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FEATURES

Tomb Robbers
We all know that Lara Croft has guns, and she's never been afraid to use them—or her looks—to take out the competition. Now Eidos attacks on all fronts, featuring Lara in books, music videos, comics, and even movies. The question is this: Can Tomb Raider III maintain the momentum of the original despite these distractions? Join us as we follow gaming's preeminent polygonal goddess as she is challenged by Draken, Messiah, Space Bunnies Must Die, Dark Vengeance, and a host of other Tomb Raider killers—all featured in our comprehensive roundup. .......................... 84

Air Superiority
With the advent of amazing new 3D technology and super-speed processors and the growing importance of multiplayer combat, today's jet simmers are breaking new ground in sophistication and features. Join CGW's Denny Atkin as he sneaks into the cockpits of four advanced jet-fighter sims to bring back the very first hands-on reports on the next generation of sims. .......................... 120

The Right Stuff
Okay, so we realize that until G forces can actually be modeled at your desktop, you'll never really be able to re-create the feeling of being aloft in an aircraft. But until that day arrives, you can still get an otherwise realistic flight experience, often without emptying your savings account. Loyd Case straps on his goggles, fires up the jets, and takes off into the wild blue yonder with the latest generation of flight controllers. .......................... 140

PREVIEWS

Thief: The Dark Project
Lurk in the Shadows in Looking Glass's Return to First-Person Gaming .......................... 66

Chaos Gate
The Best PC Warhammer Game Yet? .......................... 69

Operational Art of War
Norm Koger's Magnum Opus .......................... 76
FEAR AND LOATHING IN ATLANTA • X-FILES' GILLIAN ANDERSON INTERVIEW • E3: BEST AND WORST • VAPORWARE • INDIANA JONES 3D • HEAVY METAL RETURNS • PLAYING LATELY

HARDWARE
Hardware News, Pipeline
Matrixx Readies a New Chip • nVidia
Hit With Two Big Lawsuits ............. 155
Loyd Case
Stupid Human Tricks .................. 157
Killer Game Machines ............... 158
Turtle Beach Sound Card .......... 162
STB RIVA 128x Card .................. 162
Diamond Monster 3D II ........... 164
Canopus Pure3D II ................. 165
Gravis Xterminator .................. 165

GAMER'S EDGE
F-15
Mastering Air-to-Air Combat While Using Realistic Radar ....... 226
StarCraft
Army Men
Here's How to Get Sarge Out Alive. ...... 248
FIFA 98
Winning Strategies for Conquering the World's Best Soccer Teams .... 250
Gamer's Edge Tips
SEMPER FI, DRAGOON, TROPHY RIVERS, DEER HUNTER, FALLOUT, and More .... 252

DEPARTMENTS
Johnny Wilson Play MYST-y for Me ............... 21
Letters Our Readers Speak Out ............... 25
Reviews Introduction ............... 167
Reviews Index: Two Months of Ratings ............... 171
Top 100 Readers Rate the Top Games ......... 258
Hall of Fame The Greatest Games of All Time ............... 260
CGW Online/GameSpot The Best Game Coverage on the Web ............... 261
Greenspeak She Got Game ............... 264

REVIEWS
Action
Die by the Sword ..................... 174
Outwars .............................. 176
Forsaken ......................... 178

Adventure/RPG
Might & Magic VI ................. 180

Simulations
M1 Tank Platoon II ............... 185
Panzer Commander .............. 194

Sports
World Cup 98 ....................... 201

Strategy/Wargames
Soldiers at War ..................... 216
TA: Core Contingency .......... 217
ChronX .......................... 220
Liberation ......................... 221
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Play MYST-y for Me

Surprise: Many RIVEN Buyers Play Other Games, Too

On exceedingly rare occasions (hang on while I remove the glacial member from the inside of my cheek), those of us privileged to expostulate and pontificate within the media may overstate our positions. This probably isn’t surprising to those of you who know about my MYST bias. My original assertion about the game was, “I don’t think you’ll lose any money on it. I just hope you’re not counting on a big hit.” Okay, we can’t be right about everything! Recently, I was called out on a different mantra, to wit, “MYST and RIVEN players don’t buy other games.” Actually, that last statement is probably the most benign of my comments about the two megasuccesses.

Of course, when Humpty-Dumpty sits on a wall, we can all expect omelets. So, Red Orb Entertainment has graciously decided to prove me wrong. After being sent the raw results of the registration survey from RIVEN, I’m ready to revise my previous assertion. Since RIVEN’s audience reaches beyond the circumference of even casual gamers, the percentages are generally lower than in other surveys. Yet, the results are interesting. Players of the two megahits do play some games. The results are particularly interesting because the sample size is larger than that in any of the surveys CGW has commissioned. So, in answer to the question, “Do RIVEN players play other games?” we provide statistics from the RIVEN registration cards (1998), the Computer Gaming in America study (1997), and the Computer Gaming World Subcriber Study (1997).

Obviously, one would expect purchasers of adventure games like MYST and RIVEN to play adventure games. Naturally, they do: 77 percent of RIVEN registrants play other adventure games. This compares to 53 percent among casual gamers, 68 percent among core gamers, and 67 percent among CGW subscribers. Now, for the surprises.

In the Role-Playing category, RIVEN registrants actually outgame casual gamers (25 percent) with a pared to 47 percent of casual, 66 percent of core, and 75 percent of CGW subscribers.

What, then, do these statistics reveal? First, they indicate that I was in error when I declared a pox on all RIVEN gamers as being parasites who buy only one product every 100 or so, but cause a disparate amount of investment within companies trying to duplicate the phenomenon.

Second, they indicate that RIVEN gamers are beginning to broaden their scope and try other types of gaming. This is excellent news. It bodes further expansion in the market. In the long run, however, it may be bad news to the hard-core in that it indicates more potential customers who don’t like the canage, mayhem, and bloodlust that forms a major part of the core game library.

Third, the results suggest that there are subject areas and designs that can reach this greater audience. However, the data also suggest that there is no sure-fire way to reach them. More experimentation will be required, and experimentation is expensive.

We can always learn from surveys and statistics. Let’s just hope we learn the right lessons and don’t kill the hobby while we’re chasing the goose that lays the golden eggs.
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Cheap Shot

I am a Uruguayan subscriber to your magazine. I have to congratulate you on your mag. But I found a glitch in your June issue. In your review of FIFA ROAD TO WORLD CUP 98, a picture shows Brazil beating Uruguay 4–0. Although our soccer selection is currently bad, we have never been beaten like that by Brazil. Remember Maracana 1950?

—Federico Brubacher
A Pleased Customer via the Internet

Oh, yeah, Maracana in 1950, what a time we had then. Woo-hoo.

Seriously, there’s a simple reason why Brazil aced Uruguay in our June review—the reviewer’s wife is Brazilian. She wouldn’t let him in the front door if he had lost to Uruguay. We meant no disrespect—Uruguay has a distinguished World Cup reputation—but when your wife is a Latin Kung-fu expert, you don’t have a lot of latitude in these matters. We hope you understand.

Prose and Khan

It is grossly inappropriate to have a quote advocating the rape of women and children in a preview for a videogame [CGW #168, July 1998, p. 53]. Quotes like this perpetuate the problem of sexual assault. Rape is not an advertisement. Everyone reading this probably knows someone who has survived a sexual assault. Because of this, we should all be offended.

—David Kalish
Sexual Assault Prevention and Education Specialist
West Virginia University

Mr. Kalish refers to a quote from Genghis Khan, the 13th century Mongolian ruler. In the quote, Khan counted conquest, abduction, and horse theft among his favorite activities. We do not think recounting the 700-year-old viewpoint of a Mongolian warlord perpetuates sexual assault, nor do we believe taking offense at such historical quotes is warranted. However, we did neglect to include the following disclaimer: The opinions of Genghis Khan are not necessarily those of this magazine, its staff, or the management of Ziff-Davis, Inc.

And We Don’t Stink

I must say that I was pleased and surprised to see the new magazine layout when I received my latest issue of CGW #168, July 1998. No doubt you will get some complaints from the stodgy, Colonel Mustard types who are still reliving their old, glorious campaigns on hexagonal wargame maps. I think, however, that it is a welcome breath of fresh air in a publication that was in danger of becoming overly fossilized.

The new design is clean, fresh, well-organized and easy on the eyes. Keep up the good work. The only major complaint I have is the increasing amount of ads that feature those folded over pages. I really hate to have pages flop out when I am reading. That is why I rifle through CGW and rip out those pages before I settle down to peruse the contents. If companies are paying extra money to buy ads with the fold-overs, it is wasted money as far as I’m concerned.

If an ad cannot tell me what I need to know in a normal one or two page layout, then it isn’t worth my time trying to read the folded-over portions.

I am just grateful that your magazine doesn’t have those obnoxious perfume inserts.

—Jeanne Conrad
via the Internet

Apology Accepted

After reading a letter in your June issue from Michael Bucknam I feel I owe CGW, in general, and Martin Grulis, in particular, a bit of an apology. In my previous letter (which was printed in its entirety in issue #164) I took both Mr. Grulis and your magazine to task about his blaming the trend towards biased previews and, specifically, "pre-reviewing" an unfinished product. After reading Mr. Bucknam’s letter, I have come to understand your viewpoint (and that of Mr. Grulis) a bit better. There is enormous pressure on your products (like Mr. Bucknam) based solely on advertisements, or who are influenced so strongly by your reviews.

Let me say right now I think you guys are the only gaming magazine that tells it like it really is (as an aside, a competitor of yours gave Ultima Online four stars in the same month you gave it coaster of the year), and I trust the reviews implicitly and, almost always, agree with them. That said, I would never base a purchase solely on one of them, even by a reviewer I have read and found to be accurate for years. There are simply too many factors involved for me to buy on one source, no matter how much I trust them, especially since any review, ultimately, boils down to one (or very few) people’s opinions. I just find it odd that in this day of demos, downloads, shareware copies, etc. that a gamer would buy a product based on any one source regardless of its prestige.

When I buy a game I do use your reviews as a guide, but only if I’ve had some other sources confirm the rating as accurate. I either play a demo or read all the reviews of a product, and if all the opinions are about the same, then do I lay down the cash. I collect as much information about the game as possible before the money ever leaves my wallet.

I am, as your magazine puts it, a “core gamer,” and maybe that’s the difference between myself and Mr. Bucknam. I’ve been where he went with LoM many times over the years, and I have learned my lesson well. Buying a game, like buying any product, should be based on more than just the ads, especially in this age of readily
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I now more fully understand the pressures put on your magazine by people like Mr. Buckman who seem to want you to spoon feed them a list of what to buy and what not to buy. I'm also very impressed that your magazine, unlike other competitors, has kept to its policy of not reviewing anything but finished product. To do so in the face of such pressure makes me all the more grateful to you.

While I will always take exception to any publisher who reviews a product before it's finished and on the store shelves, I have a lot more sympathy towards you guys now. All I can say is, "Sorry guys (and gals)," and please keep doing what you do best: giving honest, thoughtful reviews. Thanks for listening.

—Steve Fox via the Internet

Hear, hear!

I just gotta say that your mag rules, and anyone who thinks otherwise should be shot in the forehead and kicked down a flight of stairs covered in flesh-eating ants. Your 3D section in the June issue was extremely helpful, and now I know that you really could use a 3D accelerator, and which one to buy. Thanks, and peace.

—Zach Hiedemann via the Internet

Coaster Arts & Crafts

CGW has become the technology magazine in our (core gamer) household. The info you provide about hardware, upgrading, and operating systems covers all we need and want to know about our PC. Your reviews are so on-target that my New Year's resolution for 1998 is to wait until I read your critiques before purchasing any new games.

It's tough—I am a big fan of D&D style RPGs, a genre that has been banned as of late. Last year I just had to grab LANDS OF THE LIVING: GUARDIANS OF DESTINY and DESCENT TO UMBERMOUNTAIN the second they hit the store shelves. Ugh!

I believe I have finally learned my lesson. I don't even cross the portals of software retailing locations unless I have a CGW four-star review in my paws. Just one request—I have more coastsers than I can possibly use. How about an article or two on CD-ROM arts & crafts? A mobile, maybe? High-tech birdfeeders? I just hate to toss those 50 dollar discs without considering recycling in some way. Thanks for maintaining a quality publication.

—Cindy Bogart via the Internet

Dep't of Corrections

By the time our June issue came out, the Web address had changed for Operation 3.D.F.X. It's now www.op3dxf.com.

Also, we regret spelling Age of Empires Designer Bruce Shelley's name incorrectly in July, but we swear it wasn't our fault. Mr. Shelley has business cards with an incorrect spelling of his name. Way to go, Bruce! :-(

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Fear and Loathing in Atlanta

Attending E3, the Electronic Entertainment Exposition, is a lot like being trapped inside a gargantuan sub-woofer. You're pummeled by the crowds; assaulted by sound vibrations only a few decibels short of a perpetual sonic boom; entranced by more dancing colors and shapes than a hippy having acid flashbacks during a Doors video; and promised more games for "Christmas" than an entire city full of greedy children could possibly beg from Santa Claus. It's a carnival of chaos and cacophony, an amazing midway of marketing barkers trying to steer you into one freak show after another.

There was even a booth giving away mutilated rabbit remains (wells... rabbit's feet!). If any trade show was ever more Vegas than Vegas, it's E3!

The Fourth Annual E3 Proves to be the Most Colorful Carnival Yet

"Step right up," say the PR ringleaders, the marketing gurus, the proud developers, and executives. "Never before," wax the claims, climbing higher and higher until they find themselves towering over reality like a BattleTech 'mech stomping on a foot soldier. Hype and hip, hope and hokk all combine to point the way to what we'll see on store shelves in the future.

If E3 is an accurate impression, we'll see a whole lot of action going on. Action will permeate and influence nearly every genre. The adventure, sports, role-playing, and strategy genres will all feature heavy action-oriented components in most of their products. 3D will dominate with titles like MESSIAH and DRAKAN leading the way. 3D acceleration is even beginning to appear in turn-based strategy games like STAR TREK: THE NEXT GENERATION—BIRTH OF THE FEDERATION and more traditional adventure games, such as GABRIEL KNIGHT III: BLOOD OF THE SACRED, BLOOD OF THE DAMNED. Even LucasArts is using 3D acceleration in INDIANA JONES AND THE INFERNAL MACHINE. 3D Audio is also starting to have an impact, as in the long-awaited UNREAL where you can finally hear monsters behind you; and, believe it or not, in the largely text-based CROSSROADS, from VR-1.

It isn't all good news, though. If E3 is an accurate impression, we'll also be seeing some aspects of the hobby that aren't so exciting.

Several companies danced around mergers that may or may not be in the best interest of gamers. Two companies, Interplay and Interactive Magic, were readying initial public offerings, but facing less initial excitement than they had hoped. One company, MicroProse, just announced another horrendous quarter and one wonders how long they can survive—at least, how long they can survive with multiple development studios. In addition, the Fourth Quarter obsession continues. Rarely did any development team admit that a game being demonstrated was not for "Christmas." Unfortunately, only about half of those so designated looked like they had a legitimate shot. Finally, as in most hit-driven businesses, we're seeing more and more clones. Although some of the game designs shown at this E3 had fresh ideas, there were no particularly fresh subjects or revolutionary ideas.

So, E3 gives us a choice. We can either be the disappointed child who comes to the carnival to see the freak show, only to discover that he's being defrauded by fake prosthetics and clever staging, or we can be the delighted child who experiences wondrousness over the fastest, prettiest, loudest, coolest, and most amazing experiences yet to grace the computer screen. We're probably a little of both. —Johnny Wilson
While Hopeful Gamers Lined Up to Meet the X-Files Star, CGW Got the Inside Scoop

Thousands of X-Files fanatics' dreams came true at E3, when Gillian Anderson, a.k.a. Agent Dana Scully, showed up at the Fox Interactive booth to sign autographs and promote Fox's upcoming title, THE X-FILES GAME. Before she greeted her fans, Ms. Anderson took some time to talk to us about her experiences working on the game, the upcoming movie, and much more. Here are highlights of the interview; for a complete transcript head to www.gamespot.com. —Charlotte Panther

Gillian Anderson:

CGW: Did you or David ever play videogames, and if so, what were, or what are, your favorites?

Anderson: I can't speak for David; I imagine that he doesn't play videogames. I have played some. Many years ago I played TETRIS and I've played MYST—just a little bit though. I mean I've said this a lot in other interviews but I'm terrified of losing consciousness or delving into some other reality that I'm not able to come out of, and forget I'm a mother and have responsibilities. TORTURED SOULS—It's like TETRIS but with eyeballs falling down, I really like that—that's a

while ago, that was, I think, even before my daughter was born. And now, the only time I really take out my lap-top at all is when I take it out and play ARTHUR GOES TO SCHOOL and GREEN EGGS AND HAM. I have requested a lot of CD-ROMs, educational CD-ROMs, dictionaries, pictionarys, encyclopedias, and stuff that are still in their packages. But they're there for when I have some time.

According to Fox Interactive President John Richmond, it took some convincing from Chris Carter or someone in the show to get you to participate in the game. Did experience that much?

No, it was because I wanted a free ride to Seattle [laughs]. No, I knew that they didn't have everything they wanted and, I like the Four Seasons hotel in Seattle [laughs again].

You've already got quite a large following on the Internet. Are you anxious or perturbed that by participating in the game your bringing a new fraternity of unwashed geeks to your fan base? How do you feel about your fans, and, specifically, the large Internet following that you have?

I haven't actually had that concern—unwashed geeks—or adding to the amount of fan base. I don't have much interaction with them. I don't log on to any of the Web sites about me or the show or Scully's dog or whatever is out there. And obviously, as far as I'm concerned, you know, it's a safe realm. Most of the Web sites are safe realms for people to communicate about something that they have a mutual enjoyment of. And it's not harming anybody. It's certainly not harming me.

Did you get to play the game?

No, I haven't yet.

Will you?

Yes. I will probably play it for about maybe 15 or 20 minutes.

Do you have a favorite X-Files episode?

Every season, I usually have one of that season, but I think one of my all-time favorites now was from this past season, called "Bad Blood," which was an episode written by Vince Gilligan. It was Mulder and Scully's individual version of an episode, and basically our recounting of that. It was fun and challenging to film, and even more fun to watch.

Would you do a game again if Fox was interested in doing a sequel?

If it was a sequel to THE X-FILES GAME, I

The Hit of E3

someone in the show convince everyone else to be a part of it?

I wasn't privy to any of that. I was asked when I knew they were doing it and I wasn't sure that I had much choice. I showed up to Seattle and we did it.

After the initial filming, you went back to the game's producers and told them that you'd be willing to give them more time. Was it because you enjoyed the mean, hopefully they would only do it if this is successful, so if this is successful, I'd be more than happy to.

What about the movie?

If it's successful, I hope we do another one. I mean, hopefully, we're not going to be doing the series for the next 10 years, and doing the movies on the hiatus. Hopefully, the film will be so successful that the series will trail off and we'll just be doing the movies once in a while.
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E3 Sizzlers & Fizzlers!

The 20 Best and 5 Worst Games at E3

Homeworld
(Strategy)

Relic's HOMEWORLD Was the Most Innovative and Exciting Game of E3

In a show crowded with clones of the latest 3D shooter, or TOM RAIDER, one game that stood out above the rest was newcomer Relic's HOMEWORLD. At its most basic level, HOMEWORLD is a real-time strategy game. But that label can only be loosely applied here. Technologically, visually, and tactically, HOMEWORLD is very different from what has come before.

HOMEWORLD is a strategy game that follows a nomadic space-faring race on its return trip to a lost homeworld. You command this haphazard fleet on their journey, and along the way, meet aliens, traders, marauders, and the evil race responsible for their exile. The campaign is the least known part of the game, but Relic says it wants to make the single-player experience as moving and emotional as a movie. There will be NPCs to talk to, multiple mission paths, and an engaging story to drive gameplay forward.

Age of Empires II
(Strategy)

Knights and noblemen, queens and countrymen, I give you Microsoft's AGE OF EMPIRES III. We enter the middle ages with great crusades, castles, robust economic and diplomatic options, and devastating new siege engines. And wait till you see the formation combat... Q1 '99

Anachronox
(RPG)

Tom Hall's RPG for Ion Storm is slowly moving from the design to production stage. The programmers are creating more realistic environments than those in any other QUAKE II-based game. The addition of a real-time panning camera is opening up the possibility for tons of cinematic shots and storytelling, à la FINAL FANTASY VII, but in real-time. Although this massive game is still a year from completion, the potential looks good. Q3 '99

Diablo II
(Action/RPG)

Blizzard's follow-up to Diablo is certainly not just more of the same: A retooled interface, outdoor environments, multiplayer guilds, and lots more make us drooling for this long-awaited sequel to CGW's 1996 Game of the Year. Q2 '99

Drakan
(Action/Adventure)

Pygno's stunning 3D action/adventure game, DRAKAN, casts you as Rynn, a sword-wielding heroine who also happens to be buddies with a fearless dragon, Aroth. Players can control Rynn alone, or can move both heroine and dragon together with Rynn riding on Aroth's back, as they attempt to defeat the evil sorcerer, Kulrick, and his minions. Q1 '99

Duke Nukem Forever
(Action)

Duke does Vegas in 3D. Realms latest extravaganza with a modified QUAKE II engine and lavish 16-bit graphics. The trademark interactivity and attitude are in evidence, along with James Bond-style action sequences and a female companion aptly named Bombshell. It looks great, but you'll probably need a 3D card to play it. Q4 '98

Fighter Legends
(Sim)

This World War II sim from Jane's Combat Simulation blew us away with the best graphics we've ever seen in a simulation. Multiplayer at the show was a blast, with WW II ace Bud Anderson giving tips. The powerful mission editor should make for lasting gameplay. Q3 '98

Gabriel Knight 3
(Adventure)

The long-awaited new mystery from Jane Jensen and Sierra has the makings of a classic, with a strong storyline based on the Knights Templar, and brand-new 3D engine replacing the FMV look of the previous game. Q4 '98

Grim Fandango
(Adventure)

LucasArts "next-generation" 3D adventure game is a funny, surreal tale of intrigue in the Land of the Dead. Easily the coolest-looking adventure game at E3. Q4 '98

Half-Life
(Action)

Valve's shooter should be ready by July, and it will feature the most realistic environments yet. The alien beasts in this game show far more creativity than any other shooter, and look like the best-designed monsters since DOOM. Q2 '99

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Real-war missions, such as rescuing POWs, leave the “deathmatch” and “capture the flag” scenarios of other games behind.

Scalable graphic experience — the better your system, the better it looks. Most 3D hardware supported, but not required.

Actual game screenshots except where noted.
Of course, what made our jaws drop at E3 were HOMEWORLD's graphics and gameplay. The game is rendered in gorgeous, real-time 3D. Every single object, from ships to nebulae, is polygonal. Your playing space is likewise 3D, meaning you can finely engage in Star Wars-style combat with missiles, lasers, and ships flying in every conceivable direction. If you want to form a wedge of fighters and engulf a capital ship with fire in a 360-degree bubble, you can.

With everything rendered in real-time, many possibilities for altering the gameworld come into play. You can charge gas clouds with ion cannons and make any harvesting trips into the resource-rich clouds deadly games of lightning roulette. You can break giant asteroids into a minefield of smaller asteroids that will pelt all ships that fly through the rocky swarm.

The attention to detail in HOMEWORLD is amazing. Exhaust trails spew forth from ship engines; sparks fly when hulls get peppered with laser fire; nebulae are streaked by lightning storms; muzzle flashes from guns light up ship hulls; and thousands of lines of context-sensitive voice-overs create the feeling that your space battles are actually occurring. Fighters will call out their targets and cry for help when they get hit.

HOMEWORLD looks amazing, and the potential for incredible, epic battles is huge considering the brilliant engine that is bringing Relic's vision to life. The only question is whether the interface will make it easy to issue assignments and commands in 3D space. Relic is determined to make everything as easy to learn and play as possible. The interface right now is a simple one of left and right mouse clicks and customizable hot-keys. The team wants every player to be able to create the most natural configuration for themselves.

While HOMEWORLD is still several months from shipping, it's already taken the gaming world by storm. With its innovative look and design, and because of its movement into a full 3D tactical arena, it could take strategy gaming further than it's ever gone before. That's why it's the undisputed game of E3. Q4 '98

Aliens vs. Predator (Strategy)

This action game from Fox Interactive combines both movies' creatures with a QUAKE-style space marine, all of whom battle in an intense free-for-all multiplayer mode. The coolest parts? The Alien character can run on any surface, giving you a decidedly DESCENT-like feel, and the Predator's shimmering cloaking mode looks just as cool as it did in the movie. Let's hope the single-player game is this good. Q4 '98

Messiah (Strategy) Dave Perry's MESSIAH is a game of possession. With an advanced engine that scales its polygons to create the best frame-rate, and a skeletal animation system that allows you to mess with every bone of a character's body, MESSIAH is opening up dozens of possibilities for interacting with your enemies. As a baby angel who can possess others, you can take control of enemies and make them walk through flames or off catwalks to their death. Q4 '98

Sid Meier's Alpha Centauri (Strategy) The real "CIVILIZATION in Space" from EA/Firaxis, featuring better AI, more diplomacy, multiple play options, a hard sci-fi tech tree, and that sense of wonder you had when playing the original CIV. While it lacks the sexiness of the latest 3D shooters, as with most Sid designs, the play's the thing—this is easily the deepest game we saw at the show. Q4 '98

Sin (Action) Ritual's first-person shooter looks better each time we see it. There are plenty of interactive environments, such as pillars that can be destroyed by guards, thus bringing the roof crumbling down on you.

With multiple mission branching and levels that are better designed than ever SCOURGE OF ARMAGON'S, SIN should be a blast when it hits sometime this summer. Q3 '98

Slave Zero (Action) Wanting to merge the worlds of MECHWARRIOR and QUAKE, Sean Vesce, the designer of MECH 2 and INTERSTATE '76, has come up with SLAVE ZERO, a game inspired by Japanese anime hits like Evangelion. The robot action is more fierce and intense than MECH 2's, taking place in crowded Blade Runner-like cities. Q1 '99

Wheel of Time (Action/Strategy) GT Interactive's WHEEL OF TIME makes even better use of the UNREAL engine than does UNREAL itself. The idea is to break into other players' castles and steal artifacts. However, when you are gone, other players can break into your castle and steal your artifacts. To protect your castle, you must design and build traps and lay down monsters to thwart would-be robbers. So while half of the game is first-person, fantasy action with spectacular spells and weapons, the other half of the game is level-building with a

Birth of the Federation (Strategy) Star Trek Next Generation fans can stop wimpering: MicroProse's BIRTH OF THE FEDERATION is so good it could make even Worf suppress a smile. Everything from Wonders of the Galaxy (à la CIV) to Ferengi economics and Romulan difficience is modeled, in a much prettier, and more playable, grand strategy game than MOO II. The turn-based tactical space combat even supports 3D. Warp Speed, indeed! Q4 '98
... and Five Fizzlers

Asteroids (Action) Don't look for a BATTLEZONE-style take on the arcade classic when Activision's ASTEROIDS ships. The rocks are 3D, but the gameplay is the same old top-down spin-and-shoot. Q4 '98

Newman-Haas Racing (Sports) Pygnosis' PC conversion of NEWMAN-HAAS RACING is only slightly more robust than the PlayStation version that spawned it. You'd expect strategic depth and accuracy in the physics model for a racing game based on the CART team owned by driver/actor Paul Newman. At least, the detailed cockpit and adjustable mirrors are an advancement over the pure arcade play of the earlier game. Too bad little else is. Q3 '98

Star Con (Action) STAR CONTROL, a game that was once full of humor and personality, has been turned into a 3D space shooter. Sure, old STAR CONTROLS had the action-intensive melee, but they were part of a larger whole: an epic adventure game with quirky aliens and reams of hilarious dialogue. Accolade promises that the same humor and alien interaction will be there, but we won't believe that until we see it. Q4 '98

Top Gun: Hornet's Nest (Sim) MicroProse's action flight sim takes simplicity too far—it makes the last TOP GUN game look as complex as SU-27 FLANKER. We're all for introductory sims that are accessible to new gamers, but when jets don't even stall when they run out of speed, how useful an intro to flying is it? Q4 '98

Ultima Ascension (RPG) If ULTIMA VIII: PAGAN was considered to be ULTIMA: MARIO, Origin/EA's latest incarnation is destined to be ULTIMA: TOMB RAIDER. The cinematics are incredible and the animation is outstanding, but the familiar "behind the back" character perspective drags the frame rate down like cement shoes in the East River. Plus, Lord British must assume that most of the longtime ULTIMA fans have given up on the series. There isn't much of the Britannian tradition left in the current stew. Q4 '98

Prey (Action) PREY seems to have it all: a cool character, a great story, and an amazing 3D engine capable of creating mind-bending environments. You'll play Apache Indian, Talon Brave, as he battles his way through an immense spaceship against three alien races. 3D Realms is including the editor, so you can build your own levels. Q1 '99

X-Files (Adventure) Fox's upcoming X-FILES game casts you as a rookie agent assigned by Assistant Director Skinner to locate Mulder and Scully following their mysterious disappearance in Seattle. Gameplay is reminiscent of Activision's SPY CRAFT, with lots of "online" sleuthing and researching. The video sequences are extremely well done, giving it the look, feel, and quality of a real X-FILES episode. Q2 '98

Railroad Tycoon II (Strategy) Known as the savior of HEROES OF MIGHT & MAGIC, Phil Steinmeyer, of Pop Top Software, along with Gathering of Developers (GoD), have acquired the rights to Sid's masterpiece, turning it into a strategy train-fest nonpareil—complete with gorgeous 3D railroad cars and great graphics. Different levels of play allow you to ignore stock trading and modify your robber baron AI opponents. Q3 '98

Vaporware

<table>
<thead>
<tr>
<th>Game/Publisher</th>
<th>First Shown</th>
<th>Supposedly Ships</th>
<th>CGW's Guess</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guardians: Agents of Justice/MicroProse</td>
<td>'95</td>
<td>Q3 '98</td>
<td>Q4 '98</td>
<td>Steve Barcia tries to escape the Comics Gaming Curse and the patched shadows of MGM and MOO II.</td>
</tr>
<tr>
<td>Return to Kronkor/ Sierra</td>
<td>'95</td>
<td>Q3 '98</td>
<td>Q4 '98</td>
<td>The saga behind Raymond E. Feist's long-delayed RPG is almost more intriguing than one of the fantasy author's own tales.</td>
</tr>
<tr>
<td>European Air War/MicroProse</td>
<td>'95</td>
<td>Q4 '94</td>
<td>Q4 '98</td>
<td>The third time's the charm for this WW II sim that's shown up at each E3 sporting a new engine.</td>
</tr>
<tr>
<td>Falcon 4.0/MicroProse</td>
<td>'94</td>
<td>Q3 '98</td>
<td>Never</td>
<td>This long-awaited flight-sim really does look a lot closer to release than it did when we first saw it in 1994...honest!</td>
</tr>
<tr>
<td>Aliens vs. Predator/Fox Interactive</td>
<td>'94</td>
<td>Q4 '98</td>
<td>Never</td>
<td>This game's ship date has been as invisible as a cloaked Predator.</td>
</tr>
</tbody>
</table>
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The biggest surprise at E3 didn't come from the show floor, but from LucasArts' secret meeting suite. The most popular Nazi-busting hero of the big screen (and the original tomb raider), Indiana Jones, is returning for his fourth LucasArts adventure, and this time, he's coming back in full, gorgeous 3D. INDIANA JONES AND THE INFERnal MACHINE will be the fourth Indiana Jones title, but will be a huge leap above traditional LucasArts adventures. It will be a 3D action-adventure, in the same vein as, but technologically beyond, TOMB RAIDER. You'll play Indy and guide him through various tombs and caverns.

In 1947, as the Cold War is just beginning, the Soviet Union sets out to find an ancient machine in the fabled Tower of Babel. If the Soviets were to get their hands on this machine, they could open a gateway to another dimension, called Aetherium, which is filled with teeming, destructive energy. As Indiana Jones, you have to stop the Soviets. When you are first summoned by your CIA friend, Sophia Happgood, you are told that a Soviet scientist named Gennadi Volodnikov has discovered how to assemble the "infernal machine." The parts for this machine, though, are scattered throughout the globe, including ancient Babylon, the Tian Shan mountains, Kazakhstan, and Teotihuacan. Indy's job is to retrieve the pieces from these, and other, locations before the Soviets do.

The locations will be designed with plenty of traps and challenging puzzles. And what Indy adventure would be complete without opponents to fight? There will be combat, although at this point we don't know the exact enemies that Indy will face. He will have an expansive repertoire of moves, including swimming, jumping, running, swinging, and climbing. The weapons at his disposal in the dangerous tombs, mines, and dungeons will include his trusty whip, pistols, rifles, a bazooka, hand grenades, and satchel charges. The pieces of the Infernal Machine, and several other unique items, will also provide special powers.

Several action sequences that cry classic Indiana Jones will also appear in the game, such as whitewater rafting, an off-road jeep chase, and a rollercoaster mine car ride.

With all this gameplay and a wild Indiana Jones storyline to nurture, Hal Barwood (creator of previous Indy adventure games) and his team at LucasArts are taking their time with this game. The release date should be March or April '99.—Elliott Chin
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WarCraft Adventures Is Dead

WarCraft Adventures: Lord of the Clans is officially dead! The adventure game, which was being developed by a Russian art-house owned by Blizzard's sister company, Davidson, was slated for a summer 1998 release. After much internal discussion, Blizzard decided to stop development of the project.

Following an intensive review of the game, the company determined that given the game's current status and the rapidly changing technology of the industry, it would not be possible to complete development of the game within a reasonable time frame. Blizzard stated that it was an extremely difficult decision, but said, "we firmly believe that we cannot release a title that does not meet the exceptionally high standards that both we and our customers expect from the Blizzard label."

AMD Launches K6-2

Formerly known as the K6 3D, the new K6-2 from AMD is a SIMD (single instruction, multiple data) chip in 266MHz, 300MHz, and 333MHz speeds that will go by the 3DNow brand name. If this sounds too confusing, just remember this: The K6-2 uses these new, 32-bit wide instructions to speed up the types of mathematical transforms needed to accelerate 3D geometry—which translates into faster games.

AMD expected about 20 games to be K6-2-ready for the product announcement in late June. Initial CPUs will clock at 300MHz and will support the 100MHz system bus in the "Super-7" motherboard architecture.

Cyrix has indicated a strong interest in AMD's technology, and it's likely that IDT's C6+ CPU will ship with the new K6-2 instruction set. While we'll likely see systems using the new instructions by this summer, games using DirectX won't ship for a few more months. The K6-2 has the same x87 floating-point unit as the original K6, so non-3DNow floating-point performance will still lag Intel's Pentium II.

The second—and more significant—problem is software support. For K6 acceleration, games will need to use the DirectX lighting and transform engine, OpenGL or Glide APIs. Despite the number of DirectX games, very few current DirectX games use Microsoft's geometry engine—though this may change with the streamlined DirectX6. It's also possible that game programmers will wait until Intel's own Katmai processor ships next year.

USB, USB, Everywhere USB

For over two years, USB has held the promise of plug-and-play game controllers that are fully digital. Finally, at E3 we began to see some promising developments on that front.

ThrustMaster has long been shipping a USB version of the Top Gun, but the company will be soon add a USB version of the Rage 3D gamepad and a USB steering wheel to their product line, later this year. Logitech's upcoming force feedback joystick will be a USB device. Logitech is confident that USB has the bandwidth to handle the two-way data communications task between the game and the controller.

Meanwhile, industry veteran CH Products will be shipping a number of USB devices, including a USB version of the Gamestick 14, a wireless Gamestick 14, and a USB hub. The wireless stick uses radio frequencies to communicate with the computer. The radio receiver plugs into a low-speed USB port. Recognition, the connection limitations (most USB-equipped PCs only have two USB ports) mean it is also a developing USB hub.

Microsoft has announced that its Freestyle gamepad will also be available in a USB version. The company was also showing USB speakers at its booth—no sound card required. The digital audio stream from the PC is shipped directly down the USB bus to the speakers.

All this is good news for gamers. Fully digital devices don't require calibration, the CPU load will be much lower, and multiple controllers can remain attached, either by Daisy chaining or through a hub. The one caveat is that for best support, you'll need Windows 98 and DirectX 6. Both should be available by the fall, when most of these controllers will be out.
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Ritual Forges Heavy Metal Game

The 1981 cult classic Heavy Metal will come roaring back to life next year with the release of a movie sequel and computer game, both entitled Heavy Metal: F.A.K.K.2. Dallas-based Ritual Entertainment nailed the rights to develop the PC game, which is scheduled to coincide with the movie release in late summer '99. The company obtained the license for F.A.K.K.2 (Federation Assigned Ketogenic Killzone) from Kevin Eastman, who created the original movie and is working on the sequel. Ritual, best known for its award-winning 1997 game Quake Mission Pack #1: Scourge of Armagon, is close to completion of its second game, the 3D action shooter Sin.

The F.A.K.K.2 film will be one long story, as opposed to the 11 animated sequences in Heavy Metal. British artist Simon Bisley will once again create the outlandish character art. Ritual's agreement provides for full use of all of the film's artwork as well as the movie's soundtrack. The storyline behind Ritual's game picks up about two and one-half years after the movie sequel leaves off.

The new game was supposed to be based on a next-generation, 3D "Uber Engine" capable of "extremely detailed indoor and outdoor surface renderings and settings," according to Ritual. However, with the loss of two key programmers, Ritual has opted to license an existing 3D engine, most likely that of Quake II or Unreal.

Ritual Co-founder Robert Atkins says Eastman has given Ritual "carte blanche to do our own slant to the already twisted Heavy Metal universe. We really have been given a special opportunity to create something unique and entertaining."

Heavy Metal, released in 1981, featured animated stories with a driving rock soundtrack from Black Sabbath, Blue Öyster Cult, Cheap Trick, Devo, and Sammy Hagar. The movie earned more than $20 million at the box office and sold over a million copies on video.

—Ken Brown

Playing Lately

CGW Survey *

<table>
<thead>
<tr>
<th>Game</th>
<th>Last Month</th>
<th>Months on Chart</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age of Empires (Microsoft)</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Quake II (id Software/Activision)</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>3. Diablo (Blizzard/Curtis)</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>4. Fallout (Interplay)</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>5. Rebellion (LucasArts)</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>6. Heroes II: POL (New World Computing)</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>7. Jedi Knight (LucasArts)</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>8. Quake (id Software)</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>9. Panzer General 2 (3DO)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>10. Hellfire (Sierra/Cendent)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>11. Battlezone (Activision)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>12. Red Alert (Westwood)</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>13. CIV II: Fantastic Worlds (MicroProse)</td>
<td>1</td>
<td>1</td>
</tr>
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</table>

* Check your mailbox! We mail a survey to 1,500 randomly chosen subscribers each month. The results of Playing Lately indicate what games readers are blowing the most time on, as opposed to the readers' overall "quality ranking" in the Top 100.

PC Data Best-sellers **

<table>
<thead>
<tr>
<th>Game</th>
<th>Last Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. StarCraft (Blizzard/Cendent Software)</td>
<td>2</td>
</tr>
<tr>
<td>2. Deer Hunter (GT Interactive)</td>
<td>1</td>
</tr>
<tr>
<td>3. Titanic Adventure out of Time Cyberflix</td>
<td>2</td>
</tr>
<tr>
<td>4. Cabela's Big Game Hunter (Head Games)</td>
<td>7</td>
</tr>
<tr>
<td>5. Myst (RedOrb)</td>
<td>4</td>
</tr>
<tr>
<td>6. Rebellion (LucasArts)</td>
<td>5</td>
</tr>
<tr>
<td>7. Tomb Raider Gold (Eidos)</td>
<td>8</td>
</tr>
<tr>
<td>8. NASCAR II (Sierra/Cendent)</td>
<td></td>
</tr>
<tr>
<td>9. Quake II (id/Activision)</td>
<td>8</td>
</tr>
<tr>
<td>10. Flight Simulator '98 (Microsoft)</td>
<td>6</td>
</tr>
</tbody>
</table>

** This list indicates what the top-selling PC games were, as calculated by PC Data, for April, 1998.
Odds of landing this move: 10 to 1.
Odds of fathering children afterwards: 1,000,000 to 1.

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THE LAWS OF NATURE
AND SOMEONE IS

"THE MOST ADVANCED TECHNOLOGY WE'VE EVER SEEN IN A PC GAMING TITLE!" - COMPUTER GAMING WORLD

PHENOMENAL PHYSICS-BASED GAME PLAY: IF IT CAN HAPPEN IN REAL LIFE, IT CAN HAPPEN HERE.
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GOING TO PAY.

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It Was the **Best** of Shows, It Was the **Worst** of Shows

As usual, E3 had its high points and its low points. Forcing yourself to crawl out of bed at 7 a.m. for a breakfast meeting after a night of drinking, dancing, and general debauchery, for example, was one of the less popular activities. But it was a necessity if one wanted to make the most of the short amount of time we had at the show. This year, we kept our eyes peeled during all the events at that enormous extravaganza of entertainment. We’ve told you about the best and worst games of the show. Now, here’s CGW’s take on the best and worse of everything. —Charlotte Panther

**Best Booth Babe(s): The VIGILANCE Girls**

After Eidos’ set the precedence last year by having a real live Lara Croft-like strolling around its booth, this year, you were nobody unless you had a booth babe or two. Alison Huxter, the star of SPACE BUNNIES MUST DIE was shaking it down at the Ripcord booth; Acclaim had the FORSAKEN girl on show; and Lara was back again, putting the moves on a new bunch of gooo-goo-eyed geeks. Our vote, though, goes to SegaSoft and the VIGILANCE Girls. Sporting tight blue and black vinyl outfits, these models really did look like VIGILANCE stars Nikki, Amy, and company.

**Best Game Name: Wargasm**

Digital Image Design’s new battle strategy/simulation game sports a name that promises the peak of fun. Even better, though, is the moniker for the multiplayer mode: **Multiple Wargasm**. We’re not making this up.

**Best Use of a Celebrity to Promote a Game: Gillian Anderson**

Although the celebs at this year’s show included former NFL MVP Brett Favre, New York mayor Ed Koch, Sugar Ray Leonard, Oscar De La Hoya, and best-selling novelist Douglas Adams, none drew a larger crowd than the X-Files’ babealicious Gillian Anderson.

**Best Booth Beefcake: Duke Nukem**

This guy looked so much like the computer game character it was scary.

**Most Obvious Rip-off: TARTAN ARMY MYTH meets Braveheart**

Just don’t ask them what they’ve got on under their kilts.

**Most Disturbing Game: THRILL KILL**

Want to see a guy ripping his opponent’s arms out and beating him to death with them? How about watching a three foot, still-wearing devil crush his opponent with the ends of his stilts or a cannibal who enjoys chewing on his victims’ body parts. And you don’t even want to know what the Dominatrix does with her whip… or may be you do…you sick puppy.

**Worst Timing for a Press Event: Ripcord**

Journalists were invited to a small, intimate press event held by Ripcord to promote their upcoming game, SPACE BUNNIES MUST DIE. Unfortunately, it clashed with another little bash—the Sony party, where Foo Fighters topped the bill.

**Most Inhumane Chachka: Rabbit’s Foot Key Chain**

Ripcord gave away what it thought were fake rabbits’ feet key chains to promote its upcoming game, SPACE BUNNIES MUST DIE. It turned out—much to Ripcord’s dismay—that the faux feet were actually real, and earth bunnies did, in fact, die for these tasteless talons.

**Best Chachka: Tomb Raider Watch**

There were all sorts of weird and wonderful things being given away at the show but our favorite was the Lara Croft watch, given to those who attended the Eidos party.

**Best Party: Eidos**

Nintendo had the B-52s, Sony had Foo Fighters but among our hip young staff, Eidos won, with the semi-charmed Third Eye Blind opening for San Francisco’s ’70s tribute band Grooveville.

**Worst Party: Imagine**

Why? We weren’t invited!

**Worst Chachka: The CGW Shiny, Wavy Thing**

Nick-named the Shiny Butt Probe, nobody really knew what they were supposed to do with this useless chachka, but Stephan Jenkins, the lead singer of Third Eye Blind, was said to be waving his about wildly at the Eidos party.

**Bargain of the Show:**

Sega

Rumor has it that after Sony paid hundreds of thousands of dollars for Foo Fighters to play at their party, the band then went on to the Sega party, where they played to an intimate crowd of about 150 people for free.
It's ready. Are you?
PART ONE

Be warned: this is technology with a real “punch-you-in-the-gut-while-you’re-not-looking” brand of sensitivity.

There's never been anything like Intensor. So in order to survive it, you need to understand a few things. Like to begin with, you need to know what a Sensory Gaming Experience is. It's complete immersion. It’s intense tactile feedback. It's being able to see, hear and feel the game you're playing like never before. All you have to do is hook it up to the audio jack of any system, play any game and hold on. You may also want to say a little prayer.

Fig. 1. A breakdown of what you're up against.

# ITEM
1 Left 2" Mid-range Directional
2 Right 2" Mid-range Directional
3 5.25" Center Mid-range
4 5.25" Low Frequency Tactile Driver
5 High-range Tweeter
6 Sound Volume
7 Tactile Intensity
8 Electronics Unit
9 Heavy Duty Single Cord Connector
10 Optional Office Chair Base
11 Optional Subwoofer
12 Headphone Jack

PART TWO

Remember, in this chair no one can hear you scream.

Not everyone will have what it takes to handle Intensor's patented audio system. After all, we're talking 5 high-performance built-in speakers with 108dB output. Technically speaking, that means it's really loud. So for the neighbors' sake, you may want to use the headphone jack — which you can do without losing any tactile feedback. But keep in mind — if your ears start bleeding, you should probably turn the thing down.

Fig. 2. At 19 pounds, Intensor is designed for quick evacuation in the event things get ugly. (Shaky hands will appreciate the built-in molded carrying handle.)
PART THREE
Ducking, dodging, whimpering and other useful gaming skills you might want to perfect.

Be advised. With Intensor, you'll not only hear your games like never before, you'll also feel them. In your back. In your legs. You'll feel sensations in places you never even knew you had. Which means every engine rev, every explosion, every kick will seem more real than you may want it to. So it's important to note that under this type of extreme duress, screaming in high-pitched tones for one's mommy is quite common.

DEFENSIVE PROCEDURES

Fig. 3a.
The Dodge

Fig. 3b.
The Weave

Fig. 3c.
The Duck

TACTILE SENSATION GRAPH

Kidney Punch  Crushed By Falling Piano  Torn Apart By Wild Dogs  Intensor

Fig. 4. Artist's conception of Sensory Gaming's effect on the human heart. Those with heart conditions should proceed at their own risk.

Fig. 5. Note: Players attempting to negotiate Intensor on anything less than a good, stiff spine may be reduced to a vegetative state.

PART FOUR
Any game. Any system. Any medium. After this, nothing will ever be the same.

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Thief: The Dark Project

Lurk in the Shadows in Looking Glass' Return to First-Person Gaming

by Thierry Nguyen

The classics of 3D action gaming include such luminaries as DOOM, WOLFENSTEIN 3D, DUKE NUKEM 3D, and QUAKE. Almost never mentioned, but arguably as influential, are some of the games from Looking Glass. These days Looking Glass is far better known for the gorgeous FLIGHT UNLIMITED series, but the company defined the first-person RPG with the ULTIMA UNDERWORLD series, and it created the first true 3D environments with the action/adventure SYSTEM SHOCK in 1994. Now, Looking Glass is itching to return to the first-person action genre—and return in style. For its next game, THIEF: THE DARK PROJECT, “lurking” will be the key to success.

Strangers in the Night

THIEF: THE DARK PROJECT takes place in a universe where steam engines reign, yet magic still lives. Hence, this world isn’t the usual “medieval fantasy” fare that adventure gamers are used to.

Looking Glass wanted to break away from that traditional mold, but wanted to keep elements of fantasy to enliven its gameworld.

The game casts you as Garrett, a professional thief, and presents some 16 different “missions,” most of which require you to rob a closely guarded item from some local baron for a shady employer. In the first few missions, you burglarize various mansions and keeps until word reaches you that your fence (the man who’s been your mission contact) has been captured by a religious order of lawmen. You then have to break him out of jail.

At this point, the plot thickens. The shady employer who has been using you reveals himself. He asks you to steal a powerful artifact from the selfsame religious order that imprisoned your fence. During the course of this conversation, it’s shown that your employer, “Constantine,” is essentially the Devil. Once you retrieve the object, you realize that you’ve done the Devil’s dirty work and have helped him unleash his unholy minions on the world. Now it’s time for you to atone for that tiny mistake.

THIEF features a highly stylized, post-Industrial Revolution look, with cut-scenes that enhance the design. Looking Glass has opted to use two-dimensional, hand-drawn storyboard-style stills, complete with voiceovers, for the mission “briefings.” While it sounds unspectacular on paper, it proves markedly different when viewed onscreen. We watched the scene in which Constantine gives you the key mission, and the fades, shifting images, lighting, and voice-acting creates a sequence of cinematic quality. The Looking Glass artists who developed these cut-scenes have drawn inspiration from such stylized and innovative films as Brazil, The City of Lost Children, and Dark City.

DOES WHATEVER A SPIDER CAN

Garrett, your character in THIEF, is a renowned professional burglar who can slip up walls and lurk in the shadows.

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Thief: The Dark Project

GENRE: Action-Adventure
RELEASE DATE: 03 '98
DEVELOPER: Looking Glass Technologies
PUBLISHER: Eidos

MÉNAGE À TROIS
The enemy AI will often call out for assistance once someone has spotted you.

SPEAK OF THE DEVIL
Late in the game, Constantine reveals himself to be more than human, and unleashes his unholy minions upon you.

GOTHIC GOTHAM
The architecture reflects THIEF's Industrial Age look, although plenty of fantasy elements spice up the atmosphere.
Lurking in the Shadows: Unknown

Okay, so the plot and atmosphere are immersive, but what about the actual game? You won't be disappointed. Looking Glass is going for a faster-paced game than SYSTEM SHOCK. THIEF's claim to fame will be its premise. You play a thief, and as such you'll often skulk through levels backstabbing and evading enemies, rather than running in with crossbows at the ready.

The engine is Looking Glass's own, and has standard features such as 3D acceleration, high color usage, and dynamic lighting. Due to the nature of the game, there won't be many outdoor environments; the action generally takes place in closed spaces. The most open environments that you'll get are town streets. The beginning levels will feature lots of mansions and houses; in later missions, you'll explore prisons, mills, garrisons, and a temple.

While the game engine doesn't sound particularly special, the gameplay itself will make THIEF unique. As a thief, you've mastered the art of hiding in the shadows, attacking from behind, and sniping from afar. As a consequence, your fighting ability isn't as hardy as, say, that of a QUAKE marine. You enter into direct combat only as a last resort, and Looking Glass intends that you sneak past most obstacles, or at least kill stealthily, one man at a time. Your two main weapons are a sword for melee attacks and a bow for ranged fire. The bow at first fires normal arrows, and if you score a shot to the neck from behind, you'll net an instant kill. Later, you can get fire arrows or water arrows that douse torches.

To sneak around, you have to avoid both visual and aural detection. As Garrett, when you hide in the shadows, you effectively become invisible (like the Assassin in HEXEN II). Your footsteps are also quieter when you walk (running will make lots of noise). The type of surface you walk on will affect the level of noise you make, which can present a dilemma: Do you stay in the dark stone corridor and risk making more noise, or do you walk on the soft carpet and hope that you don't get seen?

The enemies in the beginning of the game range from normal guards to religious zealots. When Constantine acquires the artifact, the enemies become beasts from the Devil's realm. Looking Glass is determined to make memorable hellbeasts, rather than the usual tired, fantasy fare.

The AI in THIEF looks good. Looking Glass really does a nice job of handling guard duty. The guards patrol the halls, and if you make too much noise, they will pause and look for the source of the noise. If they spot you, they will chase you unless you go back into hiding. Guards might even shout to each other to converge on you if you make your presence known. If you manage to duck back into the shadows, these guards will just assume that they are seeing things and ignore you. We saw only the guards in action, so we can't give details about the AI of other enemies.

The Walls Have Ears

The missions in THIEF will place great emphasis on puzzle solving, as in previous Looking Glass games. One vastly important skill that you have is the ability to eavesdrop on the guards. Many of the hints for solving puzzles and getting through the plot are revealed in conversations that you must overhear. When you are going to rescue your fence, for example, you'll need to eavesdrop on two bored guards, who will reveal where he is kept and exactly how many guards are watching him. Looking Glass hopes to create a game in which you really have to stop, think, and listen to what is going on around you.

Scattered about the levels, you'll find many plot-related books—both to flesh out the game's atmosphere and to provide supplementary hints for some of the puzzles. However, these elements are strictly enhancements: Looking Glass assured us that the game will never be required to read a book, and that every puzzle and level can be completed without doing so. At every opportunity, Looking Glass emphasized that this is not a QUAKE clone. The design team even thinks of this title as a role-playing game. There are no stats, but you role-play a thief. This won't be some action-intensive game with a high body count. In fact, Looking Glass is designing the game so that, if played right, you can finish without killing a single person.

From the looks of it, Looking Glass's THIEF has the potential to be another solid action-adventure game. While the technical features may not blow away the competition, the atmosphere and the gameplay will make this one stand alone. In a genre dominated by intense combat with guns or spells, it's refreshing to see a developer take the time to create a game that emphasizes stealth over a quick trigger finger.
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Warhammer 40,000: Chaos Gate

CHAOS GATE Strives to Be the Best PC Warhammer Game Yet

by Sam Baker

If you're getting a little tired of real-time strategy games, SSI's latest may provide some relief. WARHAMMER 40,000: CHAOS GATE is a turn-based tactical game set in the dark, brooding, futuristic universe created by Games Workshop. In the 18-mission campaign you lead the Ultramarines through a series of battles with the dreaded Chaos Marines and their demonic overlords. CHAOS GATE has a completely new engine, which SSI developed to address the shortcomings of SOLDIERS AT WAR (see our SOLDIERS review on page 216).

Rhinos on the Prowl

In CHAOS GATE, you'll find plenty of types of space marines to whet your sci-fi soldier appetite. In addition to the expected assault troopers, devastator squads, and terminators, SSI also includes some special marines: librarians, captains, apothecaries, and tech marines. The game doesn't skimp on the tanks, either, providing Rhino APCs, Predator Tanks, land speeders, and the dreadnought suits that were absent from FINAL LIBERATION. And while CHAOS GATE's vehicular combat bears more than a passing resemblance to X-COM's, in CHAOS GATE, you have the added benefit of being able to use the Rhino to transport troops on the map.

As one might expect from a company with SSI's rich strategy/wargame heritage, just about every high-tech toy from the Warhammer 40,000 universe finds its way into the computer game: 37 space marine weapons (plus several more exclusive to the Chaos forces), 10 different grenades, and 25 Psyker and Chaos spells. For those who like to get up close and personal, there are numerous melee weapons, such as the chainsword, power fist, and force ax. SSI has even added the special Terminator power shield and force ax combination.

The Cult of Chaos

In true Warhammer fashion, CHAOS GATE has quite the assortment of bad guys with bizarre names: the Khorne Berzerkers, the Chaos Terminators, the Chaos Cultists, and the dreaded Word Bearer Chaos Marines (which sounds like my editor near a deadline). There are six different Chaos Demons represented, including the Pink Horrors, which, when shot, split into two Blue Horrors. Some foes are more subdued; the Chaos Lords, for example, are the equivalent of Ultramarine Specialists.

Unlike a lot of paper/miniatures-to-computer conversions, SSI's game does a good job of staying faithful to the original concepts. The biggest departure from the official Warhammer 40,000 rules is that you employ 5-man squads rather than 10-man squads; this actually speeds up play during each of the missions and grants you more tactical flexibility.

Each marine has 10 different skills that will improve if he survives each mission: action points, health, armor, ballistic skill, weapon skill, strength, toughness, initiative, number of attacks, and leadership. SSI diverges from the Warhammer 40,000 bible by making these skills percentages rather than the mostly single-digit values used in the tabletop game, so that there is more room for improvement. The penalties for leaving the command radius of leaders are less severe as well: in CHAOS GATE, marines who are "out of contact" don't receive the action point bonus from their leader.

A marine's every action uses action points (APs), and when these run out, that marine's turn is over. Marines may be placed in overwatch by clicking on a button. In that mode, the marine will reserve enough APs to be able to take a normal shot at the end of the turn.

Warhammer 40,000: Chaos Gate

GENRE: Turn-based Strategy
RELEASE DATE: Q3 '98
DEVELOPER: Random Games
PUBLISHER: SSI
I HAVE AN ENORMOUS TANK BATTALION.

I HAVE AN ARSENAL OF WEAPONS AT MY FINGERTIPS.

I'VE DESTROYED BUILDINGS IN MY WAY.

I AM ONE WITH THE CROSSHairs.

I AM A FORCE TO BE RECONbED WITH.

Hey hot shot, you're dead because you didn't think. To save the Earth in Urban Assault™
you must manage your resources, upgrade your technologies, control your squadrons, and deploy your troops
using an interactive map. All this at the same time you're shooting everything in sight.
I've teleported into my satellite.

I've driven my vehicles like a maniac.

I've torched a Taerkast biplane.

I have the fierce air force.

I know how to defend my host station.

It's the perfect blend of action and strategy that you can make even more challenging with multiplayer capabilities. So use that grey matter. Or you'll lose it.

Think yourself over to www.microsoft.com/games/urbanassault
his movement, similar to the snap-shot rule from X-COM.

Marines can run, walk, crouch, drop, toggle a switch, search, use psyker powers, or use jump packs. They won't go prone, however. Says Senior Producer Scott Evans, "Space marines don't crawl. These are in-your-face kind of guys. Their job is to die for the emperor."

There also won't be any of those "last alien in the lavatory" sort of bug hunts, either, according to Evans: "We aren't placing anybody off in a corner. Chaos Marines are in-your-face guys, too. They're going to come after you, not be off hiding somewhere. For those times when you have to find the last guy, you can drag select as many marines as you want and tell them to go there and they'll keep going until the enemy is spotted, then they all stop and you can react."

Every object in the game has three states: perfect, damaged, or destroyed. The damage value of the weapon is compared to the damage value of the object. If a figure is standing on a catwalk, that square may be immune to damage. SSI hasn't made the decision yet on whether or not to do falling figure animation and damage routines.

**My Old Kit Bag**

Once you equip a marine, he keeps his kit, so you won't have to fiddle with a marine's loadout once it is set. The interface is easy to understand for X-COM veterans. Even without a manual, I was fragging critters in no time.

Melee combat is subject to initiative. However, even units that have used up all of their action points have a certain number of hacks remaining for close combat, so you can't run up to a Lord of Chaos with a lone regular marine and expect to be standing when your turn comes to strike.

Instead, the more marines you bring into contact with the enemy soldier, the more damage they'll do by overwhelming him and the more likely you guys will survive.

Up to four players can participate as Chaos Marines or Ultramarines over a network, modem, or Internet connection. The only campaign, however, is for the Ultramarines. A full mission editor is included with the game as well as a complete encyclopedia that is accessible within the game or mission editor.

In the mission editor, you can create single- and multiplayer stand-alone scenarios, but not campaigns (although you can edit any mission in the game and save it as a stand-alone scenario). The editor lets you use any of the graphics, units, or weapons that are in the game. The editor includes triggers and reactors (similar to triggers, only tied to a location). Triggers are placed within a scenario by the designer and trip when certain things happen. For example, you might get a Predator as reinforcement when you've crossed/entered a particular square or on turn 10.

**Chaos Gate** is still pre-alpha, but even in this early state, the graphics, sounds, music, and interface already create a dark, brooding atmosphere totally different from most of the me-too strategy clones we've been subjected to recently. If SSI keeps its focus, this should be able to satisfy not only the hard-core Warhammer 40,000 fanatics, but those seeking the next X-COM as well.

---

**Soldiers Specialty**

One advantage that Chaos Gate has over similar tactical sci-fi games, such as X-COM, is the wide variety of soldier specialists.

- **Tactical Squads** Basic marines in powered armor; the regular troops. One man in the squad can carry a heavy weapon.
- **Assault Squads** Troops geared for close combat. They carry pistols and melee weapons. They have jetpacks to close quickly with the enemy.
- **Devastator Squads** The boys with the most toys. Two troopers in each squad can carry heavy weapons.
- **Terminators** They're easily worth twice their number of normal marines. Each one is a veteran, and his skills show it. Over twice the armor of their normal brothers, all armed to the teeth with specialized weapons only they can bear.
- **Captain** The best of the best. His high leadership makes all your troops more effective and his multiple attacks make him deadly in close combat.
- **Apostecaries** Trained in medical arts, they can heal their brothers.
- **Librarians** Those use their powerful psychic powers to heal and protect their brother marines and scourge the forces of Chaos.
- **Tech Marines** Versed in the arcane arts of technology, they maintain the machines of the empire.
- **Chaplains** Like captains, they inspire their brothers to greater efforts by leading from the front.
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The Operational Art of War
Take High Command in Norm Koger's Magnum Opus

by Johnny Wilson

After the conclusion of "The War to End All Wars," the brilliant French marshal Ferdinand Foch is quoted as saying, "The military mind always imagines that the next war will be on the same lines as the last. That never has been the case and never will be." I know of no better object lesson to that truth than the myriad of theaters of war presented in THE OPERATIONAL ART OF WAR (TOAW). TOAW features army-level combat in which the gamer assumes the role of theater commander. In playing through the list of scenarios, one realizes how much the Allies' Sicilian Campaign requires a strategy different from Operation Uranus (a 1942 attack by Soviet forces against the Germans); sees how the Arab-Israeli conflict of 1948 doesn't require the maneuvering of an Operation Typhoon (the German offensive against Moscow in 1941); and discovers that the pitfalls of Korea with its tremendously harsh terrain are quite different from those of the Fulda Gap (in a hypothetical campaign wherein new Warsaw Pact forces attack Frankfurt in 1955, but often played out with modern forces by NATO troops in "Reforger" exercises).

To be sure, there are some constants in every scenario. Victory has a great affinity for those units that have the highest readiness level and the best equipment, and are in supply. Victory also shows affinity for those units that are well-supported, both by artillery and air support. Yet, Victory also rewards those field commanders who are nimble in maneuver, quick to spot the strategic advantage in the surrounding topography, aware of the strengths and weaknesses within their own force, and able to exploit the weakness of the enemy.

THE OPERATIONAL ART OF WAR focuses on the latter challenges. The scenarios reflect different eras, campaigns, and problems. Some scenarios will require clever maneuvering replete with engineering tasks and repair of rail lines. Others will require vigilant defense via judicious use of air and artillery support. You can drill deep and number crunch by examining the strengths of each unit: against armor, against infantry, against high-altitude aircraft, against low-altitude air support, in pure defense posture, in reconnaissance, while performing engineering tasks, while repairing railroads, or while engaging in artillery bombardment.

You handle gameplay via a point-and-click interface on a two-dimensional map. Generals move units analogous to the typical cardboard counters of board-based wargames with standard military symbology on the counters. Right-clicking on a unit opens up a myriad of options (summarized below) and allows you to invoke attack or support plans. Once the planning is accomplished, the computer resolves attacks and displays the resolution in a small window with 3D representation of the attackers. Then, should the attack have been successful, the "cardboard counters" animate and retreat on the 2D map. This is followed by detailed summaries of losses for both sides being displayed on the screen.

Generalísimo
Micromanagement Is Not Dead

Micromanaging gamers will love the detailed lists that disclose every available piece of war materiel and replacement unit. Control-oriented commanders will adore the "Plan an Attack" option.

The Operational Art of War

**Genre:** Wargame

**Release Date:** 02 '98

**Developer:** Norm Koger

**Publisher:** Talosoft
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THE OPERATIONAL ART OF WAR

that lets you determine air, artillery, and close support for every encounter. Yet, more command-centered gamers will use the "Group Move" option to maneuver large groups of units in an orderly fashion, as well as the "All Units Attack" options in which you must choose among minimizing losses, limiting losses, and going for important objectives without considering the losses.

TOAW also reflects combat realities in interesting ways. Generals always want crack troops in key positions. Yet, a general doesn’t really know the level of competence and morale of some troops until they have been bloodied in battle. So, TOAW does not assign a proficiency level until a unit actually engages in battle. The general has an estimated proficiency level, but the actual results may vary up to 25 percent of that estimate. Naturally, once a unit has attained veteran status, the competence of a unit is well-known. Lose too many tanks and replace the losses? The veteran status may disappear to reflect the untried troops being shuttled into that unit.

Generals can know the level of unit readiness at a glance. Fully rested units have a readiness of 100 percent; exhausted troops, a readiness of only 30 percent. Since TOAW averages readiness level with proficiency level in order to obtain the quality of the troops, detail-oriented gamers (sometimes maligned as “control freaks”) will monitor unit readiness and proficiency with assiduousness. Other gamers will appreciate the fact that this detail is used in TOAW, but will probably monitor the readiness/proficiency levels only when deploying for important battles.

Experienced gamers will also appreciate the number of deployment orders available to TOAW generals. One doesn’t merely have the option of assigning a unit to Defend. Rather, one may: Entrench a unit; Fortify a unit (a stronger version of Entrench); assign a unit to Tactical Reserve (whereby reaction to enemy presence is restricted to adjacent hexes); deploy a unit as Local Reserve (whereby reaction to enemy presence occurs within the radius of the unit’s movement allowance); attempt to Reorganize (a modern version of rallying the troops after unsuccessful combat); Embark (by boarding transports, trains, ships, or planes); use air units to support combat troops, interdict enemy planes, or fly superiority missions (ensure that one’s enemy is less likely to be able to use air support); or rely on standard Move and Attack commands.

Not since Gary Grigsby’s classic PACIFIC WAR have we seen such depth of detail in a computer wargame. But the news gets better. Every aspect of this game can be edited. The maps can be edited (or built from scratch), orders of battle can be built or customized, weather can be delineated, calendar can be controlled, and special events can be scheduled to trigger at appropriate points.

A Code Named Ultra?

Naturally, it is difficult to predict the ultimate competence of the artificial generals from pre-release code. Yet, the early indicators seem positive. It could be either our imagination or wishful thinking, but we’ve seen artificial generals perform very smart maneuvers to cut supply or wear down fortified positions. This may depend on the scenario, but it seems to bode well for the playability of the game.

Whether the artificial opponents are the ultrafear or not, TalonSoft has built in the typical two-person hotseat and play-by-email options that will allow veteran gamers to challenge real intelligence as opposed to merely facing the artificial kind.

One thing seems absolutely certain: THE OPERATIONAL ART OF WAR is Norm Koger’s finest hour. TOAW is the deepest and most fascinating wargame he has yet designed.
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COMING THIS FALL.
12 New 3D Action/Adventure Games Are Stealing Lara’s Look but Adding Their Own Brand of Gameplay
In our industry, any time a game breaks the million-sales mark, other publishers take notice. The thinking goes: “If company X can sell a million copies of Y, we’ll just make a bigger Y and sell more.” Thus, the endless clone wars begin.

It happened when DOOM and QUAKE became big money-makers. It happened when MYST became computer gaming’s biggest seller of all time. And it happened when COMMAND & CONQUER and WAR-CRAFT II sales went through the roof. So what’s next on the to-be-cloned list? TOMB RAIDER.

For many people, TOMB RAIDER and Lara Croft made the third-person action-adventure sexier than DOOM’s first-person blood-and-guts tourney. With millions of TOMB RAIDERS and TOMB RAIDER IIIs sold on the PlayStation and PC, Eidos has discovered that there is a huge market for action-adventures full of exploration, puzzle-solving, and the occasional gunfight. It’s a discovery that’s piqued the interest of many other game developers. Red Orb is getting into the action by reviving its most famous franchise, PRINCE OF PERSIA. Raven and Activision are spinning off the HERETIC franchise from HEXEN and creating HERETIC II, a third-person fantasy romp. And Psygnosis is introducing a fantasy action/adventure that puts you on the back of a fire-breathing dragon.

These are just a few of the many promising games following in Lara’s footsteps. We don’t want to call any of these games clones, because each is carving its own niche. And many of them are imaginative and full of promise. Don’t believe us? See for yourself....
Tomb Raider III

She's Back, and This Time It's a Real Sequel

by Charlotte Panther

When Tomb Raider first made its appearance almost two years ago, gamers were totally captivated, not only with the game's luscious heroine, Lara Croft, but also with the technology and gameplay. Core had taken 3D technology—which had, until that point, been primarily the property of shoot-'em-ups—and used it to enhance a completely different game environment. Tomb Raider was still fundamentally an action game—Lara had guns and wasn't afraid to use them—but the gameplay went beyond testing how fast your reflexes were. Here, the emphasis was on adventure, discovery, and problem-solving. If you had to shoot a few enemies along the way, well, so be it.

In Tomb Raider II, the game's pace was speeded up somewhat, but the engine and gameplay showed little change. The one noticeable difference was the environment: Tomb Raider had focused on dreary caverns and dark grottoes; Tomb Raider II allowed you to experience the outdoor wonders of places like Venice.

With Tomb Raider III in the works, even the most ardent Tomb Raider fans may be apt to some skepticism (do the words "milking it" spring to mind?). From what we've seen so far, however, it looks as though the evolution from Tomb Raider II to Tomb Raider III will be a far greater leap than was the case with the previous episode. Back in January, when I first heard that Lara would be returning for a third performance, the game was not planned as a complete sequel—Eidos was describing it as Tomb Raider 2.5, which suggested that this would be more like an add-on, not a new game. So why the sudden decision to bill it as Tomb Raider III? Are there really enough changes to justify a complete sequel?

Core Design certainly thinks so. Adrian Smith, the director of 80 percent of the engine, implementing a much-improved dynamic lighting system into the new game. Fans will also notice that there is less shooting in Tomb Raider III and a return to the puzzle-solving of the first game.

Survival of the Fittest

When planning the Tomb Raider games, the first thing the members of the Core design team decide is which exciting locations they want Lara to visit. Once that's settled, the writer has the arduous task of writing a factually correct storyline linking those countries. This time, your mission is to locate and piece together four bits of a meteor that crashed into Antarctica millions of years ago. The four pieces, originally placed around the core of the meteorite in the form of an altar, have been stolen and scattered throughout the world. Legend has it that they hold the secret to great powers; in fact, they actually hold the most important discoveries in genetics and evolution since Darwin's theory of evolution. On your quest to find these pieces, you'll visit the islands of the South Pacific, tramp through the jungles of India, delve into London's mysterious subculture, and explore Nevada's infamous Area 51.

Once again, the game will have 15 levels, spread throughout these locales, but Tomb Raider III promises to be less linear than its...
predecessors, which will allow you to play the levels in whatever order you like. Your decisions will not affect the overall outcome of the game, but there will be advantages and disadvantages to the routes you choose. Some will be more difficult than others, but will reward you for your daring with better weapons and flares. Core hopes this subtle difference will encourage gamers to replay levels. The design team is also thinking about other ways to reward gamers—you may get a bonus depending on the number of save games you use, for example.

Core’s main focus, however, is to enhance the game’s special effects to make the atmosphere of TOMB RAIDER III completely immersive. Where the previous games sometimes felt sparse and lonely, Core has really tried to fill out the game environment: Birds and bats will appear in front of Lara as she walks down a path, and leaves will blow around the floor. The new lighting system makes the game darker and more mysterious than before, and light and darkness will play a big part in the puzzles. For example, there will be transparent platforms that can be seen only under the light of a flare. You’ll also discover that some of the baddies are afraid of the light. There will also be multi-colored lighting this time, transparency effects (including opaque light beams and realistic shadows), and improved water effects with more realistic splashing and better reflection. Weather effects will include fog, rain, and snow (in which Lara will leave footprints).

A new landscape system will offer richer terrain detail. And Core claims to have solved the clipping problems that were apparent in the first two TOMB RAIDER games.

Lara will encounter a host of human characters—including a band of mercenaries she can either fight or join—as well as a menagerie of animals. To improve the enemy AI, Core recruited Tom (“Dr. Tom”) Scott, a specialist in animal intelligence. Using Tom’s principles, Core will apply pack behavior AI to both human and animal enemies. Tigers will now surround Lara before they attack, rather than confronting her head on. To beat the more efficient pack tactics, Lara can shoot the leader and disperse the rest of the creatures. Similarly, when any creatures hear a gunshot the first time, they’ll get scared. By the second time, however, they’ll be used to it.

Run, Lara, Run

Enemies are well-hidden throughout the game. Deadly piranhas may lurk in the waters; long grass may disguise venomous snakes or other lethal critters; mischievous monkeys may pop up at any time to steal your weapons; and quicksand traps can suck you in at any second. Lara, as always, is well-equipped to handle every situation and has plenty of new moves, including the ability to strafe while swimming and push down, barge, or kick through some doors and scenery. She can also do a hand-over-hand monkey swing, a rope swing, and a duck-and-roll action, all of which are based around new puzzle ideas. Finally, Lara can now do a speed-dash—a timed sprint—so you can expect a few time-based activities, such as escaping from a rush of oncoming boulders.

Core has incorporated more vehicles into TOMB RAIDER III—there’s a different one in every level, and all of them will be key to the gameplay. For the most part, they will be motorized (the team had toyed with the idea of putting Lara on horseback, but decided against it). You can expect to see an underwater propulsion unit, a snow vehicle, and even a
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canoe—which Lara will use to navigate treacherous whitewater rapids—along with the usual cars and jeeps.

Core considered implementing hand-to-hand combat into the game, but it would have required giving each of the bad guys a combat animation sequence. The space demands would have been so high, that it would have meant cutting out a weapon or some of the enemies. Core decided it was not worth the trade-off. Instead, Lara will be packing a Desert Eagle pistol, a hand grenade, a rocket launcher, and the latest Uzi model. Core is still deciding on other weapons.

Lara Wraps Up

In case anybody was worried, Core promises that Lara will not wear those short-shorts when traveling through the freezing snow. The design team plans to keep her wardrobe sexy, but this time they will take into consideration the various climes she will have to endure.

And finally, the question that everyone has been asking: Will TOMB RAIDER III include network play? The answer is no, and the reason, according to Adrian Smith is because the designers “can’t think of a really good way of doing it.” They’ve received many suggestions from gamers, including capture-the-flag, a two-player race (whereby the first person to reach a trap door would get points for opening it), or having multiple Laras battling in a very small arena. Core feels that it would be impossible to institute any of these ideas and still maintain the feel of the game, partly because TOMB RAIDER relies much more on discovery than on shooting.

So, should we expect a TOMB RAIDER IV? Core is confident that the game is compelling enough to keep people coming back for more. As long as the TOMB RAIDER team can maintain the feel of the original, and at the same time keep successive games fresh and exciting, they are happy to continue. TOMB RAIDER III is scheduled for a November release.

TOMB ROBBERS

The Ubiquitous Lara Croft

She has graced the cover of mainstream magazines like Time Digital, she accompanied the rock band U2 on its last world tour, and with the TOMB RAIDER movie on the horizon, she'll soon be a star of the silver screen. It may seem that Lara Croft is everywhere, but actually, Core and Eidos are very careful about their starlet's public image. Since the Lara phenomenon hit, they have been offered many merchandising deals—including opportunities for Lara socks and Lara underwear—but they are very cautious about what they agree to, accepting only about 1 percent of the offers made. In fact, a Lara Croft committee has been established to vote upon exactly what the buxom beauty should endorse. Core plans to follow the James Bond school of marketing and associate Lara only with quality products that fit her personality.

Although today Lara is every marketing executive's dream girl, she almost wasn't a woman. When the original game was conceived, there was some hesitation about Lara being female because it was unprecedented at the time to have a strong, smart, attractive heroine in a computer game. Toby Gard (Lara's creator) and the rest of the TOMB RAIDER team wanted their lead character to be different from the typical Arnold Schwarzenegger-type action hero. They wanted the character to be agile, strong-willed but caring, with a sense of coyness. If they put these personality traits on a man, they risked producing a young, somewhat wimpy antihero. A woman with these attributes, however, made a perfectly respectable action figure. And so, Lara Croft was born.

As for the upcoming Paramount movie, Core says that it is very excited, but also a little nervous. After all, if the film flops, that's the end of the franchise. At press time, there was no word on who would play Lara (I vote for Elizabeth Hurley). Core's Adrian Smith agrees that Hurley is a possibility, but says that Core has no clear favorite—just as long as it's someone famous. TOMB RAIDER: The Movie is expected to hit theaters in late 1999.
Heretic II
Raven’s Next Fantasy Game Takes a Break From the First-Person Look
by Thierry Nguyen

Raven’s HERETIC broke away from the mainstream by providing a DOOM-style shooter in a pure fantasy environment. Instead of shooting aliens, you fired spells at gargoyles. HERETIC was the first title in a fantasy trilogy that pitted you against the Serpent Riders, with HEXEN and HEXEN II rounding out the series. With the trilogy completed, Raven is taking the HERETIC name in a new direction with HERETIC II, complete with a new plot, a new perspective, and a new engine.

Tomb Heretic
The backstory for HERETIC II puts you once again in the shoes of Corvus, the original HERETIC who defeated D’Sparil. Although D’Sparil and his brothers are now long gone, Corvus’s world is once again in trouble. A destructive plague afflicts the world, and it’s up to you, of course, to find the cure.

The first thing you’ll notice about HERETIC II is that it’s a third-person game. You no longer see the world through Corvus’s eyes. Gameplay in HERETIC II focuses less on dispatching legions of enemies in linearly constructed levels and more on exploring, with dashes of adventure-style puzzles and fast-paced action thrown in.

The preview alpha was an early build that showed off Corvus’s actions and the modified QUAKE II engine. Corvus looks very good.

RING AROUND THE ROSIE The weapons in HERETIC II are mostly spell-based, such as this new one, the Ring of Repulsion.

Art as Play
With its inventive use of the QUAKE II engine, Raven has once again shown that it makes some of the most aesthetically beautiful action games. In the sample level, the textures were crisp and nicely illustrated, and the architecture at times awe-inspiring. On top of that, the colored lighting really added to the atmosphere, especially in the spell system.

Most of the weapons for HERETIC II will be various spells. Some are straightforward, like firebolt, but there are some refreshingly new ones. One is the Ring of Repulsion, a blue field that wards off enemies. Another is the Shield of the Hunter, green spheres that circle Corvus and fly off to strike nearby enemies. The only non-spell weapon I saw was the Magic Bow, but based on the character model for the final game it looks like Corvus may have some melee weapons.

All in all, HERETIC II is a bit of a gamble for Raven, given its new perspective, engine, and game style. But with Raven’s background in solid fantasy games and beautiful art design, HERETIC II should be something to keep an eye on.

INDIANA ELF Even though it’s using a new engine and new style, Raven still has some cool statues and architecture in its games.

Heretic II
RELEASE DATE: Q4 '98
DEVELOPER: Raven Software
PUBLISHER: Activision
STYLE: Furious action and puzzle-solving in the HEXEN universe.

FIRE IN THE HOLE The use of the QUAKE II engine allows for colored lighting and better textures and models.
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Drakan

Get Ready for a Mix of TOMB RAIDER and Fire-Breathing Dragon Action

by Elliott Chin

Faced with a glut of TOMB RAIDER-style action games on the horizon, how does a publisher grab the attention of jaded gamers? By moving to the head of the pack with a hard-core medieval fantasy package full of playable dragons and intense, spell-flinging, bloodletting combat. Psygnosis’s new San Francisco-based development house is working on its first title, DRAKAN, and it’s a third-person perspective, 3D action-adventure game with gameplay that’s a blend of action and role-playing.

Dragon Quest

DRAKAN takes place in a medieval fantasy world that has been overrun by evil. (Haven’t they all been?) An archmage named Kulrik has engulfed the world in darkness and unleashed a horde of foul monsters. Allied with him are evil dragons who rule the skies. As the heroine, Rynn, you discover that your village and many others are being attacked by marauding wartoks (fancy ogres with big noses). As you embark on a quest to rid your village of wartoks, you’ll become engulfed in the battle to thwart Kulrik’s plans. However, you won’t fight alone. Eons ago, good dragons ruled the world justly, and one such being—Arokh—has returned to help your people in their darkest hour. Early in the game, you will find this noble dragon, a mighty wyrm capable of mass destruction and fiery breath. While you will be able to wield all sorts of weapons, from swords to axes to crossbows to maces, your winged companion will use various breath weapons, including fire, ice, and lava. Of course, neither of you starts out with an awesome arsenal. You’ll have to discover these weapons and acquire new abilities as you explore the vast gameworld.

The game ranges across five worlds with widely differing environments, and the worlds comprise more than a dozen levels. Unlike in classic action games, you won’t progress from level to level just by shooting and killing things. You have quests and missions you must solve, and these missions will take you between levels and possibly worlds. Each level will be vast, and can include above-ground and underground locations. While you’re cruising the skies on Arokh in one level, you might spot an interesting cave below. Dismounting from Arokh’s back, you can then venture into the cave to explore. Thanks to the graphics engine, the transition between indoor and outdoor environments should be seamless, and you’ll be able to enter and retreat from the caves as often as you like. The different environments you might traverse include villages, caves, ice caverns, forests, mountains, swamps, and volcanoes.

People to See, Things to Kill

Populating these levels will be humans, whom you’ll talk to for quests and general information, and monsters, which you’ll fight in droves. There are evil dragons, troll-like wartoks, stone-hurling giants, and scavengers. The humans you’ll encounter are important, not just because they give you quests, but because they’ll also open up new spells and breath weapons to you once you complete the tasks they give you. Although Rynn does not start with any spell-casting abilities, later in the game she will learn to use potent magics.

Drakan

| RELEASE DATE: Q1 ’99 |
| DEVELOPER/PUBLISHER: Psygnosis |
| STYLE: A hack-and-slash with dungeon scoping and dragon riding. |

ON THE HORIZON The graphics engine in DRAKAN lets you see clearly almost to the horizon. It's also responsible for some very fluid and realistic animation.

BACK, I SAY Here, Rynn attacks one of the marauding wartoks. A sudden invasion by these long-snouted beasts is what draws Rynn into the game's larger conflict.

DRAGON SIMULATOR Who wouldn't want to ride a dragon? You'll meet Arokh early in the game and be able to ride him throughout most of the gameworld.
No matter what quests you take, which worlds you explore, or what monsters you fight, you'll always have the choice of continuing on Arok's back or on foot. In the very first level of the game, you'll begin your initial quest on foot. However, once you find the dragon Arok, you can ride on his back for nearly the entire game. The choice is yours. You can either fly from place to place and get there quickly, or you can walk and pick up power-ups and weapons, meet various NPCs, and explore the environments.

In either case, you will encounter enemies, whether they are flying dragons or earthbound giants. In the air, you'll engage in aerial dogfights; on land, you'll trade sword blows and spells with your enemies. If you do choose to fly around the levels, you can always land Arok and do some exploring on your own. It will actually be very important to explore on your own because there are plenty of puzzles to solve and secret areas to discover, all of which you would miss if you were in the air. There will also be a number of levels and caves designed solely for Rynn; at these, Arok will simply have to wait for you to finish your quest. Defeating Kulrik, however, will require the combined might of you and your draconic steed. The graphics engine that Psygnosis has developed looks sharp, and the skeletal animation system is proving capable of incredibly realistic animation for both Rynn and Arok. Rynn has more than a hundred different moves, and she rivals Lara Croft for fluidity, not just for sheer numbers of actions.

Unlike TOMB Raider, DRAKAN will ship with multiplayer support. At the very least, you'll be able to deathmatch with other dragon-riding players. With a great premise, adventure- and role-playing-style gameplay, and plenty of environments to explore, DRAKAN promises to be one of the better third-person titles on the horizon. Look for Psygnosis to release it in early 1999.
APACHE PILOTS: TIME TO UPGRADE.
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SYSTEM REQUIREMENTS:
16MB RAM.
100MB FREE HARD DRIVE SPACE.
A HEALTHY DOSE OF
PARANOIA.

Find out if you have what it takes to enter the world of The X-Files as a field agent Craig Willmore, assigned to assist Special Agents Mulder and Scully in their investigation. With multiple paths and story lines, you'll follow trails of clues, sift through evidence at crime scenes, and interview witnesses. But beware, this game contains material that may be objectionable to some people. Mainly, the folks at the FBI.
Prince of Persia 3D

As we first reported in last month's CGW, Red Orb (Broderbund) is busily reviving one of the premier titles in the company's history: PRINCE OF PERSIA. Fresh for the millennium, the seminal platformer is returning in a (what else?) brand-new 3D engine, putting you into the heart of the action à la TOMB RAIDER (which, itself, was influenced by the first PRINCE OF PERSIA).

PRINCE OF PERSIA 3D has more going for it than just the name. It also boasts the design and story guidance of Jordan Mechner, creator of the original POP games.

**Prince of Persia 3D**

**RELEASE DATE:** Q1 '99  
**DEVELOPER/PUBLISHER:** Red Orb Entertainment  
**STYLE:** Platform, twitch action, puzzle solving, and swordplay.

Along with the game's producer, Andrew Pedersen (whose name we misspelled last issue), Mechner is hoping to create a game that is faithful to the spirit of the PRINCE OF PERSIA series while propelling it into a state-of-the-art 3D extravaganza. As such, all the great traps, puzzles, and twitch-factor gaming that made the first two games so memorable will be here, only now you'll experience them from an immersive, over-the-shoulder perspective. As he demonstrated in previous POP games and in his recent adventure game, the game's 15 levels will not only ramp up in difficulty through a series of diabolical puzzles to solve, they'll also tell an Arabian Nights-style story of love betrayed and found again. And don't worry if that sounds too civilized; there'll be plenty of challenging swordplay and bad guys to dismember as well. Mechner's track record is solid; look for the PRINCE to come roaring back in a big way in early 1999. —Jeff Green

Redguard

When Johnny Wilson, the editor-in-chief cum diplomat of Computer Gaming World, took a look at Bethesda's upcoming REDGUARD recently, his first words were: "Oh, look, it's PRINCE OF DAGGERFALL!" After taking a moment to wonder whether or not they had been insulted, the developers agreed: REDGUARD is a PRINCE OF PERSIA-style action adventure that takes place in the DAGGERFALL world of Tamriel. Set 40 years before the time of DAGGERFALL, REDGUARD puts you in the role of Cyrus, a mercenary Redguard who returns to his home in order to find his sister, who has disappeared. A civil war has gripped the land, and the Empire is running the city. Is your sister's disappearance somehow tied to the political intrigue? Discovering why she has disappeared and where she has gone are the mysteries that send you on your adventure.

Unlike the sprawling DAGGERFALL, REDGUARD is a tightly focused, three-act, linear game, set almost entirely on one island. The developers estimate that the gameplay will be split 70-30 between, respectively, adventure game-style puzzle-solving and action; the latter mainly takes the form of swashbuckling. The combat action we saw looked fun but simple, with just a few keys to memorize, much like PRINCE OF PERSIA.

The new 3D engine (which as of this writing supports only 3DFx for hardware acceleration) is a huge improvement over DAGGERFALL's engine, bringing Tamriel to life with a stunning variety of details, including: contoured terrain, beautiful textures maps, and vibrant dynamic lighting. While the thought of an adventure game based on an RPG series brought back bad memories of WIZARDRY NEMESIS, Sir-Tech's less-than-successful attempt to crossbreed the genres, REDGUARD actually impressed us. It's a strong story, set in a fleshed-out fantasy world, with a great engine behind it. Look for it this Christmas. —Jeff Green
WALK THROUGH WALLS

SYMANTEC.
No Barriers

Getting the most out of your computer has never been easier — or more important.

With each passing week your computer takes on more jobs. It’s your livelihood, and the place you keep your financial records. It helps the kids do their homework. Your computer preserves a treasure trove of files, inspires creative projects and provides the tools you need so you don’t stay too late at the office. It allows you to gather information from the far reaches of the planet and shop in cyberspace malls. You can use your computer to play games — by yourself or in a crowd. Thanks to your computer, you write letters again, knowing they’ll be delivered in minutes instead of days or weeks. It’s even become your family photo album and a darkroom all rolled into one.

No question about it. Your computer helps relieve the burdens of work and chores, opens new arenas for the curious of mind and offers welcome comic relief whenever you want it.

But as your computer’s tasks and assignments grow, so does its complexity — and the importance of the data it contains. These days, your computer runs more applications and supports more members of your household than ever before. And it needs some care and feeding to serve you well.

Easy as one, two, three

Happily, taking care of your computer and the valuable data on it is not hard. The goal is to eliminate external threats to your system, keep it running smoothly and prevent time-wasting and data-destroying failures when you’re using several applications at once.

With just a few simple steps and the right software products, you can keep your data safe and your Windows system in top condition.

Protect your system

Unless your computer always runs in complete isolation — no email, no downloaded files from the Internet, no floppy disks used on another system — then you need to worry about viruses. And though computer viruses can be scary — freezing your system, eating your data — you can defend yourself.

So, while you may not be able to avoid computer viruses, you can protect your system by installing an antivirus utility like Norton AntiVirus™ that scans your disk, finds viruses lurking there and gets rid of them.

Norton AntiVirus automatically protects your computer against both today’s viruses and tomorrow’s unknown viruses, covering all possible sources of infection, including the Internet, floppy disks, email attachments, shared files, and networks. Backed by Symantec’s AntiVirus Research Center (SARC™), Norton AntiVirus uses Bloodhound™ heuristics — earning Virus Bulletin’s 100 percent rating for detection of in-the-wild viruses, those viruses that pose the greatest threat to consumers.

Norton AntiVirus never becomes obsolete because it enables you, with a single mouse-click, to download new virus definitions created by SARC. These updates are easy to install and work automatically in the background. Norton AntiVirus also includes Repair Wizard™ which removes viruses from your computer automatically. No wonder a 1997 Hebert Research Study revealed that Norton AntiVirus is recommended by users more frequently than any product of its kind.

Clean your machine

You can replace just about everything in and around your computer — except your data. Lose your data and your only alternative is to recreate it, something that can take entirely too much time.

FOR MORE INFORMATION VISIT US ON THE WEB AT
One of the most effective ways to ensure that your data is safe is to keep your hard disk as free as possible of unwanted files and applications.

When it comes to removing applications you no longer use, however, you'll need more than your delete key. That's because the Windows operating environment scatters application files across multiple directories, making them tough to trace. What's more, applications share files, so if you manually delete a file associated with one application, you might make another one unworkable.

The solution? Norton Uninstall Deluxe, which not only deletes the program files and subordinate files of unwanted applications but also removes references to the application in key system files.

Norton Uninstall Deluxe comes with InstallGuard™, so you can remove the last installation and return your system to its original state. This unique undo capability means you can "test drive" new applications. Meanwhile, Norton Uninstall Deluxe SafetyScan gives you accurate knowledge of your system and configuration for a safe and complete Remove, Move, Copy and Store of all applications and files. You can remove, move, copy and store by subfolder as well as application group, application or file — so it's easy to remove suite components or data files stored in a folder within an application group.

Another exclusive Norton Uninstall Deluxe feature — Autoclean — makes it quick and easy to automatically free up space on your hard disk by removing recycle bin files, temp files, zero byte files and other unnecessary files each time you boot up your computer. And Norton Uninstall Deluxe Automatic Backup capability offers you an extra safety option by automatically saving a compressed backup of every removal made.

**No more crashes**

You've probably noticed already that as you put more and more applications on your computer and start using them at the same time, everything hangs. Maybe it's just a simple application lockup. Or maybe there's nothing you can do but turn off your computer and then turn it back on again — and lose the stuff you were working on.

Whether they're minor or severe, computer crashes cost you time and hassle, sometimes worse. Crashes make using your computer difficult and limit its potential.

Your adventures in computing need not be overwhelmed by increasing system complexity, however. All you have to do is install a crash prevention tool like Norton CrashGuard Deluxe, which monitors the workings of your system and alerts you to potential conflicts and problems before they occur.

Norton CrashGuard Deluxe automatically protects you against computer crashes and screen freezes — three times more effectively than any other software. Using award-winning Norton technology, Norton CrashGuard Deluxe detects and solves software problems in the background, so neither you nor your system needs to slow down.

With Norton CrashGuard Deluxe, your computer gets regular maintenance and optimized disk performance. Thanks to LiveUpdate™ Pro, Norton CrashGuard Deluxe can log onto the Internet to find any software updates or patches that your system needs. All you have to do is choose the ones you want to download and install. Norton CrashGuard Deluxe certifies that they're virus-free and checked for trouble-free installation — before they're downloaded. If you change your mind, it can all be undone with just the click of your mouse.

And Norton CrashGuard Deluxe comes with more than 140 instructional videos explaining everything from cleaning a CD-ROM to changing display settings.

For an enjoyable, productive, reliable computing experience, all it takes are three easy steps to no-barrier computing.

*No viruses*: Norton AntiVirus™, to keep your computer safe from virus infection.

*No junk*: Norton Uninstall Deluxe, so your system stays clean and mean.

*No crashes*: Norton CrashGuard Deluxe, to prevent the crashes that create frustration and eat up your valuable time.
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Norton Uninstall™ Deluxe
Cut through the clutter and be more productive. Automatically clean up junk files and programs that drag down your PC’s performance. Maintain custom settings and preferences when copying or moving programs. Try new programs without performance and software conflicts. You’ll fly through your tasks without old files and programs dragging you down.

Norton CrashGuard™ Deluxe
Lead a crash-free life. Automatically rid your PC of crash-causing software problems; check for conflicts and download fixes via the Internet; and optimize your hard drive for top performance. No more lost files or screen freezes. You’ll enjoy more time to do as you please, free from irritating crashes and unproductive downtime.

Get what you want from your computer. Feel like you can walk through walls with Norton™ products. Visit your nearest retailer to buy these Windows® 95 products or try them risk-free at www.symantec.com/promos/nci04.html

No Viruses, No Junk, No Crashes, No Barriers.
Space Bunnies Must Die
Bunnies and a Babe Collide in This Wacky Shooter

With its plucky female heroine and similar gameplay style, SPACE BUNNIES MUST DIE is bound to be compared to TOMB RAIDER. What sets the game apart, however, is its personality: SPACE BUNNIES has a tongue-in-cheek attitude, a completely wacky premise, and a host of kooky characters. The plot could be straight out of a '50s B-movie: Earth has been overrun by giant space rabbits who are enslaving humans and sewing together different types of animals to form bizarre mutations. As Allison Huxter, a tough-talking truck-stop waitress, you must rescue your sister Jocelyn and save the earth from the malevolent miscreants.

The game has 10 levels that can be played in any order. Your main task is to blast bunnies and mutant animals while picking up carrots, which are used to power transporters that can take you between levels. You'll also discover parcels left by your sister in each level. Some parcels contain outfits that provide protective power. Others contain CDs, which can be used to subdue the mutant animals. Music and dancing play a huge part in SPACE BUNNIES and contribute greatly to the game's personality. Allison has a number of different dance moves, which she uses to hypnotize the bunnies. Instead of shooting her, they start dancing with her. How long they stay in a trance depends upon the rabbit's size and strength. The meaner bunnies recover more quickly—unless Allison shoots them first. SPACE BUNNIES' soundtrack features a wide range of artists and songs, including Loretta Lynn's "These Boots Are Made for Walking" and Buddy Holly's "Rave On."

SPACE BUNNIES MUST DIE is less about exploration and problem-solving than TOMB RAIDER, and more about simply blowing the brains out of those brutish, belligerent bunnies. What promises to raise it above other typical shooters is its distinct personality and attitude. Look for Ripcord to have it on store shelves in August.—Charlotte Panther

Tonic Trouble
Can UbiSoft Do MARIO on the PC?

Ubisoft isn't too well-known in the United States, but in Europe, it has made quite a name for itself with RAYMAN. That game was a side-scrolling platformer that looked cute but was crammed with challenging gameplay. Since then, Ubisoft has been hard at work on a 3D platformer that would take RAYMAN-style gameplay to a whole new level, on a par with Nintendo's own MARIO 64. The result is a game titled TONIC TROUBLE. If the name sounds confusing, don't worry. The gameplay will be familiar to all gamers who love classic platformer fun. TONIC TROUBLE follows the exploits of Ed, a space being who has been sent to Earth to clean up what is essentially a "cosmic oil spill." You dropped a can of space tonic that has altered all Earth life into a weird cartoon-like world, and your punishment is to find that tonic and set things right. Just as in MARIO 64, you'll explore bright, colorful environments and encounter numerous puzzles and exotic bad guys. No thanks to you, the vegetables of Earth have become animated, slavering monsters, while the planet's environment—water, hills, and plains—has been turned into a multi-colored, cartoonesque.

The game is vast, with tons of locations, both indoors and outdoors, all beautifully rendered. The graphics are gorgeous and bright, and the sound is likewise impressive, complete with full support for 3D positional audio. Despite its looks, the game could put off PC gamers who have traditionally sneered at the MARIO-style gameplay. Rest assured that TONIC TROUBLE will have gameplay as deep and challenging as the graphics are beautiful and weird. Ubisoft is planning an August or September release date.—Elliott Chin
The most anticipated RPG of the year.

In the FORGOTTEN REALMS®, we’ve lived through foul pestilence, vicious battles, exorbitant taxes, and even the occasional dragon. But when HE showed up, things really started getting ugly.

Prepare to be immersed into a world of intrigue and mystery on a perilous quest to rescue a storied land from impending war. Even your own soul is at stake as you and a party of adventurers become entangled in a dangerous riddle of betrayed alliances, dark prophecies and murder.

Will you become the unlikely hero of the story, or merely another of its unfortunate casualties? Before you answer, the big guy here might have something to say about it.

Explore an immense, intricate game world - from cloud-covered mountains & rain drenched plains to dark catacombs & abandoned temples - all meticulously rendered in lush, 16-bit SVGA graphics.

Invoke more than 100 spells - Freeze enemies with an icy blast from a Cone of Cold, or incinerate them with a searing stream of magical flame.

Push your leadership skills to the limit as you guide a party of up to six characters, each with a personality that affects gameplay. Don’t let your stubborn fighter pummel the arrogant thief - you may need their teamwork in your next battle.

Create your character from six AD&D® races and 26 different classes and subclasses. You control every attribute, down to skin and hair color, weapons, and armor - all accurately depicted on-screen.

Coming Soon
Starship Troopers

Unlike the Movie, This Ain't Melrose Space

The swarms of huge, deadly bugs were the best part of last year's otherwise-forgettable Starship Troopers film, and the good news is that they're the main element MicroProse has borrowed for its game of the same name. STARSHIP TROOPERS has the Hollywood aliens, but the rest of the game takes its inspiration more from the original, classic novel by Robert A. Heinlein.

The biggest difference from the film is that here, you'll face the bugs from the (relative) safety of an armored powersuit. You'll battle in open terrain, in cities, and in underground tunnels. You'll never kill them all, so concentrate on completing your objectives and getting out alive. Changes are persistent, so when you come back to an area where you've been in battle, you'll still find carcasses everywhere.

You'll start as a grunt who merely follows orders, and if you perform well you'll be offered promotions. If you just want to shoot stuff, you can turn them down, but otherwise you can advance through the ranks to the point where you'll be deciding to which planet you'll send dropships. (But like a good space marine, you'll still accompany your troops to the surface.) The game includes research trees, which enable you to beef up your powersuit's weaponry and jump jets. You'll also get the chance to obtain some alien technologies.

There are three types of suits: scout, assault, and command. STARSHIP TROOPERS will sport 96 different weapons, many of which are drawn from the book. Look for a variety of different planetary locales, weather effects, and night missions. —Denny Atkin

Omikron

A Huge Adventure Unfolds in a Dark Future

Omikron

Although Eidos' TOMB RAIDER III is the game to beat, the company has another third-person action-adventure that could slip ahead of the pack and win itself a lot of attention. The game is called OMIKRON, and it's a game that promises to be very different from Lara Croft's adventure.

OMIKRON is set in the far future; you play a cop with sweet fighting moves and some power-packed weaponry. Although there is plenty to kill (and many enemies with which to spar in TEKKEN-style battles), this game's hallmark is its extensive dialogue and character interaction. As a cop in this future world, you have to track down and talk to witnesses, meet various people, and explore sprawling cities.

The graphics for this game are very nice, and the characters look much better than characters in TOMB RAIDER. The environments are much more alive, with street signs, pedestrians, and indoor areas, such as supermarkets and bars, populated with objects and people. The characters are very impressive, with lips that will sync up with dialogue.

The music for this game also caught our ears—a thumping, techno soundtrack that fits well with the Blade Runner-like universe.

Eidos has plenty of surprises in store for this game, the biggest one being that when you die, the game doesn't end. You don't play a person so much as you play a soul, and when it's body is destroyed, your soul finds another to inhabit. Reincarnation is a big part of this game, so be careful whom you meet. You could end up becoming the last person you touched. OMIKRON isn't an imminent release; when pressed, the best release date Eidos could commit to was early 1999. —Elliott Chin

Dark Vengeance

Role-playing and Intense Action Meet

Two years ago, Reality Bytes showed me DARK VENGEANCE, a third-person action game set in a fantasy world. It boasted a 3D-accelerated engine and 10 playable characters. After that one meeting, I never saw the game again. It was as if it had never existed. But now, GT Interactive has resurrected it, meaning this TOMB RAIDER-style dungeon romp will finally see the light of day.

In the game's fantasy world, dark elves have blocked out the sun and started a hostile takeover under the protection of this magical eclipse. You have to destroy the dark elves, and the monsters they've unleashed, and restore the sun's brilliance.

DARK VENGEANCE has some role-playing elements. You'll choose from three player characters and journey through infested hallways and dungeons. Each character has a different skill set, including exclusive spells and weapons. The game will have 18 missions, plus a unique starting level for each character class. Monsters will include undead, demons, animated statues, and dark elves.

DARK VENGEANCE promises to look great, with colored lights, shadows, translucency, and particle effects. Weapons and spells also create incredible effects. The final version should have 32-player deathmatch and team play. —Elliott Chin
Messiah
Angelic Gameplay and a Devilishly Sophisticated Engine

Shiny has always been known for creating outrageous entertainment, so it's no surprise that MESSIAH has stirred up controversy. What has some people in an uproar is that you play an angel.

Satan's influence in the world is getting stronger, so God has sent you to defeat the Devil. The only problem is, you are a baby angel, with weak powers. So, you can't fight monsters directly. Instead, you must possess various creatures and fight through them.

The game's two biggest features are the possession gameplay and the revolutionary engine. The gameplay is unique in that you have to possess enemies to overcome obstacles. You might take over a cop to bypass a security gate, or possess a powerful monster to fight a legion of bad guys.

The technology behind the game is called RT-DAT (Real-Time Deformation and Tessellation). Deformation simply refers to the skeletal animation system of the game, whereby creatures are composed of skeletons, with muscles and skins wrapped around the bones. The result is more realistic characters, with the skin moving to simulate ripping cloth or the rising of a chest as a character breathes. Tessellation basically means the game generates only the polygons you need to maintain a high frame-rate. If a scene gets complicated, with huge explosions and enemies onscreen, the game will simply subtract polygons from peripheral areas (like from a character on the edge of your vision rather than from the explosion in the middle of the screen) to maintain the high frame-rate.

If your machine can handle more polygons, the game will add as many as you can take to increase the quality of the graphics.

Look for MESSIAH's amazing gameplay and engine sometime this winter. —Elliott Chin

King's Quest: Mask of Eternity
Sierra Revamps a Classic Adventure Series Into 3D Action

Robert Williams' classic KING'S QUEST series set the standard for animated 2D fantasy adventures over the past decade, offering traditional adventure gamers an always entertaining mix of story-telling and brain-twisting puzzles. Now Sierra is going out on a limb by taking the series into a new (and more profitable) direction: 3D action-adventure. Apparently frustrated with the shrinking adventure game market—and anxious to explore new technologies—Williams is forsaking the series' long-standing puzzle-only gameplay and incorporating some 3D combat into the mix.

The story, penned by Williams herself, is firmly grounded in the lore of the KING'S QUEST series. Set once again in the kingdom of Daventry, MASK OF ETERNITY follows the adventures of Connor MacLyr, a young peasant who must search the land to discover the five pieces of an ancient mask. This mask apparently is the key to reversing a magical storm that has turned the inhabitants of the kingdom into stone.

The game's engine (based on the STARSIEGE ThreeSpace3D engine) allows you to switch between first- and third-person perspectives as you roam the land. The outdoor environments, when we last viewed the game, were gorgeous, and the mix between action and adventure looked stronger, and more feasible, than we first imagined.

A foolhardy departure or a bold new direction? We've been arguing for months, but this fall we'll have our answer. —Jeff Green
Look deep, deep inside and you will find a place of anger, vengeance and brutality.
Go there. It is your last hope to conquer the truly wicked. www.warlords3.com

A pall of unspeakable evil, merciless slaughter and unbridled destruction has fallen across the Realm of Etheria. The servants of evil, the Darklords, spread like a contagion across the land. Will you be able to stop their unholy juggernaut?

Welcome to Darklords Rising, the greatly anticipated sequel to Warlords III: Reign of Heroes, 1997's turn-based strategy game of the year. Discover the bigger, deeper, darker universe of Darklords Rising:

- 4 entirely new campaigns and 15 new scenarios
- 30 new army types for a total of 112
- 5 new uniquely skilled heroes for a total of 15
- 9 new multiplayer games including Capture the Flag, Fortress and North vs. South
- More challenging, adaptable and aggressive AI
- Fully functional map, item and campaign editor
- Bonus: Includes original campaign and scenarios from Warlords III: Reign of Heroes

In short, more adventure, deeper gameplay and fewer chances for survival.
COMING SOON!

It's Time to Get Primitive.

From the Dawn of Man comes the Dawn of War...

Enter a primitive world where you must lead one of three species -- Cro-Magnon, Saurian, or Neanderthal -- in a fight for survival. Protect your species against the hostile forces of extinction as you gather and manage resources, increase and diversify your tribe, and wage war against merciless enemies. Master new technologies and cast magical spells in the ultimate expression of the survival of the fittest.

Real-Time Strategy 50,000 B.C.

DAWN OF WAR

visit our website at www.vie.com
LAPD 2100 AD

Los Angelinos Need You to Clean Up the Streets

The games in this roundup run the gamut from dialogue-heavy adventure to straight-up arcade action. Electronic Arts' game LAPD 2100 AD epitomizes the latter style of gameplay. It's an arcade-style shooter set in a futuristic Los Angeles, in which gangs have taken over the city.

Since this game is all about action, your vehicle is a heavy-duty destructive machine. You ride about in an experimental vehicle that can transform between a speedy hovercraft and a nimble mech. Many of the game's levels will be designed to take advantage of the strengths of the two different forms. There will be some cramped and densely populated levels full of enemies—ideal for the maneuverable and powerful mech. There will also be freeway chasms and some expansive areas that will require the use of the fast hovercraft.

There is no huge story to the game. Instead, your job is simply to clear all the levels of any gang presence. Along the way, there will also be speeding tickets to issue, carjackings to stop, and robberies to respond to—all in a day's work for an L.A. cop.

As befits an arcade shooter, EA promises plenty of weapons, power-ups, and special effects. The look of the game will be more top-down than over-the-shoulder. While this view provides a better view of your surroundings, it could be uncomfortable for Tomb Raider fans. There is still plenty to add to the game, including cooperative and competitive multiplayer, so don't expect to see this game until 1999. —Elliott Chin

What's Come Before: A Look at the Third-person Action/adventure Games of the Past Year

If you're a Tomb Raider fan and can't wait for the games in this roundup, check out the following third-person action-adventures we've reviewed.

<table>
<thead>
<tr>
<th>Game</th>
<th>Rating</th>
<th>Issue</th>
<th>Worth playing?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Croc</td>
<td>4</td>
<td>April '98</td>
<td>Yes</td>
<td>A cute Mario 64 clone.</td>
</tr>
<tr>
<td>Die By The Sword</td>
<td>3.5</td>
<td>August '98</td>
<td>Maybe</td>
<td>Realistic swordfighting, but tough to learn.</td>
</tr>
<tr>
<td>Ecstatica II</td>
<td>4</td>
<td>August '97</td>
<td>Yes</td>
<td>A good, tough action-adventure with ellipsoid characters and a large world.</td>
</tr>
<tr>
<td>Excalibur 2555 AD</td>
<td>1</td>
<td>March '98</td>
<td>No</td>
<td>A terrible, boring game. Worst of the Tomb Raider clones.</td>
</tr>
<tr>
<td>Meat Puppet</td>
<td>4</td>
<td>October '97</td>
<td>Maybe</td>
<td>Macabre humor and bad controls. More like Crusader than Tomb Raider. Not as good as its rating suggests.</td>
</tr>
<tr>
<td>Men In Black</td>
<td>2</td>
<td>March '97</td>
<td>No</td>
<td>A lame adaptation of the movie, it has little gameplay.</td>
</tr>
<tr>
<td>Nightmare Creatures</td>
<td>4</td>
<td>April '98</td>
<td>Yes</td>
<td>An action game with a horror theme, including zombies and werewolves.</td>
</tr>
<tr>
<td>Resident Evil</td>
<td>2.5</td>
<td>January '98</td>
<td>No</td>
<td>A gory PlayStation port with some good and bad moments.</td>
</tr>
<tr>
<td>Tinsen's Odyssey</td>
<td>5</td>
<td>November '97</td>
<td>Yes</td>
<td>An action/adventure hybrid with personality, a great story, and some Mario 64-like gameplay.</td>
</tr>
<tr>
<td>Legacy of Kain</td>
<td>2.5</td>
<td>December '97</td>
<td>No</td>
<td>A poor PlayStation port with mediocre gameplay and a lame save feature.</td>
</tr>
</tbody>
</table>
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With the advent of amazing new 3D hardware, microprocessors with speed that game designers could only dream about a few years ago, and the growing importance of multiplayer play, today's jet sims are breaking new ground in sophistication and features. Doing my best to re-create Clint Eastwood's role in Firefox, I went behind the scenes to sneak into the cockpits of four advanced jet fighter sims to bring back the first hands-on reports on this new generation of sims. Following these reports you'll find intelligence on a number of other jet and helicopter sims in development. If flying fast and low is your forte, strap in and get ready for high-mach action.
World Air Power: Israeli Air Force

Jane's Goes to the Experts for Its Next-Generation Jet Sim

When it comes to training, equipment, and actual combat experience, it can easily be argued that the Israeli Air Force is one of the most advanced and most combat-ready air arms in the world. So there are few better services to focus on for a simulation of air warfare from the early 1970s to the present. There’s one big snag, however: The IAF is also one of the most secretive forces in the free world. So how do you create an authentic game based on IAF operations? Go straight to the source.

Pixel Interactive is an Israel-based software company that brings something to the table that makes it unique. On its staff are no fewer than nine active-duty IAF reserve pilots. Working with Paul Grace and his team at the California offices of Jane’s Combat Simulations, Pixel is creating WORLD AIR POWER: ISRAELI AIR FORCE (IAF), a simulation that aims to combine a wealth of unclassified operational knowledge with the kind of accessibility that has characterized the U.S. NAVY FIGHTERS (USNF) series.

The Past and the Future

IAF’s basic setup will look familiar to any gamer who has played the series that started with USNF and wrapped last year with FIGHTERS ANTHOLOGY. Though the mission and multiplayer structure is very similar to that series, this game is based on an entirely new engine.

The game features three-segment historical campaigns, as well as a 21-mission hypothetical near-future campaign in which you’ll fight on three fronts. The missions are scripted, not dynamic, but are structured in such a way that they offer much more variety than those in USNF and its sequels.

LEBANESE INSTALLATIONS OVER ITS northern border. The future campaign postulates another war with Iraq. This time, however, Syria gets involved, and Israel ends up fighting on both Lebanese and Syrian fronts, while simultaneously trying to push back an Iraqi invasion of Jordan before enemy troops reach Israeli borders.

Each mission may have up to four allied flights carrying out various tasks. A SEAD (Suppression of Enemy Air Defense) mission may be followed by a fighter sweep, then by an air-to-ground strike package, and finally by a reconnaissance flight. You can fly any or all of these. Once you complete a mission phase in a particular flight—or if you’re forced to eject—you can jump back to the tactical display and choose another flight. Alternatively, you can click the Visit icon and watch the computer pilots do their thing. Time-on-target becomes an important factor in IAF—if the Wild Weasel flight doesn’t arrive in time, the strike flight may face a wall of surface-to-air missiles.

You can alter the loadouts of all the aircraft on the mission, but you won’t be able to alter their waypoints. EA’s Paul Grace points out that real IAF pilots aren’t given the opportunity to change their mission waypoints either.

If you enjoy micromanaging a sim’s strategic elements, this isn’t the game for you. The detailed mission creator is the one major feature from the USNF series that doesn’t make an appearance here. In addition to the campaigns, you’ll find scramble missions, in which you’re vectored to unknown threats; detailed training missions; and a quick mission creator, in which you specify up to three allied and enemy flights (and an optional ground target). All campaigns and quick missions can be flowed in multiplayer mode over a network or the Internet.
A Team With Unique Experience

While many companies have used fighter pilots as consultants or even designers, few have as many experienced fighter pilots actively involved in all aspects of creating the simulation. We talked to Ramy W. (name withheld for security reasons), CEO of Pixel; Aviv Yam Shahor, content expert; and David Zerah and Yael Amir, executive producers of IAF, to get some background on the game's design.

CGW: I understand a number of team members are active-duty or veteran IAF pilots. Can you describe the backgrounds of the team members? Also, which aircraft have the team members flown?

W.: Unlike other air forces, in the Israeli Air Force, when you become a reserve pilot, you continue flying in your regular squadron, among the "active duties," as long as you can keep kicking their butts. There are currently nine active IAF reserve pilots in Pixel. We have three F-15 pilots, three F-16 pilots, two Cobra pilots and an Apache pilot. Among us "Pixel pilots," we've flown all the IAF game-controllable jets, including the MiG-29 and the MiG-23. Once a week, each one of us goes to the squadron and gets some training or real operational missions duties. I am sure that I can safely say that Pixel scores the highest number of active jet fighter hours among the game companies in the world. (Not to mention MiG and SAM kills...) Amir: The pilots are the leaders and key players in the creative teams, in charge of the missions, flight tactics, and the flight avionics. One is fully devoted to working with the aerodynamic engineer on the flight models and flight envelopes, and two are members of the simulation programming team.

The Israeli Air Force is one of the more secretive in the free world. Have you had to get IAF clearance for anything that's going into the game?

W.: This is very true about the IAF, and we, being a part of that service for so long, completely understand and think that this is the way it must be. That is why we invited security officers from IAF Intelligence over to Pixel from the beginning—in order to show them the game. We had to give up on a few of the features that we had planned, but in return we were allowed, for the first time, to expose some historical missions and combat tactics, as well as squadron signs and colors and front-line Israeli weapon systems.

What does Pixel's expertise bring to the table that makes IAF unique?

W.: I think that, above all, it's this combination of cutting-edge technologies with this big team of active-duty pilots. The best example of this combination happened during the last alert period, when things were heating up in the Gulf and we were all called back to our squadrons (I had to cut a visit to EA). Not knowing how long it would take, we took our computers with us, and after a week of "patrolling and waiting," we came back to Pixel with some of the best mission designs!

Zerah: I think that for all the team, and the pilots in particular, this game is very special. You have to know that the IAF has been our home and family for 7 to 12 years (depending on the pilot) and, in many ways, still is. For us this game is our self-portrait and we have a lot of heart and pride of what it represents. It's us, you know?

How realistic are the flight models in the game?

Yam Shahor: All the flight models are accurate and tested by pilots with thousands of flight hours on each of the Israeli planes, and also by IAF test pilots who flew the Lavi, the MiG-29, and even the MiG-23 personally. The flight envelopes are generated out of the real performance tables of the jets in the game; special effects such as spins, stalls, and flicks are all modeled in the appropriated jets. An intermediate player can turn on the easy flight model modes and enjoy a more forgiving flight model. The use of force-feedback joysticks gives us the opportunity to enhance the feeling of flying the jets. For example, the F-16 and the Lavi are smooth flyers, while the F-15 and F-4 jets shake and rattle as the AOA builds toward the stall angle.
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detection and track ranges are also different from one jet to another. The limits of the systems are correct: terrain clutter, terrain masking, and RCS are all modeled in the simulation engine, contributing to the realism of the game and allowing players to benefit from correct flying tactics.

**Terrain Following**

The most distinctive feature of IAF is its terrain engine. Based on stereoscopic satellite images of Israel and surrounding territory, the ground has unprecedented detail. Instead of using polygons to represent various elevations, elevation can change from pixel to pixel. Detail ranges from about 100 meters per pixel in some desert expanses, to 20 meters per pixel in many combat zones, all the way down to 2 meters per pixel in and around cities and targets. To this level of detail, add the game's AI planes, which properly use low-level combat techniques, and you have the makings of some very exciting dogfights through mountains and valleys.

The downside of this technique is that it uses more than 300MB of texture data, far too much for 3D cards. So while the aircraft and special effects are rendered using 3D cards (3Dfx and ATI AGP cards are supported), the ground isn't. Because there's no hardware filtering, the textures have a shimmering effect (imagine the Dr. Katz artist doing a flight sim) that may bother some gamers, and it looks pretty pixelated in lower-detail areas. This is a necessary tradeoff to get unprecedented elevation detail, which wouldn't be possible using traditional polygons and 3D-compatible texturing methods.

Pixel's David Zerah explains: "Above all, the terrain was designed to allow us to actually duplicate the physical environment of the IAF flights in terms of bases, targets, border lines, and so on--well, with some minor limitations imposed on us by our [Israeli] Air Force Intelligence security unit, of course. The enemy aircraft brains are programmed to fly low and use the terrain for cover. The planned flight routes are always taking the terrain into consideration. Enemy ground missiles will fire only when in line-of-sight, so it's extremely important to take advantage of the terrain."

IAF will require a minimum of a Pentium 200MMX system with 32MB of RAM (64MB for optimum performance). The early version I've been flying shows a promising balance between realism and gameplay. The only major downside to this version was the texture shimmering, which bothered a number of CGW editors who tried the sim. I hope that this effect will be less noticeable in later builds as Pixel enhances the terrain detail.

---

**MIG ALLEY** In multiplayer missions you can fly a MIG-29 as you oppose Israeli forces.

**PHANTOM PHASE TWO** In historical missions, the sim models the F-4E Phantom. In the modern conflict, you can fly the F-4 2000.

**KFIR ME** The Kfir C-7 was the first indigenous Israeli fighter; it's a fine-tuned Mirage III with a Phantom's J79 engine.

**HUMPBACK F-16** The aircraft in the game include some unique Israeli enhancements, such as the dorsal avionics spine on this F-16.
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F-16 Viper and MiG-29 Fulcrum

Novalogic's Sim Duo Lets You Fight on Either Side

This September, Novalogic plans to release simultaneously two new jet sims that can share a single battle arena. If fighting for democracy and apple pie is your thing, choose F-16 VIPER, the latest sim developed in cooperation with Lockheed-Martin. If you're feeling a bit more confrontational, drop in the cockpit of MiG-29 FULCRUM to experience flying one of the last great technical achievements of the Soviet era. And those arguments as to which is the better plane can finally be settled over the Internet skies of Novalogic's NovaWorld servers. VIPER and FULCRUM will initially be bundled together at the price of a single game; they may eventually be sold separately as well.

Building on Experience

Novalogic's first jet sim, F-22 LIGHTNING II, was a good seller, but it met with a lackluster response from experienced sim players, who found that the sim's overly simple flight model didn't match claims of realism on the box, and who were disappointed with the game's lack of replayability. The company worked out a licensing deal with Lockheed-Martin for its next sim, F-22 RAPTOR. While still not "hardcore" by any means, RAPTOR featured a much-improved flight model and a somewhat improved campaign structure, in which your successes or failures could affect future missions. Most significant, though, was the addition of NovaWorld, a free online massively multiplayer service which featured arenas supporting more than 100 RAPTOR players simultaneously.

NovaWorld is where RAPTOR really shines. But there's been one problem with gameplay—everyone's flying the same aircraft, which limits the available strategies (not to mention suspension of disbelief). With the coming of both F-16 VIPER and MiG-29 FULCRUM to NovaWorld's skies, things should get much more interesting.

VIPER and FULCRUM are based on the RAPTOR engine, but they feature significant improvements on that sim, including better-looking graphics, 3Dfx support, improved flight modeling, and a more sophisticated campaign. The game engine is essentially identical in VIPER and FULCRUM, with the primary difference being the aircraft model and its capabilities, and a different set of missions.

The most noticeable improvement in the games is in their graphics. Hardware support is included for 3Dfx cards. The sims don't use the card's Z-buffer feature, so resolutions of up to 800x600 are supported on an original Voodoo card, and 1024x768 on a single Voodoo² card. On 3D cards, the terrain sports 16 times the polygon detail of F-22 RAPTOR. Even on the early version of F-16 VIPER that I flew at 1024x768 the ground detail was so crisp I could almost forget I was looking at a sim. Hardware acceleration will also eliminate the polygon "pop-up" of earlier Novalogic jet sims.

Virtual Views

Where many sims have a highly detailed static, bitmapped cockpit in addition to a lower-res, virtual cockpit, Novalogic has managed to combine the best of both into one cockpit for each plane. Unlike the somewhat blocky virtual cockpits in games like JSF and F-22 ADF, the instrument panels here are as crisp as any static cockpits you've seen. And despite their virtual nature, both cockpits feature fully clickable instrument panels, not to mention working analog controllers.

FACING DOOM Here's the last thing many a MiG-29 pilot will see. The terrain in 3Dfx mode sports 16 times the detail found in Novalogic's previous jet sim.

Neither game supports Direct3D or OpenGL, so users of non-3Dfx-based graphics cards will have to run the games using a software graphics engine. Even so, the terrain has four times the detail of F-22 RAPTOR's software engine, and 16-bit color eliminates much of the "dithered look.

LEVERAGING THE FULCRUM A MiG-29 flies low; the terrain still looks great without 3D hardware acceleration.
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and digital instruments. Multiple zoom levels will allow you to have a full instrument-panel display, "HUD-in-your-face" view, or something in-between.

The new panels are for more than show. Gone is RAPTOR’s god-like radar view—the development augmented, fly-by-wire plane like the F-22, its control system isn’t as sophisticated. In addition, the MiG-29 doesn’t utilize fly-by-wire at all, so it should have a much different feel than the F-16.

During my visit to Novalogic, I was only able to fly the F-16, as the MiG-29 modeling was still in the works. Look for better modeling of altitude effects on engine performance and fuel flow. Aircraft systems are more detailed as well—for instance, you’ll have to watch your engine temperature, and the F-16 flight computer will restrict your plane’s angle of attack when the jet is heavily loaded. The flight model was designed with the assistance of the designer of Lockheed’s F-16 simulator, and Novalogic plans to have real F-16 pilots review it before VIPER ships. The company is also in contact with pilots who’ve flown the MiG-29 to verify the accuracy of the companion sim.

**Raptor Revised**

When F-16 VIPER and MiG-29 FULCRUM are released, Novalogic will simultaneously release an upgrade for its F-22 RAPTOR to allow it to share the NovaWorld skies with the new sims. Although the changes to the sim will be primarily to enable play with the new games, look for some of the new sims’ improvements to trickle down into RAPTOR for play-balancing purposes. For instance, RAPTOR’s radar modeling will be made more realistic so as not to give the F-22 a bigger edge over the F-16 and MiG-29 than it would have in reality.

**Around the World**

VIPER will feature around 40 missions set in Bolivia, Armenia, Turkey, and the Philippines, and one other geographic region that is yet to be decided. In FULCRUM, you’ll fly missions for countries that have purchased MiG-29s from Russia. These are being developed with the assistance of Russian aviator Yuri Prikhodko, a cosmonaut and test pilot on the MiG-29, Su-27, and MiG-31 fighter programs. He’s acting as a consultant on FULCRUM, and is helping to provide a perspective on what it’s like to do combat from the other side.

Novalogic strongly believes that human-scripted missions are more interesting and offer better gameplay than computer-generated stories. Designers spend about a week on each individual mission before it goes into testing. The good news: Your successes and failures do affect the missions you’ll be assigned later in the game. The bad news: As with previous Novalogic sims, you’ll have to rely any missions you fail until you complete them successfully.

Where the sims promise to shine is in the NovaWorld environment; there, VIPER and FULCRUM players will be able to fly with RAPTOR owners in online arenas. It’s hoped that Novalogic will create arenas with varying mixes of aircraft—it would be interesting to pit F-16s against MiG-29s without any F-22 "superplanes" in the mix.
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F22 Total Air War
DID's F-22 Game Gets a Real Campaign Engine

Digital Image Design's F22 AIR DOMINANCE FIGHTER (ADF) wrapped up last year's wave of F-22 simulations with a bang. Sim pilots lauded the game for its detailed flight modeling, challenging artificial intelligence, and impressive graphics engine. The biggest gripe about the game was its lack of flexibility and replayability. You could only fly the game's built-in, scripted missions, and you had no control over details—such as the weapons loadout of your plane. DID aims to address these Gripes in spades with F22 TOTAL AIR WAR (TAW).

Common Foundation
Although it's a stand-alone program (see the "It's Not an Add-on" sidebar next page for details), TAW is based heavily on the ADF engine and includes nearly all the features of that earlier title. The biggest difference is that the prescribed missions in ADF have been replaced with a dynamic campaign engine.

The campaign structure in TAW is more sophisticated than the last dynamic campaign engine DID created for EF2000 2.0. The missions are more varied in nature, and you have more control. Ten campaigns are proffered, all set in the Middle East/North Africa

F22 TOTAL AIR WAR
RELEASE DATE: Q3 '98
DEVELOPER: DID
PUBLISHER: Infogrames/Ocean

neutral air activity. You can also bring up a variety of informational charts that show the number of sorties launched by each side, damage levels, priority targets, and the current strategy.

Strategies are based on a "five-ring" model employed during the Gulf War by the USAF: Imagine a bull's-eye with five rings, labeled from the outer to the inner ring as Fielded Military, Population, Infrastructure, Organic Essentials (fuel, oil, and the like), and Leadership. The outermost ring is the most vulnerable; the innermost is the most vital—and most heavily defended. Attacking the outermost layer—the military—isn't nearly as likely to demoralize the enemy as strikes against inner rings such as organic essentials or the command posts. This model relies on launching large-scale, parallel attacks on each layer of the ring. Col. John Warden, who helped implement this strategy in the Gulf War, and Col. Rich Reynolds, a USAF military doctrine analyst, consulted with DID to properly implement this model in TAW's campaign engine. The result is a campaign that features very realistic and logical sorties.

FAMILIAR SKIES The flight engine has seen only minor updates from F22 ADF, one of the most notable being the new gradual transition from day into night.
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Scramble!

There are two buttons on the War Room interface that will bring you into the action. Selecting Scramble will alert you when the next scramble mission to intercept enemy aircraft is launched. If you accept the mission, you’ll be launched with a single wingman to destroy incoming air targets.

For more variety and a more direct effect on the war effort, click the Fly button, which will bring up a list of all the missions currently ready for launch. These include air intercept, escort, Wild Weasel antiradar, and ground attack missions.

If there’s an AWACS aircraft in the air, you can also choose to fly as an AWACS controller and direct other aircraft to escort, intercept, refuel, and so on. As in ADF, you can jump into any of the cockpit of any F-22 by clicking on it from the AWACS screen.

At first, you can select only simple missions (marked with a single X). More advanced missions (up to XXXXX level) are available as your pilot score increases. You score experience points for successfully completing mission objectives, and you can get additional points for taking out extra targets. Your pilot can even earn medals for exemplary performance.

You can take missions as they’re assigned, or you can replott waypoints, altitudes, flight compositions, weapons loads, and attack patterns for each mission. When appropriate for the type of mission you’re flying, you can also assign targets to specific flights.

If none of the missions suit your fancy, all you have to do is cancel out, accelerate time, and click Fly again. The mission types will vary as the war progresses.

In various campaigns you’ll find yourself allied with different countries—you may be protecting Saudi Arabia against the Sudan in one campaign, with Egypt as an ally, and in the next you might be flying for Egypt while the Sudan remains neutral. As the campaign progresses, neutral countries may choose to take sides.

Simply Better

The sim engine itself has seen some minor, but welcome, upgrades, from little things like toning down the runway bump sounds to fixing the abrupt transitions from night into day. In addition to the campaign missions, you’ll also find a number of scripted training missions; a new Custom Combat section, which lets you set up dogfights against any of the aircraft in the sim; multiplayer missions; and the excellent ACM (Air Combat Maneuvering Interface) flight recorder. The only disappointment in the beta version was that the F-22’s thrust-vector maneuvering capabilities still had to be manually activated; in the real plane, the flight computer handles vectoring automatically.

At first, F22 TOTAL AIR WAR doesn’t seem like a big upgrade from F22 AIR DOMINANCE FIGHTER. But the sophistication of the campaign, the variety of missions, and the added control TAW gives you over the sorties you fly should make for a much richer experience.

LOADED FOR TU-95 BEAR New to TAW is the ability to customize the weapons loadouts of the aircraft in your flight group.

It’s Not an Add-on

ID’s distributor, Infogrames, has a dubious record when it comes to add-on sequels, especially in North America. For EF2000, its previous simulation, the company put out an add-on disc called TACTCOM, which added a mission editor and a number of other enhancements. TACTCOM sold for about £15 in the UK, and was necessary if you wanted to use the 3Dfx or Rendition graphics patches for EF2000. However, distributor Ocean declined to release TACTCOM in the U.S., so EF2000 owners looking for 3D acceleration were forced to buy EF2000 2.0—essentially purchasing the sim a second time.

When DID first announced its F-22 game, it was going to include a dynamic campaign. Later the product was split into two parts: F22 ADF, which included a series of canned missions, and F22 TAW, which was supposed to be a low-cost add-on disc that would add the dynamic campaign elements to ADF. As work progressed on TAW, two things became clear: First, the product had grown in scope to the point where some fundamental changes to the engine made it less viable to do an add-on disc; and second, retailers in North America are loath to carry low-profit add-ons to any but the most popular products.

Thus, F22 TAW became a full-price, stand-alone product. DID assured ADF buyers that an upgrade or rebate would be available, but many sim flyers were angered after getting similar treatment with regard to EF2000. While the market forces that forced DID to reconsider doing TAW as an add-on are understandable, many customers have expressed frustration at the company making promises it can’t keep.
Landing Soon
A Variety of Jet, Helicopter, and Civilian Sims Are in a Holding Pattern

There’s never been a shortage of F-16s, and it’s no surprise that Novalogic’s F-16 VIPER will have company on the shelves. MicroProse’s FALCON 4.0 is inching ever closer to release, and the good news is we have a beta version in-hand that’s pretty much feature-complete, with only debugging and play-balancing left to be done. The bad news is the product has been delayed again, probably at least until the fourth quarter of this year. We hear Gilman Louie himself has stepped in to help wrap up the product, which could bode well for the final game’s quality and stability, but could also drag out the fine-tuning process.

Also incoming on the F-16 front is Virgin’s F-16 AGGRESSOR. We’ve played an alpha version of the game, but it wasn’t far enough along for a full preview. Impressive graphics and decent flight modeling (let’s hope Virgin doesn’t do the SABRE ACE treatment on this game and dumb down the aircraft handling) are wrapped around a campy mercenary storyline that pits you as an F-16 pilot for hire; think STRIKE COMMANDER ’86. In a similar vein, look for JEFIGHTER: FULL BURN to hit stores about the time you read this. It’s an updated version of the JEFIGHTER III engine that will also let you fly the MIG 1.42. This sim will wrap the missions in WING COMMANDER-like video sequences, as well as add a welcome multiplayer mode to the series.

F22 TOTAL AIR WAR seems to be the end of the F-22 deluge, but Eldos has an expansion disc in the works for its JF-1 (JOINT STRIKE FIGHTER) title.

We keep seeing gradual progress on the SU-27 FLANKER 2.0 front, but, like the Russian contributions to the International Space Station, development is dragging out longer than planned. We’re not sure which will launch first. Fans of Russian hardware are more likely to see MIG ALLEY, Empire/Rowan’s Korean War simulation, before SU-27 FLANKER 2.0 hits the shelves. We’re still waiting to get a hands-on flight of MIG ALLEY, but we’ve seen some amazing early graphics, with details such as cockpit reflections inside of the canopy.

Two FA-18E Super Hornet simulations will be hitting stores soon. Interactive Magic’s F/A-18E CARRIER STRIKE FIGHTER is based on an enhanced version of the IF-22 vs.0 engine. New features include carrier operations and night missions. The U.K.’s Digital Integration, the company responsible for TORNADO, HIND, and IF-16, is creating SUPER HORNET. Look for details in our fall preview next month. Di also has a Harrier sim in the works, set for an early 1999 release. For a lighter F/A-18 experience, check out TOP GUN: HORNET’S NEST, coming at the end of the year from MicroProse.

The Chopper Block

Unfortunately, Empire’s APACHE VS. HAVOC, one of the more impressive titles we’ve seen in recent months, wasn’t quite far enough along for a hands-on preview in this issue. But, it’s being developed by Razorback in the U.K., and it looks set to excel on both graphics and gameplay fronts. Designed from the ground-up for multiplayer gaming, the sim lets you fly the glass-cockpit U.S. Apache or the more primitive, but still deadly, Russian Havoc. Extremely detailed helicopters and terrain (not to mention impressive weather effects) make for a great atmosphere, but the big enhancement here is the game’s tree-lines, which can be used for cover. This should make for some very interesting multiplayer tactics.

TEAM APACHE, originally slated as an Eidos release, will now be coming out from SSI/Mindscape around the time you read this. Less hard-core (and a bit more accessible) than LONGBOW 2, this title has some great aspects, the most impressive of which is the ability to work as a team with up to five other Apaches. Finally, look for infop next month on MicroProse’s GUNSHIP III, an attack helicopter sim which can connect to M1 TANK PLATOON for multiplayer play.
The Wreckage

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Serious flight-sim aficionados aspire to being there. The idea is to get as close as possible to the flight experience without climbing into a cockpit. (Well, there are an impassioned few who actually build cockpits, but that's another story.) What's more, combat flight simulators are becoming increasingly sophisticated and realistic. Titles such as DID's F22 ADF and JANE's F-15 push the envelope in terms of flight models, sensor operation, and full-wing operation. This means, of course, that running the sim takes more keyboard commands than ever. Even the simpler sims are getting more sophisticated and complex.

As a result, flight controllers—no longer more "joysticks"—have gotten increasingly sophisticated, mirroring the games they enhance. There are a number of joysticks and other controller devices that try to satisfy the desires of those in pursuit of the total (virtual) flight experience. Below, we take a look at a number of flight-control setups, both old and new, and see how well they play in some of today's sims.

Decisions, Decisions...

No two sim players are the same. Some are more casual, wanting to boot up a sim occasionally and do some fun dogfighting. Others are much more serious, setting the game up to start at the airbase, getting into the intricacies of air-to-air refueling, and trying to work well in the context of multiple plane flights. Because of this, flight-control setups are intensely personal—what works for one user may be the bane of the next. And high-end systems have thrown another variable into the equation—some controllers don't work well with the new generation of fast Pentium II systems. We'll keep all these issues in mind as we examine the force-feedback sticks, high-end sticks, throttles, and rudders that you may want to add to your collection for the utmost realism.
Forcing the Issue

Last year was another of those "This is the year of the..." that didn't quite come to pass. In this case, it was supposed to be the year of the force-feedback game controller.

In fact, we saw exactly one new product—Microsoft's SideWinder Force Feedback Pro. There was a dramatic price reduction in CH's Force FX, the only other existing consumer force-feedback product. Other controllers were delayed several times; maybe this year, we'll see more of them.

Microsoft SideWinder Force Feedback Pro

With its $149 list price, you'd expect this stick to be a high-end flight controller, but it has more in common with its lesser sibling, the Precision Pro, than with high-end gear. As with the Precision Pro, it's an all-in-one controller with an integrated throttle, a twist handle (for rudder function), and the same nine buttons.

The first version of the SideWinder Force Feedback Pro (SFFP) had a really loud fan. We've heard reports that recent sticks have come sans fan, which would be a welcome relief. The utility for programming the SFFP is similar to Precision Pro's, but there's no force editor supplied, which seems a glaring omission.

Support for the SFFP has been somewhat mixed. It's been widely supported in action games such as HEAVY GEAR and driving games like NEED FOR SPEED SE II, but support in flight sims has been less prevalent. A few, like SABRE ACE, come to mind, but support on high-end sims has been lacking. Without force-feedback support, the SFFP becomes a very expensive version of the Precision Pro. With better force-feedback support in DirectX 6.0, perhaps we'll see more extensive use of force feedback in future sims. Of course, in some cases force-feedback support does not make much sense. In an F-16 you don't feel much force, except for G-forces on your hand, because the controls are fly-by-wire. In a World War I or II sim, though, force feedback properly done could significantly add to the experience.

The SideWinder Force Feedback Pro is a clean, solidly implemented force-feedback stick—it's just not a particularly realistic flight stick. And it's too bad that it thinks it's the only controller in the universe.

CH Products Force FX

The Force FX was the first force-feedback stick on the market. Like a lot of pioneers, CH ended up taking some hits for being so early. The Force FX is based on Immersion's 1.0 force-feedback API. Since then, Immersion has added a lot of capability to the second major revision of its programming interface and integrated it much more closely with the DirectInput API.

In a reflection of more recent developments, CH has released DirectX 3 drivers for the FX and dropped the price to $99.95. The DirectX support is limited, since the capabilities of the stick itself maps more closely with the Immersion 1.0 API. Additionally, the motor isn't as powerful as the one in the SideWinder Force Feedback Pro. However, the FX now works with rudder pedals and throttle. Unlike the Microsoft stick, the Force FX can be part of a more realistic flight-control setup.

At a hundred bucks, the Force FX might be worth the cost to experiment with force feedback. Bear in mind, though, that it's a limited implementation.

CH Force FX, Price: $99.95. Contact: CH Products, (608) 599-2518; www.chproducts.com

PROS: Force-feedback effects; works with separate throttle and rudder.

CONS: Force effects are a little course; big footprint.
Tom Clancy’s RAINBOW SIX

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Let's Get Real

Most flight sims out there have more controls than you could ever manage with a mere four-button joystick. What's more, serious flight-sim jockeys want to get as close as they can to pure HOTAS (hands on throttle and stick) in order to avoid the dreaded "hunt-and-peck" with a bogie hot on their six. Here again, there's a hefty amount of competent gear to be had, so it comes down to personal preference and the gear's feel.

**ThrustMaster F-22 Pro**

The F-22 Pro is modeled after the F-16 block 50 flight stick. It's massive, heavy, and stiff. The stiffness is intentional, the idea being to model the effort required to move the real thing. That realism also helps you maintain control. Overshotting is more difficult with a stiff stick. Still, the F-22 Pro can be a wrist wrangler in long game sessions. The stick has a glass-filled handle for a very solid feel, geared potentiometers for more precise control, and more hat switches than you can shake an AIM-9X at.

The F-22 Pro comes with a set of DOS programming utilities. Ease of use is not their strong suit, but they get the job done. There are now at least two Windows-based graphical programming utilities for ThrustMaster gear, including Marlo Casabar's nicely done EZ Build. The F-22 is capable of holding up to four separate programs, although you need to run the DOS-based download utility to activate any given program. There are no Windows-specific drivers for the F-22 either. The good news is that most of the new flight sims come with precreated downloads for the F-22 Pro, and there are many others available on ThrustMaster's Web site.

All of this sounds like a lot of effort, and it is. However, once you get going with the stick, the heavy base and solid feel compensate for the effort. We've heard reports of flaky potentiometers, but ThrustMaster is happy to send you new pots should you require them. In addition, there were problems downloading programs to the stick on some fast Pentium II's, but a fix is available on ThrustMaster's Web site.

If realism is what you demand, the F-22 Pro is hard to beat. But you'll pay a stiff price. It carries a suggested list price of $220.

**ThrustMaster Throttle Quadrant System**

The TQS is the perfect partner for the F-22 Pro. At its heart, the TQS is an analog or digital throttle control for flight sims. Paired with an F-22 Pro, you can have a complete HOTAS control system. With a good set of downloads (or by creating your own), you can keep your hands on the flight controls and focus on the game, rather than hunt for that Alt-Shift-F1 combination.

Just as the F-22 Pro is modeled on an F-16 flight stick, the TQS replicates the F-16 fighter's throttle quadrant. Also like the F-22 Pro, it's complex and can be a pain to set up. In fact, the TQS requires either an F-22 or an F-16 FLCS stick to work; it will not work with non-ThrustMaster joysticks. Just figuring out the cable connections can take longer than doing a full install of Longbow 2. The DOS-based programming tools are equally arcane, so a package like EZ Build is almost essential to creating your own configs. However, there are many available on ThrustMaster's Web site, and most high-end sims ship with a ThrustMaster setup these days. As with the F-22 Pro, there have been reports of TQS downloads problems with fast Pentium II systems, so be sure you get the fix from ThrustMaster's site.

The throttle also has idle and afterburner detents. Another gadget, which seemed like a gimmick when it first came out, but is more useful with current games, is the mouse stick. For games that use the mouse as an active control (Flight Simulator 98, for instance), it's handy, but it can be a bit finicky to get working. Once you get it running and start flying a complex sim like Jane's F-15, you realize how good this combination feels. It's akin to a high-end audio system—finicky, annoying to set up, but well worth the effort.

So if you like to fly sims like F-15 or F-22 ADX in ultrarealistic mode, the F-22 Pro and TQS combo has the feel that matches up with the most realistic games.

**F-16 Combat Stick**

**CH Products Jane's Combat Stick**

The F-16 Combat Stick is one of the best values available. The Jane's stick is pricier, but has a heavier base and offers chocked button presses when paired with a Pro Throttle. Otherwise, these sticks are about identical.

Joysticks are a personal matter. Some gamers like a stiffer feel as...
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in the ThrustMaster models; others prefer the light, precise feel of the CH line. For casual flying, except when flying something like Jane’s F-15, where using an F-22 Pro seems like the right thing to do, I find most of my joystick time is spent with the F-16 Combat Stick.

Both sticks vaguely resemble the stick in the F-16 Fighting Falcon, though not to the level of detail of the ThrustMaster versions. The button placement makes these models useful for right-handers only. There are a pair of hat switches, four buttons, a trigger switch, and a throttle slider. As with most CH sticks, the F-16 series also has trim controls, a godsend if you need to do a quick recalibration while in a furball.

The two sticks have much the same feel—a long throw coupled with a light action and precise centering. Both now have DirectInput drivers, a boon when you’re playing DirectInput-aware Windows 95 games. You can set up keystroke assignments within the game for all the buttons, not just two or four. Both sticks offer solid value, are extremely durable, and are easy to set up and use.

Jane’s Combat Stick and F-16 Combat Stick, Price: F-16 Combat Stick, $129 MSRP (Jane’s); $59.95 MSRP (F-16). Contact: CH Products, (780) 598-2518; www.chproducts.com

**PROS:** Good throw; precise centering; comfortable, light feel. **CONS:** Not the most realistic sticks; not programmable.

The Pro Throttle originally shipped with DOS-based programming tools, but CH has since shipped SpeedyKeys, a Windows-based tool that allows for “point-and-click” programming of the Pro Throttle.

The Pro Throttle is a solid effort from CH. If you don’t need something that looks as if it was ripped out of a fighter cockpit, this throttle will give you years of service.

**Pro Throttle, Price: $189.95. Contact:** CH Products, (780) 598-2518; www.chproducts.com

**PROS:** Smooth sliding motion; belly panel rest. **CONS:** Not the most realistic throttle around.

**CH Products Pro Throttle**

The Pro Throttle makes no claims at looking or behaving realistically—but this isn’t necessarily a bad thing. Instead of using an arced throttle movement, the Pro Throttle mounts on a big slider. The result is a very smooth movement that makes it easy to replicate specific settings when sliding back and forth. This eliminates the need for idle and afterburner detents.

There are a total of four hat switches and four buttons on the Pro Throttle. The big grip is quite comfortable, and you can either wrap your hand around it or, as I often do, just rest your palm on the handle. The really cool thing about the Pro Throttle is that it makes any standard joystick a programmable stick (it won’t work with a programmable stick). It mates particularly well with CH’s own Jane’s Combat Stick.

**Saitek X36**

Saitek burst onto the high-end flight stick scene last year with its X36 combo pack. Unpack the fairly compact box and you find a massive throttle unit and a joystick that looks like something that could have been in a Star Wars B-wing bomber. The stick even has a knuckle guard—just the thing to repel boarders, I suppose.

As with a lot of high-end sticks, the Saitek gear is programmable. Early versions of the X36 programming software were a little clumsy, but it’s been improved. One minor issue: The cable that emerges from the required keyboard pass-through can make it hard to plug into some ATX-style motherboards, so exercise a little caution when you install it.

The throttle unit is even bigger than the ThrustMaster TQS, though it feels more comfortable. There’s a rocker switch on the underside for rudder functionality, if you already have rudders, you can deactivate it through the downloadable software. Like the TQS, the Saitek has idle and afterburner detents.

The Saitek stick works with DOS games in a Windows 95 DOS box and even in plain old DOS, though the programming software works only in Windows 95. A DOS utility can download Saitek programs to the stick from the

**Whither USB and Force Feedback?**

I had the chance to chat with Bob Wudeck (Logitech’s joystick product manager) and Patrick Hewitt (ThrustMaster’s point man on flight controllers) and got their thoughts on USB, human interface devices, and force feedback.

Both agreed that the key point of USB is to standardize connectivity and get away from the limitations of the PC game port. Wudeck made the point that you could actually mix multiple controllers from different vendors. Think of it: if you like the TQS throttle from ThrustMaster, you’re locked into the FCLC or F-22 Pro. Wouldn’t it be great to have a TQS and a stick like Suncom’s Talon? Hewitt noted that with multiple devices connected—each with multiple axes—you would no longer be constrained by the four-axis limitation of the PC game port. Also, USB devices would identify themselves to the application and the operating system, making it easier for game programmers to have “instant customizability.” Another interesting issue is two-way communication, vital for force-feedback sticks. With two-way communication, you could have an “active” MFD with an LCD display, combined with a touch-screen.

Finally, Wudeck pointed out that force feedback makes software design even more critical, to avoid the “joystick on a motor” effect. It’s likely that force designers may become key members of some game design teams. So it’s looking as if the future of USB and force feedback is bright. The goal now is to get proper software support. For that, you’ll need Windows 98 and DirectX 6—which means yet another software upgrade cycle.
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FLIGHT CONTROLLERS

DOS prompt or a DOS batch file. Like many of these keyboard pass-through devices, the X36 had some problems with fast keyboard controllers. Saitek has posted an updated driver that should fix this problem.

The overall feel of the stick is just a little mushy; it's just not center as crisply as the F-22 Pro, or even the Combat Stick. The button placement works fairly well, although the master weapon flip-up is a bit goofy. The hat switches seem pretty solid, and the pinky trigger button is a nice touch. The throttle feels very solid, and finding the same position is fairly easy; the knobs and buttons seem well placed. The rudder control seems counterintuitive, but I'm a diehard rudder pedals user. The X36 is a solid combination for the price, so if your wallet has been groaning at the thought of the F-22 Pro, consider the X36.

Suncom F-15E Talon

The first thing you notice about the Talon is its size. In truth, it's slightly smaller than the F-22 Pro, but it looks more massive. The base even has a smaller desk footprint than the F-22 Pro's, but it's nicely weighted. It uses a keyboard pass-through to execute keyboard commands. Programming the stick is interesting—and easy. There's no programming software or downloads to worry about. Instead, you simply put the stick into programming mode, then press each button, followed by the keystroke combination you want. Changes can be made on the fly, too. The Talon can hold up to four different programs. The downside is you can't have more than four programs present—adding another game means you have to replace an existing setup. If you then want to play a game whose programming no longer exists, you need to start over from scratch. Still, most people I know aren't playing more than four complex sims at a time, so this may not be a major issue to a lot of people.

The Talon is big, modeled after the actual stick in the McDonnell-Douglas F-15 Eagle. As such, users with small hands might have problems reaching the switches and buttons high on the stick.

The overall feel of this stick is superb. Suncom uses something it calls Direct Drive. The stick's resistance is the same in all directions, including the corners, making for a much more predictable response. The Talon behaved very well in several different sims.

Given the solid feel of the Talon and its relatively low price, it's a worthwhile contender for your joystick dollar.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Vendor/Phone</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>CH Products (760) 598-2518</td>
<td><a href="http://www.chproducts.com">www.chproducts.com</a></td>
</tr>
<tr>
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</tr>
<tr>
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Suncom Strike Fighter Series Throttle

Like the F-15E Talon, also from Suncom, the SFS Throttle looks like a serious piece of hardware—and it is. The last time I saw a throttle like this, I was sitting in the right seat of a twin-engine bush plane weaving through the fjords of New Zealand. Each half of the throttle takes up one joystick axis—and therein lies its chief weakness. The second throttle uses the axis normally used by rudder pedals. This throttle also proves to be problematic when paired up with a ThrustMaster FCS-style stick, in which the hat takes up a joystick axis. However, there is a button on the throttle that deactivates the left half.

Suncom also wisely supplies a Windows 95 .INF file that adds various custom setups, both with and without the left throttle, in the joystick control panel applet.

Programming the throttle is much like programming the F-15E Talon flight stick. First, put the throttle into program mode. Next, press and hold the button you want to program; then press the keystroke combination on the keyboard. Release the button, and it’s programmed. Unfortunately, the SFS Throttle holds only two programs. There have been reports of chorded (multiple simultaneous) keystrokes not being recognized by games, but I didn’t experience this problem. As with the TQS and Saitek throttles, there are idle and afterburner detents, though the stops feel a bit vague.

The throttle has a big desk footprint and comes with suction cups to hold it firmly to your desktop. While this throttle works very well with the F-15E Talon, it also works well with any standard, nonprogrammable joystick. Given its price, you might consider buying one even if you have rudder pedals and don’t want to use the left throttle. It works pretty well, and it looks like something any multiengine fighter pilot would feel right at home with.

SFS Throttle, Price: $89.95. Contact: Suncom, (847) 229 0002; www.suncom.com

PROS: Easy programmability; very cool looking; works with most sticks.

CONS: Can hold only two programs; takes two game port axes.

Quickshot MasterPilot & MasterPilot Programmer

Another cool add-on for serious fly-boys is Quickshot’s MasterPilot/MasterPilot Programmer combination. The MasterPilot resembles a miniature MFD (multi-function display), with buttons surrounding the “display.” In fact, the display area is for cardboard key templates. The MasterPilot Programmer (MPP) is an essential addition, and is a basically an EEPROM burner whose programming interface is simplicity itself. You use the Windows-based program to highlight a representation of a MasterPilot button, type in the key sequence, then go to the next button. You can save files and download them later. You can store multiple programs (up to five) in one cartridge.

Using the MasterPilot is a snap. The active buttons surround the “display” (the center is not touch sensitive, unlike with the PC).
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Matrox Readies Next Generation MGA-G200

Matrox has been a bit quiet lately, but the company is finally shown signs of life with its new G200 series 2D/3D-accelerator chip. The G200 is a full-function 3D accelerator—no more compromises on features. It looks as though our friends in Montreal have learned well the hard lessons of the Mystique.

The G200 supports 32-bit rendering throughout the pipeline, an asynchronous bi-directional 64-bit bus that Matrox calls a “Dual-Bus.” It’s not truly 128 bits wide, but the bi-directional 64-bit data transfers can run as fast as, or faster than, some 128-bit drivers won’t be ready until final products based on the G200 ship, but the Direct3D games from 3D GameGauge look pretty solid. As it stands now, Matrox’s G200 looks to be the fastest 2D/3D card around—for a few weeks, anyway. —Loyal Case

Uh-Oh: nVidia Hit with Double-Whammy Litigation

Chip maker nVidia has been riding high on the success of its RIVA 128 2D/3D accelerator, and with its RIVA 128ZX now shipping, and the TNT accelerator on the horizon, it would seem nVidia is the company to beat nowadays. But all is not well in RIVA-land. The company has been served with separate lawsuits from S3 and SGI, and while nVidia states that it will “vigorously defend” itself in both cases, this litigation could stall shipments of RIVA 128ZX parts and delay the rollout of TNT parts later this fall.

S3 has alleged that nVidia has infringed on three patents pertaining to VGA control circuitry (acquired from Cirrus Logic), scalable video windows, and methods for mixing video and graphics data. Based on that last charge, we’re waiting for S3 to sue everyone else in the graphics universe, as well. It’s too early to say whether this litigation has any teeth, but according to Michael Hara, nVidia’s business development manager, “The mood here is very upbeat, and we’re focusing on getting the RIVA TNT out.” A preliminary injunction to halt shipments of all RIVA processors could be imposed as you read this.

On the 3D front, SGI has filed a lawsuit alleging that nVidia has infringed upon SGI intellectual property (IP) regarding an implementation of texture caching and texture interpolation. In return, nVidia asserts that SGI’s lawsuit is motivated by vendetta, because several 3D architects have left SGI to join nVidia, and that these former SGI employees “had no involvement in the design of nVidia’s current RIVA graphics processors, which are the subject of the alleged patent infringement.” Again, the outcome of this lawsuit is still very much up in the air, but if a court rules in favor of SGI or S3 in either of these cases, it could cast a very dark cloud over nVidia’s 1998 outlook, not to mention its pending IPO. —Dave Salvador

nVidia RIVA TNT This is nVidia’s next-generation 2D/3D graphics accelerator, which may well out-perform two—yes two—Voodoo² boards running SLI. The TNT should have a fill rate of 200–250Mpixels/sec, as compared to twin Voodoo²’s, which are generally in the 180–200Mpixels/sec range. ETA: Q3 ’98

3Dfx Banshee This will be 3Dfx’s first integrated 2D/3D accelerator. The Banshee will also be 3Dfx’s first large-scale entry into the lucrative OEM/system makers side of the graphics business, in which about two-thirds of all graphics chips are sold. Performance numbers on the as-yet-unannounced part are very sketchy, but we’ve heard rumors that its 2D performance will be very competitive, which was a weakness in 3Dfx’s Voodoo Rush chipset. ETA: Q4 ’98

FireWire Also known, as IEEE 1394, this is a high-bandwidth bus (400Megabits/sec, or 50Megabytes/sec) that will support high-quality digital video, hard drives, and other storage devices. All FireWire devices will be hot-swappable, meaning you can attach/detach devices and immediately be able to use them while your machine is still turned on. ETA: Q4 ’98

AMD K6 3D+ AMD’s next X86 CPU will feature AMD’s own set of floating-point instruction extensions designed specifically to accelerate Direct3D’s geometry engine. These new instructions could very well give AMD a floating-point performance edge over Intel—an industry first—at least until Intel’s Katmai processors ship. ETA: Q2 ’98

Intel Katmai Intel’s next round of CPUs, with anticipated clock speeds of 450–500MHz. In addition to the higher clock speed, Katmai CPUs will also feature what Intel has dubiously dubbed “Katmai New Instructions,” a name given to avoid calling these new instruction-set extensions MMX2. Among the other things these instructions will speed up will be Direct3D’s geometry engine (in DX6), allowing these CPUs to crank more polygons per second. ETA: Q4 ’98

Intel IA-64 Intel’s next-next-generation of processors will be a substantial departure from its traditional X86 CISC-based architecture. This new 64-bit CPU will use a new set of Very Long Instruction Word (VLIW) instructions, and use a technology termed EPIC (Explicitly Parallel Instruction Computing) to facilitate execution of instructions in parallel. ETA: Q4 ’99
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Stupid Human Tricks
Or, Brilliant Boneheaded Blunders Revealed

When I get a technical question, it often begins, "I think I may have done something really stupid." This usually revolves around some kind of installation issue. All I can say to any of you is that if you think you've done something stupid, well, you've got nothing on me. I've committed more than my share of great gaffes—worse, I've done some of them over and over again. Here are a few of my... uh... favorites.

The Mystery of the Hard Drive Lockup

Recently, I installed Windows 98 Release Candidate 2 on my production system. (Those of you who are wincing are right—what the heck was I thinking?)

After the install, my system mysteriously began locking up. Usually, one of my two hard drives would seize up. I thought I had a hard-drive problem, and I thought it was because of Windows 98, so I tried all kinds of things, including installing updates, uninstalling features, and so on. Nothing worked. I began contemplating either moving to Nepal or restoring Windows 95 to my system. The situation got so bad that one my system case. I slapped in the new drive and boxed up the old one to send to the vendor. You may imagine my unprintable mutterings about incompetent hard-drive companies.

I rebooted, and everything worked for a bit. Then the hard drive seized up—the new one, that is. I stared at my still-open case, and then ripped out the removable drive bay and closely examined the two hard drives. Guess what? They were both terminated. Here I was, with two SCSI drives in the middle of the chain, and the termination was active on both. After doing a Charlie Brown and banging my head on the wall, I removed the termination jumpers, and everything has worked perfectly since.

The moral of the story is this: Simply because you knew the right thing to do, doesn't mean you actually did it.

Simply because you knew the right thing to do, doesn't mean you actually did it.

Email Notes

As you can probably guess, I get tons of email. These messages take one of several forms, for the most part. There's the "Can you answer this question," in which people try to get a little tech support—which is a sad commentary on the state of companies' own tech support. Then there's the "What [insert device here] should I buy?" Most often, these concern either whole systems or 3D graphics cards. Finally, there's the "Did you know...?" in which people let me in on their favorite new gear (I love these messages).

I like reading email, and I respond to most of it. However, I want to lay down a few ground rules. First, if you have some kind of technical question, please tell me your system specs. If you don't, I'll have to ask you in a reply, which makes the process harder than it has to be. Second, include your complete email address in the header, so I can just hit "reply." I promise on a stack of CGW's that I won't turn your address over to spammers.

Finally, if you're telling me something cool, give me a contact, whether it's a phone number or a URL. Oh, by the way, loyd@uncertainty.com is my brand new email address.

Continued on 163
These are our top picks for each component of your system. You can use this list to build your dream system all at once, or to upgrade select components. All products have been tested using Ziff-Davis benchmarks and/or a variety of games. Compiled by Dave Salvator and Loyd Case

## NO HOLDS BARRED

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**TOTAL:** $7,334

## LEAN & MEAN

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**TOTAL:** $2,423

*We have made every effort to ensure this information would be timely and accurate. However, new hardware is constantly being released, and magazine production and distribution involves an 8-10 week delay. In cases where new products were close to release at press time, we have kept our current top choice so that we only recommend finished products we have tested.*
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Turtle Beach Hits a High Note

by Loyd Case

Aureal's A3D positional-audio technology is slowly seeping into more mainstream hardware. The Montego is the latest card to boast Aureal's new Vortex chip, a single-chip implementation of the A3D architecture. It supports DirectSound 3D acceleration, runs most DOS titles, and MIDI quality; the best setting uses more system RAM, but the sound quality is pretty good. Horns were a bit lacking, but the acoustic piano sounded fine. Since I attached a Roland SCD-15 Sound Canvas daughtercard to the Montego, it was easy to do an A/B comparison. The Montego's highest quality sounds weren't quite up to the Roland's standards, but they were still pretty darned good. The game-quality sounds held their own.

Digital audio is good, and the card supports full duplex audio. The A3D implementation seems quite effective; RED KNIGHT never sounded so real. The digital sound is really clean—cranking up the volume with no signal yielded only a barely audible hiss. DOS compatibility when booting to the DOS prompt seemed pretty good. I did experience one crash with Rage Software's INCOMING demo—it consistently generated a DirectSound error.

One downside to the Montego is that I couldn't get the Thrustmaster Rage 3D gamepad to work with the game port, although the Microsoft digital sticks worked. Analog joysticks didn't have any problems. Just make sure your controller works with this card before you get it.

Overall, the Montego is a clean-sounding, solid implementation of A3D audio, with good DOS support to boot. I'm a little concerned about the drivers, but other than with INCOMING, I had no problems with the card.

---

Velocity 128ZX Bobs and Weaves

by Loyd Case

A few months in the 3D card business changes everything—or so it sometimes seems. When we reviewed theoriginal STB Velocity 128 last November, we were impressed with its combination of speed and features. Since then, STB has improved the Velocity even more, fixing many of its initial image-quality problems, though some polygon cracking and dithering artifacts still crop up occasionally. STB has recently released drivers that add OpenGL support as well.

So when the Velocity 128ZX arrived on my doorstep, complete with AGP 2X support and 8MB of SGRAM, I popped it into my new 400MHz Pentium II and took it out for a spin. The Velocity 128ZX currently ships only in an AGP version, so I couldn't test on our baseline system. I saw some good things and some not so good things.

Here's the good: 2D performance seems even snappier than that of the original RIVA 128, at just under 200 for a WinBench's Business Graphics WinMark at 1024x768x16. The 3D WinBench score was up in the stratosphere, too, clocking in at 849 at 640x480, but trailing off to 725 at 800x600. Now, nVidia has added trilinear filtering and antialiasing (via supersampling) by taking advantage of the fill rate of the chip, but the hardware doesn't directly support either trilinear filtering or antialiasing.

Game performance was quite good; the only 3D GameGauge score that seemed a bit low was with INCOMING. The 3D GameGauge score at 640x480 came in at 299. Because the RIVA 128ZX doesn't have a provision for disabbling v-sync, I ran it with monitor refresh rate set at 120Hz. My test-bed was CGW's high-end Ultimate Gaming Machine, a 400MHz Pentium II. The Velocity 128ZX scored the highest 3D GameGauge number of any AGP 2D/3D card to date.

Here's the bad: If you dial up to 800x600, the 3D GameGauge score drops about 25 percent, to 225. I did notice some polygon cracking and some dithering artifacts in QUAKE II—though, oddly, not in GLQUAKE. Overall image quality was slightly lower than with the Intel 1740 cards I've seen.

It's probably not worth upgrading from a standard RIVA card, but if you're looking to do a motherboard upgrade and get a new AGP card while you're at it, this would be a good choice.
GET SCREWED This curious little gadget mounts under some new motherboards to provide support.

**Tech Tips**

**Windows Installation Made Easy**

Reinstalling Windows is a headache, because you usually need to have all your driver disks and any Windows updates. I've finally seen the light, and I now use a partition image tool. These utilities will take a snapshot of an entire partition (or even disks with multiple partitions). If you need to get back to a known good state, then you can just reinstall the snapshot of the partition (assuming no hardware has changed). Install Windows, all my drivers, and all my applications. I then take a snapshot of the partition. It's as easy as that.

Good examples of partition image tools include Drive Image by PowerQuest (www.powerquest.com), and Ghost, by Binary Research (www.ghostsoft.com). Note that Ghost is a professional tool, and a 10-user license (the minimum) costs about $200. Drive Image comes in a personal edition for around $50.

**The Drivers Are Here**

It's OpenGL driver season, but don't shoot them. Instead, check out the new drivers from STB, Canopus, and Diamond for their RIVA 128 cards (full ICD support). The Stealth II now has a mini-GL driver. ATI has a beta driver on its site that works reasonably well (www.atitech.ca). If you have an Intel 740 card, you should check with your vendor, because their ICD may well be out.

---

I like ASUS motherboards is that they glue the bracket screws onto the motherboard, so I can never forget them.

**Mea Culpa and All That...**

So if you find yourself feeling dumb, just remember the so-called tech guy here at CGW. You may think you've pulled a real boneheaded move—but I betcha I can match it.

Continued from 157

asks for the Windows CD and installs new drivers. After several reboots, things usually are working fine.

**The Pentium II Support Bracket**

I've probably installed and set up several dozen Pentium II systems by now. If you've taken a close look at a Pentium II motherboard, you'll notice that the CPU is held in place by a vertical bracket. You slide the Pentium II slot one cartridge into the bracket and it snaps into place. If you're a suspender-and-belt kind of human (or you have an unusually heavy fan), you might also install the fan support bracket.

The Pentium II support bracket is fastened to the motherboard with a weird little plastic gizmo that has two screws attached to it. You insert these into the underside of the motherboard, straddling the slot one socket. You then screw down the bracket into the screws (see the picture).

About 9 times out of 10, I screw the motherboard into the case, only to discover that I've neglected to insert the screw gizmos, which means the support bracket has no way of being fastened down. I have to completely remove the motherboard and install the blasted things. As an aside, one of the small—but significant—reasons...
Revenge of the Monster

Diamond Returns with a Solid Voodoo² Performer

by Dave Salvador

Diamond's version 1.01 driver release seemed to remedy that problem.

First off, it has to be said that if you're big-time into QUAKE II, then 3Dfx's Voodoo² is most likely in your future. Diamond's implementation comes in either an 8MB or 12MB configuration, and you can buy a second board with the same memory configuration and run the two together using 3Dfx's scan-line interleave (SLI) technology. Of course, two boards eat two PCI slots, so that may not be an option if you have SRO in your rig (not to mention the added cost).

The second-generation Monster3D II is no slouch when it comes to accelerating Direct3D, with very solid 3D GameGauge scores running at both 640x480 and 800x600.

In terms of numbers, there aren't really any big surprises here. Clearly, for QUAKE and QUAKE II, a Voodoo²-based board is the thing to have. And the second-generation Monster3D II is no slouch when it comes to accelerating Direct3D, with very solid 3D GameGauge scores running at both 640x480 and 800x600. Also, when I ran the Glide versions of F22 and Turok, I saw several impressive jumps, most notably with two boards running in SLI. One thing to appreciate is the Monster3D II's frame-rate of 142.6fps running FORSAKEN at 640x480 on a single board. This is a pretty absurd number when taken as only a frame-rate, but it shows that the Voodoo² chipset has lots of headroom.

Monster3D II's solid performance, coupled with a bundle that includes BATTLEZONE and INCOMING (as well as a sampler of five EA titles), makes for a solid offering. And while a second board will deliver more performance, it's debatable how necessary that option really is.

### GAMEGAUGE

<table>
<thead>
<tr>
<th>One 12MB Board</th>
<th>FORSAKEN</th>
<th>QUAKE</th>
<th>QUAKE II</th>
<th>F22 ADF</th>
<th>Turok</th>
<th>GAMEGAUGE</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>640x480</td>
<td>142.6</td>
<td>107.3</td>
<td>67</td>
<td>62.34</td>
<td>32.43</td>
<td>67.7</td>
<td>479.4</td>
</tr>
<tr>
<td>800x600</td>
<td>100.94</td>
<td>71.9</td>
<td>57.7</td>
<td>56.26</td>
<td>30.93</td>
<td>51.88</td>
<td>369.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two 12MB (SLI)</th>
<th>FORSAKEN</th>
<th>QUAKE</th>
<th>QUAKE II</th>
<th>INCOMING</th>
<th>F22 ADF</th>
<th>Turok</th>
<th>GAMEGAUGE</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>640x480</td>
<td>170.22</td>
<td>133.9</td>
<td>67.4</td>
<td>61.42</td>
<td>33.2</td>
<td>73.35</td>
<td>540.2</td>
<td>90.0</td>
</tr>
<tr>
<td>800x600</td>
<td>156.92</td>
<td>119.16</td>
<td>65.9</td>
<td>63.85</td>
<td>36.17</td>
<td>70.3</td>
<td>505.8</td>
<td>84.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glide/One 12MB Board</th>
<th>FORSAKEN</th>
<th>QUAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>640x480</td>
<td>33.71</td>
<td>71.8</td>
</tr>
<tr>
<td>800x600</td>
<td>38.71</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glide/Two 12MB Boards (SLI)</th>
<th>FORSAKEN</th>
<th>QUAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td>640x480</td>
<td>37.27</td>
<td>104.6</td>
</tr>
<tr>
<td>800x600</td>
<td>39.47</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### 3D WinBench

<table>
<thead>
<tr>
<th>One 12MB Board</th>
<th>Two 12MB Boards (SLI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>640x480</td>
<td>668</td>
</tr>
<tr>
<td>800x600</td>
<td>695</td>
</tr>
<tr>
<td>1024x768</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**Canopus’ Cooler Voodoo²**

by Loyd Case

Canopus prides itself on shipping graphics cards that aren’t identical to the chipmaker’s reference design. The Pure3D II is no exception. The first thing that caught my eye when I pulled the antistatic envelope from the box was how short the board is. The next thing I noticed is the fan. Yes, we now have a graphics card with a cooling fan built in. The last item of note was the location of the SLI connector—more on that later.

The Pure3D II also has TV out; there are both composite and S-video connectors, although I didn’t test that particular feature. The control panel differs slightly from the 3DX reference version, but navigation is straightforward. Pure3D II comes with some other utilities supplied, including a launcher bar that sits opposite the Windows 95 task bar. I didn’t find it all that useful. It can also adjust the gamma settings with keyboard hot-keys, a very handy feature.

Performance is quite good, better than most of the Voodoo² boards we’ve seen. Canopus claims you can clock the card to 100MHz, but even with the fan, we experienced frequent lockups at clock rates over 95MHz. However, 95MHz was very stable. On the 400MHz Pentium II, CGW’s 3D GameGauge clocked in at 565; the score on the 200MHz Pentium MMX system was 281. The 3D WinBench scores were 889 and 350, respectively.

Finally, the SLI connector is a bit problematic. It’s located in the center of the card, and the SLI cable is around 6 inches long. Adding a second Pure3D II means you have to pull out the original, connect the cable while the boards are out and install the boards with the cable attached—it’s rather like juggling.

The Pure3D II is a nice implementation of Voodoo². It fits better into a cramped case than most Voodoo² boards, but the performance isn’t really different from those other Voodoo² boards. At $329, there are cheaper boards out there, though Canopus has recently announced the Pure 3D II LX, which deletes TV out and reduces the price to $279. That one may be the board to get.

---

**GRAVIS XTERMINATOR**

by Joe Vellina

Maybe you’re looking to branch out and play a wider variety of games, but one of the things holding you back is the prospect of having to buy a bunch of different controllers. Gravis may have an interesting alternative for you. Its new Xterminator tries to be all things to all gamers and, surprisingly, doesn’t do a bad job at it. The gamepad sports 10 programmable buttons, 2 directional pads, 2 graduated flippers, a slider (throttle), and a four-direction hat. When used as a standard gamepad in sports or action games, the Xterminator functions pretty much as expected. The only potential problem stems from the A, B, C, and X, Y, Z buttons being set a little high on the face of the controller, so it’s easy to mistake the C button for the Z button in the heat of battle. But this minor annoyance is offset by the presence of the proportional directional pad, which has a smooth, joystick-like feel. It is much less tiring than the traditional d-pad in long game sessions (although the Xterminator has the traditional pad as well, should you want to use it).

While hard-core flight simmers will probably want to stick with their favorite joystick/throttle combination, the casual sim fan will find that the Xterminator fits the bill perfectly. Using the controller’s Keyset Manager, I had no trouble reprogramming the buttons on the Xterminator to fly JANE’S F-15. There are more than enough buttons for essential functions, and, again, the proportional d-pad worked like a charm. If you should find the need for more buttons, the Xterminator features a Hot Set switch button that allows the other buttons on the pad to pull double-duty. Casual racing fans will find it an adequate substitute for both a steering wheel and pedals.

The pad has a built-in connector on the back of its plug so you can link up two Xterminators (or any Gript technology controller). There is, however, no pass-through functionality for non-Gript controllers, which is annoying.

The Xterminator is a good buy for gamers who casually enjoy a variety of game styles, but don’t want to shell out the big bucks for a joystick, throttle, pedals, steering wheel, and gamepad. If you have very specialized gaming tastes, by all means get your self the specialized controllers; but if you haven’t committed to a specific genre, this may be the jam-of-all-trades you’re looking for.
fight for freedom...
...kill for cash

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2

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### Reviews

**This Month**

<table>
<thead>
<tr>
<th>GAME</th>
<th>RATING</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridge Deluxe II with Omar Sharif</td>
<td>★★★★★</td>
<td>224</td>
</tr>
<tr>
<td>ChronX</td>
<td>★★★★☆</td>
<td>220</td>
</tr>
<tr>
<td>Die by the Sword</td>
<td>★★★☆☆</td>
<td>174</td>
</tr>
<tr>
<td>Forsaken</td>
<td>★★★★☆</td>
<td>178</td>
</tr>
<tr>
<td>FPS Ski Racing</td>
<td>★★★★☆</td>
<td>214</td>
</tr>
<tr>
<td>The Golf Pro</td>
<td>★★★★☆</td>
<td>211</td>
</tr>
<tr>
<td>HardBall 6</td>
<td>★★★★☆</td>
<td>208</td>
</tr>
<tr>
<td>High Heat</td>
<td>★★★★☆</td>
<td>204</td>
</tr>
<tr>
<td>Kuba</td>
<td>★★★★☆</td>
<td>224</td>
</tr>
<tr>
<td>Liberation Day</td>
<td>★★★★☆</td>
<td>221</td>
</tr>
<tr>
<td>M-1 Tank Platoon II</td>
<td>★★★★☆</td>
<td>185</td>
</tr>
<tr>
<td>Mastermind</td>
<td>★★★★☆</td>
<td>224</td>
</tr>
<tr>
<td><strong>MIGHT AND MAGIC VI</strong></td>
<td>★★★★☆</td>
<td>180</td>
</tr>
<tr>
<td>Outwars</td>
<td>★★★★☆</td>
<td>176</td>
</tr>
<tr>
<td>Panzer Commander</td>
<td>★★★★☆</td>
<td>194</td>
</tr>
<tr>
<td>Soldiers at War</td>
<td>★★★★☆</td>
<td>216</td>
</tr>
<tr>
<td><strong>TOTAL ANNIHILATION: CORE CONTINGENCY</strong></td>
<td>★★★★☆</td>
<td>217</td>
</tr>
<tr>
<td>Triple Play 99</td>
<td>★★★★☆</td>
<td>202</td>
</tr>
<tr>
<td><strong>WORLD CUP 98</strong></td>
<td>★★★★☆</td>
<td>201</td>
</tr>
</tbody>
</table>

### The Game Genres

Our reviews are categorized by genre. Not every game fits neatly into a single genre, but here's how we define the categories in general:

- **Action** Games that emphasize fast gameplay over story or strategy.
- **Adventure** Games that require you to solve puzzles to move through a story line.
- **Classics/Puzzle** Classics are old stand-bys such as Chess and MONOPOLY. Puzzle games emphasize problem-solving without requiring gamers to follow a story.
- **Role-Playing** A subset of adventure genres, these stress character development through attributes. The gameworld tends to be large; the plot less linear.
- **Simulations** Highly realistic games from a first-person perspective, including flight sims and space simulations.
- **Sports** A broad genre encompassing action sports games such as NBA LIVE, strategic sports games such as FPS FOOTBALL, and even driving games such as CART PRECISION RACING.
- **Strategy** Problem-solving and planning are the keys here. These games emphasize resource and risk-management. Includes conflict-based sci-fi and fantasy games as well as construction programs like SIMCITY.
- **Wargames** A subset of strategy games, these recreate historical conflicts from a command perspective. They may be tactical, operational, or strategic.

### How Do We Rate?

We review only finished products, not prerelease versions. The ratings are as follows:

- **Outstanding** The rare game that gets it all right. A must-play experience.
- **Very Good** Worthy of your time and money, but there are drawbacks.
- **Average** Either an ambitious design with major flaws, or simply vanilla.
- **Weak** Seriously lacking in play value, poorly conceived, or just another clone.
- **Abysmal** The rare game that gets it all wrong. Pathetic. Coaster material.
THINGS TO DO TODAY

I. Round up prisoners for the lion pits.
II. Visit Forum to assess city's finances.
III. Practice waving to the people (in adoring fashion).
IV. Hire voice coach to help practice evil laughter.
V. Meet with chief architect/artisans to discuss new Colosseum.
VI. Send rival a basket of poisoned fruit.
VII. Inspect gladiators for this Thursday's bloodfest at the Colosseum.
VIII. Raise taxes to fund more tax collectors.
IX. Lecture public on benefits of procreating.
X. Hire more vigils to patrol the slums.
XI. Meet Cleopatra for dinner (this might be the night!)
XII. Stage a funny thing to happen on the way to the Forum.
XIII. Absolutely don't forget to...
CENTURION
This fruit basket looks absolutely delicious! It’s awfully nice of you to have me deliver it to your arch rival. I thought you hated each other?
I wonder if anyone would notice an apple missing...?

PIG FARMER
Gonna wash the stench of horse manure out of my clothes in time for church! There will be a lot of single ladies at Venus’ temple tonight. Rumor has it the priest is going to denounce birth control!

PRIEST
Dedicating the temple to Venus was a smart move. Church attendance hasn't been this high in years! Then again, neither has the city's population.

I'm being transferred to the slums for riot control. I tipped me a gold piece for some fresh meat.
LION TAMER
Tipping the vigil off to arrest plebs for loitering was ingenious! It's much cheaper to feed my lions prisoners than the meat from that farmer. We'll see how long those gladiators last against my boys now!

VIGIL
Ferred back to the trot - the Lion Tamer piece to round up for his pets.

TAX COLLECTOR
If you are planning to build a new Colosseum as I suspect, you'll need a lot more money, and a lot more guys like me to gather it. People who think taking candy from a baby is wrong just haven't bothered to try it.
their soul ends up here.
Off With His Head
Decapitation and Dismemberment Abound
In Interplay's DIE BY THE SWORD

by Thierry Nguyen

Thank Lara Croft for making it hip to see over your character's shoulder rather than through her eyes. You should also thank Lara for the wave of third-person action games competing for your attention. One such game is Interplay's DIE BY THE SWORD, a fantasy-based, third-person action game that adds sword fighting to the mix.

Mortal Fencing
DBTS can be played in three ways: Quest mode, the single-player game; Arena mode, which is instant action; and Tournament mode, in which you advance through a series of sword duels and battles in a linear fashion.

No matter which mode you play, gameplay essentially boils down to a series of duels and matches. Sometimes you might fight one orc; other times you might face half a dozen Kobolds. The combat engine that forms the core of the gameplay is DBTS's VSIM fighting model. It gives you total freedom to wield your sword and offers a realistic physics and damage model. Now instead of taking general swings, you can target individual limbs for disembowel, a step up from Jedi Knight's lightsaber duels.

The Quest mode is good overall. Although you simply move from duel to duel through the interconnected levels, the levels are nicely designed, and the puzzles in them are better than the standard "key hunting" fare. In one level, I had to get onto a raft either by sneaking aboard or by killing all the enemies. In another instance, I had to sabotage a dwarven mining machine.

The enemies are well animated and textured compared to other third-person games, and their AI is surprisingly good. Kobolds use team tactics, skeletons learn to guard their vulnerable knees, and the Mugmar try to push you into the lava. There are, of course, some flaws in their tactics that you can exploit, but overall, you'll need to learn new fighting styles for the various duels.

It's Only a Flesh Wound
There are two main problems with the Quest mode: saving and length. The Quest is simply too short. After eight levels, I found myself in Rastegar's castle. That's less than 10 levels! Though each level is of medium length, you'd be nice to have more. Also, you can't save on your own. Instead, the game saves automatically at certain checkpoints. As a result, it took me quite a while to beat Changa (a miniboss), since the game saves only before and after you fight him.

The last problem is that VSIM is very hard to learn. The basic mechanics are easy enough, but using those mechanics for anything more than a basic swing is complicated. Don't expect to pull off head-lopping moves in combat; you'll need to rely on the move editor for that. It will take all you have to make swings that connect. As for controls, VSIM works best with the keyboard, is surprisingly functional with a joystick, and too hard to control with a mouse.

The Arena- and Tournament-style fights are nice, but they offer no more gameplay than a standard fighting game. DBTS could have benefited from more arena and monster types in those modes.

Overall, DBTS is a good game. The Quest mode is a fine single-player game, offering good puzzles and some smart enemies. If the Quest mode was longer, if a better save-game feature existed, and if VSIM didn't have such a steep learning curve, DBTS could have been an Editor's Choice.

---

**CGW Rated**

**APPEAL:** Third-person action games with time and patience; sword-fighting fans.

**PROS:** Well-done Quest levels; good enemy AI; good character designs; VSIM creates some realistic and exciting sword duels.

**CONS:** Quest is too short; save feature is annoying; too few arenas; learning curve is steep.

**DIFFICULTY:** Intermediate.

**REQUIREMENTS:** Pentium 100, Windows 95, 16MB RAM, 125MB hard-drive space, 2x CD-ROM drive, SVGA graphics card, Sound Blaster-compatible sound cards, DirectX 5.0.

**3D SUPPORT:** 3Dfx, Rendition, nVidia, Matrox Millennium, Direct3D.

**MULTIPLAYER SUPPORT:** Modem, serial connection (2 players); LAN (up to 4 players).

Price: $34.95
Publisher: Testament/Interplay Productions
Irvine, CA
(800) 468-3275

www.interplay.com

---

OFF TO SEE THE WIZARD Occasionally, you'll view in-game cutscenes that show the progress of your quest.

CRACKED CRYSTAL One puzzle requires that you shatter special crystals to weaken Rastegar's power—a nice departure from the standard third-person puzzle fare.

A FAREWELL TO ARMS Despite losing an arm each, Kobolds still fight on. The duels are one of DIE BY THE SWORD's best features.

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<table>
<thead>
<tr>
<th>Game</th>
<th>Month</th>
<th>Page</th>
<th>Publisher</th>
<th>CGW Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balls of Steel</td>
<td>May</td>
<td>158</td>
<td>GT Interactive</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Battlezone</td>
<td>June</td>
<td>104</td>
<td>Activision</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Carmageddon Splat Pack</td>
<td>May</td>
<td>154</td>
<td>Interplay</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Deathmatch Maker 2</td>
<td>June</td>
<td>196</td>
<td>Virtus</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Interstate '76: Arsenal</td>
<td>June</td>
<td>189</td>
<td>Activation</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Grand Theft Auto</td>
<td>July</td>
<td>152</td>
<td>ASC Games</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Hexen II: Portal of Praevus</td>
<td>July</td>
<td>148</td>
<td>Activation</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Jedi Knight: Mysteries of the Sith</td>
<td>May</td>
<td>141</td>
<td>LucasArts</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Juggernaut</td>
<td>June</td>
<td>192</td>
<td>Head Games</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Redneck Rampage: Suckin' Grits...</td>
<td>May</td>
<td>162</td>
<td>Interplay</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Shadow Master</td>
<td>July</td>
<td>146</td>
<td>Psygnosis</td>
<td>★★★★★</td>
</tr>
<tr>
<td>SubSpace</td>
<td>May</td>
<td>154</td>
<td>Virgin Interactive</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Tanaurus</td>
<td>May</td>
<td>151</td>
<td>Sony Interactive</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Team 47 Goman</td>
<td>May</td>
<td>158</td>
<td>47-Tek</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Touring Car Championship</td>
<td>June</td>
<td>194</td>
<td>Sega</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Ultimate Race Pro</td>
<td>July</td>
<td>164</td>
<td>MicroProse</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Virus</td>
<td>May</td>
<td>162</td>
<td>Sio Tech</td>
<td>★★★★★</td>
</tr>
<tr>
<td>X-Men: The Ravages of Apocalypse</td>
<td>May</td>
<td>142</td>
<td>Wizard Works</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Battlespire</td>
<td>May</td>
<td>166</td>
<td>Bethesda Softworks</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Beyond Time</td>
<td>May</td>
<td>172</td>
<td>Dreamcatcher Interactive</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Black Dahlia</td>
<td>July</td>
<td>154</td>
<td>Interplay</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Of Light &amp; Darkness</td>
<td>June</td>
<td>202</td>
<td>Interplay</td>
<td>★★★★★★★</td>
</tr>
<tr>
<td>Tex Murphy: Overseer</td>
<td>June</td>
<td>197</td>
<td>Access Software</td>
<td>★★★★★★★</td>
</tr>
<tr>
<td>Creatures: Life Kit #1</td>
<td>June</td>
<td>260</td>
<td>Mindscape</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Monty Python's The Meaning of Life</td>
<td>May</td>
<td>197</td>
<td>Panasonic Interactive</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Pharaoh's Ascent</td>
<td>June</td>
<td>260</td>
<td>Ambertech</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Star Trek Pinball</td>
<td>June</td>
<td>188</td>
<td>Interplay</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Star Trek: The Game Show</td>
<td>May</td>
<td>198</td>
<td>Sound Source Interactive</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Air Warrior III</td>
<td>May</td>
<td>177</td>
<td>Interactive Magic</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>F-15</td>
<td>July</td>
<td>160</td>
<td>Jane's/EA</td>
<td>★★★★★</td>
</tr>
<tr>
<td>IF-22 Persian Gulf v5.0</td>
<td>July</td>
<td>162</td>
<td>Interactive Magic</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Search and Rescue</td>
<td>June</td>
<td>204</td>
<td>Intense Entertainment</td>
<td>★★★★★★★</td>
</tr>
<tr>
<td>Andretti Racing</td>
<td>May</td>
<td>184</td>
<td>EA Sports</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Deer Hunter</td>
<td>July</td>
<td>166</td>
<td>Wizardworks/GT Interactive</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>F1 Racing Simulation</td>
<td>July</td>
<td>164</td>
<td>Ubi Soft</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>FIFA Road to World Cup 98</td>
<td>June</td>
<td>208</td>
<td>EA Sports</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>VR Baseball Hardware Accelerated</td>
<td>May</td>
<td>180</td>
<td>Interplay</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Aide De Camp 2</td>
<td>May</td>
<td>192</td>
<td>HPS Simulations</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Armor Command</td>
<td>June</td>
<td>245</td>
<td>RCentre's Games</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Dark Reign Expansion...Shadowland</td>
<td>July</td>
<td>195</td>
<td>Activision</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Deadlock II</td>
<td>June</td>
<td>257</td>
<td>Accolade</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Deeper Dungeons</td>
<td>May</td>
<td>187</td>
<td>EA</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Dragoon</td>
<td>July</td>
<td>197</td>
<td>Art of War</td>
<td>★★★★★</td>
</tr>
<tr>
<td>East Front Campaign CD 1</td>
<td>July</td>
<td>195</td>
<td>TalonSoft</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Evolution</td>
<td>May</td>
<td>195</td>
<td>Discovery Channel</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Great Battles of Julius Caesar</td>
<td>July</td>
<td>184</td>
<td>Interactive Magic</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Magic the Gathering...Planeswalkers</td>
<td>May</td>
<td>190</td>
<td>MicroProse</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Semper Fi</td>
<td>June</td>
<td>254</td>
<td>Interactive Magic</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>StarCraft</td>
<td>July</td>
<td>168</td>
<td>Blizzard</td>
<td>★★★★★</td>
</tr>
<tr>
<td>Star Wars Rebellion</td>
<td>July</td>
<td>172</td>
<td>LucasArts</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Storm in the West</td>
<td>June</td>
<td>258</td>
<td>Schwerpunkt</td>
<td>★★★★★</td>
</tr>
<tr>
<td>WarBreed</td>
<td>July</td>
<td>189</td>
<td>Red Orb</td>
<td>★★★★★★</td>
</tr>
<tr>
<td>Warhammer: Dark Omen</td>
<td>July</td>
<td>178</td>
<td>Electronic Arts</td>
<td>★★★★★★</td>
</tr>
</tbody>
</table>
Every time someone dies in Quake II,
NO HYPE
Hopping Mad

A 3D Shooter Takes Flight, But Leaves Saving Behind

by Ken Brown

There are hundreds of mediocre games every year that never aspire to do more than fulfill a contract and make money. That's why it pains me to criticize an innovative game for blindly adhering to console game design. At its best OUTWARS is fresh, exciting and fun; at its worst, it makes you forget its good qualities and contemplate using the two CDs as clay pigeons.

The recipe: Mix equal parts Starship Troopers and DOOM, add juice of one Aliens movie, serve in TERRA NOVA glass with dead bug garnish. SingleTrac then added the concept of rocket-powered flight to this brainstorming session. Jump jets were used in the action/sim hybrid TERRA NOVA, but OUTWARS is essentially a 3D shooter, and it's a testament to the developers at SingleTrac that they thoroughly integrated rocket-powered flight into the design. The jets' fuel supply is limited, but it recharges quickly, and I found the challenge of having to monitor my fuel an interesting aspect of the game.

The setup is that you're a futuristic marine training for the Colonial Defense Force, and your training turns to deadly reality when aliens attack the colonies. You can choose either a male or female character, fighting your way through a series of missions as directed by a base commander. As the missions progress, you'll get heavier armor and more weapons, including laser pulse rifles, a flamethrower, flechette cannon, rockets, guided missiles, and mines. You'll even acquire a glider wing, which functions like a hang glider and lets you cover vast distances without running out of fuel. You can play in first- or third-person view, but I found third-person easier for glider and jump-jet maneuvering.

The Bug Hunt

The campaign is well-designed, challenging, and unpredictable. Sometimes you'll embark on a solo mission; other times, one or two squad members will join you. You can't give complex orders to these troops, only simple commands like stay put, attack, retreat, or link up. Nor can you issue different directions to different troops. More disappointing, though, was that only one mission gave me a sense that I was part of a large military force.

On the other hand, the vastness of some of the levels and interior spaces really impressed me. You'll cover a lot of ground in this game, and the terrain can vary from lush scenery to deep mines to spaceships to gooey alien hives. The levels are huge, and they're usually fascinating to uncover. There were enough unique features to keep my interest—the giant alien queen being a memorable example.

The problem with the levels—and the game's fundamental problem—is that you can't save in mid-level. Here, SingleTrac's roots in console gaming (TWISTED METAL, JET Moto) become evident. This wouldn't be a problem if the levels were designed with more power-ups or with easier navigation. But as the game advances you'll find yourself replaying levels ad nauseam to unlock their secrets. OUTWARS' producer, Shannon Lofts, told me the designers thought that a mid-level save would make the game too easy. But the solution to that should have been better creature AI instead of mazelike level design, sparse power-ups, and endless, frustrating repetition.

Graphically, the game is a step backward for 3D shooters. Textures look blotchy as you get close, weapons firing graphics look dated, power-up graphics are crude, and the game won't be the best to show off a 3D card. Most of the alien creatures look terrible up close, but I overlooked this because you're supposed to kill them from a distance. Besides, when the aliens attacked I was too excited to think about their looks, and I did get a kick out of seeing fountains of exploding bug guts.

All in all, OUTWARS brings some fresh ideas to the 3D-shooter genre, and it does a good job of sucking you into its world. I was entertained early on, but became increasingly frustrated near the end. OUTWARS could have been a first-rate action title. I hope it's the last good game marred by the lack of a save feature. CGW

ON THE RUN The larger aliens are highly mobile and a lot harder to hit. They have a ranged weapon attack and a charge that'll send you reeling.
ALL GAME
Beautiful Bruiser
Acclaim Descends to New Graphic Heights

by Gordon Goble

If the extensive, and somewhat mysterious, PR campaign surrounding Acclaim's new 3D blastfest, FORSAKEN, has piqued your interest, there's a good chance you've got the same basic question everyone else seems to have:

"When do I get to play with that woman on the box?"

Forsaken is reminiscent of Descent, with lots of blasting and flying through confining corridors, caves, and rooms. And yes, it's a gorgeous game, a visual showcase more breathtaking than Extreme Assault and far less gloomy than its title might suggest. But, sadly, the starringly attractive woman Acclaim has displayed prominently throughout its hype and plastered all over the box cover has nothing to do with gameplay.

The back-story in Forsaken assumes Earth's surface is now a smoldering shell, thanks to one too many subatomic experiments. You

are a ruthless mercenary riding an "anti-grav ponycycle," ready to plunder this new wasteland for all it's worth. You'll battle other interstellar looters and a huge variety of mechanical monstrosities in your quest for untold riches. Weapons, armor, and power-ups are all yours for the taking, whether you stumble across them or pick them up off the biker you just fragged.

Too Tough to Handle

The game features 15 linear, yet marginally confounding, levels—some of which have time restrictions. Veteran first-person gamers will want to note that Forsaken is so chalk-full of evil that even "Easy" mode is tough, with more airborne craft, ground vehicles, fixed placements, and explosive mines than you can shake a Pyrolite Rifle at.

Even worse, Forsaken's adversaries have a penchant for materializing out of thin air. And although they will pursue you and dodge approaching ordnance, there is no rhyme or reason to their travels. Worse still, fixed guns sometimes appear in previously "cleaned" rooms, mines sometimes pop up only as you pass over them, and collapsing roofs come into sight only after you proceed beneath them. This is one dastardly title, made bearable only by the fact that game saves can be executed at any time.

Frustrating? Yes, especially when game load times sometimes approached 20 seconds on my P200 rig with its 12x CD-ROM drive. Thankfully, available weaponry is plentiful and can be downright amazing. My current favorite is the "Pine Mine," a floating missile platform that ignores the depositors while blowing the bejesus out of any enemy in the vicinity.

EAT MY DUST

This is Nubia, one of the many intergalactic mercenaries you compete against to plunder the treasures in the bowels of our irradiated Earth.

She's a Beauty

Speaking of blowing up stuff, Forsaken is indeed a cataclysmic affair. If my Voodoo-enhanced system is any indication, owners of 3D accelerators will savour a fiery, acceleration will have to take a substantial detail hit just to get frame-rates up to snuff. And even then, the visuals are not nearly as

CGW Rated

APPEAL: Gamers who want to exploit their 3D accelerators; Descent fanatics who need a more explosive fix.

PROS: Big splash, bigger graphics, and huge lighting; continuous action; convincing "true" 3D environment; high-time multiplayer fun.

CONS: Constant need to save and reload; long loading times; no innovations.

DIFFICULTY: Hard.

REQUIREMENTS: Pentium 166 or Pentium 133 (with 3D accelerator card), Windows 95, 16MB RAM, 50/MS harddrive space, 4x CD-ROM drive, DirectX-compatible sound card.

3D SUPPORT: Direct3D

MULTIPLAYER SUPPORT: Modern, serial-cable (2 players), LAN. (3-16 players). Price: $49.95

Published: Acclaim Entertainment

Glen Cove, NY

(516) 656-5000

www.forsaken.com

SHINE A LIGHT ON ME With 3D acceleration, the graphics are spectacular, featuring lots of great lightings, transparencies, shading, and all sorts of visual goodies. Without acceleration, however, Forsaken is far from breathtaking.

LOAD IT UP ... AGAIN Forsaken is a visual treat, but its gameplay can get repetitive. You'll die often and reload often. This is one tough game.

spectacular. Nevertheless, objects are at least as solid as those in Quake, and are beautifully defined through multiple textures, making this game world very convincing.

With multiplayer support for up to 16 trigger-happy warriors and an overly sexist/sexyl Forsaken babe calendar included in the box, Acclaim's latest is a sensory joy, even if the gameplay is a bit too tough and the underlying concept none too original.
Heaven Sent

The Classic M&M RPG Series Makes a Triumphant Return

by Scorpius

It's been so long since a new MIGHT & MAGIC was released that fans of the popular fantasy role-playing series were beginning to fear that they would never see one again. There was plenty of talk, but nothing in the way of product, as New World Computing shifted its focus to the HEROES OF MIGHT AND MAGIC strategy games instead. Now, MIGHT AND MAGIC VI: THE MANDATE OF HEAVEN is here at last, and there is, indeed, much to talk about.

The storyline, set in the HEROES world of Enroth, is typical RPG fare: King Roland of the Ironfist line has disappeared; in the wake of his disappearance has come a multitude of bad omens, disasters, evil cults, and hordes of monsters roaming the countryside. People are even beginning to think that the Ironfist dynasty has lost "the mandate of heaven," its divine right to rule.

Everything Old Is New Again

The basic framework is standard MIGHT & MAGIC, familiar to all who have played the series. Your party of adventurers visits various towns and castles to take on quests for glory, money, goodies, and — what's most important — experience. Beyond that, however, much has changed.

Party size has been reduced from six to four persons. Human is the only race available; you can say goodbye to those Half-Orc knights and Elven mages. Professions have also been downsized to six: knight, paladin, archer, cleric, sorcerer, and druid. These classes do retain their abilities. Paladins still get cleric spells, archers learn sorcerer magic, and druids combine both cleric and sorcerer abilities.

But, despite the downsizing, life isn't as simple as it used to be. The really big change is the move to a skill-based system. Everything is now a skill. You can't cast a spell, wield a sword, or wear armor without the appropriate skill. Sorcerer magic has been split into the four schools of earth, air, fire, and water — each considered a separate skill. Likewise, cleric magic is divided among mind, body, and spirit. A character must have the skill in that school of magic before he or she can learn (and cast) spells from it. It's the same for weapons and armor. You must have the sword skill, for instance, before you can even equip a sword, or chain skill before you can wear chain-mail armor.

There are more complications, however. Just having these skills isn't enough; they must be improved over time. Skills have ranks — starting at 1 and these ranks determine how well the person does when using the skill. Improving skills is done with points obtained when you level up. The trick is, the number of points required increases every time you advance a level, making skill improvement a very slow process.

Character creation has changed greatly in the light of this new skill system. There is no more dice-rolling. When you choose a profession, it comes with preset statistics (the familiar group of might, intellect, personality, speed, luck, endurance, and accuracy) and two skills. You then pick two more starting skills for the character from a list that varies by class. Finally, you increase the stats of your choice for all four characters.
EVERYTHING is now a skill. You can’t cast a spell, wield a sword, or wear armor without the appropriate skill.

from a pool of 50 bonus points. To learn any new skills, you’ll have to join the appropriate guild and pay a (usually inexpensive) fee.

Mad Monster Party
The next big change is that towns are no longer monster-infested lairs. For the first time in the series, people walk the streets and live in the houses. You can even talk to them. Conversations are limited, though; generally, people have only small bits of information to relate. It’s necessary to check all the buildings, however, since that’s where trainers, guild memberships, and the occasional person with a quest are found.

Combat, as you may have heard, can be in real-time or turn-based. Given the speed and zigzag movement of most opponents, turn-based is the mode of choice most of the time. Simply hitting the Enter key initiates turn-based combat—although if a monster was already shooting off a spell or missile, that action will complete before everything freezes. The party can’t move, except to turn in place, while the turn mode is active. Monsters, however, can move freely around the area when their own turns come up. Of course, you can hit Enter again at any time to break out of turn mode, at which point you can either flee or move around at will.

The gameworld is unbelievably huge, and traveling around the land is accomplished by various methods: taking passage on a ship; hiring a coach; walking; or using those two old spellbook favorites, Town Portal and Lloyd’s Beacon. The game sports a new look in its maps, too. A small one in the upper right displays your immediate surroundings. With the Wizard Eye spell active, it also shows locations of people as green squares, hostiles as red ones, and goodies to pick up as blue ones. The world map displays the entire sector or dungeon level, but only those parts you’ve already visited. Dungeon maps—black and white drawings—can be scrolled in four directions, and you can also zoom in for close-ups, which are handy for the more complicated layouts.

Graphically, MIGHT & MAGIC VI’s new look is quite good. Monsters and people hold definition well in close-ups, and there is a definite 3D feel to the outdoors. The flat look of the earlier games is gone. The music is equally good and doesn’t get on your nerves. A tune plays for several minutes when you first enter a location, then fades away. You don’t hear music again unless you restore a game or cross a boundary, such as entering or leaving a dungeon, or moving from one sector to another.

Someone Heal Me
MANDATE OF HEAVEN is difficult, primarily because you have a weaker party than in earlier games. It’s smaller in size, and the characters never quite have the power they had before. I missed the ruby chain mail, the diamond plate, and, most especially, obisidian weapons. Weapons here have been scaled down almost to a mundane level.

The spells also seem weaker. Protection/Enhancement spells previously lasted until the party rested or the next dawn, whichever came first. Now, their duration is in hours, tied to the magic skill used to cast them, and time in this game passes very swiftly, indeed. Offensive spells fare no better, mostly because they’re inconsistent. It’s frustrating to hit a monster for 100 points one round, and on the next—same monster, same spell—to only 10.
This is a serious matter, because the dungeons, especially the later ones, are full of high-level opponents with high-level hit points. You have to play hide-and-seek or peekaboo to draw them out and fight them one or two at a time. It goes on until dungeon after dungeon, making an already huge game unnecessarily longer. Dangerous heroes need dangerous toys: powerful weapons and potent spells that work consistently. Without them, combat becomes a burden instead of a pleasure.

The skill system isn’t a bad idea, but given the reduced party size and the number of skills that need to be learned, the points should be more generous. And it’s silly to require skills for everything. Characters should be able to at least use permitted weapons or armor without skill, even if they can’t use it very well.

The automap, while very nice, could use a note-taking facility. I often wished I could mark down where a trainer, person with a quest, or someone who bought special items resided. Some towns are quite big, and you can’t always remember exactly where they are.
But, overall, though some of its features could use some tweaking, MIGHT & MAGIC VI is a welcome game indeed. There is a pretty broad hint at the end that there will be a Part VII; when it shows up, we’ll hope that its gameplay is somewhat better balanced toward the player side. In the meanwhile, MIGHT & MAGIC fans have an epic here that should keep them busy for months to come.
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Platoon Too Soon

Despite a Long Gestation, This Combat Sim Is Not Ready for Prime Time

by Patrick C. Miller

In February 1991, the M1 Abrams main battle tank played a decisive role in quickly ending the Persian Gulf War. Its high-tech combination of speed, firepower, and armor protection proved devastatingly lethal in the hands of well-trained and well-led American tankers. Years of refinements and improvements helped the M1 shake its early image as a costly lemon and earn its title as King of the Killing Fields.

In 1943, the German Army rushed its Panther medium tank out of production and into battle. Initially plagued by technical problems, the Panther was a disappointing performer during its combat debut at the battle of Kursk. However, with improvements, it went on to earn a reputation as one of the best tanks of World War II.

The King

Derided in the popular press as too expensive and unreliable, the M1A2 has proven itself to be a lethal adversary in combat. But in M1 TANK PLATOON II, the opposition is better equipped and more willing to fight than were the Iraqis in '91.

If MicroProse's M1 TANK PLATOON was the Abrams of 1989, then M1 TANK PLATOON II is the Panther of 1998. The original simulation took the computer gaming world by storm and is considered an all-time classic. However, the long-awaited, much-anticipated sequel is riddled with bugs and poor design decisions. When you take into account its hopelessly inadequate manual, there's no way to escape the conclusion that this game was released prematurely.

Armour Amour

Despite that, the latest version of M1 is one of the most realistic tank simulations currently available. With impressive 3Dfx-accelerated graphics and sound, the game is capable of providing an immersive environment, as well as challenging, intense, and exciting gameplay. By the time you read this, a patch addressing many of the game's problems (too numerous to detail here) should be available, along with a FAQ covering inconsistencies and omissions in the manual.

The 275-page manual is packed with interesting information about weapons, organization, doctrine, and tactics. Unfortunately, it fails to cover basic game mechanics, such as how to move in reverse and the correct procedure for firing at moving targets. Even worse, some of the features described in the manual aren't included in the game. For example, the manual says that a tank platoon can be divided into sections, but this isn't the case. The War College library and training clips are helpful, but they don't provide nearly enough detail.

Even more confusing, the game's README file advises players to ignore the commands listed in the manual and use the quick-reference card instead. Unfortunately, several important keyboard commands listed on the card don't work. And many gamers have reported that some buttons and hat switches are nonfunctional on brand name joysticks.

HUNTER-KILLER The CITV looks impressive. Unfortunately, a game bug prevents gamers from taking full advantage of it.

THERMAL HAVOC Objects in your gunsight are sometimes closer than you'd like. Viewed through the M1A2's thermal sight, this Mi-28 Havoc is about to be annihilated.
I Want My CITV

Perhaps the game's greatest faux pas is its treatment of the commander's independent thermal viewer (CITV). This feature separates the M1A2 from previous models of the Abrams and other modern main battle tanks. It enables the commander to search and designate targets for the gunner. But a bug in the program renders it useless in the game. Under AI control, gunners fire off their tank's limited supply of special-purpose ammunition and constantly countermand orders to load specific ammo types, making the job of tank commander more frustrating than it should be.

Some design decisions defy logic. For example, the manual emphasizes using the commander's .50-caliber machine gun for anti-aircraft defense and destroying light-armored vehicles. However, the weapon's usefulness is greatly reduced because there is no binocular view, no night vision capability, and nothing to help the commander determine which direction the machine gun is facing. Overall, the design demonstrates a poor sense of knowing when to accurately portray reality and when to make concessions to gameplay.

Gameplay in M1II is quite similar to the original, with a few variations. You start by creating a platoon attached to either a U.S. Army armor or cavalry unit or a Marine Corps unit, which determines the type of support your platoon receives during missions. From there, you can play 1 of 21 stand-alone missions, join a randomly generated battle, or enter a campaign in the Persian Gulf, North Africa, the Far East, Moldova, or Eastern Europe. There are also 11 training missions.

Advance Recon

Before entering battle, you get briefed on the mission type, ground support units under your command, and the artillery and air support you'll receive. The battle begins paused at the map screen, providing the opportunity to issue orders before the shooting starts. From the map, you issue movement commands to your units and instructions on formations and various actions. By clicking on any friendly unit and selecting the external view, you can get a battlefield view of how it's faring.

During combat, you can jump into any of the four tanks in your platoon and fight from the gunner's station or from the commander's buttoned and unbuttoned stations. However, because the commander's stations are of limited use, you'll spend most of your time switching between the map and the gunner's station. After the battle, you receive a performance report. Depending on the mission's outcome, points are awarded to promote and decorate members of your platoon.

Victory or Defeat?

Even if MicroProse successfully patches all of M1II's problems, the game will continue to suffer from lack of polish and inattention to detail. LONGBOAT 2 players will recognize how much better M1II could have been if it had more of the customization features and player configuration options. MicroProse is planning M1II expansion disks that could extend the game's replay value.

Most hard-core tank simulation fans will find enough to like in M1II to overlook its obvious faults. Those who expect a reasonably complete and functional game for their money might want to take a wait-and-see approach. The potential for a good game is certainly there, but only time will tell whether MicroProse can save M1II from the bargain bin of obscurity. CGW

The Way It Should Have Shipped

Less than a month after M1 TANK PLATOON II hit the shelves, MicroProse released a patch that significantly improves the game. The joystick buttons now function correctly, and most of the keyboard commands do what they were always supposed to do.

The commander's unbuttoned view is far more useful, thanks to the addition of binoculars and night vision. There's also artwork showing the main gun and upper portions of the turret, which helps orient the view.

Artillery can now fire smoke screens, although MicroProse recommends that this feature be used on high-end systems only. The CITV is functional and the gunner no longer overrides gamer commands.

Most bugs and design decisions that created gameplay irritations were also fixed. Direct 3D support was added for Matrox Millennium and Intel 740 3D accelerators. MicroProse released a FAQ covering some of the important game mechanics in detail.

With a little more beta testing, tweaking, and a decent manual, this could have been a four-star game—or better. Unfortunately, the game MicroProse chose to ship to stores didn't warrant the CGW seal of approval.
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Rommel Rides Again

Even Without Smoke Effects, PANZER COMMANDER Outflanks Every Other WWII Tank Sim Ever Made

by Jim Cobb

For years, gamers have had only one serious World War II tank simulation, Deadly Games’ M4 SHERMAN, and even that bordered on the arcade. Suddenly, we are deluged with WWII armor, from Interactive Magic’s IPANZER ’44 and Psygnosis’s upcoming PANZER ELITE to PANZER COMMANDER from SSI—which for now has the broadest scope of any of these sims. Developed by Ultimative, PANZER COMMANDER manages to cover every major tank battle in Europe from 1939 to 1945, as well as some interesting small engagements. Gamers can pilot 47 different tank models from Germany, Russia, the U.S. and the U.K.—including just about every Panzer or Crusader variant you can imagine. If that isn’t comprehensive enough, you’ll also face a variety of 

“nonplayer” tanks used by the AI, which are more than the usual placeholding targets. Basically, if a tank isn’t represented in PANZER COMMANDER, it didn’t make much of an impact during the war.

WWII in 3D

Still, when you first boot the game, it’s not the comprehensiveness that strikes you so much as the graphics. The 3D-supported views are not only staggering, they’re also beyond mere eye-candy. The treads and bogies move, and tank marks appear as the steel behemoths roll. Trees, walls, and onion-domed churches stand out as landmarks and cover. You can easily make out tactically important folds in the terrain from the internal tank view, where the feel is enhanced by the head-rocking vibrations as you clank along the battlefield.

Combined with the model-specific engine noises, clank of treads, and detailed combat sounds, the graphics provide an unsurpassed you-are-there feel. The external views of all vehicles are as painstakingly crafted as any professional model, and even the wrecks show more detail than just the odd flame and bilow of smoke. Strafing aircraft look very close to what tank crews would have seen if they cared to stop dodging. The visual effects of movement have direct consequence for play. Crewmembers won’t spot the enemy quickly when bouncing around on a rocky area. And in one of those rare cases in which gameplay realism blends perfectly, tanks must be halted in order to fire accurately; deceleration and holding your vehicle steady on a downslope can seriously affect all-important first shot.

Great effects are more sound and fury, however, unless they’re incorporated into a pertinent con-
text and an accurate model, and PANZER COMMANDER provides that context in spades. The game is a mere platoon leader, commanding one to three tanks other than his own. Platoon orders are limited to formations (column, echelon, line wedge, crescent) and targeting specific enemies. Afterward, you are free to handle your own vehicle, using seven vehicle views and an optional external view. As commander, you can stand in the turret hatch, scanning with binoculars, or pilot from the buttoned cupola. The cupola restricts views, but it has a small situation map highlighting terrain features (and offers the option of seeing enemy positions). The driver’s view shows the sights from the hull and displays fuel and engine temperature gauges. One ground view shows a broad, unmagnified view with a simple reticule, while the other gunner’s view is magnified and has a range finder. Finally, the bow gunner can sight through a simple, limited traverse set of cross hairs. A status bar below all screens shows ammunition quantity and type, speed, direction, turret position, waypoints, and crew messages.
German Campaigns

Those dying to play through a U.S. or British campaign will have to wait for the probable sequel. You can easily console yourself, however, by joining one of the following famous WWII formations, in which the campaigns differ quite a bit from one unit to another:

21st Panzer Division
Initially the 5th Light Division, this unit was part of the original Afrika Korps. It performed well and went on to stymie the British around Caen, finishing the war in Alsace. If you choose this formation, you begin in a Panzer Mk III H.

2nd Panzer Division
This unit was an original German armored division. It led German troops into Austria and Czechoslovakia and fought from the first in Poland to the bitter end. If you choose this formation, you start with a Panzer 38(t).

Grossdeutschland
An elite unit during Weimar, this force first saw action in the breakthrough in France, then moved on to the snows and mud of the Soviet Union. If you want better German equipment, this is the place to start. You begin at a time in the unit’s history when they’d just been assigned Panzer Mk IV Ds.

These perspectives fit well into a fairly accurate model for armored combat. As commander, you choose between highballing down a road and not stressing your vehicle, but risking an ambush; or pushing over rough terrain, seeking hull-down positions and flank shots, but risking a lost tread or an overheated engine. A sighted enemy appears via red cross hairs (suspicious buildings can be targeted manually). At this point, the gamer, using simple hot-key commands, orders a halt and has the gunner engage with armor-piercing (AP) or high-explosive (HE) rounds. Depending on gunner/loader qualities and turret traverse, the enemy may succumb quickly. Tougher situations call for a master’s touch, as you take over the gunner’s position and line up the range finder’s dull cross hair with the enemy’s bright one.

Casualties involve much more than the usual exploding tank and a few scattered polygons. At the worst time, your turrets will jam, your main gun drops out, and crewmen, even your character, get shot. Appropriately, the tank crews are virtually helpless against artillery barrages and enemy planes. All these things can happen in 40 preset scenarios (for all countries), or in Russian and German campaigns involving three divisions each. Each campaign begins when that division is formed and continues to 1945 with the usual promotion, medals, upgrades, and crew improvements. Campaign battles are fixed without dynamic outcomes; the Germans, for example, won’t win the war. When you become bored with the scenarios, an editor is provided. The AI is adequate on defense but lacking in fire and movement.

THE EARTH IS MY MOTHER. ONLY THE EMPIRE STANDS BETWEEN HER AND THE CYBRID DARKNESS. THOSE WHO UNDERMINE THE EMPIRE BETRAY HUMANITY. MY BROTHER HAS BROKEN HIS HOLY OATH AND LEADS THE REBELLION. I WILL STRIKE HIM DOWN IN HUMANITY'S NAME. FOR I AM THE SWORD OF RETRIBUTION.
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Russian Campaigns

12th Guards Heavy Tank
This formation actually entered service as the 21st Tank Brigade. After receiving KV-1 tanks in 1941 (which is where you come in), this unit defended Moscow. Later, it helped to clear Germans from the Ukraine and ended the war in Prague.

5th Tank Guards Corps
In its original incarnation as the 40th Tank Division, this unit was decimated in 1941. It was reformed, renamed, and assigned BT-7 vehicles. After engaging in several 1943 battles, it moved on to Vienna.

8th Guards Mechanized Division
An original Guard unit, this unit fought at Stalingrad and Kursk and eventually entered Berlin. As with the 5th Tank, if you choose this formation, you begin with a BT-7.

so gamers will eventually seek each other out using the multiplayer capability.

Playability Bulge
Design compromises in a game as broad as PANZER COMMANDER are inevitable. Some are fairly benign, such as the internal views for each country's vehicles, which are so similar that a gunner in a Panzer Mark III has the same view he'd get in a Tiger tank. Others are questionable, but barely affect play. The stereoptical range finding method, for example, is ahistorical—but the commander shouldn't be laying the guns anyway.

But some design choices run counter to reality and are detrimental to gameplay. Enemies do not advertise their position with bright red cross hairs. Targets going out of sight don't turn yellow. Combining AP and HE ammunition is acceptable, but omitting smoke rounds disregards a basic facet of the WWII battlefield. The lack of an Allied campaign—supposedly due to their inferior equipment—is a cop-out. American armor divisions found ways to overcome the Sherman's deficiencies to defeat superior German units, and it'd be nice to include this in the game.

There are a few technical glitches as well. Some targets float, or targets that are behind cover appear to be in front. Shots from your tank can't demolish stone walls that obstruct line-of-sight. It's also unnecessarily difficult to configure some joysticks.

And in one of the rare interface problems, ordering other units to engage uses the same hot-keys as the speed for your tank.

Despite these quibbles, however, PANZER COMMANDER is an ambitious and worthy product, easily the best WWII tank sim yet, and the best tank sim—regardless of era—released in many years. Now all we need is for Ultimation and SSD to add realistic smoke effects, a British North African campaign, and maybe the U.S. 2nd Armored, and we'd have an unqualified gem on our hands. CGW

HONOR IS A SHAM WHEN IT STANDS ON A PLATFORM OF SLAVERY. HERE ON MARS, WE'LL NEVER BOW OUR HEADS FOR THE IMPERIAL CHAIN—NEVER! IN THE END, FREEDOM'S THE ONLY TRUE LIGHT AGAINST DARKNESS.

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MOONS, BROTHER IS LOCKED
WITH BROTHER IN
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MOONS, BROTHER IS LOCKED
WITH BROTHER IN
DESPERATE BATTLE.
My thing is speed. 8 thrust jets, 4 rudder jets. My stone goes like a scalded cat. I move in quick, strike fast and blow before they know what hit ’em. All their firepower doesn’t mean jack if they can’t hit me.

Stratosphere Online Tournament!

Heavy firepower is for suckers with small Johnsons. All I need are 3 solar collectors and maximum shield walls. Oh yeah, and about a dozen ramming spikes. When my fortress rocks your world, you’ll know it.

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Firepower, firepower and more firepower. This isn’t a bridal shower, it’s war. I’ll take my chances with 4 doom bolt guns, 2 dragstone launchers and 3 shockwave cannons. Trust me. You don’t want any of what I got for you.

You could win the grand prize—a 31” Panasonic TV, a Panasonic DVD player and the movie “The Rock” on DVD.

What kind of fortress will you build?
Copa!

EA Sports Strikes Again With Masterful FIFA 98 Follow-Up

by Dave "Kick Me Harder" Salvario

EA Sports already has one great soccer title under its belt this year: FIFA ROAD TO WORLD CUP 98. Well, the road trip is over; the faithful have arrived, and so has EA with another terrific soccer title: WORLD CUP 98.

Following FIFA 98 is no easy act, but WC98 delivers with beautiful, updated graphics and fast, furious gameplay. It's just the ticket for catching Cup fever.

Kickoff

WC98 is roster-accurate for each of the 32 teams that have qualified for the 1998 World Cup, and rosters reflect recent personnel changes. At the start, you can choose which team or teams you want to play, and then play each of the three qualifying round games against the other teams in your selected team's group (there are eight four-team groups altogether). If your team's three-game record and accrued points are up to snuff, you advance. If not, you go home.

France is hosting this year's Cup, and EA has modeled all the actual stadiums. Each game is played at its real-world scheduled time, which affects lighting conditions and can affect weather. One annoyance is the stadiums have field-level billboards, but every time a statistic is displayed, up pops a Snickers ad. Having advertisers willing to pay for the virtual billboard spaces is all well and good (and realistic), but this subtle-as-a-freight-train-hardsell is downright irritating.

Like FIFA 98, WC98 has three difficulty levels: Amateur, Professional, and World Class. A welcome addition in WC98 is the ability to throttle action using a slider in the Gameplay options menu. So, if it's wickedly fast you want, you've got it. But if your twitch reflexes aren't what they used to be, or you just want to take a little speed off of the action, that's an option as well.

The Amateur level is true to its name, with defenders giving your attackers a wide berth, and keepers being unassertive in charging. Dial up the AI to Professional, and the defenders become more aggressive in slide tackles and steals, with keepers more likely to charge a would-be scorer. World Class takes that aggression to the next level, and should challenge even the seasoned sports gamer.

While the AI in WC98 is similar to that in FIFA 98, there are some notable differences: Keepers don't always hold the ball after a shot on goal, which can make for some tense action in the hot zone. This means you'll often get a second shot on goal, or a corner kick if the keeper deflections the ball out of bounds.

A different situation occurs at higher difficulty levels: There are cases of the AI cheating outright and often getting away with dirty slide tackles—either cleats-up or a take-down from behind—without the officials noticing. More insidious still are instances when you sprint toward the ball with a fast player using the "turbo" button, and the computer player suddenly becomes bionic and blows past you to reach the ball first.

Playing Skipper

In the Team Management screens, you can adjust your line formations (flat versus diamond or sweepers) as well as how aggressive each player will be in general gameplay, including the all-important keeper. You can also tweak attacking bias, which adjusts the player's tendency toward defending versus attacking. A new feature in WC98 is Man Marking, wherein you can have specific opponents "marked," or covered man-to-man, by players on your team. Though a cool idea, you're not given a choice as to which of your players will be used, so the feature seems only half-implemented. Another handy feature is the addition of several In-Game Management configurations, which lets you readily call up saved settings, rather than having to manually reconfigure each time.

The final game often comes down to a penalty shoot-out, which would make for some nail-biting if you weren't so busy actually playing the game. Which is to say, WORLD CUP 98 is about as real as it gets without lacing up the cleats and strapping on shin guards. Plus, as an added bonus, after you win the Cup, you can then play a classic World Cup final years past (in black and white, no less).

If you already own FIFA 98, then WORLD CUP 98 makes a fine addition to your sports game library. But if you missed FIFA 98, then WORLD CUP 98 is a must-have. CGW
Corked Bat
TRIPLE PLAY 99 Swings a Big Bat but Doesn’t Field a Complete Team

by Robert Coffey

These days, most sports games fall into one of two very different categories: graphically sharp, action-oriented thumb candy or ugly-but-tactically-deep simulation. In the madonna/whore context of PC sports, TRIPLE PLAY 99 performs like a Miss America champ: it looks and moves great, but don’t expect much insight.

Graphically, nothing compares to TRIPLE PLAY 99. Polyhedral players move with a brutish grace not found in any other baseball game. Every swing of the bat is Ruthian; every throw a rocket; every catch a diving, dirt-eating highlight. It looks sharp, but more staid fans of America’s pastime may find it cartoonish—second basemen don’t just toss the ball back to the pitcher, they rear back and hurl it. You can practically hear the rotor pants cuffing shredding.

TRIPLE PLAY 99 is fully licensed, with every stadium beautifully recreated and every major leaguer taking his at-bats. While players’ faces aren’t eerily stretched across their boxy heads, they do sport appropriate facial hair. Has anyone else noticed an apparent mandate that 50 percent of players must sprout goatees? Catcalls, vendor cries, and cheers create good ballpark ambience, but the sound suffers some from that echoy quality you hear at Montreal’s Olympic Stadium. Even outdoor parks sound enclosed. The two-man announcing is okay, provided you can stomach both Buck Martinez and a liner off the center field wall being called a “seeing-eye triple.”

Going Deep—Not!
Unfortunately, all this glitz comes at the expense of truly recreating major league baseball. The focus in TRIPLE PLAY 99 isn’t just on hitting the ball, it’s on punching holes in the Mir space station (as if it didn’t have enough trouble). See the ball, launch the ball. Computer strikeouts are practically nonexistent as the CPU swings at virtually every pitch. Management options for double steals, hit and runs, and various bunts come off as simple window dressing since you don’t need to employ any baseball smarts in order to win. The computer sure doesn’t.

Batting gets easy very quickly, but don’t turn up the difficulty level unless you’re also adept at tracking down fly balls—TP99’s four difficulty settings don’t let you adjust individual game features. Then again, surrendering to the game’s AI could be a risky move considering its significant shortcomings, particularly in baserunning. Controlling base runners is iffy at best—all rallies are often short-circuited by two runners deciding to hang out together at second. While the computer won’t victimize itself with these little tea parties, it does inflict other bone-headed baserunning plays on itself.

TRIPLE PLAY 99 has upped the statistical ante with tons of numbers and charts, but the game is still “Stats Lite” at best. In a simmered season Barry Bonds hit a reasonable 43 homers but stole an unlikely 79 bases, getting caught just four times. The umpires should check those cleats for jump jets. Face it, any game in which Greg Vaughn’s absurd 1997 season serves as the basis for a .289, 33...
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Bush League
It's Back to the Minors for HIGH HEAT, a New Baseball Franchise That Just Can't Compete

by Robert Coffey

I'll confess: For once I bought the hype. Desperate as I was for a baseball game that combined good arcade action with believable stats and strategy, HIGH HEAT's ads gave me high hopes. You know, the very serious ads featuring the very serious developers, Team .366, a group that took its name from baseball's highest all-time batting average. Well, you can charge Team .366 with its first error: The highest lifetime average was Ty Cobb's .367.

Riding the Pine
Lacking the features and options gamers have come to expect in their computer baseball games, HIGH HEAT isn't going to cut into the playing time of the big boys.

Where on the list of shortcomings to start? The weird swinging animations that look more like Tiger Woods than Ken Caminiti? The lack of a career mode? The inability to create or edit players, or to rename teams? No, let's focus on the things that keep HIGH HEAT from living up to its promises.

There's no draft, so forget about a dream league with your pals. How any baseball game can hit shelves without a simple draft feature boggles the mind. Should you start a league with your friends anyway, be advised you'll be seeing a lot of them since HIGH HEAT doesn't support modem, Internet, serial, or LAN play. The minds boggles yet again.

More short sightedness: The visiting team has a decided disadvantage, since there's no way to find out which pitcher you'll face when making your lineup—a real drag if you're platooning players. There's no bullpen; you just insert new pitchers without warming them up. If you're playing the computer, you'll be quick-pitched to death. Bad enough you can't prepare to hit, but it's criminal to be denied the opportunity to use a pinch hitter because you can't hit Esc faster than the CPU can deliver a curve.

Iffy Prospect
All this is frustrating, since the game shows promise in other areas. The fielding AI is the best I've seen in a long time. Gameplay is realistic, and the stats engine is reliable, producing believable numbers while still allowing players the occasional career year. Still, the stats track only a handful of categories. With only players' total batting averages recorded (both batted and historically) you can't make pinch-hitting decisions based on how well players hit lefitees. Forget about split averages for switch hitters.

Out of the box, the game controls were slow and unre sponsive, resulting in shortstops inexplicably running sprints into centerfield after glowing a ground ball. To its credit, 3DO has released a patch for vastly improved fielding and running controls. Graphically, HIGH HEAT's 2D players can't compare to the polygonal brutes of TRIPLE PLAY '99. Plus, because HIGH HEAT lacks a MLB license, teams are unnamed and wear dorky, generic uniforms.

HIGH HEAT is a disappointment, plain and simple. Here's an open invitation: Somewhere in CGW's offices lies a decade-old Amiga version of EARL WEAVER BASEBALL. If Team .366 wants to drop by sometime, I'll show them how a great baseball game plays. Maybe then we'll see a game for the real fan.

---

**CGW**

**Rated**

**APPEAL:** Gamers whose cities have banned all other baseball games.

**PROS:** Good fielding AI; solid statistical engine; realistic gameplay.

**CONS:** No draft; no remote or LAN play; limited stats; missing the mark on rudimentary baseball aspects; too many other games to list.

**DIFFICULTY:** Easy

**REQUIREMENTS:** Windows 95, Pentium 133, 32MB RAM, 100MB hard-drive space, 4x CD-ROM drive, Direct Draw-compatible video card, Direct Sound-compatible sound card.

**3D SUPPORT:** 3Dfx and Direct 3D

**MULTIPLAYER SUPPORT:** Hotseat 2 players, 1 CD per player.

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**THAT'S HIGH HEAT**

**Hit a homer and you'll be treated to this ball's-eye-view replay of your round-tripper.**

**CAN OF CORN**

While fielding pop-ups and foul balls isn't the most exciting thing in the world, their realistic frequency in HIGH HEAT makes for more believable play than that of other games.
Winner: Killer Game Award, The Cheater's Guild

"Cyberstorm was a great game and Cyberstorm 2: Corporate Wars takes the premise to a higher level. Real-time or turn-based play and dynamic mission generators for infinite replay value – it just doesn’t get any better than this."

Winner: Editor's Choice, All About Games

Dynamix has got a real winner on their hands. Cyberstorm 2 is positively awesome! With over 170 weapons (and more than 300 weapons plus devices), the ability to engineer your own Bioderm, the non-fixed research tree, and all the new chassis to play around with, and the dynamic campaign engine, plus multiplayer capability, Cyberstorm 2 has nearly infinite replayability.

More, Much More... GamePen

"Break out the Bioderms and churn out the chassis, the war has begun anew in Dynamix’s upcoming strategy game, Cyberstorm 2: Corporate Wars. This sequel to Missionforce: Cyberstorm still allows players to create pilots, configure their HERCs and engage in turn-based conflicts, but now there’s more. Much more."

Up the Wazoo PC Games

"Here’s where Cyberstorm 2 gets interesting. While you don’t have to fiddle with it, this game has customization up the wazoo. In the factory where you build your HERCs, you can tweak the specs to your heart’s content! Normally, the computer AI would handle all this for you, but if you like to tinker with every little nuance, you can’t get more into the details than with Cyberstorm 2!"
The critics agree. **Cyberstorm 2: Corporate Wars** is the ultimate game of mass destruction and total control – for gamers who love deeply-layered strategic warfare.

The critically-acclaimed sequel to Missionforce: Cyberstorm, Cyberstorm 2 is a double-barreled combination of intense tactical action and more opportunities for customization than any other game of its kind. And it’s the only game around that gives you a choice between turn-based and real time play.

You can’t lose with Cyberstorm 2. But don’t take our word for it. As Marcus Sears of *All About Games* put it: “I strongly recommend Cyberstorm 2 for every strategy gamer. It’s got that ‘Just one more mission’ quality that keeps you playing until the wee hours of the morning.”

Visit your software retailer or or call 1-800-757-7707 www.dynamix.com
Strike Six
After a Season Off, the HARDBALL Franchise Still Needs Work

by Tasos Kaiafas

When Accolade decided to delay HARDBALL 6 a year to develop a new 3D engine, how could longtime HARDBALL fans not have high expectations for its 1998 release? After all, taking an extra year to improve a new edition of an already great game is, unfortunately, too often unheard of in game development. It was only natural to expect that HARDBALL 6 would be stellar.

The sim engine itself can still hold its own—game results are realistic, and most players perform as well as expected (albeit with a few career seasons from some mediocre players). The stats engine still provides most of the pertinent information a would-be manager needs, presented nicely in a sortable database (from the League Leaders screen) or on the usual HARDBALL baseball-card-type window. It would be better if some things could be accessed without having to exit the field, though (an on-deck list or bullpen control, for example).

One Dimension Too Many
So just how good is the new 3D engine, given its full year of development time? So good that it's hard to tell if it's even using your 3D card. Textures are certainly smoother and the frame-rate is better (most of the time), but there are no lighting effects, distance hazing, or all of those other visual treats you'd expect—and that can come only from a 3D chip.

Worse yet is the effect of the new graphics engine on gameplay: The frame-rate often starts to slow down as you add baserunners, which has an effect on batting (frame-rate drops with the pitch)—making it harder to hit the ball. It gets even worse if the announcer is talking at the same time. In fact, sometimes the audio gets so far behind the graphics that you hear the crack of the bat only after the ball is already in the outfield, or sometimes the announcer doesn't make the call until after the play is over.

Even when the bases are empty, batting can be frustrating. There's a slight delay in the swing response, and if you are a fraction of a second late (say, if you try to take a pitch the opposite way) the batter won't swing at all. Compare this to other more arcade-type games like TRIPLE PLAY, and it's clear HARDBALL has a lot of catching up to do—even though HARDBALL 6's pitching/batting model has more versatility, and is better overall.

And after all these years, HARDBALL is still plagued by many of the same problems as before: inconsistent field changes by the announcer and miscalled plays (a "crushed" ball sometimes looks like a blooper), bad baserunning AI (runners will sometimes tag up when there are two outs), and no way to simulate games a month at a time, only by the week or by the season.

Hit the Showers
Heightened expectations? Maybe. All sports gamers are guilty of that to a certain extent from sequel to sequel. No doubt, HARDBALL 6 is still a good baseball game with a lot of thoughtful features and details, and you can tell that it was made by people who understand the sport very well. But the new 3D engine is a big disappointment. And worse, even with that extra development time, you still get the feeling that the game was rushed out the door. Fine-tuning is what makes a game great, and HARDBALL 6 isn't that great.
You're in the 10th frame,
there's a bucket of sweat
dripping off your brow
and this shot is worth
way too much money

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Chip Shot
Empire Takes a Big Swing, but Comes Up a Bit Short

by Gordon Goble

With apologies to my high school creative writing teacher (who felt clichés were the work of Satan), Empire Interactive's first sojourn into computer golf is nothing less than a diamond in the rough. Rewarding skilled, thoughtful play more than any other PC golf game to date, THE GOLF PRO FEATURING GARY PLAYER exhibits brilliant programming, but it's lacking in a few key areas that keep it just short of the genre's elite titles.

Mouse Swingin' 
The GOLF PRO is the latest PC golf game that lets a gamer duplicate the entire swing with the mouse (known here as a "mouse drive"), and it marks what's really good about this game. Simply put, THE GOLF PRO does mouse driving better, and with more innovation and complexity, than the competition. (So much so, in Empire's opinion, that it did not include the traditional swing meter.)

Here's how complex the mouse drive is. Releasing the left mouse button before contact adds height to the flight path; releasing it late (or not at all) adds distance. Angling the typical perpendicular mouse orientation during the swing adds intentional hook or slice to your drive, just as opening or closing your grip would do with a real golf club. Of course, the same thing can be accomplished accidentally by veering from the straight and narrow as you swing, just as you might mishit a real ball.

Then, there's tempo. The game forces you to maintain a steady uninterrupted rhythm from beginning to end of each swing or suffer the consequences—again, it's just like the real game. You'll soon find that a solid, flowing approach is critical, and the results are realistic.

A Course Is a Course
THE GOLF PRO includes only two courses, England's St. Mellion and South Carolina's cherished Hilton Head, though three more are promised by year's end. The courses are both pretty and functional, conveying a convincing sense of perspective and elevation. That the ball accurately reacts to all the inherent dips, rises, and environmental conditions is testament to some very careful programming. Let's just say this is one game that forces the player to use all his skill and experience all the time.

In a unique visual twist, Empire has opted for enhanced prendered digitized graphics and static camera positions, an approach that results in very fast scene changes. But the camera angles often aren't the ideal "behind-the-golfer" perspective for all possible ball positions, which makes it tough to read fairway and green grading. Further, there are no secondary cameras for many long or blind drives, leaving you ignorant of the ball's final resting spot or the obstacle you may have hit until it's time to shoot again. Aerial views of each hole are offered, however, along with detailed narrated previews.

The three available motion-captured golfers, meanwhile—including namesake Gary Player—are a tad pixelated but move in realtime to your actions and can perform a wide variety of swings and stances. Sadly, computer competition is pre-recorded and therefore without artificial intelligence, and multi-human golfing wasn't available in time for this review. (Empire says a patch should be ready by summer.)

Overall ambiance is classic all the way, including relaxing newage music selections at the menu screen and an upscale, ritzy look to all off-course interfaces. Newcomers will appreciate the extensive tutorial section by Gary Player before their round and the astonishingly intelligent advice and commentary given by the game's announcer/caddy during it.

Empire has a diamond here somewhere with THE GOLF PRO, but it may take some chipping out of the rough to find it.
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Slippery Slope

FPS: SKI RACING Offers Decent Arcade Thrills, but Controls Are Ice Cold

by Loyd Case

The opportunity to review FRONT PAGE SPORTS: SKI RACING seemed like a breath of cold air in the heat of summer. Sadly, it turned out to be about as much fun as a snowball stuffed down your parka.

First, the good news. The background graphics are quite good, although the figure of the skier is pretty polygon-riddled. The game supplies necessary information in a clear manner. Since you can’t see as far on a computer monitor as you could while actually skiing, FPS: SKI RACING gives you some clues, in the form of arrows centered between gates. There’s also a small overhead view that looks one or two gates ahead on the lower part of the screen.

Street, are fun. The controls can be customized, and the setup options for colors, sponsors, boots, and skis are detailed, but I would have preferred a wider selection of gear.

The Sierra Cup season is fun to play, though the selection of mountains is relatively sparse. Still, Val d’Isere is here, as well as my favorite mountain, Mount Bachelor in Oregon.

Downhill From Here

When you start racing, though, the game’s problems begin to emerge. Simply put, control response is terrible. It’s not so noticeable in the downhill—the gates are far apart. Once you try to slalom, though, it gets ugly. I tried using a gamepad, Microsoft’s force-feedback stick (supported by the game), and rudder pedals (recommended in one of the README files). No matter what I tried, getting through the tightly packed slalom gates and even the GS gates proved to be nearly impossible. Stick with the downhill or Super G; you’ll be much happier.

The setup screen is almost pure illusion. You can pick your skis, but they won’t make much difference on the slopes. There are no discernible differences between slalom and cruising skis.

That’s the game’s problem: It doesn’t feel like a skiing sim as much as a flight sim. Weather conditions have little effect, other than on visibility. You can’t tune your skis—set the bindings differently, take a risk with waxing, and so on. Maybe if Papyrus had developed the game instead of Dynamix it would have been more realistic. As it is, it’s a moderately fun arcade racing game. Just don’t try the slalom.

CGW

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Letting the Boys Down
This WWII Game Fails to Identify Its Target, or Its Interface

by Tim Carter

The first U.S. Army units to fight against the Germans during World War II met with a surprising defeat. Not that the average doughboy was lacking. On the contrary, it was the sometimes intangible supporting elements of an armed force—equipment, organization, and leadership—that were clearly in need of work. The guys in the field, unfortunately, were left to overcome these problems through courage and hard work. This makes for a good movie, but it was an unpleasant experience for the people who actually had to slog it out on the battlefield.

SOLDIERS AT WAR, from SSI, transports gamers to those gritty days of World War II infantry combat in Europe. Unfortunately, it may also have them, like their historical counterparts, wondering just who organized this mess.

SOLDIERS puts you in charge of a squad or two of infantry, à la X-COM or JAGGED ALLIANCE. You're limited to playing as the U.S. in the 15-scenario campaign, but in the single scenarios you can also be the Germans, the Italians, or the French Resistance.

"I Can't Do That, Sir!"

SOLDIERS is turn-based, mostly bug-free, and does a reasonable job of replicating WWII infantry combat. I doubt it will win any prizes for realism, but it does offer a complete range of infantry weapons and a relatively diverse set of scenarios.

Sadly, SOLDIERS' potential is greatly marred by an extremely clunky interface. At virtually every stage of the action, gamers must use more mouse clicks than should be necessary (by my calculation, throwing a grenade requires six different commands).

Moreover, the maps and other information are very poorly thought out. For instance, keeping the map scaled to 50 percent allowed me to see both my active soldier and any nearby targets, and gave me a sense for lines-of-sight and potential cover (which, as one might expect, is pretty important to keeping your troops alive). But what you cannot see at the 50 percent zoom level is the "chance-to-hit" number that appears when you aim at an enemy soldier. As this number is frequently zero, and as ammunition is quite limited (a feature I quite like, by the way), I had to switch constantly between map levels. Also, a glitch in the zoom feature frequently shifts your view to another area of the map when you change levels, making for a very frustrating experience if you are considering multiple targets or are trying to sort out which of your soldiers should shoot at whom.

Sergeant Who?

On a more cosmetic level, SOLDIERS rates each member of your squad for a variety of abilities and characteristics. Yet, because all characteristics are referred to numerically, and because none of them are directly displayed or even referenced during gameplay, it's difficult to develop any understanding or allegiance to your troops during battle.

I also have to question some of the design decisions. While there are many vehicles on the scenario maps, most of them don't do anything. You can take over and use immobilized tanks, but you can't drive them; I never encountered any that moved on their own. If the designers couldn't incorporate functioning vehicles into the game, why bother with them at all? As it is, the current situation only highlights the lack of realistic armor, or even jeeps.

None of these flaws makes SOLDIERS AT WAR unplayable—just annoying. But since it is the only game on the market that gives you individual control of infantrymen in WWII, many gamers may wish to overlook these shortcomings. The rest of us, however, can only hope that the trials of battle and complaints from the field will induce the powers that be to deploy a better product next time.

CGW Rated

APPEAL: WWII addicts with a high tolerance for anachronisms.

PROS: Fun at times; lots of weapons; one of few games on this topic at this scale.

CONS: Chunky interface; poorly implemented player feedback; no British, German, or Russian campaigns.

DIFFICULTY: Intermediate.

REQUIREMENTS: Pentium 120, Windows 95, 16MB RAM, 2MB SVGA graphics, 4x CD-ROM drive, Direct- compatible sound card.

3D SUPPORT: None.

MULTIPLAYER SUPPORT: LAN, Internet, or modem (2-4 players); 1 CD per player.

Price: $39.95
Designer: Random Games
Publisher: SSI
Novato, CA
(800) 681-7539

www.ssi.com
Just when you thought it was safe to go back into the galaxy, the Core have returned. As TOTAL ANNIHILATION: THE CORE CONTINGENCY opens, we find that the Core have escaped annihilation and resurfaced in the Ocelot system. It turns out those pesky Core-sters had a plan (one might call it a "contingency") in case of an Arm victory: A lone Core commander was stashed away in a far-off system. Now that it has been activated, its goal is to convert alien technology hidden in the system into nothing short of a galaxy-sucking superweapon. Your job as the Arm or Core commander is to either destroy the technology or carry out the Core's diabolical plan.

Not Totally New...

Of course, this is just a veneer over Cavedog's attempt to wring more out of its hit franchise. After all, TOTAL ANNIHILATION was by most accounts the best real-time strategy game of last year, and most gamers clamored for more. Thankfully, the story notwithstand-ing, CORE CONTINGENCY is true to its namesake. The 3D-shaded graphics continue to set the standard for real-time wargames, and thus TACC's line-of-sight physics model remains the only one that makes sense. For example, you can see the high ground just by looking, and the effective use of shadows prevents you from building new batteries in locations blocked by trees. The other hallmark of the original—hundreds of diverse, fully animated 3D units—also continues with TACC. The returning units are joined by many juicy additions, including hover tanks, air-repair pads, seaplane construction facilities, mine-laying units, and underwater metal extractors. Unlike in the original, both the old and new units are well balanced with massive energy and metal requirements, limiting the firing rate of the most powerful weapons.

The battles in TACC range across 24 new single-player missions (12 on each side) and four planets. Two additional planets (including a desolate urban landscape) are available in multiplayer mode. If this isn't enough, there is a bonus mission with the impossibly powerful new Krogoth super-Kbot, and the full mission editor used to develop the original levels.

The game's few shortcomings are so obvious that I'm mystified as to why they weren't addressed. First, the manual for TACC is simply the two-page CD insert. There are no unit descriptions, no instructions, nothing. Second, the game still lacks 3D-accelerator support. Why would a game that teats itself as the 3D real-time strategy sim not have Direct3D support? Third, the installation is a bloated 200MB. Finally, the AI is occasionally screwy. For example, the computer would leave a full air force out of the battle while I annihilated his ground force. But even with these flaws, TACC's gameplay remains too big a draw to warrant anything but a positive recommendation.
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Future Magic
The Virtual World Brings Forth Cardless Card Gaming

by Tahsin Shamma

You know you're getting old when words like "newfangled" enter your vocabulary. I haven't thought about using this one before, but the computerized collectible card game CHRONX is a perfect candidate for this description.

Personally, I'm used to owning things with physical substance. In CHRONX, the old notion of physically owning your property is absent. Your cards are virtual, not individual pieces of cardboard. However, this twist represents a refreshing change to traditional card gaming.

CHRONX is a game with more strategic (and less tactical) gameplay than you would expect. In other card games, your cards are commonly played in discrete arenas where they encounter opposing cards. In CHRONX, your cards represent game structures that exist in cities throughout the real world.

Dark Future
CHRONX's gameworld is a dark future, reminiscent of Neuromancer and Blade Runner. The governments of the world have collapsed, and the only institutions left are secret organizations. As the leader of an organization, your job is to eliminate other organizations that threaten your own. Agents, vehicles, animals, and even plants, are yours to move between cities in a strategic battle to eliminate your opponent's headquarters.

The game splits into two levels. On the first, you place your bases in cities across the globe and enhance your resources, while trying to eliminate your opponent's bases and find his headquarters. When you encounter enemy agents, the tactical level takes over as you battle for domination of each city. If you can imagine playing a card game over many tables, in which only cards on the same table can affect each other, you're starting to get the idea. This method is implemented by having each city as a separate game screen. To look at other cities, you zoom out to the satellite view and then zoom in to the new location. For longer games, you can play with more cities. Shorter games just set you up with fewer cities.

No Interface Blues Here
One of the greatest things about CHRONX is its interface. The screen has different areas for displaying four vital game stats: your hand, cards in play, card orders, and a card close-up view. This simple design takes new players right to the action without making them learn complicated mechanics. It also gives experienced players a refreshing minimalist atmosphere.

The things that bother me about the game are slight, but they do have a noticeable impact on gameplay. The biggest problem is that you must switch screens too often. As a result, turns take much longer than normal, especially if you like to meticulously check all of your moves before you end the turn. Card abilities are easy-to-understand and simple to implement, but the pace at which new rules are added could be slower than in the "paper-based" games. This is more of a caveat than a complaint. For now the game is deep enough to last quite a while.

CHRONX's online-only nature doesn't detract from gameplay, and doesn't really hamper card trading. Trading is handled easily by virtue of the clean interface. CHRONX is a solid game. If you don't have the energy or funds to get out of the house to find other card gamers, CHRONX is a good way to get the feel of real-world card gaming without the real-world clutter.

CGW
Crash Landing
Interactive Magic's Latest Strategy Game Is a Roller-Coaster Ride

by Tim Carter

You have been called to rescue a decimated human space colony from the tyrannical and bloody vagaries of no less than three brutal alien races. The woe-begotten space settlers need to be liberated. They deserve to be liberated. Well, I'd like to be liberated too. I'd like to be liberated from hussy, half-baked documentation; I'd like to be liberated from poorly written, silly back-stories and goofy alien race names; I'd like to be liberated from software that requires a patch even before it has been released to the public.

I desperately need liberation—and I suspect that I'm not alone. Will Interactive Magic's LIBERATION DAY be our Luke Skywalker, our Buck Rogers, or our Captain Picard? It depends on whether you take your strategy gaming with the occasional crash bug.

Somewhere under this game's clutter is an enjoyable experience. Sadly, you have to work too hard to get to it.

Playing LIBERATION DAY is something of an exercise in shifting emotions. The documentation, while not appalling, leaves much to be desired: I read it, I was unhappy. Yet, the interface is so simple and intuitive that the weak instructions are no bar to actually playing the game. I played, I was happy again.

Unfortunately, LIBERATION DAY crashes with an annoying frequency, especially when saving and reloading campaign games: I was unhappy again.

Just to keep you off balance, however, the game doesn't crash all the time, and it's capable of going long periods without any glitches. If you're lucky or diligent enough, you'll discover an entirely enjoyable beer-and-pretzels turn-based strategy game with surprising depth and flexibility.

At this point, I can't say for certain whether I was pleased with the game's potential or thoroughly annoyed that I-Magic apparently couldn't invest the time and effort to make this puppy work properly from the start.

Half-Baked Goods
LIBERATION DAY follows the timeworn pattern of sequential scenarios in a linear campaign. Each scenario represents a single battle, and between each one you gain resources to improve your home base. While some scenarios have the same puzzle-like feel of the more repetitive real-time strategy games, many scenarios follow the "last army standing" format preferred by true wargamers.

Both the strategic and tactical portions of the game are quite simple, and gamers weaned on MOO and CIVILIZATION may find the lack of options disconcerting. But this simplicity in no way detracts from the fun once battle is joined. As long as you recognize that this is a quick-and-dirty tactical game with a few strategic elements, it shouldn't disappoint.

Depending on the buildings available, your armed forces can include various types of infantry, armor, artillery, naval, and air units. Although LIBERATION DAY is turn-based, opportunity fire (referred to as "onwatch fire" in the game) plays a large role in tactical planning.

The game design is such that combined arms generally work better than forces that emphasize only one type of unit. Also, you absolutely must use the terrain to your advantage if you want to win regularly.

There are a number of other neat touches to the game, including the use of mines, and the way that the enemy races have been designed. However, the weak documentation and the nondescriptive online encyclopedia totally undermine the effort that went into the alien designs. What's the point of creating distinct armies and then not explaining what they are?

LIBERATION DAY has all the makings of a fast and furious tactical system, with just enough depth—opportunity fire, terrain, distinctive units, decent AI, and diverse scenarios—to qualify as a good wargame. If it only didn't crash every half-hour or so, I'd be happy to recommend it.
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Mastermind
Publisher: Hasbro
$19.95
www.hasbro-interactive.com

My earliest lessons in logic game at the hands of my big brother and his Mastermind board. I fondly remember afternoons lying on our bedroom carpet, staring at him across the plastic pegboard, trying to guess just how crafty he’d been. I feel a little sad for the child of today, staring only into the eyes of his computer.

Still, there are things a computer can do that my brother never could. MASTERMIND provides young players with animated “pegs” in the shape of animals or robots, and allows advanced adult players to test their mettle in a superboutique version, in which each peg has three attributes—color, position, and shape—rather than two. There are head-to-head variations, in which two players race on side-by-side boards. There are timed games in which you have to guess a sequence of numbers before a bomb explodes. And there’s the classic game, in which you must correctly guess a computer-generated sequence of pegs before your ladder of guesses runs out.

Gameplay is regrettably stiff—I found it difficult to pick up and place the pegs; the pounding background music must be shut off if you intend to concentrate; and unfortunately, the classic game can be played only against the AI. Otherwise MASTERMIND is a satisfying adaptation. Plenty has been added in the transition to the computer screen; it almost makes up for the absence of a big brother.
—Charles Ardai

Kuba
Publisher: Patch
$39.95
www.patchproducts.com

The mania for computerizing board games has proceeded from classics like Chess and Scrabble to rather more questionable candidates such as KUBA. Owing as much to Sumo wrestling as to Chinese Checkers, KUBA is a board-cleaning game in which you conquer your opponent’s marbles, not by jumping over them, but by pushing them off the edge of the game board. The board also contains 13 neutral marbles, and either player can also win by pushing seven of these over the edge.

Players move their marbles one space at a time, unless they succeed in pushing a marble off, in which case they move again. The basic tension of the game is between protecting your marbles, which means keeping them away from the edges, and attacking your opponent’s, which means approaching the edges.

Games proceed very quickly, often ending suddenly, when one player manages to push four or five opposing marbles off at once. Initially, you’ll be taken aback by how swiftly the computer beats you, but an hour later you’ll have picked up its basic strategies.

As usual, there are several settings from which to choose (50s diner, surface of Mars, and a few more), along with ambient sound effects and a soundtrack full of harmonious tinkling, but that’s just drapery, not a sufficient reason to play this game on a computer. And what if you’re alone and need a computer opponent? Trust me: you would be happier with SCRABBLE or Chess.
—Charles Ardai

Bridge Deluxe II
With Omar Sharif
(Windows 95)
Publisher: Interplay Productions
Price: $29.95
www.interplay.com

Not long ago, the DOS version of BRIDGE DELUXE II with Omar Sharif seemed like a quality product. It played a reasonably good game, had a large variety of bidding conventions from which to choose, and appealed to a wide crowd by virtue of its attractive multimedia components. Today’s Windows 95 incarnation of the product shows its age worse than the celebrity who appears in it. Even on a P200, the pace of play feels sluggish, and the network play option is even worse.

BRIDGE DELUXE II’s multimedia is still clear and audible, but you must turn off Omar Sharif’s commentary at an early stage. It is annoying to hear Sharif say, “That was good play!” even when you played a hand incorrectly. It is even more annoying to be praised when your partner has just wasted a high trump after you’ve guaranteed the capture of a trick. Even though several exotic bidding conventions are coded into the bidding procedure, your AI partner rarely follows up—leaving you vulnerable to being doubled. Even the tutorial—one of the strengths of this product—isn’t very helpful.

The DOS foundation of the program means that extra keystrokes are required just to reach the pull-down menus; network play does not support basic Internet connectivity, and the graphic portrayal of the table is so poor that you can’t tell if the green background is a table or a shag carpet.
—Johnny Wilson
ALLISON IS HAVING THE ULTIMATE BAD HARE DAY.
Jane's F-15
Mastering Air-to-Air Combat While Using Realistic Radar

by Tom "KC" Basham

For the most part, the general public views the modern battlefield as a push-button, video-game affair. The abundance of "relaxed realism" sims and the preponderance of Gulf War videos tend to promote that view. An entertainment simulation realistic enough to refute this stereotype is indeed a rare gem. Happily, Jane's F-15 is one such jewel.

Incorporating this game's high level of detail, however, also increases the sim's difficulty. Unlike the real F-15E, which carries a crew of two, Jane's F-15 places the burden on you to both fly the aircraft and manipulate its systems. The combination of difficulty and workload may be too much for some gamers to handle. This installment of Game's Edge explores F-15's air-to-air avionics and weapons, shedding light on these complex topics.

Radar 101

Radar, of course, is the primary long-range detection tool used by modern aircraft. Many sims portray radar as an all-seeing crystal ball providing the flight crew with a perfect picture that wraps 360 degrees around the aircraft. In real life, radar works more like a flashlight in a pitch-black room. The flashlight beam illuminates only a small area. In order to navigate across the room without tripping over items on the floor, bumping your head on items hanging from the ceiling, or being waylaid by creatures lurking in the dark, you steer the beam around the room.

Finding airborne targets with radar depends on properly adjusting the shape of the scan beam and then pointing it in the right direction. We adjust the width in three attributes: width, height, and range. The width, or azimuth, is usually measured in degrees on either side of the nose. A 60-degree scan, for example, would scan 30 degrees to the right and 30 degrees to the left of the nose. Height, or elevation, of the scan is measured in bars. Each bar represents one horizontal sweep of the radar across the azimuth settings. A two-bar scan, therefore, is twice as tall as a one-bar scan. Page 2.52 of the F-15 manual provides a diagram of different combinations of azimuth and elevation.

Radar works like a flashlight in a pitch-black room.
Finding airborne targets with radar depends on adjusting the shape of the scan beam and pointing it in the right direction.

Once you've selected the height and width, the radar sweeps through the pattern. It takes a finite amount of time for the radar to cover the pattern. Logically, the larger the pattern, the longer it takes the radar to scan it. Data on each detected target is updated only when the radar paints that particular spot. A smaller scan area, therefore, provides more frequent updates on the target or targets, but it also possibly misses other targets by covering a smaller volume of sky.

Adjusting the range works a little differently. The description of range limits on manual page 4.22 is somewhat misleading. The radar energy travels out, strikes a target, and reflects back to your aircraft. Since the strength of the wave dissipates as it travels, the strength of the return wave indicates the distance to the target. The radar then filters out contacts detected beyond the selected range setting. Remember that with a range setting of, for example, 40nm, the energy must travel an 80nm round-trip—from the transmitter to the target and back again. The energy that doesn't
strike the target, therefore, will travel at least 80nm in a straight line. While it is technically possible for the radar unit to decrease output power for shorter-range selections, always assume that your radar will be able to be detected at a distance at least two times the selected range setting.

**Radar à la Mode**

Manipulating and steering the cone, and interpreting its results, are not trivial processes. The APG-70 radar simplifies all this somewhat by providing numerous modes. Each mode has a specific purpose and set of parameters. Some “hands-free” modes, like Bore sight and Vertical Scan, attempt to lock close-ranged targets during a dogfight with a minimum of pilot input. Other modes give you more control over the scan pattern for long-ranged searches and multiple-target engagements. Counting all varieties of modes, submodes, and supersearch modes, there are 13 different air-to-air modes available in JANE’S F-15. The more modes you understand and are comfortable with, the more options you have during combat. Nonetheless, I’ll be honest: I don’t use them all. Like most players (and real-world combat pilots I’ve spoken with), I gravitate to the subset of modes that I find most useful.

I don’t like changing modes any more than I have to. Changing modes blanks the MPD, erasing the tactical information collected so far. Changing modes can also modify scan cone parameters, often requiring additional user input to reacquire previously detected targets. If I can’t find a target that AWACS or JSTARS reports, then I may be forced to switch modes. Overall, though, I try to minimize the amount of time spent tweaking the radar.

Before starting a radar search, contact AWACS to get a picture of the air battle so far. Press Ctrl-P to ask AWACS for an overall summary of the battle zone referenced from a common bulls-eye. I don’t find this particular request very useful. First, in a crowded area AWACS jabbles interminably, throwing out contacts faster than I can jot them down. Second, the references to bulls-eye are imprecise and subjective to interpretation. Consequently, I prefer the Ctrl-B (Bogey Dope) request. This time, AWACS gives me a precise heading (although they call it a bearing) and range to the enemy along with information about the target’s flight path (closing, moving away, flanking, and so on). This generally tells me where to begin my air-to-air search.

If AWACS doesn’t report anything very close, if AWACS isn’t available, or if I have no reason to suspect that bandits are very close, I begin my search in Vector (VCTR) mode. Make no mistake about it, VCTR mode is extremely slow. It scans a very large chunk of airspace. It provides a very thorough analysis, reporting both low-closure and long-range targets. Because it’s so slow, though, it’s difficult to keep tabs on high-closure targets.

Once I know that there are contacts in a given area (either from AWACS or VCTR mode), I switch to Range While Search Interleaved (RWSI) mode. This is my favorite mode for keeping tabs on multiple targets. The enemy probably won’t identify my relatively slow scan rate as a lock and it provides a good tradeoff between the other RWS modes. If necessary, I generally don’t use RWS High (RWSH) or RWS Medium (RWSM) unless I specifically know I’m looking for a

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**Size Matters**

**Radar Cross Section (RCS)**

When radar energy strikes a target, some portion of the energy is reflected back. The size and shape of the target determine how much energy is reflected. The radar wave loses energy as it travels. For the radar to detect the target, enough energy must be reflected back to the transmitter to be detected. If the target is too far away, the reflected energy will dissipate before completing the trip back to the radar unit. In general, a smaller target reflects less energy than a larger one. Of course, the shape of the aircraft also influences radar returns. FACeted aircraft (like the F-117) and rounded aircraft (like the B-25) reflect energy, but not directly toward the transmitting radar. In terms of detection, the amount of energy reflected directly back to the radar is what counts. A small object, or a large object that reflects energy at odd angles, reflects less energy back to the radar unit, making it harder to detect at longer ranges. The “apparent size” of the target is referred to as the Radar Cross Section (RCS). The key to stealth and avoiding radar detection, therefore, is reducing RCS.

Consequently, you can generally detect a larger target at longer ranges than you can a smaller target. Just because you select an 80nm range does not mean you’ll detect every target within the scan zone at that range. A Tu-22 will generally be detectable much farther away than will a MiG-21.

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**Modus Operandi**

**I'M SHOOTING AT YOU**

The STT mode provides the most detailed target info, but also tells the target you're planning to engage.

**THE BIG VIEW**

The RWSI mode is the primary air-to-air search mode, covering a large airspace but providing only bearing and range data for each target.
high- or low-closure rate target. I've found RWSI to be adequate for the majority of situations, especially when AWACS support is available.

Other Options

For the most part, I avoid Velocity Search (VS) and Single Target Track (STT) modes. STT provides the most detailed information about a given target, but it has two main disadvantages. First, it provides information about only that target. Second, STT's focused search pattern will be interpreted as a radar lock-on by the target, possibly leading it to believe you intend to engage. FALCON 3.0 players will recall that you could not fire missiles at a target without setting the APG-66 to STT mode and locking-on that one target. Newer radars, such as the APG-68 (F-16C) and the APG-70 (F-15C/E), provide a more useful Track While Scan (TWS) mode.

TWS mode, quite simply, radar-locks multiple targets at once. Although it searches a smaller section of sky than the RWS modes, TWS scans a fairly large area around the primary target. Since it's scanning a larger area than STT, the target may not recognize that it has been radar locked (see "Stay on Target" sidebar). Further, TWS keeps tabs on multiple targets. I can monitor the movements of the entire group and engage multiple targets simultaneously with missiles.

At close range, I focus mainly on Super Search and Vertical Scan. I typically encounter many more hostiles than friendslies in event of a dogfight. Consequently, Super Search's larger search cone acquires targets farther off my nose, often giving me more shots of opportunity against targets that just happen to wander across my flight path. If the sky is crowded with friendly fighters, though, I may be forced to use Bore'sight's smaller scan zone to prevent accidentally shooting at my wingman.

Vertical Scan is my favorite mode for a sustained turn fight against a single target, since it scans directly along the lift vector—exactly where I'm trying to place the bandit. These modes are hands-free; simply select the mode, wait for the radar to lock, and fire a missile. They work equally well with either AIM-9 or AIM-120 missiles, although most dogfights occur well below the AIM-120's minimum launch range.

JANE'S F-15 is an incredibly detailed simulation, and this brief lesson only begins to scratch the surface of the product. As with all matters of air combat, the best way to improve is to practice. If you invest the time to learn the intricacies of the game, you'll be rewarded with many great gaming experiences.

Stay on Target
Radar Lock-On

The term radar lock-on is often misunderstood. Just like many automobiles, aircraft carry radar detectors. Such detectors monitor both the frequency of the received signal and how often it paints the target. If the emitter is doing a wide-area, RWS-style search, it will not paint the target as often as if the emitter were in STT mode.

Consequently, we assume that an increase in how often the radar paints a target indicates that the emitter is focusing its attention on that specific target.

A "lock-on," therefore, simply means that the emitting radar is painting the target often enough to provide a weapon firing solution. Painting a target once every three seconds probably wouldn't be interpreted as a lock by the target; painting the target three times per second will most definitely be perceived as a lock-on.
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Feet, Don't Fail Me Now

In addition to your stick and throttle combination, you may want to consider adding rudder pedals. In most modern jet fighter simulations, of course, rudder pedals come into play only at very low speeds—typically during landing or slow bombing approaches. But in something like LONGBOW, rudder pedals are almost a necessity. For prop sims, it varies, but rudder pedals can help a lot, particularly if you’re trying to shake that pesky FW-190 hot on your six in AIR WARRIOR.

ThrustMaster Rudder Control System
★★★★★

Elite Pedals
★★★★★

The Rudder Control System (RCS) has changed little since ThrustMaster first started shipping it. The cables are a little sturdier than the originals, but the parallel, hinged metal brackets—now black instead of gold anodized—are still there. These pedals are wide, so the set takes up a lot of room under a desk, but the spacing is supposed to more accurately reflect true rudder spacing.

The Elite Pedals are very similar to the RCS in appearance, but the metal slider lies on top of a solid piece of plastic. The spacing is closer, so the unit will fit underneath smaller desks with relative ease. There is more plastic content, but the Elite cost less. The feel is actually a little stiffer and just a bit less precise than the RCS, but overall, the pedals work pretty well. If you’re in the market for low-cost pedals that do one thing very well, then the Elite are a good choice.

Rudder Control System & Elite Pedals, Price: $109.95 (RCS), $79.95 (Elite), Contact: ThrustMaster, (503) 615-3200; www.thrustmaster.com

Pros: Realistic sliding motion; durable. Cons: RCS unit is big for some under-desk spaces; Elite pedals feel a little stiff.

Loyd’s Picks

As I said in the beginning, choosing the right flight controller is an intensely personal choice. None of the sticks we looked at can be characterized as pure dogs, so any of them might be suitable. However, I’ll go out on a limb and briefly mention my favorites—but remember that these are my choices. They might not suit you; that depends on your taste.

These days, I opt for the F-22 Pro/TQS/Pro Pedals setup. The SideWinder Force Feedback Pro desk, but the spacing is supposed to more accurately reflect true rudder spacing.

The Elite Pedals are very similar to the RCS in appearance, but the metal slider lies on top of a solid piece of plastic. The spacing is closer, so the unit will fit underneh smaller desks with relative
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StarCraft
Advanced Studies: How Do I Beat That Rush?

Last month, we delved into basic tips, such as the Attack Move command and the optimum number of peons for resource gathering. This month, we'll discuss advanced strategies and give you some tips on how to defend against the most prominent rushes.

by Elliott Chin

What the Pros Do
The truly good players don’t just understand what a unit does, they know what a unit does for and against you. The pros learn to think ahead and think like their enemies. Here are some things to keep in mind if you want to move to the big leagues in StarCraft.

Scout or Die
Knowing the map and the enemy’s forces is the only way you’ll ever win. On small maps, send your eighth or ninth peon unit to locate your enemies. You’ll see where they are, where they might attack from in the event of a rush, and just how far along they are in their tech trees. On larger maps, send early or midgame combat units around the map to see where the extra resources are and to keep tabs on what the enemy is doing. Always post scouts near free resource nodes to alert you when the enemy begins construction of secondary bases. If you never bother to see what the enemy is building, you’ll never know what to defend against, or which units you’ll have to neutralize during your offensive.

Only Build What You Need...
One of the worst ways to spend your money is to squander it on buildings you don’t need. This usually applies in the very beginning and middle of games. Don’t just scramble up the tech tree because you have to. If you are on an open map and you suspect a rush, why build a refinery and factory when an extra barracks and the added marines you get will come in more handy? If you’re on an island map, don’t go for that second barracks—go straight for that starport instead.

...But Build a Lot of It
Once you’ve figured out what you need to build, make a lot of it. If you know that air superiority (and cloaked wraiths) will guarantee victory on that island map, construct three or four starports and crank out wraiths. And if you know you need to upgrade your units as quickly as possible, build two armories so you can research weapons and armor upgrades at the same time. The best players don’t hoard money, they spend it. 2,000 minerals in the bank is useless when the enemy is bearing down on you with 100 supplies’ worth of hydralisks. It would have been wiser to use those 2,000 minerals to build two extra barracks, factories, and starports, which would have tripled your unit production so you’d have enough defenses when that hydra horde came knocking on (or, rather, down) your door.

Fit the Unit to the Task
Tailor your units to your needs. Don’t just make a unit because it is the next logical step in your tech advancement. Think carefully about the type of damage your unit does (plasma, explosive, or normal), the size of your target (small, medium, or large), and the time and money it takes to build your units. There is always more than one way to beat an attack, and sometimes the most obvious solution isn’t the best.

As a Protoss player, if reconnaissance reveals that your Zerg opponent is amassing mutalisks, you might think the best strategy would be to build carriers to eliminate those mutas. Think again. In order to get enough effective carriers to match his mutalist horde, you’d have to build two starports, research the carrier capacity upgrade, and then wait for your carriers to build their full complement of interceptors. Too bad you’d be attacked by six to nine mutalisks before your first two carriers ever built their second interceptor. Instead, you should go the cheaper, quicker, and less complicated route: dragoons. You could build an extra gateway, assemble dragoons, upgrade them, and then provide shield batteries for them in the same amount of time. Knowing the relative build-and research times, costs, firing rates, and necessary upgrades for these two units would point experienced players to dragoons,

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- Kuin
- L-Makaveli
- Pa-Freak
- Pa-Rosco
- RB-Ren
- SlickSoul
- unowned

TOTAL ANNihilation
- Aling
- BOQgieMan
- Butchery
- CViper
- Hawkg
- kili4Laf
- Jet_Link
- NodRules

RB-Ren
- Birthplace: Toronto, Ontario, Canada
- Real Name: Erik Charlebois
- Archnemesis: None
- Preferred Weapons: Rocket Launcher, Super Shotgun, and Railgun
- Controller: Mouse and Keyboard
- Also Plays: Starcraft and Quake

CViper
- Birthplace: Mankato, Minnesota
- Real Name: Caleb Rector
- Archnemesis: School Work
- Preferred Weapons: Executioner and the Snake
- Controller: Mouse and Keyboard
- Also Plays: Descent 2, Age of Empires, Whiplash, Warcraft 2

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NOT THE RIGHT UNIT Bigger doesn’t mean better. If you’re facing a rush by mutalisk defense. Know your units and what they can do for you, but also realize what they can’t do for you, even if they are as awesome on paper as are the mighty carrier.

Think About Placement
When you build your structures, placement is key. Put them close to bunkers or defensive structures, and don’t put them out in the open, on the outside of your defensive parameter. Build your defenses in anticipation of where your enemy will attack. Think about where your units will need to go when you build barracks and factories. Don’t put that factory behind your command center if you want to move your tanks to the front of your base. When that tank pops out, it will have to navigate SCVs and the buildings between the factory and your periphery before it can get to where you need it to go.

None of these tips stands alone. Only by using all of them together can you form a winning strategy. Remember to constantly weigh whether your current strategy will help or hurt you in both the short and long run. Lastly, it always helps to think like your enemy and try to see what he will or will not do. Only by anticipating him can you outsmart him.

Rushing: For and Against
I’ve been on the receiving end of numerous rushes in multiplayer games, and as many of you know, it’s the most humiliating and frustrating way to lose. Rushes suck. But if you know how counter them, they’re not so bad. Here are specific hints for countering some of STARCASTC’s most common rushes.

The Nitty Gritty
To set the record straight, rushes are basically an attack with a single low-level unit type, such as a marine or zergling, which is done so early in the game that it is difficult to defend against. (And remember, it might suck to be beaten by a horde of any single unit type, but you’ve had enough time to build up
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defenses, so you can't call your enemy's attack a "cheap rush." To counter a rush, you first need to learn how to perform a rush.

There are some general strategies to consider when rushing, no matter which unit you use. First, build multiple unit-producing buildings, which means three to four barracks for the Terran or two to three gateways for the Protoss or two hatcheries for the Zerg.

Second, commit yourself to the rush. Nothing is more pathetic than a rusher who can't finish the deed. The point is, rush to win, not to annoy. Go for the jugular. When you rush a town, bypass all defenses and go for enemy workers. Kill them all so you halt production and resource gathering. Then, eliminate the defenses and unit-producing buildings.

Third, when rushing with the zealot, marine, or zergling, do not bother to mine gas. Use the money you save from not building a refinery to build an extra barracks, and use the peons who would have gathered gas to gather minerals.

**How to Defend**

Build your base in anticipation of a rush. That means clustering together your defenses and building your structures so that your defensive net can cover all your buildings. Also, because rushers will go for workers, place defenses around your resource patches.

Keep in mind that defensive buildings can do only so much. Do not rely on towers to beat a rush. You need units to back up your cannons, sunken colonies, and bunkers. Also, remember that tower buildings are surprisingly weak unless they are built in multiples of three. And considering how much they cost (and the time you need to spend on building the prerequisite...
A REAL WAR MACHINE: If you are going to rush, do it right. Multiple buildings are the key to success.

Building first, it's often better to go with units for early defense.

Build as if you were going to rush, so that you have enough troops to defend against one. That means: Produce the same number of barracks or gateways your enemy does, in order to achieve parity of numbers. Delay building your refinery and gathering gas until you have adequate defensive units.

If you are rushed, make the enemy pay. If you thwart a rush and kill all the invaders, mount a counteroffensive with your own units. Pop those marines out of your bunker, recharge your zealots' shields, and exact revenge. Usually, a rusher who fails in his rush is wide-open to attack. He has no defenses, and he has thrown away all his troops. If you don't exploit your enemy's momentary weakness, expect to get rushed again.

Now, let's move on to specific rushes.

Zergling Rush

In order to counter the zergling rush, you have to build quickly. There are two possible types of zergling rushes. The first occurs when the enemy comes at you with his first six zerglings (which could be three minutes into the game, just after he finishes his spawning pool). The second type of zergling rush comes two to three minutes after that, when the enemy comes in with 12-18 zerglings.

Terran players should build a bunker after their first barracks, before they start on their second barracks. If the first six zerglings come, you might have only two or three marines in your bunker, but they should make short work of the zerglings. After that, place two or three bunkers (and marines) close to your vital building.

Protoss players should build two gateways and pump out zealots until

Unit Hot-keys

For morphing larvae into units
- D = morph into drone
- Z = zergling
- O = overlord
- H = hydralisk
- M = mutualisk
- S = scourge
- Q = queen
- U = ultralisk
- F = defiler

For mutualisk
G = morph into guardian

At the infested Terran command center
I = build infested Terran

Research hot-keys

At hatchery
- U = research burrow

At lair
V = research ventral sacs (transport capability for overlords)
A = research antennea (overlord sight upgrade)
P = pneumatized carapace (overlord speed upgrade)

At spawning pool
M = metabolic boost (zergling speed upgrade)
A = adrenal glands (attack speed upgrade for zerglings)

At hydralisk den
M = muscular augments (hydralisk speed upgrade)
G = grooved spines (attack range upgrade)

At evolution chamber
M = upgrade ground melee attacks
A = upgrade ground missile attacks
C = upgrade ground carapace (armor)

At spire
A = upgrade flyer attack
C = upgrade flyer carapace

At queen's nest
B = research spawn broodling
E = research ensnare
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At defiler mound
G = research plague
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the zergling rush stops. Remember that photon cannons are useless against zerglings. Whether you're playing Terran or Protoss, send one unit to scout the rusher's base after that initial zergling rush (or before the swarm), to see if you still need to build bunkers or more zealots, or if you have breathing room to now go for the gas gathering and higher-end units. If you beat the first zergling rush, you probably won't have to worry about further rushes.

**Zealot Rush**

If you send your scout to the Protoss base and he sees multiple gateways and lots of zealots, then you can guess that a zealot rush is likely. Terran players need to set up three to four bunkers full of marines and only then start gathering gas for an academy and firebats. You might be tempted to build siege tanks or spider mines, but you can get firebats faster. Research marine range and stimpack at the academy to boost your infantry's fire power.

Zealot rushes don't come as quick as zergling rushes, so you have a little more time to prepare. If you get breathing room, go for vultures and spider mines. If the rush comes later, and you have time to build tanks and research siege mode, place the tanks in siege mode behind your bunkers.

Zerg players need to crank out zerglings for defense. Don't rely solely on sunken colonies, though two or three could help you. If you have time, go for hydras to supplement your defenses.

**Hydralisk Rush**

If your scouting mission finds swarms of hydralisks near the Zerg base, watch out. The hydralisk rush could be coming. As Terran, you have to build up to factories and machine shops quickly. Then, research spider mines and siege mode. Lay mines near your town entrance to take out hydras, and place tanks in siege mode behind your bunkers; their splash damage will take out groups of hydras.

Protoss players need to get reavers quickly. The reaver fires bomblike scarabs that do splash damage, destroying clusters of hydralisks even faster than siege tanks in siege mode. You need to go straight for the robotics facility, where reavers are produced, and then the robotics support bay, enabling their production. Or you could acquire high temples and their psionic storm special ability: a lightning storm of death over an area also kills groups of hydralisks. But it's
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almost always faster to get to reavers than to get psionic storm. So go for psionic storm only if you have time and are wary of a mutalisk rush as well.

Zerg players can best counter hydralisk rushes with the queen’s ensnare ability. Casting that on a group of hydralisks slows their attack, making them vulnerable to your own hydralisks.

Mutilisk Rush

The other Zerg rush that is extremely deadly is the mutalisk rush.

For Protoss players, the two keys are shield batteries and psionic storm. Place one shield battery and two to four dragoons near where mutalisks might attack. Unlike cannons, dragoons can recharge their shields near shield batteries, greatly extending their life versus mutalisk attacks. Supplement this defense with high templars and psionic storm. Mutilisks attack in tight clusters, and one psionic storm can kill or seriously damage them. The only problem here is that if you build a lot of dragoons in anticipation of a mutalisk rush, you leave yourself extremely vulnerable to a hydralisk rush. Scout the Zerg early with a probe or a zealot, and adopt the appropriate strategy based on what you see.

As a Terran player, you have many more options. Goliaths are good air units, but they do only half damage to mutalisks. Marines are more effective. If you suspect a mutalisk rush, build an extra barracks or two, crank out marines, and research the range and stimpack upgrades. Using stimpacks, marines can shoot down mutalisks twice as quickly. It is vital to research the armor upgrade for marines as well, so you can survive the mutalisk’s secondary and tertiary glave worm attack. You can also place your marines in bunkers, so they can shoot back without taking damage. However, keep in mind that bunkered marines cannot use the stimpack. One other advantage of bunkers is that it makes marines immune to the effects of ensnare, which Zerg players will often use in conjunction with mutalisk rushes. You can also build a few missile turrets to back up your marines. These turrets are more effective against mutalisks than the Protoss tower (and they can be repaired).

If the mutalisk rush occurs later in the game, you should use the science vessel’s irradiate ability. It will quickly drain a mutalisk of all hit points and damage any nearby targets. Since mutalisks bunch together in packs, this ability is very deadly. Cloaked warhogs also work well, although Zerg players will often have cloaked detecting overlords to see your hidden ships. In that case, shoot down the overlords quickly and then take on the mutalisks with impunity.

There are other rushes, but none are as deadly or as common as these four. As with all things, you will get better with practice. Remember to think ahead and scout constantly. STARCRAFT is an unforgiving game, and the games you’ll meet on battle.net are even nastier. But with perseverance and experimentation, you will get better.
Army Men
Reduce Your Enemies to Polymer Slag

by Sgt. Terry "Petroleum Product" Coleman

"It's not easy being green"
— General Kermit, at the Third Battle of the Lily Pond

In your struggle against the insidious forces of Tan, Gray, and Blue, you may meet with more than your share of setbacks. Fortunately, we have some of the finest military geniuses to ever set foot in a sandbox on our side, and they've authorized me to let you in on the latest classified info in modern military ops. Use this data wisely, soldier: There are a lot of little green men depending on you. The following are some general tips for success in ARMY MEN, along with an analysis of the vehicles in the game. If these don't help enough with your campaign, check out the cheat codes sidebar. Look for our full review on ARMY MEN in next month's issue of CGW.

- While ARMY MEN supposedly supports DirectX5 and beyond, you risk crashes if you have only DirectX 5.0. So, for your sanity, let the game install DirectX 5.1.
- Don't Alt-Tab, under any circumstances. You will crash and/or lock up immediately. Setting Alt as a custom hot-key isn't a good idea, either.
- The bizarre mouse/key-combo interface is the weakest part of the game. To partially get around this drawback, use a joystick. Keep in mind that your default controls might suddenly reset in the middle of battle, so keep a bottle of aspirin handy.
- Although the game is in real-time, don't play at teenage reflex speed just because you can. It's often better to let the enemy come to you.
- When you get a mortar, keep in mind that it's an indirect fire weapon; you don't have to see the enemy to affect him. Use a pattern of mortar fire (particularly into trees) to panic and flush enemies out of your field of fire. This works especially well against the cowardly Blue soldiers.
- Protect your minesweeper at all costs. He'll save you a couple of Joes and Jeeps, and possibly even a half-track.

Cargo Truck
Can you say sitting duck? Unless time is of the essence, don't risk putting your entire force into this firetrap; the only exception would be if you had air recon, and knew almost exactly where the enemy forces were located. One of my favorite tricks is to send a lone truck (with no more than one soldier) along a probable ambush route to draw enemy fire. Then rain destruction down upon them from above with mortars.

Half-Track
In ARMY MEN, the half-track is what the Jeep wants to be when it grows up. While the half-track obviously lacks the immense firepower of the tank, it does sport an effective machine gun and plenty of armor to withstand most foes. I generally spot the enemy with the Jeep, then run away, moving slowly enough to take enemy foot soldiers with me. When they run into my half-track, it's easy to catch the pursuers in a crossfire.

Jeep
If you yearn for a Bradley or some other vehicle, find another game! The jeep is the classic do-everything transportation for your back-yard battle. With more speed than a tank, it has the ability to traverse rugged terrain (like rocky patches) and makes the perfect recon vehicle. The danger of the jeep is that, despite what the rules tell you, the armor won't shield you much from enemy fire—particularly mortars, where the lack of a canopy will melt your soldiers in a hurry. Don't get seduced by the Jeep's machine gun mount, either: If you stand to fight and then meet up with anything more than a couple of enemies with popguns, you'll be back in that cardboard box before you can say "fresh plastic mold."

Tank
Appropriately for the toy battlefield, the tank lacks speed. On the other hand, it's virtually immune to small-arms fire and mortars. Slugging it out toe-to-toe with a tank armed with a half-track isn't bravery; it's suicide. But the battleship of the sandbox has one weakness: The tank's treads, although plastic, resemble those of real-life armor in their susceptibility to both bazookas and flamethrowers. Remember to kneel when you take aim at a tank, and make that first shot count! It's doubtful you'll get another if you miss....
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FIFA Road to World Cup 98
Winning Strategies for Conquering the World's Best Soccer Teams

Nosebleed Seats
With the F8 view, you lose some player detail, but you can see the opposing side's formations develop, which is key to exploiting their weaknesses.

by Joe Vallina

Fiercely competitive and challenging, FIFA ROAD TO WORLD CUP 98 is the best PC soccer game to date. There's nothing quite like playing your favorite team and taking them all the way to the World Cup championship game, and FIFA 98 gives you an unprecedented choice of players, teams, and game options with which to do so. If, however, you're planning on getting to the final round on the Professional or—God forbid—World Class level, it's going to take some special skills not outlined in the game's manual. At this level of competition, it's not enough simply to be able to sprint and slide tackle. No, to turn your team into world champions, you've got to know how to fake out your defender with a 360-degree spin move, execute a lob kick to center, and put the ball away with a backward-facing heel kick—all while 11 vicious enemy players are gunning to stop you.

Take the Wide Angle
FIFA 98 offers a wide variety of views and camera angles, but, for my money, the F8 overhead view is the best. This view lets you see almost the entire pitch, and that makes it much easier to set up crosses and downfield passes. You can also more readily spot holes in the opposing half's defense.

Practice, Practice, Practice
The Training area in FIFA 98 is a very useful feature. There are few things more beneficial than being able to take your team to the training field and practice your moves without having to worry about being tackled at every turn. Begin your practice session with no defenders. Practice executing your moves, and combinations of moves, until you can do them with ease. Then, add a defensive player and try those moves against him. When you feel like you're getting it, up the difficulty level to World Class, and practice some more. Keep adding defenders and upping the difficulty until you're confident with your performance.

Special Moves
FIFA 98 has a myriad of possible moves and kick combos. I've found, though, that it's better to learn a few moves really well than to try to use every trick in the book. While you're looking for that special combo, the opposing side will have stolen the ball and gotten halfway to the goal.

The first thing you should practice are your player's special moves, such as the walkaround, the 360-degree spin, and the "You're the Boss"

Many FIFA 98 players make the mistake of ignoring the team management aspects of the game. This is actually one of the game's strongest points, but it must be used effectively.

One thing I like to do, especially in the beginning of a game, is change my team's formation to four backfielders, one midfielder, and five forwards. This ensures that I always have men around the goal, and since the computer rarely, if ever, plays five guys back, I always have an open man to cross to. I keep my back four in a sweeper formation to protect my goal from inside threats, and spread the front five out in a flat formation to thin out the other team's defense. Of course, the big risk in this strategy is that the other team will clear the ball into your goal area; the solution is to set your strategy slider a little toward the conservative side in order to prevent your back guys from coming too far forward, leaving an open goal.

Due to the AI's catch-up logic, it's very important to play a more conservative-style game if you have the lead going into the second half. The computer seems to always find a way to make that "miraculous" shot (usually a header off a free kick), so play back and take it easy with the X key.

See the Review
JUNE ISSUE • 4.5 STARS

COMPUTER GAMING WORLD • AUGUST 1998
and even the basic jump. Actually, we'll start with that.

To be successful in FIFA 98 it's essential to be able to properly jump over intended slide tackles. At the higher difficulty levels, the AI is ruthless in its slide-tackling ability, and if you can't avoid the tackle, you're dead. Practice with one attacker and one defender on the practice pitch. Dribble the ball into the defenders' side until they come up to tackle you. As he begins his lunge, press the Z button, without breaking stride, to jump over the defender's tackle.

Another move that works particularly well is the 360-degree spin move into a shot on goal. To do this, hold the right shift button on your controller, while tapping the Y button for the spin, then immediately slide your finger over to press the C button as you release the shift. Practice this until you can do it without breaking stride. This move is especially effective when you are surrounded by opposing players close to the goal. The spin will often throw the defender off just long enough for you to score.

The walk around move (hold the shift button while holding X) is when your player steps around the moving ball without touching it. This move accomplishes two things: It keeps the defender from knowing which way your player is going to pass the ball, and it usually keeps the defender from trying to tackle. Use the walk-around in combination with a forward crossing pass.

Whether they be corner kicks, free kicks, or penalty kicks, dead-ball situations are crucial in tight games. You can practice each of them in the training area. As with the other moves in FIFA 98, dead-ball kicks can be manipulated using the shift buttons on your gamepad. When it's time to kick, the red arrow will come up, showing the direction, height, and distance of the kick. What many gamers overlook, however, is that by using the shift buttons you can manipulate the spin on the ball to make it curve while it's in the air. Logically, the left shift button makes the ball veer left, and vice versa. Experiment with different angles and spins to find which work best with your formations. If done correctly, you can curve the ball directly to one of your players near the net for an easy header-on-goal (immediately hold the C button as you aim for the goal while the ball is still in the air).

On higher difficulty levels, don't hesitate to use the X key. Your opponents won't. Most times, you can get away with a well-placed elbow (double-tap X when you're on defense). The spikes-up slide tackle, while effective, is a little more risky.

I should note that most of the strategies outlined here will also work for EA's newest soccer game, WORLD CUP 98. So lace up your boots, hit the pitch, and win one for your country!

---

**The Right Team**

While it might be exciting to try to go all the way with your sentimental favorite, the Burkina Faso national team (after all, wasn't grandpa from there?), you'll really have your work cut out for you against the big boys like England and Brazil on FIFA 98's higher difficulty levels. Even if your game skills are perfect, you can control only one player on the team at any moment, and if your computer-controlled teammates couldn't win a schoolyard pickup match, you're toast. Also, because the computer takes into account individual players' agility, speed, shot power, and the like, just because you hit the right key combination for that incredible shot, doesn't mean that your player can pull it off. So, if you want to have a real chance at going all the way, you need to play one of the standard World Cup contenders: Brazil, Italy, Argentina, England, Germany, or Spain.

While you're at it, be sure to go to the Player Edit area and add yourself to the roster. Putting your mug on the pitch is a simple matter of taking an existing player on the team, then changing his facial and hair styles (as well as his skin and hair color). You can change his number, too, should you so choose. There's no better feeling than seeing your own name listed as a goal scorer in World Cup competition.

---

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### SEMPER FI

- Take advantage of the combined arms rule in SEMPER FI. Don't send tanks right up against a city, or you'll get a rude surprise when infantry close-assaults your armor. Make good use of your artillery assets, such as onboard mortars or off-board artillery.
- After clicking a unit, stop. Make sure the selected unit is a command unit or that you click the activate company button. Otherwise, you only get to use that one unit during the current phase.

### DRAGOON

Leaders: Plan your attack so the corps commander with the highest command rating delivers the crucial moves that hour. Usually, your overall commander will be first candidate for activation, so defer his selection until later. That way, if the critical corps commander fails activation, your overall commander can take over and move the troops. Should the attack fail, he can rally troops before they rout off the map.

**Timing Attacks**: The 15 minute/125 yard scale and the paucity of heavy artillery means that troops will not come under fire early. Thus, you have time to reduce disruption during movement and make sure your units go into attack in good shape. Although this may mean launching only one attack every hour, you'll get more out of each attack.

— Jim Cobb

### TROPHY RIVERS

In Single Lure/Fly tournaments, go with a heavy line. This approach makes catching fish more challenging and also helps to keep your line from snapping. A broken line not only costs you a lure or fly, it also means that you don't get to compete for the rest of the day.

Avoid fishing in swift water flowing toward you. Your line can get so slack you won't be able to set a hook. Also, shorter casts make for shorter fights with the fish, minimizing the possibility of snapping your line.

— Robert Coffey

### DEER HUNTER

It's always hunting season on your PC, and these cheat codes offer some potent gaming ammo.

- **Code**
  - dbtruckdown
  - dbbigbuck
  - dhrambo

- **Result**
  - Deer won't run when you shoot
  - Adds 15 points to the last buck you killed
  - Increased shot accuracy

— Terry Coleman

---

**FIFA ROAD TO WORLD CUP 98 and WORLD CUP**

As usual, EA Sports is being tight-lipped about cheats for the PC versions of its excellent soccer games. However, there is a very interesting unofficial Web site, www.fifagaming.com, which is the perfect place to surf—if you're dying to download that special Singapore jersey. The wide variety of utilities lets you edit everything from player jerseys to advertisements on stadium walls. These "real football" fanatics also have a lot of info on WORLD CUP and FIFA SOCCER MANAGER as well. (As always, we suggest that you use caution when hacking, and back up your league files before installing utilities.)

— Terry Coleman
**Adventure/RPG**

**FALLOUT**
- Repeatedly fighting the regenerating deathclaws (at 1,000 experience a pop), can give your character about 48,000 experience in one day of hard work—provided your ammo, stimpaks, and patience hold out.
- Position yourself in combat so enemies with ranged weapons are as likely to hit each other as they are you!
- Initiating combat while in Sneak mode can really restrict how many enemies “notice” you, allowing you to fight one or two at a time.
- Small Guns are good to tag for combat early on, but you should tag Energy Weapons as soon as possible, so that you get the most out of the game’s best weapons.

**WARBIRDS 2.01**

If you’re going to excel in Interplay Online’s WARBIRDS, you’ll need to learn the ins and outs of the individual aircraft in the sim.

In addition to the $2/hour multiplayer and free head-to-head support, the game includes an off-line practice mode. If you want to see the results of your maneuvering, take off in off-line practice mode, and type the codes at right in order. This lets you see if your Split-S’s are smooth and your barrel rolls are effective. —Denny Atkin

![CG-ROM](image)

You’ll find a WARBIRDS 2.01 demo on this month’s disc.

<table>
<thead>
<tr>
<th>Code</th>
<th>Result</th>
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<tbody>
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<td>.smoke 50</td>
<td>Turns On “Airshow Smoke”</td>
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<tr>
<td>Alt-V</td>
<td>Switches to an External View</td>
</tr>
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</table>

**Action**

**OUTWARS**

The developers of Microsoft’s new 3D shooter are evidently big movie fans, which makes for some amusing cheat codes. (Check out our OUTWARS review on page 176.) —Terry Coleman

<table>
<thead>
<tr>
<th>Code</th>
<th>Result</th>
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<tr>
<td>buzz</td>
<td>Glider Wings (for Toy Story fans)</td>
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<tr>
<td>dirtyharry</td>
<td>Unlimited Ammo (for Clint fans)</td>
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<tr>
<td>gohome</td>
<td>Reset Level to Start Position</td>
</tr>
<tr>
<td>keymaster</td>
<td>Unlimited Jet Pack Fuel</td>
</tr>
<tr>
<td>maceod</td>
<td>Immortality (for Highlander fans)</td>
</tr>
<tr>
<td>snipsnip</td>
<td>Change Gender (for Orlando fans)</td>
</tr>
<tr>
<td>thrasher</td>
<td>Shows All Your Enemies on Radar</td>
</tr>
</tbody>
</table>

**DIE BY THE SWORD**

For a totally different feel in Interplay’s latest, try the following cheat: Hold down the Shift key and type lunar. This puts both you and the creatures you face into Lunar Gravity Mode, where you can all jump around like Apollo 11 astronauts. This mode isn’t necessarily easier, but it is fun. (Check out our DIE BY THE SWORD review on page 174.) —Terry Coleman

- Targeted shots, especially at the eyes, are devastating.
- If you can’t get Talus or Michael to help you acquire Power Armor, steal the part you need from Rhombus’s locker. Remember to pop it into a bag before Rhombus catches you. —Petra Schlunk
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## TOP ACTION GAMES

<table>
<thead>
<tr>
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<th>Game</th>
<th>Company</th>
<th>Score</th>
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<td>Quake II</td>
<td>Activision</td>
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<td>3D Realms</td>
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<td>Tomb Raider</td>
<td>Eidos</td>
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<td>id Software</td>
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## TOP ADVENTURE GAMES

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<td>Spycraft</td>
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## TOP CLASSIC/PUZZLE GAMES

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## TOP SIMULATION/SPACE COMBAT

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<td>9</td>
<td>Diamond Mind Baseball 7.0</td>
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<tr>
<td>10</td>
<td>Jack Nicklaus 4</td>
<td>Accolade</td>
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## TOP STRATEGY GAMES

<table>
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<tr>
<th>Rank</th>
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<tr>
<td>1</td>
<td>Heroes II: Price of Loyalty</td>
<td>New World Comp</td>
<td>8.96</td>
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<tr>
<td>2</td>
<td>WarCraft II Expansion Disk</td>
<td>Blizzard</td>
<td>8.70</td>
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<td>3</td>
<td>Heroes II</td>
<td>New World Comp</td>
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<tr>
<td>4</td>
<td>Red Alert</td>
<td>Virgin/Westwood</td>
<td>8.56</td>
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<tr>
<td>5</td>
<td>Red Alert: Counterstrike</td>
<td>Virgin/Westwood</td>
<td>8.24</td>
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<td>6</td>
<td>Total Annihilation</td>
<td>GT Interactive</td>
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<td>Age of Empires</td>
<td>Microsoft</td>
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<td>Civ II: Scenarios</td>
<td>MicroProse</td>
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<td>9</td>
<td>Civ II: Fantastic Worlds</td>
<td>MicroProse</td>
<td>7.86</td>
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<td>10</td>
<td>Jagged All: Deadly Games</td>
<td>Sin-Tech</td>
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## TOP ROLE-PLAYING GAMES

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<tr>
<td>1</td>
<td>Diablo</td>
<td>Blizzard</td>
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<tr>
<td>2</td>
<td>Fallout</td>
<td>Interplay</td>
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<td>3</td>
<td>Hellfire</td>
<td>Sierra</td>
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<td>4</td>
<td>Daggerfall</td>
<td>Bethesda</td>
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<td>5</td>
<td>Lands of Lore II</td>
<td>Westwood</td>
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<td>Meridian 59</td>
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<td>7</td>
<td>Ultima Online</td>
<td>Origin</td>
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<td>8</td>
<td>Descent to Undermountain</td>
<td>Interplay</td>
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## TOP WARGAMES

<table>
<thead>
<tr>
<th>Rank</th>
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<tr>
<td>1</td>
<td>Steel Panthers Camp, Disk</td>
<td>SSI</td>
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<tr>
<td>2</td>
<td>Panzer General II</td>
<td>SSI</td>
<td>8.44</td>
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<tr>
<td>3</td>
<td>Steel Panthers II Camp, Disk</td>
<td>SSI</td>
<td>8.43</td>
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<tr>
<td>4</td>
<td>Sid Meier's Gettysburg</td>
<td>Firebird</td>
<td>8.24</td>
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<tr>
<td>5</td>
<td>Steel Panthers II</td>
<td>SSI</td>
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<td>Battleground: Shiloh</td>
<td>TalonSoft</td>
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<td>7</td>
<td>Battleground: Nap. In Russia</td>
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<td>8</td>
<td>Battleground: Bull Run</td>
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<td>Battleground: Antietam</td>
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<td>10</td>
<td>Tigers on the Provil II</td>
<td>HPS</td>
<td>7.77</td>
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</table>
Games on unnumbered lines are tied with game on line above. ⭐ = Top game of game. Red = Neo Game, AD = Adventure, RP = Role-Playing, SI = Simulation/Space Combat, ST = Strategy, WG = Wargame, AC = Action, SP = Sports, CP = Classic/Puzzle. Games are retired after two years and become eligible for the Hall of Fame.

| NO | 1 | Heroes II: Price of Loyalty | New World Computing | ST | 8.96 | 5 |
| NO | 2 | WarCraft II Expansion Disk | Blizzard | ST | 8.70 | 4.5 |
| NO | 3 | Quake II: Missions | Acclaim | AC | 8.67 | 4.5 |
| NO | 4 | Quake Pack 2: Diss. of Eternity | id Software/Rogue | AC | 8.63 | 5 |
| NO | 5 | Quake Pack 1: Scourge of Armagon | id Software/Ritual | AC | 8.62 | 4.5 |
| NO | 10 | Heroes II | New World Computing | ST | 8.60 | 5 |
| NO | 11 | Links & Access | Sierra | SP | 8.59 | 5 |
| NO | 12 | Diablo | Sierra | RP | 8.56 | 4.5 |
| NO | 13 | Red Alert | Virgin/Westwood | ST | 8.55 | 4.5 |
| NO | 14 | Longbow 2 | EA | SI | 8.51 | 5 |
| NO | 18 | Jedi Knight: Dark Forces II | LucasArts | AC | 8.47 | 4.5 |
| NO | 12 | NFL 98 | EA Sports | SP | 8.45 | 4 |
| NO | 16 | Panzer General II | SSI | WG | 8.44 | 4.5 |
| NO | 15 | Steel Panthers II Campaign Disk | SSI | WG | 8.43 | 4.5 |
| NO | 20 | You Don't Know Jack 2 | Berkeley Systems | CP | 8.35 | 4.5 |
| NO | 17 | NBA Live 98 | EA Sports | SP | 8.34 | 4.5 |
| NO | 18 | Wing Commander: Prophecy | Origin | SI | 8.32 | 4.5 |
| NO | 19 | Asteroid Interplay | RP | 8.27 | 4.5 |
| NO | 20 | Red Alert: Counterstrike | Virgin/Westwood | ST | 8.24 | 4 |
| NO | 22 | Sid Meier's Gettysburg | Firaxis | WG | 8.24 | 4.5 |
| NO | 26 | The Pandora Directive | Access | AD | 8.19 | N/A |
| NO | 27 | NASCAR Racing 2 | Sierra | SP | 8.16 | 5 |
| NO | 28 | Duke Nukem 3D | 3D Realms | AC | 8.15 | 4.5 |
| NO | 25 | Curse of Monkey Island | LucasArts | AD | 8.11 | 5 |
| NO | 8 | Total Annihilation | GT Interactive | ST | 8.11 | 4.5 |
| NO | 27 | Steel Panthers II | SSI | WG | 8.10 | 4.5 |
| NO | 21 | You Don't Know Jack | Berkeley Systems | CP | 8.07 | 4 |
| NO | 29 | Jedi Knight: Mysteries of the Sith | LucasArts | AC | 8.04 | 4 |
| NO | 30 | AH-64 Longbow | EA/Origin | SI | 8.03 | 5 |
| NO | 37 | Tomb Raider | Eidos | AC | 8.02 | 4 |
| NO | 29 | Age of Empires | Microsoft | ST | 8.01 | 4.5 |
| NO | 31 | Hellfire | Sierra | RP | 8.01 | 4 |
| NO | 34 | Civilization II: Scenarios | MicroProse | ST | 8.00 | 4 |
| NO | 35 | F-22 ADF | Novatologic | SI | 8.00 | 4 |
| NO | 36 | Quake II | id Software | AC | 7.99 | 5 |
| NO | 31 | You Don't Know Jack Movies | Berkeley Systems | CP | 7.99 | 4.5 |
| NO | 38 | Grand Prix II | MicroProse | SP | 7.94 | 5 |
| NO | 39 | NFL 97 | EA Sports | SP | 7.88 | 4.5 |
| NO | 40 | BattleGrounds: Shiloh | TalonSoft | WG | 7.87 | 5 |
| NO | 41 | NBA Live 97 | EA Sports | SP | 7.87 | 4.5 |
| NO | 40 | Civilization II: Fantastic Worlds | MicroProse | ST | 7.86 | 4 |
| NO | 43 | BattleGrounds: Napoleon In Russia | TalonSoft | WG | 7.85 | 4.5 |
| NO | 41 | Blade Runner: Westwood/Virgin | AD | 7.84 | 4.5 |
| NO | 45 | BattleGrounds: Bull Run | TalonSoft | WG | 7.83 | 4 |
| NO | 46 | BattleGrounds: Antietam | TalonSoft | WG | 7.78 | 5 |
| NO | 47 | Tigers on the Prowl | HPS | WG | 7.77 | 4 |
| NO | 48 | MechWarrior 2: Mercenaries | Activision | SI | 7.75 | 4.5 |
| NO | 50 | Moto Racer | EA | AC | 7.73 | 4.5 |
| NO | 50 | The Need for Speed SE | EA | AC | 7.73 | N/A |

| NO | 51 | Fighters Anthology | EA | SI | 7.69 | 3.5 |
| NO | 52 | Tomb Raider II | Eidos | AC | 7.68 | 4 |
| NO | 56 | TwinSeny's Odyssey Activision | AD | 7.66 | 4.5 |
| NO | 54 | Tripleplay '98 EA Sports | SP | 7.64 | 3 |
| NO | 55 | Diamond Mind: Baseball | Diamond Mind | SP | 7.62 | 3.5 |
| NO | 60 | Battleground: Waterloo | TalonSoft | WG | 7.62 | 4.5 |
| NO | 57 | Crusader: No Regret | EA/Origin | AC | 7.60 | 4.5 |
| NO | 58 | You Don't Know Jack | Berkeley Systems | CP | 7.56 | 4.5 |
| NO | 59 | Jack Nicklaus 4 | Acclaim | SP | 7.54 | 5 |
| NO | 64 | Jagged Alliance: Deadly Games | Sir-Tech | ST | 7.51 | 4 |
| NO | 61 | Smart Games Challenge 2 | Smart Games Inc. | CP | 7.45 | 5 |
| NO | 62 | Interstate '76 Activision | AC | 7.44 | 4.5 |
| NO | 63 | Last Express | Red Oub | AD | 7.43 | 4.5 |
| NO | 57 | PGA Tour Pro | EA Sports | SP | 7.43 | 3.5 |
| NO | 60 | Rama Sierra | AD | 7.43 | 4.5 |
| NO | 68 | Realms of the Haunting | Interplay | AD | 7.43 | 4.5 |
| NO | 80 | Worms 2 | MicroPro | CP | 7.43 | 4.5 |
| NO | 66 | The Neverhood | DreamWorks | AD | 7.42 | 4 |
| NO | 70 | Circle of Blood | Virgin | AD | 7.41 | 4 |
| NO | 73 | Dungeon Keeper | EA/Bullfrog | ST | 7.40 | 4.5 |
| NO | 71 | You Don't Know Jack TV | Berkeley Systems | CP | 7.39 | 2.5 |
| NO | 72 | Myth Bungie | ST | 7.36 | 4.5 |
| NO | 73 | Flight Simulator | Microsoft | SI | 7.35 | 3.5 |
| NO | 74 | NBA Live 96 | EA Sports | SP | 7.33 | N/R |
| NO | 82 | Tripleplay '97 | EA Sports | SP | 7.33 | 4 |
| NO | 76 | Achtung! Spitfire | Avalon Hill | ST | 7.32 | 5 |
| NO | 77 | Flight Unlimited 2 | Looking Glass | SI | 7.30 | 4.5 |
| NO | 78 | MDF Playmates/Shiny | AC | 7.29 | 4.5 |
| NO | 80 | Power Chess | Sierra | CP | 7.29 | N/R |
| NO | 84 | SpyCrafter Activision | AD | 7.29 | 4.5 |
| NO | 81 | Baseball Mogul | Infinite Monkey | SP | 7.28 | 4 |
| NO | 84 | Age of Rifles Campaign Disk | SSI | WG | 7.27 | 4 |
| NO | 83 | Star Wars Rebellion | LucasArts | ST | 7.26 | 3 |
| NO | 83 | Virtual Pool 2 | Interplay | SP | 7.26 | 4.5 |
| NO | 85 | Lords of the Realm II | Sierra | ST | 7.25 | 4 |
| NO | 85 | Obsidian | SegaSoft | AD | 7.23 | 4 |
| NO | 87 | Close Combat: A Bridge Too Far | Microsoft | WG | 7.21 | 4.5 |
| NO | 88 | X-COM: Apocalypse | MicroProse | ST | 7.20 | 4 |
| NO | 89 | Steel Panthers III | SSI | WG | 7.18 | 3 |
| NO | 90 | Dark Reign Activision | ST | 7.17 | 4 |
| NO | 90 | Lealuit Sarty | Lia Serra | AD | 7.17 | 3.5 |
| NO | 92 | FPS Football Pro '97 | Sierra | SP | 7.16 | 4 |
| NO | 93 | Daggersfall | Bethesda | RP | 7.13 | 4.5 |
| NO | 96 | Cart Precision Racing | Microsoft | SP | 7.11 | 3 |
| NO | 97 | FIFA '97 | EA Sports | SP | 7.09 | 4.5 |
| NO | 100 | Hexus II | Raven/Activision | AC | 7.09 | 3.5 |
| NO | 99 | X-Wing vs. TIE Fighter | LucasArts | SI | 7.12 | 3.5 |
| NO | 96 | Theme Hospital | Bullfrog/EA | ST | 7.08 | 4 |
WELCOME TO THE COOPERSTOWN OF COMPUTER GAMES. Games that broke the records, established the benchmarks, and held gamers in delighted trances for hours untold.

**Alone in the Dark** (Infogrames, 1992)
Lovecraftian horror goes 3D, with shifting camera angles adding to the creepy atmosphere.

**The Bard's Tale** (EA, 1985)
Pioneered 3D dungeon crawling, 3D color maps, and automapping.

**Battle Chess** (Interplay, 1988)
The Franklin Mint of computer chess games, with violent and funny animation disguising a deep chess engine.

**Betrayal at Krondor** (Interplay, 1993)
As rich and imaginative as Raymond Feist's world itself.

**Chessmaster** (Software Toolworks, 1989)
The Cadillac of casting; it gets better with each version.

**Command & Conquer** (Westwood Studios, 1995)
Moved beyond Dune II with innovative features and multiplayer play, ushering in the current real-time strategy game explosion.

**Day of the Tentacle** (LucasArts, 1993)
Official sequel to Maniac Mansion; the interactive equivalent of a classic Chuck Jones cartoon.

**DOOM** (id Software, 1993)
Revolutionized PC action games and network gaming; now surpassed in technology, but not gameplay.

**Dungeon Master** (Eidos, 1993)
Travelling through dark and twisted landscapes, discovering secret doors and hidden chambers.

**Earl Weaver Baseball** (EA, 1991)
Revolutionary baseball simulation game that presented both action and statistics fans; still unmatched more than a decade later.

**Empire** (Interplay, 1999)
Widely influential, this microfilm prototype brought great mechanics, detail, and a refreshing replayability.

**F-19 Stealth Fighter** (MicroProse, 1993)
A “flying fighter” sim, with great missions, in which sneaking around is as fun as dogfighting.

**Falcon 3.0** (Electronic Arts, 1991)
Fright, detailed, but flawed with ambivalent AI and graphics, and connectivity to match those.

**Front Page Sports Football Pro** (MicroProse, 1993)
Physics-based system, good AI,和完善 career play make this the ultimate in pigskin play.

**Gargetsburg: The Turning Point** (MicroProse, 1990)
First war elephant of battle changed the look of all American Civil War games on the PC.

**Gunship** (MicroProse, 1989)
Great character continually, RAI for fatigued pilots, and even sick leave; best chopper fare until Jane's Sim.3.

**Harpoon** (MicroProse, 1989)
In-depth modern naval battles in real-time, based on the world's Cold War fleets.

**Kampfgruppe SS** (MicroProse, 1983)
Will Recond: Front armor battles were a success on multiple platforms.

**King's Quest V** (Sierra On-Line, 1990)
Refined the graphic adventure with new parser and VGA graphics.

**Lemmings** (Eidos, 1991)
The lovable lemmings of game developers for hits on every platform.

**Links 386 Pro** (Access Software, 1992)
Tapped the leader board in graphics and realism for its era.

**M-1 Tank Platoon** (MicroProse, 1989)
Realistic US army armored combat with armored vehicles, tanks, and infantry.

**Master of Magic** (MicroProse, 1994)
The atmosphere of magic and fantasy, influenced by the success of Co.

**Master of Orion** (MicroProse, 1993)
Remarkable science fiction, deep and varied technology tree, aliens, and a campaign radically different playing styles.

**Mech Brigade** (SSI, 1985)
Updated and modernized for modern armored battles.

**MechWarrior II** (Sierra On-Line, 1995)
A serious treatment of mecha design and resource management, combined with complex and subtle battles, legitimized "robot" simulation.

**Might & Magic** (New World Computing, 1988)
First-person, mouse-based RPG with huge environment and tough combat.

**M.U.L.E.** (EA, 1983)
A landmark multiplayer strategy game that had no weapons of destruction, just craftsmanship that made economics fun.

**Panzer General** (Sierra On-Line, 1990)
Entertaining wargame with an elegant interface, great campagin, strong AI, good graphics, and impressive sound.

**Red Baron** (Dynamix, 1990)
All air combat with great graphics, incredible realism, and a versatile replay feature.

**The Secret of Monkey Island Island** (LucasArts, 1990)
Comedy that set new standards in writing quality and social sensibility.

**Sid Meier's Civilization** (MicroProse, 1991)
CGI's #1-rated game of the age; impossible addictive world-conquest exploration game.

**Sid Meier's Pirates** (MicroProse, 1987)
Combines pirate adventure, action, RPG, and strategy to make the most successful hybrid of all time.

**Sid Meier's Railroad Tycoon** (MicroProse, 1990)
Smct for 1830 with robber barons for emphasis.

**SimCity** (Maxis, 1988)
Urban planning with fascinating consequences and challenges; the first great software toy.

**Starfighter** (EA, 1990)
Depth, great visuals, and a good sci-fi storyline set early RPG standard.

**Their Finest Hour** (LucasArts, 1990)
WWII sim with great campaigns, realism and many crew-member options.

**TIE Fighter** (LucasArts, 1994)
Most satisfying Star Wars space combat game to date; let you fly on the dark side.

**Ultima III** (Origin Systems, 1985)
Coherence and strategy; subtly emphasized role-playing; and set the tone for later Ultima games.

**Ultima IV** (Origin Systems, 1985)
New concept: FPS explored meaning of virtue and put the role in role-playing.

**Ultima VI** (Origin Systems, 1990)
RPG as morality play, replay with moral choices and realistic situations.

**Ultima Underworld** (Origin Systems, 1992)
The first truly 3D RPG, and still the most convincing: its dungeon walls were nicely "painted" with texture-mapped graphics.

**War in Russia** (SSI, 1984)
More realistic, than Evergreens, it captured the essence of the largest land campaign in history.

**WarCraft II** (Blizzard, 1996)
Most cerebral grand strategy game ever, it offered deceptive depth and personality to spare.

**Wasteland** (Interplay, 1996)
Derived from Mike Stackpole's Mercenaries, Spice, and Private Eyes, this is the definitive post-apocalyptic RPG.

**Wing Commander** (Origin Systems, 1990)
A fast-moving, thin-skinned spacefighter, offering plot, story, and detailed AI rules in a variety of scenarios.

**Wing Commander II** (Origin Systems, 1991)
Deeper story, broader scope; advanced AI and a set of sequels.

**Wing Commander III** (Origin Systems, 1994)
Superbly satisfying Space Sim: the open-ended did not lose the essence of the space-combat game.

**Wizardry** (Sir-tech Software, 1981)
Definitive graphic RPG with maze-based viewpoint and atmospheric spell names.

**Wolfenstein 3-D** (id Software, 1992)
Smooth-looking action platformer cleverly updated the original, and put players back on the map.

**X-COM** (MicroProse, 1994)
Pioneer of tactical sci-fi; engine combined with alien research and pop culture for a sci-fi game nearly as addictive as Civilization.

**Zork** (Infocom, 1981)
The progenitor of adventure games on the PC; its humor and challenging puzzles seem timeless. The game has since spawned a number of sequels, none of which has achieved the original.

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**NEW INDUCTION**

**You Don't Know Jack**

**Berkeley Systems, 1996**

Every company strives for a mainstream gaming hit, yet most attempts fail miserably. Back in early 1990, however, Berkeley Systems and Bellwether combined their talents in You Don't Know Jack, a game that managed to appeal to both hard-core enthusiasts and newcomers alike.

Because Jack was ostensibly based on a recognizable TV character, the cheesy television show—it immediately drew a huge audience. Jack kept everyone coming back for more through a combination of highly addictive gameplay and irreverent humor. The designers wove in trivia-game convention on its ear and introducing new categories, such as the gibberish question (where you had to decipher what the certain anagram rhymed: "A fiddle is sold over," for example, would translate as: "A little bird told me").

Jack is the perfect example of a game that can appeal to non-traditional computer gamers. Not only is it a fabulous single-player experience, it's also the ultimate game of chance. When Jack came out, the old RPG rule about leaving your work at work was forgotten. Friends and family begged to bring the game home for weekends.

You Don't Know Jack has spawned a number of successful sequels and not-so-successful competitors, but it's the original we reward here for its irreverence, its freshness, and its take-no-prisoners attitude. Like Tetris before it, You Don't Know Jack is one Puzzle/Classic game that broke the mold—and had a lot of fun doing it.
GameSpot: CGW's Home on the Web

Turn to GameSpot For the Fastest Online News and Reviews in Gaming

Ziff-Davis has combined the talent and expertise of Computer Gaming World, GameSpot, and ZDNet to bring you the best gaming resources on the Web. Whether it's the latest game demos, breaking reviews, detailed strategy articles, hot scoops, or online forums, you'll find everything you need to stay on the cutting edge.

If you're looking for the fastest online news and reviews in gaming, turn to the experts at GameSpot. Here's a brief overview of what you can expect on GameSpot over the next few weeks. To see these articles and others, point your browser to the ultimate gaming page at http://cgw.gamespot.com/august98.

Strategy Guides

**STARCRAFT**
The game has finally been released, and many gamers are already scrambling to get through the 30 missions and on to battle.net. So don't get hung up on any one mission. Consult GameSpot's expert guide for advice on how to complete each mission successfully and how to play as each of the different races. The guide also provides in-depth information about every unit and plenty more, so don't miss out.

Special Features

**WEB WARFARE**
Three top online-only flight simms are fighting for the top spot in the Internet skies for your entertainment dollar. Choose wisely by checking out this GameSpot story written by CGW contributing editor John Nolan. John checks out Air Warrior II, WarBirds, and Fighter Ace to compare such features as flight models, graphics, and price.

**1998: THE YEAR OF THE RPG?**
GameSpot's RPG expert, Desslock, can relate to the disappointment among fans after a year of broken promises from RPG developers in 1997. Will they make up for it this year? Desslock closely examines the hottest RPGs due out this year, such as Ultima Ascension, Might and Magic VI, and Wizardry VIII, to see what they have to offer hungry RPG fans.

Desslock also examines other RPGs in the works, including Fallout 2, Baldur's Gate, Return to Kotor, and Sword & Sorcery: Come Devils, Come Darkness.

**COMMAND & CONQUER: TIBERIAN SUN PREVIEW**
The true sequel to Command & Conquer is coming this October. Trent Ward provides details about the storyline, describes many of the game's units, and more.

**Designer Diaries**
Ever wonder what's going on behind the scenes while those much-anticipated games are in development? GameSpot's Designer Diaries follow the progress of game designers like Jane Jensen, embarking on her third Gabriel Knight game for Sierra On-Line, and Tim Schafer, who's currently working on Grim Fandango for LucasArts. Tom Hall also gives GameSpot readers regular updates on his new game at Ion Storm, Anachronox. We've just added Sid Meier's Alpha Centauri, written by designer Brian Reynolds. Also, coming soon, Ron Miller will talk about his new game, Black and White. And there's more, so check out the Designer Diaries on GameSpot.

**Demos**
GameSpot has the most thorough and regularly updated game demo libraries on the Web. You'll find demos of many of the games that we've reviewed recently, including Triple Play 99, Die by the Sword, Outwars, Forsaken, Monster Truck Madness 2, Panzer Commander, World Cup 98, HardBall 6, VR Powerboat Racing, Industry Giant, and more. CGW
ON THE CG-ROM

A Sim-ply Awesome Disc
Strap Yourself In and Prepare for Takeoff on This Month’s CG-ROM

Pilots of all types will want to check out the demos on this month’s CG-ROM. American gamers who are curious about the praise being given to the European space sim I-War (or INDEPENDENCE War as it will be known stateside) can check out our exclusive CGW demo. Flying fans can also put Jane’s latest offering to the test—the CG-Choice award winner, Jane’s F-15. We also have a demo of SSI’s upcoming sim, TEAM APACHE. Finally, for would-be pilots who fancy testing their aeronautical skills online, but don’t feel like tying up their machines during the long download time, we’ve done all the hard work for you: Just boot up the new version of WarBirds 2.01 and get ready to fly the unfriendly skies.

For strategy gamers, we have WARLORDS III: DARKLORDS RISING and INCUBATION: THE WILDERNESS MISSIONS, while sports fans can play HARDBALL 6. And for gamers looking for something completely different, there’s the unique Russian import, VANGERS—a futuristic action/driving/puzzle game hybrid with a very different feel.

How to Use the Disc
The CG-ROM is AutoPlay enabled and should begin upon loading it into the CD-ROM drive. Otherwise, select Run from the Program Manager in Windows 3.x, or Start Menu in Windows 95, and type D:\RUN-ME (where D is the letter of your CD-ROM drive) to run it straight from the CD. You may type D:INSTALL to create a CGW program group on your Windows desktop for future fun. Many demos require the disc to be in the CD-ROM drive in order to run; therefore, we recommend installing the demos from our disc.

To Get the CD-ROM
To subscribe to the CG-ROM version of the magazine, call (303) 665-8930. If you already receive the magazine without the CD, you must wait until your current subscription expires before receiving the CD version. Please address subscription complaints to cgw@newdata.com. Newdata is a magazine fulfillment house which is not owned or operated by Ziff-Davis.

August CD Titles

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>PLATFORM</th>
<th>DIRECTORY/DEMOS</th>
<th>EXECUTABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliens On-Line</td>
<td>W95</td>
<td>ALIENS</td>
<td>install.exe</td>
</tr>
<tr>
<td>BASS Masters Classic: Tournament Edition</td>
<td>W95</td>
<td>BASS</td>
<td>setup.exe</td>
</tr>
<tr>
<td>Burnout</td>
<td>W95</td>
<td>BURNOUT</td>
<td>install.exe</td>
</tr>
<tr>
<td>Dominion</td>
<td>W95</td>
<td>DOMINION</td>
<td>domdem11.exe</td>
</tr>
<tr>
<td>Drakan</td>
<td>W95</td>
<td>DRAKAN</td>
<td>drakan.avi</td>
</tr>
<tr>
<td>Earthlink</td>
<td>W95</td>
<td>EARTHLINK</td>
<td>setup.exe</td>
</tr>
<tr>
<td>HardBall 6</td>
<td>W95</td>
<td>HARDBALL6</td>
<td>hbdemo.exe</td>
</tr>
<tr>
<td>Incubation:</td>
<td>W95</td>
<td>INCUBATION</td>
<td>incmission demo.exe</td>
</tr>
<tr>
<td>The Wilderness Missions</td>
<td>W95</td>
<td>IWAR</td>
<td>iwdemo.exe</td>
</tr>
<tr>
<td>Independence War</td>
<td>W95</td>
<td>JANESF15</td>
<td>f15zip2.exe</td>
</tr>
<tr>
<td>Jane’s F-15</td>
<td>W95</td>
<td>TEAMAPACHE</td>
<td>setup.exe</td>
</tr>
<tr>
<td>Unreal</td>
<td>W95</td>
<td>UNREAL</td>
<td>unreal.avi</td>
</tr>
<tr>
<td>VANGERS</td>
<td>W95</td>
<td>VANGERS</td>
<td>vandemo.exe</td>
</tr>
<tr>
<td>WarBirds 2.01</td>
<td>W95</td>
<td>WARBIRDS</td>
<td>wb95full.exe</td>
</tr>
<tr>
<td>Warlords III: Darklord Rising</td>
<td>W95</td>
<td>WARLORDS</td>
<td>setup.exe</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>INFO#</th>
<th>COMPANY</th>
<th>PRODUCT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>112</td>
<td>3DO Co.</td>
<td>Army Men</td>
<td>118-119</td>
</tr>
<tr>
<td>243</td>
<td>3DO Co.</td>
<td>Requiem</td>
<td>172-173</td>
</tr>
<tr>
<td>79</td>
<td>Access Software</td>
<td>Links LS</td>
<td>214-215</td>
</tr>
<tr>
<td>231</td>
<td>Activision</td>
<td>Fighter Squadron</td>
<td>12-13</td>
</tr>
<tr>
<td>125</td>
<td>Advanced CyberTech/VXCat</td>
<td>Incoming</td>
<td>242</td>
</tr>
<tr>
<td>105</td>
<td>Allensware</td>
<td>Allensware Systems</td>
<td>255</td>
</tr>
<tr>
<td>62</td>
<td>American Power Conversion</td>
<td>APC</td>
<td>189</td>
</tr>
<tr>
<td>106</td>
<td>ATI Technologies, Inc.</td>
<td>Graphic Board</td>
<td>68</td>
</tr>
<tr>
<td>271</td>
<td>Auneal Semiconductor</td>
<td>A3D</td>
<td>127</td>
</tr>
<tr>
<td>220</td>
<td>Blizzard</td>
<td>Starcraft</td>
<td>4-5</td>
</tr>
<tr>
<td>*</td>
<td>BSG</td>
<td>Survival Guide</td>
<td>63-65</td>
</tr>
<tr>
<td>*</td>
<td>BTS &amp; Associates</td>
<td>Web sites/Demos</td>
<td>254</td>
</tr>
<tr>
<td>265</td>
<td>Canopus</td>
<td>3D Power</td>
<td>80</td>
</tr>
<tr>
<td>68</td>
<td>Chips &amp; Bits</td>
<td><a href="http://www.execmag.com">www.execmag.com</a></td>
<td>256-257</td>
</tr>
<tr>
<td>70</td>
<td>Creative Labs</td>
<td>Graphic Blaster (Voodoo)</td>
<td>244</td>
</tr>
<tr>
<td>154</td>
<td>Creative Labs</td>
<td>Sound</td>
<td>74-75</td>
</tr>
<tr>
<td>145</td>
<td>Diamond Multimedia Systems</td>
<td>Monster 3D</td>
<td>159</td>
</tr>
<tr>
<td>*</td>
<td>Dreamworks</td>
<td>Tremors</td>
<td>60-61</td>
</tr>
<tr>
<td>276</td>
<td>Eidos Interactive</td>
<td>Commandos</td>
<td>CS-C7</td>
</tr>
<tr>
<td>228</td>
<td>Eidos Interactive</td>
<td>Deathtrap Dungeon</td>
<td>18-19</td>
</tr>
<tr>
<td>279</td>
<td>Eidos Interactive</td>
<td>Dominion</td>
<td>54-55</td>
</tr>
<tr>
<td>115</td>
<td>Eidos Interactive</td>
<td>Eidos Interactive</td>
<td>57</td>
</tr>
<tr>
<td>277</td>
<td>Eidos Interactive</td>
<td>Final Fantasy VII</td>
<td>49-51</td>
</tr>
<tr>
<td>116</td>
<td>Eidos Interactive</td>
<td>Tidalis The Dark Project</td>
<td>52-53</td>
</tr>
<tr>
<td>111</td>
<td>Eidos Interactive</td>
<td>Tomb Raider II</td>
<td>56</td>
</tr>
<tr>
<td>257</td>
<td>Falcon Northwest</td>
<td>Falcon MACH V</td>
<td>26-27</td>
</tr>
<tr>
<td>113</td>
<td>Fox Interactive</td>
<td>Fox Sports Golf '99</td>
<td>210</td>
</tr>
<tr>
<td>172</td>
<td>Fox Interactive</td>
<td>X-Tiles: The Game</td>
<td>100-101</td>
</tr>
<tr>
<td>170</td>
<td>GT Interactive</td>
<td>Total Annihilation 2: Core Contingency</td>
<td>108-119</td>
</tr>
<tr>
<td>171</td>
<td>GT Interactive</td>
<td>War of the Worlds</td>
<td>C2-C4.1</td>
</tr>
<tr>
<td>114</td>
<td>Incredible Technologies</td>
<td>Golden Tee Golf</td>
<td>203</td>
</tr>
<tr>
<td>84</td>
<td>Interactive Magic</td>
<td>F18</td>
<td>196</td>
</tr>
<tr>
<td>86</td>
<td>Interactive Magic</td>
<td>Spear Head</td>
<td>78-79</td>
</tr>
<tr>
<td>188</td>
<td>Interactive Magic</td>
<td>Ultra Fighters</td>
<td>240</td>
</tr>
<tr>
<td>72</td>
<td>Intergraph Computer Systems</td>
<td>Interactive 3D Voodoo</td>
<td>6-7</td>
</tr>
<tr>
<td>163</td>
<td>Interplay</td>
<td>Baldur's Gate</td>
<td>108-109</td>
</tr>
<tr>
<td>166</td>
<td>Interplay</td>
<td>Fallout 2</td>
<td>212-213</td>
</tr>
<tr>
<td>197</td>
<td>Kenai</td>
<td>Air Warriors</td>
<td>247</td>
</tr>
<tr>
<td>197</td>
<td>Kenai</td>
<td>Aliens</td>
<td>241</td>
</tr>
<tr>
<td>197</td>
<td>Kenai</td>
<td>Gamesstorm</td>
<td>249</td>
</tr>
<tr>
<td>197</td>
<td>Kenai</td>
<td>Godzilla</td>
<td>239</td>
</tr>
<tr>
<td>197</td>
<td>Kenai</td>
<td>Jack Niklus</td>
<td>245</td>
</tr>
<tr>
<td>197</td>
<td>Kenai</td>
<td>Starship Troopers</td>
<td>243</td>
</tr>
<tr>
<td>*</td>
<td>LucasArts Entertainment Co.</td>
<td>Grim Fandango</td>
<td>8-9</td>
</tr>
<tr>
<td>110</td>
<td>Mad Genius</td>
<td>Gun Metal</td>
<td>128-129</td>
</tr>
<tr>
<td>78</td>
<td>Magix Entertainment</td>
<td>Magic Live Act</td>
<td>246</td>
</tr>
<tr>
<td>124</td>
<td>Matrox Graphics, Inc.</td>
<td>Mystique G200</td>
<td>154</td>
</tr>
<tr>
<td>100</td>
<td>Motel</td>
<td>Millenia</td>
<td>160-161</td>
</tr>
<tr>
<td>282</td>
<td>MicroProse</td>
<td>MechCommander</td>
<td>222-223</td>
</tr>
<tr>
<td>183</td>
<td>Midway Home Entertainment</td>
<td>Mortal Kombat IV</td>
<td>234-235</td>
</tr>
<tr>
<td>189</td>
<td>Mindscape Entertainment</td>
<td>Team Apache</td>
<td>24</td>
</tr>
<tr>
<td>94</td>
<td>Novalogic, Inc.</td>
<td>F16</td>
<td>98-99</td>
</tr>
<tr>
<td>*</td>
<td>ORIGIN Systems, Inc.</td>
<td>Alpha Centauri</td>
<td>88-89</td>
</tr>
<tr>
<td>*</td>
<td>ORIGIN Systems, Inc.</td>
<td>Ultima Ascension</td>
<td>C8</td>
</tr>
<tr>
<td>*</td>
<td>Panasonic/Ripcord</td>
<td>Space Bunnies</td>
<td>225</td>
</tr>
<tr>
<td>*</td>
<td>Panasonic/Ripcord</td>
<td>Special Operations</td>
<td>32-37</td>
</tr>
<tr>
<td>*</td>
<td>Panasonic/Ripcord</td>
<td>Stratosphere</td>
<td>200</td>
</tr>
<tr>
<td>140</td>
<td>Philips</td>
<td>USB Speakers</td>
<td>238</td>
</tr>
<tr>
<td>124</td>
<td>Piranha Interactive Pub.</td>
<td>Dead Reckoning</td>
<td>182-183</td>
</tr>
<tr>
<td>136</td>
<td>Piranha Interactive Pub.</td>
<td>Extreme Tactics</td>
<td>2-3</td>
</tr>
<tr>
<td>137</td>
<td>Piranha Interactive Pub.</td>
<td>Morphus</td>
<td>82-83</td>
</tr>
<tr>
<td>260</td>
<td>Quickshot</td>
<td>GenX Joysticks</td>
<td>233</td>
</tr>
<tr>
<td>*</td>
<td>Red Orb Entertainment</td>
<td>Extreme Warfare</td>
<td>34-38</td>
</tr>
<tr>
<td>*</td>
<td>Red Orb Entertainment</td>
<td>War Lords III: Dark Rising</td>
<td>112-113</td>
</tr>
<tr>
<td>229</td>
<td>Red Storm Entertainment</td>
<td>Rainbow Six</td>
<td>142</td>
</tr>
<tr>
<td>270</td>
<td>S3I</td>
<td>GDX Multimedia Chip</td>
<td>184</td>
</tr>
<tr>
<td>186</td>
<td>Sierra On-Line</td>
<td>Caesar III</td>
<td>168-170</td>
</tr>
<tr>
<td>147</td>
<td>Sierra On-Line</td>
<td>Cyberstorm 2</td>
<td>205-207</td>
</tr>
<tr>
<td>149</td>
<td>Sierra On-Line</td>
<td>Gabriel Knight III</td>
<td>14-15</td>
</tr>
<tr>
<td>135</td>
<td>Sierra On-Line</td>
<td>Grand Prix Legends</td>
<td>22-23</td>
</tr>
<tr>
<td>99</td>
<td>Sierra On-Line</td>
<td>Homeworld</td>
<td>175,177-179</td>
</tr>
<tr>
<td>120</td>
<td>Sierra On-Line</td>
<td>Mask</td>
<td>123-125</td>
</tr>
<tr>
<td>110</td>
<td>Sierra On-Line</td>
<td>NASCAR 50th</td>
<td>192-193</td>
</tr>
<tr>
<td>159</td>
<td>Sierra On-Line</td>
<td>StriSage</td>
<td>195-197-199</td>
</tr>
<tr>
<td>187</td>
<td>Sierra On-Line</td>
<td>Tribes</td>
<td>144-148</td>
</tr>
<tr>
<td>156</td>
<td>Sierra On-Line</td>
<td>Woom.net</td>
<td>92-93</td>
</tr>
<tr>
<td>126</td>
<td>Sir-Tech</td>
<td>Jagged Alliance</td>
<td>166</td>
</tr>
<tr>
<td>256</td>
<td>Sound Source Interactive</td>
<td>Olympus: War of the Gods</td>
<td>41</td>
</tr>
<tr>
<td>295</td>
<td>South Peak Interactive</td>
<td>Dark Side of the Moon Moon</td>
<td>131,133-135</td>
</tr>
<tr>
<td>239</td>
<td>Strategic Simulations, Inc.</td>
<td>Panzer Commander</td>
<td>216-219</td>
</tr>
<tr>
<td>*</td>
<td>Symantec</td>
<td>NC12</td>
<td>103-106</td>
</tr>
<tr>
<td>245</td>
<td>Talosoft</td>
<td>Operational Art of War</td>
<td>20</td>
</tr>
<tr>
<td>107</td>
<td>THQ</td>
<td>Kiss Masters Classic</td>
<td>117</td>
</tr>
<tr>
<td>152</td>
<td>THQ</td>
<td>Brunswick Bowling</td>
<td>209</td>
</tr>
<tr>
<td>153</td>
<td>THQ</td>
<td>REDACK</td>
<td>229</td>
</tr>
<tr>
<td>185</td>
<td>Thundersoft Technologies</td>
<td>Thundersoft</td>
<td>163</td>
</tr>
<tr>
<td>88</td>
<td>Total Entertainment Network</td>
<td>PCGI</td>
<td>237</td>
</tr>
<tr>
<td>252</td>
<td>Virgin Interactive Entertainment</td>
<td>C&amp;C Tiberian Sun</td>
<td>190-191</td>
</tr>
<tr>
<td>251</td>
<td>Virgin Interactive Entertainment</td>
<td>Dawn of War</td>
<td>114-115</td>
</tr>
<tr>
<td>215</td>
<td>Virgin Interactive Entertainment</td>
<td>Lands of Lore III</td>
<td>94-95</td>
</tr>
<tr>
<td>205</td>
<td>Virgin Interactive Entertainment</td>
<td>Recoil</td>
<td>16-17</td>
</tr>
<tr>
<td>101</td>
<td>Yamaha Corp. of America</td>
<td>Waveforce</td>
<td>156</td>
</tr>
</tbody>
</table>
She Got Game
Or, Why My Kid Will Crush Your Kid at WarCraft IV

one of the greatest things about being the parent of a young child—other than not ever sleeping and cleaning up vomit, of course—is the chance to practice total mind control over another human being. Think of it as the ultimate real-time strategy game, one with more micromanagement and combat than anything you can possibly imagine. You think a StarCraft zealot rush is tough? Wait until your kid is standing naked on the kitchen table, covered in finger paints, eating fistfuls of sugar out of a jar.

Before you venture on the road to parenthood, however, there are a couple things to keep in mind. First, you're going to have to find someone who wants to have sex with you. This can be a problem, especially for gamers. Second, once you do find someone who's willing to, you know, get busy, you're probably going to have to get into this whole relationship/marriage thing, which can be inconvenient and a real pain if all you really want to do is play on battle.net all day. Plan on hearing all sorts of stuff about "sharing feelings" and "paying attention" to your partner. Alternatively, you could invest in a really good pair of headphones.

Anyway, once you get past these hurdles, you're in for quite a treat. Just imagine it. You, probably kind of a dork, all of a sudden in control of a completely innocent and trusting little mind, to mold it as you see fit.

Thus, at the age of four, my daughter, Sarah, already has in her brain—thanks to my careful tutelage—an assortment of useful facts, such as: Batman could kick Superman's butt any day of the week; Volvo drivers are lane-hogging, turn-signal-ignoring doodyheads; and, for sheer entertainment value, you can't ever really beat a loud belch at the dinner table.

But, by far, the most important thing that Sarah has learned from me is that computer games are cool.

Ever since she was little baby, Sarah has sat on my lap while I've been parked in front of my computer working on one of my "research projects" for CGW. And I've done this because, as a responsible parent, I knew it was best for her. She needed to know. She needed to get The Love. Learning to cast Bloodlust on Ogre Magus in WarCraft II—this is a crucial life lesson you are never too young to learn. I worked ceaselessly at this, only getting up when one of us (I'll let you decide which) needed a diaper change.

Now, all that effort has paid off. In a mere few years, I have successfully transformed a vibrant, curious, enthusiastic young child into a glassy-eyed zombie that stalks vacantly into the computer screen for hours on end, oblivious to the world around her. In the last year or so, she's been utterly game-locked by one title after another (especially Humongous Entertainment's awesome Putt Putt Saves the Zoo), while completely ignoring the repeated commands to come to the dinner table or get ready for school or go to bed.

"I have successfully transformed an enthusiastic young child into a glassy-eyed zombie!"

And you know what? My kid's going to be ready. And so will I, for the petty one-upmanship that happens after people procreate. At one recent upscale-type kindergarten meeting (at which they served cappuccinos in Little Mermaid juice cups), I had to listen to some insufferable dad crow about how his son Eggbert was the next coming of Bill Gates, he was so darn smart on the computer. Finally I could stand it no longer. I spoke up.

Me: Sarah's been using the Mac since she was one.
Jerk: Oh, really? It took that long? Weird. Eggbert was seven months old when he first booted one up. Maybe you

should see a child behaviorist. Me: I said Sarah was using the Mac since age 1. She was coding on mainframes since she came out of the womb. Are you sure your son doesn't have some kind of learning disability?

Jerk: I see she still puts the mouse in her mouth, though—that's cute.
Me: At least my daughter has a mouth. Your son, he's like half ferret here, or what?
Jerk: How about if I kick your ass right now?
Me: Bring it.

So, you see—I really had no choice. Turning my kid on to computer games was not a lazy indulgence, but the simple reality of preparing her to compete in a world full of shockers. And, I admit it: Seeing her run into the house and make a beeline to the computer—just like her daddy—makes me so proud!

Now, maybe if I keep pushing it, she just might be the first kid in her nursery school to get carpal tunnel syndrome.

What is a man without his dreams? CGW

What Jerk doesn't realize is that while his kid has been playing games, all the other kindergartners have been studying abstract analysis and Sartre. Give him hell for his shoddy parenting at fgreen@zd.com.
INTRODUCING THE

Dirty 1/2 Dozen
24 missions throughout Europe and Africa

You're in control—Commandos work for you!

<table>
<thead>
<tr>
<th>Name</th>
<th>Sld Perkins</th>
<th>A.K.A</th>
<th>Tread</th>
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<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Name</th>
<th>Rene Duchamp</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>Aside from an absolute hatred toward Nazis, quite an amiable character. Speaks five languages fluently. Great with women.</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Name</th>
<th>James Blackwood</th>
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</tr>
</thead>
<tbody>
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<td>Dissolute character. Vows to have alcohol problem under control. Could figure out a way to make an anvil float.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COMMANDOS
BEHIND ENEMY LINES

Detonating this summer

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Even if you get killed in the process.

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