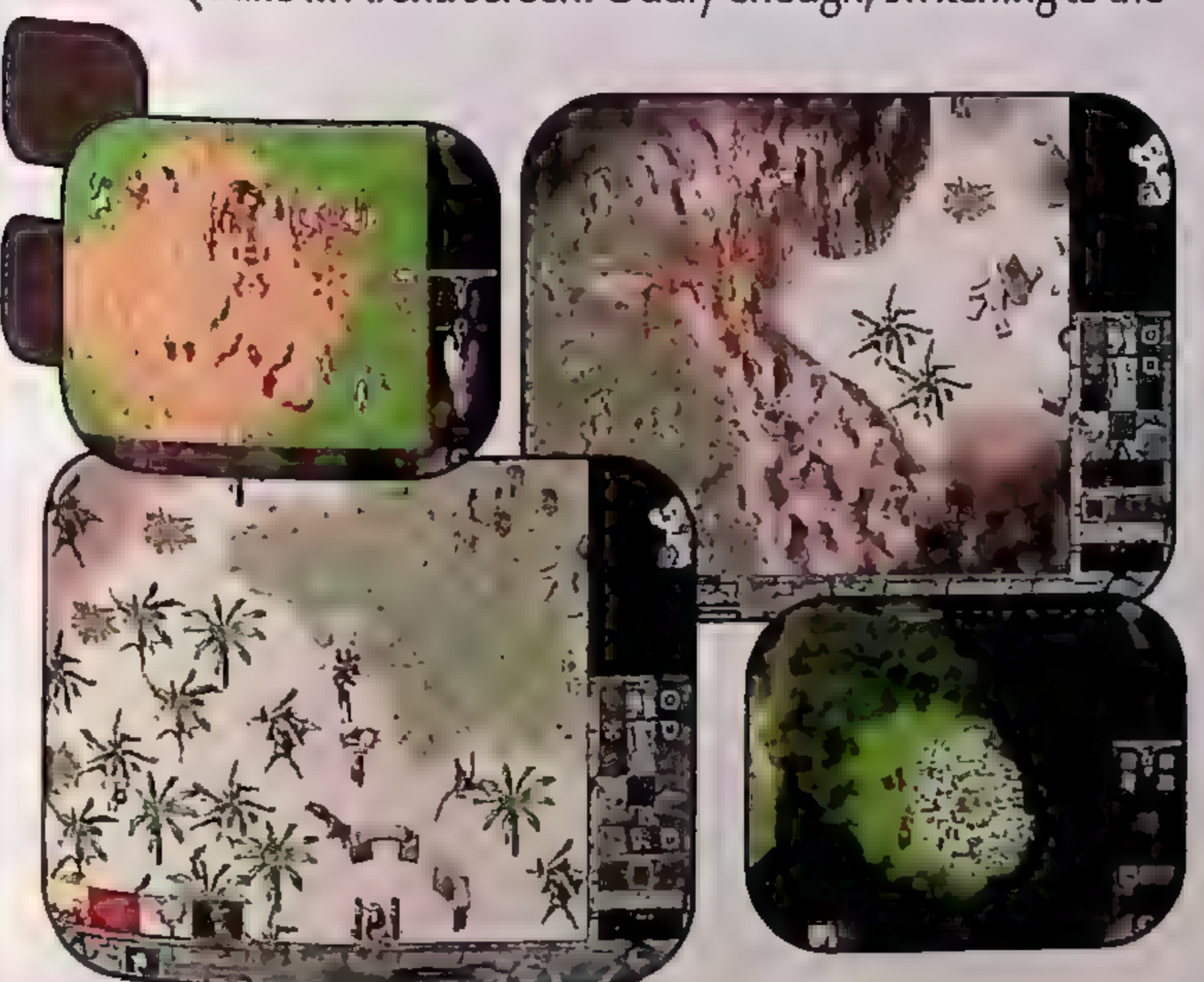
Base building and management is where Kingdoms is at its most unique. Your matriarch is



It's not a bad game; it's as playable as TA and even a tiny bit addictive, but it brings absolutely nothing new to the RTS table. In fact, it sets the genre back in some ways.

actually present, and can conjure base structures which can then be used to build armies. Kingdoms only features one resource, manna, but controlling it presents an intriguing twist. Manna replenishes itself slowly, but your matriarch can build structures called Loadstones over sacred stones, scattered throughout the various maps, to increase your maximum manna and speed up its replenishment. Unlike resources in other games, manna never runs out and it's collected automatically — you don't employ harvesters, loaders or other collection units — so even if your base gets overrun and your armies decimated, you still have a fighting chance as long as your matriarch survives.

The game is graphically beautiful, with stunning, pre-rendered 3D backgrounds and remarkable intricacy in the motion and rendering of the units. Part of the splendor seen in the units is due to the fact that the graphics engine renders the units in real-time 3D, with the help of a 3D accelerator. Unfortunately, while each of the armies look distinct, the units within them are way too similar to easily tell apart. What's more, when there are too many units on screen, the game slows to a choking crawl. Even my Pentium II 450/Voodoo 3 3000 combo was coughing up blood trying to render more than fifteen or so units at a time. As pretty as the units are, the polygon count can't possibly compare to, say, a busy Quake III Arena screen. Oddly enough, switching to the



software renderer alleviates this problem. Go figure!

The audio is adequate. The clangs and thuds of battle are clear, but 3D audio support isn't offered. The medieval, Jethro Tull-meets-Yanni soundtrack is pleasant enough if you're in to that sort of thing.

The game includes a single player campaign, skirmishes against PC opponents and, of course, multiplayer via TCP/IP connections. The campaign (called the "Adventure") spans a whopping 48 missions, the first dozen or so of which serve to introduce you to the game interface and the various units. It has two major drawbacks, though. For one, it's totally linear, and advancing to the next mission requires you to complete the one before it. Secondly, you don't simply command one of the kingdoms. You jump and skip from one to the next throughout the campaign! It's really awkward to play one side for two or three missions, throughout which you kick the crap out of one of the other factions, then suddenly switch identities and retaliate against your own actions. Four separate campaigns would have been much less jarring, and that approach would have also alleviated some of the frustration of the linear structure.

Predictably, skirmishes and multiplayer sessions are the most engaging forms of play — but even they seem stale. Kingdoms is a very basic RTS game, though, and defeating your opponents amounts to building bigger armies faster. The air units are too weak to be a major strategic factor and sea-based units are so big, it's hard to amass them for an effective offensive. In most games, you'll end up building dozens of hand-to-hand beasts with archer support units and duking it out.

The basic RTS model worked in Red Alert, Warcraft II and even Total Annihilation, but the genre has moved on. Kingdoms would have been well received a year or two ago, but today it just seems like a relic of a fading era in computer gaming. Myth II and Starcraft are better options, offering more engaging gameplay and, in the latter, truly diverse strategies.

TOTAL ANNIHILATION: KINGDOMS

Publisher
GT Interactive

Developer
Cavedog

Author
Joel Durham Jr.

Graphics 8

Sound 4

Gameplay 5

Overall 5

HIDDEN & DANGEROUS

Direct 3D
Supports resolutions up to 1024x768
Keyboard/Мouse
Мinimum Pentium 200/32 megs of RAM

Dear Dad,
Well, the second World War is under way. It's nothing like I thought it would be, though. It just doesn't seem... real.

You'd be proud of me, Pop. I'm in charge of a squad of elite men, and our function is to conduct commando operations behind enemy lines. It's dangerous and we're always outnumbered, but we're well equipped and we have surprise on our side.

We're undertaking five campaigns. There's plenty to do, but we have no say in which order we tackle them. Each campaign consists of four to six missions, and we have to complete each one before we move on to the next. It's so — what's the word? — linear.

I'm getting to see the world like you said I would, since we're conducting operations in Germany, Italy, Yugoslavia and other Nazi-infested hot spots. It's a lush and beautiful world. Everything looks gorgeous: the mountains and rivers are beautiful and even the building architecture is well done. There are a few odd things about the Eastern hemisphere, though; sometimes, when men are killed, parts of their bodies are somehow eaten up by the earth — almost like they're clipped away. It's very strange.

The sounds here are also impressive. You can hear everything from the rustle of your backpack when you crouch, to the soft crunch of your footsteps on newly fallen snow. It forces you to remember to be quiet while you're sneaking through heavily guarded areas. One strange thing about the sounds, though, Dad, there's no depth to the sounds; they all seem so... two dimensional.

I have total authority in preparing for each campaign. I can choose eight soldiers to bring along on each, out of a pool of forty. They all have different



strengths and weaknesses; some are amazingly strong, others are dead-on marksmen. I also choose our gear and I have to be careful about it. We have machine guns, submachine guns, rifles, sniper rifles, bazookas, explosives, binoculars, and tons of other stuff. I have to be wise about my selections, because the equipment I choose before we set out has to last us through the entire campaign. We can replenish our supplies by looting the Nazis we kill along the way, though.

I can take up to four guys on each mission and I outfit each one of them before we take off. I have the option to let Army Intelligence outfit them automatically, but the Army tends to make some bizarre decisions. For example, on one mission, my number one guy was requisitioned three rifles, while another soldier was only given a pistol! I guess I'd better do it myself.

Intelligence is a problem in the field, too. I don't know where the Army gets these guys, but they sure are stupid! I'm supposed to issue each of them orders, and then, as they carry them out, I'll actually run along with one of them. I can stay just behind him or, through some sort of top-secret technology, I can look through his eyes and control his actions from a first-person point of view. That's the best way to get things done, because the men don't follow orders very well. They



The voice acting isn't half bad, but the dialog seems to have been based on the worst of Mickey Spillane's novels.

shoot when I tell 'em to cease fire, they stand when I tell them to lie prone, and if I let them find their own paths when I tell them to move somewhere, they pick some really bizarre routes. I feel like I have to baby sit all of them at the same time. Eventually, I started taking one guy into each mission and controlling him the whole time — it's a lot easier that way. And get this: none of my men can swim! If they end up in deep water, they die instantly.



There are even problems when I do everything myself, though. Sometimes, the weapon just disappears from my soldier's hands! The poor guy usually ends up dead when that happens in combat. Supposedly, the powers-that-be are working on a fix for this and some other problems (maybe they'll send me some smarter soldiers!). Heck, the fix should be implemented by the time you get this letter, but it would have been better if the problems had been ironed out before the war even started.

The enemy is dumb, too. For instance, if one of my guys shoots one of them with a sniper rifle and then another Nazi comes along on a patrol, he just ignores the dead body at his feet. My boys can shoot one enemy standing right next to another one and the second one won't do anything! Even if the sound of the shots alerts more soldiers, they only react when they see my men directly. I gotta say, those Nazis are good shots. They can



pick off my men through trees when we can't even see them. In one case, one of them can shot one of my soldiers from 500 years with a pistol!

This is interesting: I can save the action when I need to get away from the fighting, Dad. I can even go back to that point if something bad happens after I save it. Isn't that amazing? I only have one slot for each mission, though, and getting back to it takes more steps than I would have expected. The Army provided a quick-save, now how about a quick-load?

Things aren't all bad, Pop. The war is actually quite a rush when we're sneaking around and getting things done. We've got to be careful, however, since this world is so dangerous. We can't just run off shooting and hope to win — I've got to plan things out and use real strategy to beat the Nazis.

We get to use anything we find, including vehicles and enemy installations. For instance, in one mission we had to commandeer a boat and ride off down a river, and in another we had to borrow a tank to blow up a canal lock. After that, we jumped into a plane and used the machineguns to defend it as we took off!

The biggest rush comes when I team up with other commanders. I can connect one-on-one with other folks by using equipment called modems and serial cables, or up to four guys can connect through protocols called IPX or TCP/IP. It would have been nice if we could skirmish against each other, but unfortunately we can only work cooperatively.

Well, Dad, in closing I'd have to say that this war isn't a bad experience, but if the Army had put a little more forethought into our operations, it could have been much better. The Allied efforts had the potential to be one of the best experiences of my life, but as it stands now, it's just a bit above average.

With love,
Joel

HIDDEN & DANGEROUS

Publisher
Talonsoft

Developer
Illusion Softworks

Author
Joel Durham Jr.

Graphics 8

Sound 7

Gameplay 6

Overall 7

F22 LIGHTNING 3

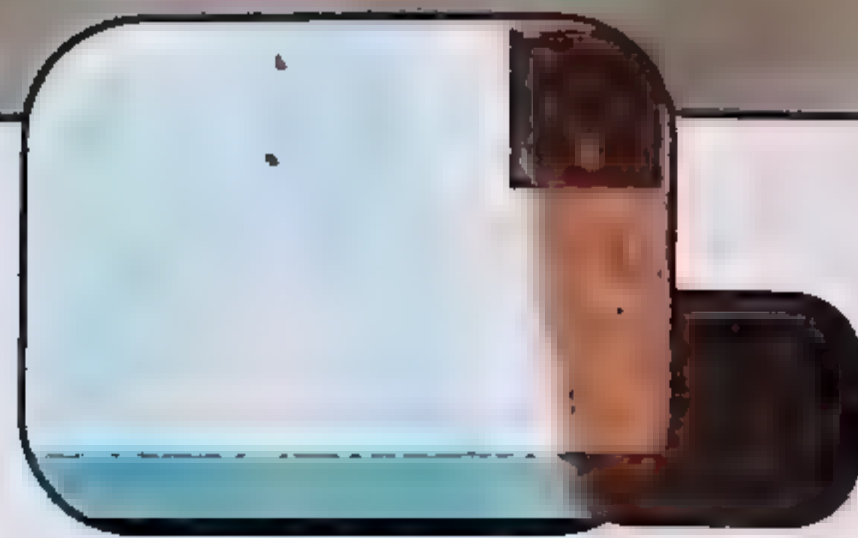
Glide, D3D
 Supports resolutions up to 1024x768
 Keyboard/Joytick/Mouse, Force Feedback
 Minimum Pentium 133/32 megs o' RAM

There are as many kinds of flight games as there are models of planes. You've got arcade blast-fests like G-Police, dazzling sci-fi shooters like Descent: Freespace and, of course, flight sims based on real, existing planes. That genre can be divided into two sub-categories: hyper-realistic simulations and realism-based games. Anal retentive sim zealots have a problem with the second category, and they're the reason that F22 Lightning 3 is receiving mixed reviews. "The flight model isn't realistic enough," they snivel. "Midair refueling isn't that easy in real F22s! The weapon systems are too simplistic! Wahhhhh!"

It's absolutely true that F22 Lightning 3 isn't the most realistic flight simulation available. It's reminiscent of games like the Jetfighter series, as opposed to hard-core sims. It may not stack up in sheer authenticity to Jane's sims or technical wonders like Falcon 4.0, but on the other hand, I was in the air and bombing the crap out of enemy targets within ten minutes of opening the box, and having a hell of a time doing it! This game takes a stand between realism and playability, and the mix is nearly perfect.

The first thing you'll notice when you climb into the virtual cockpit is the breathtaking graphical splendor. The cockpit itself is so realistic, the displays reflect off the canopy glass. Air and ground objects are rendered in exquisite detail, and look almost photo-realistic against the rolling landscapes. Score a hit and you're treated to a thrilling explosion, complete with billowing smoke and scattered shrapnel.

Unfortunately, the audio isn't as robust. NovaLogic failed to pay any heed to popular 3D sound APIs such as A3D and EAX. The sound effects themselves are fine, and the context sensitive music adds an atmospheric undercoating to the game—but



it does get a bit repetitive after awhile.

F22 Lightning 3 has a hearty single player element comprised of four wide-ranging campaigns and a quick action option. The latter contains a half-dozen tutorials that make it easy for new pilots to jump right into the action. That's a good thing, because the skimpy manual isn't much help beyond the keyboard reference spread. Maybe NovaLogic didn't want to intimidate beginners with a 400-page flight operations tome, but the included docs should offer better explanations of basic maneuvering and avionics than this game's flimsy manual does.

A 400-page work wouldn't be necessary in any case. The cockpit and weapon systems in F22-3 are so simplified that a beginner can get the plane in the air, arm a missile and down an enemy MiG without much hassle. The multifunction displays are all fixed, so there's no need to cycle through them while in flight. Similarly, radar and targeting modes configure themselves automatically when a weapon is selected. This doesn't leave more experienced pilots without options; you can disable the radar systems for a stealthier attack, for instance, and you have the choice of targeting Sidewinder missiles caged or uncaged.

The simplified nature of the game extends beyond the cockpit: F22-3 takes a more action-



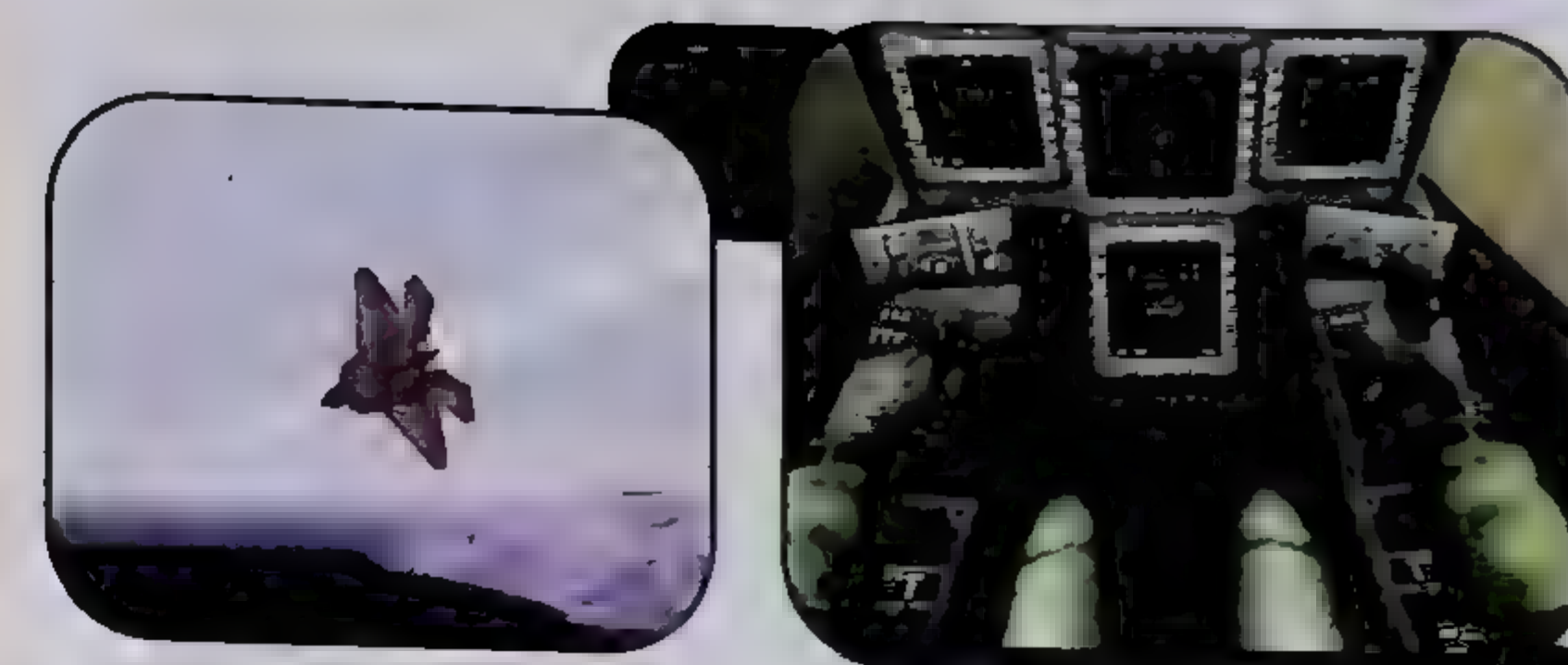
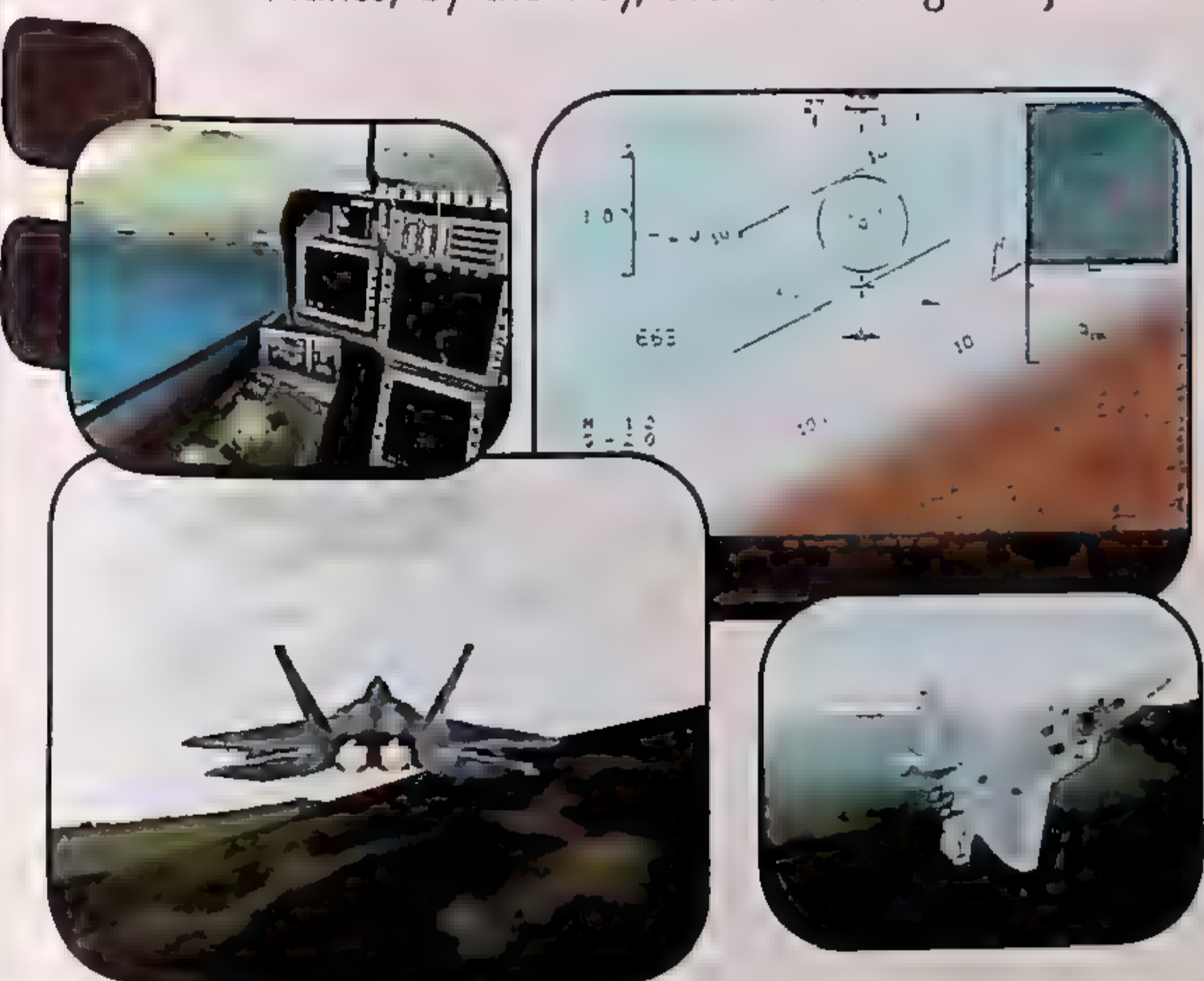
Nukes, by the way, aren't in the game just for show: they're handled in a very realistic and mature manner.

oriented approach to its gameplay than most sims do. These F22s don't seem as immune to radar detection as the Department of Defense would prefer: air and ground enemies attack you within seconds after you take off from a friendly airstrip. You'll never slip into enemy territory, deliver a payload, and haul ass back to your base undetected. In the course of a single mission, you'll probably down more enemy jets than most pilots do in a career.

Do these sound like complaints? Maybe they do to a diehard sim fan, but to casual gamers, this is all good news. The fast and furious gameplay is fabulous fun, and there's just enough realism in the flight physics to make it a challenge to dodge an enemy missile or target a guided bomb in the midst of heavy SAM activity.

Unlike most current flight sims, there's no sign of a dynamic campaign mode. All of the campaign missions are scripted. Even so, they're interesting and varied enough to keep the attention of most players. You're always accompanied by a wingman who, in a startling departure from the norm, is a capable flyer—you can actually depend on him to take out a target you assign and to cover your six when you need him to. Mission objectives include air superiority, combat air support, escorting friendly planes, destroying key targets, and delivering nuclear payloads.

Nukes, by the way, aren't in the game just for



show: they're handled in a very realistic and mature manner. You must await an authorization code as you approach the target, and if you deploy a nuke without receiving one, the mission is an automatic failure. After dropping a nuke you'd better get out, and fast—the blast front is enormous and even if you're not destroyed by that, the electromagnetic pulse can knock your plane right out of the sky!

Multiplayer F22-3 is limited to NovaLogic's free dedicated online service, NovaWorld. LAN and modem play aren't supported, which is too bad because gameplay is at its best in multiplayer sessions. To its credit, NovaWorld makes it easy to connect to massive arenas in which over 100 players can fight it out in several different scenarios. The net code is excellent, with smooth play over a 56K modem, and if you're lucky enough to have a cable connection, it's almost completely lag free. Deathmatch and team play variations are available. One of the more interesting multiplayer modes is called RAW, in which two teams try to bomb each others' airbases to smithereens.

Voice Over Net, a real-time voice interface, adds to the effectiveness of the multiplayer element. Each copy of F22 Lightning 3 comes with a microphone headset, which can be used to send amazingly clear vocal messages to teammates and enemies alike. You can selectively mute other players to silence the inevitable, immature blabbermouths.

Due to the easygoing nature of its controls and flight model, F22 Lightning 3 won't please most flight sim pundits. It will, however, find a happy audience among more casual flight sim fans. It's hampered more by the unfortunate lack of robust multiplayer support and the scripted, single-player campaigns than by its lax flight physics. Those are minor complaints, and once you're in the air and in the thick of the action that this game has to offer, they barely even seem noteworthy.

F22 LIGHTNING 3

Publisher
NovaLogic

Developer
NovaLogic

Author
Joel Durham Jr.

Graphics **9**

Sound **6**

Gameplay **8**

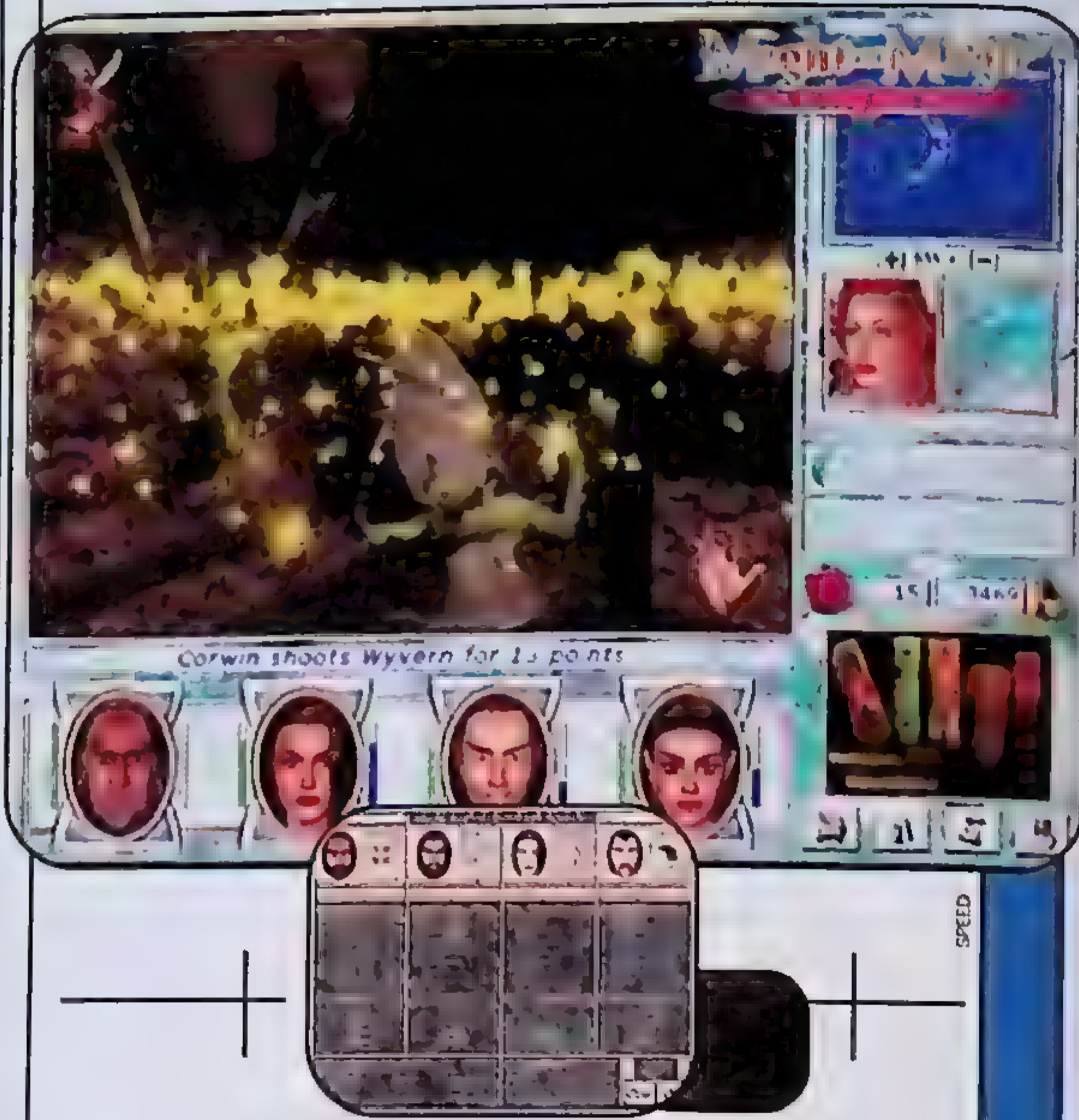
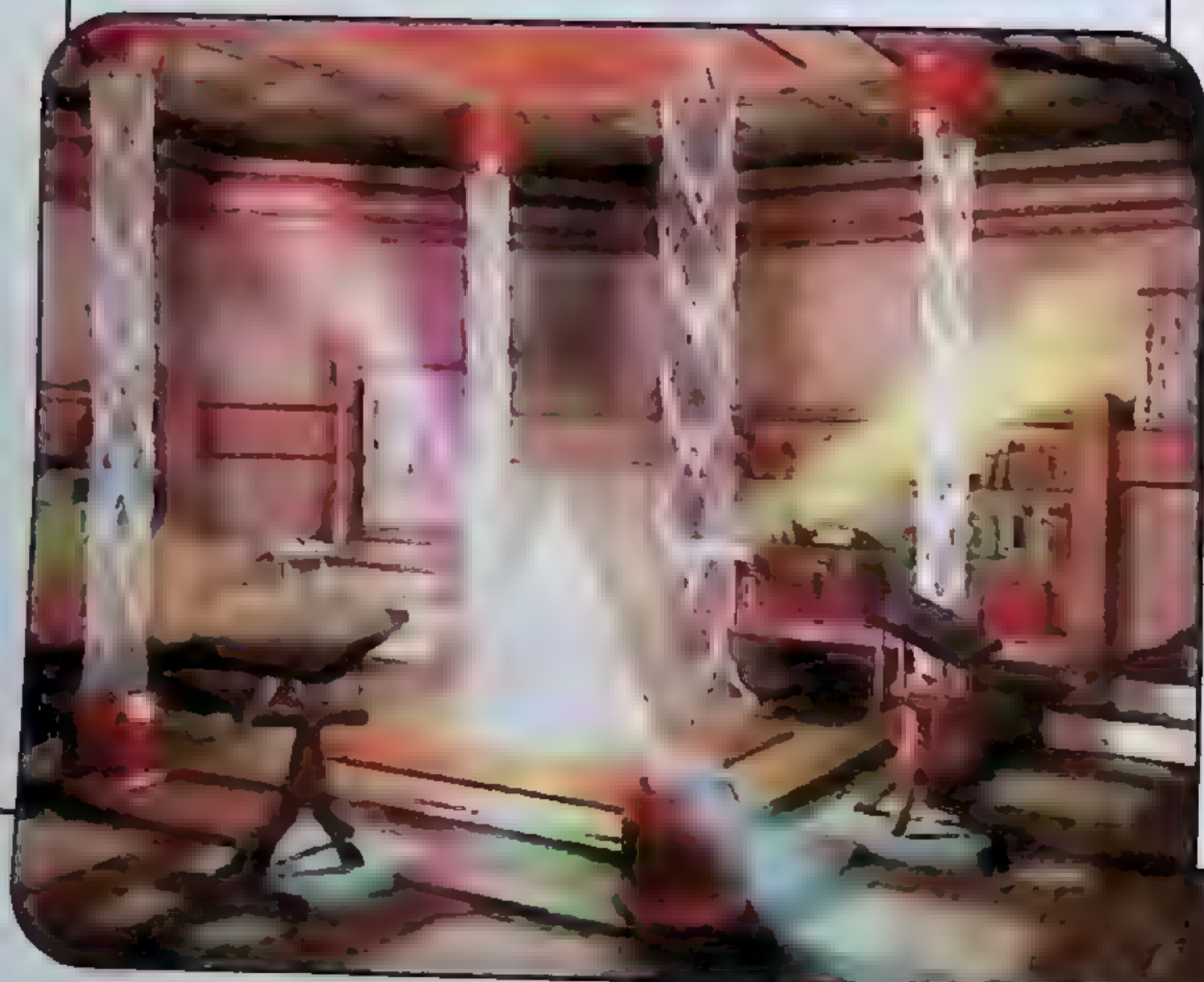
Overall **8**

NIGHT & MAGIC VII

D3D
Supports resolutions up to 640x480
Keyboard/Mouse
Minimum Pentium 133 / 32 mega o' RAM

In computer role-playing circles, few titles can be called venerable. Wizardry, Ultima (both with new incarnations on the way... some day) and New World Computing's Might & Magic series pretty much sum up the "old school". I was a great fan of the first few M&Ms, took a break, then delved into the excellent (if slightly dated) sixth incarnation and had high hopes for this, the seventh of the series. Though not disappointed, I am a bit underwhelmed by this highly playable, but somewhat rushed sequel.

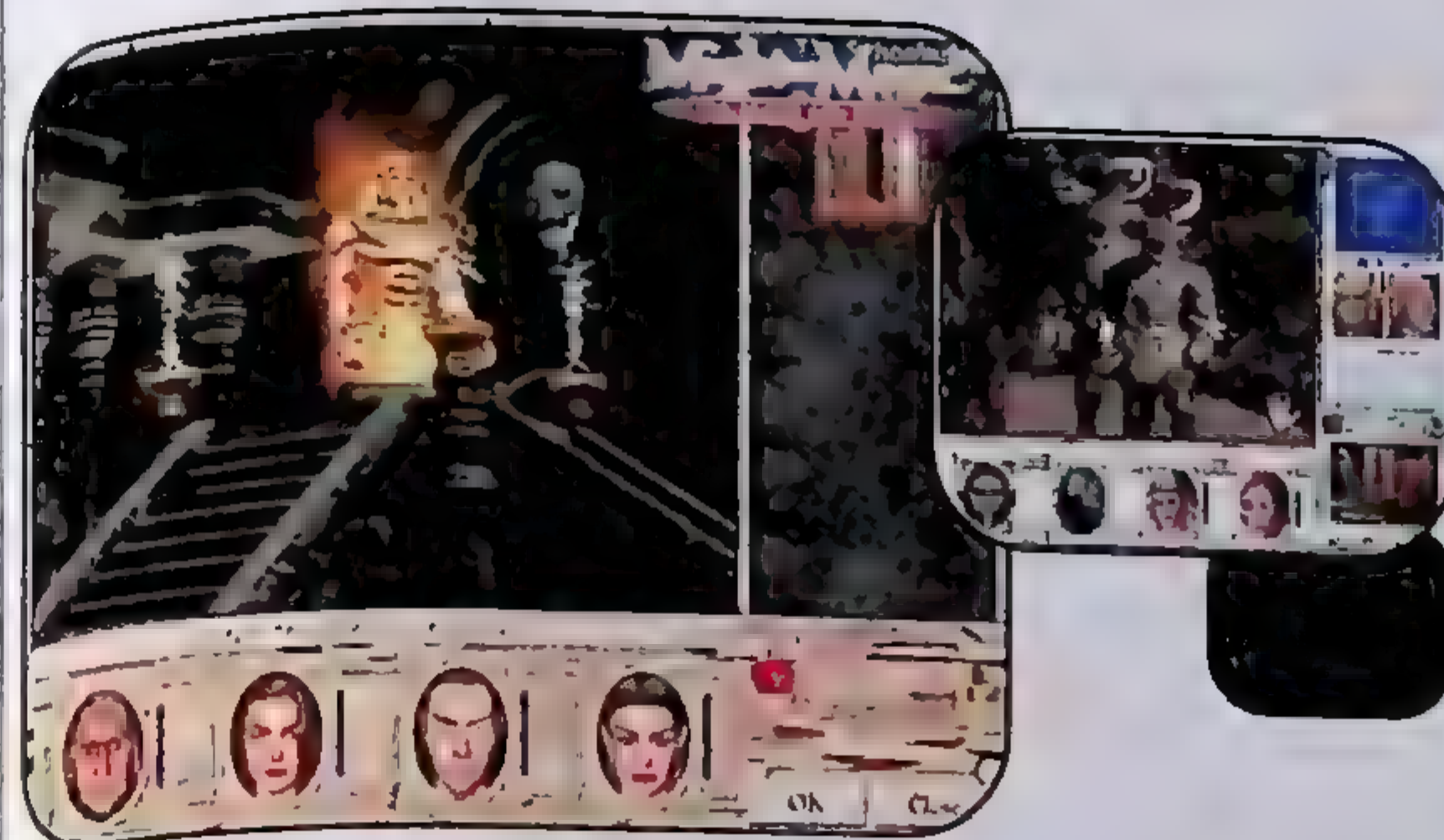
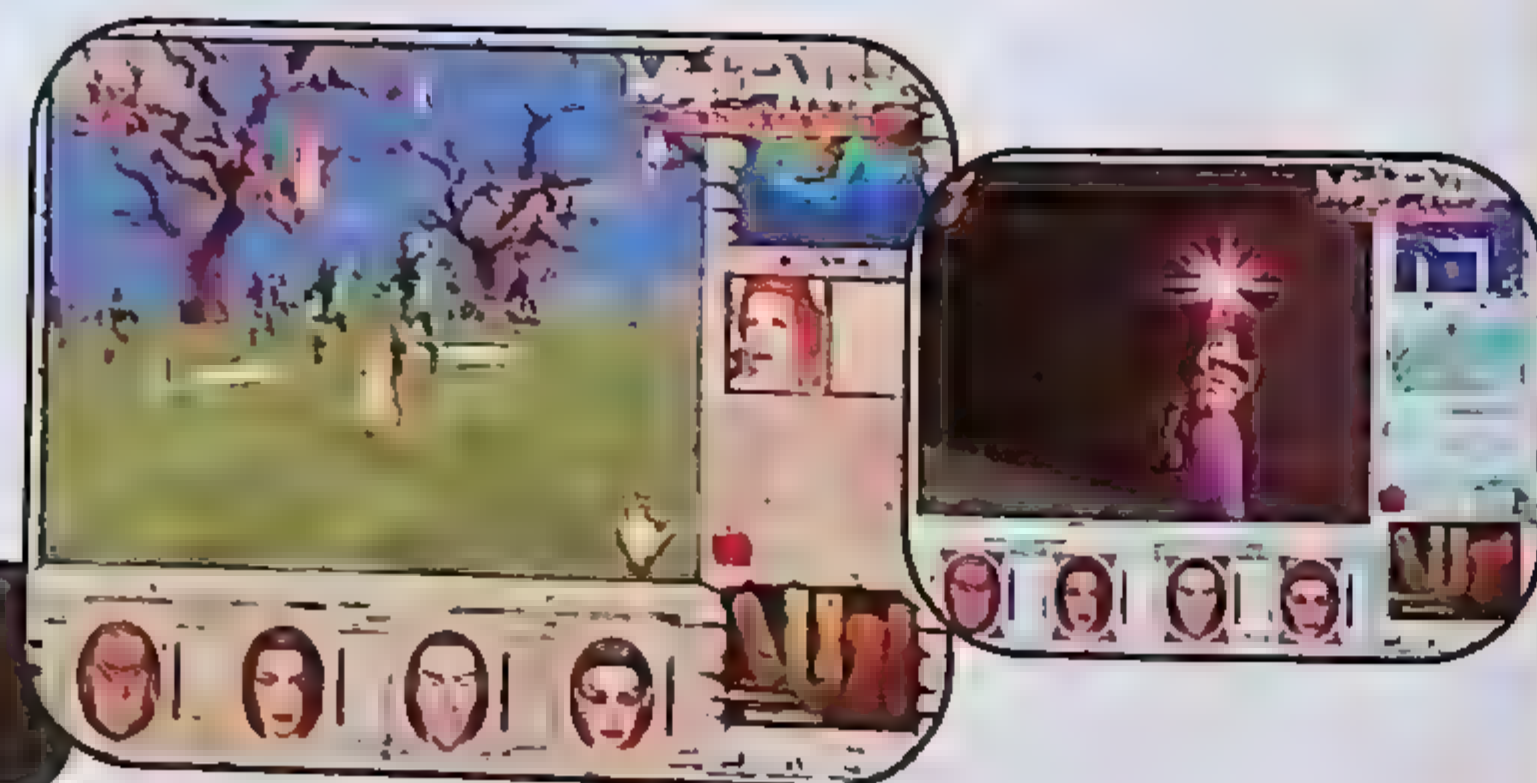
Like their exemplary turn-based strategy series, Heroes of Might & Magic, this incarnation takes us into the turbulent world of Erathia (as opposed to the Enroth setting of M&MVI). It only takes one look to see the most obvious faults, M&MVI: The Mandate of Heaven, suffered from a slightly dated engine and had a few problems. M&M VII features virtually the same engine, looking very dated now, and most of those problems weren't addressed. This is likely due to M&MVI's stunning success. After being presumed dead for a while, CRPG's enjoyed a renaissance in early 1998 and M&MVI came along at the right time to sell by the bucket load. Perhaps fearing another lapse in popularity, New World rushed this out in under a year, and we may have to wait for a possible M&M VIII to see anything really new. 'Tis a pity. Like its predecessor's M&M VII begins with character generation. Assign character attributes like might, personality, and luck to the predetermined minimums for a certain race. M&MVI removed the concept of "class" (fighter, mage, etc.) from the mix, but at least M&M VII restores that concept. You also can choose the



character portrait for the party member. The unaddressed bad points of M&MVI remain. Like the weak sound effects, the grainy graphics engine, and the virtually unreadable text messages. There are improvements to some of VI's foibles: you can now portray any race (aside from the old Half-Orc option), you'll also find the thief and monk classes back in place. The silly photo character portraits have been improved somewhat by using rendered artwork instead (but they are still a far cry from the excellent portraits seen in Baldur's Gate).

Might & Magic VI promised a 3D accelerator patch and never got one, VII features support, but it is decidedly lackluster. Don't buy this one for the visuals, folks. The portraits are grainy, the monsters are poorly animated, the textures are muddy, and even the new lighting effects and spell effects are not very spectacular.

What's so good about it? Well, they just don't make CRPG's like this anymore. M&M has become the standard bearer of the large scale RPG now that Bethesda has gone all Tomb Raidery with Redguard, Ultima: Ascension is looking more like a Mario game, and Wizardry 8 is... well, where the hell is Wizardry 8? Unlike the

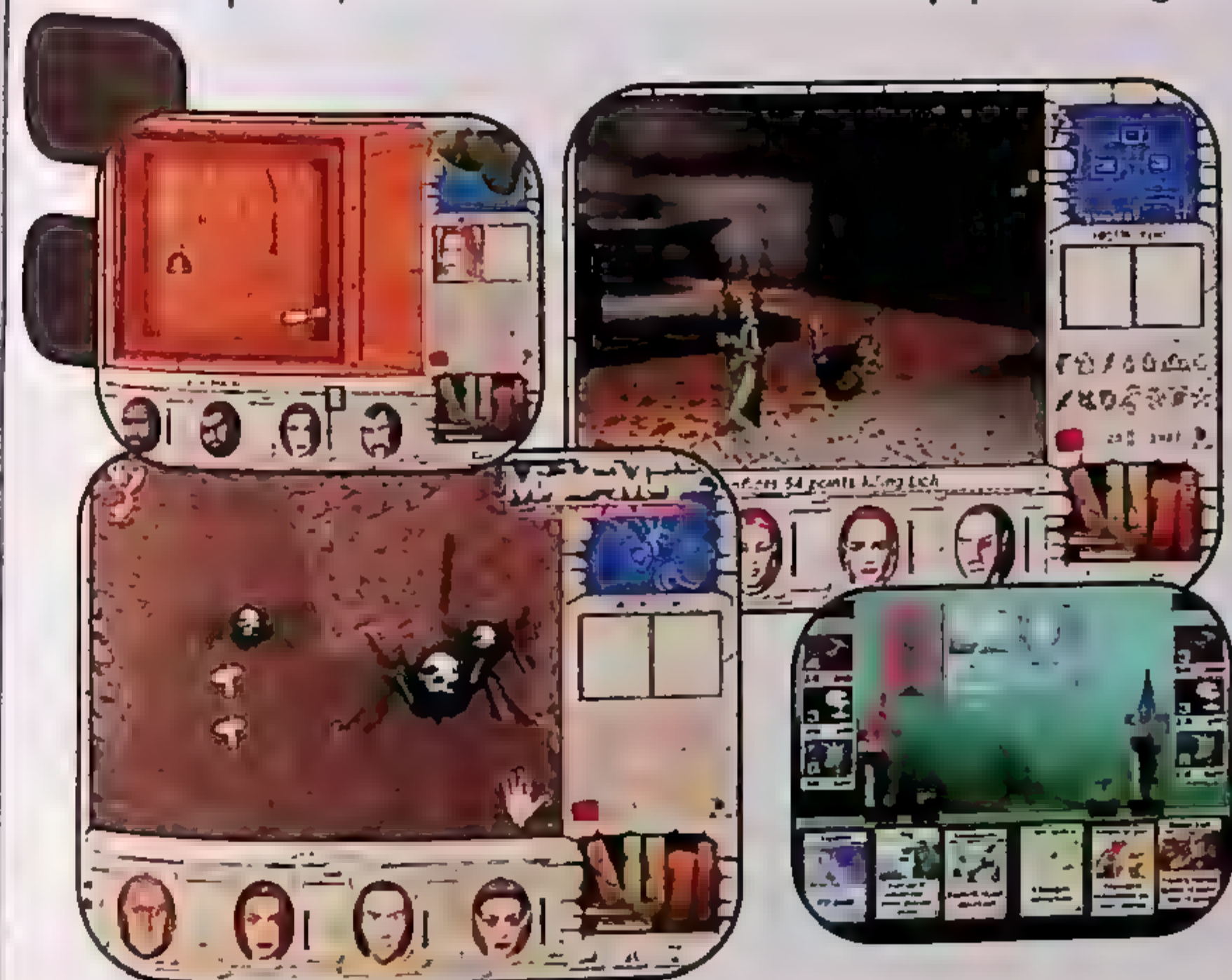
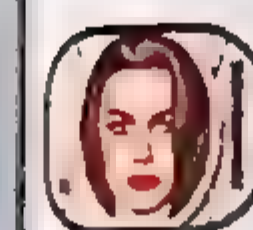


Well, they just don't make CRPG's like this anymore.

similarly rushed Lands of Lore III, M&M VII may be dated but it is still an excellent game.

The story concerns war between Erathia's Elves and Humans. Harmondale is where the tension seems most strong at the games start. The problem is that Harmondale lies in the middle of these two powers, has no leader, and is over-run by goblins and other nasty critters (like freaking huge mosquitoes). Anyway, after winning a scavenger hunt (don't ask) you find yourself ruler of Harmondale and must decide who you favor in the conflict, the humans or the pointy-eared ones. After that, the game becomes standard quest-based RPG fare until you must make another choice, this one between good and evil. These two junctures in the story make for four separate paths for you to replay if you so desire. Mainly because, as human or elf ally, good or evil, the quests, and advancements are different.

The other bonus is that the story unfolds gracefully, and keeps surprising you now and again. The personality of the game is engaging and the interface is fairly clean. While I personally found the "Scavenger Hunt" hook at the beginning to be silly and a little trite, it does serve one very useful purpose. It allows new players to learn the game at a slower pace, solving the collection of easy sub-quests, and is much better than simply showing a



cutscene where the player suddenly becomes the leader of Harmondale. As a tutorial, it is first rate, as a device... well, it is still a scavenger hunt for pitiful sake! Not the stuff of legend after all.

Also intact, maybe a little improved, is the M&MVI combat system. Turn based and real-time are optional with the touch of a key. They've also fixed the need to go into real-time to reposition combatants this time out, which is welcome. Combat, therefore, is as immediate or deliberate as you desire at that moment!

Depending entirely upon your own take on card games like Magic: the Gathering, is the worth of a small but potent mini-game within M&M VII called Arcomage. After you acquire a deck of cards in the game, you are free to while away many hours playing this card game at various taverns. Since Arcomage leads to many interesting quests within the game, learning to play is well worth your time. It is also kind of addicting, I enjoyed it for a while, often playing when I should have been adventuring... which led me to an interesting dilemma. Here I am neglecting my chores (with the wife growing crosser with each passing moment), and neglecting completing this game for review, because I am playing a game within that game!?! Anyway, nice innovation there, 3DO.

Despite all those faults (and taken together they don't quite outweigh the game's good qualities), there is much to like about Might & Magic VII. It retains the same brilliance of its predecessors, the same CRPG style that is falling by the wayside in the wake of games like Baldur's Gate, Final Fantasy VII, and of course, Diablo. If you are a fan of old school, large gaming world, endlessly replayable, epic quests... you'll realize that even a slightly improved Might & Magic is better than most of the RPG alternatives.

MIGHT & MAGIC VII

Publisher
3DO

Developer
New World Computing

Author
Andrew S. Bub

Graphics 5/10

Sound 3/10

Gameplay 7/10

Overall 7/10

NEED FOR SPEED: HIGH STAKES

D3D, Glide
Supports resolutions up to 1600x1200
Keyboard/Mouse/Joystick/Wheel/Forcefeedback, 8 player multiplayer
Minimum Pentium 166/32 megs RAM

The Need for Speed series has been a favorite for many people ever since it was introduced on the 3DO console years ago. Electronic Arts seems to have the right formula of realistic thrills and arcade fun that gets better and better with each NFS title. Last year's Need for Speed 3: Hot Pursuit pushed the series over the edge with incredible Voodoo-accelerated graphics, great cars, wild courses, and best of all, multiple modes of racing. In a stroke of genius (or more likely, first-hand experience) the developers introduced the "Hot Pursuit" mode, which adds a radar detector to the races. If you get caught going too fast while the cops are watching, be prepared to outrun them or get pulled over and issued a speeding ticket. This mode is great fun and surprisingly it's even fun to play as the cops handing out the speeding tickets!

The fourth game in this great series is Need For Speed: High Stakes (EA is dropping the numbers in the titles). While High Stakes doesn't revolutionize the racing genre as Hot Pursuit did last year, it tweaks the game in both graphics, sound, and racing and adds another brilliant mode to the mix, "High Stakes." You think you're the fastest racer around? Are you willing to put your own automobile on the line in a test to find out if that's true?

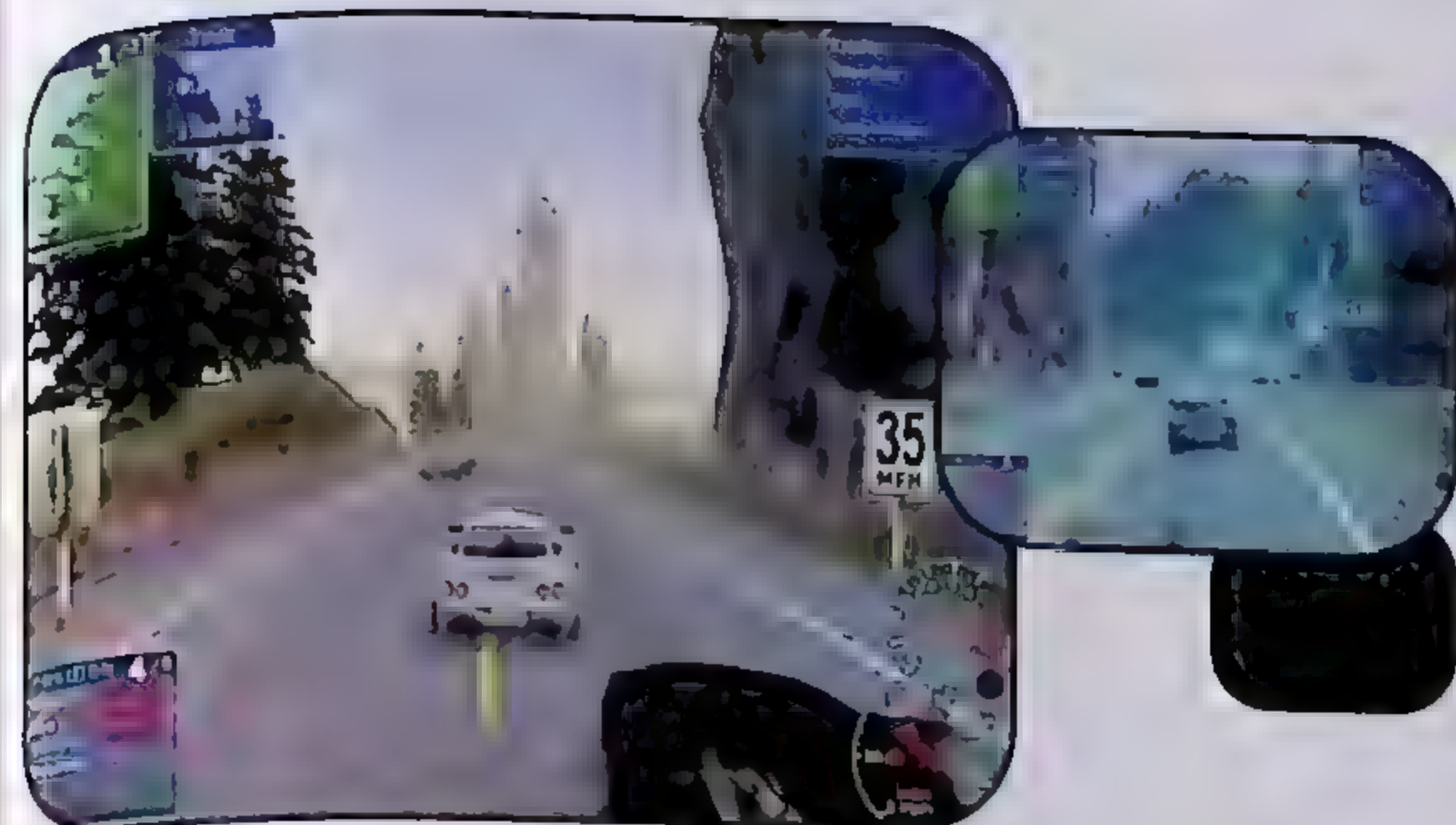
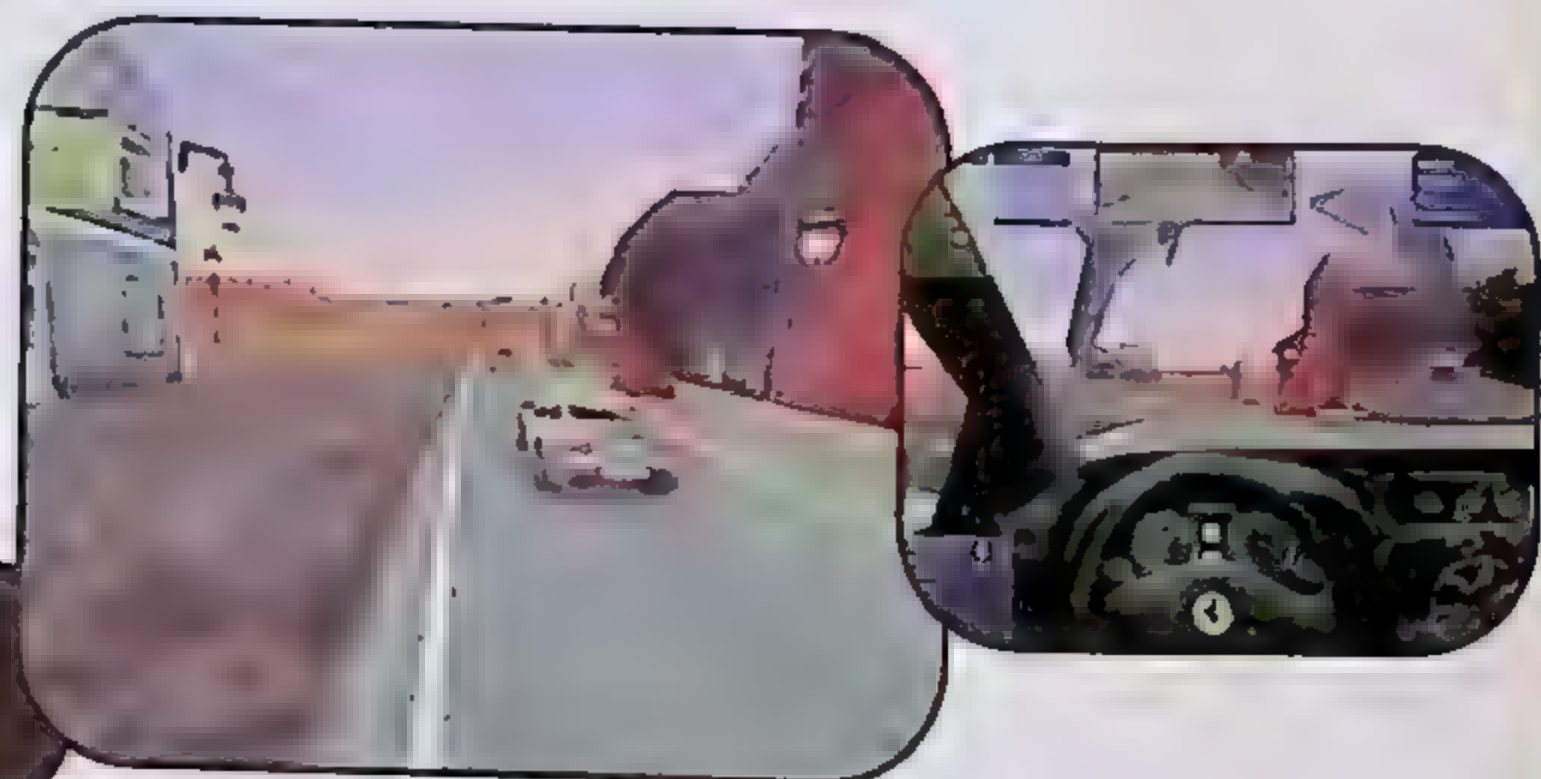
The game controls like just about every other racing title, which is a good thing. The standard racing wheel, joystick, or (*gasp*) keyboard controls apply. Here's a gaming tip: a PC racing wheel is the coolest and most realistic way to control driving games, but use a joystick for the most accurate control, and for the love of Pete,



forget steering with a keyboard! Other controls include camera options, maps, headlights, horn (or siren in pursuit mode) and, thankfully, a reset button. Ok, I'm ashamed to admit it but I like using the reset button after a nasty wreck. Sure it's not the most realistic thing in the world (if only real life had a reset button...) and in advanced races you might as well forfeit, but this is where the NFS series shines. It combines the right amount of sim with a good dose of arcade racing.

The racing "feel" of the cars has improved over the last NFS game, with a more realistic and controllable powerslide. Fans of the series will feel their steering is a little "off" at first, but once you take a few moments to get used to it, you'll realize the physics have greatly improved over Hot Pursuit. The game starts with 18 high-tech, high-design cars from manufacturers such as BMW, Ferrari, Mercedes and more (and if that isn't enough, there's more to be downloaded at www.needforspeed.com). This game makes a nice distinction between a \$20,000 and a \$200,000 car. The \$20k cars handle well and are more stable, but are slower and lack the whiplash acceleration of the high-end cars.

Electronic Arts has progressed the game in



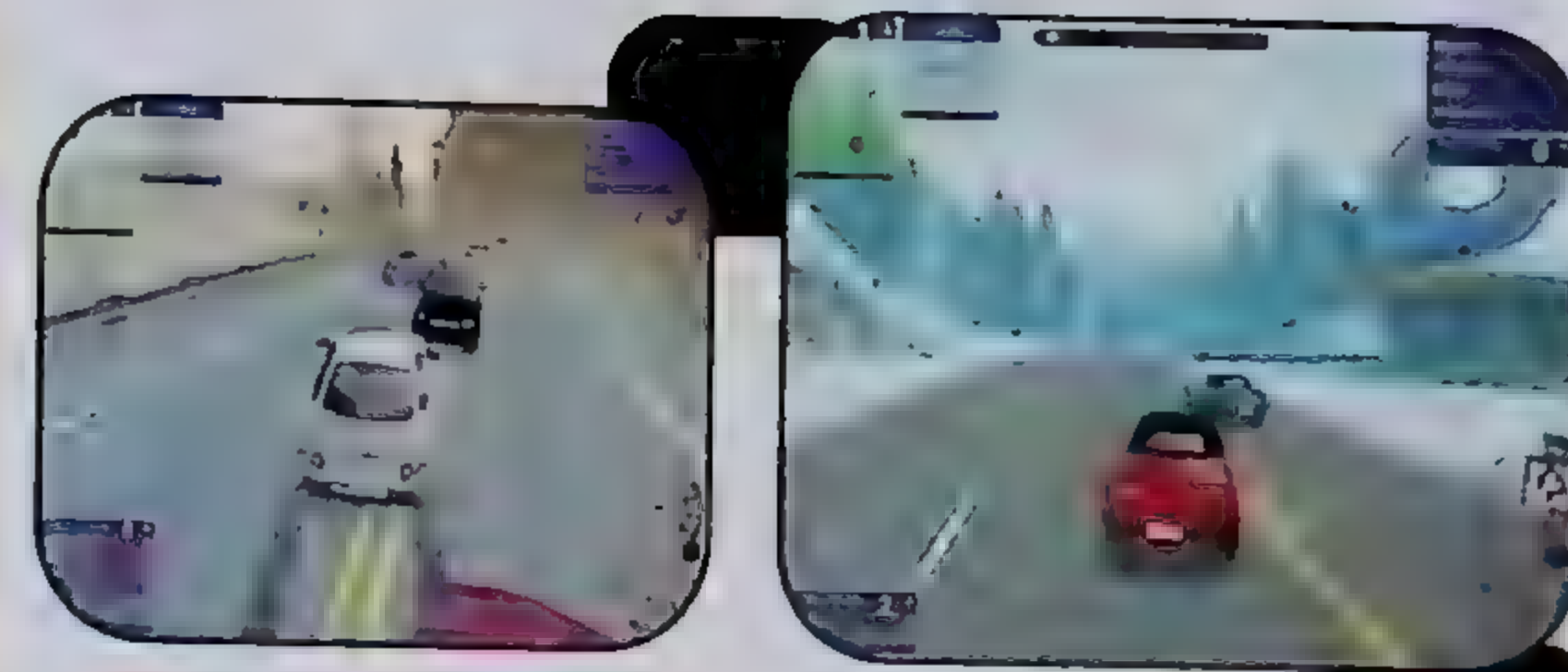
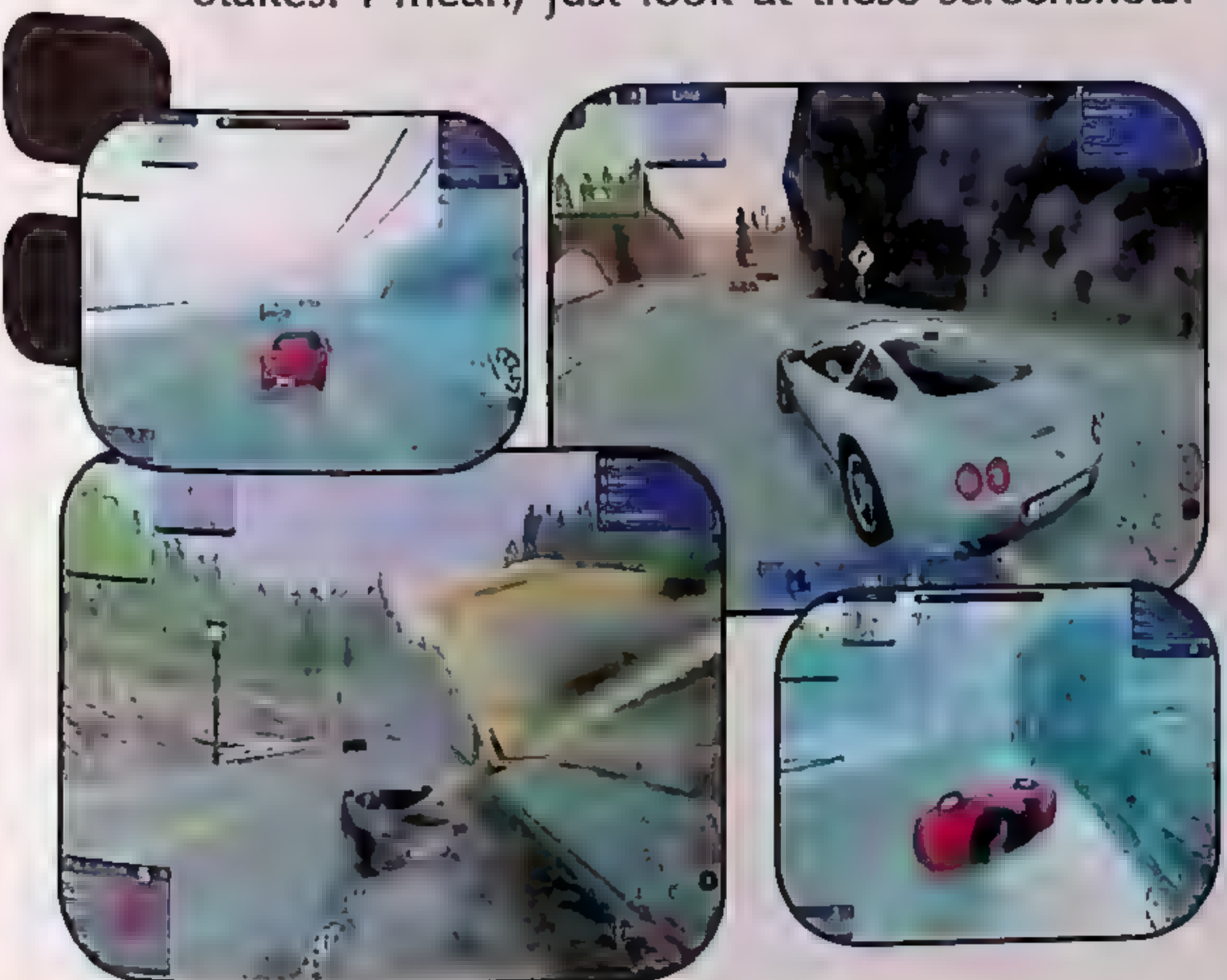
Keep your eyes on the road and your hands upon the joystick at all times.

other areas as well. The cars now have a true working 3D cockpit, not just an overlay of a dashboard. This means the cockpit seems to be slightly independent from the driver, giving more of the feeling of being "in the car." Also, in the exterior camera mode, the drivers are visible inside the cars and are even steering! Another nice feature is damage to the vehicles. This plays into the game as well—the more reckless you are with the car, the more of your earnings you'll have to use to get it fixed. So the next time you want to knock into that road hog, you might want to consider your bank account.



Playing modes have been modified for this game beyond those available in previous NFS games. The Hot Pursuit mode has returned from the previous game (complete with helicopter surveillance), but the career mode is a great addition. A career starts with a small amount of cash, which forces the purchase of a low-end car. The goal is to buy a position in various races, tournaments, knockouts, and "High Stakes" (one-on-one winner-takes-all races, including the pink slip) to win more money for a better car. Loose the race or spend too much money repairing the low-end car and you won't travel very far in your career.

Graphically, it doesn't get any better than High Stakes. I mean, just look at these screenshots!



Awesome reflections on the cars, gorgeous scenery, great weather effects and visual goodies all over the place. The pockets of fog are especially attractive and add to the immersion level. Traveling through a forest will reveal sunlight streaming through the trees. Rounding a corner might reveal a hot air balloon on a nice day, or a subtle rainbow near a waterfall. In fact, I think the programmers try these little tricks to distract you in an effort to cause an accident. Remember to keep your eyes on the road and your hands upon the joystick at all times.

The graphics are the current state of the art, and the audio is no slouch either. If you have a SoundBlaster Live! card with 4 speakers, expect to be in audio nirvana. Thrill to the sounds of realistic engines, gut-wrenching crunches, thunder, drips on the windshield and a lot more. The EAX support really shines—I find myself honking the horn when driving through a tunnel to listen to the echo, just like in real life! The techno music works well too; some tunes are carried over from Hot Pursuit, plus many new ones.

If you like racing games that aren't too close to a hard sim, but still manage to give you a feeling of realism, then consider Need For Speed: High Stakes a must-buy. One warning though: this is a next generation game and it requires a next generation computer to play it full-tilt. If you have an older Pentium or Pentium II, be prepared to turn the visual features down to achieve a reasonable frame rate. Hot-rod Pentium IIIs with a Voodoo 3 are the best option and make sure to have the latest drivers from 3dfx. High Stakes may not seem like a complete overhaul from last year's Hot Pursuit masterpiece, but the addition of the career mode and the fine tuning of graphics, sound and physics make this version well worth checking out.

NEED FOR SPEED: HIGH STAKES

Publisher
Electronic Arts

Developer
Electronic Arts

Author
Dave Whittle

Graphics 4

Sound 4

Gameplay 8

Overall 8

FLY!

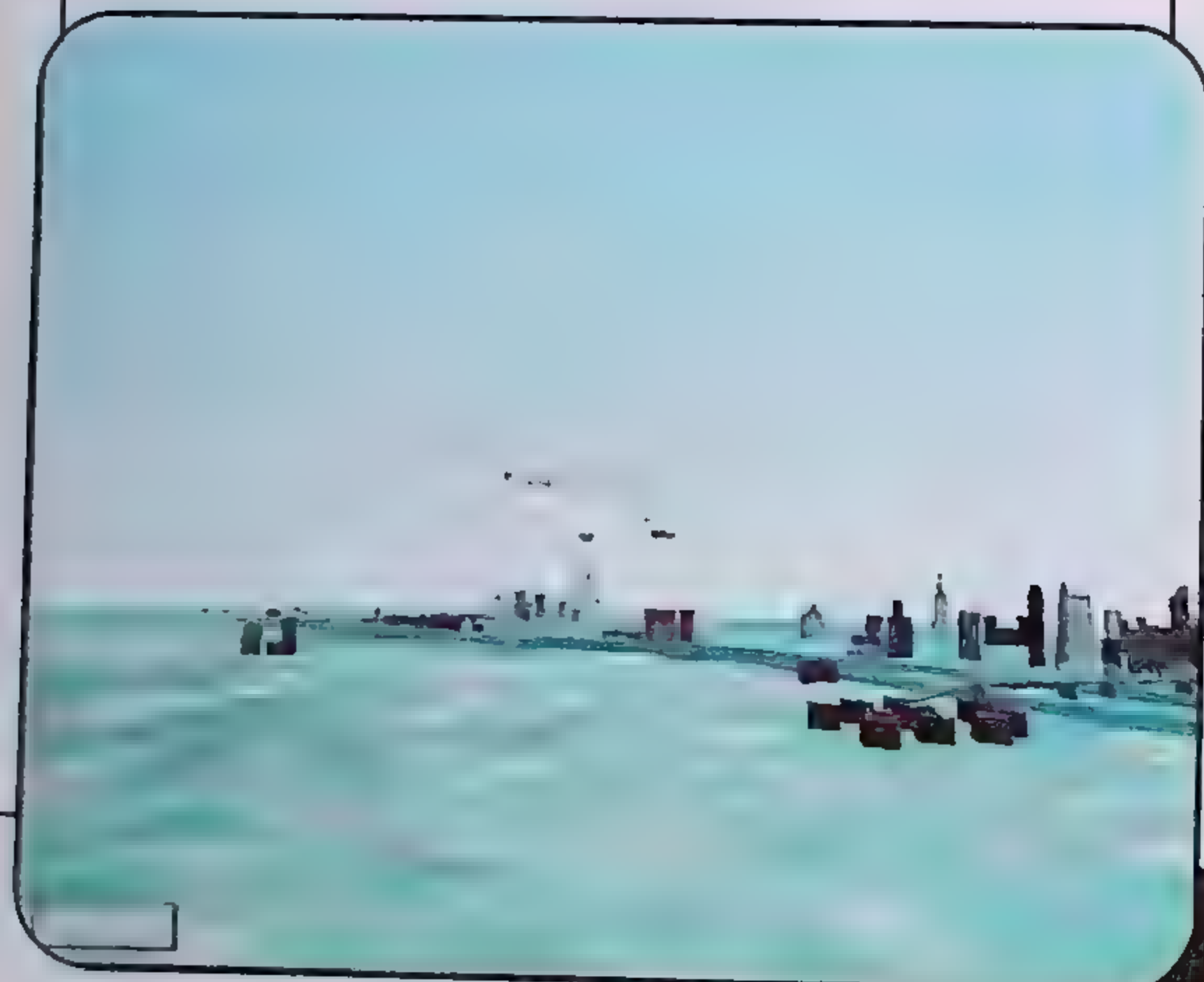
D3D, Glide
Supports resolutions up to 1024x768
Keyboard/Joytick/Rudder pedals/Force feedback
Minimum Pentium 133/32 megs of RAM

I could tell immediately upon opening the box that Fly! isn't your average flight simulator. This monster takes up three CDs and if you choose install everything it has to offer, it'll eat up a whopping 1.6 gigs of hard drive space! That's not a bad thing, though; the install can be as small as 400MB since the rest of the space is occupied by terrain and scenery information which you can add and remove as needed. The package includes detailed scenery for five major cities and basic, flat satellite textures for the entire world.

I've always taken a casual interest in flight, even to the point of looking into taking lessons. I've played Sierra's Pro Pilot series, Microsoft's Flight Simulator series and the Flight Unlimited series, all of which are fantastic, but I've never before felt like I've truly learned as much about real flying as I have while partaking in Fly!

The outstanding level of quality is apparent through every aspect of this program (I hesitate to call it a game). It starts with the manual itself: though its 286-page thickness may overwhelm some gamers, the tome is written in a friendly, accessible voice and is often as entertaining as any good read. Software developers take note: if every manual were as well written as this one, people wouldn't complain about inadequate documentation ever again.

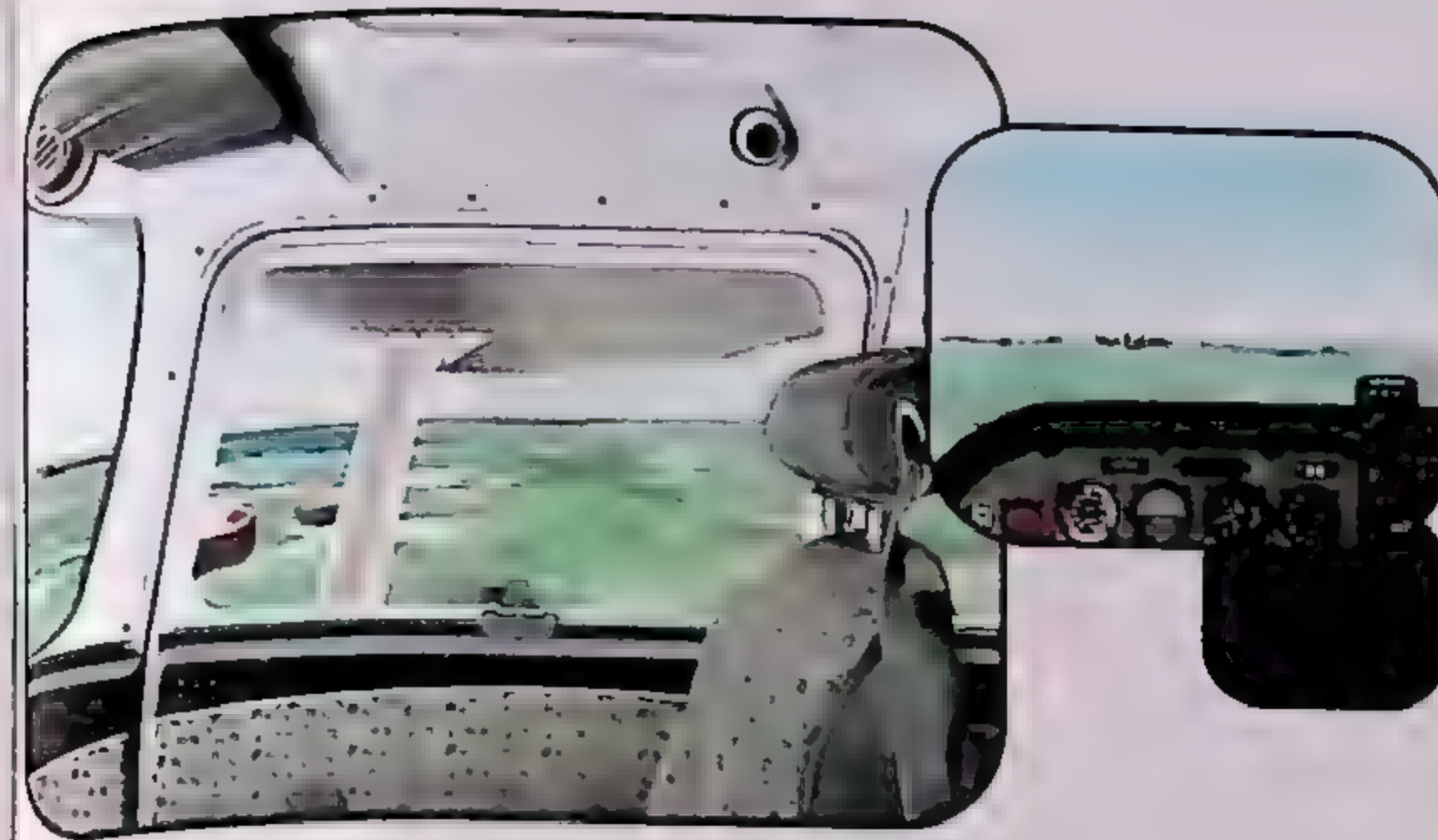
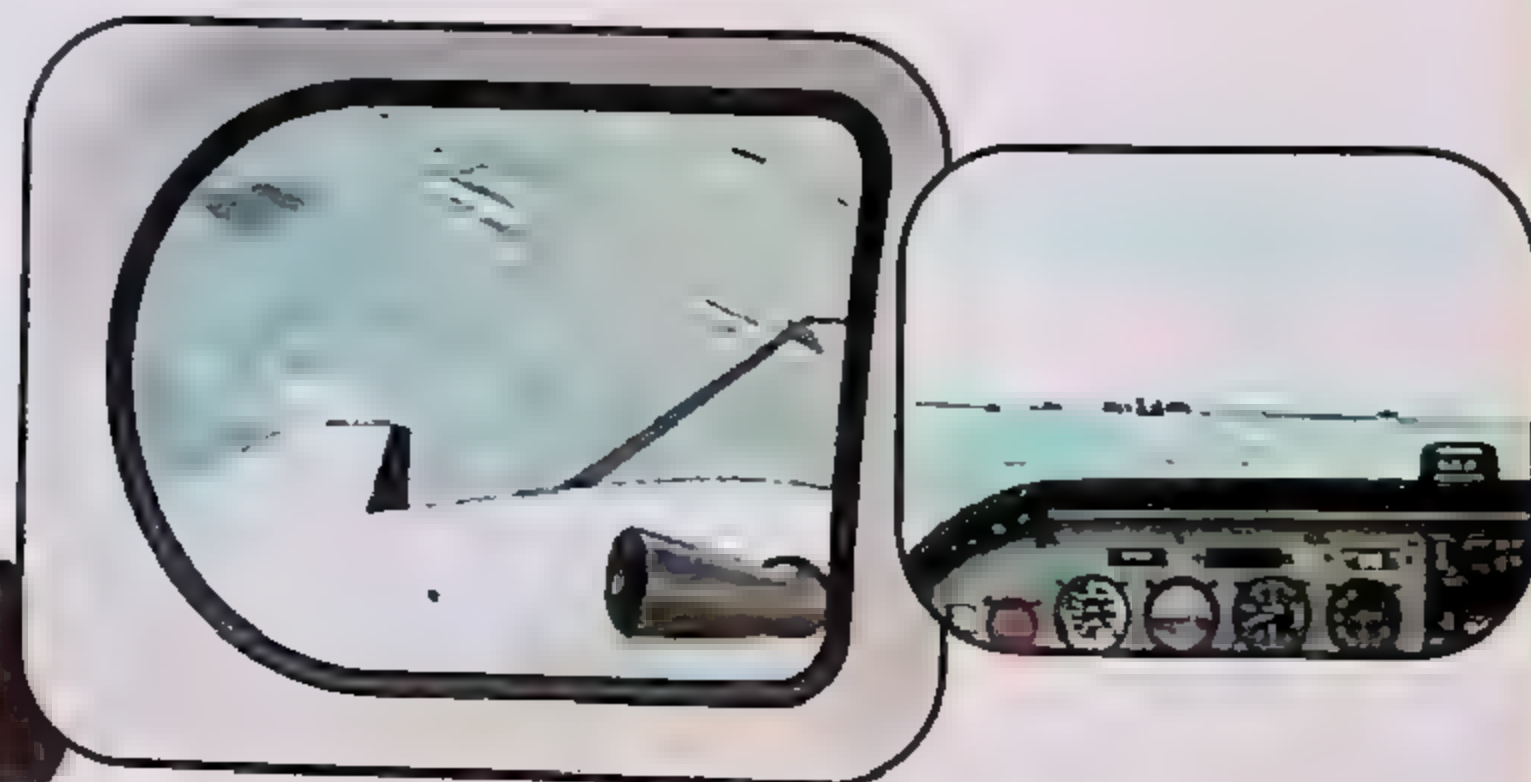
The book introduces you first to Fly!'s interface and then to the five civilian planes that are available within the title. The interface is incredibly well constructed; graphical buttons and pull-down menus allow you to customize everything about the game within minutes. Besides choosing your aircraft, you can tweak the level of realism, choose departure and destination airports (out of thousands



worldwide) and set display, sound, and other system options, including the view distance and the amount of system RAM used for terrain caching. Every software title on the market should offer this level of control in such a simple interface.

When you're finally ready to take off, you're in for an immersive experience. Casual fliers be warned: this is not an action oriented game. The planes in Fly! are designed for flight school and basic transportation. You won't be doing any stunt flying, racing, shooting, bombing or anything of that nature. If you want to hop into a plane and practice your Split-S and your Immelman maneuvers, you've come to the wrong flight sim. What you will be partaking in is rich, realistic flight in planes accessible to everyday people. You don't have to join the Air Force or work for TWA to fly these birds; all you have to do is enroll in a flight school.

Whether or not you actually plan to take pilot lessons, Fly! will teach you quite a bit about the ins and outs of heavier-than-air travel. The aforementioned manual explains flight dynamics better than any other source in which I've encountered the subject. Each plane is discussed in detail starting with the Cessna 172R — the plane most often used for flight instruction — and moving

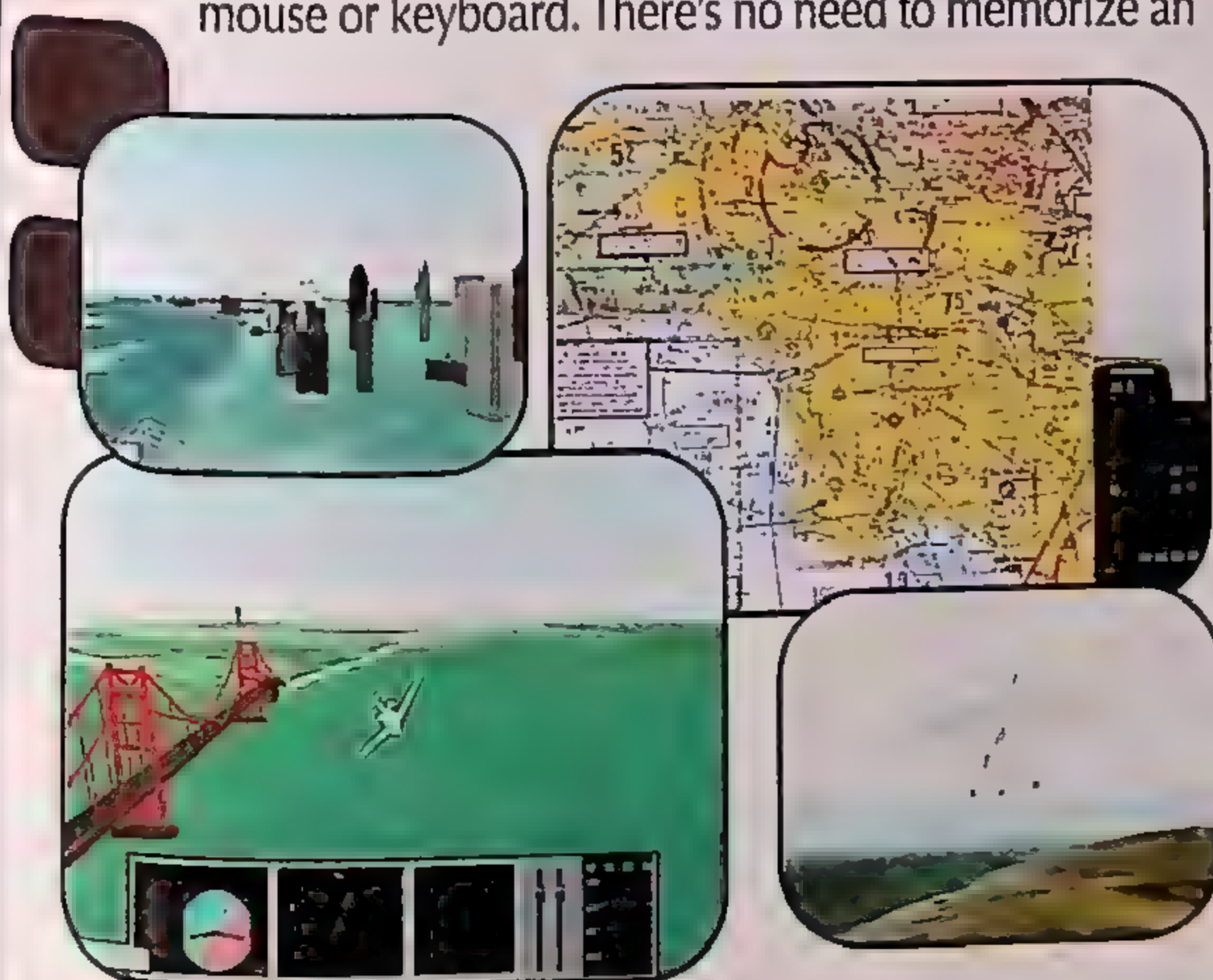


I've never before felt like I've truly learned as much about real flying as I have while partaking in Fly!

through to the more powerful, single-engine Piper Malibu Mirage, the twin engine Piper Malibu Chieftain, the turbine powered Beach King Air 2000 and the Hawker 800 XP jet. You're guided through the preflight checklist and then the lengthy task of powering up the plane. In an extra-loving bit of detail, you have the option of letting the computer start the plane for you in one of two ways: a quick start option, which gets the plane up and running instantly and a realistic start option, which lets you watch the computer perform each of the necessary steps.

The manual then takes you through liftoff and maneuvering. Basic, intermediate and advanced instruction is offered for each of the planes, covering every aspect of flight: simple climbing and descending, banking and turning, recovering from stalls and spins, normal landing, emergency landing, serving little packets of peanuts and so on. You're taught visual and instrument-only flight and advanced navigation using ILS and GPS instrumentation. When you get through all of the lessons in Fly!'s manual, you'll be able to pick two airports anywhere in the world and conduct a realistic flight from one to another.

The sprawling cockpits in Fly! are as realistic as a computer screen and 3D accelerator can make them. They're too big to fit entirely on the display and remain legible, so you actually have to scroll around with the mouse or keyboard. There's no need to memorize an



array of keyboard shortcuts if you learn the locations of the controls. You can "grab" and adjust them graphically with the mouse.

The flight model is incredible. You feel every bit of the Bernoulli Effect in responsive, predictable detail. Wind shear, propeller torque and other effects are replicated faithfully. It also should be noted that Fly!'s force feedback support is outstanding. Both the Microsoft SideWinder Force Feedback Pro and the Logitech WingMan Force responded with quick and helpful tactile feedback.

As friendly and complete as the manual is, it would have been nice if a few online tutorials had been included with the game. It seems like it would have been easy enough to include them among the plethora of scenarios that are included.

Besides the lack of real-time tutorials, the major disappointment with Fly! is the graphical representation of the world. If you're looking for a Microsoft Flight Simulator-type experience, in which you cruise around to look at the scenery, you may be disappointed. The landscape, though modeled with painstaking, satellite assisted accuracy, is filtered to the point of being blurry when viewed from low altitudes. Buildings, bridges and other polygonal scenery details are reminiscent of the blocky, gouraud-shaded objects of old flight sims, and they jut upward from the fuzzy ground in jarringly unrealistic manner. What's more, Fly! is a system hog. I had to turn off ground object shadows and lower the view distance to bring the frame rates to an acceptable level on my P2-450.

For a sim this realistic, those nags are inconsequential. If you want to do loops around the Golden Gate Bridge, barnstorm the Eiffel Tower or shoot down bogeys, you should look elsewhere — Fly! isn't about that. It's about piloting real planes in the real world, and to that end it soars past every other flight sim on the market.

FLY!

Publisher
Gathering o' Devguys

Developer
Terminal Reality

Author
Joel Durham Jr.

Graphics 7

Sound 9

Gameplay 9

Overall 9

JEFF GORDON XS RACING

D3D, Glide
Resolutions up to 640x480
Mouse/Keyboard/Joystick/Wheel/Force Feedback
Minimum Pentium 166, 16 mega o' RAM

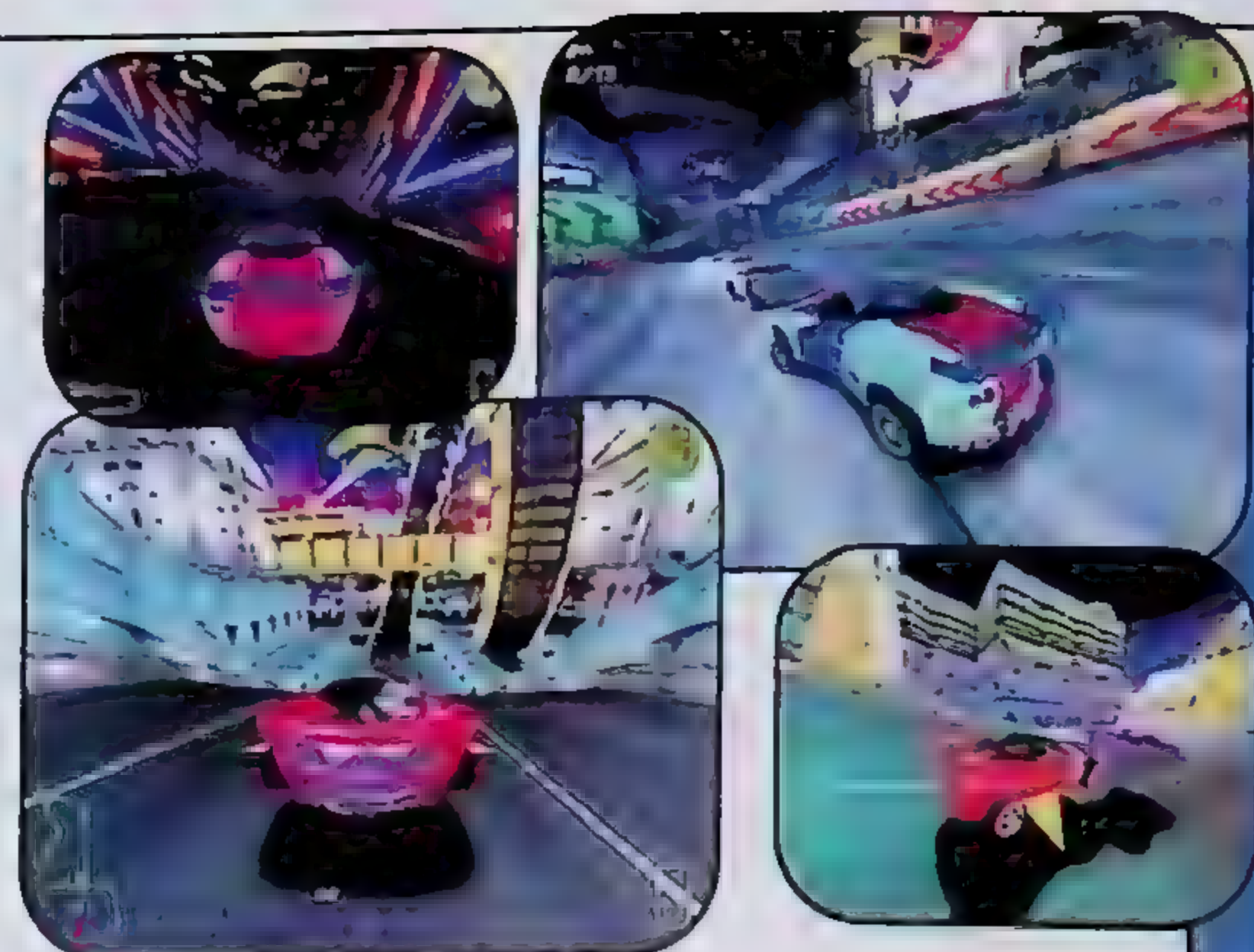
"Ever since I was a kid, I've been racing cars and playing video games. XS Racing combines two of my favorite passions in one awesome experience." -Jeff Gordon, from the opening video.

So speaks young Jeff Gordon, professional NASCAR driver. The above quote leads you to think you're in for something really special with Jeff Gordon XS Racing from ASC Games (a company best known for Grand Theft Auto). Add to that ASC's claim that this game represents what racing will be like in the future and one thought comes to mind... these guys have been playing way too many second rate console racing games (by "second rate" we automatically exclude Grand Turismo and the Need for Speed series).

I'm guessing Jeff Gordon has never played any of the racing sims for the PC or any of the better PC and console arcade racers. If this is really the game he wanted to make, well... he shouldn't be making games. XS Racing is basically pedal to the metal, high speed, colorful, unrealistic and decidedly mediocre arcade racing, oozing slimy corporate sponsorship.

If, as ASC claims on the box, this is "the future of racing," then we must conclude that physics and realism (even by arcade standards) won't exist in the future, but that Pepsi, 7-11, and Fritos are dominant forces. The game is slathered with corporate logos. Sure, real world racing is just as commercial, but we don't need it in a racing game that doesn't even pretend to be a sim. Point is, it's just annoying. With all that corporate money lying around, why isn't ASC passing the savings onto the consumer?

Hey, I can play too! Listen up corporations: munch on those Fritos and guzzle that Pepsi you just bought from 7-11, it's time to talk about the rest of this game. I've wracked my brain trying to come up with something good, because I figure those corporations won't send me any cash if I complain all the way through this sponsored paragraph... okay, got it: the track design and layout are very inventive. Numerous jumps, a few shortcuts, high-speed hairpins and a few tracks have some really cool twists. The Hot Wheels-inspired loop-de-loop is fantastic fun, as



is the Fun House/Turbo boost pad shortcut on the Carnival track. You even get to ride straight up a ninety degree angle on one track! The racetracks, however, aren't where the problems lie.

The first problem is the graphics. Sure, they look great on first glance. But the maximum resolution is 640x480! Colors are not used on the tracks so much as they are abused. The colored lighting effects are reminiscent of a four-year-old's fingerpainted masterpiece. When you go airborne, wings sprout out of your car... really. Sounds cool, but looks damn silly to me. Also, while fully 3D, the cars, both yours and your rivals', aren't as articulated as Midtown Madness or NFS: High Stakes. They look like solid, car-shaped blobs that glide, rather than roll, down the track. Did I mention you can have your car emblazoned with corporate logos as well?

No multiplayer options at all. Silch. None. 'nuff said.

Jeff Gordon himself appears before each career race to discuss the track and offer a few wise "professional" tips. Jeff seems only to be there so you can see the logos on his jacket and so that you might think the game actually needs tips. There is an overall feeling of trying to lend the game more seriousness than it is capable of. It's even worse in the well put together strategy videos that also feature Gordon. Everything a serious racing simmer would be interested in learning from a pro is here, but after listening to him and watching the videos, I just wanted to go play Need for Speed or Grand Prix Legends instead. You know...so I could use that advice on an applicable game.

Jeff Gordon XS Racing doesn't live up to the prowess of Mr. Gordon himself. Arcade fans likely have never heard of him and Gordon fans will be very disappointed with this game. It's a below-average racer that plays more like an interactive commercial than a serious contender for the arcade-racing throne. Place this one towards the bottom of the arcade heap, somewhere just below Motorhead, but well above Test Drive 5 and Boss Rally.

JEFF GORDON XS RACING

Publisher ASC Games	Graphics 7
Developer Real Sports	Sound 7
Author Andrew S. Bub	Gameplay 5
	Overall 5

SKYDIVE!

D3D/Glide
Supports resolutions up to 1600x1200
Keyboard/Mouse
Minimum Pentium 200 w/ 32 mega o' RAM

So it's come to this. The growing backlash against insanely complicated flight simulations has spawned a flight simulation for people who don't even want to be bothered with an airplane. In Skydive! YOU are the airplane, except that, like Monty Python's deluded-sheep-in-the-trees, you don't so much fly as plummet. Now, jumping joyfully from a perfectly good aircraft is not generally considered a rational act, and while the U.S. Army's 101st Airborne Division makes good use of this madness in wartime, there's no compelling reason for Joe Civilian to do it other than to reaffirm that yes, he really IS alive, if only for the moment.

But surviving dangerous situations is what computer simulations are all about and surviving is the main concern of those too lily-livered to take that steep step off the strut in the first place. Forget for the moment that the very idea of simulating "extreme" sports flies in the face of what they're all about — danger, challenge, excitement — and consider that the bailout sequence of almost any serviceable flight sim will give you a better feel for the "nylon letdown" than this sorry sod. There's not even a first-person perspective — the single most essential element of any you-are-there simulation.

What Skydive! offers that ejection does not is the ability to wriggle around a bit while falling over six "exotic" locations and the choice of when to actually pull the ripcord. There are three Event categories: Accuracy (try to land on a target), Sky Slalom (try to maneuver through floating hoops) and Free Flying (try to wriggle around in such a manner as to accumulate meaningless points). That's it — there are no team or multiplayer events.

Skydive!'s graphics are barely passable by today's standards, but do little justice to either the landscape

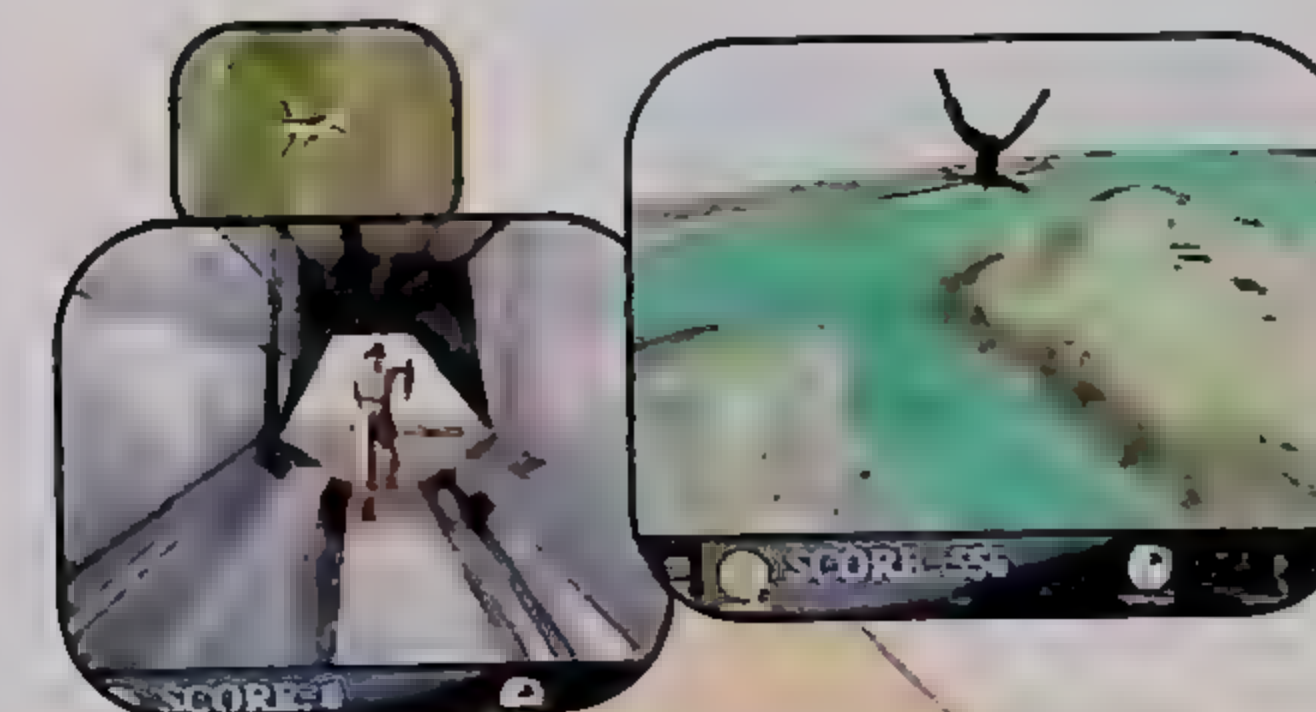


or the figure of the skydiver as he (or she) plunges toward Mother Earth's embrace. Throw in some grainy video of people with the guts to do this for real and you've got a loser stew that, by the grace of God, is exquisitely easy to exit from almost any screen.

Sound consists entirely of a bravado shout, some wind and a few footsteps, along with 12 musical selections, from Wagner's inspiring "Ride of the Valkyries" to the obnoxious thrash metal found in every other eXtreme game these days. There's something to please or irritate everyone.

And speak not to me of the controls. There are but nine and they're jerky and imprecise in higher resolutions and nonconfigurable to boot. I can say no more.

It's apparent that Skydive! was conceived as something more substantial, but was shoved out the door to compete with the cheap crap spewing out of Head Games and WizardWorks. Pity, because a simulation that really captures the pure speed and adrenaline rush of this sport would be, like, totally rad, dude (sorry). I suggest adding a new category to all future game reviews: Whether or not the reviewer intends to keep the game installed after deadline has been met. Verdict on Skydive!: It's already gone.



SKYDIVE!

Publisher Electronic Arts	Graphics 5
Developer Gonzo Games	Sound 2
Author Scott Wolf	Gameplay 3
	Overall 3

Koolhaer hits the afterburner to chase down Proxl as he tries to escape.



Multiplayer Tip #1

Don't deplete your afterburners cruising around. You'll need them when someone locks on a homer, or when you're trying to catch that guy in front of you. Keep it at 50% or more for that burst when you REALLY need it.

With his Gunboys positioned and ready to attack, Solr Flare lures Maestro into his deadly trap.



Big Red receives a warm welcome to the world of D3 anarchy.

While Specimen burns, Bama switches to Vauss to finish him off. Napalm, the gift that keeps on giving.



A favorite camper-hunting spot. Sick One catches one off-guard with a homer.



Multiplayer Tip #2

Use napalm to herd players into traps. Players have a tendency to back off from napalm bursts (with good reason). Herd them into a wall or corner and launch a frag missile into the wall next to them. The result is quick death for your opponent.

DESCENT 3

\$50,000 CHAMPIONSHIP

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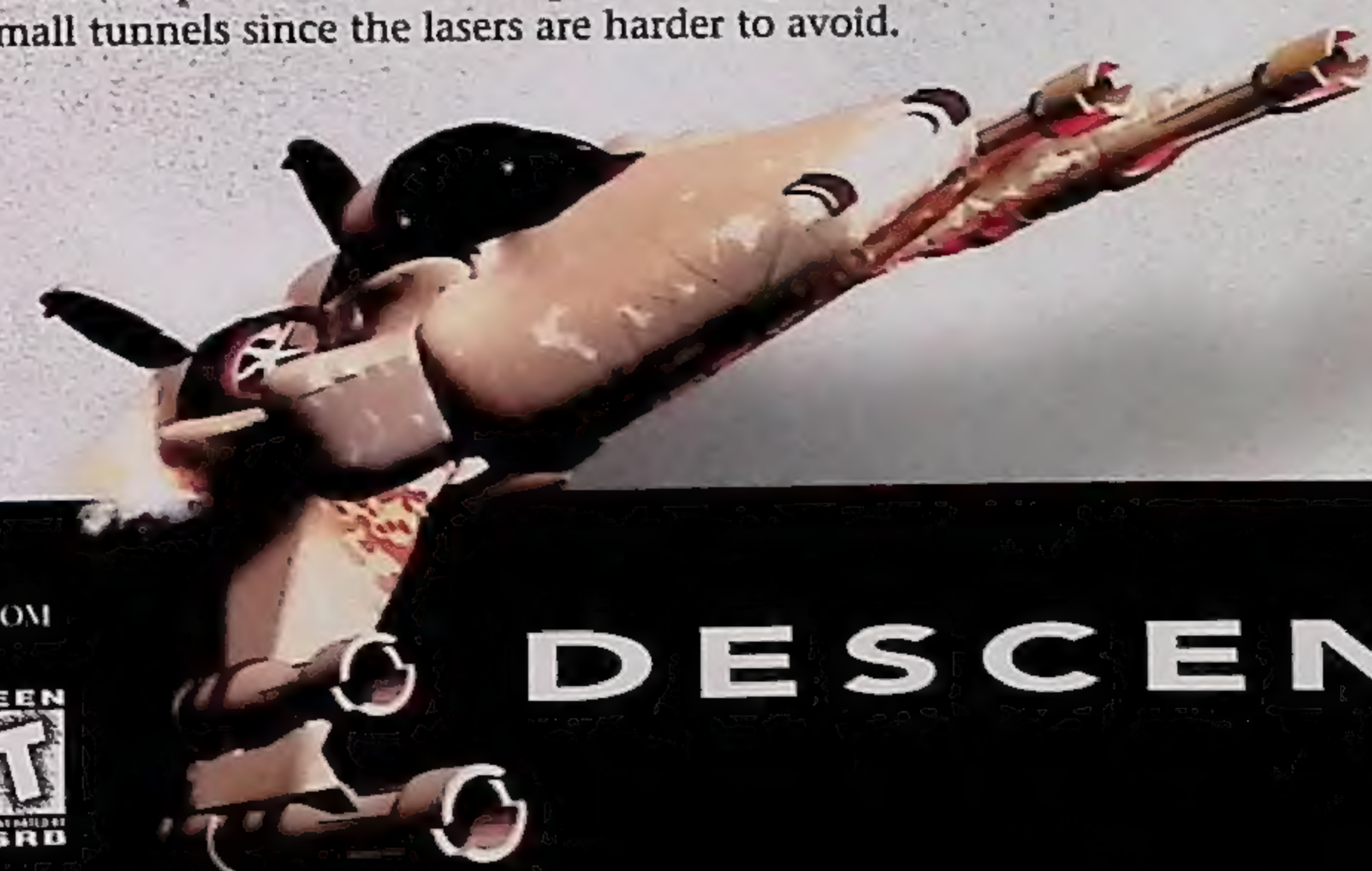
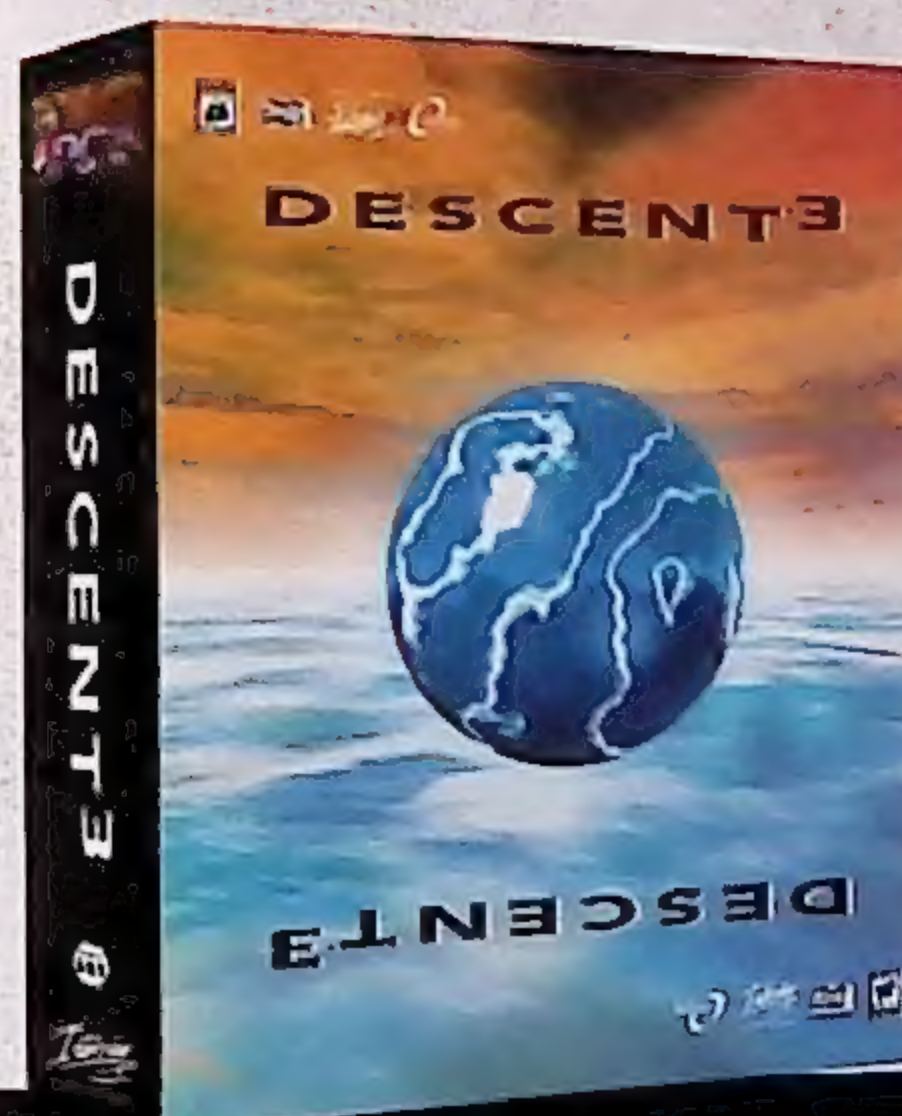
With the effective homing power, the all-in-one Cyclone Missile is best in open spaces. Descentile unleashes swarming death from above.



In the tunnel, Cajun Ace lands a frag behind an unsuspecting Kevar. Not even full shields can save him now.

Multiplayer Tip #3

Use Vauss as much as possible in outdoor battles so you can keep a good distance from your opponent. Use Napalm indoors whenever possible and use super lasers against opponents in small tunnels since the lasers are harder to avoid.



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www.cybmax.com www.quantex.com

CyberMax Enthusiast 500V and Quantex GX 550

Company: Cybermax/Quantex
Price: \$2149.95/\$2399.95

I was very pleased when Cybermax and Quantex each sent me a review system to check out and the performance of both systems was more than sufficient to meet my needs as both a power gamer and MS Office user.

Both the Enthusiast 500V and the GX 550 come standard with Voodoo 3 cards, which immediately make them an attractive choice for both gamers and general PC users alike. Surprisingly, both systems came with the V3 3000, instead of the slightly cheaper 2000, so gaming performance wasn't effected. Both systems also had top-of-the-line PentiumIII processors inside. Quantex managed to get their hands on a 550MHz CPU a little earlier than Cybermax, but both companies now offer that option (and beyond). Both systems now serve as our multiplayer systems for CPU- and graphics-intensive games like Unreal Tournament and Quake III Arena, which should serve as testament to the power and flexibility of the machines.

Both systems came with absolutely beautiful monitors. The 21" Cybermax monitor has one of the sharpest displays I have ever had the privilege of using, rendering games, DVD movies and web pages in crystal-clear resolution. The brightness and color are amazingly accurate, which enhanced 3dfx's latest drivers even further. Quantex's monitor is also very nice. They opted for a flat, rather than convex, screen which is great for reducing glare on the screen. Even though this monitor was a 19", the flat nature of the screen made it seem to be as large as the 21" from Cybermax. The image quality and color saturation were virtually identical between the two, but



Enthusiast 500V
Intel Pentium III-500, 128 MB PC 100 SDRAM, 20.400 Gigabyte HDD, 3dfx Voodoo3 3000 16MB, 6X-DVD, Aureal Vortex2 3D Sound Card, 56K V.90 Modem, Altec Lansing ADA305 Speakers, 21" monitor (.25 dp). Price \$2149.00



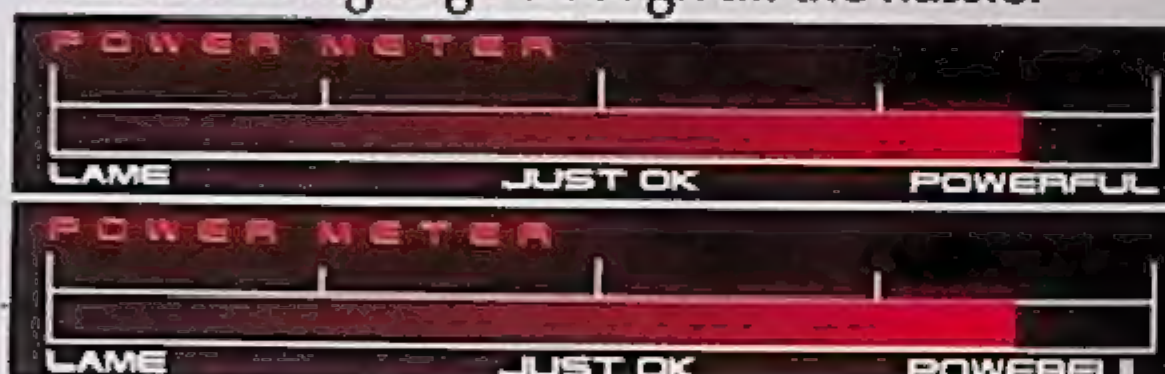
Quantex GX 550
Intel Pentium III-550MHz, 256MB SDRAM, IBM 18GB 7200rpm Hard drive, 3dfx Voodoo3 3000 16MB, Toshiba 6x DVD, CD-RW 24x/4x/2x, Aureal Vortex2 3D Sound Card, 3 Com 56K v.90 fax/modem/voice, Altec Lansing ADA305 Speakers, 19" monitor (.25 dp), Microsoft Sidewinder Precision Pro. Price \$2399

something indescribable about the Cybermax monitor made me lean slightly in its favor. Both monitors are also exceedingly huge, taking up a massive amount of space on a desktop. This large footprint is the price you have to pay for resolution and size, however.

Audio is delivered identically on both machines, which made me very, very happy. The Aureal Vortex2 3D sound card is just as good as the Sound Blaster Live! I've been using, but is lacking outputs for four speakers. I don't mind the lack of the rear speaker outputs at this time, however, because I'm still not convinced that the hassle of stretching the wires and mounting speakers behind my head actually gives me that much more of a spacious surround sound. The Altec Lansing ADA305 speakers were reviewed in our last issue by Josh Krane, who was understandably enthusiastic about them. As an audio snob, I've been very happy with the quality of the sound, both for games and movies, and the speakers seem to be perfectly matched for the Aureal's capabilities.

Two grand and change is a great price for

these two systems. I did like the inclusion of the CD-RW drive and the extra RAM on the Quantex system, which is why it's a little bit more expensive than the Cybermax. Unlike some computers that I've seen come from big online OEM companies, both cases are normal-sized ATX boxes, with plenty of slots and room to expand. Also, none of the hardware is built in to the motherboard, so upgrading and changing cards is a snap (I just installed a new 3500TV in the Cybermax system without any hassles). If you're shopping for a new computer, I would strongly suggest stopping by Quantex and Cybermax's respective web sites. The ordering process is quick and easy and you're able to make a number of choices regarding configurations that allow you to feel like you're "building your own" without having to go through all the hassle.



by Chris Kramer

www.3dfx.com

Voodoo3 3500TV

Company: 3dfx
Price: \$249.95

The current Voodoo3 3500TV is 3dfx's answer to the ATI "All-In-Wonder" card. It has 16MBs of SDRAM and a default clock speed of 183 MHz for both the graphics and memory clock speed.

As with the other Voodoo3 cards this card is a killer gaming and desktop card, but the difference with the 3500TV is a video in/out "breakout A/V pod." This pod has connections for various audio and video inputs and outputs to allow TV, FM radio, video editing and Digital VCR functions right on your desktop. Bundled software includes the driver disk with full versions of WinDVD and Ulead VideoStudio MPEG-2 editing software. There's another disk with the full version of Unreal and a

coupon for Unreal Tournament.

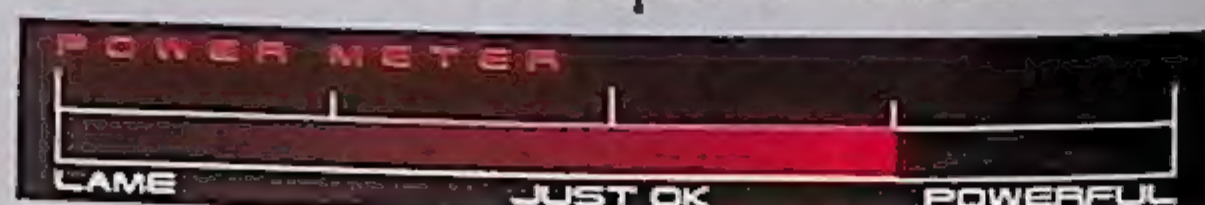
I had problems installing the 3500TV that were solved by downloading updated drivers from the 3dfx website and re-installing Win9x. The hassle of getting the tuner to work was definitely worth the effort. Sure, if you have a TV in the same room as your computer it's overkill, but there's something cool about having video on your monitor.

To test the games we looked at Quake II, III, and a little bit of Need For Speed High Stakes. All ran fine and have the excellent video quality and framerates that 3dfx is famous for. Next test was 3 Finger's Crusher demo for Quake II. At default settings with everything on, the 3500TV pulled in a whopping 48.5fps at 1024x768!

The Voodoo3 3500TV is a top-of-the-line gaming card with some nice bells and whistles. Visual quality, DVD "hardware-assisted" decoding and games' frame rates are all excellent. Installation can be a little tricky, and 3dfx's install video and



lame-o printed documentation is no real help. Unfortunately, we really have to knock 3dfx for providing the worst documentation for a piece of hardware manufactured in the US (we've seen Taiwanese bootleg Voodoo boards that come with better instructions), as well as for the inexplicable lack of an audio cable to run from your tuner to your sound card. The 3500TV smacks of a last-minute rush job, but is still a cool piece of hardware.



by Dave Whittle

www.saitekusa.com

Saitek Cyborg 3D Digital

Company: Saitek
Price: \$69.95

The stick itself is rather comfortable and is mounted above a heavy-duty spring to help keep motion steady at all stick positions by maintaining the level of stick tension at different angles. Toward the bottom of the stick is a palm rest that helps to support your hand over long periods of play. The base of the stick is rather solid, but still maintains a small profile, which should fit nicely on even small desks. The base houses a throttle mechanism, which proved to have the perfect amount of tension when adjusted. Most impressively, the tension of the throttle can be adjusted in either direction to give you the feel you are looking for.

All together, there are 10 buttons, a POV hat-switch and a throttle on the Cyborg 3D Digital. Three of

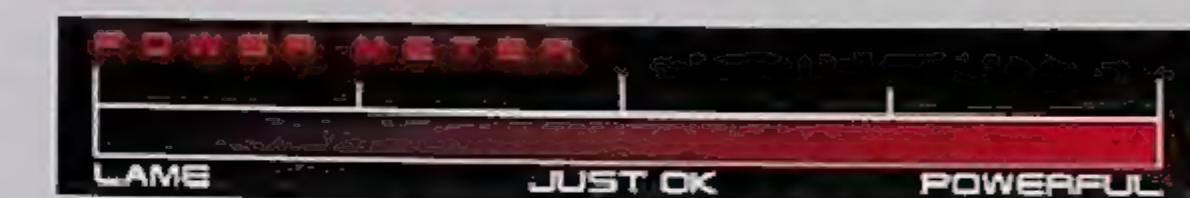


the four buttons are laid out atop a platform at the top of the stick and are all within easy reach of the thumb. These buttons are rather large and therefore not easy to miss. A fourth button presents itself as a trigger, which is long enough to accommodate different hand sizes and finger lengths. The rest of the buttons are located on the base of the unit, four toward the back and then one on either side behind the throttle axis. These last two can be assigned as shift buttons, turning the other 8 buttons into 16 (via software provided on the Saitek web site).

Hands down, the best part about the Cyborg 3D Digital is that you can adjust the stick for the perfect ergonomic feel. The POV hat-switch height and angle can be adjusted to the length of your thumb and the three button platform mentioned earlier can pivot to either side to help accommodate the orientation for

either right or left handed people. The palm rest is also adjustable and easily converts the stick for use with either hand, but it can also be adjusted up or down along the length of the stick to accommodate for different hand sizes. Even the throttle can be switched to the left or the right side in a matter of seconds. Saitek even includes an Allen wrench adjustment tool, which resides in the front of the stick's base.

I was really impressed with the Cyborg 3D Digital and I was happy to replace my original SideWinder 3D Pro with it. I don't use a stick all that much, opting for a gamepad like the Gravis Xterminator (reviewed last issue) for sports games and the like. When I do have a use for a stick, I'm glad I have the Cyborg 3D Digital to help me get into the mix.



by Josh Krane

www.soundblaster.com

Four Point Surround Digital 2000

Company: Cambridge Soundworks
Price: \$299.99

I had some experience with the first incarnation of the FPS series from Cambridge, so I was expecting very similar tiny drivers and subwoofer from the FPS2000, but with a digital input to connect to the Digital DIN of the Live! full version. Boy was I surprised when I saw that the drivers are a full 1/2 inch larger than the originals (that's 25% larger!). The subwoofer and amplifier are also a bit beefier than I expected; a 5 1/4 inch driver rests inside of the floor-firing subwoofer cabinet and it is powered by 25 Watts of power. Each satellite speaker only gets 7 Watts of power, so the sheer amplitude of the sound coming out of this set may not be as much as the Midiland S/2 4100.

All of the speaker wires, cables and connectors for the FPS 2000 plug neatly into the front of the sub-

woofer, which also has a large heat-sink to help dissipate heat from the amplifier. There is a knob on the subwoofer to adjust the subwoofer volume, which I found to be a bit hard to reach when the cabinet was tucked neatly away under my desk. A small unit that sticks on your desk or the side of your monitor provides the remainder of the controls. Unlike the original FPS system, this little bugger actually works as advertised to control volume and balance with a fair deal of accuracy. If you're worried that your 4-speaker sound card may not work because it does not have a Digital DIN output (Vortex 2 and Canyon 3D cards), you can put that issue to rest: the FPS 2000 worked beautifully with the analog output from the SonicVortex2 sound card as well.

The only flaws I could find with the set (besides the poor placement of the subwoofer volume knob)



was the lack of a Dolby Pro Logic decoder and the flimsy speaker stands that come with this set. Dolby Pro Logic would have definitely made this speaker system even more incredible that it already is.

The FPS2000 does the trick for matched-set 4-speaker sound, as far as I'm concerned. With larger drivers, more power, and the addition of Digital DIN support, they certainly do nice job in replacing the original Four Point offering from Cambridge SoundWorks. They sound incredible with the SoundBlaster Live! and work great with both EAX and A3D. In all honesty I have to say that the FPS2000 are the probably the best gaming speakers on the market.



by Josh Krane

www.optique.com

Optique L700

Company: Optique
Price: \$1149.95

While it may be a great monitor for business applications, the Optique/Viewsonic L700 is not the best gaming monitor. Active Matrix TFT monitors have come a long way in the past two years, but they have not quite blossomed into the CRT replacements everyone hoped they would be. The L700 is certainly no exception. Offering a 15.1" viewable area, it is comparable to a 17" CRT, but it carries a price tag comparable to most mid-ranged 21" displays. The features list is also a bit short-stacked for this overpriced unit. The maximum resolution offered is only 1024x768 @ 75Hz. In comparison, even low-range 17" CRT displays can make short work of 1280x1024 at that refresh rate. As a matter of fact, all resolutions

on the TFT are run at 75Hz, which surprisingly did not produce a flicker whatsoever.

On the upside, the L700 is very light, weighing in at only 11.4 lbs. It is also a rather compact unit at a petit 16.0" W x 14.2" H x 7.2" D. With such a compact design, the monitor can go virtually anywhere on your crowded desk. The on-screen controls are pretty standard for Viewsonic and Optique monitors. The unit has four buttons that will let you search through the OSD for the feature you want. While this cleans up the front of the monitor, it also makes setting up the L700 more cumbersome. There were no eccentric functions of the OSD like independent corner pincushion, but this is to be expected of the "Bargain TFT" shoes that the L700 is supposed to fill.

A monitor is only as good as it performs, despite the length of its feature list. Text on the L700 is certainly crisp enough to read comfortably for long periods, but I was personally left with the feeling that I

missed my CRT. As far as gaming goes on the L700, image quality was good, but I still felt that the image was somewhat "over-aliased" in most titles I tried. What was worse was that very darkly shaded textures were very hard to distinguish from one another. A perfect example was an early version of Nocturne, which was almost completely unplayable on the L700.

The bottom line on the L700 is that it is not a gamer's monitor. It may be great for businesses who are short on space or just simply have money to blow, but it does not make the grade for the graphics enthusiast. If this is what TFT's will do for gaming as a whole, I for one have to admit I will be hard-pressed to give up my CRT any time soon.



by Josh Krane

Final word

The T-Buffer



Gary Terolli

Gary Terolli is one of the original founders of 3dfx Interactive and is currently Senior Vice President and Chief Scientist at 3dfx. He is one of the architects of the Voodoo Graphics chipset, specifying and inventing many of the algorithms implemented in silicon. After receiving a B.S. degree from RPI and an M.S. degree from Caltech, Gary has been working in the field of VLSI design and graphics for the last 16 years, at such companies as DEC, SGI, Pellucid, Kubota, and now 3dfx. In 1992 he was the second recipient of EE Times' "Celebrating the Engineer" award.

In the fourth issue of Voodoo Magazine, my Final Word column discussed the relative values of the components in a computer. In that article, I claimed that the monitor and graphics card were the most important pieces of hardware in your system. For any hard-core gamer, this truth is self-evident! The wonderful trilinear filtered mip-mapped textures that appear on your screen when running an accelerated game are the result of billions of calculations performed on the graphics card. We have made great strides in the last few years, increasing both the triangle and pixel rates of the chips and enabling high resolution settings to run at real-time frame rates. Recent 3D games contain wonderful scenery and each generation comes closer to reproducing reality. However, one large obstacle stands in their way: aliasing. In this article, I want to focus on one particular feature that 3dfx is bringing to market this fall to address the aliasing problem — the T-Buffer.

Aliasing

If I had to select one artifact of today's games that distinguishes a computer generated real-time image from either a photograph or a non real-time image, I would choose aliasing. Aliasing exists in many forms, including spatial and temporal. The T-Buffer is designed to address all these aliasing artifacts by providing the application with easy-to-use anti-aliasing techniques. The result is vastly improved image quality.

The most evident aliasing artifact occurs from spatial aliasing. Diagonal edges appear jagged and have stair-steps in them. Even worse — when the scene moves, these stair steps seem to crawl along the edge, distracting your eyes. Another glaring artifact of spatial aliasing is popping or flickering pixels in small and thin polygons. When a polygon is as small as a pixel, or as thin as a pixel, the digital sampling that the graphics chip uses to render the polygon will sometimes render a pixel and other times skip the pixel: the result is flickering pixels. For thin polygons, such as telephone and sign poles, the polygon may appear as a dashed line with the dashes and solid parts appearing and disappearing at random. This nasty artifact can be even more distracting than jagged edges.

The T-Buffer allows an application to supersample a scene in pixel space and thus anti-alias the final image. The beauty of the T-Buffer is that no application modifications are necessary. We have successfully run existing games right from the original CD-ROM with a special driver that enabled anti-aliasing behind the application's back. And what a difference! Future products will have control panel options to allow you to control this feature.

There is one noteworthy point to make about spatial anti-aliasing. Using more triangles for representing finer detail (e.g. tree branches and leaves) without spatial anti-aliasing results in more distracting artifacts than using fewer polygons. Thus, spatial anti-aliasing is a prerequisite for finer geometric detail. Attempting to display finer geometric detail without good anti-aliasing will backfire and only create a lower quality image.

Another form of aliasing is temporal aliasing. Temporal aliasing occurs because a digital shutter only samples the scene at one instant; in other words, the shutter is open for near-zero time. Yet when the image is displayed, it is visible for approximately 1/60 second, depending on the refresh frequency of the monitor. This causes fast moving objects in the scene to appear too sharp and have an unrealistic look, as if they were viewed under a strobe light. A real camera shutter stays open for a fraction of a second, e.g. 1/60th second, and the image recorded on film is an integration of what is visible through the lens over the period of time the shutter is open. Moving objects appear blurry and somewhat transparent.

The T-Buffer allows an application to supersample a scene in time and thus anti-alias the final image. This creates a motion blur effect where static objects are in focus and moving objects are blurred. However, this is much more complex than just blurring an image — a car that is flipping over may have its top visible during one time sample and its bottom visible at another time sample. Each time sample must be correctly depth buffered to produce a correct final image. Image-based rendering optimizations cannot accurately produce the same effect, only truly independent samples in time result in accurate motion blur. Unlike spatial anti-aliasing, time anti-aliasing does require application involvement. However, it is important to note that the modifications are straightforward and do not require

major changes to the way a scene is displayed.

Another area where traditional real-time rendering falls short of reality is depth-of-field. A camera lens, as well as the lens in your eye, typically focuses on objects at a particular distance. Objects get blurrier as they get further away from the focal plane of the lens. Film directors take advantage of this lens effect all the time. Often, directors will use a narrow focal range to direct a viewer's attention to a particular item or location in the scene. Sometimes the focal plane is moved from one object to another, drawing the viewer's attention with it. The T-Buffer now allows games to use this cinematic effect.

T-Buffer

If you are familiar with an OpenGL accumulation buffer, the T-Buffer operates in a similar fashion — accumulating multiple images for each displayed frame. This requires extremely high pixel fill rates — something that 3dfx has always delivered. For spatial anti-aliasing, high pixel fill rates in the graphics chip is all that is required and there is no additional load on the computer system. The multiple images are stored within the T-Buffer and displayed as one final image on the monitor.

At first glance, motion blur seems like it would require rendering the entire scene multiple times and thus require significantly more CPU power as well as triangle processing power. However, the T-Buffer allows for a clever application optimization. Static objects and scenery in the scene can be rendered once into multiple samples. The vertices for these polygons need only be processed (transformed, lit, clipped, etc.) once. Moving objects that are rendered at multiple time samples need additional processing. However, since they are moving and are going to appear blurred, a simpler representation can be used. Most games already use object LOD or level-of-detail to keep a frame's polygon count manageable. For example, when a race car is close to the camera, a representation containing 1,000 polygons is rendered, but when the race car is far away, a representation containing only 50 polygons is used. When an object is rendered at multiple time samples, it is treated as being farther away, and fewer polygons can be used. Thus, the polygon count for a frame can be held relatively constant even during motion blur. The worst case is when the camera is panning and the entire scene needs to be blurred! Even in this case, polygon count can be kept fairly constant.

The depth-of-field effect requires additional vertex processing, but this effect is not one that will be used frequently during a game. As with motion blur, it is possible to use lower polygon count models where the object is blurry (far from the focal plane).

One neat special effect that the T-Buffer can create is double (or triple) vision. This is basically the same technique as depth-of-field, except the blur is greatly exaggerated, resulting in multiple visible images. Think of a first-person shooter type game — you get hit with a rocket or grenade blast and not only do you lose health points, but your vision becomes blurred for a short period of time. At first, your vision may be very blurry, slowly returning to normal focus. This effect could also be used right after a potion is consumed. As you can see, the T-Buffer is not only useful for eliminating aliasing artifacts during rendering, but is also useful for creating a new class of special effects.

Perhaps the coolest thing about the T-Buffer is that all of these effects can be done at the same time! That's right — spatial anti-aliasing, motion blur, depth-of-field, and other effects can all be used simultaneously by a game. There's no reason for a game to just choose one effect over the other, as the T-Buffer is capable of handling all of them at once.

The visual distractions caused by aliasing artifacts not only look bad, but they ruin your overall game experience. When you are immersed in a game, you are in a state of willing suspension of disbelief. You know the images on the screen are not real, yet you have temporarily suspended that disbelief, and are immersed in the virtual reality. Distractions, such as a phone ringing, break you out of the suspension of disbelief. Graphics artifacts, such as aliasing in any form also jar you from this state of mind. The T-Buffer is designed to eliminate these artifacts and preserve the suspension of disbelief. It is just the first of a series of new graphics innovations that will be coming from 3dfx in the coming years.

NOTE: For a white paper on the T-Buffer see <http://www.3dfx.com/>

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