

The #1 Computer Game Magazine

# Computer Gaming World

AUGUST 1997  
NO. 157

200+  
Games Rated!

WORLD'S BEST

# STRATEGY

## SID MEIER'S GETTYSBURG!

**Scoop!** Real-time Combat from  
the World's Best Game Designer



## GAMES



**Exclusive Preview!**

## Panzer General

The Sequel to the World's  
Best-Selling Wargame!

## JAM-PACKED ISSUE

- ▶ **21 Tough Reviews**  
*MDK, Ecstatica II, Redneck Rampage, Need for Speed II, Blood, City of Lost Children, and more!*
- ▶ **12 Pages of the Hottest New Flight Sims and Tactics**
- ▶ **X-Wing vs. TIE Scenario Strategies**
- ▶ **Last Express Hints**

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www.computergaming.com

**CPU SHOOTOUT! WE TEST 7 HOT PROCESSORS**

Who wants some Wang?

More levels than a Tokyo stripper



Kenji, bulldozers, herbs, tortillas. Oh, yeh. Kill



Head to toe combat moves. Kick butt karate style



Shadow Warrior is here. Lo Wang,  
 n1 Assassin. n1 Yakuza abuser.  
 n1 Freak fragger. n1 Mutant mutilator.  
 n1 reason to be scared of the dark.  
 n1 Son-of-a-Bitch. So say Sagunara to  
 all the Ninja wannabes that have gone  
 before and put on your combat sandals...  
 Lo Wang is coming to the Land of  
 the Rising Sun to turn out the  
 lights. Shadow Warrior.  
 The Zen is going  
 to hit the fan.

*"There's no doubt that  
 Shadow Warrior  
 creates the competition."*  
 GameStar Weekly



Fog, multi-colored lighting, landscape  
 water...Jah! Jawbreaker.



More n1-jicks, Lo-Wang speak, and  
 total intermission than Duke Roberts 3D



n-Prager Blawburg (Deathwatch), Dr-Bly and Team  
 Fog modes with all-new handcuffing option.

Threading stars, kites, 4-barrel shotgun and more

Scale, climb, drive, go anywhere, do anything!

Returning 3D gun terrorists to mass damn enemies



FRESH FROM THE CREATORS OF DUKE NUKEM 3D™

# Lo Wang is SHADOW WARRIOR™

GET YOURSELF A SLICE OF  
THE ACTION IN STORES...NOW!  
or download the shareware at  
[www.shadowwarrior.com](http://www.shadowwarrior.com)



3D-new David Effner for designing  
and designing your next masterpiece



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SHADOW



WARRIOR™

★★★★★ REVIEW • JACK NICKLAUS 4



# Double Eagle

*Accolade Drives to Perfection With the Stunning, Deep Jack Nicklaus 4*

By Scott A. May

**D**ubbed by many as the "golfer of the century," Jack Nicklaus is truly a legend in his own time. So it's only fitting that the latest computer game to bear his name, *Accolade's JACK NICKLAUS 4*, should be the preeminent golf simulation of our time. Nearly everything you could ever hope for in a golf game is included in this comprehensive package: It's an absolute model of perfection.

## PRO SHOP

Think what you get in JN4 (take a

deep breath): five 18-hole courses (Colleton River Plantation, Country Club of the South, Mumfords Village, Cabo del Sol, and the fictional Winding Springs), eight play styles, a full-blown course designer, a course converter (for importing JNSE courses), and a choice of four multiplayer modes (serial, modems, LAN, and internet). The only thing missing is post-game cocktails at the clubhouse.

Pre-game options include course, game length, golfing buddies (with updated stats), a choice of caddies, gimmies, mulligans, and weather conditions (rain, fog, or clear). Three of these options can be further defined: clearing

log, maximum distance for games, and total number of mulligans allowed per round.

The real kicker is the variety of available game styles, the most of any golf sim on the market. These include Best Score Championship, Best Score Handicap, Stroke Play, Match Play, Sudden Death, \$1 Million Skins Challenge, Brigo Banga Bongo, and Certified Game (recorded Stroke Play for deferred mail or email matchups).

Graphically, JN4 meets or exceeds anything on the market, including Access Software's *LINUS LS*. Accolade uses a proprietary height-mapping engine to achieve incredible terrain scal-

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www.accolade.com



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## Roll Your Own



**PACKIN' THE TOOLS** Everything you need to design new links—or modify existing ones—is at your disposal in JN4's unsurpassed course architect.

In real life, Jack Nicklaus is in semi-retirement, playing only select senior tournaments. Far from inactive, however, St. Nick devotes much of his energy to course designs. To this end, I can't think of a better testament to his architectural prowess than *Jack Nicklaus 4*'s superb course designer. Modeled after Nicklaus Productions' own CAD system, the course architect is amazingly robust.

It can also be daunting, particularly for first-time designers eager to duplicate their favorite links. For this

reason, Accolade devotes about two-thirds of the game manual to course design, including tips, tricks, and a step-by-step tutorial. There's also a built-in design wizard, which automates many of the tedious tasks for beginners.

Starting with a flat piece of land, you build your course from the inside out, applying fairway shapes and greens, setting pars and handicaps, and arranging your overall layout with an eye for natural continuity. Next, line-tune each hole with variations in shape, elevation and terrain type. From there, a plethora of tool palettes are available to customize your basic design: trees, bushes, rocks, bunkers, lakes, streams, cart paths, objects, sky, and horizon. Using CAD-style boundary points, everything on the screen can be moved or resized using simple drag-and-drop mouse commands.

Auto-rendering lets you see in precise detail how your designs will appear during play. Not only that, but every change is instantly updated in the rendering window. Every square foot of your course can be viewed from virtually any distance or angle.

A few faults are readily apparent: There's no option for importing user-created objects or sounds, and no way to automatically tile view windows on the screen. Finally, there's no provision for testing your design as you go, except to save, exit, and load the unfinished course into the game. These deductions aside, however, the course designer is a powerful, versatile tool guaranteed to give this product long legs in the marketplace.

ism. For the real-world courses, aerial fly-bys enabled the designers to accurately detect land elevations within six inches of sea level at 1x1 foot intervals. The underlying engine then calculates variables such as light source shading, shadows, and reflections, resulting in the most organic-looking terrain I've ever seen. In fact, look closely and you'll see that the terrain even shades itself—proof positive of the game's subtle but utterly mind-blowing attention to detail.

Because golf is such a fast-paced sport—OK, I'm being sarcastic—JN4's screen redraws are markedly quick. Technically, it's incredible, considering that nearly two-thirds of what you see is 3D-rendered terrain, unlike LEAS LS, which relies much more on a 2D painting horizon to fill the screen. Of course, overall speed is still reliant on hardware factors, such as processor speed, system and video RAM, graphic detail, and screen resolution. JN4 rewards gamers with more than 20MB system RAM, and will run at whatever maximum resolution and color depth your video card supports. Those with less-than-

optimal hardware can decrease graphic detail, and run the game in a window using 16- or 8-bit color.

**ON THE GREEN**

Gameplay offers maximum control with minimum interference. Each stroke consists of three easy steps. Click once for the onscreen aiming arrow; click again to set, and again to start the swing meter in motion. The designers use an overlaid swing meter with visual "sweet spots" for both power (backswing) and accuracy (contact point). Player stance is automatically calculated in the aiming process, which allows you to manually adjust for distance, trajectory, and swing intensity. The swing meter also reflects whether the shot is a drive, chip, or putt.

The game's physics model is incredibly flexible, automatically adjusts to atmospheric conditions for the flight path, and astiduously reacts to objects and terrain upon landing. For example, a ball striking the trunk of a tree will react differently than one hitting the branches. For a dramatic demonstration of the game's physics model, by designing a hole using cart path as the primary surface, then watch as a 100-yard drive bounces clear into the next country.

Although JN4 doesn't utilize Direct-Draw for graphics, it employs both DirectPlay for its multiplayer modes, and DirectSound for its rich aural ambience. The sound is so detailed (about 32MB worth) that the designers are able to assign the correct bird calls to each region.

Other goodies include the ability to best your low score by playing against previously recorded records. Adjustable views also let you see the course from any angle, down to one meter above the ball, which is helpful for lining up difficult putts.

**HOOK SHOT**

Unfettered ladies aside, there's a few dark clouds on JN4's horizon. Talk about system shock: Typical installation requires a whopping 171MB chunk of your hard drive. As if anticipating consumer resistance, Accolade makes absolutely no mention of this fact on



**SWING TIME** Unlike other golf sims, JN4's controls are unobtrusive and easy to learn.



**ALL NATURAL, NO FILLER** JN4's proprietary height-mapping engine yields unparalleled realism.

**Course Conversions and Web Sites**

**T**alk about getting your money's worth! If you're an avid golfer, Jack Nicklaus 4 may well be the deal of your dreams. Not only do you get five courses and a built-in designer, but you'll also inherit what amounts to an instant library of thousands of custom-designed links. JN4 has the ability to import and convert courses created with its predecessor, Jack Nicklaus Signature Edition.

All you need is a modem and access to the Internet or other major online services, including America Online, Compuserve, and Delphi. There you'll find enough courses to make your putter flutter indefinitely. The conversion process only transfers terrain shapes and elevations, so you'll have to add objects such as trees and bushes. But that's a minor chore and a heck of a lot easier than starting from scratch.

Below is a list of only a few top Web sites offering hundreds of JNSE courses, available as free downloads. Each site was confirmed as active at the time of this writing:

- JNSE Fantasyland  
<http://users.aol.com/h4725/jnse.htm>
- The Linksland  
[http://jgansen.com/~brent\\_blackburn/jnse.htm](http://jgansen.com/~brent_blackburn/jnse.htm)
- The Wild Onion  
<http://www.onion.com/jnse.htm>
- Golf Paradise  
<http://www.gpocities.com/TheTropics/1113/>
- Steve Opler's JNSE Golf Page  
<http://www.inli.net/~opler/golf.htm>
- Chris Ferguson's JNSE Courses  
<http://www2.netquest.com/~m01akes/cjnses.html>
- Brian Silverman's Golf Course Designs  
<http://members.aol.com/bsilvermail/index.htm>

the box or in the manual. Also, each 18-hole course you create zaps an additional 10MB or more.

Minor quibbles also include the animated grid overlay used to gauge terrain grades. The grid turns off between shots—an annoying oversight. And "animated"? Slowly draping over the ground isn't a feature worth bragging about.

Still, from play mechanics and graphics rendering to course design and multiplayer capabilities, JACK NICKLAUS 4 is one of the most well-crafted games—of any genre—that I've seen in years. ☺

**FAPPEAL:** Computer golfers of all experience levels.


**PROS:** The best graphics of any golf sim to date; the user interface and course editor are models of perfection; excellent choice of multiplayer modes; free custom courses galore.

**CONS:** High system requirements; typical installation eats 171MB from your hard drive.



# Elements: New

(Centauri Galaxy)

<b>Fe</b> Fear .0082						
<b>Ex</b> Extinction .0149	<b>Su</b>  Suffocation .002					
<b>Re</b> Rebellion .001	<b>It</b> Intellect .999	<b>Gm</b> Global Maps .703	<b>Mp</b> Multiplayer .1005	<b>Sv</b> Survival .703	<b>Tc</b> Tactics .0202	<b>Ad</b> Adrenaline .290
<b>Gm</b> Combat .03	<b>Sa</b> Sabotage .011	<b>Ct</b> Construction 0.000	<b>Ev</b> Evacuation .302	<b>An</b>  Anxiety .0406	<b>Cd</b> Command .105	<b>SE</b> Seismic Ex .505
<b>M</b> Morale .171	<b>Fi</b>  Fire .199	<b>Me</b> Meteor .52	<b>Vc</b> Volcano .995	<b>Wr</b> Wreckage .408	<b>Cnf</b> Confrontation .002	<b>Ms</b> Mission .0849



Element of Surprise



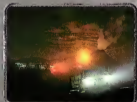
Element of Danger



Element of Destruction



Element of Dissolve



SYNTHESIS

# Terra > Outpost 2

				<b>Si</b> Science Fiction .371	<b>Tn</b> Teletatooons .034	<b>Ae</b> Atmosphere .071
<b>Cn</b> Colonists .03	<b>Rt</b> Real-time .011	<b>A</b> Action 0.900	<b>Cp</b> Competition .302	<b>Ds</b> Disaster .0408	<b>Pn</b> Panic .105	<b>Ti</b> Terraforming .0408
<b>M</b> Magma .12	<b>Me</b> Microbe .118	<b>Ps</b> Psychosis .9054	<b>F's</b> Fusion .5005	<b>D</b> Danger .0054	<b>Cg</b> Compags .0202	<b>Va</b> Vacuum of space .290
<b>g</b> Gopher .03	<b>Mi</b> Mining .081	<b>Di</b> Discovery .081	<b>Rs</b> Research .032	<b>Dn</b> Desperation .217	<b>BC</b> Balance .1003	<b>Dn</b> Day and Night .055
			<b>Cy</b> Conspiracy .111	<b>St</b> Strategy .1005	<b>T<sup>n</sup></b> Technology .071	<b>Ak</b> Attack .0334



Element of Captain Death

Earth is a distant memory. All that remains is a handful of humans who choose to follow you to the stars. Getting here was the easy part. Now you must battle time, culture and the alien race to save your people from certain annihilation. Survival is just the beginning.

**OUTPOST 2**  
DIVIDED DESTINY™



SIERRA®

# Computer Gaming World

COVER STORY

## Sid Meier's Gettysburg

**66** Sid Meier, the creative genius behind what many consider the greatest game of all time—*Civilization*—is charging back with a real-time, historical wargame that will blow you away. Reviews Editor Terry Coleman reports from the front with an exclusive hands-on look.



### FEATURES

## Panzer General II

**76** **PANZER** GENERAL is the reigning king of wargames on the PC.

Now SSI returns with a picturesque sequel that seems to have preserved the fun while increasing the realism. We think you're going to love it!



## Air Combat Summer Part II

**82** There are more flight sims coming out this year than you can shake your joystick at. In Part Two of the series, Denny Adkin hunts down more than 20 top guns.



### HARDWARE

## CPU Roundup: The Need for Speed



**116** For the first time, processor dominatrix Intel faces real competition from Cyrix and AMD. Technical gurus Dave Salvator and Loyd Case tear into seven new CPUs and tell you who comes out on top.

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Stupid Racist Tricks in Soccer Women  
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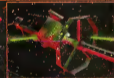
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HE MEDIEVAL CATHEDRAL OFTEN SERVED AS A CENTER FOR LEARNING. THIS IS GOING TO BE A VERY PAINFUL LESSON.

The Four Horsemen of the Apocalypse lurk in the shadows before you. And they are not alone. Eidolon, the last-known Serpent Rider, lives. All of humanity has fallen to the archfiend and his Hell-spawned hordes. As the Necromancer, the Assassin, the Crusader, or the Paladin, you must put an end to this ravenous onslaught. But first, you must defeat the Dark Generals. Each of them awaits your arrival separately in one of four demon-infested worlds. You will know them when you see them. They will be Death, Pestilence, Famine and War. Will you be the teacher? Or the student?



• Possess distinct spells, powers and weapons.  
With experience, gain levels: more hit points and certain abilities that apply to your specific character class, such as increased speed, fire power and jump distance.



• Lose yourself in lightning storms, blowing leaves, earthquakes, spraying fountains and pouring rain.



• Hedgehog your way through four demon-infested worlds — Medieval, Egyptian, Mesopotamian and Roman. Smash stained glass windows, collapse structural beams, pulverize trees and shatter eggs.

HEXEN II  
THE BEGINNING OF THE END.









Anne and Pete use the  
same program.  
But they do not use the  
same platform.  
How? How can this be?

They have 100% Pure Java.<sup>™</sup>  
It works with the platforms  
they have.

Anne and Pete are happy.  
They can work.  
Work, work, work!

u-nique mul-ti-plat-form lan-guage

u-ti-li-zes cur-rent hard-ware

sim-pli-fies ap-pli-ca-tion de-ploy-ment



Pure and Simple.

To see how leading banks, freight carriers and telecom firms use  
100% Pure Java, visit <http://java.sun.com/100percent/benefits.html>  
or simply call us at 1-800-JAVASOFT.

BREWED BY



# Annual Wargame BlowOut!



If the Golden Age of Wargaming isn't quite here, it's close enough to smell the cordite on the battlefield. After you've finished reading about *Panzer General II*, fire up our exclusive demo and watch as your screen unfolds some of the best graphics ever to grace the PC.

Our wargame blowout continues on this month's CG-ROM via land, sea, and air. Test your sailing mettle with a new *Wooden Ships & Iron Men* demo, along with new *WS&M* scenarios, courtesy of Avalon Hill.



**Panzer General II** SSI



**Wooden Ships and Iron Men**  
Avalon Hill

Ready for a little heat in the Pacific? Check out the coming attraction of SSI's *Panzer General*, then jump into the interactive

*Onyxus* in the *Mist* demo from HPS Simulations.

Or, if European fare is more to your taste, a discerning wargaming palate will appreciate the Custom Terrain Set for *Panthers* in the *Shadows & Tigers* on the *Panzer 2*. And if you're already a *Tigers* fan, but

need an additional fix, try the additional scenarios and training missions, courtesy of HPS, Nick Bell, and Martin Repet.

If all this leaves your brain swimming, or you just need a change of pace, the CG-ROM takes you on a 19th-century tour with brand-new demos of ISI's real-time *Cerberus* the *Alamo*, along with the more traditional turn-based *Zulu/Wal* and *Custer's Last Command*—all clever, brisk recreations of lesser-known conflicts. And for more famous battles, take command as Robert E. Lee in *BisonSoft's* *BattleShrouder: Bull Run*, or battle *Cossacks* in *Napoleon in Russia*.

Finally, if you're having trouble emerging victorious in C&C: *Conquest*, do a little reconnaissance with our handy battle maps, courtesy of Westwood and Brady Games Publishing.

Tired of playing by the rules in heavy traffic, or waiting for frolicking pedestrians to clear the crosswalk while the light is still green? *Carnagoodon* may be just the therapy you need. The rules mean nothing in Interplay's action-arcade racing game, which pits you against merciless drivers in a bloody race for your life. Although the demo is timed and limited to one track, you'll have plenty of fun racking up artistic and creative points for obliterating your competitors. Earn extra style points for combo kills as you chase down and mutilate innocent bystanders along Main Street. Want a plot? Read a



**Pacific General SSI**

book. Want some fast action and mindless fun? Get behind the wheel.

In *Tribe Hospital*, BullFrog gives those people boosing that they could do a better job managing the healthcare system the opportunity to prove it in this excellent game of strategy and micro-management. Although your selection of doctors and nurses for hire is limited in this demo, *Tribe Hospital* supplies plenty of patients with a plethora of odd ailments. All you



**Napoleon in Russia** TauriSoft

have to do is... everything! From building and supplying the offices and hiring the staff to researching cures and staving off death, the fate of the hospital is in your hands.

*Burr A Move 2* is an easy-to-play, difficult-to-master, addictive *Terminator*-style game from Acclaim. How many tries will it take you to bust all the bubbles and advance to the next level?



**Carnagoodon** Interplay

LAUNCH BRIEFING

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CIRCLE READER SERVICE #266



Bust a Move 2 Acclaim



Carmageddon Interplay



Theme Hospital BullFrog/Origin

## How to Use the Disc

If you have Windows 95, the CD is Autoplay enabled—Just look 'n' load. Otherwise, select Run from the Program Manager in Windows 3.x, 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. 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.

## How to Access Patch Files

Click on Patches under the CGW Features. The text window has instructions on copying the files to your hard drive. You can also

access the patches from a DOS prompt by typing D:\PATCHES and copying them directly to your hard drive. We strongly recommend that you back up any previously saved games before installing a patch, as this may overwrite your existing program.

## To Subscribe

To subscribe to the CD-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@neodata.com. Neodata is a magazine fulfillment house which is not owned or operated by Ziff-Davis.

## AUGUST CD-ROM TITLES

TITLE	PLATFORM	DIRECTORY	EXECUTABLE
Demos	Platform	D:\Demos	Executable
Ardennes Offensive	95	ARDENNES	SETUP.EXE
Atlantis	WIN/95	ATLANTIS	DEMO.BAT
Battleground 6: Bull Run	WIN/95	BGBRDEMO	SETUP.EXE
Battleground 7: Napoleon In Russia	WIN/95	NIR_DEMO	SETUP.EXE
Bust a Move 2	00S	BAM2DEMO	INSTALL.BAT
C&C: Countersnake Maps	WIN/95	MAPS	ACROBAT3/README
Carmageddon	DOS	INTRPLAY/CARMDemo	CARMDemo.BAT
Custer's Last Command	DOS	CUSTER	CLCDEMO.EXE
Defend the Alamo	DOS	ALAMO	OTADMO.EXE
Defiance	WIN	DEFIANCE	DEFIANCE.AVI
Dragons in the Mist	DOS	DRAGONS	DRAGONS.EXE
Engage: Snows Online	95	ENGAGE	ENGAGE.EXE
Movie Mogul	WIN/95	MOVIE	HMTRIALV.EXE
Oddballz	WIN/95	ODDBALLZ	SETUP.EXE
Pacific General	WIN	PACIFICG	PCPNL32D.AVI
Pathfinder in the Shadows: Scenarios	N/A	SCENARIO/TRAINING	N/A
Panzer General II	95	PG2DEMO	SETUP.EXE
Patches	N/A	PATCHES	N/A
The Zone	95	GAMEZONE	GAMEZONE.AVI
Theme Hospital	DOS or 95	HOSPITAL	DOSSETUP/SETUP.EXE
Tigers on the Prowl 2: Scenarios	N/A	SCENARIO/TDP2	N/A
Winter Terrain: Scenarios	N/A	SCENARIO/WINTER	N/A
Wooden Ships & Iron Men	DOS	WOODEN	INSTALL.EXE
WS&M: Scenarios	N/A	SCENARIO/SHIPS	N/A
Zulu/War!	DOS/WIN	ZWDEMO	SETUP.EXE

# Achtung™ Spitfire

... puts you in the skies in defense of Britain

September 1940: British coastal radar reports a Luftwaffe squadron of Heinkel HE111s coming from the south and heading toward London. Another group of German Junkers JU87 dive bombers is approaching from the east.

This is just one of the battles you'll fight in the skies over Britain and France. As a British Squadron Leader, you decide which pilots to scramble and plot their course and altitude as you try to intercept German raids. As a German Squadron Leader, you plan the aircraft composition of each raid, and select its target, course and timing.

- Play against human opponents over the Internet or hot-seat. Cross platform compatibility - PC to Mac and Mac to PC.
- Computer opponent uses Avalon Hill's *Over the Reich*™ "excellent AI" (Computer Gaming World)
- Dozens of single Dogfights and Combat Missions, as well as challenging Tours of Duty.
- 5-levels of game difficulty: Work your way up from Lieutenant to General.
  - Individual pilots rated for personal experience and combat skills.
  - Video clips of actual war footage highlight events like takeoffs and engagements.

## EXTRA!

Based on the award-winning *Over the Reich*™, rated 4 1/2 stars by Computer Gaming World ... called, "one of the best W.W.II games we've seen, period ..."  
Computer Games Strategy Plus



Fly out of the sun to bounce the raiders before they drop their bombs



Avalon Hill  
Game Company

DIVISION OF MONARCH AVALON, INC.

4517 Harford Road, Baltimore, MD 21214  
410-254-9200 • Fax: 410-254-0991  
<http://www.avalonhill.com>

Available at your favorite computer game retailer or call us:  
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CIRCLE READER SERVICE #106

WILL YOU EXPLORE NEW LANDS? OR  
WILL YOU AMASS GREAT RICHES? OR WILL YOU  
CONQUER EVERYTHING IN YOUR PATH?

AHH...YES.



# AGE of EMPIRES

Choose your favorite form of world domination. Coming this fall.

[www.microsoft.com/games/empires](http://www.microsoft.com/games/empires)



# Imitation: Flattery or Mockery?

## “Follow the Leader” Game Design Is Entropic

**I** am beginning to see a pattern emerge. I first began to notice this while visiting a game company that had previously led the industry with innovative technology and products. But on this trip, most of what they were showing me fell into two “Me, too!” categories: first-person perspective 3D-shooters and real-time strategy games. At that point, I was aware of 24 real-time strategy games and 10 first-person shooters already in development. Yet, I grinned and bore it through their presentation. I then visited a game company that was not only rumored to be, but very evidently was in trouble. Their solution? To put out three first-person shooters and three real-time strategy games. Finally, I visited a relatively new player in the publishing mix. Their strategy? To choose four real-time strategy games to be the centerpiece of their new line.

Now, before you claim that I’m merely skinned because, with some exceptions, first-person shooters and real-time strategy games aren’t my style, let me simply state that I would say what I’m about to say even if every one of these games was a *SuGrim* clone (my favorite game of all time) or a *Civilization* clone (my second favorite game of all time). Ironically, I have voiced similar sentiments in the past when *SuGrim* and *Civilization* were being imitated, and perhaps more vociferously when *Myst* (a game that never

struck fire with me) was the design paradigm du jour. Yet, even those iconic products were not limited in anywhere near the quantities that today’s “Me, too!” products are being copied. Today, there are

“Why are publishers willing to pour millions of dollars into “Me, too!” products when they won’t take even small risks on innovative games?”

almost 15 first-person shooters in the works, and in excess of 50 real-time strategy games in production.

Do the math. How many hits does the industry generally support at a time? Let’s be generous. Let’s say there are a dozen games making money at any given point. Let’s be extravagant. Say there are 20 or 30. How many of them will be the same style of game? How many gamers walk into a store with the intent of buying two games and walk out with

two games of the same style? Given such a choice, even hard-core wargamers who only play turn-based games would probably opt for an advanced difficulty game and a “beer and pretzels” level game. How then, do companies expect games with roughly the same style of graphics, on-screen perspective, and similar play mechanics to break through the noise and capture the imagination and discretionary spending of a critical mass of gamers? We think many gamers will say “I’m not going to buy any of these games until someone with credibility tells me it’s better than *WarCraft II* or *C&C: Red Alert*.” Gamers not only like winning, they want to play the “winner” in a given category, too.

At the recent Computer Game Developers Conference, we heard producers of potential hits in the real-time strategy game category suggest that the success of their games may be diminished by the market glut. Even good games stand to be hurt by mediocre “Me, too!” products. What eventually results is that fans of that particular game style are the big losers when publishers act like lemmings and ultimately claim that real-time strategy doesn’t work anymore.

Call me foolish (it won’t be the first time), but I can’t understand why publishers are willing to pour millions of dollars into “Me, too!” products, but aren’t willing to take even small risks on innovative games. Even in Hollywood, we see the occasional independent show up with a “title” film that makes more revenue than a

disappointing “big” movie. Why aren’t computer game publishers as interested in finding great “title” games as they are in funding multi-million-dollar disasters? Why aren’t they investing in distinctive products rather than playing “Follow the Leader”?

The answer is fear. A publishing executive who greenlights a real-time strategy game can secure in the fact that every other publishing executive is greenlighting real-time strategy games, too. If the game fails, the executive can point to all of his peers and say, “We thought it was the time for ‘real-time’ strategy games, but we were all wrong.” After all, there are going to be a lot of these games that will fail. If the same executive greenlights an epoch role-playing/strategy game or a huge persistent world online game that fails, all of the lemmings will be pointing at that individual executive. “You’re the only one who thought that could work,” they will say. There really is safety in numbers.

As for me, I keep hoping that some publishing executive will find some courage. That’s what keeps me in this job. Just when I think there’s never going to be any more innovation, someone brings out a game that does something I’ve never seen done before or allows me to do more than I ever thought possible. Of course, there’s always the risk that the lemmings will have 100 clones just like the new hit on the market next year. **6**



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## LETTER OF THE MONTH

## MYST-DEFYING REACTION

Thank you for publishing your reasons for dishing MYST (June, '97). I had detected a subtle dismissal of the game in your writing for a long time, and I could not pinpoint why. Great! Allow me to differ with your points.

*MYST is popular despite the game's lack of game design quality. Yep, any product that sensibly promises to "become your world" has an uphill fight to gain admiration, but MYST became my favorite game despite the hype.*

*Fighting and motion were slow. Yes, they were painful, but worth it. It was actually not MYST, but other games, that forced me to upgrade.*

*There are no characters to interact with. Maybe Sir Derek Jools can make trips sound like poetry, but Tex Murphy and King Graham do not. So there are no characters to interact with? Thank you, Miller brothers! Encountering their funny original characters is a rare treat. Since I don't expect humor from a mystery story which gradually reveals the depravity of two madmen, MYST's lack of interaction is little sacrifice.*

*The puzzles are illogical. Yes, you do wander around trying to figure out what to do. But illogical? Fascinating worlds have been discovered and organized by a brilliant eccentric, so the player visits ordered worlds whose hidden, particular method of order provides a sense of wonder and excitement over what the next screen may bring.*

*Emphasis is on pretty and empty graphics rather than game design. That's like complaining that Notre Dame Cathedral is boring to visit because it doesn't have enough candles to light. MYST was amazingly innovative. It was the first game I encountered that used surreal clues. It was the first to have both detailed and imaginative graphics.*

*The game designers slept with your spouses. Oops. MYST kept me too obsessed for a few months in 1993 to notice. Now, where is that lawyer's number.?*

Well, that's the nuptial. Here's the chair I have been meaning to write for a while.

Continued on pg. 21MM



## TURN OF THE SCREWDRIVER

Mr. Wilson, in his efforts to explain the pervasive bugs in new games (CGW editorial, June, '97) mentions "screwdriver shops" (local computer stores that assemble machines with components du jour, often resulting in systems with configuration anomalies). Well, that may be the situation in some areas, but I find the reverse to be more the case. With the advent of companies such as ACER, Packard Bell, Hewlett-Packard, and others now promoting such things as Pentium 133 systems for as low as \$795.00, companies such as mine find ourselves in a difficult position as far as price competition goes. How do we compete? We build better systems! We don't use the old Triton chipset motherboards and fast page-mode RAM with low-end, noisy, self-destructing hard drives, nor do we use old S-3 graphics cards and cheap SoundBlaster-16-compatible sound cards.

Instead, through trial and error and constant research, we build fast, reliable machines with the hardware combinations that have been proven to work well in conjunction with each other. We have to support these machines locally and are married to them if we want to keep both our customers happy and our reputation intact. Without demeaning others' products, we must explain the difference in proprietary hardware and operability. The average consumer hasn't a clue as to the difference between a P-133 system for \$795.00 and a P-133 system for \$895.00. The power user or gamer will spot the performance difference right away, even if he doesn't know the first thing about hardware, software, and system configurations. The less experienced user cannot.

Would you please print something a little more complimentary

about us "Screwdriver shops"? Better yet, how about doing an exposé on the new low-cost Pentium systems and reveal the truth for all to see.

Michael  
R. Smith  
Sunrise, Florida

Johnny Wilson responds: *The intent of the editorial was not to denigrate "screwdriver shops." Indeed, I also singled out Dell, Gateway, and Micron in the same paragraph for missing components. Since I'm very happy with my Micron, I wasn't trying to dispense any of those sources. The point was simply that it is not possible to test all Dell, Gateway, and Micron configurations for every game, much less to test the many "screwdriver shop" configurations. I was merely trying to show how large the bug-choosing problem is. The article was on playtesting, not on where to purchase your hardware. By the way, we don't recommend that a gamer buy a P-133 anything at this point in time. By early '98, the P-166 will be the bottom-line game platform.*

## Oops, We Goofed

In our recent Speaker Roundup (June, '97), we incorrectly identified Diamond Audio Technology as Diamond Sound, and to make matters worse, we called its CG-Choice-winning S2-PM4050 system the S2. We apologize for any confusion this may have caused.



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Johnny Wilson offers credibility, insight, and an air of erudition to an industry littered with self-satisfying embarrassments like *KRUSE KILL*, *N' DESTROY*, *Martin Cirulis* has a feisty viewpoint that is as welcome as it is embracing. *Lloyd Case* and *Dave Salvatore* are outstanding on technology and obviously do their homework. *Charles Auda* is always worth reading regardless of the product under review because he flat-out writes the consistently best prose of any game reviewer I know. And thanks for the editorial acumen that elevates the whole hobby by publishing William Tutter's apologies several months ago.

In short, despite your *1875* trope, it takes for ten-plus years of consistent excellence. May you never run out of red or blue pages.

Albert Thom  
Lansdowne, PA

## RAMSES SPEAKS

I recently read Robert Coffey's review of our game, *POWERSLAVE* ("Ramses Reeks," May '97), and felt compelled to respond on behalf of Laboratory Software. As a developer, we realize not everyone is going to like our game, but we hope that our efforts will have, at the very least, turned out a product that is fun to play. Mr. Coffey raises some good points in his review, and also tosses around some pretty damning condescensions ("In a staggering display of bone-headed game design, *POWERSLAVE* manages to botch almost every aspect of gameplay through an welcome 'Features,' klug mutation, and an unexplainable inability to fully utilize *Duke NUKEM*'s outstanding *BUILD* engine.") in regards to the game.

Don't get me wrong—as much as I disagree with the above quote, I'm not writing to you to say "Hey, what are you talking about, *POWERSLAVE* is a great game! It deserves four or five stars, you creep!" First of all, we here at Laboratory are the first ones who will tell you that *POWERSLAVE* should have been released much earlier, possibly even before *Duke NUKEM*. As a result, *POWERSLAVE* shows its age.

Our game uses a version of *BUILD* even older than the one used in *Duke*

*NUKEM*, which of course makes it look bad next to *Duke*—and even worse compared to *Quake*. But we did our best with the tools in hand, especially when it comes to level design. In fact, Paul Knutzen's levels have been singled out in most *POWERSLAVE* reviews as the solitary redeeming feature of the game. Mr. Coffey even refers to them as follows. "To its credit, *POWERSLAVE* does have a number of intricate levels with truly challenging puzzles and obstacles."

As for the writers who review for *CGW*, what kind of rules (if any) do you have when it comes to them playing a game and then writing the review? Did Mr. Coffey actually play all the way through *POWERSLAVE*? At least halfway? More? Less? In god mode or without god mode? What about network play? Did Mr. Coffey actually sound up three to seven other gamers and play a network game for an hour? Doesn't sound like it. At this point, it's also fair to point out the lack of modern support in *POWERSLAVE*.

As far as the save feature is concerned, what's the point in saving your game with every other step? You go for a bit, clear a room, reach a new door and—ooh, better save in case something behind the door kills me! It kind of takes the challenge out of the game. I have mixed feelings about the save feature. It's as galling as the rest when it comes to frustrating it in *Quake* and *Duke NUKEM 3D*, but it sure made *POWERSLAVE* a challenge—hey, what a novel concept!

*POWERSLAVE* has consistently been rated in the mid-90s (on a scale of 100) by most console gaming magazines, even gaming "Corridor Game of the Year" for the Saturn version at *DefHard GameFan*, yet it has more or less been thoroughly trashed by the PC game (1.5 stars from *CGW*, 58% from *PC Gamer* and I believe a D- from *PC Games*).

Maybe I'm just taking this too personally, but who would it? Still, I feel that I can make something that resembles an objective assessment of *POWERSLAVE*. Not totally unbiased by any stretch of the imagination, but still objective. So despite its shortcomings (old-school *BUILD* engine, lack of modern support, etc.) it still adds up to a

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fun game. To be sure, it's not anything that delves into new territory like QUANTUM, but its interactivity and attitude of DUNGEON, but it's definitely not something that ranks somewhere between "weak" and "absurd," which is where CGW's 1.5 stars puts it. I would give it 3 stars according to your rating system—it does what it does well. Nothing more, nothing less.

Tom Kristensen

Lobotomy Software

PS—In case you're wondering, my role on the POWERSLAW team was manual writer and play-tester.

Unlike many letters from development teams, your letter raises a lot of interesting questions. Some can be controversial. Let's start with the easy ones. First, we expect all of our reviewers to finish the game. We think we're the only computer game magazine where that's an explicit requirement. As for the multiplayer aspects, we expect the reviewer to test those, too. However, not every freelancer has a LAN in the house and this game did not support play-by-modem.

Second, you may be slightly too sensitive about the BUILD engine comments. Nowhere in the box or documentation does it specify that this is an older version of the BUILD engine than that used in DUNE NOSTRA 3D. We were simply aware that the game was released after DUNE NOSTRA 3D and that it didn't compare technically with DUNE. It seemed fair to suggest that the tool weren't used very well. As you can see, the perspectives with which we view games can be different.

Third, you touched on the age-old "save game" issue. Does being able to save the game at will reduce the challenge or enable you to proceed at your own pace? I lean toward the latter for the basic reason that I don't want to play the same levels over and over again. That's not my idea of fun. Even in the old motion picture serials where each chapter ended with a cliffhanger, the filmmakers didn't replay the entire

episode when you came back to watch the next week. They cut and pasted the footage to set up both the cliffhanger and the escape. Action games are a lot like cliffhangers. Most of us want our onscreen characters to succeed against impossible odds, and when they don't, we want a Deus ex machina to pull us out of the fire. We don't want to cover the same ground and defeat the same enemies again. All the lack of a flexible save game routine does is guarantee repetition. However, we admit to two schools of thought on this, even within the CGW editorial staff.

Finally, there is a simple reason for the disparity between the console and PC reviews of the same basic game demographics. The younger demographic for the console market is a group of gamers with more time than money. They don't mind playing levels over and over again because they perceive that to be part of the fun. PC gamers are, in general, an older demographic with more money and less time. Playing levels over and over can seem tedious at best and wasteful at worst. Console gamers believe that the win is better when you've had to work and work at playing the game. PC gamers believe that winning is the point and that they should be able to get there at their pace, not someone else's.

We hope these answers clarify some of the bewilderment and that readers realize that few of these answers are relevant for everyone. ☞

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CIRCLE READER SERVICE #076

Edited by Charlotte Panther (CPanther@zd.com)

# Games That Might Be Magic

## 3DO Unveils New Product Lineup

**A**t 3DO's recent Editor's Day, we took a look at the company's upcoming lineup of games. At the top of the list is *Might and Magic VI*, the latest release from New World Computing of one of the longest running and most celebrated role playing series on the PC. Subtitled *The Might of Heaven*, *Might and Magic VI* is getting a complete makeover since the last game in the series (1993's *Dawns of Xeen*), and it features a brand new 3D engine (actually, two engines—one for indoors, one for outdoors).

The story takes place in the kingdom of Eroth, where King Roland has disappeared, plunging the land into chaos. Disasters and an invasion of flying demons are plaguing the land, and it's up to your band of four adventurers to save the world. Along the way, as always, there will be a multitude of nonlinear side quests to keep you busy.

New World is promising that this version will be much more "alive" than previous games. The world will constantly evolve as you play: whether you perform certain actions or not, and NPCs will roam freely (as opposed to being restricted to just one area) and will carry out their own agenda. New World is adding real-time play, but longtime

fans of the series need not worry—the game will also retain the series' wonderful turn-based combat system.

Look for it this November.

*Might and Magic VI* is

3DO's premier 1997 title, but they've got plenty of other gaming action waiting to ensnare prospective gamers.

*Mercenaries: Revelation* is the next-generation release of 3DO's popular (Internet)-only RPG. More than just an

upgrade, this version will feature completely revamped graphics, a new interface, new weapons and spells, new quests, new

NPCs, and an entirely new island world to explore. Altogether, it will be a new experience for online RPG fans.

*Uversia*, the first title from developers Cyclone, slated for October '96, is a unique entry into the real time strategy category. It's played from the first-person perspective. You can jump between vehicles and structures, playing from the viewpoint of a tank or turret, but you'll always be commanding your forces and placing structures from the first-person view. Instead of just commanding units, you'll actually be able to enter the fray and fight against the enemy in classic shooter style. This perspective makes the game feel very much like a *Quake* clone though.

Also from Cyclone is *Requiem*, a 3D first-person action-adventure slated for spring of '98. As

a just angel, you must stop an underworld of your fallen brethren, who have targeted an alien planet for invasion. Though this game is action-intensive, it has a lot of adventure elements, including extensive dialogue, worlds to explore, and plenty of puzzles. With



MIGHT AND MAGIC VI



MIGHT AND MAGIC VI

dozens of people to talk to, and more than enough dark enemies to shoot at, this game is a blend of action and adventure.

Look out, too, for 3DO's *Army Men*, a real-time strategy game pitting green and tan army men against each other in real-world environments, like deserts and forests. *Army Men* should be available this fall.

—Jeff Green and Elliott Chin



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THIS JUST IN

Short takes on games and hardware released just prior to press time.

### THE ZORK LEGACY COLLECTION

Proving you can milk a good thing forever, Adventure has reimagined its classic Zork games yet again in this 4-CD collection, which includes *Zork I-II*, *Zork Zero*, *Beyond Zork*, *Return to Zork*, and last year's *Zork Nemesis*. Also included are the old paper maps and the wonderful *Encyclopedia Frobbolus*, an exhaustive and humorous G.U.E. compendium that's been unavailable for years, and which every Zork groupie should own. The one



## News Flash

► **Broderbund** recently announced the launch of **Red Orb Entertainment**, its new division devoted exclusively to producing entertainment software. Red Orb's product lineup includes **Raven Software's** *Take No Prisoners*, an overhead-perspective 3D action game expected to ship this fall, and **SSG's** *Warlords III: Rise of Heroes*. **Trilobyte** has signed up to develop a multiplayer action/combat game designed for Internet play, to be released in 1998. And *River*, the highly anticipated sequel to *Mystr*, will be published under the Red Orb brand this fall.

► **X-Case Experimental Ricks**, **Bethesda Softworks'** first foray into the racing arena, has been pushed back until mid-August. The decision to delay the game was made in order to satisfy some of the most-requested comments following test group and survey results. New features will include 3D acceleration and the addition of new European tracks. Look out for more news on the improved X-Case in our E3 roundup next month.

► **AVM Technologies** scored their first coup by bringing a Kurzweil synthesizer engine to PCs in an external daughterbox. Their latest sound card, *Apex*, brings the same great-sounding engine to PCs along with very clean digital audio and Soundblaster Pro compatibility. We've had a chance to bang on the *Apex*, and have been quite impressed with its overall performance, but that Kurzweil sound doesn't come cheap. At \$349, this board is probably best left to musicians rather than gamers. The good news: **AVM** is planning to unleash a PCI-based sound card with support for 3D positional audio later this year.

# Lara's Back

## With A Vengeance

After a few months of R&R, Lara Croft is getting ready to spring back into action and kick some more ass in the much-anticipated sequel, *Tomb Raider 2*. Developers at Eidos are still tying down the exact storyline, but we do know that our heroine (who now sports a long ponytail) will do battle with a crew of angry monarchs on her quest to discover another powerful artifact. On her search for a tremendously powerful jewel-studded dagger, Lara will encounter the Emperor of China's men and Tibetan warrior monks, along with the usual monsters and beasts.

*Tomb Raider 2* will feature completely new environments, both inside (Lara must explore the depths of a huge mansion) and outside, prompting Eidos to describe the game as "less tomb" than its predecessor. And, if weapons are anything to go by, it appears Lara will be doing some more swimming; Eidos has added an underwater herpoon to her armory.

*Tomb Raider 2* will ship Win 95 native and Eidos is currently looking into custom port acceleration for major 3D cards. It is scheduled for a November release. —Charlotte Panther

Lara's ready for action in *Tomb Raider 2*

### QUOTE OF THE MONTH

“One of my favorite things to program is the way a ship explodes into fragments. To me, it's a vital part of the experience.”

—Larry Holland, designer of *X-White vs. TIE Fighter*

bummer is the omission of the Ewok with biology, which would have made the package complete. Other than that boneheaded decision, though, this is a must-have for Zork newbies or completists.

—Jeff Green

sequences from the film serve as cut scenes. Generous blends traditional adventure gaming with action elements and gets unfortunately lukewarm results. While *Trekies* will no doubt relish missions played as every crew member, other

gamers may well be put off by unremarkable graphics, stammering gameplay, and a save game feature certain to ignite seething frustration.

—Robert Cooley

Activision, (312) 473-9200

PC CD-ROM

Reader Service #: 301

### STAR TREK: GENERATIONS

Based on the hit film of two years ago, *Star Trek: Generations* lets gamers in on the movie's action as they track down the evil Soran across space. The crew of the *Enterprise* is ably voiced by all the original actors, and



MicroProse, (513) 522-3584

Win 95 CD-ROM

Reader Service #: 302

### LIGHTS OUT

**Lights Out** is reminiscent of one of those annoying puzzles you find in the middle of an otherwise great adventure game. The idea of the game is to switch a set of buttons within a matrix, in the optimal number of mouse-clicks. Admittedly, Tiger Interactive has tried to jazz up this overdone theme, with nine different

# Quake Lives On

id's Quake Engine to Form Foundation for Six New Hot Action Games

The hottest up-and-running engine you can license these days is the Quake engine (sorry Epic, but we'll wait until *Unreal* releases before we can test Quake's 3D supremacy), and quite a few companies are doing just that. So far, Raven (Hexen II), IGN Storm (Darkport and Anachronix), Hipnotic (Siv), and

will be called Half-Life, an action title with some adventure elements to be published by Sierra On-Line.

In Half-Life, you're caught holding a deadly technological secret that has forced a war between Earth and a mysterious alien race (what aren't aliens mysterious in computer games?). You'll have to fight your way out of military installations, invade the alien planet, and foil the aliens' plans for conquest, all while guarding against your own kind.

Valve promises smarter AI for your enemies, all the Quake II enhancements (including radiosily fighting, rotating objects, transparencies, and translucencies), and more adventure-style game elements, including an inventory and NPCs.

Valve team members hail from 3DRealms, Shiny Entertainment, and Nintendo, and have worked on Duke: Nukem 3D, Doom 64, and a slew of other gaming titles.

Look for Half-Life to ship at the end of this year. In the meantime, we'll try to dig up that mysterious sixth licensee.

—EWOT/Chris



3DRealms (Duke Nukem Forever) have announced that they'll be using the Quake engine. But id says there are six companies currently licensing the engine. Well, CGW's discovered that the fifth is a start-up outfit called Valve, and its first game

## PLAYING LATELY

### CGW Survey\*

	Last Month	Months on Chart
1. <i>Diablo</i> (Blizzard)	1	4
2. <i>Red Alert</i> (Westwood/Virgin)	3	5
3. <i>Heroes II</i> (New World Computing)	5	5
4. <i>Duke Nukem 3D</i> (3D Realms)	4	16
5. <i>Quake</i> (id Software)	6	4
6. <i>Civilization II</i> (MicroProse)	2	15
7. <i>Tomb Raider</i> (Eidos)	9	3
8. <i>Steel Panthers II</i> (SSI)	-	15
9. <i>Daggerfall</i> (Bethesda)	10	7
9. <i>Links LS</i> (Accolade)	-	1
9. <i>WarCraft II</i> (Blizzard)	8	18

\* We mail a survey to 1,500 randomly chosen subscribers each month. Playing lately indicates what games readers are playing the most, as opposed to the "quality ranking" in the Top 100.

### PC Data Best-sellers\*\*

1. <i>Diablo</i> (Blizzard)	1
2. <i>Red Alert</i> (Westwood/Virgin)	3
3. <i>Myst</i> (Broderbund)	4
4. <i>X-Wing vs. TIE Fighter</i> (LucasArts)	-
5. <i>C&amp;C: Counterstrike</i> (Westwood/Virgin)	-
6. <i>Microsoft Flight Sim</i> (Microsoft)	2
7. <i>Barbie Fashion Designer</i> (Mattel)	5
8. <i>Monopoly Multimedia</i> (Hasbro)	8
9. <i>WarCraft Battle Chest</i> (Blizzard)	-
10. <i>Quake</i> (id Software)	9

\*\* The top-selling PC games, as calculated by PC Data, during April, 1997.

## THIS JUST IN

puzzle types, four mazes, randomized and pre-programmed options, and a novel collection of buttons. Even with these elements,



though, the game lacks one important ingredient: fun.—Charlotte Panther  
Tiger Interactive, 1-888 TIGER SOS  
Win/Mac CD-ROM  
Reader Service # 303

## FORREST J. ACKERMAN'S MUSEUM OF SCIENCE FICTION, HORROR AND FANTASY

Forrest J. Ackerman, as the owner of the greatest collection



of science fiction and fantasy artwork and movie memorabilia, is (and has been for over 70 years) arguably the luckiest "kid" on the block. And so it is that Marlin Software has released Forrest J. Ackerman's Museum of



# Might and Magic

SECRET OF THE INNER SANCTUM

COMPUTER ROLE PLAYING GAME OF THE YEAR - 1986

# Might and Magic II

GATES TO ANOTHER WORLD

COMPUTER ROLE PLAYING GAME OF THE YEAR - 1988

# Might and Magic III

ISLES OF TERRA

COMPUTER ROLE PLAYING GAME OF THE YEAR - 1991

# Might and Magic IV

CLOUDS OF XEEN

COMPUTER ROLE PLAYING GAME OF THE YEAR - 1992

# Might and Magic V

DARKSIDE OF XEEN

COMPUTER ROLE PLAYING GAME OF THE YEAR - 1993

The background of the entire advertisement is a parchment map. It features a large mountain range with jagged peaks, a compass rose at the bottom center, and various handwritten annotations in black ink, including "CITY", "RIVER", and "MOUNTAIN". The parchment has a yellowish-brown, aged appearance with some staining and texture.

# Might and Magic VI

THE MANDATE OF HEAVEN

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IN THE AWARD WINNING SERIES.

COMING SOON.

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CIRCLE READER SERVICE #344

# F-22 Combat Gets Nasty



the use of a government aircraft in sims. It received overwhelming support from gamers posing to its Web site and to Usenet newsgroups.

Novalogic's John Garza said that the company didn't want to prevent anyone from doing a simulation with the F-22, its interest was simply in protecting the company's trademarked name.

In the end, nobody was a clear winner. Lockheed backed down on its exclusive licensing agreement, releasing a statement on June 6 that stated, "Lockheed Martin does not intend to license trademarks and logos associated with the F-22 fighter without consultation with the U.S. Air Force, and no licenses will be granted on an exclusive basis. Our objective, like that of the Air Force, is to encourage widespread positive use of the F-22 name. Licensing allows us to protect the quality and integrity of our product's names and marks."

Ironically, iMagic ended up changing the name to just "F-22" after it was discovered that "Raptor" was trademarked by Apogee for an arcade game. Apogee offered to license the name, but iMagic declined. At press time it wasn't clear if Novalogic chose to purchase the trademark, which was rumormongered to be selling for a whopping \$100,000. —Denny Aksh

Although the F-22 Raptor still hadn't made its first test flight when this issue went to press, the plane was the center of a heated skirmish during May involving two software companies, a major player in the military industrial complex, and the U.S. Air Force. In the end, it appears gamers won the dogfight.

The fracas began after Interactive Magic announced it was changing the name of F-22 ASF to F-22 Raptor. Meanwhile, Novalogic announced a sequel to F-22 Lockmeo it called F-22 Raptor.

In late April, iMagic received notice from Novalogic that it had registered the F-22 Raptor trademark. A few days later, Lockheed Martin purportedly sent a letter announcing intention to work with Novalogic and telling iMagic to change the product's name and "remove all references to

Lockheed Martin and all images of Lockheed Martin aircraft from any and all software iMagic manufactures, sells, and/or distributes." This request implied chilling repercussions for the entire simulation industry, and threatened to limit use of individual military vehicles not only as the focus of a simulation, but also as potential adversaries.

After Novalogic received a similar cease-and-desist letter from Lockheed Martin, it contacted the company to try to work out an arrangement. Novalogic announced its intent to secure exclusive rights to the "F-22 Raptor" name and "exclusive access to their technical consulting and other proprietary assets for ongoing fighter programs."

iMagic took the situation public with an open letter posted on its Web page explaining the situation and arguing against any one company monopolizing

THIS JUST IN

SCIENCE FICTION, HORROR AND FANTASY. This four-CD collection allows the genre's many followers the opportunity to stroll through the emporium's many rooms. Forrest (or "Ferry")'s legendary collection is represented by film clips of all sorts plus paintings from every major artist from the golden age of science fiction.—Alan Greenberg

Mac/PC, (800) 921-9581  
**PC/Mac CD-ROM**  
 Reader Service # 304

## PERFECT WEAPON

PERFECT WEAPON is an ambitious attempt at combining the furious fistcuff action of Virtua Fighter with the exploration and puzzle



elements of the hit PlayStation title Resident Evil. As Captain Blake Hunter, world champion martial artist, you are transported to an alternate dimension where you must use your skills to battle against 20 different alien species. The action sequences are hindered by a game camera that switches viewpoints at the most inopportune moments, a problem compounded by the overly complex fighting move list.

The player control also has a noticeable lag during fight sequences. Nonetheless, this is a decent action game with a unique blend of beat-em-up intensity and brain-busting puzzles.—Kelly Rickards

ASC Games, (203) 655-0032  
**PC CD-ROM**  
 Reader Service # 305



# THE ULTIMATE RPG?

TOM HALL AND ION STORM TO CREATE THE MOST AMBITIOUS CRPG EVER

Even as far back as during the development of *Warcross* 3D, ID cofounder Tom Hall wanted to inject a greater sense of story and role-playing into his action games. If he had his way, *Warcross*, *Doom*, and *Doom II* would have had character development, or at least an internally consistent and engrossing story. Having co-founded IDN Storm with John Romero, Hall now has the chance to finally create the role-playing game he has always wanted. It is called

*Anachronox*, and it sounds like it could be a winner. Hall is honest about his inspiration: SquareSoft role-playing games. In fact, when I visited IDN Storm a few months ago, Hall told me that every member of his team had to play Square's *Chrono Trigger* RPG before they started work on his game.

*Anachronox* is slated for a fall 1998 release, but a lot of art and conceptual design has already begun. It will use the updated Quake engine (featured in *Hexen II* and *Quake II*), and will play from a third-person perspective.

The game takes place in the future, in a time when humans have traveled the stars via wormhole-like devices called Senders—massive, planet-sized artifacts left by an unknown, long-perished race. These Senders connect the galaxy, and create a massive galactic community. As the game begins, that community stands on the brink of destruction. Mysterious forces, whether natural or not, are now causing the galaxy to collapse in upon itself (what scientists dub a Crunch Conundrum). Could this imminent destruction be linked to the Senders?

As the main character Sylvester "Sly" Boots, you begin the game in the city of Anachronox ("Poison From A Previous Time"), a city that once was a galactic prison and is now the center of all that is nefarious in the galaxy. It floats in the middle of Sender One, the primary Sender that lies in the very center of the galaxy. Joined by your old flame, Siletto Anyway, a mercenary android, you embark on a quest that will take you to dozens of worlds and three different dimensions, as you seek to halt this Crunch Conundrum that threatens the galaxy.

Like the console *Final Fantasy* series, this game will be vast. There are plans for the player to face

hundreds of different enemies, talk to even more NPCs, and visit more than a hundred different locations, ranging in size from a single room in Quave to a full Quave level. Along the way, you'll recruit a total of eight more player characters, which you can play in teams of three.

Aside from the sheer size of the game, and the determination to bring emotion and personality to the story and characters, Hall hopes to introduce a modular weapons system to *Anachronox*. Certain player characters, called Elementors, will be able to combine components called Elements to create their own unique attacks and weapons. It is an incredibly ambitious project, but Hall is optimistic about his fall 1998 release date. We're excited, and as we hear more about this RPG, we'll bring you updates and a full sneak preview —Eliot Chin



Siletto Anyway



Sly Boots

## 3D ULTRA MINI GOLF

Following the success of the 3D Ultra Pivotal titles, Sierra is injecting a new type of game into the series: mini golf. Mini golf translates surprisingly well to the PC, and this electronic version of the popular pastime offers three ways to play: Normal mini golf—like the outdoor version; Hole-By-Hole, which allows you to compete one hole at a time against up to four opponents; and Race Play, which pits you against the clock. Two well-designed nine-hole courses include some familiar sights (the Windmill, the Lighthouse) and some not so familiar: Avoid the lasers in the Rocket or your ball will be dust; watch out for the Octopus in Neptune's Kingdom—



those tentacles may do you some damage. Each hole has appropriate background music, along with the great voice-overs, crazy sound effects, and animation that made the other 3D titles a success. The game offers two putting options—Easy Putt, which requires just one click to get the ball rolling, and is perfect for those who just want some quick fun, and True Putt, a more sophisticated system, which allows

you to control the force and angle of the putt with your mouse, for those true aficionados who really want to polish their skills.



***The reviews  
are going  
to his  
head.***





"Take elements of *Tomb Raider*,  
*Prince of Persia* and *Super Mario 64*  
... and you're just beginning to scratch  
the surface of *Twinsen's Odyssey* ...  
A genre-busting 3-D extravaganza."

— Computer Gaming World

"... This one should be at the top of  
your list."

— PC Gamer



"One of the most  
significant achievements in  
adventure gaming in a  
long time."

— PC Games



"Adventure gamers should get  
ready to set aside a large  
chunk of their summer."

— GameSpot



"Perhaps the most  
desperately anticipated  
sequel since *Civilization 2*."

— Next Generation



"Awesomely addictive 3D  
adventure... Some of the  
most amazing graphics  
and gameplay you've  
ever seen."

— Computer & Net Player

Now in orbit.



The sequel to *Relentless (Little Big Adventure)* from the creator  
of *Alone In The Dark* and *Time Commando*.

# 3D Ironworks



This edition of the World has chips brewing from 3DLabs, Number Nine, 3Dix, and Intel. All of these chips look like potential winners, but with the 3D-chip vendor court now over 30, a shake-down is inevitable within the next year or so.

As mentioned last month, 3Dix has two chipsets in the works: *Voodoo 2* and *Banshee*. But despite our best badgering, the company is staying quiet because of its pending IPO, and the folks at SEC

have squelched any discussion of 3Dix's future chips until mid-summer. My guess is that *Voodoo 2* will essentially be a much faster *Voodoo*, still 3D-only, and with few or no additional features. *Banshee* will most likely be a 2D/3D offering, which incorporates 3Dix-class 3D performance and 2D functionality into a single chip, and adds some next-generation features like bump mapping and an advanced filtering technique called anisotropic filtering.

3DLabs has announced its *Permedia 2 2D/3D* accelerator, which integrates a complete floating-point geometry setup processor based on their GLINT Delta technology, offloading all geometry setup processing from the CPU. *Permedia 2*-based boards will connect to either PCI or AGP, will have 2-BMB of 100MHz SGRAM, and the chip's integrated RANDAC will run at 230MHz, supporting resolutions up to 1600x1200 at 60Hz. Board makers including

STB, Diamond Multimedia, Hercules, and Canopus are all planning to ship *Permedia 2*-based boards sometime later this year.

Number Nine, in celebrating its 15th anniversary, has unveiled the new *Ticket to Ride*

(TTR) chip, a 128-bit 2D/3D accelerator chip with a full 3D feature-set. Like *Permedia 2*, it will sport a floating-point setup engine, which will relieve

the CPU of those chores. The 100MHz TTR chip will run on either PCI or AGP, and will support SGRAM, VRAM, or VRAM. At press time, no board makers had announced plans to ship TTR-based boards, perhaps owing to the chip's rather high price tag of \$125 in 10K quantities.

The most curious entry this month concerns Intel, with its AGP 2D/3D chip, dubbed the *Intel740*. This chip is a result of Intel's collaboration with Real3D, an offshoot of 3D veteran Lockheed-Martin. Other than confirming the chip's existence, Intel is remaining very tight-lipped about details on this model,

though guessimates are that it will be a full-featured high-end competitor that will be on both AGP boards and motherboards.

—Dave Salvatore



**Beats the PC 100:** Number Nine names its new chip *Ticket to Ride*.

Whichever way you decide to play, you'll find 3D Ultra Mini Golf an amusing distraction.

—Charlene Panther

Sierra On-Line, (800) 757-7707

PC CD ROM

Reader Service #: 306

## HEROES II—THE PRICE OF LOYALTY

How do you follow up one of the most addictive strategy games of all time? With a well-done expansion disc, that's how. The *Heroes II* expansion set, *Price of Loyalty*, developed by the same folks who brought us the *WarCraft II* expansion pack, *Into the Dark Portal*, has four new cam-

paigns, new artifacts, new structures, and a few surprises. In this game, it doesn't matter whether Roland or Archibald won the War of Succession; the four campaigns have complete-

ly new stories. There are two large, eight-scenario campaigns, and two smaller ones. New *World* has also added a few new structures, including a barrow to recruit ghosts, as well as

more artifacts, including one super-artifact that is composed of three separate pieces. The *Heroes II* system is as additive as ever in this expansion set, and with the four new campaigns, new multiplayer and standard maps, there are more engrossing battles to be fought for those heroic enough to revisit the lands of *Might and Magic*. —Elliott Chen

New World Computing,

(800) 325-6288

PC CD ROM

Reader Service #: 307



# SHE'S DEALING WITH SOME CONTROL ISSUES.

“ [Meat Puppet]...may turn out to be the most bad-assed hard-core 2D shooter ever.”

—PC GAMER

Lotos Abstraction. A beautiful woman with a keen mind and a big gun, living in a destroyed 21st century. Someone has taken her memory and her freedom. Now she must kill or be killed, while trying to find whoever or whatever is controlling her.

- 300 fully interactive rooms throughout a unique, stacked playing environment.
- Climb your way through different levels from the streets all the way to the top of the city.
- 29 dangerous characters, six massive cities, and 22,000 frames of animation.

## MEAT PUPPET

I COMMAND, YOU OBEY. EVERYBODY GETS WHAT THEY DESERVE.



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CIRCLE READER SERVICE #136

## SpaceOrb 360 Catches a New Bus

The industry's latest Godel seems to be the Universal Serial Bus (USB), but the wait may soon be over. Systems are shipping with USB ports and USB-ready BIOSes, and it appears Microsoft has finally released a USB driver for Windows 95. The first USB controller we've gotten is SpaceTec's SpaceOrb 360. While this 3D controller might seem somewhat alien to gamers, after some initial learning curve, it lets you drive flying titles like *Discout 2* and shooters like *Duke Nukem 3D* and *Duke* with aplomb.

Since we've seen the SpaceOrb 360 before, this time around, its installation was actually its most impressive feat. USB holds the promise of "hot-

swappable" controllers, where you can unplug one, plug in another, and have the new controller recognized and ready to roll without rebooting. Now before this can happen, you'll need to have Windows 95's USB patch installed, but it was pretty startling to plug the SpaceOrb 360 into a USB port where it was instantly recognized, and then be asked for a driver disk. Once installed, this USB version of SpaceOrb 360 drove interplay's *Discout 2* as easily as the original, but thanks to USB, you can now have SpaceOrb, your joystick, and a gamepad all connected at once. SpaceOrb 360 should be shipping by Christmas.

—Dave Salvatore

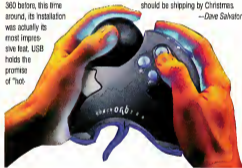


PHOTO: SEADUCK

## Question of The Month:

**Q:** I love playing Microsoft Flight Simulator, but I've found that there is no time left for doing exercise. It would be wonderful if I could do both things at the same time. Is there a bicycle machine that functions as a control pad? For example, one that takes the paddle speed as the throttle opening and the handlebar as direction control. Appreciate any input.—J. T. Tu (smolens@prodigy.net)

**A:** We've never seen anything like this, but we think it's a great idea. If anyone knows of such a device, please contact us immediately. Judging from the pesty faces and doughy bodies around here, *CGW* could definitely benefit from the experience! Those dreams of fitting into a shiny white Speedo may yet come true.

## Ensoniq Migrates to the PCI Bus

Audio's eventual move to PCI continues with the arrival of Ensoniq's AudioPCI part, the second PCI audio board we've seen following Diamond's MonsterSound. In fact, at least 10 audio PCI chipsets are currently in the works. For their part, Ensoniq has developed their ES1370 chip, which handles general Windows 95 audio chores, has a waveable synthesizer engine, and provides Sound Blaster Pro 2.0 support for DOS games. The board is very compact, and will fit the streets for about \$75—what a deal! AudioPCI loads waveable samples into system RAM rather than using an onboard waveable ROM, and offers three General MIDI patch sets: 2MB, 4MB, and 8MB. AudioPCI will also have four-channel output for running a four-speaker setup.

In some quick game testing, DOS titles like *Duke Nukem 3D*, *Commander 3*, and *Duke* all ran swimmingly in a DOS box. AudioPCI also has a DOS driver so you can play DOS titles in exclusive MS-DOS mode. *Duke* and

*Commander* both ran fine using this driver, but *Duke* crashed repeatedly. Windows 95 titles like *USNF '97* ran well, and the General MIDI patch set sounded terrific, for the most part.

AudioPCI should be shipping as you read this, and as soon as we have rev 1.0 drivers, we'll give you the full lowdown on this low-cost offering.

—Dave Salvatore



## Microsoft Set to Use the Force

In yet another foray into gaming controller hardware, Microsoft is working on its new force-feedback joystick, the SideWinder Force Feedback Pro. As well as adding force feedback technology, this digital stick moves the action buttons that were awkwardly placed on the SideWinder 3D Pro to the front of the stick's base; this allows you

to lay your non-stick hand across the base to dial in throttle settings and use the four buttons. Now the downside: This new stick will



not support Immersion's Force API, which game developers have been using to talk to CH's Force FiX stick. Instead, Microsoft has incorporated force feedback functions into its DirectInput API in DirectX 5.0, making game developers either choose between APIs, or support both.

The prototype unit we tested came with GT Interactive's Tiger Shark, an aquatic shoot-'em-up. Force feedback features included rattling (when we tread the ship's machine gun) and a sluggish feel when our character went underwater (to simulate the resistance generated by underwater navigation). Also, the stick reacted whenever we collided with stationary objects or other ships.

The coolest thing that came with this unit was the force editor front end for developers, which lets you tweak the force settings and behaviors for Tiger Shark, or create new ones. Microsoft hasn't committed to shipping a force editor with the stick, though it would be a welcome addition. Ship date is slated for late September, and a USB version will follow.—Dave Scaivola

## Springfield Springs to Life

They come into your home every Sunday night. Now, the Simpsons invite you to visit their humble abode, and meet the family face to face. Well...virtually.

Designed in close cooperation with Simpsons creator Matt Groening, *Virtual Springfield* allows you to explore every inch of Bart's glorious hometown. Pick up supplies at the Kwik-E-Mart, join the locals for a beverage or two at Moe's, or just hang out at the Simpsons' place and get to know them better.

Although the product does offer a few minigames

and diversions along the way, *Virtual Springfield* is primarily an exercise in point-and-click exploration. Nonetheless, the all-new dialogue, provided by Simpsons cast members, including Dan Castellaneta, Nancy Cartwright, and Hank Azaria, brightens up the journey. Die-hard fans should find it an amusing trip.

—Charlote Panther



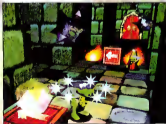
**JERKY BOY:** Homer battles the munchies at *Apu's Kwik-E-Mart*

## What A Croc

Fox Interactive is set to add another cutey, bouncing animal to the list of enemy-stomping gaming mascots. Croc, a lovable baby crocodile, is the main character (and life) in Fox's 3D platformer to be released on Saturn, PlayStation, and the PC this fall. The graphics are lush; bright, and beautiful on the PlayStation version, and the PC will look even better, with support for 3Dfx and other 3D-accelerators.

Gameplay is very much like a cross between *Sure Six Mvno 64* and the *Saevos* and *Mvno* from the good old 16-bit days. You have to collect gems, stomp and zap enemies, and rescue cute little animals trapped by evil end bosses. There are even levels where you slide down chutes and have to swing under jungle gym-type

bars (hmm...didn't I see this in *Mario 64*). The expressions and animation for Croc are amazing, and many of the game environments are also breathtaking. There will be dozens of levels in the game, including cavern, underwater, and snow levels. Like *Mario 64*, this game might look cute, but the gameplay is challenging and fun.—Elliott Cho



# THE CARMAGEDDON XV5.\*

*"Impact Car of the Year."*

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**CIRCLE READER SERVICE #067**



# Beating Romero At His Own Game



QUAKE Queen Stevie "KillCreek" Case became the darling of the

QUAKE community when she challenged

QUAKE-creator John Romero to a DeathMatch and won. Now, KillCreek gives us some tips, uncovers some secrets, and reveals just how it felt to beat the maker.

## On DeathMatch vs. single-players

Online competition makes *QUAKE* much more competitive and personal. The friendships I've formed through playing *QUAKE* make the competition much hotter. It's great fun to know just what your opponents might be screaming every time you blast them with your rocket launcher!

## Favorite Weapon:

I almost always use the rocket launcher when I have it. The only time I will switch weapons is when I have the quad and am low on health. I have a specific quad-ats in my config that allows me to switch to the most powerful weapon I have that won't do self-damage, such as the super nail-gun.



## On Improving Her Skills:

You can never be too good at rocket jumping. It comes in handy constantly. Also, your biggest advantage against even the best *QUAKE* player can be knowing the level inside and out. I'm still trying to learn all the important tricks to the most-played levels.

by Alex Uttermann

## On Beating Romero

Playing John, I was very nervous. I knew what would be said about me, and women *QUAKE* players in general, if I lost. The match was set up as a best of three, on three different maps. We started playing and I was losing horribly, 16-3. At that point, I let all the sexist comments I had heard run through my head, and thought about what it would be like if I lost. I came back to beat him 25-19. Though I lost on the second map, I did win the third, and therefore won overall. During the first match I was shaking because I was so scared to lose, especially to someone so well-

known in the *QUAKE* community. It turned out to be worth all the tension though. John is a terrific guy and was a great sport about the whole thing, as evidenced by their hilarious stunts to me ([www.jon-storm.com/chaos/challenge/shrine/index.html](http://www.jon-storm.com/chaos/challenge/shrine/index.html)).

## Advice to Women Players:

If you are new to *QUAKE*, stick with it. Find other women or men out there through *QUAKE* news pages or IRC who will help



Stevie "KillCreek" Case: Champion

you learn how to play. There is nothing like the feeling of beating an opponent who thinks you can't play *QUAKE* because you are a woman. The time you've spent practicing will be well worth it, to know what that feels like. ☺



## KillCreek's Three Rules of Thumb:

1. Always keep an eye on your opponents' patterns. All players have a natural tendency to run patterns in a level. If you knock players out of their patterns, they will be less successful and more timid.
2. Know the level inside and out. Play them on your own, watch demos of others to learn new tricks, or just keep practicing on the Net.
3. Pick one config and get comfortable with it. Don't constantly switch your controls or you will never have the advantage of instinctively hitting the right keys.

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CIRCLE READER SERVICE #089



# The Reign Ahead

## Can Activision's Real-time Entrant Give STARCRAFT a Run for Its Money?

Everyone is looking to Blizzard's *StarCraft* to clean up this genre and to set the next standard in real-time gaming, but what many might not realize is that *Dark Reign* could very well be as innovative as Blizzard's impending juggernaut. Among the many features in *Dark Reign*—some of which were reported in our January, 1997, preview—are more interactive terrain, adjustable AI for units, and many multiplayer enhancements.

Units will be able to use the terrain to their advantage: Some units will be able to hide in

forests or burrow underground, and other units will be able to take cover behind rocks and take firing advantages when shooting from higher ground. Movement will definitely be affected by the type of terrain being traversed.

In multiplayer, *Dark Reign* will offer alternate play for trading units and resources, and other handicapping so that skilled and unskilled players can fight. Activision also plans to have a free gaming service online soon, similar to battle.net, which will allow *Dark Reign* players to play games over the Internet.

Other features will include the ability to queue production lists and set formations and way points.

The adjustable intelligence and tenacity of units are still being worked out.

While many have sung the praises of *StarCraft* (this writer included), no one can doubt that *Dark Reign* will be on its heels with as many cool improvements and as much fun gameplay. Whereas 1995/1996 was the battle between *WarCraft II* and *Command & Conquer*, this year could very well turn into a *StarCraft* and *Dark Reign* race. At least on the release date front, *Dark Reign* has the edge: It is set to hit stores in late June.

—Eliot Chin



EXTERMINATOR



CYCLONE



## PIPELINE

1001 Planet Bomber	1997
Aaron vs. Ruth Mindscape	8/97
Acas: X-Fighters Sierra	Winter 97
Agents of Justice MicroProse	Fall 97
Age of Empires Microsoft	10/97
All-400 Leglow 2.0 Jones	Winter 97
Baraboo CDK	10/97
Bass Masters Classic TriD	11/97
Battle Spire Bethesda	9/97
Black Dahlia late 2	Fall 97
Blade Runner Westgate	10/97
Byzantine: The Betrayal Discovery	10/97
Civil War Generals Sierra	9/97
Cleopatra Combat II Microsoft	11/97
College Football 97 MicroProse	9/97
Confirmed Kill Games	Fall 97
Denon Isle Sierra	10/97
Darklands Ion Storm	12/97
Die by the Sword Interplay	Summer 97
Earthshine 3 Sierra	late 97
Ego Warhammer 40K: Redemption 3d	Winter 97
European Air War MicroProse	Winter 97
Falson 4.0 MicroProse	Winter 97
Fallout Interplay	Summer 97
F-22 Rapier NovaLogic	Winter 97
FPS Football 98 Sierra	11/97
Front Page Sports Ski Racing Sierra	9/97
Flight Unlimited II Looking Glass	Fall 97
Flying Nightmares 2 Eden	9/97
Galopha crack.com	Fall 97
Heavy Gear Activision	Summer 97
IF-16 Viper Interceptor Magic	Fall 97
Imperialism SSI	9/97
Inter740 3D Chip Intel	Winter 97
Journeyman's Project 3 Sierra	late 97
King's Quest: Mask of Eternity Sierra	12/97
Legacy of Kain Crystal Dynamics	9/97
MIG Alley Empire	10/97
Myst 2: Riven Brudersun	10/97
NFL Legends Acclaim	9/97
NHL Powerplay 98 Acclaim	10/97
Quarterback Club 98 Acclaim	9/97
Resilla Tide SSI	10/97
Raptor General II SSI	11/97
Rax Empire: Emperor's Domain TriD	9/97
Populous III EA/Bullfrog	Fall 97
Procyon 3D0 Beams	Spring 98
Quake II id	12/97
Quest For Glory V Sierra	10/97
Red Baron II Sierra	9/97
Redguard Bethesda	late 97
Return to Krendor 7th level	early 98
Sabre Ace Virgin	10/97
Screenin' Demons Activision	Winter 97
Secret of Volcas Fury Westgate	Winter 97
Sempar AI Interactive Magic	9/97
SimCity 3000 Maxis	Winter 97
SODA Off Road Racing Papyrus	Fall 97
Steel Panthers III SSI	11/97
Su-27 Flanker 2.0 SSI	Winter 97
Team Apache Eden	Winter 97
TFX 3 ID	late 97
Tomb: Rebellion Brudersun	10/97
Trespasser: Jurassic Park DreamWorks	12/97
Trek: Klingon Hunter Starpoint	Spring 98
Uare of Coc	9/97
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on the evil priestess who's done you wrong. Because in this cavernous maze of devious traps, it's all about cheating death at every turn, blurring that fine line between pleasure and pain. And just when you think you can't take it anymore, consider the alternative.



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CIRCLE READER SERVICE #376

# TOMB RAIDER

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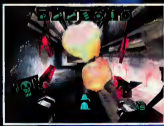
## FEATURES INCLUDE:

- Space-based and interior full 3D 360° flight and combat
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Compatible with the following chipsets:



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EIDOS

You've been warned.

Target Release Date: August, 1997

Developer: Crystal Dynamics and Silicon Knights

Publisher: Crystal Dynamics

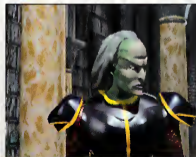
# Got Blood?

*You Suck in Crystal Dynamics' New Gothic CRPG*

by Jeff Green

**C**redit Anne Rice and her series of *Lestat* novels with single-handedly making vampires cool again. Rice re-ignited the genre by making her vampires sexy, a direction carried to the extreme in the limp film version of *Interview With A Vampire*, which featured a triumvirate of Hollywood pretty boys—Tom Cruise, Brad Pitt, and Antonio Banderas—prancing around in lings and bad hair.

One word you're definitely not going to use to describe *Blood Omen: Legacy of Kain* is sexy: Crystal Dynamics' upcoming action-RPG title, which puts you in the role of a revenge-seeking, bloodsucking vampire, is as violent, dark, and disturbing a game as you're likely to see this season. It's also likely given its action-oriented gameplay, to pour gasoline onto the flames started among gamers by Blizzard's *Diablo* as to what constitutes a "true" role-playing game.



**CITIZEN KAIN** You are Kain, bloodsucking knight of the end, and who is thrust into a quest to save the land of Nosgoth.

## DEATH WISH

"We were sick of cutesy save-the-princess storylines," said *Kain* co-producer Andy Tapani. "We wanted to do a mature, in-depth, dark story with lots of plot twists." -

*Cutesy* is another word you won't use to describe *Kain* (which is being distributed by Activision). The game is set in the medieval land of Nosgoth, where terrible things are happening. You are Kain, an arrogant nobleman whose motto in life has been *Ice weds*—"Suffering to the conquered." But now, it's your turn to suffer.

As you emerge from a pub in the game's opening scene, you are ambushed by a group of scumbags who rip the life out of you for no apparent reason. The next thing you know, you're tied to a stake in Hell, seething with the desire to avenge your death. You are approached by Mortanius the Necromancer, an ugly green guy with big ears, who offers to revive you so you can exact your revenge. You rashly accept without asking what

the consequences are. It is only then that you learn the catch: You have been turned into a vampire.

This, however, is just the beginning of the story. Soon, you find that Mortanius has a lot more in store for you, as you become the key figure in an epic struggle to save Nosgoth. You learn that by killing off the land's corrupt elder guardians, known as The Circle of Nine, you will restore the land to its former glory—and earn yourself eternal rest.



## REMEMBERING ZELDA

*Legacy of Kain* first appeared on the PlayStation last year (with sales, according to Crystal Dynamics, of about 400,000 worldwide), and for many computer gamers, this will be their first experience with a console-style RPG—which has a style of gameplay far different from "traditional" CRPGs like *Diablo*.

The game uses a top-down perspective, and all the action and combat takes place in real-time. The most immediate reference point for computer gamers is *Diablo*, but the designers acknowledge that the real inspiration for the game was the old *Legend of Zelda* RPG for Nintendo.

"We were huge fans of the *Zelda* series for Nintendo," said Tapani, "and we wanted to bring that style of gameplay to the PC."

As such, the gameplay is strictly action-oriented. Your bloody quest through Nosgoth encompasses literally hundreds of different locations—including towns, caves, gypsy camps, underground temples, and forests—in which you will encounter a multitude of enemies, both human and otherwise.

In each location, you're on a mostly linear path, trying to figure out how to survive, kill enemies, and deal with twitch-based, *Panzer Dragoon*-style obstacles such as dodging retracting blades on walls or floating spiked balls, tripping the right set of switches, and so on.

As you progress through the game, your character gets stronger and collects an ever-more-powerful array of weaponry—both physical and



**REDIUM** Scattered about this blood-thirsty skull are a number of magical objects for Kain to pick up.



**FLY YOU, FLY ME** Kain starts his up to a Spirit Forge, which he can trade valuable blood for Flies, a magic object used to rip flesh from bone.

magical—to use against the evil forces of Nosgoth. You begin the game with just one spell, Sanctuary, which allows you to escape back to your crypt if you're in trouble, but as you continue through the game your magic power will grow, and you'll pick up more offense-oriented spells. Also, a host of magic objects are scattered throughout the game, many of which are extremely gruesome: Take, for example, the Fly, a cute little object that tracks down your enemies and strips the flesh from their bones. Or Implode, which causes your enemies' bodies to collapse inward upon themselves. You'll also learn the ability to shapeshift, or transform yourself into another creature entirely (see sidebar).

#### BLOOD SIMPLE

Of course, because you're a vampire, you have another constant requirement for survival: You must continuously seek out and suck the blood of both your enemies and innocent passersby. In

combat, you have a choice: You can go for the kill, or you can stop just short of the death blow to put your enemy into a "waver" state, at which point you can suck their blood.

The bloodsucking is what makes the game almost disturbing at times. Sucking the blood from your enemies is bad enough, but when you find yourself attacking sleeping townspeople, or the assorted hapless souls chained to dungeon walls (who plead "Oh, please, help me, kind sir!", you can't help but be creeped out. The game's dark mood is enhanced by a haunting soundtrack that's punctuated with the sounds of howling wolves, thunder and lightning, screams, and so on.

Those familiar with the PlayStation version of

Kain will be happy to know that Crystal Dynamics is promising a number of improvements for the PC. Most notably, they are adding 640X480 16-bit color graphics (the PlayStation version was only 320X240 8-bit color)—which makes this often very dark game much easier on the eyes. They've also added DirectX support to allow for multiple input devices, and they've significantly improved the game's load times—by far the most annoying problem on the PlayStation.

Ironically, though *Legacy of Kain* plays even more like an action game than does *Duke*—which is not going to thrill old-school computer role-players—*Kain* is, in terms of plot at least, the deeper game. There really is a story here, and it's a good one that plays out through richly produced cut-scenes as you progress through the game. It's also an incredibly huge game, your travels through

#### The Bat Man

One of Kain's cooler powers is the ability to morph into different forms. Knowing when to transform into which shape is a key element in the game's strategy.

##### BAT

Allows instantaneous travel between game locations known as Bat Belfries.



##### WOLF

Great for taking to the coast and allows you to jump over ledges and otherwise impassable obstacles. On a full moon, you also inflict much more damage during attacks.



##### MIST

Allows you to pass through locked doors and cracks in walls, as well as move across water. You're invulnerable to physical attack, but still open to magic attacks.



##### DISGUISE

Allows you to disguise yourself as a peasant, which prevents you from being attacked. It's later upgradeable to Beguile, which gives you a noble air.



Nosgoth, even if you're really good, will consume many long nights.

Those looking for a more traditional CRPG should look elsewhere. You won't be conversing with townsfolk, getting married, or joining lairle guilds in *Blood Omen: Legacy of Kain*. However, those who hunger for something darker, with a heavy action bent, may want to sharpen their fangs and step into Kain's bloody shoes. ☞

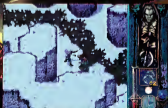
# Rever



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Explore the carnage  
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BLOOD OMEN  
LEGACY  
OF  
KAIN

Epic RPG for the PC. Coming this Fall.

Target Release Date: August, 1997

Developer: Heliotrop

Publisher: THQ

# Stellar Potential

*PAX IMPERIA 2 Joins the Spaceplotation Race With a New Lease on Life*

by Martin E. Casulis

**A**s the entertainment-software industry becomes a high-risk/high-gain playing field, we find more and more games dying in the late stages of development as publishers get cold feet. In the old days, if a game even remotely ran, a company was willing to work it out to the bitter end; now games can find themselves orphaned for a variety of reasons. Luckily for some designs, the success of the industry also means that sometimes another home can be found for a game, saving it from a one-way trip to Vaporware Valhalla.

A case in point is a spacewar game once known as Pax Imperia 2. Heliotrop was developing this PC sequel to a popular Mac spaceplotation for Blizzard, and it was intended to be a game of truly epic proportions. Blizzard went so far as to publish a string of ads in various magazines, and alphas of the game even toured the fledgling online gaming services. In hopes of finding an Internet home for the game that was going to revolutionize strategic spacewar. Unfortunately, just when it seemed Pax Imperia was mere months away, Blizzard relinquished the whole project and dedicated themselves to a brand new space game with a more built-in audience: *StarCraft*. Rumors of why Pax 2 had vaporized abounded, but many of them revolved around the fear that the first "monster" spacewar game had simply grown too monstrous to be playable by the general public. The union of Serious Groggards and sci-fi fans was

perhaps considered far too small to yield a profit on this project.

Regardless of how things actually fell out, the bottom line for spaceplotation fans was a big disappointment after a long wait. While gamers turned their hopes to *Master of Orion 2*, Blizzard quietly sold the design for Pax 2 to an ambitious bunch at THQ, who thought they could do something with the game...and slowly, rumors grew that Pax 2 was "not quite dead, yet." Well, I am happy to report that Pax 2 is feeling much better and sporting a few name. Pax Imperia: Eminent Domain is somewhat less ambitious than its original incarnation, but seems much more playable, a combination that could put MOO2's spaceplotation crown in serious jeopardy.

## WAR AND PEACE

Pax Imperia: Eminent Domain has been trimmed down to more traditional levels of detail. Star systems are the usual areas of contention; they commonly have multiple worlds and stargates, a la *Deep Space 9*, that lead to other stars. Each world has the normal collection of traits that dictate its suitability for colonization—gravity, atmosphere, and temperature—but this game takes a page from *Spacewar! III* and reduces these values to a simple Good, Fair, and Bad rating, which allows you to choose future development sites with a glance. So far, this is pretty standard fare, but given that the game is coming near the end of a spaceplotation boom that has crowded the shelves with endless generic titles, this is perhaps the game's weakest



**"Strap on your seatbelt,  
turn up the 8-track, and get ready  
for one helluva cool ride."  
—PC Games**



**"It's a blast."**

—PC Gamer

**"...everything I-76 does,  
it does well."**

—CNET (gamecenter.com)

**"Interstate 76 was designed  
by Activision's MechWarrior 2  
team and the pedigree  
shows."**

—Computer Gaming World

**"GET THIS GAME!!!"**

—GameSpot Player Review

**"The Verdict: I-76 is an  
early contender for the  
best game of the year."**

—Gamesmania

**"Interstate 76 is a rare joy — a game  
positively overflowing with solid  
ideas and great gameplay."**

—Computer Gaming World



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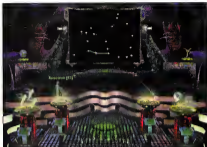
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**FEWER SECTORS** Now that THQ has taken over Pax Imperia 2, the scope of the game seems to have been scaled down for more manageable gameplay. There is still plenty to explore and discover, though.



**GREETINGS, EARTHLING** This is the main screen in Eminent Domain, with graphic displays for going to Research, Colony Management, Diplomacy, and all the other options in the game.

point. Since the game runs in real time, there seems to be some potential for maneuvering fleets within a system in terms of intercept, escape, and protecting worlds but, at present, the scale of the game seems too large for this grossly overlooked part of space warfare to be a big tactical factor.

The actual tactical combat engine is a true gem, though, and will go far in distinguishing this game. The level of detail, both in the ships and weapons, tops that found in MOO2 by 50 percent, and while it means combats can be a little intricate, it comes closer than any other game I have seen to capturing that rewarding sense of tactical power and flexibility found in classic board games like *StarFleet Battles*.

Of course, you can't have epic battles without epic ships, and the ship design part of the game is a tinkerer's delight. With the appropriate technologies researched, a myriad of ships can be designed for very specific tactical missions, and there seems to be enough variety in the options to reduce the "one right answer" syndrome that seems to plague so many other spaceplottion titles. While you won't be spending hours in the design process (as it was rumored you could do in the original Pax Imperia design), it's safe to say that the ship-construction engine (much like the tactical-combat engine) is the most detailed and rewarding in the genre.

Even the peacetime options in Pax Imperia: Eminent Domain have that same eye toward increasing the level of detail. While diplomacy doesn't seem to have benefited quite as much from this design philosophy as the combat

engine has, there are still plenty of options here that are not found in other games, including the ability to completely undermine another empire through espionage, and topple a regime through skullduggery instead of laser fire.

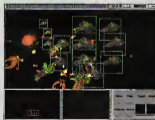
#### THROUGH THE FIRE

The late-alpha I played lacks both balanced gameplay and capable AI opponents, and some details of the various alien races are not in place. The final version should take care of these problems and provide the host of multiplayer options that have become standard in the industry. I hope that the connectivity suite will be elegant and efficient, instead of ad-hoc, as seen in MOO2.

With just a modicum of finishing work, Pax Imperia: Eminent Domain, with its combination of incredible SVGA graphics tools and attention to detail, could easily find itself at the front of a crowded pack of spaceplottion games, in a dead heat with MOO2. If it avoids the usual dangers of a buggy release or very weak AI, what will decide Pax Imperia: Eminent Domain's chances at becoming a truly great breakout game is how finely it treads the line between playability and originality. With such a crowd yapping at its heels, and so many designs sharing common features, Pax Imperia: Eminent Domain cannot afford to confuse being user-friendly with becoming too familiar. **S**

#### THE BIG QUESTION: REAL-TIME COMBAT

Despite the involved tactical portion of the game, the one area where Pax Imperia: Eminent Domain could bog down is in combat, especially when the game could potentially bog down to numerous combats that all demand equal attention in real time. What the game does to partially remedy the problem is queue up all the combats and halt the passage of time in the strategic world, leaving you free to spend your time on each individual battle.



This gets time-consuming when you are drawn into more than a handful of engagements, so you will have the option of resolving all the battles strategically.

**FAR-OUT FISTFIGHT** This is a scene from Eminent Domain's combat. The ships and weapons are very detailed, which provides more intricate battles.

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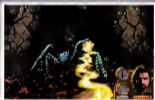
# LANDS OF LORE. GUARDIANS OF DESTINY.



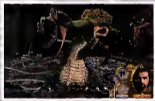
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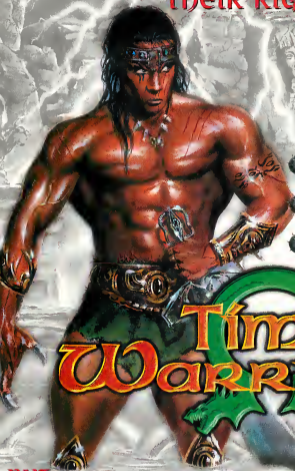


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CIRCLE READER SERVICE #174

Supported by:



Target Release Date: October, 1997

Developer: Dynamix

Publisher: Sierra On-Line

# Cool Running

Sierra Expands Its Sports Roster With *FRONT PAGE SPORTS: SKI RACING*

by Tasos Kaiafas

Since its inception, Sierra's *FRONT PAGE SPORTS* line has been synonymous, for many computer sports gamers, with in-depth simulation and dedication to realism. Until now, though, it has been limited to just three sports: football, baseball, and fishing. This year, the series welcomes two new sports to its lineup, with the recently released *FPS: GOLF* and the upcoming *FPS: Ski Racing*.

To live up to the *FRONT PAGE SPORTS* reputation, *Ski Racing* will attempt to be more of a simulation than popular arcade skiing games like Namco's *Alpine Racer*. Dynamix has sent team members to six world-class ski resorts—Whistler, British Columbia; Vail and Aspen, Colorado; Park City, Utah; Mt. Bachelor, Oregon; and Val d'Isere, France—to recover topographical data about their race runs.

Back in Eugene, Oregon, this data is then converted to information that can be used to model the runs on the fly within Dynamix's newly developed 3D engine. As it stands now, the mountains in the background are photographic, while the rest of the terrain is rendered graphics. The trees lining the run are, unfortunately, a solid-wedge map, but, understandably, graphical performance is top priority, so something has to give.

For added realism, weather and snow conditions on the day of a race will affect performance, making equipment choices an important factor toward a good run time. Skiers will have a number of decisions to make, such as the length of the skis they'll use for a life assistance, Olympic downhill champion Picabo

Streets provides coaching and tips through video segments.

## RIDGE RACERS

Competition takes place in five different events: Downhill, Slalom, Giant Slalom, Super G, and Combined. You can run races in either first- or third-person perspectives and in single-race, single-tournament, or career-play modes. In career-play mode, gamers race for the Sierra Cup in a tournament that consists of racing in all five events at each of the six ski resorts. For each event, skiers earn cup points, which are tallied throughout the season to determine who will compete in the Sierra Cup finals. There will also be multiplayer support through modem, LAN (number of players to be determined), as well as internet tournaments.

To look good while flying down the mountain, gamers can customize their skier's appearance by changing the style and colors of their outfits. They'll also be able to pick which brand of skis to use—such as K2—and choose from other name-brand accessories, like Scott USA goggles. During the race, even the skis will be wrapped with a unique texture map to look right. A VCR feature will allow skiers to edit the replay of their run, choosing from an unlimited number of camera angles. These film files can then be used to analyze performance or just to share with friends



HOON OVER ASPEN: *FPS: Ski Racing* will use Dynamix's new 3D engine and will render ski runs on the fly.

for bragging rights as proof of a great time.

Controller support will include Microsoft's Sidewinder joystick as well as its yet-to-be-released force-feedback stick. The twisting rudder of the Sidewinder stick will control edging to give racers that extra bit of control. And, of course, there will be support for most of the major 3D accelerator cards, such as the 3Dfx and Rendition cards.

## DOWNHILL FROM HERE

If all goes well with this game, Dynamix plans to push further—snowboarding and extreme skiing titles are waiting in the wings. With a game engine and skiing model already in place, it would be only a matter of changing a few parameters to accommodate the differences in these variations of the sport. But the team doesn't even want to think about that yet. They still have an October deadline to meet for this one. ☺

### SNOW BUNNY

Set up your own skier by customizing your appearance and choosing from name-brand apparel.

### SKIER SETUP



### MOTHER OF ALL MOUNTAINS

Whistler, British Columbia, is one of the six resorts accurately modeled for *Ski Racing*.

### SINGLE EVENT



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and th  
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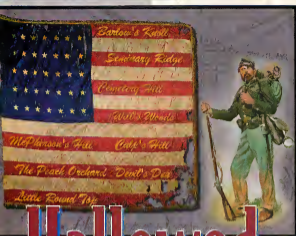
ARRIVING  
AUGUST  
1997

# Fallout

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CIRCLE READER SERVICE #384



by Terry Coleman

In 1994, at the Computer Game Developer's Conference, I noticed a roundtable discussion of "What is Multimedia?" on the schedule. Since I have always been of the opinion that no one really knows the answer to that question, I decided this was one discussion I just couldn't miss. When I arrived at the roundtable, I noticed that the attendees stated themselves as if by some pre-ordained stratification: all the game developers on one side of the long rectangular table, all the Hollywood types on the other.

The discussion went along in particularly bland fashion until one of the Hollywood types said, "The problem with the computer gaming industry is that you don't have a Steven Spielberg." Then he made the mistake of looking in my direction. I calmly replied, "Yes, we do. His name is Sid Meier, and if you know anything about this industry you'd never have made such a statement." I then did my best to suppress a smirk and watched the fireworks commence.

# Hallowed Ground

*Sid Meier Returns to Real-time Strategy With a Vibrant Civil War Game*



Now, not even Sid Meier's greatest fans could argue that his games have garnered Jurassic Park-style grosses, but they didn't cost \$50-100 million to produce, either. Consider that Sid Meier's Civilization sold upwards of 850,000 copies, and that Civ II has already eclipsed that number. When you add in Braveest, Railroad Tycoon, F-19 Stealth Fighter—the list goes on and on—you find that Sid not only has the most designs in the PCGW Hall of Fame, but that he's also sold several million games as well.

At a time when many of the "old guard" have traded in their programming shingle for a set of golf clubs, Sid is still coding away, looking for new challenges. And in this age of 3D guis and AI specialists you get a time warp effect from watching Sid work, a throwback to an era when design and programming talent resided in the same body. Sid has always designed according to his own muse, feeling that all the gameplay is there, the sales will follow—a strategy he and Franks are certainly following with Sid Meier's Gettysburg.

## REAL-TIME SOPHISTICATION

So Meier's *Gettysburg* is anything but trendy. It doesn't require a 3D accelerator card or red-hot P200 MMX processor. Then again, that's hardly a surprise, since even a classic Sid Meier design such as *Civilization* didn't push the technology when it was released. *Gettysburg* is realtime rather than turn-based, but it's about as far from *WarCraft II* or *C&C as Risk* is from *Penzer General*.

It's quite possible to play *Gettysburg* at turbo arcade reflex speed, but if you do, you'll miss a lot of the game's flavor. This is a very different real-time game in that the scale, for once, is appropriate. In *C&C*, for example, you build bases in minutes that would require the investment of weeks or months of real-world time—which would be fine if the tactical combat wasn't so obviously happening at a different time scale. In *Gettysburg*, the action occurs faster than in the real battle, enough to keep you on your toes. But things stay in perspective: It's easy to believe that you really are moving Union troops to cut off Longstreet's advance, or that you're assembling Pickett's division for a climactic assault through the heart of Meade's position on the final day of the battle.

Although General Lee would have been excited by the prospect, you don't build barracks on Seminary Ridge and suddenly spew out thousands of Rebel soldiers and bronze cannon. As you give orders to troops—though they're formations rather than individuals—you'll do well to employ them as judiciously as would Lee or Meade themselves. Unlike any of the *C&C* clones, manpower in *Gettysburg* can't be replaced. As a result, you can't simply throw units to the winds of war—which puts *Gettysburg* on an entirely different level of real-time gaming.

That doesn't mean that the game is complex, however. The interface is warm and inviting, with active buttons large enough to keep confusion down for the novice, and small enough that there's plenty of room for maneuvers on the active game screen. You can deploy troops as skirmishers, have them fix bayonets to hold a position at all costs, or form them into a column to march as briskly down the Baltimore Pike as their fatigue level will allow.

## FUN FACTOR

What makes all this work is Sid's uncanny sense of when to add historical flavor, and when to trim realism back to keep the fun factor from lapsing. *Civil War* aficionados addicted to *BalloonSoft's* award-winning *BattleGround* game series will have a few adjustments to make. *Gettysburg* doesn't model in detail every different type of small-arms or cannon weaponry, so you lose a bit of the tactical feel of pitting rifled muskets vs. the smoothbore variety—and you won't find shotguns armed with a mixture of rock salt and nails, as historically happened at Pea Ridge.

What you will find is that the morale/command system works like a dream. Famous units, such as the Iron Brigade, can anchor your line when most formations, asked to do too much, shatter like 19th-century glass. The plan of Marsé Robert's finest is modeled by the increased aggressiveness of Confederate formations. The responsiveness of

units on both sides is directly related to the efficiency its leader showed in real life. Buford's cavalry, for example, moves swiftly and decisively and takes a great deal of damage before giving ground during the bitter fighting outside Gettysburg on day one of the battle. Other commanders are by turns brilliant, laconic, or even sluggish, but all are essential to lead troops, and to rally them.

The gameplay is simplicity itself. Move by dragging the mouse, fix bayonets and charge with a click, swing formation left or right with another. Since the interface stays out of your way, succeeding at *Gettysburg* requires only that you think like a *Civil War* commander. You are forced to ask yourself the tough questions: Where is the dominant terrain, and call my forces secure if? If I stretch his flank farther to the right, will his center be open for Sickles' thrust? What is A. P. Hill doing behind that ridge?

All of these tactical questions must be answered with the clock running. Especially in the early stages of the battle, you are besieged with messages from the front, telling you that reinforcements have arrived, or requesting



**EAT A PEACH** Whether playing against the AI or a human commander, it's tough to defend the Union salient at Peach Orchard.



**ROCKY ROAD** Whether infiltrating through trees or firing from behind boulders at point-blank range—it doesn't get much better than Devil's Den.



**WHAT'S THE SITUATION, COLONEL?** The tetra analysis gives you an overview of the action, complete with fields of fire

new orders when the tactical situation has changed. And since the troops move only at their historically correct pace, simply switching to a slower game speed (which you can do on the fly, by the way) won't let you minimize the inherent tension. This also avoids the shortcoming of so many real-time strategy games, because the AI can't cheat by moving units absurdly faster than a human can.

## A MATTER OF TIMING

Battles in *GETTYSBURG* are about maneuvering, and bringing superior fire to bear on an enemy position. When units are supported on both flanks, their morale and cohesiveness improve. Conversely, when you fire upon the flank or rear of an enemy formation, it not only takes losses more quickly, but is also more prone to break and run. Everything comes down to how quickly and decisively you can make decisions under pressure, and how you react to the ever-changing nature of the real-time battlefield. The combat system is simple, direct, and fast-moving—perfect for modern or LAN play between two human generals.

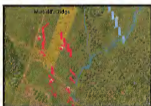
So, in addition to campaigns against the computer from either the Union or Confederate side, Firaxis will include three to four scenarios specifically designed for multiplayer. Right now, those look to be the obvious: day

one, day two, and day three of Gettysburg. There probably won't be one multiplayer scenario for the entire battle, simply because at this scale, it would take too long to play.

If you don't happen to know on which side Longstreet parted his hair, or which forage cap General Henry Heth favored for a dawn assault, don't fret. To balance the game for novices, versus those gamers who live for Civil War minutiae, Sid Meier's *Gettysburg* offers random scenarios. These assume that either the Union or Confederate

armies, or both, took a different route to the battlefield, or that the first or second day's fighting turned out differently. Such hypothetical scenarios extend the life of the game indefinitely. Best of all, you can save your randomly generated scenarios and share them with friends.

It would have been easy for Firaxis to put out another C&C or *WARCRAFT* II clone, especially since they have the marketing muscle of EA behind them. Instead, Sid Meier's *Gettysburg* shows the famed designer at his best, merging the excitement of real-time with a strong dash of the sophistication of his earlier strategy classics. Gamers addicted to sci-fi and fantasy affairs may pass this one by if so, they'll be missing a real treat. For my part, I can hardly wait for multiplayer Chickamauga. Are you listening, Sid?



**PLAY IT AGAIN, SID** After each battle, *Gettysburg* lets you view the replay in military history map style.

## Rekindling Sid's Realtime Jones

Sid Meier is no stranger to real-time games. He's done flight sims, actionable-playing hybrids, and real-time strategy games, but none since *RAILROAD TYCOON*. When I remind him of that, he remarks, "Everyone seems to think that I've gone totally over to turn-based—because of *CIVILIZATION*, I guess—but I've always used whatever seemed to be most appropriate. Real-time and turn-based strategy games both have their place; one's not better than the other."

What Sid wanted to do with real-time in *GETTYSBURG* was "to make the battlefield come alive, rather than seem like something from a museum." The verisimilitude of real-time is nowhere more evident in *GETTYSBURG* than in a multiplayer contest, which brings up another question: Why was Sid so adamant about putting multiplayer in *GETTYSBURG*, when he seemed to think it was a waste of time for his last game, the computer version of *MAGNIFICENT CENTURY*?

"Well, you see," he chuckles, "I'd always thought that multiplayer was more hype than anything else... until I started playing *WARCRAFT* II with my daughter. We had a great time (she always enjoys beating Dad) and it occurred to me that you could balance a real-time Go! War game: between novices and veterans much the same way."

So, does this mean we'll ever see a multiplayer Civ-style game? Sid won't comment on specific titles, and he implies that there will always be a place for solitaire gaming—including *CIVILIZATION* and others of its ilk. The gift in his eye, however, betrays his newfound multiplayer mojo. We're betting that after *SID MEIER'S GETTYSBURG* becomes a hit, it will be a long time before this famed designer goes back to solo game designs.



## SID MEIER TIMELINE

- ▶ Solo Flight
- ▶ Helicat Ace
- ▶ Floyd of the Jungle
  - ▶ Silent Service
  - ▶ Conflict in Vietnam
  - ▶ Crusade in Europe
  - ▶ Decision in the Desert
- ▶ F-15 Strike Eagle

1984

1985



1987

- ▶ Pirates!
- ▶ Red Storm Rising



1988

- ▶ F-19 Stealth Fighter



1989

- ▶ F-15 Strike Eagle II
- ▶ Gunship

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SIERRA

CIRCLE READER SERVICE #363



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CIRCLE READER SERVICE #183

# THE GAME AS HISTORY

PLUS A FEW ALTERNATIVES

## McPherson's Hill

A tremendous delaying action by Buford's cavalry.

## Devil's Den

This rocky cover aided the tenacious Union defense.

## Peach Orchard

Union troops were caught out of position and punished.

## Little Round Top

This strategically placed hill was the critical point of the battle.

## Taneytown Road

Encircled by the Rebel army, Meade's forces try to break out.

## Baltimore Pike

Union troops strive to get between Lee and Washington.

## Cemetery Hill

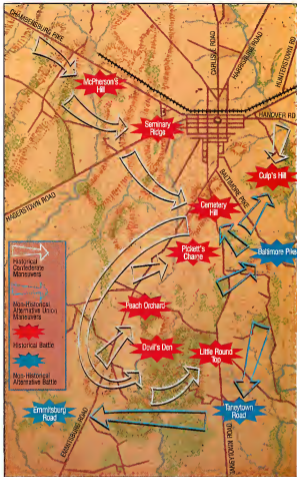
Forced to withdraw on the first day, the Union army counterattacks.

## Culp's Hill

After containing the Rebels on the first day, Meade contests control of the hill.

## Emmitsburg Road

Stopped in his tracks, Lee attempts to escape with the remainder of his army.



1990 ▶ Covert Action  
▶ Railroad Tycoon



1991 ▶ Sid Meier's Civilization

1993 ▶ CPU Bach



1994 ▶ Sid Meier's Colonization



1995 ▶ CivNet



1996 ▶ Sid Meier's Civilization II

## SID MEIER'S GETTYSBURG!

▶ Sid Meier's Gettysburg  
▶ Magic The Gathering



1. "We Come in Peace."
2. Blasting Ray Guns.
3. People Screaming.
4. "You Must Believe Me!"
5. Exploding Buildings.
6. Whirring Space Ships.
7. Brains Being Sucked.
8. Bones Crunching.
9. Aliens Phoring Home.
10. Metallic Scraping.
11. Cars Crashing.
12. Kidneys Bursting.
13. Insertion of Probes.
14. Heads Exploding.
15. "Run for Cover!"
16. "Warning."
17. Aliens Mating.
18. Pods Hatching.
19. Destroying the Monster.
20. Buildings Imploding.
21. Spaceships Docking.
22. Boiling Flesh.
23. "Mayday, Mayday!"
24. Exploding Spaceship.
25. People Running.
26. "I saw a UFO!"
27. Planes Taking Off.
28. "We're at DefCon 4."
29. Aliens Communicating.
30. Children Crying.
31. Slap.
32. Clinking of Autopsy Instruments.
33. Laser Swords Crashing.
34. "Hyperspace!"
35. Flesh Being Torn Off Bones.
36. "They're Coming!"
37. Warning Sirens.
38. "You Must Die."
39. "Beam Me Up."
40. Zap!!!
41. Air Locks Closing.
42. "Oh, My God!"
43. Lasers Charging Up.
44. "We Need More Power!"
45. Ray Guns Blasting.
46. Caring the Mothership.
47. Horns Blaring.
48. "We Work!"
49. "Lock on Target!"
50. Crystals Charging.
51. Area 51 Guard: "No Admittance."
52. Zap-Zap!
53. Warning Alarms.
54. Air Locks Opening.
55. "Set to Blast!"
56. "Red Alert!"
57. Shields Up.
58. Warp Speed.
59. "Blast 'em!"
60. Eyeballs Squishing.
61. Spaceships Cloaking.
62. Rodler Prig.
63. "Fire at Will!"
64. "Take Me to Your Leader."

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*Herr General, It Is Time for You to*

# Return to Battle!



*Fight From Both the German and Allied Sides and Battle Over the Internet in PANZER GENERAL II*

by Terry Coleman

**Y**ou wouldn't know it now, with games such as *Steel Panthers II* and *Cuze Commander* doing well in the marketplace, but it wasn't all that long ago—1994—that historical wargaming was in a state of collapse. And while a number of factors turned the genre around, none was more significant than the release of *Panzer General*, which featured great campaigns, an aggressive AI, and plenty of period flavor. But what truly set *Panzer General* apart was its incredibly focused design. Every time realism and fun clashed, fun won out, and the result was so addictive that novices and hard-core wargamers alike had a great time—even while the latter complained about the lack of realism! In fact, it's fair to say in retrospect that if *Panzer General* had been a flop in the marketplace, SSI probably would have gotten out of wargames entirely. Happily, there's no need to speculate, as *Panzer General* continues to sell more than two years after its release.

## Anything but a Retread

Any time a company tries to update a classic, it walks a tightrope: Change too much, and fans of the original get disenchanted; approach the design too conservatively, and the new title gets written off as more of the same. So far, the design team at SSI is developing *Panzer General II* the right way. If anything, the sequel will be more fun than the original, with—hold on to your Jagdpanther—more than a dash of added realism.

The game's mechanics are much the same as before: Move and fight, or blow things up and then move. *Panzer General II* can still be played in timeworn turn-based fashion, but building

**SUITABLE FOR FRAMING** Mike Bennigoff and Brian Knapik of Avalanche Games (known for their paper wargames) made the accurate maps for *Panzer General II*, and SSI's artists enhanced them to yield these scenic battlefield landscapes.

on the lessons learned from *PAWZER GENERAL ONLINE*, it can be played in phases as well. For example, your opponent can move or fight with four units, and you can respond in kind. This is a lot more manageable for internet play, especially when you can agree beforehand on the amount of time allotted for moving each unit. Plus, it makes for a lot more tactical intrigue: Should I scuff up the town with my artillery, knowing that my enemy will probably move in reinforcements, or blitz with my armor instead? What about infantry support? When should I commit my reserves? All of this becomes much more relevant when you consider that *PAWZER GENERAL II* will have both LAN and internet support built in, so gamers won't have to join a dedicated games network to play. And unlike the original, *PAWZER GENERAL II* will have at least four scenarios designed solely for multiplayer.

## A Matter of Scale

The biggest change from *PAWZER GENERAL* to *PAWZER GENERAL II* is that there is now a consistency of scale. Each space represents two kilometers in every scenario. This means that you don't have artillery attacking from one mile away in Poland and four miles away in Russia, as in *PAWZER GENERAL*. Figuring out the exact unit scale is a bit more problematic. I'd put the scale somewhere between *Steel Panthers* and the original *PAWZER GENERAL*. Order of battle freaks might pull their hair out trying to figure out if the unit scale is a battalion or brigade, but who cares?

The more obvious benefit to gamers is that the consistent map scale allows for some of the most beautiful landscapes ever rendered in a computer game of any genre. Gone is the boardgame-on-a-computer-screen look. It is replaced by photorealistic, painstakingly detailed terrain. The game is still played over a hexagonal grid, but it's nearly impossible to tell that it's there when the grid overlay is turned off. Once you've moved your digitized tanks over the vast steppes of Russia or use engineers to bridge one of the exquisitely painted rivers or have your infantry take refuge in really rugged terrain, you'll have trouble going back to the original game

## Sweeping Campaigns

As in *PAWZER GENERAL*, the longest campaign in *PAWZER GENERAL II* takes you on a tour of the greater European theater, from Poland and France to North Africa and the Soviet Union. But there are a few very welcome twists on the venerable *PAWZER GENERAL* theme. Your first training mission takes place not near Warsaw but in the middle of the Madrid Offensive, as you have been secretly sent by the German High Command to test tactics and equipment in the Spanish Civil War.

Even after you begin the WWI portion of your European tour, all is not quite as it seems. For instance, a full-scale invasion of Yugoslavia by the forces directly under your command is impractical given the newer map scale in *PAWZER GENERAL II*. So, you take out Tito's partisans and their British allies in a smaller scenario much more brisk than that of *PAWZER GENERAL*. The road from North Africa to Russia is similarly

"What we want is to make you the most important general at the most important point in history. At the same time, we don't want a less subtle game than the original."

—Rick Martinez, SSI

- ▶ Designer: Rick Martinez, SSI Special Projects Group
- ▶ Publisher: SSI
- ▶ Target Release Date: November, 1997



streamlined, but the famous battles, such as Tobruk, are all included.

PANZER GENERAL II has fewer losing paths than its predecessor because, according toSSI's research, most gamers only played the losing paths after negotiating the more straightforward winning campaign trail. To compensate, PANZER GENERAL II has more victory levels: Brilliant, much like the old Decisive level; Victory, which represents a solid win for you; Tactical, where you survive, but incur the High Command's unrelenting glare; and finally, Defeat, which is self-explanatory. Different levels of victory send you, as was the case with PANZER GENERAL, to a variety of locales, including some hidden scenarios that we're not authorized to discuss just yet. In any case, you will no longer have to guess how many turns are necessary for each level of victory in a campaign scenario; they're all listed at the beginning of each turn.

Just in case you couldn't wait to get your Patton or Zhukov fix, you don't have to spin your six-shooters until ALLED GENERAL II comes out. PANZER GENERAL II has mini-campaigns for the Russian Drive To Berlin, and for the Allied Victory in the West. Playing as the Soviets has a lot of variety, as it balances huge tankies like Prokhorovka with paratroops like Kiselev, among others. The other Allied campaign has the added twist of letting you play as either the U.S. or British, which gives you different core and support units. If these mini-campaigns aren't enough, you can try *Defending the Reich*, a wild mix of maneuver, set-piece assaults, and last-ditch defenses by the Wehrmacht.

## You Will Follow My Orders, Ja!

While you strive to become the next Rommel, you will finally have some quality support on your staff. For the first time, there are subordinate leaders in a PANZER GENERAL game. You don't choose them, rather, they appear with your core units as the units advance in experience levels. There is a limit to which units become famous enough to merit these tactical leaders, so the leaders don't lose their impact.

If the leader is a tank commander, he will have a special tank skill, and so forth. Each commander will also have some other additional ability such as allowing the unit under his command to move a little farther or have a greater morale. Since this extra ability is chosen by the player, you have a chance to mold your junior officer corps to reflect your own particular campaigning



**HOME COOKING** Like the original PANZER GENERAL, PANZER GENERAL II has plenty of hypothetical scenarios taking place on British and American soil (like this close-up of Salerno!), plus a few surprises if you dare.



**DUNKIRK OR BUST?** One of the best what-if scenarios is Dunkirk, which speculates that the Germans kept pushing after the fall of France. The German unit on the left (note the faint outline of the hidden hexes) attempts to reach the coast before the retreating British units.

# New Tactics

The biggest change from PANZER GENERAL I is that because



of the smaller scale, some units may shoot farther. Despite any names you may have heard, however, infantry may not shoot two or more hexes. Units with "big guns," such as the Allied 105mm and the famed German 88, on the other hand, are so empowered. The reason for this is not that these weapons had the farthest range, but that their high velocity gave them a greater effective kill radius.

Artillery batteries are occasionally able to shoot farther as well—sometimes as far as four hexes. But their main benefit in PANZER GENERAL II comes from their increased range when using defensive fire, which is now two



hexes. Plus, multiple artillery pieces can rain fire down on a single attacker, making it tougher than

before to take cities when facing well-positioned artillery. Close assaults now suffer final protective fire from artillery as well.

And what of infantry, the sad sack of PANZER GENERAL? In addition to new infantry types (German assault troops, for example), the defensive benefits of terrain are enhanced for all grunts. In particular, artillery using ranged fire has less effect on infantry, due to the troops' dispensable toxicity. Finally, infantry of all types seems to have a



HW Continued on pg. 60

"He Was Always Such A Nice, Quiet Boy."



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style. Overall, the leaders add a nice touch of chrome to *PANZER GENERAL II*, without the danger of their overwhelming the game, as often happens with the all-powerful heroes of *Master of Magic*.

Other nice bits of chrome are the options for full-screen play along with a boatload of hot keys, both welcome changes from *PANZER GENERAL*. Currently, the design rewards you with medals when you score multiple Brilliant victories—shades of *Wings of Command*. Best of all, the computer opponent has been much improved. For example, it no longer will the AI neglect to escort its bombers. It also won't forget to dismount from vehicles in the face of the enemy, which alone makes a huge difference in the AI's overall effectiveness.

The design is still being tweaked at press time, of course. The initiative system, so important to *PANZER GENERAL*, is currently being modified so that it becomes more dynamic and less predictable in each individual combat. The naval system is using little of the code, but a lot of the added flavor of *PANZER GENERAL*. Antitank units attacking in *PANZER GENERAL II* don't always lose initiative to tank units—provided they remain stationary. I could go on and on, but the simple fact remains: *PANZER GENERAL II* is, so far, the perfect blueprint for how to do a sequel. It should be to *PANZER GENERAL* what *Civ II* and *WarCraft II* were to their respective originals. Like any *Panzer* pusher, I can hardly wait for the blitz to begin. **S**

1. If you want to get up-close and personal with the stunning maps, run them in full-screen (no obvious interface) and play via hot keys.
2. Not only does artillery look more realistic, it now provides defensive fire from two hexes away.
3. Tanks that employ high-velocity shells may now attack from two hexes away.
4. Roads to flow more realistic paths in PG II, and now you only get the road bonus when traveling along the road, not just across it.



5. Yes, there are still hexes, but this subtle hex outline highlights the active unit without spoiling the rest of the gorgeous map.
7. The larger step silhouette is a legacy from *Panzer General*. Each vessel, however, still only really occupies one hex on the map.
8. The toolbar interface is much the same as in the original *Panzer General*, except for a second "hidden" toolbar for less-used functions.
6. You can't blithely capture towns deep in enemy territory and immediately crank out new units. This port, though, is close enough to the Allies' front line that they will be able to designate it as a supply point after they capture it.
8. In addition to displaying info on the current unit, this area expands briefly at the beginning of each turn to show how many turns remain for each level of victory.

PH Continued from pg 75

better chance than in *PANZER GENERAL* of attacking armor in towns (based on the foot soldiers' experience).

Recon units have a more robust role than before.



Instead of waiting until the end of the recon unit's movement to utilize its greater search range, you may now move it a few hexes at a time, checking for enemies along the way. Of course, if you uncover hidden enemies halfway through the recon unit's move, you still can't take the move back—a nice touch.



Air units in general are very similar in terms of attack and movement. Where they base, however, is greatly changed from *PANZER GENERAL*. Airbases are either two- or three-hex affairs, capable of holding one air squadron per hex. What this means is that the days of having six or seven air units filling up all the available terrain adjacent to each airbase are over. Plus, airfields may now be destroyed.

Another big change is that there are no medium- or heavy bombers in *PANZER GENERAL II*. Their main functions, suppressing units for a critical turn and reducing enemy resources, have been taken over by tactical bombers. The irony is that US Marauders and similar aircraft have been reclassified as tac bombers. The designers just wanted to get rid of B-7s and the like, which makes



PANZER GENERAL II



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# AIR COMBAT SUMMER

PART TWO

## *CGW's Radar Locks on the Next Wave of Flight Simulations*

BY DENNY ATKIN

The next generation of flight sims is about to take wing, loaded for bear with 3D-card support, Internet play, dynamic campaigns, and other often-requested features. World War II and Korean sims are back with a vengeance, and helicopter sims continue to pop up from behind cover. It's looking like a good year for simulation fans.

Last month we took first hands-on looks at six hot sims coming for fall. This time, we scope out the rest of the pack, focusing on more than 20 intriguing simulations. In our effort to be all-inclusive, we've tried to pack in all the new details available on each sim. Some entries will be shorter than others, but that doesn't mean these sims are any less enticing—simply that there wasn't as much information available on them. So without further ado, let's launch our recon mission.



## Jane's Combat Simulations/Origin

### AH-64D Longbow 2.0

**A**H-64D Longbow 2.0, the sequel to 1996's Premier Award-winning AH-64D Longbow, is practically a whole new game. This game was designed in large part from feedback the team received from avid Longbow pilots. An improved graphics engine, a fully dynamic campaign and seamlessly integrated multiplayer play will highlight this updated helicopter sim.

Longbow 2.0 will include not only the AH-64D but also two new helicopters that you'll need to fly during various missions: the OH-58D Kiowa Warrior armed reconnaissance helicopter and the UH-60 Blackhawk utility helicopter. On the real battlefield these helicopters work together as a team during a battle, and in multiplayer play you'll be able to re-create this team effort. For instance, you may send OH-58Ds out to the battlefield to scout enemy positions; enemies will go into a joint target database once located.



**HIND DOWN** Longbow 2.0 will once again send you against forces flying Russian equipment in the desert, but this time the campaign is dynamic.

Longbow will feature two fully dynamic campaign worlds. One, designed for cooperative play, sends your forces into a near-future conflict in the Northern Iraq/Azerbaijan region.

Antagonistic play takes place at the NTC (National Training Center) at Ft Irwin, California. Both air and ground wars will be taking place, and each team will pilot its own helicopters as well as command AI-flown craft. In the meantime, the ground war will proceed, and as troops advance, each side can gain and lose territories. Re-supply will also be a factor.

In addition to actual former Soviet equipment, the NTC uses American helicopters painted and visually modified (or

VISMOD, as the Army calls it) to appear as enemy equipment. Thus, even though both sides will fly American hardware, one side will appear to be flying Russian helicopters.

Up to eight players will be able to participate in games, connecting via local-area network, TCP/IP, or modem. In addition, two players will be able to occupy the same helicopter. This will make the helicopter a deadly opponent, as the pilot/gunner can fire on one target using the Longbow's gun while the pilot attacks another using Hellfire missiles.

This coordination is proving to be quite a challenge for the Austin Origin Skinworks team. It's difficult enough to deal with network latency and keep players coordinated when they're in different aircraft. When they share the same cockpit, close timing is a must.

The sim's graphics engine has been completely rebuilt, with support for a variety of major 3D graphics cards, including 3Dfx. The terrain will sport four times the level of polygon mesh detail as the original *Lowdown*, so you'll see far more pronounced irregularities in mountains and other terrain. Roads and landmarks will also be more detailed, and a software filtering effect will get rid of pixelation—even on 2D cards. Complementing all this will be real-time lighting effects that promise to light up the night sky and the hills below with tracers and rocket fire.

The sim will also feature a series of training missions, with basic systems and control overviews in the Blackhawk and specific mission training in the appropriate helicopters.



**THE NEXT GENERATION** With 3D-card support, *Lowdown 2.0* will provide a dazzlingly realistic environment. This is a very early shot; expect far more dramatic effects in the final version.

## Sierra/Dynamix

### Acces: X-Fighters

**A**lthough it builds on the hard work of Dynamix's *Red Baron II* team, *Acces: X-Fighters* is far from just an excuse to reuse that game's engine. In fact, this World War II air-combat game appears ready to duke it out with *Flywings Nightmares 2* for the title of the most innovative flight sim of the year.

performing, what operation your squadron is flying, and which air doctrine each side is using. These factors also affect the flow of technology each service will see over the course of the war.

It's this technology flow that makes *X-Fighters* special. Between missions, you can access the Aircraft Designer, where you can



**DEAD MAN CRASHING** *Acces: X-Fighters* features an updated version of the *Red Baron II* graphics engine.

Even at its most basic level, *X-Fighters* is an ambitious simulation. Spanning a period from mid-1940 to early 1946 (the date of the armistice depends on how well your chosen country performs), the sim lets you fly for Germany, England, or the United States. During that period, you fly in historical operations, including the Battle of Britain, the invasion of Normandy and Operation Cobra, as well as in speculative battles, such as Operation Sea Lion and the Battle for London. Each operation lasts a variable number of weeks, and the operation that follows is dependant on how well your squadron has performed. For instance, if you're flying for the Americans and you botch the Normandy campaign, you may end up fighting Operation Sea Lion in 1944 due to your loss in France.

The types of missions you'll fly depend on a number of factors, including how well you've been

either modify an existing aircraft or take an empty airframe and specify all the details—engine, armor, armament, fuel, and so on. The Designer predicts the plane's performance specs based on the theories of the day (which weren't always accurate when put into practice) and the influence cost of submitting the design (you gain influence points through successful missions). Minor changes, such as putting four 20mm cannons in a Spitfire Mk.I, are inexpensive and will be delivered fairly quickly.

"If, on the other hand," says Producer Scot Bayless, "you start with an airframe that was just developed, slick the hottest new jet engine on it, and load it up with airlock technologies that have only recently made it out of the lab, you'd better be the fair-haired boy of Fighter Command or you'll never have the influence to get them to build the thing. And even if you do,

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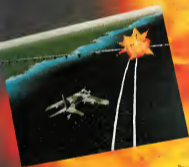
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**REALITY BITES** Following in the footsteps of the classic Aces games, X-Flights lets you micromanage realism settings

it'll be a long time before you see it." Of course, if you're a stickler for complete accuracy, you can keep with historical aircraft, or limit your modifications to creating variants that actually

fought in the war. Aces: X-Flights will include one of the widest ranges of WWII aircraft yet seen in a simulation. Although it's likely only one variant of each plane will be included, the ability to alter equipment should make it possible to create virtually any model of each plane.

X-Flights is also slated to have multiplayer play in addition to modern and network play; you'll be able to find Internet opponents in battlesnet fashion on Sierra's SIGS web page. Mission types will include deathmatch freebats, ground-attack contests, and runs against bomber formations. The host player can configure the exact parameters for a game, including scenario type, realism settings, minimum difficulty level, and the num-

ber of influence points that can be spent building an aircraft.

For cooperative play, you can mark the wing tips and tail of your aircraft with a squadron color. The game will sport persistent pilot records, so you'll be able to see other players' kills and losses. In addition, "ace stripes" will appear on players' wings, making it easier to spot the hot pilots in a furball. The number of players that can join a battle is yet to be determined, but the team hopes to support eight-player action over the Internet.

The sim will support most 3D cards through Microsoft's Direct3D. Native support will be provided for cards based on the 3Dx Voodoo chipset, and possibly for other chipsets as well.

X-Flights is extremely ambitious in scope. If it delivers 90 percent of what it promises, it will go a long way toward making up for the long drought of World War II sims.

#### LIGHTNING REDUX

Novologic's F-22 Redux promises a much more accurate combat experience than the company's previous effort

## F-22 Melee

There are a number of promising F-22 sims in the works, although the names may change (see "F-22 Combat Gets Nastier" in this month's READ.ME section). Interactive Magic's F-22 Redux should be available by the time you get this issue. Impressive terrain graphics, promising flight modeling, and an ambitious dynamic campaign make this worth a close look; check out the preview in the May '97 CGW for more details.

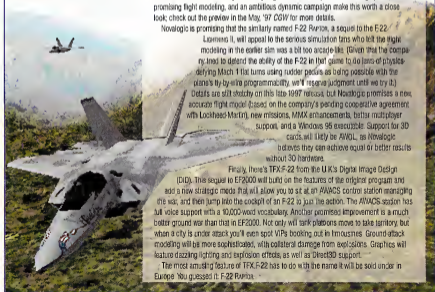
Novologic is promising that the similarly named F-22 Redux, a sequel to the F-22

Learned II, will appeal to the serious simulation fans who felt the flight modeling in the earlier sim was a bit too arcade-like. (Given that the company tried to defend the ability of the F-22 in that game to do [jerks-of-physics-defying Mach 1 flat turns using rudder pedals as being possible with the plane's fly-by-wire programmability, we'll reserve judgment until we try it.]

Details are still sketchy on this late-1997 release, but Novologic promises a new accurate flight model (based on the company's pending cooperative agreement with Lockheed-Martin), new missions, MMX enhancements, better multiplayer support, and a Windows 95 executable. Support for 3D cards will likely be AWOL, as Novologic boasts they can achieve equal or better results without 3D hardware.

Finally, there's TFX:F-22 from the U.K.'s Digital Image Design (DID). This sequel to EF2000 will build on the features of the original program and add a new strategic mode that will allow you to sit at an AWACS control station managing the war, and then jump into the cockpit of an F-22 to join the action. The AWACS station has full voice support with a 10,000-word vocabulary. Another promised improvement is a much better ground war than that in EF2000. Not only will tank platoons move to take territory, but when a city is under attack you'll even spot VIPs booking out in limousines. Ground-attack modeling will be more sophisticated, with collateral damage from explosions. Graphics will feature dazzling lighting and explosion effects, as well as Direct3D support.

The most amusing feature of TFX:F-22 has to do with the name: it will be sold under in Europe. You guessed it: F-22 Redux.







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Actual screen shot from Microsoft Flight Simulator 6.0



# Unlimited.

Actual screen shot from Looking Glass Flight Unlimited II.

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TECHNOLOGIES

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**NICE PANELING** All of Pro Pilot's instrument panel switches can be manipulated using the mouse pointer.

## Pro Pilot

If you've ever wanted to make the transition from virtual flying to the real thing, or if you're a real pilot looking to shoot some very low-cost touch-and-gos at your local airfield, Sierra Pro Pilot is definitely worth a look.

This general-aviation simulation lets you take flight in five different aircraft: a Cessna 172 Skylark; Beechcraft V35 Bonanza; Baron; and Super King Air; and the Cessna CitationJet. Each aircraft features a meticulously modeled instrument panel. These panels are fully interactive and mouse-controllable, so say goodbye to having to learn 50 different key sequences to manage your aircraft. Much of the development team came to Dynamix from SubLogic, and they've brought along realistic modeling of flight characteristics and navigational aids.

Gone, however, are the creaky EGA graphics and obscure control sequences of the SubLogic days. The integration of the next-generation Dynamix 3Space engine with the SubLogic flight data and airport/navigational databases is seamless. The only general aviation sim that looks better is Looking Glass's *Fusion Unlimited II*. Unfortunately, Pro Pilot won't feature 3D-card support.

Despite its name, *Fusion Unlimited II* is limited to only one terrain area. Pro Pilot includes terrain for the entire continental United States. Every U.S. airport is modeled, as well as all the navigational aids. Even if you live in Hattiesburg, Mississippi, you'll still be able to shoot touch-and-gos at your local airport. Major cities have authentic buildings and landmarks, while generic textures are used in other areas. Elevations are correct across the country, so

you can do the Death Star trench run down the Grand Canyon or buzz imaginary campers in the Smokies.

Newcomers to general aviation will appreciate Pro Pilot's thorough training regimen. In addition to animations that cover basic and advanced procedures, there's an interactive flight instructor that will guide you through your training.

Once you have your wings, you can plan your own flights or the sim can assign you cross-country flights. Time acceleration up to 16x helps keep those long flights from growing dull. A flight recorder feature lets you replay your flight, which is very useful for figuring out what you did wrong in your training phase. Pro Pilot should be landing in stores by the time you read this.

## Red Baron II

The long-awaited *Red Baron II* will finally arrive in stores only a few weeks after this issue hits the newsstands. This sequel to what many consider the best flight sim of all time will feature more than 40 types of WWII aircraft and a fully dynamic campaign engine as well as a mission editor. In addition to your own aircraft, you'll encounter other flights of both friendly and enemy planes, each on their own missions.

Although the sim won't include 3D-card support, the graphics still look great, the stereo sound effects are top-notch, and SVGA frame rates were fairly smooth on a P100 in the beta version.



**BAIL DUT** You may encounter allied bombers on missions of their own, thanks to Red Baron II's dynamic campaign engine.

## MicroProse

### European Air War

MicroProse's *EUROPEAN AIR WAR (EAW)*, the sequel to 1942: *THE PACIFIC AIR WAR (PAW)*, seemingly dropped off the map after last year's E3 show. The delay was worthwhile, however. The DOS version shown at last year's E3 looked like little more than an SVGA-graphics version of PAW in a different setting. After things settled down from the big MicroProse staff exodus last year, the reconstituted EAW team got to work on moving the game to Windows 95, adding 3D-card support, and making other modifications to ensure that it would be more competitive in today's market.



**JUST ADD BULLETS** *European Air War's* instant mission editor lets you set up quick battles with just a few clicks.

*EAW* features two campaigns. The *Battle of Britain* lets you fly for either the Luftwaffe or RAF and covers the period between July 10, 1940, and September 15, 1940. The second campaign adds American forces to the mix, and covers a period from April 1, 1943, to April 25, 1945. The simulation is historically accurate on a squadron basis, with the proper squadrons based at the appropriate bases. Missions are historical in nature, but don't necessarily exactly match the events of a particular day.

Although missions are randomly generated, there is a sense of connectedness between them. If your squadron takes out a bridge on a mission, it will still be destroyed on the next mission.

In addition to the campaigns, there's a single mission generator that lets you set up battles between up to four different aircraft types. A multiplayer mode will support up to eight players. The game's AI has been improved considerably over PAW. Not only will computer pilots fly better, but they'll also be affected by morale. If they're

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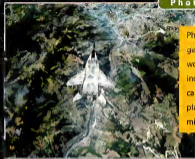
## Multiplayer Options



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## Photorealistic Terrain



Photorealistic terrain – Magic Labs' DEMON™-1 graphics engine generates photorealistic terrain from satellite imagery and real-world elevation data for unprecedented visual realism. The game includes a Free Operation Navigational Chart of Bosnia so players can layout their flight plan before flying the mission.



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**PEEL OFF** The high-res graphics engine in Eurocom's *An War II* has seen a complete rewrite since last year's E3.

losing the fight, they're likely to turn tail and run rather than fight to the death. Damage effects are modeled in much greater detail than in the original game. Shoot out the left engine on an Me-110 and you'll see the plane yaw to the side. Damage will affect your own plane's handling as well, and you'll have the option to ditch a heavily damaged plane if you don't want to risk bailing out.

Flight models in the alpha version feel pretty good. They may not be as detailed as *Warcross* or *Fighter Ace*—you probably won't have to fight acclimated stalls, for instance—but performance differentials between aircraft should be accurately modeled. The cockpit features both fixed views (although, alas, apparently lacking a "look straight up" key) and a PWW-style virtual cockpit.

The developers have gone to great lengths to capture the mood of the time and locale. When flying for the Luftwaffe, your mission briefings will be in German, with English subtitles.

In addition to 256-color SVGA, *EAW* will also support 3D cards through Direct 3D. MicroProse is also considering adding direct support for a couple of popular 3D cards if time permits.

## Falcon 4.0

We previewed *Falcon 4.0* last month, but it seems worth reporting that the sim is still on track for its holiday season release. When I visited the Spectrum Holobyte/MicroProse offices to see Eurocom's *An War II*, I also saw a version of *Falcon 4.0* that had progressed much since the previous month. The biggest technical hurdle—the dynamic campaign engine—was fully up and running and looked quite impressive. Also new was the lovely 16-bit color instrument panel, with lots of minor but engaging details such as smoothly scrolling face instruments.

## Online Updates

Online flight sims will see advances over the course of the year as well. Perhaps the most interesting of these is real competition, as *Warcross* and *An War II* will be joined later this year by

*COVERED KILL* and *FIGHTER ACE*. Of course, the eventual winners will be sim pilots, who will likely see accelerated competition in both features and prices.

*Warcross* is slated to see its second big update—*Warcross 2.0*—about the time you read this. New to this version will be rolling terrain that should make low-level dogfights a lot more challenging, as well as graphic enhancements such as sun glare and 3Dfx support. New planes will

include the Me-110, Hawker Hurricane, Bf-109E, and an early model Spitfire. Interactive Magic Online recently started beta-testing real-time voice communications, which will allow you to talk with up to three other players.

Kesmai's *An War II* is also slated to see improvements later this year. Flight models are supposed to be updated to allow pilots to better utilize historical tactics for individual aircraft. Graphics are also

due for a significant update, likely with Direct3D support, but the biggest enhancements are slated for online gameplay. Automated historical play will replace the "forever war" between countries A through D with a battle more resembling actual World War II combat. Newcomer pilots will be sent on missions, and more experienced pilots will be able to take on squadron leader roles.

Full details remain sketchy on *COVERED*



**ROLLING ON** An early look at *Warcross 2.0* shows rolling terrain that will add much to strategy; expect an even better look in the final product with 3Dfx support.

*KILL*, the *EAW* sim that will appear on Ten this fall. Instead of a persistent arena, this online multiplayer WWII sim will allow players to set up a variety of combat scenarios. You'll be able to fly cooperatively with a group against a squadron of enemy bombers, or challenge a hot flier to a one-on-one duel.

Finally, Microsoft's first "pay to play" internet Game Zone game will be *FIGHTER ACE*, developed by VR-1. This sim has some of the best graphics we've seen on systems sans 3D cards, and includes a superb virtual cockpit. *FIGHTER ACE* seems geared more toward casual players than the other online sims, but the developers promise a number of play levels to appeal to a wide variety of experience levels.



**38 SPECIAL** A squadron of P-51s heads for the hills in *COVERED KILL*.

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CIRCLE READER SERVICE 1001

## SSI

## Su-27 Flanker 2.0

By the time you read this, Su-27 Flanker 1.5, an expansion disc for the acclaimed hard-core flight sim, should be available. More than just a mission pack (although it does include 150 new missions), Flanker 1.5 adds 16-player network play, an extended mission editor, which allows you to create mission scenarios that last a period of days, and a comprehensive manual with plenty of tutorial information. Although it still uses simple polygon graphics, it does support Direct 3D, so 3D card owners will see smoothly Gouraud-shaded graphics.

In the works is a far more dramatic update: Su-27 Flanker 2.0. A dynamic campaign complete with resource management highlights the gameplay improvements; a mission editor will still be available as well. The sim's terrain will be based on previous classified Russian geographic data derived from stereographic satellite photos. Damage modeling

will be significantly more detailed, and there will be visual indicators of damage.

The update will also address Flanker's biggest weakness, its primitive graphics. The new engine

will feature support for 3D cards, MP-mapped textures (which eliminate pixelation at low altitudes), alpha blending, and fogging. The game will also support resolutions up to 800x600 with 32,000 col-



▶ **LOVELY PLUMAGE** In addition to other improvements, Su-27 Flanker 2.0 will finally sport a modern, texture-mapped graphics engine.

ors. If your hardware isn't up to it all, you can toggle off new features—the minimum requirement for the sim is still only a 486/66. The 16-player multiplayer mode will allow pilots to join games already in progress. And for those intimidated by the first Flanker, the new Quick Start mode simplifies things so you can learn the ropes without dying quite so often.

## Roll Call

Simulation	Manufacturer	Type	Multiplay	3D	ETA	Web Address
<b> Aces: X Fighters</b>	Nasa	WWII fighters	Yes	Yes	Holidays	<a href="http://www.aces2.com">www.aces2.com</a>
<b>Air Warrior II Update</b>	KernalInteractive Magic	WWII fighters	Yes	Yes	TBA	<a href="http://www.airwarrior.com">www.airwarrior.com</a>
<b>Confined Kill</b>	Edios	WWII fighters	Yes	Yes	Fall	<a href="http://www.confinedkill.com">www.confinedkill.com</a>
<b>European Air War</b>	MicroProse	WWII fighters	Yes	Yes	Holidays	<a href="http://www.microprose.com">www.microprose.com</a>
<b>F-15</b>	Jane's Combat Simulations	F-15	Yes	TBA	Winter	<a href="http://www.aces2.com">www.aces2.com</a>
<b>F-22 Raptor</b>	Novologic	F-22	Yes	No	Holidays	<a href="http://www.novologic.com">www.novologic.com</a>
<b>Falcon 3.0</b>	MicroProse	F-16	Yes	Yes	Holidays	<a href="http://www.microprose.com">www.microprose.com</a>
<b>Fighter Ace</b>	Microsoft/NVI 1	WWII fighters	Yes	No	In online beta	<a href="http://www.zone.com">www.zone.com</a>
<b>Fighter Duel 2</b>	Integrates	WWII fighters	Yes	Yes	None	TBA
<b>Flt Squadron: Screamin' Demers</b>	Activision	WWII fighters & bombers	Yes	Yes	Early 4th Quarter	<a href="http://www.activision.com">www.activision.com</a>
<b>Flight Unlimited II</b>	LucasArts	Various aircraft	No	No	Fall	<a href="http://www.lucasarts.com">www.lucasarts.com</a>
<b>Flying Nightmares 2</b>	Edios	SuperCobra and Harrier	Yes	Yes	September	<a href="http://www.ediosinteractive.com">www.ediosinteractive.com</a>
<b>F-16 Viper</b>	Interactive Magic	F-16	Yes	Yes	Fall	<a href="http://www.aces2.com">www.aces2.com</a>
<b>F-22 Raptor</b>	Interactive Magic	F-22	Yes	Yes	Imminent	<a href="http://www.magicgames.com">www.magicgames.com</a>
<b>Jane's AH-64 Longbow 2.0</b>	Jane's Combat Simulations	Whodoo helicopters	Yes	Yes	Winter	<a href="http://www.aces2.com">www.aces2.com</a>
<b>Jane's WWII Sim</b>	Jane's Combat Simulations	WWII fighters	TBA	TBA	Summer '98	<a href="http://www.janes.com">www.janes.com</a>
<b>JSP</b>	Edios	Modern jets	Yes	Yes	Winter	<a href="http://www.aces2.com">www.aces2.com</a>
<b>MIG Alley</b>	Empire	Korean fighters	Yes	Yes	October	<a href="http://www.empire.com">www.empire.com</a>
<b>Five Miles</b>	Edios	General aviation	No	No	August	<a href="http://www.edios.com">www.edios.com</a>
<b>Red Baron II</b>	Serra	WWI fighters	No	No	September	<a href="http://www.serra.com">www.serra.com</a>
<b>Strike Ace</b>	Edios	Korean fighters	Yes	Yes	September	<a href="http://www.aces2.com">www.aces2.com</a>
<b>Su-27 Flanker 1.5</b>	SSI	Su-27	Yes	Yes	Imminent	<a href="http://www.ssionline.com">www.ssionline.com</a>
<b>Su-27 Flanker 2.0</b>	SSI	Su-27	Yes	Yes	Winter	<a href="http://www.aces2.com">www.aces2.com</a>
<b>Team Apache</b>	Edios	AH-64 Apache	Yes	Yes	Winter	<a href="http://www.ediosinteractive.com">www.ediosinteractive.com</a>
<b>UFC: F-22</b>	Edios	F-22	Yes	Yes	October	<a href="http://www.edios.com">www.edios.com</a>
<b>Warbirds 2.0</b>	Interactive Magic Online	WWII fighters	Yes	Yes	Imminent	<a href="http://www.warbird.com">www.warbird.com</a>



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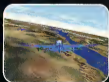
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## Empire Interactive MiG Alley

**E**mpire Interactive's *MiG Alley* is a Korean War air-combat simulator that builds on the foundation of the company's *Flywings Cores*. Although that product singlehandedly turned



**NECK AND NECK** The F-86F Sabre and MiG-15 fight in *MiG Alley* are a close performance match.

around Developer Rowan's reputation in the U.S., it still had some quirks in the initial release that Rowan had to address in patches.

This time the company is attempting to incorporate the works in the initial release. In addition to a fully dynamic campaign, the sim will feature multi-player support from the start. What's more, 3D-card support will be built-in, to alleviate the biggest complaint about *Flywings Cores*—slow SVGA-graphics frame rates. The Jetrain engine has been improved, and the jagged Korean topography should make for some thrilling low-level dogfights.

The aircraft lineup is very similar to that found in Virgin's *Snow Ace*. You'll be able to fly the F-86 Sabre, F-80 Shooting Star, F-51 Mustang, and MiG-15. Unique to *MiG Alley*, though, is a flyable F-84 Thunderjet.

The campaign will be similar in some respects to Falcon 4.0's Korean campaign. You'll choose from a wide range of missions in an attempt to force the North Korean troops back to the Chinese border and win the war before the start of peace talks. Your planning will have direct implications on the future of the war.

## Interactive Magic iF-16 Viper

**D**eveloped by Digital Integration, creators of *Avroca* and *Hao*, *iF-16 Viper* marks the company's return to the fixed-wing arena it excelled in with *F-16 Combat Flight* and

Continued on pg. 703



**LAWN DART** The updated graphics engine used by *iF-16 Viper* is similar to *Hao's*, but features much more detailed texturing.

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## Activision

### Fighter Squadron: Screamin' Demons Over Europe

Activision's *Screamin' Demons* has happily found a new preface to its name that makes it sound a little less like the latest Quake mission pack. Parsoft, creators of *A-10 Quest*, is developing this World War II fighter-combat simulation. Creator Eric Parker promises an even more sophisticated physics model than was found in the *A-10* game, which should be awfully impressive.

In addition to building on its strengths, *Fighter Squadron* should address the biggest gripes about its predecessor as well. Gone are the polygonal

graphics, which will be replaced by full 3D-card support. In addition, Parker has developed a software "3D-card emulator" for the game, so even if you don't have 3D hardware you should still see impressive, speedy visuals. Also, a mission planner will allow you to create missions for single- and multiplayer action, in addition to the 30 to 50 missions that will be included.

Combat will take place over compressed versions of England, France, Germany, and North Africa, with distances reduced to get you to the battle faster. Terrain will use "super textures" that will avoid any repeating patterns.

Nine aircraft will be modeled initially, but the open plane interface will allow more to be added later. On the American side, you'll be able to fly the P-51, B-17, and P-38. RAF pilots will fly the Mosquito, Typhoon, and Lancaster; and the Germans will pilot the FW-190, Ju-88, and Me-262. Look for accurate, unique virtual cockpits in each aircraft. Parsoft's Eric Parker says the texture detail in the sim is so great that there's no 2D instrument panel—the sim's built in perspective-correction features keep the panel readable, even as a 3D object.



**TYPHOON VS. JUNKERS** The biggest complaint about *A-10 Quest*, the simple polygon graphics, has been addressed in spades in *FIGHTER SQUADRON: SCREAMIN' DEMONS OVER EUROPE*.

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HD Continued from pg. 100

Torpedo. The sim is built on an enhanced version of the Halo engine, with dramatically improved texture mapping that looks far more state-of-the-art, and provides much better altitude cues than the simple textures used in Halo.

Missions take place over Korea, Israel, and Cyprus; each theater will feature 10 single missions and 20 campaign missions. In addition, 20 training missions will introduce you to the F-16's systems. Cockpit simulation looks good, with the latest avionics upgrades modeled and full virtual cockpit control. Cooperative and antagonistic multiplayer support will be included, with both deathmatch and capture-the-flag scenarios.

Although not as ambitious an effort as Falcon 4.0, F-16 Viper still looks quite promising. Look for a hands-on preview in next month's issue.



**MASS DESTRUCTION** In *Team Apache*, you'll need to worry as much about managing your teammates as you will about taking out ground targets.

## Eidos Interactive Team Apache

**D**eveloped by Simis and Eidos' Bryan Walker, a former AH-64 Apache pilot and Gulf War veteran, *Team Apache* is designed to be about more than just the cool hardware. You must deal with the personal challenges that a

commander faces in a combat situation. More than simple wingmen, your teammates are "artificial pilots" who have individual traits and characteristics, and who can become fatigued and stressed as the campaign goes on. Think of *Team Apache* as the first character role-playing simulation. Equipment management also figures into the equation, and you may at times be faced with the prospect of sending pilots up in a damaged bird.

This AH-64 Apache attack helicopter sim will feature campaigns in Colombia, the Middle East, and Russia, as well as a "quick start" and a mission editor. Up to eight players can participate in modem, LAN, or Internet games, and direct support is included for all the major 3D cards.

## JSF

**J**SF models the aircraft competing in the upcoming Joint Strike Fighter competition. Contrary to initial reports, the sim will feature the Boeing and Lockheed-Martin entries in this competition to develop a tri-service, stealthy attack jet.

OR, PERHAPS, NOT

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**ULTRA MODERN** The Joint Strike Fighter modeled in JSF won't actually go into service until well after the year 2010.

Although JSF promises four dynamic campaigns and 10 million square miles of realistic terrain, indications are that this will be an action-oriented simulation, along the lines of NovaLogic's F-22 Lightning II. Initial reports are that the graphics engine is breathtaking. We'll report in detail after we get a hands-on look.

## Flying Nightmares 2

**F**lying Nightmares 2 is two-thirds flight simulator and one-third real-time wargame. In addition to a traditional combat sim campaign set in Cuba, FN2 will also feature a Commandant mode, in which one player can manage the real-time war from an overview map while others fly missions in AH-1W SuperCobra helicopters and AV8B Harrier II Plus attack jets. For the full scoop on FN2, check out our preview back in the June '97 issue. ☞



**COBRA'S VENOM** A SuperCobra takes out a target before it can cross the bridge in Flying Nightmares 2, a game unique not only in its strategic element, but in its simulation of both helicopters and fixed-wing aircraft.

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## 1st Prize

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The deluxe flight sim package

The deluxe flight sim package includes:



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## 3rd Prize

100 contestants will receive a gift and honorary membership in CGW's 4077th Three Wisemen Squadron.

(Note: In the event of unavoidable product delays or unavailability, titles of equal value may be substituted.)





# Shining Light in a Dark Place

*The Heralded Arrival of 3D WinBench 97*

by Lloyd Case

**T**here's an old fairy tale about several blind men trying to describe an elephant. One feels the trunk

and proclaims that the elephant is much like a snake. Another feels a leg and says that the elephant is like a tree. A third feels the elephant's side and suggests that the elephant is like a wall.

So it's been with 3D graphics accelerators: I've looked at dozens of 3D accelerators over the past year, and an writing about them it's become clear that the tools to really test 3D accelerators have been limited, to say the least. There are a scant handful of Direct3D games that run on most—but not all—of the 3D graphics chips. There are the infamous Barrel, Twist, and D3D test that ship with Microsoft's DirectX developer's kit. A couple of vendors have tried to test out benchmarks, but they've often been less than objective. This serious dearth of both Direct3D games and thorough testing tools has created the need for a comprehensive, objective 3D benchmark.

It's a serious problem. Unlike benchmarking 2D graphics, 3D graphics are much more complex, and no two chipsets have the same features. Some, like the Matrox Mystique, sacrifice some image enhancement features in search of better frame rate. Others layer 3D

feature sets on top of existing 2D architectures. Some, like 3Dfx and Video-Logic/NBC, focus only on the 3D side of the equation. A good 3D benchmark needs to let the user not only check the image quality, but also turn features on and off. Better yet, a good benchmark would notify the user when certain features don't work.

Then there's the issue of performance. No two games will necessarily generate the same workload. A card that runs MONSTER TRUCK MADNESS well, with its relatively low polygon count, might choke on a title with lots of smaller polygons, like Eidos' FEARING NIGHTMARES 2. So a thorough benchmark needs to vary both polygon count and size.

Another issue with benchmarks is accuracy. Certainly a well-designed benchmark needs to minimize the possibility of cheating, but it should also be aware of external factors that might affect the numbers. For example, most 3D titles will double-buffer their animation, meaning that while the existing frame is being displayed on the screen (the front buffer), the next frame is being drawn in off-screen memory on the graphics card (the back buffer). But there's a problem with using a double-buffered program to measure performance. It's called

vertical retrace, which is the gun in your monitor that scans back and forth, drawing the pixels on the screen. It scans at the vertical refresh rate of the computer. The problem is that most games wait until the next vertical retrace starts before flipping which buffer is onscreen. If they didn't, you'd see image "tearing"—not a pretty sight.

To address this issue, a benchmark needs to write to only one buffer. Because the benchmark would be writing a new frame right to the display buffer each time, there would be a flashing effect. And while it wouldn't be pretty, it's a more accurate measurement technique.

For simplified comparison of 3D chips, a good benchmark should produce a single number when testing is done—one that takes into account both feature set and performance (frame rate, fill rate, and polygon throughput). Finally, this benchmark needs to push existing hardware by first simulating the workloads generated



**THE ROAD TO NOWHERE** Perspective correction in this image isn't quite right, but it still passes



**“ Wouldn't it be great to have a benchmark that did it all right? Guess what? We do. ”**

► You can reach Lloyd at his new email address: [lcase@pacbell.net](mailto:lcase@pacbell.net)

# TIPS!

## Benchmarking Tips

▶ When you run any Windows-based benchmark, there are several things you need to do. First, make sure no extraneous programs are running. The Ziff-Devil benchmarks warn you about background programs, but double-check. Second, if you haven't

defragment your drive in some time, do it before running a benchmark. Third, make sure you turn off screen savers and power management. Finally, if possible, run the benchmarks from a clean Windows 95 installation. The last one isn't always practical for most working systems, but if you want to see how your

system does at its peak, a clean Windows install is the only way to do it. The more software you install, the slower the benchmark results—even when you don't have any other programs running. Oddball drivers, DLLs, fonts, and other junk lying around from previous installs can adversely impact benchmark testing.

by current titles, but also by levels that push polygon counts up to having that game developers will probably be creating in a year or two.

Wouldn't it be great to have a benchmark that did all those things?

Guess what? We do.

It's called 3D WinBench 97, brought to you by the performance measurement wizards at the Ziff-Devil Benchmark Operation Group (ZBOG). You can download it from ZBOG's Website at [www.zibtop.com](http://www.zibtop.com). However, it's a 20MB download. For a nominal charge, you can order a 3D WinBench CD-ROM.

3D WinBench 97 is a Direct3D benchmark, and uses DirectX Immediate Mode—the same one most game developers will use. This lets developers get closer to 3D hardware, and gives them the freedom to construct their own geometry engines.

The benchmark consists of three groups of tests.

The 3D Quality tests step through 11 short interactive sequences, then ask you if certain features (fog, for example) look correct. There are actually samples of "good" and "bad" images to make the judgments easier. If your screenshot matches the "bad" example, then the test has failed, and you should check the "no" box. If your image is close to the "good" image—even if it's not exact—then you should check "yes."

If the card's Direct3D driver doesn't support a feature, you'll just get a dialog box telling you that the feature isn't implemented. What's important is that the "performance" is more than just the amount of faces/polygons/pixel per second. Image quality also has to be up to snuff.

The minimum requirements for 3D WinBench to use hardware acceleration are z-buffering, perspective-corrected texture mapping, and point sampling of textures. You can only explicitly test for perspective correction; the others are tested before you run the 3D WinBench test. If your card flunks the perspective correction test, then all of 3D WinBench will run in software emulation—very slowly.

After the 3D Quality tests complete, the 3D WinMark test runs, generating a series of flythroughs or walkthroughs of three scenes, with different hardware features enabled. There's a flythrough of a sky scene with futuristic buildings, another of an island with roads, trees, and buildings, and a third that's a walkthrough of the interior of a chapel. These flythroughs will generate the final 3D WinBench score.

The 3D Triangle tests throw a spinning ball on the screen and measure how fast triangles are generated. These results don't affect the 3D WinBench score, but they do show how well your card handles triangles of different sizes with different acceleration features enabled.

One other cool feature is the ability to explicitly turn features on and off, so you can force certain Direct3D features on to see what happens. There are check boxes for disabling certain rendering capabilities, which can be useful to see if there are bugs in the Direct3D drivers.

Is 3D WinBench perfect? In a word, no. For one thing, it's still a synthetic benchmark, and only measures rendering performance of the 3D card. Because 3D rendering also relies on the CPU's floating-point performance, 3D WinBench 97 also happens to be a good testing tool for gauging that aspect of performance as well. In the real world though, games have audio, AI, physics, overlaid 2D-cockpits, joysticks input, and the like, all of which can alter performance. It's possible that some 3D cards might be more adversely affected by real games than the benchmark might indicate. The best testing approach would combine 3D WinBench 97's granularity and thoroughness with a genuine benchmark to capture performance measurements from a series of games. We don't have the tools for that yet, but we've got a new testing method called LivePlay in the works that will address this second area.

We'll be using 3D WinBench 97 extensively in all of our 3D accelerator testing. We also used it for this month's CPU roundup, and got some very interesting results. It has a level of granularity that hasn't existed in past tests. It's objective, and doesn't favor any particular feature set, and it will also push the industry forward a bit. The feature set that's tested in 3D WinBench will most likely be universally supported within the next year.

If you're interested in 3D performance, download the benchmark or get the CD to see how your system stacks up. Even if all you do is test your own card, you'll learn a little more about the inner-workings of 3D graphics, and every little bit helps. ☺

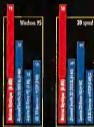


**HIX AND MATCH** In this dialog box, you can turn individual features on or off and test your 3D card's performance with different combinations.



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\* Estimated street price. All performance tests conducted by Matrox Graphics Inc. on a Pentium 200 MHz MMX with 32 MB of RAM and 512K cache, Mean Motion™, Diamond Stealth 32 2000K, Creative 3D Blaster PCI and ATI 3D Xpress™-PCI/E. We configured with standard memory configurations using driver releases 3.11, 4.01.05.1105, 4.02.0204 and 3.80 respectively. WinDeath II™ business beta produced at 30Hz @ 16-bit @ 75 Hz using small balls under Windows 95. 3D WinDeath II™ beta produced at 30Hz under Windows 95 @ 16-bit @ 75 Hz with Death II™. 3D WinDeath settings were identical. Quality data represents the respective products.

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# The Need for Speed



*The New Generation of CPUs Pushes the Gaming Envelope Even Further*

by Loyd Case and Dave Salvator

**T**here's never been a more confusing, yet more exhilarating, time to choose a brain for your PC. A couple of years ago, the 486 and the clones from competitors Cyrix and AMD were getting long in the tooth, and the only choice for an upgrade was the Intel Pentium. Then last year, Cyrix fired the first shot across Intel's bow by shipping the 6x86 processor line. At that time, AMD could only offer the anemic K5—which is really only a souped-up 486.

But now the landscape is changing. Intel has several viable processor families: the P54C ("classic" Pentium), the P55C ("Pentium with MMX Technology"), the Pentium Pro, and the spanking new Pentium II (which looks much different from its predecessors, resembling a small plastic cartridge with an edge connector that plugs into a slot on a motherboard called a Slot 1. Naturally, this means that the Pentium II won't run in older motherboards). AMD has launched the K6, a Pentium Pro-class CPU with MMX that fits into the same motherboard socket (Socket 7) as the standard Pentium; and Cyrix is poised to

deliver the 6x86MX, touting it as another MMX-equipped Pentium Pro equivalent that also plugs into Pentium's Socket 7.

While it's great to have choices, most of us have to vote with real dollars. CPUs are expensive chunks of silicon, and making the wrong choice can seriously bruise a budget. We decided it was time to see how these CPUs really perform. On the "old-timers" list are Intel's P54C "classic" Pentium, the Pentium Pro, and the Cyrix 6x86L. The new kids on the block are AMD's K6, which has generated a lot of buzz, the P55C MMX Pentium, and Intel's new baby, the Pentium II. Though we weren't able to get Cyrix's 6x86MX chip in time for testing, we'll still give you the low-down as to how this chip may have Pentium II looking over its shoulder.

Integer performance has often been the primary metric when evaluating CPUs, but with the push toward 3D games and accelerators, CPUs' floating point performance has become a much more important factor in overall performance. With that in mind, we tested both criteria extensively, and the results may surprise you. There are a lot of numbers here, so hold on to your hat as we dive in.



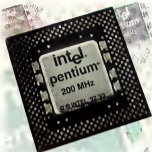
## How We Tested

Benchmarking is fraught with a host of choices, none of them ideal. What methodology produces the most meaningful results? Do you test all CPUs at the same clock rate? This approach might be an interesting test of CPU efficiency, but it's not how gamers buy systems. We ran all the CPUs at their specified clock rates and kept components as similar as possible. But given that the Pentium II and Pentium Pro have different socket and chipset requirements, we used different motherboards for these CPUs.

## Plumbing Specifics

We kept the 2D graphics card, 3D accelerator, and DRAM speed and amount the same, since these primary components have the most impact on benchmark results. The components we used to test all CPUs are listed as follows:

- 32MB of 60ns EDO DRAM
- STB LightSpeed 128 graphics card (using ET6000 chipset) with driver rev. 1.08



## Intel P54C

### "Classic" Pentium

The classic Pentium has become some thing of a stepchild in an incredibly short time. The good thing about this is that prices have dropped radically. With a little careful shopping, you can find a 200MHz Pentium for under \$350. You'd think from Intel's advertising that the Pentium is about ready for CPU heaven, but its performance belies that notion. The 200MHz part still has stronger floating-point than either the Cyrix or AMD chips and, when coupled with a 3D accelerator, is still a viable gaming platform

(especially at the fire-sale prices that we've seen recently).

Turning to the numbers, P54C easily outpaces AMD's K6 and Cyrix's 6x86L in Quake TimeDemo tests. In Duke Nukem 3D, it just misses a first-place tie with its successor, Intel's P55C, and beats both the Pentium Pro and Pentium II. And while relatively slow on the CPUMark front, it hits the median for the 3D WinBench test, a testament to Intel's strong floating-point performance. In USNF '97, the P54C is respectable, pacing its sibling, the Pentium Pro, at about 13 fps.

Overall, if you're on a tight budget and don't need MMX capability, the P54C is still a viable—and affordable—option.

## Intel P55C Pentium With MMX Technology

The P55C is a significantly enhanced Pentium processor that sports twice the L1 cache size (16KB for data, 16KB for instructions, 32KB all told) of the classic Pentium. MMX instructions and some additional features also increase its

overall efficiency. Plus, the transistor count has been boosted to 5.5 million transistors.

In our benchmarks, the P55C is the fastest 16-bit CPU tested, as evidenced by its WinBench 97 CPUMark performance, and also in Duke Nukem 3D, which makes heavy use of 8- and 16-bit data types. Of the three processors with MMX support, the P55C comes in mid-pack on the Real Moon Psycho test. It easily bests all of the Socket 7 CPUs on Quake and 3D WinBench.

Recently, Intel announced that P55C's top-end clock rate would climb to 233MHz, because of improvements to its process technology. If you don't need Pentium Pro performance, or can't bring yourself to spend the additional dollars, then the P55C



## How We Tested

- Diamond Monster 3D (3Dix Voodoo chipset) with driver rev 1.07. Note: These drivers overclock the Voodoo chipset's GRX-CLK to 57MHz.
- Screen Refresh Rate: 75Hz

Internal L1 cache sizes were necessarily different, depending on the CPU tested.

We used the ABIT IT5H rev 1.5 motherboard with 512KB of L2 cache to test all Socket 7 CPUs: P54C, P55C, K6, and 6x86. We chose the IT5H because it supports all necessary voltages and memory clock speeds for all CPUs.

The L2 cache on the Pentium II was 512KB, versus the internal 256KB L2 on the Pentium Pro.

To test the Pentium Pro, we used a Micron Millennia Pro with the 440FX chipset. For the Pentium II, we used an Intel-supplied reference system that also uses the 440FX chipset.

## The Benchmarks

For DOS testing, we used Quake version 1.07's TimeDemo test, running all three demos at 320x200 and 640x480, and averaging the

three results at each resolution. Because Quake's rendering engine is very floating-point-intensive, these tests are a good measure of a CPU's bare-knuckle floating-point performance with no assist from a 3D accelerator. In the game-specific tests, we had audio and joystick enabled, though we didn't always use the joystick.

We also used Duke Nukem 3D running at 640x480 because of its intense use of 8- and 16-bit data types for rendering. We used the following command-line switches: DUKE3D (M.IS3)A.1, and took a frame rate measurement at the beginning of the level.

In Windows 95, we used WinBench 97 CPUMark 16 and CPUMark 32 tests, which rigorously exercise the integer portion of a CPU. To test floating-point performance executing 3D rendering through Direct3D, we used 3D WinBench-97.

Another floating-point intensive test was US Navy Fighters '97, where we measured frame rate with an F22 sitting on the runway of a custom mission. For this test, we turned sky and water textures off.

To test the three MMX-equipped CPUs in this roundup, we used Ferris-Wolf's Real Moon Psycho, whose rendering engine makes use of MMX for dynamic lighting effects, and for speech recognition. We recorded frame rates at the beginning of the first level with MMX both enabled and disabled.

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is worth a close look. At 200MHz and above, it's still pretty pricey, but the 166MHz part is available for well under \$400. Given Intel's big push on the Pentium II front, it's likely that P55Cs will be available at bargain-basement prices in the next few months.

Note that the P56C is a split-voltage CPU, with a 2.8 volt core and 3.3 volt I/O power requirement. If you're considering a P55C, make sure that your motherboard supports this voltage requirement. For only a few dollars more, you can also get OverDrive MMX Pentiums that will run in a wider variety of Socket 7 and Socket 5 motherboards.

## Cyrix 6x86L P200+

Last year, Cyrix and IBM delivered the first strong contender to Intel's Pentium line with the 6x86L. At first glance, it seems quite attractive, selling at a much lower price than the equivalent Pentium. The 6x86L generates stellar results in standard desktop benchmarks, such as WinBench and WinStone. Upon closer examination though, the P200+ turns out to be a poor choice for any gamer not on an extremely tight budget.

The benchmarks tell the story. On anything with substantial floating-point code—3D WinBench, Quake, or UNSF '97 (which is



practically a slide show)—the P200+ totters along like Bill Clinton on crutches. Even in 16-bit benchmarks, ostensibly Cyrix's strong suit, it barely reaches parity in CPUMark3, and falls behind in Duke Nukem 3D testing.

The 6x86L P200+ is a classic example of marketing run amok. The P200+ actually clocks at 150MHz, although the memory bus runs at 75MHz. If this were positioned as a really fast 150MHz part, we might be a little more forgiving, but positioning it against the P54C and P55C 200MHz CPUs is misleading, at best. Unless you're

strapped for cash or are only running older games, give it a pass. If you do get one of these, make sure your motherboard supports the necessary 75MHz memory clock speed.

## AMD K6 PR200

The K6 is the fruit of AMD's acquisition of NexGen, a CPU design company started by some former Intel CPU engineers. We were pretty eager to check this one out. There's been a lot of heat generated about AMD's latest foray into the processor wars; we hope this will shed a little light on the new developments.

At 8.8 million transistors, the K6 is a big chip. It's also the first Intel competitor to support MMX instructions. In one of those odd engineering decisions, the K6 supports a voltage scheme slightly different from Intel CPUs. The K6/200 requires a 2.9 volt core voltage (not 2.8 volts, like the P55C) and a 3.3 volt I/O voltage. The K6/233 supports a very odd 3.2 volt core voltage. If you pick up one of these chips, make sure your motherboard can handle it. We managed to obtain a K6/200 for our test.

Speeds and Feeds	Intel P54C	Intel P55C	Cyrix 6x86LP200+	Pentium Pro	Pentium II	Cyrix 6x86MX	AMD K6
Price	About \$350	\$500	\$150	\$517 (256KB internal L2) \$1,060 (512KB internal)	\$626 (233MHz) \$775 (266MHz)	Unreleased at press time	\$440 (200MHz)
Clock Speed (tested)/Max.	200MHz/ 200MHz	200MHz/ 233MHz	150MHz/ 150MHz	200MHz/ 200MHz	233MHz/ 300MHz	180, 200 and 225MHz	200MHz to 233MHz (266 announced)
Transistor Count	3.3 million	5.5 million	3 million	5.5 million	7.5 million	6 million	8.8 million
Socket Type	Socket 7	Socket 7	Socket 7	Socket 8	Slot 1	Socket 7	Socket 7
L1 Cache Size	16KB	32KB	6KB	16KB	32KB	64KB	64KB
MMX	No	Yes	No	No	Yes	Yes	Yes
Voltage	3.3 volts	2.8 volts core 3.3 volts I/O	3.3 volts	3.3 volts	2.8 volts	2.5 volts core, 3.3 volts I/O	2.8/3.3 volts, (K6/186 & 200)
Memory Bus Speed	66MHz	66MHz	75MHz	66MHz	65MHz	60, 66, and 75MHz	66MHz



## Intel Pentium Pro 200MHz

When Intel's Pentium Pro debuted, this first P6-generation chip was remarkable for a couple of reasons. It was the first X86 CPU to put the Level 2 (L2) cache inside the chip itself, and it also ran the L2 at the CPU core's clock speed, rather than at memory bus speed. P-Pro was also the first Intel chip to reduce X86 CISC (Complex Instruction Set Code) instructions to smaller, RISC-like (Reduced Instruction Set Code) instructions for faster execution. But the chip has also had its problems.

Despite blazing 32-bit performance, its 16-bit performance is actually slower than standard Pentium chips, and unlike the P55C and Pentium II, P-Pro lacks the MMX instruction set. On the upside, P-Pro is a very able floating-point performer, and turned in generally favorable numbers in our testing, trailing only the Pentium II in many tests.

In DCS, the P-Pro fared well in *DUKE TimeDemo* and *CBench* tests, though its *DUKE NUKEM 3D* performance was the slowest of the lot, owing to *DUKE's* reliance on 8-bit and 16-bit data types for rendering. In *Windows 95*, again, the numbers were generally good, though P-Pro suffered on *WinBench 97's* CPU16 test, where it came

several AMD utilities that enabled K6's write-back allocation caching.

Since the K6 is cheaper than the P55C, it's still a great choice for someone who has modest floating-point needs but demands terrific integer performance (strategy game players, for example).

Note that K6's floating-point is not egregiously bad—it's about equivalent to a 166MHz Pentium—but if you're a serious *DUKE* head, or if you play similar games (and you can afford it), the Intel CPUs give you more floating-point

and MMX punch.

The K6 is a worthy competitor to the Pentium line, and even pushes a bit into Pentium Pro territory. But, unfortunately, the AMD marketing folks are taking what would be a great Pentium upgrade and trying to position it against the Pentium II.

Finally, we're more than a little annoyed that AMD chose odd voltage requirements for the K6, which makes motherboard selections more restrictive. By now, the K6I233 should be shipping in quantity. Be sure to check AMD's Web site ([www.amd.com](http://www.amd.com)) and the motherboard manufacturer to make sure you have the right board for your K6.



Performance proves to be an odd mix. Integer performance is certainly close to the 200MHz Pentium Pro, according to *WinBench 97*, but its Achilles' heel is floating-point (though the FPU is still far superior to Cyrix's P200+). Floating-point intensive benchmarks lag behind all of the Intel processors. *DUKE*, *3D WinBench*, and *USNF '97* all run slower than even the P54C. Oddly, even *DUKE NUKEM 3D* also runs slightly slower than on the Pentium processors. Our sole MMX benchmark, *REBEL MOON RISING*, also runs a little slower than the P55C.

However, please note that although the ABIT BIOS officially supports K6, we ran

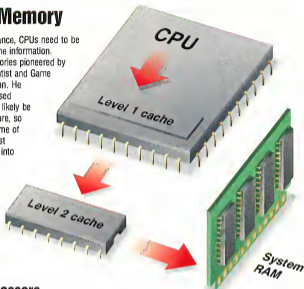
FRAMES PER SECOND	USNF '97 TEST	DUKE NUKEM 3D	DUKE TIMEDEMO C-LEVEL	DUKE TIMEDEMO P-LEVEL	REBEL MOON RISING RMR TEST	REBEL MOON RISING NETWORK TEST
Pentium II, 233MHz	26	38	25.13	62.03	17.3	6.8
Pentium Pro, 200MHz	12.6	31	22.23	54.67	N/A	N/A
Cyrix 6X86L, 200MHz	3.8	26	11.20	27.36	N/A	N/A
AMD K6, 200 MHz	8.0	40	14.73	49.67	12.3	7.5
Intel P55C, 200MHz	12.7	46	19.58	58.17	14.4	7.1
Intel P54C, 200MHz	11.5	45	18.33	47.97	N/A	N/A

**USNF '97 TEST:** This title is floating-point-intensive. The numbers are similar to those seen in *3D WinBench*: P-II is the clear winner, AMD finishes behind all four Intel CPUs, and Cyrix's 6x86L is late for lunch. What's interesting to note here is that P55C and P-Pro turn in nearly identical performance. **DUKE NUKEM 3D TEST:** *Duke* is a curious test for CPUs because of its heavy use of 8- and 16-bit data types. As a result, it has P-Pro and P-II actually bringing up the rear. Intel's P55C and P54C are the winners here, with AMD a

not-too-distant second. **QUAKE TIMEDEMO TESTS:** *Quake* relies heavily on floating-point performance for its rendering, and P55C, P-Pro, and P-II are the winners here. AMD K6 lags behind all Intel CPUs, and Cyrix's 6x86L is nowhere to be seen. **REBEL MOON RISING MMX TEST:** *RMR* uses MMX for its dynamic lighting and for speech recognition, and of the three MMX-equipped chips, again P-II comes out ahead, though not by much. With MMX on, AMD is about on par with Intel's P55C.

## Short-term Memory

To deliver speedy performance, CPUs need to be smart about how they cache information. Caches work based on theories pioneered by Hungarian Computer Scientist and Game Theorist John von Neumann. He determined that recently-used information will more than likely be used again in the near future, so it makes sense to keep some of it close at hand. A CPU first puts instructions and data into the Level 1 (L1) cache, located onboard the processor itself. When the L1 cache lines are full, the CPU moves information to the Level 2 (L2) cache, and when that's full, to system RAM.



## The Seven Processors

These seven CPUs each have different cache configurations, but bigger isn't necessarily better. For example, AMD's K6 has a sizable 64KB L1 cache, yet it wasn't a star performer. P-Pro and P-II benefit from their faster-clocked L2s.

Intel Pentium II



Intel Pentium (P54C)



Intel Pentium With MMX (P55C)



AMD K6



Intel Pentium Pro



Cyrix 6x86MX



Cyrix 6x86L P200+





in dead last, and in the USNF '97 test, P-Pro was no faster than the P55C.

There's a recently discovered bug in the Pentium Pro and Pentium II that Intel has dubbed the "flag erratum," though some may know it as "Dan O'Neil." The error occurs when performing floating-point to integer conversions of very large (80-bit) floating-point values. The problem is that these floating-point values are sometimes too large to fit within the storable range of integer values. When such a conversion happens, the CPU should return a value and flag this conversion as an "exception." The problem is that the value is returned, but the

exception flag may not be returned as well. Conversion of such high values is relatively rare, and Intel has acted quickly to test mainstream applications to see if they're affected, and the initial finding is that this "flag erratum" shouldn't pose a problem for games.

Intel has posted testimonial statements on their Web site ([www.intel.com](http://www.intel.com)) from a phalanx of software developers, including John Carmack of id Software, who stated that the flag erratum "...has no impact whatsoever on Quake." EA echoed the sentiment, stating that "...this erratum does not negatively impact any of our entertainment software titles." Both the Pentium Pro and Pentium II executed all of our tests without a hitch and, for the most part, turned in top-flight numbers. And while this bug could possibly affect some future game title, for now, that seems unlikely.

At some point in the near future, the P-Pro will be phased out of Intel's line-up in favor of the MMX-equipped Pentium II. Also, P-Pro uses the Socket 8 form factor, and there probably won't be many options for AGP Socket 8 motherboards when AGP shows up later this year. Given P-Pro's planned retirement, and its spotty 16-bit

performance, this is not an ideal chip for gamers. But for current P-Pro owners, there's good news: Intel is planning a P-Pro OverDrive upgrade chip with MMX technology that will ship early next year.

## Intel Pentium II 233MHz

Intel's latest creation, the Pentium II, marks a milestone in CPU evolution in several ways. Its new Slot 1 form factor will allow Intel to scale P-II's clock speed to 300MHz with the current design, and to a blistering 400MHz when Intel moves P-II to a 0.25-micron design process later this year. Unlike its predecessor, the P-Pro, P-II has an external L2 512KB cache, which lives on a daughtercard with the CPU. Intel chose this layout to reduce costs, while the L2 could have its own bus instead of making it share bandwidth with the main memory bus. This is so the L2 could run at half the CPU's core clock speed, rather than at the 66MHz clock speed of the main memory bus.

Now for the bad news. P-II is the only Slot 1-compatible CPU out there, and Intel's main competitors, AMD and Cyrix, may have difficulty producing Slot 1-compatible CPUs owing to certain legal restrictions surrounding the new form factor. AMD and Cyrix are banking on their price/performance advantage and the wealth of Socket 7

PCPU WINMARKS	WINBENCH 97 CPU WinMark Tests CPU 32	WINBENCH 97 CPU WinMark Tests CPU 16	3D WINBENCH TESTS	CBENCH SVGA GRAPHICS
Pentium II, 233MHz	532	45	174	66.7
Pentium Pro, 200MHz	521	317	150	49.8
Cyrix 6X86L, 200MHz	310	375	91.7	35.5
AMD K6, 200MHz	509	419	94	35.8
Intel P55C, 200MHz	478	412	104	44.7
Intel P54C, 200MHz	293	38	125	14
			▶ GRAPHICS WINMARKS	▶ FRAMES PER SECOND

### WINBENCH 97 CPU WINMARK TESTS:

WinBench 97's CPU tests stress integer performance, and here Cyrix paces Intel's P54C, while AMD compares favorably to the P55C. In 32-bit performance, AMD is within striking distance of P-Pro. P-II again finishes on top, and its architectural enhancements show up in improved 16-bit performance, the best of the lot.

### 3D WINBENCH TEST:

Though designed to test 3D graphics accelerators, 3D's newest benchmark also puts a pretty heavy load on a CPU's FPU. We used a 30Kx-based 3D card to test all CPUs, and what proves interesting here is how the scores scale across the Intel CPUs, with P-II clearly coming out ahead. AMD's K6 disappoints here, finishing behind all Intel CPUs, and Cyrix's 6x86L is again dead last.

### CBENCH SVGA GRAPHICS TEST:

CBench is intended to test graphics boards. But the rendering it does also puts a load on a CPU's floating-point unit. AMD and Cyrix don't pace Intel's P55C, or even the P54C. Intel's P-Pro finishes ahead of all Socket 7 CPUs, and P-II clears everybody's dock.

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here is Cyrix's 6x86MX, because we don't yet have performance data on that CPU. For out-and-out performance though, P-II will be very tough to beat.

## Cyrix 6x86MX

Along with AMD, Cyrix is set to square off against Intel in the CPU arena with its new 6x86MX (formerly known as the M2) processor. This design takes

motherboards out there to help find homes for their K6 and 6x86MX processors. As for future generation chips from these two companies, we'll just have to wait and see.

Although a Slot 1 motherboard essentially marries a gamer to Intel CPUs (for now), the upside is speedy performance across the board. A look at the numbers tells the story. In DOS, P-II smokes all contestants in Quake's TimeDemo tests, though its performance in Duke: Nixtur 3D underwhelms, owing to P-II's 32-bit optimization and Duke's use of 8- and 16-bit data types for rendering. In Windows 95, P-II clearly dominates across the board, and it beats all comers in every test we can throw at it. What proves interesting is P-II's 16-bit performance—a place where the P-Pro stumbles. P-II takes first place in WinBench 97's CPUMark 16 test, thanks to architectural enhancements Intel added to address P-Pro's shortcoming in this area. In USMF '97, P-II again finishes well ahead of the competition, and its MMX performance in Reax: Moor Rise ranks also as the best of the lot.

Granted, AMD's K6 will fare slightly better when it's at clock parity with the 233MHz P-II, but even then the P-II will still most likely have the edge. AMD will have a price advantage, but it comes close to matching P-II only in its MMX performance. And system vendors are already offering 233MHz and 266MHz P-II systems at very aggressive prices. The question mark

Cyrix's 6x86L processor core and makes several important architectural enhancements, most notably quadrupling the unified L1 cache from 16KB to 64KB and giving the chip's floating-point unit its own dedicated cache bus. Unfortunately, we weren't able to get even a prototype chip in house in time to be tested, but let's take a look at how the 6x86MX's design may make it a viable Intel alternative for gamers.

The 6x86MX will debut with three different speed options: 150MHz (PR166), 166MHz (PR200), and 200MHz (PR233). The PR numbers refer to the chips' performance equivalence to Intel processors at that clock speed. Cyrix is billing the 6x86MX as a competitor to both Intel's P55C and P-II. We hope (unlike its 6x86L P200+) Cyrix won't position the 6x86MX too high. The jury is still out until we can get an actual chip and put it through its paces.

Cyrix has implemented a much-needed enhancement to the 6x86L core design: improved floating-point performance. As seen in our tests, the 6x86L fares very poorly in floating-point-intensive tests, not only well behind the Pentium Pro and P-II, but also significantly slower than both the P54C and P55C. Apparently, the 6x86L's FPU shares its L1 cache data path with the CPU's bus interface, and the FPU stalls if the bus interface is using the cache when the FPU's cache request occurs. To address the problem, the 6x86MX's FPU now has its own dedicated cache bus, so both the FPU and the bus



omorph for high-performance 3D games. The 6x86L is clearly not a viable choice for anything that requires floating-point performance—which rules out many 3D games and simulators. Given the bargain prices on classic Pentiums, Cyrix's 6x86L is an even less desirable choice. The P55C is a good balance of price and performance, especially since its price will continue to drop.

If you're set to build the latest hot-rod rig, and are prepared to pay up, then by all means, go for the Pentium II—but be aware that

you will likely want to swap motherboards and graphics cards in a few months when AGP arrives in the stores.

Given the pricing on the Pentium II, we don't suggest getting a Pentium Pro; for roughly the same cost, with the P-II you get MMX support, better 16-bit performance, and faster clock rates. We are somewhat surprised at the minor performance

differential, given that Pentium II's L2 cache runs at a slower speed than that of the Pro.

Another important consideration is motherboard support. If you have an older system, it probably won't even support the P54C at a 200MHz clock speed. Before you decide to go with any CPU upgrade, make sure you check with both the CPU vendor and motherboard vendor to make sure it's properly supported.

The Pentium II will become the premium choice in just a few months, when the new 440LX chipset ships on AGP-enabled motherboards. Of course, that will mean a new motherboard, CPU, and graphics card. But the good news here is that the rate of hardware change may finally level off just a bit. A Pentium II/266 AGP system with a fast 3D accelerator may actually be able to run most games for the next 18 months or so.

Imagine that. ☺

*Our thanks to our sister publication, Microprocessor Report, for providing research reference material.*

interface can access the cache simultaneously. Given the number of 3D games in the works, with their ever-growing polygon counts, the 6x86MX will have to deliver at least nearly-equal floating-point performance to the Pentium II in order to be truly competitive.

On paper, the 6x86MX looks promising, and if its architectural enhancements deliver on their promises, Cyrix could have a serious contender on its hands. The 6x86MX will also have a price advantage and its Socket 7 form factor provided motherboard vendors support its clock multipliers and memory bus speeds—and most probably will. Its integer performance will most likely be nipping at the heels of a similarly clocked P-II (233MHz), but the 64KB question is whether the 6x86MX's floating-performance will stack up well. As soon as we know, you'll know.

### The Bottom Line

Choosing the right CPU isn't easy—it's a balancing act between performance, obsolescence, and cost. On a price/performance basis, the KB is an interesting choice, but it lacks the floating-point

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# Stingray Gives Gamers a Rush

*Mixed Blessing From First 3Dfx-Based 2D/3D Board*

by Loyd Case

**W**hen boards using 3Dfx's Voodoo chipset first shipped, gamers were treated to some of the best 3D eye candy ever. These cards demonstrated what a high-performance 3D accelerator could deliver to the gaming experience. But there were several problems with these early cards. First, most of these 3D-only boards were priced above \$300, and required a dedicated PCI slot. Finally, they could only run full-screen — there was no "3D in a window." Wouldn't it be great to get Voodoo performance in a 2D/3D single card, at a reasonable price — and get 3D in a window?

The folks at 3Dfx and Hercules may have delivered just that. Last year, 3Dfx cut a deal with several graphics chip companies, including Alliant Semiconductor. The idea was to bring 3Dfx 3D performance and 2D graphics into a single slot. Alliant has delivered the ProMotion AF3D, a 2D accelerator with some 3D functionality — and the capability to interface with 3Dfx's Voodoo Rush chipset.

Hercules has paired these two technologies in their new Stingray I28/3D, and rather than putting both chips on a single board, has implemented the Rush as a daughtercard. The main video board uses Alliant's AF3D for 2D and video chores. Stingray's frame buffer has 4MB of single-cycle, EDO DRAM, which the AF3D and Voodoo Rush share. There's an additional 2MB (6MB total) used by 3Dfx's texture processor to store texture maps. The board has an integrated 175MHz RAMDAC, and can support higher

refresh rates. Stingray's hardware will include Crystal Dynamics' PENDING/ML, Pygmy's FORMULA, and a shareware version of LucasArts' SHADOWS OF THE EMPIRE.

Having great 3D acceleration is one thing, but there's still a need for good Windows 2D and DOS SVGA-graphics performance for 2D titles. The news here is a little mixed. The Windows drivers are still a little rough around the edges, and while Stingray posts a reasonably good 53 WinBench 97's Business Graphics WinMark test at 3026768 with 16-bit color, its performance tanked running with 24-bit color, and scaled video playback in 24-bit is very poor. US NAVY FIGHTERS '97 also runs with a slow frame rate of about 12 fps at 640x480.

DOS performance is also somewhat mixed. DURE NUSEM 3D only posts a modest 36 fps at 800x600, and CBench scores are on the low side. QUAKE posts only average TimeDemo scores as well, performance on all three demos averaged out to 47.6 fps at 320x200, and 16.2 fps at 360x480. Then again, if you had this card, you'd be running CLQUAKE anyway. Another drag: Stingray I28/3D only supports VESA 1.2 SVGA-graphics modes in hardware — and the current version of SoftEch's Display Doctor doesn't yet support the ProMotion AF3D. According to Hercules, the next version of Display Doctor will support the AF3D, so full VESA 2.0 SVGA-graphics support with near frame buffer will have to wait. At best, the Stingray I28/3D is a middle-of-the-road 2D card, though we hope that



▶ **TWO-TIERED** Stingray puts Voodoo Rush on a daughtercard, with a shared frame buffer on the main board.

the Windows drivers will improve in the retail product after a revision or two.

Then there's 3D — which is a different story, indeed. The Stingray I28/3D generates a score of 309 on 3D WinBench 97, competing favorably to Diamond Monster 3D's score of 120 on the same platform. Running CLQUAKE, Stingray averaged 19.6 fps in TimeDemo tests at 640x480.

Stingray I28/3D is a so-so 2D accelerator with very solid 3D performance. It's more expensive than other 2D/3D contenders based on chips like Rendition's Verite 1000, but Stingray's Direct3D performance puts it well ahead of those boards. Stingray's 2D performance is spotty, but with 6MB of memory, and the need for only a single PCI slot, the Stingray I28/3D might be the ticket for gamers looking for a wild 3D ride. **G**

**PROS:** Excellent 3D performance in a single PCI slot; Voodoo 3D graphics in a window.

**CONS:** Modest Windows 2D and DOS performance; no VESA 2.0 support in firmware; somewhat pricey.



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# Is More Better?

by Dave Salvatore

Rather than doing garden-variety 2.1 satellite-speaker systems, SSI instead makes 5.1—left, right, center, left-surround, right-surround, and woofer—Dolby ProLogic-enabled speaker systems. But what's really remarkable about their latest offering, the MTS-100 system, is its \$179 price.

While the documentation is a bit sparse, it shows pretty clearly how to configure the MTS-100 for either Dolby ProLogic, or Dolby Multimedia Surround. In the ProLogic setup, the surround speakers get placed behind you, whereas the Multimedia Surround configuration places the surround speakers just outside the left and right speakers.

Once you've installed the speakers and plugged everything in, MTS-100 has a "test tone" sequence that sends pink noise through each four satellite channel (the two rear speakers receive the identical signal), allowing you to set levels for the

center and surround speakers; this also lets you tweak the woofer's crossover frequency. In a poor design choice, controls are mounted on the front of the woofer, making you crouch to change any settings.

So how do the MTS-100s sound? We A/B'd them against Cambridge Soundworks' Microworks, a favorite from our recent speaker roundup. Using the MTS-100 ProLogic setting, the overall sonic image is good, with very beefy bass, and fairly well-defined mid-range. The high-end treble is a bit muddy compared to Cambridge, but is possible. The ProLogic on stereo signals adds depth to the overall image, creating an added expansiveness.

Game audio sounds fine, and even perks up QUAK's somewhat unremarkable sound effects. We were expecting spacier audio in COMMANCIE 3 and WING COMMANDER IV, both of which use Dolby Multimedia Surround. But, neither the ProLogic nor the Surround setting

really enhances the audio compared to going through regular stereo speakers.

Another concern is whether a 5.1 speaker setup will muddy imaging of 3D positional sound cards beginning to ship that expect two speakers. MTS-100's 5.1 channel setup may not combine well with these boards. Nonetheless, this is an impressive system that sounds good, comes in under \$200, and will certainly improve your rig's audio if you're enduring the agony of disc-cup speakers. ☺

**APPEAL:** Gamers looking for big sound from more than two speakers.

**PROS:** Good overall sound; a very affordable 5.1 speaker system.

**CONS:** Awkward control placement; Dolby-enabled titles don't seem to benefit.



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# For Gamers Only

by Dave Salvatore

While it is better known for POD, a futuristic, MMX-accelerated racing title, Ubi Soft has now shipped its Maxi Sound Game Theater 64. Notables on this Plug-and-Play (PoP) ISA board include a 4MB General MIDI wave-table patch set, 64-voice polyphony, and adjustable four-speaker output that provides a 3D "surround" effect.

Windows 95 installation is certainly painless enough: Plug in the board, bring up your system, feed the driver CD, and Game Theater 64 is ready to roll, sans reboot. An additional install adds DOS utilities for running in exclusive MS-DOS mode, but the DOS drivers are added to the AUTOEXEC.BAT, and not to the DOSSSTART.BAT, the file Windows 95 uses when rebooting in MS-DOS mode. The good news here is

that these drivers initialize the board and then exit, leaving no memory footprint.

Game Theater 64's configuration utility lets you enable or disable four-speaker support and adjust the overall "surround" effect. You can add chorus, reverb, and echo if you want. A small amount of echo makes gaming audio seem a bit "bigger." But, turning on these effects also adds an audible, albeit faint, amount of hiss.

Also included with Game Theater 64 is a full version of Ubi Soft's own POD, that takes advantage of Game Theater's 3D audio features. In the words is a driver to support Microsoft's DirectSound 3D API, using two or four speakers.

The digital audio performance is solid in DOS titles, including QUAK and NovaLogic's COMMANCIE 3. Game Theater 64's DOS driver can enable its four-speaker capabilities for playing in

exclusive MS-DOS mode. Win 95 audio is pretty clean as well, and the General MIDI is also very convincing.

All told, Ubi Soft has put together a solid offering that covers the traditional bases well, and brings some new things to the party, all for under \$200. If you're looking to upgrade an aging sound card, take a listen to Game Theater 64, and soak up the sound. ☺

**APPEAL:** For gamers seeking a sound card with some interesting extras, and four-speaker support.

**PROS:** Solid-sounding wave-table, clean digital audio, easy installation.  
**CONS:** Some effects add noticeable hiss.



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CIRCLE READER SERVICE #105

## CG Choice Games This Month

MOK



p. 156

BG 8: NAPOLEON IN RUSSIA



p. 192

## CGW REVIEWS POLICY

We only review from the final copy of the game. Though some PC gaming magazines review from unfinished games, we feel that the reader is best served by reviews of the same product the consumer can play.

We expect our reviewers to finish the game. We do not review based on ini-

tial impressions of a game, but on a thorough evaluation of the entire game.

We make every effort to match the reviewer to the game. We take into consideration the preferences, background and possible biases of the reviewer, and, where possible, we find people with real-life experience that matches a given title.

## Review Quote Of The Month

**"If REDNECK RAMPAGE isn't born from the bowels of the American South, it's certainly born from the bowels of something."**

*—Robert Coffey,  
reviewing REDNECK  
RAMPAGE*

## COASTER OF THE MONTH



p. 138

## SCORPIA'S REVIEW



p. 205

## HOW DO WE RATE?

We only review finished products, not pre-release versions. The ratings are as follows:

**★★★★**  
**Outstanding:**  
The rare game that gets it all right. The graphics, sound, and gameplay come together to form a Transcendent Gaming Experience. Our strongest buying recommendation.

**★★★★**  
**Very Good:**  
A high quality game that succeeds in many areas. It may have minor problems, but is still worth your money, especially if you're interested in the subject matter or genre.

**★★★**  
**Average:**  
A mixed bag. It can be a game that reaches for the stars, but falls short in several ways. It can also be a game that does what it does well, but lacks flair or originality.

**★★**  
**Weak:**  
A game with serious problems. Usually buggy, seriously lacking in play value, or just a poorly-conceived game design—you should think long and hard before buying it.

**★**  
**Abysmal:**  
The rare game that gets it all wrong. This is reserved for those products so buggy, ill-conceived, or valueless that you wonder why they were ever released in the first place.



# Lost Gameplay

More Proof That Great Movies Don't Always Make Great Games

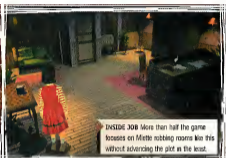
by Robert Coffey

**A**dd *The City of Lost Children* to the list of movie-to-game casualties. Pygmalion has taken a wholly original film and gutted it of almost everything that gave it worth. Laden with a cumbersome interface and frustrating gameplay, yet lightly unburdened with any semblance of story, character, challenge, or rudimentary gaming satisfaction, *The City of Lost Children* trumpets its originality while delivering nothing more than pretty pictures.

## EMPTY CITY

*The City of Lost Children* looks great. Rich graphics capture the oppressive world of Miette, the twelve-year-old orphan at the game's center. Forced to steal by Peuce, her evil Starnesc-twin headmistress, Miette scampers across a decaying waterfront city and uncovers the truth behind a series of child kidnappings. A variety of camera angles highlights the game's beauty while slyly emphasizing the vulnerability of tiny Miette as she moves in believable motion-captured animation. Unfortunately, too many of the lush visuals are wasted in numerous non-interactive transition screens.

But the outstanding graphics cannot disguise a game that is hollow at its core. Astonishingly, the game designers have managed to take a cast of wholly unique characters—including the headmistress, cyclopsen thugs, a mad scientist stealing children's dreams, and a brain living in an aquarium—and deliver a product absolutely devoid of plot and character. More than half the game passes before the alleged story—revealed in lackluster, non-interactive cut-scenes—actually kicks in, and then it is paid even less lip service than the latest Pauly Shore vehicle.



## STUMBLING IN THE DARK

*The City of Lost Children* is further encumbered with a remarkably clunky interface. Everything is controlled by keyboard, which results in finicky, imprecise movement that alternates between plodding and maniacally uncontrollable. Talking to characters or using objects requires hitting up Miette just right (or else nothing happens). Coing upstairs is particularly tedious as Miette burns ten seconds or so finding that perfect line before landing on her way.

The unrefinement of the interface is echoed in the elements of gameplay. Essential items are frequently hidden entirely from view, forcing you to fumble your way through clutter and inky shadows until you finally stumble upon them. This, coupled with the unwieldy controls, would make a game of "hunt the pixel" a welcome relief.

The game's biggest transgression occurs at the very end. What little story there is gets resolved entirely without any input from the gamer. With gameplay as skimpy and short as it is in *CRU*, rudely watching the culmination of the player's efforts away from him is unnecessary. You're not the hero—the game is.

One more thing: *The City of Lost Children* is guilty of one of the most jarringly inappropriate, unforced, and

simply distasteful actions I've seen in a game. Miette murders an innocent man for his watch.

It makes absolutely no sense in the context of the game for a sympathetic child, acting under the honorable impulse of wanting to rescue other exploited children, to casually kill this wholly unthreatening man. The story lays no foundation for this sudden, easy brutality, and it is doubly confounding considering that the myriad characters responsible for Miette's miserable life go unpunished.

Visually rich but gawking poor, *The City of Lost Children* really isn't worth visiting. **F**

**FAPPEAL:** Fans of the film who can stomach the perversion of inspiration.

**PROS:** Beautifully rendered environments create an appropriately seedy mood; lifelike animation of heroine.

**CONS:** Bad game controls; fails to utilize film's unique characters or plot; dull object-fetching gameplay; game resolution denied gamer.



## Price: \$43

### Minimum System

Requirements: DOS 6.22 or later; 486DX4/100 (Pentium 75 recommended); 8MB RAM (16MB recommended); 45MB hard disk space (500MB for full install); SVGA graphics; 2x CD-ROM drive (4x recommended); Sound Blaster-compatible sound card.

### Multiplayer Support:

None

Designers: Laurent Cluzel, Jesus Martinez, Eric Merens, Philippe Tesson.

Publisher: Pygmalion

Foster City, CA

(800) 438-7794

www.pygmalion.com

Reader Service #: 332



Some people lose  
their car keys.  
These people lost a  
whole continent.



# Atlantis

THE LOST TALES

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Uncover the mysteries of an advanced civilization in this epic game of adventure.  
Breathtaking visuals. Exotic locations. Plot twists and intrigue. All to be found in Atlantis.



# Space Junk

*Fly Straight Into a Black Hole of Gameplay in Psygnosis' SENTIENT*

by Robert Coffey

**T**he Atlantis space station is in trouble. After the station is sent to raise a distant star, the captain is murdered, an assassin is aboard, radiation sickness plagues the crew, and the station's orbit is rapidly deteriorating. Faced with these predicaments, one question rises over and over in your mind: Can I get my money back even though I've broken the strike wage?

## WASTE OF SPACE

In a jaw-droppingly thorough example of exactly how not to produce an adventure game, *SENTIENT* manages to botch, bungle, and botch virtually every aspect of gameplay. The trouble is apparent prior to installation. The manual says that owners of certain 3D cards should consult the READ ME file on the software for proper installation. I'm still looking for that file. The manual is a treasure trove of awkwardly written half-information.

Unfortunately, you'll have to consult the manual in order to storable your way through *SENTIENT*, if only because you can't believe that the interface is as clunky and non-intuitive as it is. Arrow keys are used for movement, but accessing objects in the environment requires pressing C on your keyboard to turn the cursor arrow into a hand to examine or pick up objects. One click on an object and the hand disappears, so you have to repeat the keystroke to perform the next action. Why the default cursor couldn't be used is unthinkable, especially considering that it does nothing more than litter the screen when not opening the occasional door.

Conversations with characters are handled via bloated, cumbersome dialogues that result in such unattractive sentences as "own the radiation report." Characters speak in big cartoon balloons; there is no audible speech. In fact, there is very little sound in the game except foot-steps, opening doors, and an extremely



**TALKING HEAD** Dr. Lavey doesn't seem to enjoy the cumbersome dialogue interface any more than you will. The dopey little guy in the corner indicates whether you're addressing characters with a smile or scowl.

annoying Klaxon. If there are several characters present, speech balloons frequently overlap, obscuring important information.

Graphically, *SENTIENT* is blocky and jagged unless played in a tiny window. The scrolling movement is as jittery as Don Knotts after an espresso binge. Characters are jerkily animated and, honest to God, seem to be constantly pecking their belts. The screenshots on the box are nice enough, and are obviously 3D accelerated (apparently the packaging guys found that READ.ME file). Maybe it also explains why the game won't run in DOS mode, despite the manual's claims to the contrary.

## CRASH LANDING

Gameplay is timed; the Atlantis is definitely going down if you don't get moving. This prevents you from exploring the station, conversing with the stinky-odd crew members, or dealing with the wretched subplots each new game generates. Don't feel cheated, though—the subplots are esoteric in the extreme, and the main plot is hardly compelling. Unfortunately, you'll need to explore to find necessary items, but with 200 loca-

tions onboard you're basically going to have to get lucky or the Atlantis will crash.

But the space station isn't all that will crash. *SENTIENT* will too. Often. When you click on New Game. When you try to save a game. When you inhale. *SENTIENT* also has the utterly charming habit of every so often clearing out all those messy saved games you've accumulated, forcing you to start over from the beginning.

*SENTIENT* does have one redeeming feature: Every time you launch the game, it informs you that you've got a version of it already and asks, "Do you want to remove it?" Do yourself a favor... click on Yes. ☹

**APPEAL:** Sci-fi fanatics who will play anything.

**PROS:** Convenient uninstall feature.

**CONS:** Lame graphics; unfriendly inventory and dialog interfaces; ugly graphics; minimal sound; inadequate documentation; as technologically stable as the San Andreas fault.



**Price:** \$43  
**Minimum System Requirements:**  
 Windows 95 or DOS 6.22 or later, Pentium 90 (P133 recommended), 16MB RAM, 160MB hard disk space, 1MB SVGA-graphics video card (2MB recommended), 2X CD-ROM drive, mouse, Sound Blaster-compatible sound card.  
**Creative Labs 3D Blaster 4MB or Matrox Mystique 4MB for Direct 3D support**  
**Multiplayer Support:** None  
**Designer:** Visual Sciences  
**Publisher:** Psygnosis  
 Foster City, CA 94040  
 (800) 438-7794  
**www.psygnosis.com**  
**Reader Service #: 331**

# Dragon Lore II

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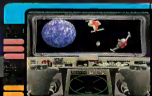
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CD-ROMS BEHOLD YOURSelves 1998



In the beginning, there was the end.





# Toontown Highway

Drive the Cars AAA Doesn't Want You to See

by Greg Fortune

**T**hose of us who bought and liked *NEED FOR SPEED* did so for the incredible production cars you could race in that game: the Lamborghinis and Ferraris we could never drive. It was a great game, but we played it for the cars. EA has continued that tradition with *NEED FOR SPEED II* by acquiring some of the greatest exotic cars in the world and making them available for you to test drive in the comfort of your own home. While it may not have the appeal of actually owning one of these beauties, it's as close as most of us are going to get.

## CONTROL YOURSELF

*NFS II* works with any analog steering device. Windows will support, including analog pedals and throttles. This is a major improvement over its predecessor, which supported a limited number of devices. For those on the cutting edge, Win 95-compatible force-feedback joystick support is included as well. If you want to play the game well, don't bother with the keyboard. Only a wheel or joystick will give you the smooth

control you'll need to bring in the top lap times.

## UNREAL 3D

*NFS II* is based on a 3D engine, something the original didn't have. This means you can now wander off the road and drive through the trees if you so choose. I have a couple of problems with this concept and the way it was implemented. First, especially for a 3D engine, the scenery looks far too much like a cartoon. What this game really needs is support for 3D-graphics accelerators to make the sun glint off your Ferrari. But that option, amazingly enough, wasn't included. Second, why would you want each tree, sign, and rock to be an object? Did EA seriously think that we'd take a car that does 0-60 in just over three seconds and pull off the road to admire a tree? If you flew through *QUAKE* at 150 mph, you wouldn't care that it was 3D, either. The object is to make the scenery a blur as you blow by, not to make the blurred scenery individual objects.

This doesn't mean that *NFSII* doesn't have its charms. The cars are a lot of fun to drive. The camera angles also work well (my favorite is the bumper car mode, which puts your point of view right on the front bumper of the car). The tracks range from the no-brakes-required proving ground to the incredibly narrow and twisty Tibetan village. There are two fewer tracks here than in *NFS*, the



**LOCAL FLAVOR** Better visual elements could have turned this descent into a truly breathtaking scene.



**3D WHERE IT SHOULDN'T BE** It looks like someone didn't stow their luggage properly in the overhead compartments.

two omissions being the linear courses. This is a shame, since the coastal course was one of my favorites from *NFS*. The game also includes multiplayer support over LAN, modem, and direct cable connections.

## FINAL LAP

Although it may seem like I'm spending most of this review complaining, *NFS II* is not a bad game. The problem is that with just a little more attention to the visual elements and track selection, this could easily have been a five-star product. *NFS II* is a good arcade racer for the action racing fans, but I'm disappointed that EA didn't make it better.

**APPEAL:** Gamers willing to sacrifice appearance and realism for all-out arcade-style fun.

**PROS:** Great cars; outstanding controller support; network play.

**CONS:** Marginally updated graphics; no 3D-card support; fewer track options than *NFS*.



Price: \$54.95

### Minimum System

Requirements: Pentium 90, Windows 95, 16MB RAM, 10MB hard drive space, 4x CD-ROM drive, 1MB SVGA-graphics PCI video card, supports most major sound cards; supports most major gamepads and joysticks.

### Multiplayer Support:

Modem, Serial link (2 players), LAN (2-8 players), 1 CD per network game).

Designer: David Lucas

Publisher: Electronic Arts  
San Mateo, CA  
(800) 245-4525  
www.EA.com

Reader Service #: 336



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## Why is Java computing different?

Because it was conceived and built to be a totally platform-neutral computing environment, unwilling to be wedded to (or limited by) any of the many proprietary computing platforms we've had to choose from in the past, such as Windows or the Macintosh. The Java platform will change the way you buy and use applications and it'll bring dimension, depth and vast shopping opportunity to the Internet and the World Wide Web.

The Java environment is kind of like a uniform: every individual wearing it is unique and idiosyncratic, but when in uniform they all look the same. What's more,

they've all agreed to interact in certain ways, so no matter how different they are beneath their uniforms, they'll be able to communicate and work together.

Similarly, a program written in the Java language will run wherever a Java platform is present. It doesn't matter whether the underlying proprietary environment is Windows, the Mac, or UNIX®. The Java platform acts as a standard, uniform programming interface to Java applets and applications running on any hardware.

Because Java computing is platform-neutral, Java applets can run in any Java enabled web browser, like Netscape Navigator™, Microsoft's Internet Explorer or Sun Microsystems' new HotJava™ Browser. Which makes Java computing perfect for the World Wide Web, where the same program needs to be capable of running properly on any computer in the world.

The Java platform is unlike anything that's come before, with capabilities for software engineers that make it easier to turn out more applications with fewer bugs in less time. That means better, more creative apps.

But that's not all, not by a long shot. Java computing is transforming the web with new kinds of websites and new kinds of information. In the Java environment, you download not just information or graphics, but also the software tools that allow you to



manipulate your new information. So, for instance, a map you might download will automatically include a viewer. Or a mortgage application sent to you online might have a Java based rate calculator applet built right in.

There's more: Java computing's high-performance security capabilities help make the World Wide Web safe for electronic commerce. Java computing will make web shopping an everyday event.

And finally, Java computing won't be limited to your desktop, or even your notebook computer. The Java platform will soon be embedded into all manner of machines: cellular phones, pagers, TV set-tops, game machines. Nowhere is the potential of the Java platform being exploited more dramatically than with what's called smartcards.

So read on to find out how Java computing will help shape your future . . .

**Application**  
Typically launched from the desktop and enjoying more or less unrestricted access to the local system.

# Why Java computing is part of your future

Whether you know it or not, you've probably already encountered the Java platform. The Java Virtual Machine has been incorporated into all major web browsers, so your ability to traverse Java computing worlds is likely part of your computing environment already.

## A BETTER DESKTOP

The Java platform is also being used to make it easier to use productivity software. Look for new desktop computing applications that are Java based and able to liberate you from the restrictions imposed by platform-specific computing.

Corel Office for Java (<http://officeforjava.corel.com>), a suite of office productivity applications written in the Java language, runs on any environment with a Java Virtual Machine or JavaOS™ platform. Because the client side of Corel Office for Java has won 100% Pure Java™ certification, all documents are readable and editable across all platforms. So, for instance, you can send a document you create using Corel Office for Java on your IBM PC to your friends who prefer a Mac environment and they'll be able to open it, read it, edit it. Without having to convert any files or hassle with the loss of formatting.

"Java computing's unprecedented cross-platform support and distributed architecture make all of this possible," says Corel Technology Evangelist Chris Biber. "Basically, Java computing has changed all the rules."

Many other vendors are developing Java language applets and applications that businesses will use on the Internet and dedicated corporate networks to sell you products and services and keep you happy after you buy. Does your bank offer home banking via your

desktop computer? If it doesn't yet, it will soon, because online services cost them less than human tellers (and online services don't need to sleep at night like people do).

## TRANSFORMING THE WEB

Thanks to its virtual machine orientation, the Java platform's tightly-designed set of bytecodes make programs easy to transport across the Internet. Java computing encourages production of reliable, simple code and its object and component orientation promotes re-use and library-building. Already, hundreds of thousands of programmers have learned the Java language and have begun churning out applets and Java based websites that are transforming the Internet.

"Java," notes Ken Nicolson, vice president of marketing at KIVA Software Corp. "is facilitating the rapid adoption of the Internet as a primary source for any type of information gathering and distribution, customer empowerment through self-service applications and as a viable point-of-sale vehicle for all kinds of products and services."

The number and variety of Java enabled websites keeps growing and growing. Here's a taste of what's out there.

## IMAGING WITH A DIFFERENCE

Kodak's new Java based Photo CD on the Web (<http://www.kodak.com/dailHome/products/photoCD.html>) can help you use your desktop computer for online viewing, manipulation and storage of scanned 35mm photo images.

Introduced in 1992 as a linchpin of Eastman Kodak's Digital Science product family, the Photo CD system delivers cost-effective, convenient and high-quality imaging to desktops everywhere. Now Photo CD on the Web makes Kodak's imaging technology easily and universally accessible to users anywhere in the world.

## Java games

Tired of playing those same old computer games? Get ready. Java computing is coming and it's bringing a whole new look to the games, including multi-player and networked gaming possibilities.

# Travelocity keeps moving with Java Computing

Travelocity (<http://www.travelocity.com>) is the leading provider of travel reservation and destination information on the Internet, with a user base in excess of 750,000 registered members.

Co-created by Worldview Systems and SABRE Interactive, Travelocity integrates destination information collected from 85 travel correspondents and 5,000 electronic sources with SABRE Interactive's reservation system containing schedules for 700 airlines, 32,000 hotel properties and more than 50 car rental companies around the world.

Despite a superior booking system, Travelocity's website was way too static and it was getting too slow.

"We needed to have better direct database access for delivery of information on the fly," says Neal Checkoway, president of Worldview Systems. "At peak times, typically around noon, things would slow down appreciably."

To create a richer, more interactive experience on its website, which averages over a million hits a day and more than nine million page views a month, Worldview needed to quickly add new functionality, boost performance and also provide ample room for future growth. The solution was Java computing and a little help from KIVA Software, a leading provider of Internet application servers.

Unlike earlier versions of Travelocity, in which data was static, you can now access content generated dynamically from Travelocity's numerous databases. And these days, Travelocity delivers quick response times even under peak loads.

Thanks to its Java environment, Worldview's developers can also quickly alter

the application's look and feel or update business logic so your experience of the site will always be leading edge.

## Coming soon to a bank near you

"Our clients want their bank to be more available at every level to carry out banking operations during off hours," says Rudi Peeters, electronic banking officer at CERA Bank, Belgium's seventh largest financial institution. "Electronic banking is an ideal solution. Internet access is taking the well-established home banking formula a step further."

CERA's first online retail service application, built to the 100% Pure Java standard, is a loan mortgage calculator that allows potential borrowers to estimate payments from their home computers using only a browser. Through this CERA Online service, the bank reduces loan application processing time.

The loan calculator works as most Java applets do: customers download and run it on their computers, regardless

of the underlying operating system. The easy-to-use program prompts you to enter such information as loan amount, time to borrow and type of payment. The mortgage calculator then returns a payment schedule as well as a yearly breakdown of the remaining principle.

In addition to the mortgage calculator, CERA Bank customers can perform other banking functions such as transferring funds, checking account balances and consulting exchange rates via CERA Online.

Customers with internet capabilities reach CERA Online as they would any other website. For customers without internet access, the bank's local branches provide an online service kit, complete with Microsoft's Internet Explorer browser, and IBM's dial-up interface, TCP/IP and security software.

With Photo CD on your desktop browser, you can access, view and manipulate high-resolution images stored anywhere on the web. Because of Java computing's platform-independence, access is always seamless; it doesn't matter what kind of system the user has or where the image is stored. So every Java enabled web browser is also automatically Photo CD-aware, providing users with unparalleled imaging capabilities.

As a Photo CD on the Web user, you can download the content you select — say, images or portions of images — from a remote Internet server at a museum, university or elsewhere, and then execute the Java applet locally. Rather than downloading an entire five-megabyte Photo CD digital image, the program brings across only the five kilobytes of high-resolution image data required for full operation. Result: performance that's extremely fast, responsive, and efficient.

Support for Photo CD images has been built into most leading operating systems, including Sun™ Solaris™ from Sun Microsystems, and dozens of software applications, such as Adobe Photoshop and Pagemaker, QuarkXpress and many others. No wonder the Photo CD image file format — called Image Pcr — has quickly become a de facto computer industry standard.

You'll like what Photo CD can do and you'll like the price, too — it's free.

### WALL STREET ON THE WEB

The web's immediacy and Java computing's interactivity have been melded into the perfect vehicle for communicating volatile, changeable information like stock prices.

Now an online investment service that sends instantaneous market updates to your desktop is no

further away than your web browser — so you can execute real-time electronic trades, graphically chart your portfolio's progress and even instruct the site to page you with breaking news when you step away from your desk.

WallStreetWeb, developed by a company called BulletProof, can be accessed from your secure Java enabled web browser (<http://www.wallstreetweb.com>) for instant stock quotes, built-in trading, power searches, personalized securities lists, charting capabilities and portfolio management.

And it's all because of Java computing. As BulletProof's Scott Millener puts it, "Java computing allows us to move from the desktop to the webtop. Java computing is what makes our application."

### THE GREAT JAVA COMPUTING PUSH

Initially driven by e-mail and the World Wide Web, the internet is now fielding a new innovation: subscription

delivery of interactive applications and content that encompass rich entertainment experiences as well as full-featured productivity applications — otherwise known as push technologies.

Thanks to Java computing, push services are easy to deploy and keep things simple and flexible for subscribers, even though push content often includes engaging, high-impact experiences. What's more, providers can gather detailed

## Cool web Games for the masses

You know the drill: after 30 merciless minutes, you're finally "connected" and ready to play a really neat new game you've heard about. But, what's this? You need special custom software?

Well, for all of you who've endured this rite of passage, liberation is at hand. NowTV (<http://nowtv.com>) is devoted to games that don't require custom software.

By developing in either the Java language (programs can be automatically handled by your web browser — no need to go through a complex game installation) or VRML (an open standard for 3D programs that'll shortly be included with

most browsers), NowTV's games become accessible to just about anyone. Here are some of NowTV's hot titles:

☛ **Live Alive!** watch life unfold, evolve, adapt and conquer. Carl Sagan was never this visible.

☛ **Combat Machines 96:** sit back and watch things be destroyed.

☛ **BattleShip:** Java computing implementation of the Milton Bradley game Battleship.

☛ **3-Puzzle:** A Java computing version of the nine-piece variation of the traditional 15-puzzle game from childhood.



feedback about subscriber preferences so content is always relevant and up-to-date.

"At CNN/jn, our strategy is to deliver breaking business news and investment information in all ways that are effective and helpful to our audience," says Lou Dobbs, chief executive of CNN/jn. "Marimba's Castanet technology will allow us to develop an excellent and unprecedented new channel for PC users."

Unlike products that merely broadcast information to desktops, Castanet's two-way communications means you can get media-rich entertainment and information services customized to your unique needs — without needing to spend hours searching or worrying about bandwidth.

Just months after pioneering Internet "push" technology based on the Java platform, Marimba, Inc.'s Castanet is emerging as the technology-of-choice for software and content delivery over the Internet.

Composed of a Transmitter server and a Tuner client that enables you to subscribe to application "channels" deployed by various Transmitters across the Internet, Castanet intelligently deploys and automatically maintains rich media content and software to millions of users.

Since its debut, hundreds of thousands of end-users have downloaded Castanet Tuners from Marimba's website, found at <http://www.marimba.com>. Castanet is compatible with all Java development tools and runs on multiple platforms, including Windows NT 4.0, Windows95, Sun Solaris 2.5 and Mac OS.

Its flexible architecture and ability to scale to millions of users are the primary reasons such companies as Columbia TriStar Interactive, E!EntertainNet, HotWired, MapQuest, Net Noir, Quote.com, Public Broadcasting Service, Sesame Street, My Yahoo! and ZDNet have adopted Castanet. Additionally, Marimba's relationship with Macromedia, creator of Shockwave, will ensure enhanced channel viewing experiences — something key to today's computer users.

"Sony Pictures Entertainment is excited to be using Castanet to bring our entertainment content directly to viewers' desktops," says Richard Glosser of Columbia TriStar Interactive.

## Web Published — by you

You have a big document, a really big document. Ten pages or more, and you want to post it on the web. Great, but remember: the bigger the document, the longer it takes to download. If you're posting something because you want it to be read, it must somehow be transformed into something small enough for reasonably quick downloading.

Enter Jstream, developer of WiredWrite (<http://www.jstream.com>). WiredWrite endows you with the power to create large documents or convert existing ones for publishing on the web. What's WiredWrite's secret?

Using Java technology, WiredWrite creates a dictionary of words in the document, then connects the words to hyphenating

markers. So instead of storing the word Java 500 times, WiredWrite only has to store the word once. When the document is downloaded, it includes a 100% Pure Java certified applet that recreates the original document using the dictionary and the marker file. Jstream has squeezed a 190 page manual (occupying a 1.02MB file) into a 33.1KB WiredWrite.

Budding publishers will be happy to note that Jstream documents can be embedded in a web page, published on CD-ROM or sent as e-mail attachments. Jstream also has released some tantalizing plans for the future, including a way for webmasters to divide a document so that some of it is available online for free, while other portions could be reserved for pay-per-view.

Dust off your memoirs. Someday you might just be able to sell them a serialized version on your very own pay-per-view website.

"Our first channel — Shock It To Me, Baby — features Shockwave games from the Columbia TriStar film and TV websites."

### LET THEM ENTERTAIN US

All those folks dedicated to entertaining us on TV and movie screens have begun to

understand the power of another kind of screen — the one connected to your computer.

Worldwide entertainment giant Sony has turned to Java computing to create a new web-based entertainment and commerce network called TheStation@sony.com (<http://www.station.sony.com>).

Highlights of TheStation include:

## Is it Tax time again?

Interested in the fastest and safest way to do your tax return online? Try Taxsoft, Inc.'s Java version of Taxsoft (<http://www.taxsoft.com>) — tax software at an incredible \$5.95 per individual tax return.

What makes Taxsoft so special? Plenty, says Taxsoft, including:

- **Safety.** Taxsoft is safer to use because it saves your data exclusively in your computer. Taxsoft helps to eliminate taxpayer errors and handles difficult calculations between forms automatically.
- **Completeness.** Comprehensive help screens containing information about every tax form and question are available. And Taxsoft has all the forms for you online.
- **High speed.** You can prepare your tax return using Taxsoft — from start to finish — in about 30 minutes. Other programs and manual preparation can take up to ten hours to complete.
- **Good price.** Because Taxsoft's products are online, you don't get hit with inventory or logistic costs.

Taxsoft develops tax products for the Java computing platform and sells them exclusively through the Internet. Delivery is online and buying is easy: simply click on the buttons at the Taxsoft site. If you just want to window shop, that's fine, too. In fact, Taxsoft doesn't even charge you until you print out your return. That way, you know if you like the product before you pay for it. Reassuring. Now if we could just do something about having to pay those taxes in the first place....

## Play that funky music

Music has charms to soothe the savage beast, so the saying goes. But does it have what it takes to quiet the frayed nerves of the web-addicted? You'll find out soon enough as your favorite websites will become more musically-inclined, due to some revolutionary technology from Headspace Inc. (<http://www.headspace.com>).

Creators of technology for the delivery of music and sound over the Internet, Headspace recently released Beatnik, a web-based software system for creation and playback of interactive music.

What makes Beatnik so special — in addition to a software-based high-fidelity sound comparable to high-end PC wavetable sound cards — is the potential for interactivity.

Headspace's Beatnik not only allows musical interaction with web pages, it encourages

participation, offering a richer, more personalized musical experience than other multimedia delivery solutions available today.

For example, not only will Beatnik allow a website to play music when you first open a web page, but a single click of the mouse can trigger all sorts of audio-related events: changes in tempo, volume, pitch or mix, the playing of individual notes, sampled voices and sound effects, even starting and stopping music. Making this revolutionary breakthrough possible is Beatnik's support for Java technology.

So the next time you stop by your favorite all-football-all-day website, don't be surprised if you have to listen to some of the half-time band. At least it'll sound good. And, who knows, maybe they'll even let you click out a few notes.

organizations using Java applets and applications containing executable code has been built right into the Java platform.

You can import and run Java applets from the web without undue risk to your computer. Because a Java applet's actions are restricted to its "sandbox" (an area of the web browser dedicated to that applet), it can do anything it wants within its sandbox, but cannot read or alter any data outside of its sandbox, so you can run untrusted code without compromising your trusted computing environment.

Meanwhile, standalone windows created by applets are clearly labeled as being owned by untrusted software. And if you do accidentally import a hostile applet, your machine won't be damaged.

## Beyond the desktop with Java computing

Java computing hasn't stopped at the desktop or the web. Indeed, from its inception, the Java platform was built for smaller devices and embedded microcontrollers.

Soon the Java platform will be incorporated into cellular phones, pagers, palmtops, set-tops, even thermostats. Several consumer products companies, including Toshiba, Rockwell Collins and LG Semicon, will be developing Java based products. Nokia will implement Java computing capabilities in some of its cellular phones. And Psion Software, which makes personal digital assistants and communicators, has licensed the Java platform and will be basing products on it.

### FASTER THAN A SPEEDING PENTIUM

Meanwhile, Sun Microsystems has cast the Java platform into silicon. Sun's JavaChip™ family of microprocessors offers significant

● **StationPass**, a unique communications feature of TheStation combining the best of technology and design. The StationPass is TheStation's webwide walkie-talkie, allowing for two-way communication through realtime messaging from passholders and announcements from TheStation itself;

● **Personalized areas** that include personal descriptions, favorite links, buddy lists of other users active on the site as well as account and billing information;

● **CommStation**, an area where users can access multiple communication features such as instant messages, electronic postcards, interactive threaded discussion groups and realtime chat;

● **Station Search**, an area where users can search for people, services, and products in TheStation; and

● **An extensive shopping network** that allows multiple companies and brands to offer online customers an opportunity to buy goods ranging from books and CDs to promotional merchandising for entertainment offerings.

### SECURE ELECTRONIC COMMERCE

It's precisely Java computing's unique ability to distribute exe-

cutable code over the Internet that has raised concern about security. After all, a lot of people have begun shopping on the web.

It's no accident that much of the security and reliability needed to protect

## For your child's well being

Everyone who wants their child to learn what it means to live a healthy lifestyle should stop by WellnessWeb (<http://www.wellnessweb.org>).

An innovative site, WellnessWeb uses graphics, animation, sounds, famous role models, games, puzzles and Java computing applets to make learning about wellness fun for kids. There are sections on everything from mental and physical well-being to social and environmental wellness. And, for you teachers, WellnessWeb provides links to other reference materials.

The site is still under construction, with more to come, but don't let that stop you. Grab your kid(s) — and anyone else around the house who looks like they could use a refresher on good health habits — and start learning what you can do to improve your daily regimen.

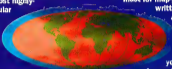
Living well is, after all, the best revenge.

# One million users are never wrong, never lost

In a hurry? Need to know the fastest way to get across town? Across the country? Around the world? How about a detailed street map for, well, just about anywhere in the world that's got streets? Check out MapQuest (<http://www.mapquest.com>), the most highly-rated, not to mention extremely popular (more than one million registered users have found their way home thanks to MapQuest), interactive mapping service in cyberspace.

Easy to use — and fun, too — MapQuest combines mapping and geocoding technology for on-the-fly charting of some 675,000 miles of road. And don't worry about where to sleep and eat; MapQuest has plenty of information on restaurants, hotels, even roadside attractions!

Using the power of Java computing, MapQuest's Interactive Atlases offer sophisticated worldwide navigation features similar to those previously found only on CD-ROMs. Zoom from heights that allow you to view across the wide open prairies down to the tranquility of a country street. Use the multiple map views function to study a chosen location



from a number of perspectives. Or get down to the nitty-gritty with the dynamic map navigation feature; it's like having a virtual magnifying glass!

And don't forget to try out MapQuest's oh-so-popular TripQuest application — recent Java computing enhancements have produced plenty of exciting developments. A must for map-phobic drivers, TripQuest generates written city-to-city driving directions (North America only) complete with exit numbers, directionals and total mileage. And if that's not enough to get you on the road again, TripQuest is now map-enabled, which means you can get a visual, geographic context for road trips. Accompanied, of course, by a reference map marking your origin and destination points. Just in case your curiosity gets the better of you, TripQuest features two smaller, thumbnail maps — in addition to your reference map — that display start and finish points. Click on those mini-maps and you'll be linked to the original interactive Atlas where you can explore in detail any area or points of interest along your way. Happy trails.

MapQuest Publishing Group is a business unit of GeoSystems Global Corp., the information industry's leading supplier of geographic information products and services.

advantages over general-purpose micro-processors in terms of performance, power and cost. Recent performance tests show that Sun's picoJava™ chip is five times faster than a Pentium processor at running Java code.

And recent new interfaces will make it easier for software designers to build Java computing into games, TVs, smartcards, copiers, fax machines and dashboards. Java computing will be everywhere.

## SMARTCARDS: MONEY AND MORE FOR THE NEXT MILLENNIUM

What fits in your wallet, stores and secures vital personal information, acts as a credit card or cash equivalent, gives you access to numerous networks and is destined, some say, to be synonymous with electronic money?

It's called a smartcard, and the smart money wants to put one in your back pocket. Critical to the effort is Java technology, the only software environment that can scale down to fit such compact requirements as the pocket of your favorite pants.

A Java based smartcard can change junctions whenever you load it up with a new application — so it can replace your

cash card, your calling card, your credit card(s), your network access card.

That's got at least one bank excited. "We'll do an electronic purse application," a Citibank official was heard saying recently.

An increasingly popular idea is to use a Java based smartcard to exchange information with databases and applications running on today's networks. Schlumberger, a smartcard maker,

has publicly demonstrated the ability to edit and compile a Java program, load it onto its smartcard and run the program on the card.

Someday, a Sun Microsystems executive has said, "we expect drivers' licenses to be smartcards. You could take a test on the DMV website and then load the card into a PC/MCIA slot to get your license for the next five years."

## IS THIS A REVOLUTION, OR WHAT?

You bet it is. And in the months and years to come, you'll be hearing a lot about Java computing. But probably not as much as you'll be using it. Java computing will make a lot of what we do — surfing the web, doing our taxes, traveling, teaching our children — much easier. After awhile, we'll hardly notice it because today's revolution will have become tomorrow's habit, like flicking on a light switch in the dark.

*If you have questions specifically regarding the 100% Pure Java program, please send them by email to [100percentpure-program@java.sun.com](mailto:100percentpure-program@java.sun.com). For more information about Sun Microsystems or Java computing, check out <http://java.sun.com> or call 1-800-JAVASOFT (outside of North America call 1-512-634-1350).*

## Head check

At last, code-breakers have cracked the lingo of modern psychotherapy!

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require a couch. The doctor will see you now at <http://www.dreamwv.com>.



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# Java computing play

Looking for some serious online fun? Check out VR-1 (<http://www.vr1.com>) for online entertainment, award winning games and comics. VR-1's Java based site has really cool arcade games, the first online comics to hit the Internet and a sneak peek at a whole new level of multi-player entertainment.

◆ **Arcade.** Play VR-1's Online Arcade. Praised by Gamelan, there are six games to choose from and they're free. VR-1 promises more are on the way.

◆ **Comics.** Immerse yourself in VR-1's Digital Comics, the first online comics to find their way to the Internet. Developed exclusively for the Internet, Digital Comics uses techniques like sound effects, background music, 3D graphics, and games to bring your

favorite comic heroes to life. Experience comics in a whole new way!

There are four titles to choose from: **MEGABOT** — the first comic fully rendered in three dimensions and the Internet's first made-for-online comic book series — highlights the adventures of a cybernetic superhero; **Animal Kingdom** is a life-and-death combat tournament that takes place in the Animal Kingdom; **14NI** features a skate gang, top-secret parcels, and the CIA; **TechMonger** is the newest addition.

◆ **Sneak Peek.** If you hurry, you can grab a look at VR-1's massively multi-player Internet games like **Air Attack**, a 3D World War II flight and dogfight simulator.

Fun, fun and  
more fun

- Mix Java computing with fun and what do you get? Would you believe:
- \* **SuperJay** (<http://www.mindspring.com/~superjay>): Java computing games, fun, action, cool sites, basketball, computers.
  - \* **Bumper Room 'O Fun** (<http://www.msu.edu/user/ormondaa/>): Nitzy page using frames with the Java language. Includes quite a few links to information on other fun stuff.
  - \* **ODTCow's Pasture** (<http://www.geocities.com/Heartland/Plains/3235/>): Full of Java computing stuff, cows, some music and fun. It's always being updated and gets better every time.
  - \* **Barata** (<http://www.tno.net/~barata/>): Fun (Spanish language) site with Java computing applets, Black Sabbath and much more.
  - \* **FunSpot** ([www.largetech.com](http://www.largetech.com)): Several Java computing games, with new ones arriving soon.



# Space Race

*Pod Takes Road-racing to Another World*

by Joe Vallina

There's nothing quite like screaming down the highway at 170 mph with no brakes, knowing that if you lose the race you'll also lose your seat on the last shuttle off a dying planet. This is the basic premise of *POD*, the futuristic racing game from Ubi Soft.

*POD* sports some great gameplay and 3D graphics, with eight cool-looking, futuristic cars and 16 difficult tracks that pit you against your fellow would-be-escapes in original, sometimes bizarre alien settings.

## CHOP SHOP

All of the cars can be fully customized, according to your own preferences regarding speed, brakes, acceleration, grip, and handling. The customization is based on a total score of 500. You can boost any of the car's features up to a maximum value of 100, but only if you reduce another of the car's attributes. So, if you want to boost your speed four points, you have to take away four points from another parameter.

The game lets you customize cars between each race (with the exception of games where you let the computer randomly pick the car for you), and it behaves the driver to match the car to the course. If the upcoming race is on a particularly curvy track, for instance, you should probably reduce your car's speed and boost its handling. Conversely, on a track with a lot of straight stretches, the mere speed is the better.

Unlike some racing games, in *POD*, your opponents' performance isn't based on your own. This means that you shouldn't expect the other drivers to slow to a crawl just because you've had a spin out. The AI takes no prisoners, and if you plan on beating any of the computer drivers on the advanced level, you had better have a lot of practice laps under your belt.

There are three damage levels for the cars: off, global, and sector, and there are pit stops strategically placed around the courses to fix things should you get too far into the red. While the game doesn't really attempt to be a simulation, damage does affect how your car handles and how fast you can go. Don't expect to just bring your way around the difficult sections of a course and then blaze away again when you get back to the straight stretches—until you find a pit stop exit, you'll be at a decided disadvantage.

The graphics are simply stunning on all of the courses, with super-detailed buildings, mountains, and even giant cocoons staring down at you as you race past at 200 mph. Plus, all of this action takes place under virtual skies that are, at times, breathtaking.

The graphics are simply stunning on all of the courses, with super-detailed buildings, mountains, and even giant cocoons staring down at you as you race past at 200 mph. Plus, all of this action takes place under virtual skies that are, at times, breathtaking.

## TOO GOOD TO BE TRUE?

All this incredible detail in the graphics does have a price, however. On some of the more intricate tracks, it's often difficult to distinguish where the road ends and the walls begin. This isn't a big consideration when you are following other cars around the track, but suddenly becomes a very big problem when you take the lead and start crashing into the camouflaged walls.

The high graphic detail also leads to jerky movement and less than perfect frame-rates in multiplayer games, although this is only in the third-person view (the first-person view, with the polygon-intensive cut, moves along



**RED SKIES TONIGHT** The gaming environment in *Pod* is amazing. In this shot, the vibrant sky gives the scene an eerie, apocalyptic feel.

much faster). However, the action is still really fast and fun.

*POD* can be played solo or multiplayer via split screen, direct link, IPX network, modem, or Internet. Ubi Soft makes a big deal out of the game's Internet capabilities, but I found it difficult to locate other players online, as you have to know the IP address of the host computer, and the Ubi Soft Web site had no listings of potential players. The READ.ME file was little help (and, would it have been that difficult to have a printed manual?).

Despite these problems, I still found *POD* to be one of the most creative and entertaining games I've played in quite a while. It's a fast-paced, wild ride though a beautifully rendered world, and I can heartily recommend it. **B**

**APPEAL:** Racing fans who want a welcome change of scenery.

**PROS:** Incredible graphics; fast, fun gameplay; built-your-own car.

**CONS:** Road or wall? You be the judge; less-than-perfect framerate, difficulty in locating online opponents, no printed manual.



**Price:** \$49.95  
**Minimum System Requirements:** P100, Windows 95, 16MB RAM, 4x CD-ROM, 20MB hard drive space, 16-bit audio.  
**Multiplayer Support:** Split screen (2 players), direct link (2-4 players), IPX network (2-8 players), modem (2-4 players), Internet (2-8 players)  
**Designer:** Ubi Soft  
**Publisher:** Ubi Soft  
 San Francisco, CA  
 (415) 547-4500  
 www.ubisoft.com  
**Reader Service #:** 337

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# A Shiny Example

*MDK Delivers a Killer Gaming Experience Full of Fun and Personality*

by Peter Olafson

**N**o one can accuse the folks at Shiny of not having a sense of humor. At the start of MDK (Playmates Interactive), your character appears on the great metal ball that tops the "T" in Shiny. He appears to be using a metal detector—another sly little joke in a game full of them—as if looking for something precious. He can stop looking. We've found it.

## GOLD MINE

MDK is a delightful, stylized, albeit short, 3D shoot-'em-up that finds your character—he of form-fitting suit and bad boak-like helmet—hoofing, floating, and riding a sinuous path through six huge levels (consisting of some 60 associated "arenas") in defense of a version of Earth assaulted by alien-operated strip-mining machines.

The third-person point of view will doubtless earn MDK (so named for canine sidekick Max, mentor Dr. Flake, and your character, Kurt) comparisons to TOMBS RAIDER. In fact, MDK's closer to a 3D implementation of a 2D platformer like Shiny's celebrated *EMERALD MINE*, which MDK's scrumptious graphics sometimes recall.

MDK's great virtue is variety. It never has you perform any single task for too long. At first you're zooming down from orbit, collecting manhole power-ups and trying to stay on the good side of incoming missiles and enemy radar while en route. Once on terra semi-firma, you're blasting aliens and their anime-like robots, who vanish in hot flashes of cascading debris. Next you're using your built-in parachute to descend deep shafts. Then you're platform-hopping to collect sometimes-

remote power-ups and supplies. Afterward, you're off on a *RAIDERS ASSAULT*-like bombing mission that allows you to clear out an arena from the air before you explore it on foot. After that you're glued to a moving platform—sometimes steerable and sometimes not—as sniping enemies lower around you.

## SNIPE AROUND

Don't forget you are a sniper yourself. Granted, LucasArts wound up doing the "sniper" view first in *Quake*. But that rifle-scope view was fixed. In MDK, you can zoom way in—so close you can read the distress in the aliens' turtle-like faces when they come under fire. (If you hold your fire now and then, you'll also find them grumbling to one another, dragging their sad wounded carcasses across the playfield, and hunting the scale-like creatures that inhabit the game world.) You face a variety of end-bosses—ranging from munchkins to a great dreadnought to the stomping comic tensor of the finale—in gorgeous sequences that typically rely less on raw firepower than on good aim and being

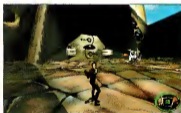
able to quickly figure out the working of a mechanism.

Here, you'll probably want to save your game. Happily, you can. (The original European edition saved only at the end of levels.) Indeed, you can save anywhere, the number of saves seems to be restricted only by hard-disk space.

MDK never seems a chore, whose state of completion has to be preserved



**BULLS-EYE** This shot illustrates two of MDK's best features: the sniper view for taking out enemies stealthily from afar, and the wonderful personality of the taunting enemies.



**TURN AROUND!** As Kurt takes a look around, notice the locked door behind him. It's one of MDK's more simple puzzles—just shoot the two locks to open the door.



Price: \$50

**Minimum System Requirements:** Pentium 90, 16MB RAM, 17MB hard drive space, 2x CD-ROM drive, SVGA-compatible video card; supports 3D accelerators using Direct3D

**Multiplayer Support:** None

**Designer:** Shiny Entertainment

**Publisher:** Playmates Interactive Entertainment

Costa Mesa, CA

(714) 428-2100

www.playmatetostoy.com

Reader Service #: 333

## Kurt's Survival Guide

**N**ever walk when you can fly. Also, don't stomp on the bombs when you do fly. In the surfing sequence, keep your eye on the tunnel roof for upper levels loaded with power-ups. Always go after the alien-making machines first.

The blue bolts fired by the enemy are keyed to your position. Keep moving backward and forward as you attack.

Zoom in on the distant tower to find the Level One boss. There's a position at the bottom of the slope from which you can nail him at the same time that his fire is stopped by the gray transparent barrier.

Level Two's boss sequence is a shooting affair. Release him by breaking his central window, retreat to the ramp to shoot down his plane, and stay on him like a cheap suit until he gets a swelled head.

against repetition. From the opening screen, which features your character lying atop the title letters rather in the manner of *Playboy* pictorials, MDK is imbued with an indomitable spirit of fun. One power-up runs away from you screaming like an agitated chimpanzee. A particularly brazen variation on *Star Trek* action-music accompanies the first segment of the second level and its James Bond equivalent surfaces as you surf the halls on the fourth. The decoy power-up is a pathetic caricature down by hand on what appears to be a mylar balloon.

Not to mention that the towers you're defending are barely drops in the bucket (I mean, Sparrow Pit, England?).

## A UTOPIAN EXPERIENCE?

Now, six levels aren't many, and I finished MDK on "normal" difficulty over a few days of sporadic play. The packaging makes much of the "most sophisticated artificial intelligence ever created," and while my enemies occasionally boxed me in or leapt away from my fire, I had the impression more of food rations than of a flexible, responsive intelligence. It would

be nice if the game offered some additional enrichment beyond a congratulations screen, for saving the town (perhaps a bonus level?).

It's also rather linear—in little in the way of dimensions. And while, ultimately, this type of game is linear by default, it needn't feel that way. (TOMB RAIDER sends you in many directions to reach one destination—but it's nevertheless the many different paths that I remember.) It inherits some of TOMB RAIDER's unhealthy generosity about aiming. (You only have to direct your fire in the most general of ways.) Plus, the end animation feels as if it was cut off a little too early.

Technically, MDK's pretty much on the mark. It didn't crash—except when I tapped the Windows key by accident (which required a reboot)—and everything worked more or less the way it was supposed to. Aside from that, there was only the occasional clipping problem.



**SURFIN'** MDK The variety of gameplay in MDK is another selling point. There are rail sequences when plummeting to the beleaguered cities, plenty of shooting and platform conventions, and even a snowboarding sequence.

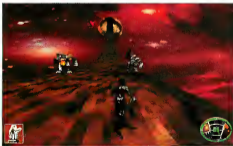
Backtracking, I discovered that a previously dink, enclosed room had been replaced by a dusky cityscape (as I walked, the dark room reappeared). Walls occasionally flashed or vanished as my character backed up against them. And in the linking hallways, the game repeatedly froze up a second or two—presumably as new data was loaded.

Ultimately, these are minor points. But, for as long as it lasts, MDK consistently does things right—from the lovely theme music and that mine-key intro animation right down to its last, petty nuclear bomb. That little man and his metal detector are on the right track. This is gold. ☺

**APPEAL:** Fun lovers, Tom Ruxen grads, and 2D-arcade fans looking to broaden their horizons.

**PROS:** An incandescent 3D-arcade game with varied gameplay, good looks, and Shiny's subtle sense of humor.

**CONS:** A bit on the short side, and more linear than it needs to be; contains the odd glitch.



**SON OF EARTHWORM JIM** Despite MDK's outrageous hype, I couldn't help but like this game. Though it lacks multiplayer support, it has a great mix of gameplay, good graphics, and that great Shiny personality.

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# Round and Round and Round Again

*Psygnosis' ECSTATICA II Is Bigger, Rounder, Harder, but Buggier*

by Thierry Nguyen

Any gamer can tell you that 3D is now the official rage in games. We have MARIO 64 on the console, PANDORA DIRECTIVE for the adventure genre, and, of course, QUAKE in the action category. And with the success of TOMBS RAIDER, the marriage of 3D and third-person perspective is getting some exposure on the market too. Now, we have ECSTATICA II, which, with the likes of MDK and TOMBS RAIDER, could revive the 3D third-person action/adventure genre pioneered by ALONE IN THE DARK years ago.

## SAVING MY GIRLFRIEND AGAIN...

ECSTATICA II picks up right after the ending of ECSTATICA, assuming you chose the good side in the original. After rescuing Estatica, you decide to take her back to your castle, make her your princess, and live happily ever after. That is, until you start noticing all the impaled bodies on the trail to your castle. Only when Estatica



**NICE VIEW** Ecstatica II's graphics are much better than the original game's. Backgrounds are nicely rendered, and characters are now smoother and better animated.

gets whisked away by a gargoyle and you are placed in your own stocks do you realize that something is amiss.

It seems that a wizard started mackin' around with the evil "Elder Sign," got seduced by the "Dark Side," and decided to break the Sign into seven pieces and let evil run amok. So, your quest is to save Estatica (again), reasonable the

Elder Sign, and stop the march of evil.

As in ECSTATICA and other third-person action/adventures, you will run around your surroundings, solve some puzzles, and kill some minions. The first immediate improvements you'll notice are the SVGA graphics and the overall look of the characters. They're a lot smoother, are better animated, and even have facial expressions (which were missing in ECSTATICA). Also, you can view your health in

this version, so you know exactly how well your character is doing, rather than having to rely on the vague "Is he limping?" system, as in the previous game. Add to that a slightly revised control scheme that gives you a large repertoire of moves, and already the game seems a lot better than its predecessor.

## LOOKING AND FIGHTING.

The main theme of the game is exploration. The original game had a small town and a small castle with a small dungeon. But now, you can explore your enormous castle, the forest, a small village, and finally a massive tower. The castle itself takes up about two-thirds of the game, and is easily twice as big as the first game's entire setting.

When you're not exploring, you'll probably be fighting. Wielding different types of swords and other edged weapons, you'll fight goblins, skeletons, knights, Assassins, and many other minions of evil. There are also five "bosses" who either hold pieces of the



Price: \$58 (street price)

### Minimum System

Requirements: Pentium 60 (P133 recommended), 16MB RAM, Win 95 or DOS 6.0, 50MB hard drive space, 2x CD-ROM drive, SVGA Graphics, supports all major sound cards.

### Multiplayer Support:

None.

Designer: Andrew

Spencer

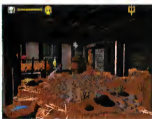
Publisher: Psygnosis

Foster City, CA

(800) 438-7794

www.psygnosis.com

Reader Service #: S35



**THE SEE-THRU MAN** Occasionally, you may be lucky enough to ingest an invisibility potion, which also shows off the transparency effects of the game engine.





**PROFESSIONALS ONLY** This game is difficult; save often. Enemies have frustratingly fast attacks, puzzles can be very obscure, and traps, like this one, can pop up suddenly.

Elder Sign or possess some other item vital to the game's completion. The fighting is quite fierce, as the enemy AI is smart enough to attempt to surround you. The most bothersome feature about fighting is that some of the enemies, such as spiders and fish, have extremely fast attacks. You hardly have time to move at all, which makes fighting frustrating at times. Also, another slight annoyance is the fact that enemies are completely randomized. Now, I know this is done to enhance replayability, but I did find it kind of annoying to save in a supposedly safe spot only to have the game respawn five tough goons when I reloaded the same game a few minutes later.

#### WHERE IS THAT DAMN SKULL?

The other portion of the game is taken up by puzzle-solving, which is actually one of the game's faults. In fact, it was because of the puzzle-solving that I simply couldn't finish the game. The puzzles mostly involve finding certain items and using them in the right place. In the original *ECSTATICA*, I was able to solve all the puzzles in the entire game. But here, the puzzles either have simple concepts that are hard to carry out, or are too obscure to discern. One involved putting out a fire in a chimney that I never knew existed. It took hours of wandering around until I found the actual location of the chimney, and it would have taken as many hours of trial-and-error to figure out which switch in the game would put out the fire. Another puzzle required that a certain rod

be used to open a sealed gate; but there was no mention in the game of this fact. If not for my walkthrough, I would have had to just bash the gate with every item in my inventory until it opened.

All this means that you'll have to do a lot of exploring and double-checking of



**VIEW TO A KILL** Many camera angles are from high vantage points like this, which give you a big picture when fighting groups of enemies.

rooms, for no other reason than to find obscure items. It also means you will have to save constantly because you never know when you might get caught by a trap (there is an extremely deadly one near the very beginning of the game).

As for the reason I couldn't finish the game? The culprit was a traditional item hunt. Later in the game, you need to find three skulls to complete a switch and enter the tomb. My problem was that I never found the third skull. I mapped

out the entire region, double-checked every place, and reloaded/restarted many times. The skulls glow to distinguish themselves from the background art, but I never found a third skull. I don't know whether I had a bad copy or if I was missing a completely hidden and obscure room, but, suffice it to say, I couldn't finish the game.

#### MISSED POTENTIAL?

The code also has problems. It ran perfectly in Windows 95, but in DOS, there was an occasional crash and the game showed slower performance. Sometimes, I couldn't load saved games, either. Though it is a DOS/Win95 hybrid game, I recommend playing in Windows 95 only.

*ECSTATICA II* could have been a contender. The graphics are great, the idea is sound, the world is considerably bigger, and the design shows many improvements over its precursor. But some overly hard and obscure puzzles, combined with the sometimes frustrating combat and the instability in DOS, knock off points in my book. **B**

**APPEAL:** Fans of the original, and of third-person action/adventures like *Berona* and *Azura in The Dark*.

**PROS:** Large world to explore; decent enemy AI; good-looking ellipsoid graphics.

**CONS:** Poor DOS performance; some puzzles too obscure; combat can become too difficult.



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CIRCLE READER SERVICE #318



# Felony Hillbillies

*Kill-Crazy Crackers Create a Cornucopia o' Carnage in Interplay's Backwoods Blastfest*

by Robert Coffey

IF REDNECK RAMPAGE isn't born from the bowels of the American south, it's certainly born from the bowels of something. With more gut-guturing belches and check-slapping bott whistles than a good ol' boy blasted on chicken fried steak, *RAMPAGE* focuses on all things alimentary, going so far as to spotlight ponds of animal filth and canals of raw sewage populated by giggling, animated toads who gleefully reach up their rubbery splanchns to grab gooey lumps of fetid waste to hurl at you. Yee-ha indeed. Yet underneath the unabashedly sophomoric humor lurks a game chock-full of double-barreled action with insidious level design and deadly monsters.

## THE DARK SIDE OF WALTDMY'S MOUNTAIN

REDNECK RAMPAGE casts you as Leonard, a scattergun-wielding son of the Confederacy whose prize pig has been abducted by aliens. With your hopelessly inbred buddy, Bubba, you'll cleanse the backwater burg of Hickston of evil redneck clones and various extraterrestrials before facing a small armada of UFOs and the alien boss herself. It's not exactly *Avatar* Korea, but it's as good a plot as any other shooter, and it does have the requisite aliens.

To reach that touching and tearful porcine reunion, you'll blast your way through 14 levels. A sprawling lumber mill, a grisly chicken processing plant, and a dank mortuary are among the featured locations, along with parts of

the decaying town. *RAMPAGE* is somewhat unique in its emphasis on outdoor locations, making the game world seem larger by not being so claustrophobic. Still, there's plenty of tight, bullet-spewing action in some uranium mines and the countless crowded houses and businesses in Hickston.

Level design is generally solid, with many levels requiring some degree of puzzle solving to complete, such as using movable crates to access areas. Later levels become huge, confusing

affairs—but the excellent autopilot features will help you regain your bearings.

Anyone who hated the limited color palette of *Quake* is warned—the grungy decay of Hickston is rendered in a parade of weathered greys and flat-out ugly browns.



► **BLIND DRUNK** Beer and whiskey may heal you, but too much of the hard stuff will leave you bleary-eyed, unable to control your movement, and an easy target.

Using *Duke's NUKEM 3D's* Build engine, REDNECK RAMPAGE zips along great at the default frame size of 640x480. Higher resolutions are available, but running on a Pentium 150 with plenty of RAM, the difference was neg-



► **BOWLING FOR BUBBAS** Clear the bowling alley of killer country folk and you can actually bowl a few games if you're willing to keep score yourself.



Price: \$49.00

Minimum System

Requirements:

Pentium 90 (P133 recom-

mended); 16MB

RAM (32MB recom-

mended); 150MB hard

drive space, CD-ROM

drive; DOS 5.0 or

later; LocalBus or PCI

SVGA video card;

Sound Blaster-compat-

ible sound card;

mouse, gamepad and

joystick supported.

Multiplayer Support:

Modem (2 players),

LAN, Internet, Engage

(2-8 players).

Designer: Xatrix

Entertainment

Publisher: Interplay

Productions

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**SPHINCTER SAYS "WHAT?"** The outdoors aren't so pretty when facing a pack of dump-lobbing turd minions. Other games don't have as much "character."

light, except in terms of frame rate, which went way down. The signature effects of the Bull engine are all there, though: bullet holes punched into the walls, air duct gates to blast and crawl through, bloody footsteps left when tromping over a fresh kill. Hotkeys let you quickly glance to either side and, in addition to the standard mouse and keyboard controls, *RAMPAGE* supports gamepads as well. The interactivity with the environment is highlighted nicely in a bowling alley where you can actually bowl a game if you want. Unfortunately, many levels fail to fully utilize the pseudo-3D world the engine can create.

#### NICE GUN RACK, BABY

It wouldn't be a shooter without trophies, and *RAMPAGE* has plenty. The chief adversaries are the pistol-packing Skenny Old Coot and his butt-pickin', shotgun-totin' pal, Billy Ray. Cloned by the aliens, Hickston is also overrun by

these guys that you begin wondering which redneck is on a rampage—you or them. Joining the assault against you are massive alien hulk guards firing giant arm guns and spaying mines, clones of the pot-bellied sheriff, and feces-flinging turd minions. Nastiest of the lot are the alien vices, teleporting space babes in dominatrix drag who can shoot energy blasts but are much more deadly when using their machine gun monstrosities.

Unlike other shooters, the enemies in *RAMPAGE*

don't just wait around for the fight to come to them. Once you start a gunfight, clones and aliens nearby hear the mayhem and come to join the party. Battles aren't over quickly, and they often grow in intensity. Kick-ass music by the Beat Farmers, Mojo Nixon, and others really adds to the happy blood-letting.

Yet, as inventive as these adversaries seem, they lack individuality in the nature and style of their admittedly bruising attacks. For the most part, they either just stand there and shoot at you or move relentlessly toward you and shoot. There are some exceptions, notably the vicious attack dogs and small, skittering turd minions, but I would have liked to see the game mix it up some more. Throwing in more monsters to break up the constant stream of Coots and Billy Rays would also add variety and challenge.

#### WHITE TRASH AND BIG GUNS

Dealing with the alien menace is tough work, but you'll have the right tools for the job. Starting off with a crossbow, you'll quickly pick up a pistol and shotgun to help even the odds. Serious weaponry shows up later when you find blade-spitting rip-saws, dynamite for tossing or firing from a crossbow, and even that deadly vicious undergarment. You can even gib an alien hulk guard and snag his severed arm with its attached gun.

Food and alcohol restore health, but you'll have to be sure to keep the alcohol and gut meters out of the red. Eat too

much and the aliens are sure to see you coming. Get too drunk and you'll wheel around uncontrollably in a suddenly blurry world. There's special moonshine for high-speed rampages, waders to move through thick pig filth, and a vacuum hose and welding goggles combo for sewer snorkeling.

#### HEE-HAW FROM HELL

Like no other game, *RAMPAGE* really comes down to a matter of taste—whether you find its deadpan subtle sense of humor funny or not. Like a more vulgar Duke, Leonard is given to uttering catch phrases like "I'm gonna hafta open up a can of whip-ass on ya." With its nonstop burping, farting, crap-throwing, and waste-wedding you'll need a worm spot as your best friend for sociology to love this game. I enjoyed the game, but found it to be pretty much a one-joke deal. It can get tiresome.

Also, time may be running out for the 2.5D shooter. With *QUAKE*, *HEXEN II*, and others upping the ante with immersive, truly 3D worlds, even games as technically well-done as *DUKE* and *RAMPAGE* just seem to come up a little bit short. While the cartoonish humor of these games is well-served by a 2.5D game engine, they just don't engage the imagination the way full 3D does.

*RAMPAGE* has a lot going for it—lots of action, some challenging level design, and a slick game engine. If the munch and crap don't put you off, grab that shotgun and get ready for a rooin', booin', cooin'-narryin' good time down in Hickston, U.S.A. **B**



**A CALL TO ARMS** Rampage's BFG? Just gib one of these alien hulk guards and use his severed arm gun. Just aim and yank the tendon.

**FAPPEAL:** Gamers who like their action fast, furious, and funny; anyone who wanted to take a shotgun to the east of New-Haw.

**PROS:** Huge levels full of leudin' and fightin'; well-designed levels featuring occasional puzzle-solving; great whiskey-fueled music; incoherent humor colors all aspects of the game.

**CONS:** The sense of humor won't appeal to everyone; not all levels take advantage of a 3D gameworld; not enough variety in monsters; monotonous color palette is ugly.

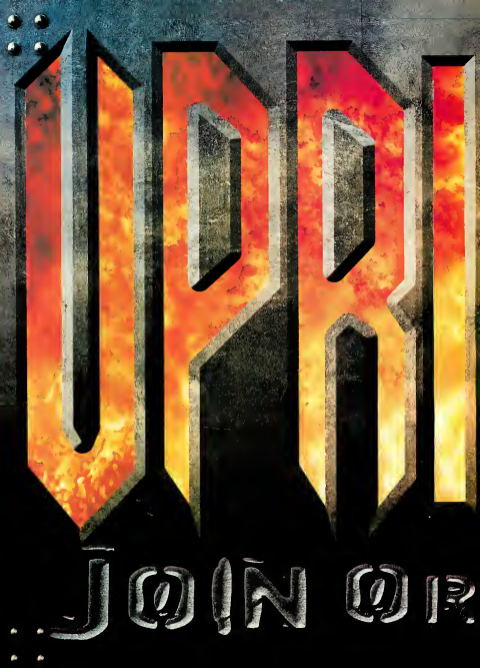


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# Out for Blood

*Blood Combines Good Atmosphere and General Innovations to Make a Better Clone*

by Thierry Nguyen

Surprisingly, no one else has ever created a horror-themed game in the DOOM genre. With the fun, mayhem, and dark humor that you find in 3DRealm's **BLOOD**, it looks like the Gothic theme wasn't a bad bet at all.

You play the vengeful, undead Caleb, a gunning cultist betrayed by his demon lord, Tchernoog.

But in and behold, you rise from your grave, utter the words "I live... again!" and, pitchfork in hand, set out to avenge yourself upon Tchernoog.

Like **DUNE: NUSUM 3D**, **BLOOD**'s plot is accented by brief cut-scenes between each episode, where Caleb kills the various bosses. However, I found the movies played only in Windows. In fact, Windows was much more stable on environment than DOS. In DOS, the game tended to freeze at times.

## MAKE 'EM BLEED...

The weapons in **BLOOD** are a mixed bag. The shotgun, tommy gun, and napalm launcher (rocket launcher) are pretty boring, but the flare gun, the life leech, and the voodoo doll are cool new toys. To space up even the mediocre weapons, though, there are two firing modes: Standard mode and a more powerful mode that costs more in terms of ammunition.

While the voodoo doll is neat, I thought the best weapons were the flare gun and the aerosol-can flamethrower. I like how the flare gun lodges a flare into your victim's body before bursting into flames, allowing



**HOT TIME TONIGHT** **Blood** earns some good marks for a few things: cool, new weapons, including an aerosol can flamethrower that sets multiple enemies on fire.

you to see your victim run around in pain before his untimely death.

And it's especially nice to be able to throw a full can of aerosol on a pack of enemies and light them all on fire with the aerosol-can flamethrower.

## DIRTY BLOOD-SUCKERS...

In keeping with its theme, all of **BLOOD**'s enemies are straight out of horror movies. Like the weapons, most of the monsters are pretty standard fare, though there are a few interesting gems.

The most common enemies are the zombies and cultists. The zombies are standard axe-swinging fare, but it is cool to play soccer with their heads if you can decapitate them.

The cultists are mad monks who spout gibberish while assaulting you with shotguns and tommy guns. Their AI is pretty good; enemies duck behind cover to avoid fire while stripping at you. The cultists, with their good aim and reflexes and tendency for pack attacks, make the solo game very difficult.

There are a variety of other interesting enemies (like gill beasts who die if they stand on land for too long), but my personal favorite are the choking hands. Straight

out of *The Addams Family* movies, these critters will run up to you, latch onto your neck, and choke you until you black out. The only way to get rid of them is to shake them off using the space bar.

## CIRCUS OF MAYHEM

The levels in **BLOOD** are well done, and are actually connected. While you do push the standard button to end the level, you can look around and see some of the next level before you push the switch. And when you start a level, you

start out where you pushed the switch earlier. You'll logically go from train station to train to the train's crash site (a circus).

**BLOOD** also has a good mix of levels: haunted mansions, pirate ships, sewers, circuses, temples, and secret laboratories. And like **DUNE**, there is the occasional movie reference, such as *The Shining* and *Friday the 13th*. The music that accompanies the levels is also good, with twisted circus music in the circus level and chanting monks in the temple level.

Despite the quick-draw reflexes of the AI, the tendency to up the difficulty by cramming enemies into small areas, and the crashes and lockups in DOS, **BLOOD** was still a pretty addition to the family of DOOM-clones. **B**

**APPEAL:** Doom-clone fans and those who like horror movie.

**PROS:** Good atmosphere, decent enemy AI, level design, and music; some cool weapons and enemies.

**CONS:** Some boring weapons; some levels rely on stacked odds instead of better design; unstable in DOS.



Price: \$54.95

**Minimum System Requirements:** Pentium 75, 16MB RAM, 65MB hard drive space, MS-DOS 6.2 or higher, 4x CD-ROM drive, VGA graphics card, Sound Blaster-compatible sound card

**Multiplayer Support:** Modem, serial connection, LAN, Internet (2-8 players)

**Designer:**

Monolith Studios

**Publisher:**

GT Interactive

New York, NY

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CIRCLE READER SERVICE #072

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- ESX



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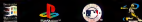
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# Tee Time

*Looking Glass' Golf Sim Is Jolly Good, Despite a Few Rough Patches*

by Scott A. May

**L**ooking Glass, the high-flying publisher of FLYING UNLIMITED, has made the move from wild blue yonder to terra firma with BRITISH OPEN CHAMPIONSHIP GOLF—and it's mostly smooth landing. The game is solid, but cast in the shadow of LINKS LS and Accolade's JACK NICKLAUS 4, it's somewhat unimpressive.

Still, several items make this simulation special. For starters, it's the first major golf championship developed into a PC title. It's also the oldest: The British Open was 65 years old when the first Masters tournament was played. Plus, Looking Glass is one of only two software publishers granted official license to use Scotland's historic St. Andrews course. Finally, it heralds the return of designer Rex Bradford, creator of the infamous "swing meter," first used in Accolade's MESA 3D.

## GREEN ACRES

In addition to the "Old Course" at St. Andrews, BRITISH OPEN CHAMPIONSHIP GOLF also features another legendary Scottish links, Royal Troon. History aside, it's the thing most jaded Americans

duffers will notice about this game isn't scenery—or, rather, its lack thereof. Copies are well down and feature quick redraws between strokes, but beyond a few patches of trees and bushes, both courses are quite flat and barren, giving the game a somewhat desolate look and feel. Digitized backdrops featuring castles, large-spectator stands, and crane-mounted TV cameras stands accentuate the feeling of isolation. It's almost eerie.

Up to four players—human or computer-controlled—can compete, either as amateurs or as one of eight British Open professionals, including Ian Baker-Finch, Chip Beck, and David Donald. However, all humans have to compete on the same machine, as the game completely lacks remote multiplayer capabilities, such as serial, modem, or network links.

Game styles include practice, stroke, best ball, match, and multi-round tournaments. Play mechanics are similar to most new golf sims, with an adjustable directional arrow and 3D swing meter. The meter is unique because it realistically depicts the speed of both the backswing and power (snap) of your stroke. The latter is particularly difficult to gauge, because the velocity of the meter increases significantly as it nears the bottom "sweet spot." The tendency is to check away late, thereby producing one terrible slice after another.

Simply hitting the ball straight is the game's biggest initial challenge. Beginners can compensate by overadjusting the direction of their aim. On the other hand, the calibrated putting meter is one of the best I've ever seen.

## GOOD SHOW

The two best features of the game are its extremely precise physics model—which adjusts for wind, humidity, temperature, and surface texture—and the ingenious audio



**ISOLATION DRIVE** Costumes aren't a problem at St. Andrews, unfortunately hitting the ball straight is

commentary by veteran sportscaster Jim McKay. Boasting more than 5,000 unique phrases, McKay's play-by-play is almost frighteningly cognizant of your actions—it elides bad shots, mocks you for taking too much time, and accurately reflects on your previous strokes. More so than any other golf sim, the reactive crowd and interactive credits are definitely not window dressing, but rather totally integrated into play.

Overall, BRITISH OPEN CHAMPIONSHIP GOLF is a very good simulation of two historic links. Unfortunately, its lack of amenities—in its multiplayer modes, course designer, recorded play—in this highly competitive sports genre will ultimately place it further down the leaderboard than it otherwise deserves. **B**

**PAPPEAL:** Duffers of all levels, but particularly those with an appreciation for historic links.

**PROS:** Briskly paced, with an excellent interface, good graphics, and realistic physics model; verbose audio commentary is intelligent and entertaining.

**CONS:** Historic or not, the scenery is downright dull; swing mechanics can be frustrating to learn; no true multiplayer capabilities.



Price: \$49.95

### Minimum System

#### Requirements:

Pentium 60 (P90 recommended), Windows 95, 12MB RAM (16MB recommended), SVGA graphics, 40MB free hard drive space, 2x CD-ROM drive (4x recommended), mouse, requires DirectX-compatible sound and video cards.

### Multiplayer Support:

None

Designer: Rex Bradford

Publisher: Looking Glass Technologies

Cambridge, MA

(800) 398-7455

www.lookingglass.com

Reader Service #: 343



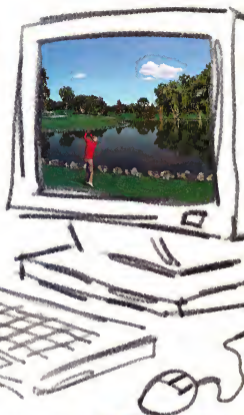
**NICE PUTT** British Open's calibrated putting meter is one of the best ever seen in a golf sim.

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# Alley Oops

*It's a Great PlayStation Game, but TEN PIN ALLEY Doesn't Survive the Port to the PC*

by Scott A. May

**B**owling is the Rodney Dangerfield of sports—it gets no respect. Some unenlightened folk don't even consider bowling to be a sport at all. The same goes on the computer. With few notable exceptions, there hasn't been a good computer bowling simulation in at least 10 years, since Access Software released its brilliant 10TH FRAME for the Commodore 64.

ASC Games and Adrenalin Entertainment hope to change computer bowling's meager image with TEN PIN ALLEY, a Win 95 port of its excellent PlayStation title. Unfortunately, as with the case, the trip from console to PC is a minor catastrophe. While the PSX original scored a near-perfect game, the computer conversion milks straight for the gutter.

## GUTTER BALL

Up to six players can compete on a single PC, either individually or three to a team, in four styles of play: open, league, and tournament (amateur or professional). You can also engage up to 10 players online, via the game's built-in Internet connection, although—incredibly—this option allows for open bowling only. Scoring can be either standard or "no top," which means if the first ball knocks at least nine pins down, it counts as a strike. Three alley settings are available, although the only differences between them are the graphic dressing and background music.

Bowlers can tailor their onscreen persona based on eight computer-

generated characters, each rated for power, release, and spin. However, beyond changing these characters' clothing, skin, hair color, and name, the only user-definable options are ball weight (up to 16 pounds) and cover stock (pois, plastic, or urethane). Unlike the PSX version, there's no option to change your bowler's skill level.

The major difference between the PSX and PC versions of the game is play mechanics. On the PSX, control is ultimate, allowing players to concentrate on precise spin, power, and release. For reasons beyond comprehension, Adrenalin completely revamped this process on the PC, making it much more frustrating. Simple joystick control is out. In its place, players must use the mouse to position the bowler, spot the lane arrow, and set a circular spin meter to motion. The more this meter spins, the more spin is placed on the ball. Separate meters then control power and release. The trouble is, to produce a decent spin, you must watch this silly meter whirl around five or six times. It's not only tedious—but also impossible to accurately gauge.

## SPARE ME

Thankfully, the original game's ball-and-pin physics model survived the rough translation. Many factors influence your performance: spin, power, release, aim, and surface condition (achieved



**MEETER VIOLETION** The complicated swing meter is more suited to an Escher painting than bowling.

**BOTTOMS UP** Along with realistic pin performance, one of the highlights of TEN PIN ALLEY is the great player animations.

through simulated lane treatment and drying effects). The realistic pin action is a sight to behold, accentuated by thundering digitized sound effects. The animated bowlers are also a delight, provided you have the hardware horsepower to produce a decent frame rate. Each bowler reacts differently—and sometimes quite comically—to both good and muffed shots. Yet despite DirectX support, the polygon bowlers still pale in comparison to their console counterparts.

If ASC and Adrenalin had stuck with their proven play mechanics, TEN PIN ALLEY would have been a winner. As is, this shoddy translation is only a few paces shy of a total embarrassment. **C-**

## APPEAL: Bowling tactics.

**PROS:** Realistic ball-and-pin action; entertaining character reactions; a good party game, with Internet play a big plus.

**CONS:** High system requirements; play mechanics tedious and confusing. Overall, a very weak port of the excellent PlayStation original.



Price: \$39.99  
Minimum System

Requirements:  
Pentium 75 (P100 recommended), Windows 95, 8MB RAM (16MB recommended), PCI video and drive controller, 78MB free hard drive space, 2x CD-ROM drive (4x recommended), mouse, DirectX-compatible sound and video cards, TCP/IP connection for Internet play.  
Multiplayer Support:  
Internet (2-10 players)  
Designer: Adrenalin Entertainment  
Publisher: ASC Games  
Danien, CT  
(203) 605-0032  
www.ascgames.com  
Reader Service #: 344



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*hear the sprinklers, crush the ball.*



S I E R R A



# Getting Real

Action and Simulation Balance in This Immersive Sim

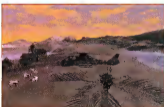


by Robin G. Kim

**T**hrough the darkness, two sleek forms race toward a broken ridge and rear to a halt just before it. Rising from a low hover, the lead RAH-66

Comanche attempts to scan the objective—a Russian battalion HQ just over a mile away. Despite the SAMs and AAA in the area, the helicopter goes completely unnoticed. Its softly whining rotors can't be heard at that distance, and radar can't register the chopper's tiny signature amongst the ground clutter. The copilot/gunner then targets the center of the compound, registers its position, and calls in a strike.

The pilot of the lead Comanche waits until the pounding of the artillery has ended, then the two ships rise as one to survey the damage. Several vehicles have survived the shelling. With targets sorted and weapon bays swinging open, the two RAH-66s prepare to demonstrate that the "attack" in their Reconnaissance/Attack Helicopter designation is no misnomer.



**NOODLE IT** Observant sightseers may come across cows (that explode when you shoot them), flocks of birds, and even orca sharks while flying the campaign missions



**BRIDGE OUT** The wildly exaggerated terrain features may not be totally realistic, but they do make for some interesting flying.

COMANCHE 3 is Novologic's latest attempt at simulating the RAH-66. In addition to the expected graphical enhancements, COMANCHE 3 boasts superior gameplay and a much more realistic flight model than its predecessors. The result takes a big leap toward the serious end of the simulation spectrum while remaining true to the series' action-oriented roots.

## REALISM VS. ACTION

Instances of this dichotomy permeate the sim. Modeling of the laser-guided Hellfire missile, for example, is quite convincing, accurately depicting its guidance requirements and top-attack flight profile.

However, the detection ranges of the Comanche's targeting sensors are too short to fully exploit the formidable missiles' standoff attack capability. Engagements take place at relatively short ranges, artificially increasing the tempo of combat.

This shows off COMANCHE 3's

suppressive ballistic weapon simulation, which accounts for gravity drop and tracks every shot (do not hover in front of friendly tanks!) Yet even here, realism is compromised; your far-reaching 20mm cannon can eventually destroy even the toughest target.

The sim's flight model continues this trend, mixing the real with the unreal.

It has a nice fluid feel, accounts for inertia, and even models the complexities of autorotations—emergency landings with no engine power—despite their irrelevance to actual missions. (Complete engine failure always coincides with instant destruction.) On the unreal side, your Comanche is overpowered, and its performance is unaffected by ordinance weight and drag. Limitations of the graphics system restrict maximum altitude and aircraft bank angle. Ground effect (the extra lift a helicopter gets when hovering near the ground) is massively overdone, distorting the behavior of the aircraft at low altitudes with the net result of making it easier to fly.

The latter flaw most affects gameplay, but its significance fades if you use the sim's altitude lock feature (a capability of the real Comanche's digital flight control system) which makes nap-of-the-Earth maneuvering a snap. For players who aren't sticklers about realism, options exist to make flying even easier.

Gamers of all tastes who hate reading documentation will appreciate COMANCHE 3's training missions and the informative virtual flight instructor who talks you through them.



Price: \$44.95

### Minimum System

Requirements: Pentium, MS-DOS or Windows 95, 16MB RAM, 18MB hard drive space, 2x CD-ROM drive, Sound Blaster-compatible sound card.

Multiplayer Support: Quack Connect (2 players), Modem (2 players), IPX Network (2-8 players); only one CD required.

### Designer:

Kyle Freeman

### Publisher:

Novologic, Inc.  
Calebesca, CA  
(818) 880-1997

www.novologic.com

Reader Service #: 345



**CATCHING A TRAIN** Many missions require speed as well as stealth, whether it's to destroy a speeding train or to come to the rescue of an ambushed tank company.

#### EYE CANDY

The original *COMANCHE*'s biggest claim to fame was its patented Voxel Space graphics engine, which rendered realistic ground contours that were easily comprehensible — something that cannot be said for the textured polygons used in many other sims. *COMANCHE 3* is even smoother; it looks just as good up close as it does at a distance. Combined with its highly detailed texture-mapped objects, scattered trees, light-source shading, and numerous other visual effects, *COMANCHE 3* is truly a feast for the eyes. There's no such thing as a free lunch, however: The game's graphics are demanding enough to slow a Pentium 166 (with every option maxed out) to a crawl! Fortunately, enough detail settings and resolutions (ranging from 320x200 to 640x480) are provided to enable a playable frame rate on any speed Pentium.

*COMANCHE 3* features four campaigns, each consisting of eight diverse, well-crafted, but completely canned missions. Planning is done for you, with pre-flight briefings describing your objectives. Reflecting the game's focus on action, no pure recon assignments are given out, even though that is the Comanche's primary role.

The missions become steadily harder as you progress through the campaigns, and some are extraordinarily difficult to complete. Although there is no way to turn down the difficulty level, the included mission recorder's ability to let you take control halfway through a play-back can help. Frustrated players can inch their way through a tough mission, correcting fatal mistakes in the previous iteration. Since mission recordings can't

be saved, this must all be done in one play session.

#### RAMBO DIDN'T KNOW STEALTH

One teammate (U.S. Army aviators do not use the term "wing-man") accompanies you on every combat mission. But the AI pilot must have slept through training, because he flies like a maniac, charging

enemy positions with reckless abandon or ramming or shooting you in his single-minded zeal to get at the bad guys. He responds to only one command — attack your specified target — so there is no way to effectively ream him in. This usually results in his early demise (a fate frequently shared by any other computer-controlled aircraft assigned to support you), putting the burden of accomplishing the mission objectives squarely on your shoulders.

Digitized speech, which is exchanged with the AI crews, greatly enhances the game's atmosphere. In general, *COMANCHE 3*'s stereo sound-effects are outstanding, and help draw you into the game's virtual world.

*Comanche 3* isn't the most realistic helicopter sim on the market, but between its involving missions and lifelike sights and sounds, it is arguably one of the most immersive. It would be even more so were it not for the inept computer pilots, but the excellent cooperative multiplayer modes are natural workarounds for gamers who can take advantage of them. ☺

**PAPPEAL:** Action game fans who enjoy a moderate dose of real-world complexity; flight simmers willing to forgive some lapses in fidelity in an extremely absorbing game.

**PROS:** Outstanding graphics and sound effects; a variety of mission types; excellent cooperative multiplayer modes; good atmosphere.

**CONS:** Limited set of canned missions yields mediocre replay value; very poor computer teammate AI makes some missions extremely difficult; CPU-hungry at maximum detail and resolution.



## Multiplayer Mayhem

**T**he best solution to *Comanche 3*'s deficient teammate AI is to replace it with a real person. Any campaign mission can be flown cooperatively over a network, modem, or null modem link, and the improvement over single-player mode is remarkable. Suddenly, realistic tactics involving stealth and teamwork rather than brute force become feasible, often with gratifying results. Missions that once seemed almost impossible while flying solo now play out with just the right level of difficulty. The only downsides are the abbreviated mission briefings (when compared to standalone play) and the one-line chat buffer, which is too easily overwritten when multiple people talk at the same time. For fans of head-to-head action, the sim also provides several dedicated melee missions. It is easy to get lost in the 80 square miles of terrain, however, turning potentially fun tag-fests into fruitless searches for your opponents. Unless you can get a large group together or you enjoy peaceful sightseeing, don't bother with the deathmatch missions.

Whichever mode you choose, setup is quick and easy, and gameplay is impressively smooth. A trial version of Kai is included on the CD, but performance over the Internet is rather poor, except under ideal conditions.



**CANNON FODDER** Other helicopters sometimes accompany you on missions, but they often do so quickly that they're little more than a temporary distraction.



# Shallow Space

*This Attempt at a Space Sim Is a Day Late and a Dollar Short*

by Martin E. Cirulli

**T**he sci-fi flight sim business is a tough one to break into. Between Origin's *WING COMMANDER* and LucasArts' *Star Wars* games, a newcomer really has to strive to break the monopoly that those games have on the fans out there. A game needs to have depth,

high-end graphics, and enough style to carve its own niche in a gamer's mind. Some fair third-party sims have come and gone over the years, but none has really been able to tie all those elements together well enough to create more than a dip in the computer gaming ocean. Luckily, the dearth of multiplayer capability in space sims has created another way for a new game to get attention, and *DARKLIGHT CONFLICT* looks very much like it was designed to take advantage of this situation.

**MORE ALIEN ABDUCTORS**

The premise for DC is interesting, but not devastatingly original. You are a fighter pilot who is abducted right out of your F-4S cockpit by some very male aliens, who are looking to scoop some warm, skilled bodies for their nasty little war. After radically altering you to jack into one of their cybernetic fighters, they quickly start your training without even asking you if you consent (having lost your normal life). Supposedly, if you win the war, you'll be returned to your old self and sent back to Earth. (Of course, I'd hate to be the defense lawyer at your AWOL court martial.) And wouldn't you know it, before you can finish your job, skullgurgery rears its ugly head and a little weakness ensues.

Unfortunately for fans of "deep plotted" sims like the *Wing*

*COMMANDER* series, DC never really rises above this bare-minimum premise. The campaign itself is not dynamic, and the storyline is basically a paragraph intro for every mission. While this is by no means a fatal flaw for a sim, the way DC handled it was just the first clue that this

was not going to be the most in-depth and detailed game.

Of course, if the plot is weak, then the hope is that the flight engines and missions will cover the price of admission. And, to be honest, my initial reaction was very good—but this enthusiasm rapidly waned.

**DO SPACE JOCKEYS DESERVE FRIENDS?**

**W**hile some kind of multiplayer capability has been fairly standard in PC flight sims going all the way back to *Flight 4*, fans of sci-fi flight sims have had a long, cold wait for the chance to go up against their buddies in the days battle-mech battles with them, respectively. While true 3D sci-fi seems to be very popular, even for the lack of multiplayer support, as space and often present has design difficulties than atmosphere a game here. After all, it can't require overly complex and large levels. *DARKLIGHT CONFLICT* has shed away from this option in the past.

The first real attempt to bring stock gaining to the spacejocks was *Armed* from Origin. This sim tried to mesh to content of head-to-head dogfighting with a very basic specialization game. Unfortunately, while it was an interesting attempt to mesh games, the sim portion of the game suffered much the same problems as today's *Developer Console*. It looked great, but flew short.

Fortunately, with the arrival of *X-Wing vs. TIE Fighter*, there seems to be some recognition of the fact that adding a multiplayer suite doesn't mean you can dump on gameplay. Of these three times to date, anyone has tried to incorporate multiplayer, two of them (including *Developer Console*), have resulted in less-than-stellar results. Are we finally opening an age where space-sim fans can expect the same level of connectivity that other games enjoy in the late '90s? One can only hope... and per-

haps someday Origin will take another stab at making their first *Wing Commander* universe a social engagement, just as *Quake* has done with the *Star Wars* series. Designers trying to break some market share from the Big Two in space sims would do well to take note of recent developments, and realize that to succeed they need to do more for gamers, not less, and give space jockeys a good reason to be social.



**Price:** \$49.95

**Minimum System**

**Requirements:** P60 (P133 recommended), MS-DOS 6.2 or Win 95, 80MB hard drive space, 16MB RAM, VESA 2.0 compliant video card, 4x CD-ROM.

**Multiplayer Support:**

LAN (2-8 players)

**Designer:** Rage

Software

**Publisher:** Electronic

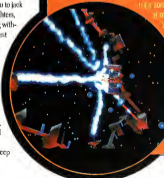
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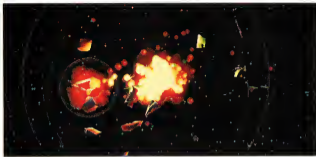
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CIRCLE READER SERVICE #236



**NOT EXACTLY A BLAST** While the graphics in *Darklight Conflict* are pretty great, as in this spectacular space explosion, the gameplay is completely overshadowed by the likes of *Wing Commander IV* and *X-Wing vs. TIE Fighter*.

Cryptically, *DC* is stunning, and, at some moments, the game achieves the level of computer graphics found on sci-fi TV shows a couple of years back. The light sourcing is simply incredible. Shots reflect off gleaming hulls as they pass by, explosions cast a glare over everything for a split-second, even the differently colored stars cast their own particular

shade of light across facing surfaces. The ships themselves are imaginatively rendered, and have detailed hulls that look great as you fly by with your guns blazing. Other beautifully rendered bits are the starships, like *Babyton 5*, and missiles, as they leave your handpoints and weave through space toward their dodging targets.

#### KAMIKAZE FLIGHT SCHOOL

The problem with *DC* is that once the visual glamour wears off, you begin to find out why these aliens needed your help so badly: All the other pilots are terrible! Given the way the computer flies in this game, you'd think the primary weapon of the space age is the battering ram. While they can adequately fly away from you, and will take you out from behind if you are not careful, they are just not good enough at dogfighting to be a threat, except in large numbers.

The designers must have been aware of this, though, because enemies do come at you in ridiculous hordes, and 10–15 kills per mission is not unusual, with nary a wingman in sight. Unfortunately, their numbers don't quite make up for lack of skill, and combat quickly becomes highly ritualized and more tedious than fun. There is some attempt to add variety by adding bombing runs and





In the end, times have just gotten too good for **DARKLIGHT CONFLICT** to be a serious contender. With a little more detail, a better AI, and a 1996 release date, this game could have gotten higher marks—but the simple, ugly truth is that there is just better fare out there now. It would be nice to see these kind of graphics in a deeper game, but for now I suspect that most gamers just don't have the money to try and die out enjoyment from a second-rate effort like this one. **S**

**▶ FLOATING POINTLESSLY** Division: **Conflict** can't overcome a shallow premise and poor gameplay in order to compete in 1997.

defensive missions, where you fight from some kind of turret floating in space, but the poor AI defeats much of the thrill in this, especially in the turret missions, where the enemy ships just fly right into you if you aren't quick enough to get out of their way.

The multiplayer capability of this game alleviates some of the problem concerning the weak AI, but a universe where only the human players fight well

still gets old fast. A more robust multiplayer suite, with a large number of scenarios and some sort of mission builder could have helped a bit, but in the end it probably still wouldn't be enough in a world where X-Wings vs. TIE FIGHTER exists. The days when a space sim could get by on looks and depend on simple connectivity as a hook have probably passed forever, thanks to LucasArts upping the ante.

**▶ APPEAL:** For space pilots whose only intention is for multiplayer action, and can't find a copy of X-Wings vs. TIE FIGHTER.

**▶ PROS:** Excellent graphics; some nice details; good tutorial.

**▶ CONS:** Lousy manual; lousy flight AI; repetitious gameplay; simple multiplayer or suite not enough to save this one from the bargain bin.



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TalonSoft Tallies Another Victory With *BULL RUN*

by Bob Proctor

**B**ull Run (or First Manassas), fought in July of 1861, was the first major battle of the American Civil War. Both North and South thought it would be the only battle, and that victory would be so overwhelming that the loser would capitulate out of sheer hopelessness. Thirteen months later at Second Bull Run, nobody was that naive anymore. *BATTLEGROUND 7: BULL RUN* captures the pomp, gallantry, and confusion of both battles, along with the emerging tactical genius of both Stonewall Jackson and Robert E. Lee.

TalonSoft's *BATTLEGROUND* series has been peated far and wide, with *BATTLEGROUND: SHELTON* winning *CGW*'s best wargame of 1996. *BULL RUN* is mechanically identical—still complex, yet manageable— to the previous three *BATTLEGROUND* games covering the American Civil War. So, we'll assume that those of you who are interested in this series know what you like and what you don't, and focus on what makes *BULL RUN* different from the other games in the group.

## LET LOOSE THE FOGS OF WAR

*BULL RUN* is the best title in the series for head-to-head play with *Fog of War* turned on. Hills and forests on the huge maps keep lines of sight short; yet there



**FRESH-PAINTED FORD** The battle for Blackburn's Ford is one of the better small scenarios.



**GOT MY RAILROAD TIE** This is action from the first day of the Second Battle of Bull Run. The 'Yankees throw themselves at Jackson's troops along an unfinished railroad line

is no truly dominant terrain, making this ideal for a meeting engagement where neither side can be sure of the other's intentions. Playing one of the full-day scenarios with a buddy is a blast, because you can try something unexpected or ahistorical to really see who the best general is!

Now some of you may be muttering "But I like history" or "Fat chance I've got of finding someone to play with," so let me hasten to assure you that *BULL RUN* offers 22 scenarios, of which, 8 are First Bull Run and 14 are Second Bull Run. Since there is no better way to understand the dynamics of a battle than to game it, the following lists the conflicts you can learn about:

### Blackburn's Ford

One historical scenario and one "what if?" scenario portray this skirmish some three days before the 1861 battle. Union forces tried to seize a bridgehead on the south side of Bull Run. Historically, they failed; in the game it is pretty easy to take the objective but almost impossible to hold it when the Rebel reinforcements launch a counterattack. If you make them pay heavily in casualties, victory can be yours. This is a good beginning scenario.

### First Battle of Bull Run

Four scenarios comprise the entire battle. Two are historical but differ in start times. At 5 a.m., Union forces are uncommitted (except for the "demonstration" at Blackburn's Ford, which McDowell wanted Beauregard to think was the main attack). The 9 a.m. start finds the leading Union forces already across Bull Run and committed to a flanking movement around the Rebel left. That four-hour difference means 12 fewer turns of maneuvering and a shorter, more historical game. For head-to-head play, I want that extra four hours to prepare some surprises.

### Henry House Hill

Two shorter scenarios (8 and 11 turns) depict the crucial fighting during the First Battle of Bull Run. Jackson lined up his troops along the crest of a low ridge and stopped the Union advance in its tracks, earning himself the nickname "Stonewall."

### Beauregard's Farm

Jumping ahead to 1862, this small battle took place the night before the Second Bull Run really started. Jackson tried to ambush an unsuspecting Union division retreating along the Waxstone Turnpike. Historically, both sides took equal



**Price:** \$49.95

**Minimum System**

**Requirements:**

486/33, Windows 3.1 or better, 6MB RAM, 5MB hard disk space, SVGA graphics, 2x CD-ROM, mouse.

**Multiplayer Support:**

hot seat, modem, null modem, Internet, or e-mail (all 1-2 players).

**Designers:**

John Tiller, Jim Rose, Charles Kilber

**Publisher:**

TalonSoft  
Forest Hill, MD  
(410) 821-7282

[www.talonssoft.com](http://www.talonssoft.com)

**Reader Service #:** 347

casualties and the Yankees retired toward Washington in good order. Call that a draw if you want, but when you're outnumbered 2 to 1 by the best troops in the Rebel army and come away with your unit intact, I call it a victory. Unfortunately, TalosSoft missed badly on this scenario; the objective lines are placed between the two forces and any attempt by the Union to hold them results in a major victory for the guys in gray.

#### Second Battle of Bull Run

Scenarios 11 and 12 are the Big Exhilarada, representing the entire two-day battle. The 5:40 a.m. start runs 90 turns, with the 9:40 a.m. some 12 turns shorter. The map is smaller and set slightly southwest of the first battle. There are also two scenarios of just the first day, and two of just the second day. The remaining six scenarios are shorter

(4 to 15 turns) and depict episodes of the most furious fighting.

#### SALUTE THE COLORS

When I reviewed BATTLEGROUND 5, ANTIETAM back in the March, 1997, CCW, I wrote that the primary attraction was "the large number of interesting and varied short scenarios" and recommended it as the best title to buy as an introduction to the series. That advice still stands. With a couple of exceptions, the short scenarios in BULL RUN are weaker—either by being unbalanced, inaccurate, or inconsequential. The emphasis here is clearly on the longer scenarios. For starters, the average scenario length is more than 25 turns.

Plus, the documentation seems hastily put together from ANTIETAM manual remnants. This is the first TalosSoft manual not to have a chapter on the history of the battle (there is some in the online notes).

It's possible that this will be the last BATTLEGROUND title on the Civil War, as TalosSoft is focusing on doing for 20th century warfare what the BATTLEGROUND series has done for the 19th. If so, they can be mostly forgiven for a few flaws in a great game system. My advice is that anyone interested in historical gaming should play these fine games before faster processors and better graphics make them as outdated as EASTERN FRONT. ☹

**PAPPEAL:** Anyone with an interest in gaming historical situations.

**PROS:** Best of series for head-to-head play with Fog of War.

**CONS:** No scenario editor; some unbalanced scenarios; lack of a manual.



## Leadership in an Uncertain World

**R**ethink your entire approach against a human opponent. Smaller units of 50–100 men take on a much more important role as scouts and skirmishers. Let your enemy see these small units and keep the big ones hidden if you can. Cavalry is best for scouting, but is in very short supply in Bull Run. So use "foot cavalry" instead and save the real cavalry to attack enemy scouts that push too far ahead.

Keep a reserve. Green troops in Bull Run are prone to panic if a nearby unit breaks. Concentrate your fire on a single unit and expect that when it fires, several other units that haven't even

been shot at will retreat with it. Be prepared to take advantage of this hole in the defense or, if you're on defense, to plug it quickly.

Use smaller forces than you would against the AI. To make your forces as effective as possible, master all the little tactical nuances. Learn to use the higher ground and wooded areas to your advantage. Build breastworks when you have time. Rest fatigued troops to keep them from crumbling the first time they take casualties.

Emulate Robert E. Lee—get inside your opponent's skull. Trying to defend all the things your enemy could do will stretch you too thin; instead, think about what he would do. You have to gamble. The fate of your country is in your hands.



**RUN FOR WASHINGTON!** The battle of Brawner's Farm is unbalanced. The objective boxes, shown by the flags (the red square is on the middle of the three), allow a Union attack, but Jackson's whole corps is waiting behind the hill.



**WINDOW TO MY WAR** Here's the Jump Window showing the entire map of First Bull Run at 5 a.m. The Union forces are strung out along the Warrenton Temple with more due to enter behind them. It's good to check the battle from this view each turn.

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# Borodino Bound

"The Most Beautiful Battlefield I've Ever Seen"—Napoleon I

by Loyd Case

On June 24th, 1812, Napoleon Bonaparte crossed the Neiman River at the head of 422,000 men, with a determination to secure France's position as Europe's supreme power. It was one of the largest armies ever assembled, although some forces were unusable levies from less-than-enthusiastic allies. The Russians fought desperate rearguard actions, and escaped traps several times. Meanwhile, Napoleon plunged ever deeper into Russia, pursuing his enemy, the whole time having to peel off garrison units to protect his lines of communication.

Finally, 75 miles short of Moscow, the Russians turned and faced their adversary behind huge redoubts built near the village



**TWISTING THE BAYONET** This is a good example of both the colorful uniforms and how to do a combined-arms attack: The skirmishers are out front, flank units are in square, and columns are quick-marching to attack enemy batteries.

of Borodino. Rather than maneuver, Napoleon chose to simply hurl his formations at the Russians. It proved to be a brutal battle of attrition.

NAPOLEON IN RUSSIA is TalonSoft's sixth wargame based on their BATTLEGROUND engine, and their second Napoleonic game (after WATERBLOOD). It

benefits from the steady improvements made to the engine throughout the series. Where a design decision may be controversial, TalonSoft has given the player the option of using the rule.

The idea that the gamer can control which rules to use isn't a new one, but the choices are significant enough that it's almost a different game, depending on which optional rules you

choose to implement. More on this later.

Graphically, the game looks very much like prior BATTLEGROUND titles. TalonSoft has done its usual fine job in the art area, and the attention to detail shows in the renderings of uniforms for the various units. There are a host of historical and "what if" scenarios that cover the time leading up to the

battle, and an intriguing "what-if" battle that might have occurred during Napoleon's retreat from Moscow.

## REALTIME—NOT!

NAPOLEON IN RUSSIA is a turn-based game, and the scale of the battle is massive. There are several historical variants that take 48 turns, and you have to keep track of over 170 units—and that's not counting leaders. The Battle of Borodino may have taken a day, but the full battle on your PC will take a little longer.

It's refreshing, though, to spend time deliberating over tactics and making sure that the combined-arms coordination so crucial to Napoleonic combat works. There are several formation options for infantry, including column, line, extended line, and square. You can break off skirmishers from light battalions (as the unit count soars) and cavalry segments can be broken up into squadrons as needed.

Combat is broken up into a series of phases. During your turn, you'll move,



**QUICK CHANGE ARTIST** Keep in mind—especially when assaulting enemy positions, as here—that many formation changes occur during your defensive fire phase.



Price: \$49.95

### Minimum System

#### Requirements:

486/33, Windows 3.1 or better, 8MB RAM, 5MB hard disk space, SVGA graphics, 2x CD-ROM, mouse

#### Multiplayer Support:

hot seat, modem, null modem, Internet, or email (all 1-2 players).

#### Designers:

John Taler, Jim Rose, Charles Kibler

#### Publisher:

TalonSoft  
Forest Hill, MD  
(410) 821-7282

www.talonsoft.com

Reader Service #: 349





**BIRD'S-EYE VIEW** The AI is decent enough that you have to employ solid tactics to win. Note how the French have plenty of reserves in the woods to exploit holes in the computer's defense.

sueve fire to a defensive-fire phase, fire your units, conduct cavalry charges, and engage in hand-to-hand (melee) combat. Some formation changes—such as limbering artillery or sending out skirmishers—occur during the movement phase. Other formation changes—including the crucial ones of unlimbering artillery or forming infantry into squares—occur during your defensive-fire phase. At first, you'll overlook these critical formation changes, but after you've had a couple of infantry battalions shattered by opposing cavalry charges, you'll begin to remember.

Although the game engine seemed solid and relatively stable, the interface is beginning to get a little long in the tooth. Even after extended play, some toolbar buttons may not seem intuitive, but NIR doesn't have tool tips pop up with a description of the button when you run your mouse cursor over the button. While the help function is fairly thorough, more illustrations of dialing boxes and the unit list would have been nice. Finally, although the drag-and-drop interface was fairly intuitive, using other methods required

frequently perusing the manual.

**IT'S TEN GAMES IN ONE!**

One of the strongest aspects of the game is its configurability. There are seven optional rules, any of which can radically affect gameplay—that's why they're optional. If you think that cavalry should be able to launch a countercharge against charging

cavalry, check off the countercharge option. There's even a variant on a variant called Extreme Fog-of-War where you can get no information about an enemy unit, other than its appearance, when clicking on it.

One minor flaw is the ability to determine the appearance of an enemy unit when you click on it—even when the Extreme-Fog-of-War option is on. Near the end of the actual battle, for example, the Moscow Militia—a ragtag assemblage of civilian pikemen—actually caused a pause in the French advance. During the game, however, you can tell from the unit art that you're facing the Militia, and hence you'll just roll over them.

AI for a Napoleonic game is much tougher to design than, say, for a Civil War game, because the computer must coordinate combined arms and manage shock cavalry, which is no easy task. I found that the AI didn't handle cavalry charges and countercharges well. On the flip side, there's less of a tendency for infantry to form into squares at the sight of a man on horseback, unlike early versions of *WETBLOG*. Overall, the AI is pretty good for such a complex game, and poses a reasonable challenge, particularly if you choose the French and have to attack.

Of course, a game like this is much better against a human opponent. In addition to the usual email and Internet play, TalonSoft has added a much-anticipated Internet play option. I tried it out over a TCP/IP connection with a friend and was pleasantly surprised. Normally, playing turn-based games over a network is like watching grass grow. But here, due to the phased nature of gameplay and

the Fog-of-War rules, you're alerted to the screen during your opponent's move as you see his units pop up on your screen—then disappear as they move out of line-of-sight.

*NAPOLEON IN RUSSIA* is a solid, mature effort. Some of the variants seem more interesting than the historical scenarios, which is a testament to the game's designers. If you have any interest in wargames, and the Napoleonic era in particular, or just want a diversion from the frantic click-fests of real-time games, check out *NAPOLEON IN RUSSIA*. Its deep, absorbing, and with the rules variants, can even seem like a different game with each playing. This one is a keeper for my collection. **S**

**Huzzah, Hussars!**

**T**he key to being successful in *NAPOLEON IN RUSSIA*, whether playing against the computer or a human player, is coordination of your three main unit types: artillery, infantry, and cavalry. Unlike Civil War games, cavalry play a critical role as shock troops. There's nothing a hussar regiment likes better than to find an unprotected infantry unit in an open field. The infantry's defense is to form a square—but you then bring up your artillery and cheer up the infantry.

Make sure you check all your artillery and infantry units to see if a formation change is in order during your defensive-fire phase. This is the only time you can form a square or unlimber artillery. Conversely, you can only form line with infantry during your movement phase.

Pay attention to the unit list and, in particular, fatigue. If the fatigue level creeps past seven, your unit has a much higher chance of being routed. Resting a turn or two is not a bad idea.

Manage your supply wagons carefully. There's nothing more frustrating than wheeling around to the flank of an enemy unit, only to find that you're out of ammo.



**WAGON TRAIN** Here, the Russians have shifted their line to the left of the town, leaving an opening. The French player should try to hit the village and take out the Russian supply wagon.

**APPEAL:** Anyone at all interested in Napoleonic conflict, or just a good, realistic two-player wargame.

**PROS:** Attention to historical detail; good user interface given the complexity; tons of options; solid AI, great for two players.

**CONS:** Not a game for the impatient, and as rich as this series has been, it's starting to get a bit dated.





# Rx for Fun

*This Hospital Has the Cure for the Summertime Blues*

by Dawn Jepsen, LPN

**A**fter spending eight very long hours a day working as a nurse, I was more than surprised to find how much I enjoyed playing a game that had to do with being in a hospital. Though many nurses have been accused of treating patients as if they're invisible, in **THEME HOSPITAL**, you actually have patients that are. **THEME HOSPITAL** is a control freak's dream come true: a chance to do things the right way—your way.

## THE DOCTOR WILL SEE YOU NOW

The premise of **THEME HOSPITAL** is much the same as that of Bullfrog's earlier **THEME PARK**: Build the most successful facility possible. The major difference is that **THEME HOSPITAL** isn't all about money. Advancing to a higher level depends upon increasing the reputation and overall value of your facility. The hospital's reputation is based upon its cleanliness, care rate, for scale, emergency response, and overall competency and happiness of the staff. If the hospital's reputation is poor, patients choose other nearby facilities and it eventually becomes impossible to make sufficient funds and subsequent improvements.

You must design and build everything except the shell of the hospital itself. When hiring employees, it's crucial to hire individuals who appear to be the most competent. At times, various applicants will be available for hire; if you see a competent surgeon on, you don't yet have an operating theater, how him serve as a general practitioner until all of your rooms are in place.

Larger rooms are better for morale, and are necessary when complicated machinery and procedures are required. Once the general practitioner's office is occupied by a doctor (ironically, all the doctors are male and, of course, all the nurses are female), your hospital is ready

to begin seeing patients. From here, you should build a general diagnosis room and a pharmacy. Nurses used to be employed for the pharmacy, ward, and some of the clinics that appear later on in the game.

By adding plants, benches, fire extinguishers, and soda machines, the value and safety of the hospital are increased. If no benches are provided, patients develop frowning faces over their heads and eventually go to another hospital. Patients and staff complain if there are not enough radiators and the rooms are too cold. All of these accessories require plenty of upkeep, so hire a good number of competent handymen.

Numerous tweakable areas allow you to make more money and improve your reputation. The charts, graphs, and lots of expenditures are an accountant's dream. Be warned: It's possible to get carried away when borrowing big chunks of change from the bank manager—pay it back as soon as you are able.

## INCURABLE FUN

If this all sounds like tedious micromanagement, rest assured that the gameplay is terribly addictive and there are loads of amusing moments. Graphics are beautifully done in SVGA, and viewing the hospital in action proves to be a constant source of entertainment. When a treatment is unsuccessful, the Grim Reaper makes a visit to escort the dead to Hell, or the expelled patients soul escapes to Heaven. When training new doctors, the consultant turns on an overhead projector, pulls down his screen, or pulls a noisemaker from the



**DEATH BECOMES HIM** When patients pass on, they either float to Heaven, or are sent below by the Grim Reaper

bookcase to start lessons. As the game progresses, the weakness of your patients' ailments increases. Throughout the game, you will be treating patients for Beauty Head, a disease caused by drinking unpurified water and surfing cheese. Later in the game, patients will arrive with Hairyits, caused by overexposure to the moon, and curable only by electric shock.

Put it all together and you have a delightful and absorbing game with few problems. My major gripe is that you can't restart a level if you're losing unless you have a saved game. Also, multiplayer support and difficulty levels are missing, but Bullfrog has prepared a patch which should remedy those two problems.

These games make **THEME HOSPITAL** just what the doctor ordered. **S**

**FAPPEAL:** Fans of **SWGRY** and **Topic Park**, gamers who enjoy building and management games.

**PROS:** Challenging, absorbing, and amusing gameplay; humorous events keep the game from growing dull.

**CONS:** Difficulty levels and multiplayer are AWOL; can't restart level; you can't save games.



Price: \$49.95

Minimum System

Requirements:

485/66, MS-DOS 6.22 or Windows 95, 6MB RAM (16MB for Win 95), 25MB hard disc space, ZX CD ROM, SVGA graphics, Sound Blaster- or Windows-compatible sound card

**Multiplayer Support:** Promised in patch  
**Designer:** Bullfrog Productions Ltd.  
**Publisher:** Electronic Arts  
 San Mateo, CA  
 (800) 245-4525  
 www.EA.com

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# Wacky Wal-Mart

*Amass a Fortune in Ionos' Whimsical Business Simulation*

by Robert Coffey

From the makers of *CAPILLONARE* comes *ZAPITALISM! DELUXE*, another lighthearted simulation of the cold-hearted world of business. With fanciful, slyly addictive gameplay, *ZAPITALISM! DELUXE* makes an entertaining diversion, but the whimsy comes at the cost of strategy and depth, preventing *ZAPITALISM!* from being a truly satisfying game.

## SELLING OUT

Queen Keshi Keshi Goma has finally opened the economy of Zapitula to foreign imports. As one of six distinctive retailers striving to dominate the economy and collect the most zables (*Zapitalism* currency), you'll set advertising budgets, deal with unions, explore the neighboring islands, and build megastores to ship in quad lickers, zimmeros, and snoopal drums to the eager consumers of Zapitula. The first store to amass five million in cash wins.

The various actions available to you are generally represented by various buildings and locations on the Zapitula map, which are excellently introduced in the playable tutorial. Simply click on the loan building to borrow money or on the travel agent to explore the local archipelago.

Most of the turn-based game takes place at the wholesaler's, where you purchase and set the prices of the goods you'll list on the Zapitalians. Simple bar graphs detail the supply and demand for each item as well as the number already on store shelves. The trick to success is not just buying

expensive commodities, but on finding products with the highest perceived value: items so cherished by the island populace that they'll pay seven to ten times the item's costs. Values are randomly set with each new game, thus

ensuring that each game is different. Later in the game you have the opportunity to buy the import rights to these products, which let you profit whenever your competitors sell them as well.

*ZAPITALISM!*'s rich SVGA graphics reflect the droll humor that distinguishes the game. The animated buildings have so much character they seem alive.

## BAD CREDIT

Unfortunately, the AI and game engine keep *ZAPITALISM!* from being a truly rewarding game. Streaks of luck (both good and bad) plus excessive random events nuke the game to the extent that strategy is shortchanged and subtly sacrificed. Something unforeseen happens virtually every turn, negating your plans all too frequently. Strategy games shouldn't be so much like dodging lightning in a thunderstorm.

The game plays pretty much the same at any level. Easier difficulty settings start you with more money and let you spy on the competitors, revealing what they're selling and for how much. Spying isn't available on higher difficulty settings, even



**CITY OF GOLD** Zapitula, where the zable-mongering chieftains of big business (that's you) hope to build a retail empire.

as a purchasable option, which isn't realistic. Additionally, computer opponents always seem to know immediately what to sell, leaving you way behind from the beginning. Graphs charting sales and growth are helpful, but graphs following sales of specific items are glaringly lacking. *ZAPITALISM!* also has a tendency to crash when accessing the "Set Price" screen.

With these problems, *ZAPITALISM!* really is only for those who want to pass on the depth of *Civ II*, or for those newbies who want to get their feet wet with a simple strategy title. **C**

**HAPPEAL!** Gamers interested in strategy like with a sense of fun.

**PROS:** Efficient interface and playable tutorial; clever graphics and humor create a unique personality.

**CONS:** Players live and die more by a roll of the dice than their decisions; some crash bugs; lack of any real strategic depth; cheats are frequently seen dictated.



Price: \$39.95

Minimum System

Requirements:

486/33, Windows 3.1 or Windows 95, 8MB RAM, 5MB hard drive space, 2x CD-ROM drive, SVGA graphics, mouse, optional sound card (16-bit sound card recommended).

Multipayer Support:

Hotseat, PBEM

(2-6 players)

Designer: Laval/nd

Publisher: Ionos, Inc.

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CIRCLE READER SERVICE #269



# Island Hopping

*HPS Gives Us Treads of the South Pacific*

by Jim Cobb

**H**istory often treats WWII in the Pacific as an afterthought to the war in Europe. HPS Simulations follows this practice with its Pacific module to the TIGERS ON THE PROWL, 2/PANTHERS IN THE SHADOWS system, DRAGONS IN THE MIST, a stand-alone game which requires the TIGERS/PANTHERS manual for play.



**TARAWA, 1943** The zoomed-out view shows the entire island of Kwajalein; the close-up shows the Marines getting down-and-dirty with Japanese forces near the control pier.



## JUNGLE WARFARE

As you'd expect from this very detail-oriented series, DRAGONS is about as accurate in a technical sense as any wargamer could wish for. Also, a new jungle terrain set has been added to better reflect the fighting in the Pacific. The database contains weapon systems data for the six countries involved in the conflict, and the proven TIGERS/PANTHERS system still provides an unsurpassed insight into technology, command control, and morale.

The system allows you to exercise wide control over the type and number of play decisions. Using these elements, three of the four scenarios show the evolution of American operations in the Pacific. Tarawa shows the bloody results of inadequate training, equipment, and support doctrine in 1943. Kwajalein shows the improvement in American tactics and doctrine by 1944, while Firegiant, the Guam scenario, shows the complete dominance of U.S. forces over the withering Japanese army in the later stages of the war. Changbaofeng is a change of pace, showing a Japanese action against the demoralized Red Army in the undeclared war along the Manchurian border in 1938. Many players will miss

better-known actions such as Iwo Jima or Edson's Ridge on Guadalcanal, but these battles can easily be constructed with the scenario builder and handy reference books. More disappointing is that HPS did not choose to explore events in China or the battles of Marshal Zimov in the undeclared Russo-Japanese conflict. Sources for these scenarios are not very accessible to most gamers.

## MORE BLITZ, LESS FILLING

The major flaw in DRAGONS is that there were no changes made to the TIGERS/PANTHERS system. It's great for Euro-centric conflict with heavy emphasis on vehicles and crushing, artillery-intensive actions. Yet in DRAGONS, the flavor of the sweaty, vicious, largely uncoordinated fighting that characterized most Pacific combat is missing. The Bushido code is represented by high Japanese initial morale values in most scenarios, but the mechanics of how units reacted to given situations are unchanged. Why not, for example, allow players to give units berserker status for Barzax charges?

Even the scale—platoon level—is questionable. American units were often held up for hours by tenacious infantrymen in tiny ad hoc formations.

Single men would infiltrate at night and wear down the nerves of even the toughest Marine. "Spider holes" would open up long after the main fighting had passed. In a game such as PANZER GENERAL, which prizes fun above all else, oddities of scale might be forgiven to a degree; in a game system known for its attention to realism and detail, it's much more of a problem. Playing DRAGONS, you often wish for a bit less blitz and more of the psychological tactics of the jungle fighter.

Such a re-working of scale goes beyond the scope of a mere add-on. Perhaps HPS gave its many fans a new database and arena for its system. "Towards that end, it was successful, and has provided a worthwhile game in DRAGONS IN THE MIST. The Pacific theater, however, needs an entirely different context. **B**

**PAPPEAL:** Gamers who want the detail of the Texas system in the Pacific.

**PROS:** Lots of technical data; nice scenario builder; still strong AI.

**CONS:** The European-oriented system lacks a distinctive Pacific outlook.



Check out the demo on this month's CG-ROM!



Price: \$25

Minimum System

Requirements: (ownership of either PANTHERS IN THE SHADOWS or TIGERS ON THE PROWL, 2), 386/40 PC, 4MB RAM, 4 MB hard disk space, mouse.

Multiplayer Support:

email (1-2 players)

Designer: Scott

Hamborn

Publisher: HPS

Simulations

Santa Clara, CA

(408) 554-8361

www.hpssims.com

Reader Service #: 352



# Schwerpunkt Rock

Sharpen Your Command Acumen With *LENINGRAD 2.0*

by Johnny L. Wilson

**S**chwerpunkt, the publisher of *LENINGRAD 2.0*, is named after the German word that means center of gravity (literally, heavy point) and, in military terminology, identifies the critical point where an assault or breakthrough should occur. *LENINGRAD 2.0* is an operational level game of WWII action between the Germans and Soviets where *schwerpunkt* is key. From von Leeb's initial march on Leningrad in 1941 through Govorov's counterattacks against Kuchler in mid-'43 and late '43, gamers who command the Germans get a very valid lesson in determining the *schwerpunkt* because they are limited to three combat phases per turn. This reflects the idea that the player on the offensive must find the right places to break through and exploit while the defensive player can react anywhere along the line.

Appropriately enough, each combat round consists of target designation (clicking on a defender), attack prosecution (clicking on all of the attackers and pressing the FIRE button), retreat (if required), pursuit (where possible), and a second attack with armor or mechanized infantry, or both (to simulate the latter's breakthrough capability). With only three combat phases per turn for the German side, it becomes crucial to maximize your attack potential and get as many of those secondary breakthrough attacks as possible. It also makes playing the German side considerably more interesting than playing the Russians.

Boardgame aficionados will feel immediately at home with *LENINGRAD 2.0*. The map is attractive and the units

are represented by the familiar black and gray counters with unitary markings for the Germans and two shades of red counters for the Soviets. Combat resolution is fast and efficient, making it possible to get through more than one scenario in a single night's play. There is no music or sound in the game.

*LENINGRAD 2.0* has a couple of new features, though. The History button takes you to a page that gives a turn-by-turn account of what was happening in the actual historical campaign, letting you know instantly how you're doing compared to the historical commanders. The Status button opens up three screens. The first summarizes your general orders for the scenario. The second gives you a city-by-city accounting of victory points and a casualty list. The third screen gives you a report card, complete with letter grade, on your performance as commander. *LENINGRAD 2.0* becomes an extremely solid package with the ability to adjust the rules to suit your style of play and a scenario editor to build your own scenarios.

Indeed, the only thing I didn't like about the game was the clumsy movement interface.

*LENINGRAD 2.0* has an AI opponent that is much better on the offense than the defense. On defense, it has a tendency to let too many units get cut off from the supply line and doesn't do a very good job of holding a continuous front (leaving openings for evil attackers to enter and increase their odds of winning). Also, in the first two scenarios, the AI Soviet simply does not pay adequate attention to the



**HITLER'S PET** Feldmarschall Kuchler hangs on to Leningrad in this scenario.

forces north of Leningrad. In both cases, I was able to force the Soviets out of Leningrad by bringing virtually unopposed forces down from Vyborg.

*LENINGRAD 2.0*'s stark and non-pretentious presentation is not going to compete with the adrenaline flow of a C&G *RED ALERT* or *WARCRAFT II*. However, it does a terrific job of simulating the historical flavor and the operational challenge of the Leningrad campaign. For people like me who still buy and play boardgames, that's plenty.

**APPEAL:** Boardgame-based wargamers with no local opponents and WWII Eastern Front players who want a new challenge.

**PROS:** Flexible and fast-playing system with solid design and competent AI, particularly on offense.

**CONS:** Somewhat clumsy movement system with too many extra clicks; disappointing defensive AI in the first scenario.



**Price:** \$29.95  
**Minimum System Requirements:** 386, 512K RAM, DOS, 256 color SVGA graphics, MS-compatible mouse.  
**Multiplayer Support:** Play-by-email or host-seat.  
**Developer:** Schwerpunkt  
**Publisher:** Schwerpunkt  
 Pearland, TX  
 (201) 997-1209  
[www.ghgcorp.com/schwerpt/](http://www.ghgcorp.com/schwerpt/)  
**Reader Service #:** 354



# Realtime Redux

by Martin E. Cirulis

No folks, KKND isn't some political lobbying arm of the Ku Klux Klan. In fact, it's nothing that will provoke such a strong reaction. KKND actually stands for the subtle slogan "KRUSH, KILL 'N DESTROY." What that means to us is not much just an attempt at a clever acronym title on yet another original COMMAND & CONQUER clone.

As far as clones go, KKND is actually not a bad one. The graphics are sharp, the units varied and amusing, and the terrain is vaguely interesting in its attempt to add levels to the usual combat, with such innovations as bridges



**MORE FUEL FOR THE FIRE** KKND is yet another C&C clone. Though competent, it offers little innovation and is thoroughly unoriginal.

and high cliffs. Unfortunately this aspect of the game comes off more as a gimmick than a feature, and much of the terrain makes it as hard to find your units as the enemy's.

While KKND is a good effort, there weren't enough moments during the

game when I felt like I was playing anything new. Most of the time, it felt like the old Westwood classic with a graphic overlay, kind of like the old Simpson's overlay for DOOM.

Pick this one up if you are collecting the entire set of extremely derivative real-time wargames. Otherwise, wait for the craze to pass and pick it up out of the bargain bin when you are feeling nostalgic. The price should be about right then. **E**

**Price:** \$44.95

**Minimum System**

**Requirements:**

Pentium 90,

Windows 95 or DOS

5.0, 16MB RAM

**Multitplayer Support:**

Modem (2 players),

LAN (2-6 players).

**Publisher:** Electronic

Arts

(800) 245-4825

[www.EA.com](http://www.EA.com)

**Reader Service #:** 355

**APPEAL:** Gamers with a real-time jones.

**PROS:** A solid C&C clone.

**CONS:** An uninspired C&C clone.



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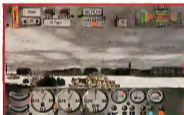
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## MUZZLE VELOCITY

**Publisher:** CodeFusion, Inc.  
1118 W. Magnolia  
Suite 320  
Burbank, CA 91506

### System Requirements:

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# Creep Show

*SHIVERS TWO: HARVEST OF SOULS Delivers Good Thrills and Chills, but Stumbles in the End*

**P**uzzle games have generally been less popular than straight adventures, but the original *SHIVERS* proved to be a surprise hit with gamers. Messing around a deserted museum, solving bizarre puzzles, and capturing dangerous evil spirits turned out to be a winning combination, so you just knew there would be a sequel. Now it's here: *SHIVERS TWO: HARVEST OF SOULS*, where you mess around a deserted town, solve bizarre puzzles, and save the world.

You're a member of the rock band 'Tipp Cyclone, which is spending the summer in the town of Cyclone, Arizona (one of band members has relatives there). By the time you arrive, however, everyone has vanished except the motel owner, and in a sheet while, he too is missing.

You proceed to poke through the ghost town and uncover several dirty little secrets, while trying to piece together what happened, why it happened, and who caused it to happen. It isn't long before you discover a connection with certain Indian legends relating to Devil's Mouth Canyon, and the local silver mine.

## LEGGO MY BAHOS

Some mystic power is definitely at work, since the greater portion of the game is taken up with recovering prayer sticks, called Bahos, bringing them to a ceremonial chamber known

as the Kiva, and putting them on an altar. This is no easy thing to accomplish.

First, you have to solve a puzzle to get a Bahos, then hurry to Devil's Mouth Canyon. Once there, you must find the petroglyph (wall painting) that corresponds to that particular prayer stick, touch it, solve a puzzle, then run through the Canyon to the Kiva. This is dangerous stuff, because the glyphs are alive, and leech your life force while you're in the Canyon. Even just holding a Bahos reduces your life energy, so time is of the essence in completing the sequence. Fortunately, once you touch the right glyph, you won't take any further damage while working on the puzzle. After it's done, though, you're still in peril until you make it out of the Canyon.

To help you along, numerous clues are strewn throughout the game, especially in a set of videos made by Tipp Cyclone (before they mysteriously disappear). Watching all of them is vital. Not only do they provide hints, but in some cases, puzzles are not available or can't be solved until you've seen a particular video.

Unlike the first *SHIVERS*, where inventory was limited to one item at a time, in *SHIVERS TWO*, you can lug around as many as 12 things at once. All the objects you find have some use in the game, though it's necessary to pick and choose what to take.

The view is 3D, with full 360-degree motion, along with the ability to look up and down. This is important, as not everything will be at eye level, especially in the Canyon, where the glyphs are all over the walls.

For those with hearing problems or who prefer quiet play at times, there is an option to turn on subtitles. This is one of the better text options I've seen, as you get captions even during the FMV sequences and videos (in addition, lyrics to all the songs are printed in the manual).

Another interesting feature — for the truly desperate — is the automatic puzzle solve. If a puzzle is too aggravating, or just too tough, the automatic solve can do it for you. Naturally, this costs hefty game points, but has no other ill effects, you can still finish the game with the best

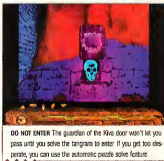
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tion



“ My big quarrel with *SHIVERS TWO* is the endgame, which is idiocy. ”



**CHILL OUT** Unpleasant surprises lurk everywhere in *Shivers Two*, which successfully maintains a creepy atmosphere throughout.



**DO NOT ENTER** The guardian of the Kiva door won't let you pass until you solve the tangram to enter. If you get too desperate, you can use the automatic puzzle solve feature.

ending. You'll just have a much longer scene than if you'd done all the puzzles on your own.

#### THE PUZZLE PLACE

The puzzles themselves are something of a mix. Several are of the traditional adventure game type, using objects to accomplish a task of some sort. The majority, however, are pure puzzles, self-contained problems you solve with everything in front of you. For instance, two of the stones can be entered only after doing shifting tile puzzles. One Babos is obtained after moving a spider from one side of the board to the other, and you get another Babos by working out a puzzle with Bingo balls in the church.

In the Canyon, all the petroglyph puzzles are tangrams. You must fill in a shape using a variety of triangles, squares, and parallelograms. Everything must fit together perfectly. Only then can you enter the Kiva.

Graphically, this is a typical Sierra job, which means that the visuals are very good. The game definitely has a creepy atmosphere. This comes partly from being in a deserted town—there has always been something a little eerie about once-inhabited places. Adding to this are the interiors of the buildings, most of which are vaguely disturbing in a way that's hard to explain, but the effect is certainly felt. It's enough to give you, well, shivers (heh).

Music is present throughout the game. All locations have their own tunes, and of course there is music in the videos. The bytes tend to be on the downbeat side, adding to the feeling of uneasiness.

#### STUPID STUPID!

No product is perfect, however, and *SHIVERS TWO* must take its share of brickbats along with the kudos. The reason for the puzzles is not as strong here as it was in the first game; they seem to be present more to give gamers something to do than as an integral part of the story



**TRAVEL AGENT** Navigation is extremely easy in *Shivers Two*. Click any yellow spot for instant travel to that location.



**ENDGAME** Prepare to solve this puzzle (reflecting a beam of light around the diamonds) in realtime, or suffer through tedious disc-swapping and FMV sequences.

done, you are at the moment of decision for how you want the game to end. Opting for Best brings up the last puzzle.

Take a look at the screenshot called "Endgame." You have to reflect the beam of light all the way around the board, through the outside three diamonds, then back over to the fourth one in the box. This has to be done in realtime, because as you work the puzzle, your life force is dropping at an alarming rate. You have maybe a minute to accomplish this task successfully.

Failure means sitting through another lengthy FMV to the dismal end, followed by an option to restore. Restoring goes back to the first CD, because there is no way to save when CD #2 is in the drive, even with the quiescent hotkey. You then do your final action in the Kiva, switch CDs, and go through the whole thing again.

This is idiotry. At the very least, you should have been able to save the game before making your final choice on

CD #2. It's bad enough that the most important puzzle is the only one in realtime, but forcing people to sit through a lot of nonsense before and after makes it worse—particularly since few gamers will solve this one on the first or second try.

Why the designers had this incredible mental lapse is a mystery. What ought to be an exciting finish becomes a tedious exercise of "do it over until you get it right," which is no fun whatsoever.

The endgame is all the more aggravating because almost everything (minor annoyances aside) is well done. The mood is properly set and maintained, the puzzles are tough, but fair; sufficient clues are available to help you along. Only at the end—always the worst place—does the game fall down. Still, if you can live with that (having been warned), *SHIVERS TWO* is worth playing, especially if you enjoyed the first game. ☺



Price: \$49.95

#### Minimum System Requirements:

IBM-compatible 486 CD-ROM or better processor, Windows 95 or Windows 3.1, 12MB RAM, 2 MB hard disk space, ZX CD-ROM, SVGA graphics (640x480 with 256 colors), Microsoft-compatible mouse, SoundBlaster-compatible sound card, Win95 14.4 modem, 32-bit ISP for Internet options.

**Multiplayer Support:** Internet chat option.

**Developer/Publisher:** Sierra On-Line

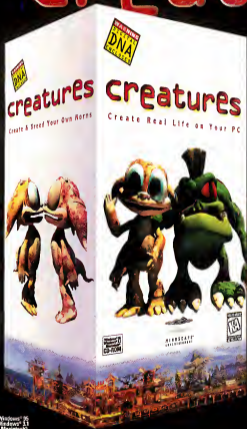
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## EURO STYLE

Just in time for Christmas of last year, DID released a series of enhanced versions of its Premier Award-winning jet sim, EF2000. TACTCOM was an add-on for the original program which added a more sophisticated mission planner, modern play, and other improvements. EF2000 EVOLUTION featured both the original EF2000 and the TACTCOM update in a single package, and SUPER EF2000 integrated the original EF2000 and all the features of TACTCOM into a Windows 95 version. These packages, however, were only released in Europe, as CTE, who distributed EF2000 for Ocean/DID, closed its doors late last year.

By the time you read this, however, the updated EF2000 programs should finally be available in North America. Instead of fighting for shelf space for

three packages, though, DID has bundled them together on a single CD, which will be sold as EF2000 2.0. In addition to the TACTCOM-enhanced DOS and Win 95 versions of EF2000, the package will also include special 3D-enhanced versions for the 3Dix Voodoo (Monster 3D, Rightson 3D, Flash 3D) and Rendition Vérté (3D Blaster, Scream3D, Total 3D, Reactor). If you have one of these cards, you'll find the game well worth the money.

And unfortunately, money is a consideration here. Although details hadn't been finalized as this issue went to press, it appears that there would be no upgrade policy or rebate for owners of the original EF2000, due to the change in distributors. But note that if you were impatient and have already purchased the TACTCOM add-on direct from Europe, you can download the Voodoo and Vérté patches from [www.did.com](http://www.did.com) at no charge.

Though I'd played the game to death when it first came out, and again when I got a copy of TACTCOM direct from the UK, I still ended up suffering the worst case of game-lock with the Voodoo version of EF2000 2.0 that I'd encountered since the first

time I hosted CIVILIZATION. The 3D-card support does wonders for the simulation's immersiveness. Not only do the planes and terrain look much better—the bilinear filtering gets rid of all the pixelation when you approach the ground—but the frame rate has been dramatically improved as well. Drop a cluster bomb, head straight up, and choose a rear view in the original EF2000 and you'll see the sim slow to a crawl as the bombs explode. Do the same in the 3D version and the frame rate remains remarkably smooth.

Even EF2000 players without 3D cards will find plenty to like in this update. The new tactical mission planner lets you pick your own targets, drag and drop waypoints and set altitudes, and choose plane types for strike, Wild Weasel, and escort missions. And if you don't survive the mission, you can use



**SUPER TOMCAT** The F-14 Tomcat's Phoenix missiles make it a nice addition to JetForm III, as you can now take out targets from great distances.

“ Even if you've played every possible variation of EF2000's campaign, the Graphics+ update will feel like a whole new game. ”



the SmartView feature to watch other aircraft perform strikes.

Multiplayer support has been beefed up with the addition of modern support and more mission options. In addition to the "every man for himself" King of the Skies scenario, there are also team-play and base-capture options. Plus, you can use the new Custom Dogfight editor to set up cooperative missions against a variety of computer-controlled aircraft for single- or multiplayer games. Also, Internet play via JTen is available in the Win 95 version.

Even though EF2000 2.0 is just an update, it plays like a whole new game on systems with 3D cards. If you haven't taken the 3D plunge yet, you may still find the gameplay improvements worthwhile.



### Manual Labor of Love

In the EF2000 2.0 package you'll find an abbreviated version of Sim Tech's superb *The Official EF2000 Strategy Guide*. (Sim Tech's Web address is [www.sim-tech.co.uk](http://www.sim-tech.co.uk).) If you're an EF2000 fan, or if you're looking for an excellent introduction to air combat, you owe it to yourself to spring for the full version. This superb 381-page tome includes detailed information on all of the EF2000's systems, the threats you'll encounter in the sim, and the various mission types. Some excellent tutorials on air-to-air and air-to-ground combat are included, with specific strategies for both single- and multiplayer play. This is one of the best simulation strategy guides I've ever seen, and should serve as a model for other writers. Sim Tech has a similar guide in the works for Su-27 Fuxuek 1.5.

### AMERICAN IRON

The Jet Fighter III ENHANCED COMMON CD isn't as radical an enhancement to its original game. While it's light on new simulation features, it's heavy on added gameplay, with 74 new missions, a new plane, and more than five trillion square miles of new territory over which to fly.

ECD adds two new campaigns to the sim. Operation Seward's Ghost involves a Kamachikan invasion of Alaska after documents are discovered that prove that the U.S. didn't actually buy Alaska, but simply leased it. This short, 10-mission scenario includes some beautiful Arctic mountain terrain. Operation Dragonlayer has China performing a land grab in Asia, both in Korea and Vladivostok. This longer 64-mission scenario has some interesting branches in the campaign tree. For instance, if you violate Chinese airspace in an early mission, you may end up personally responsible for starting the shooting war.

The new jet in the sim is the F-14 Tomcat. Although it's modeled beautifully from a graphics perspective, the plane flies much like the sim's navelized F-22 (as does JF119 F/A-18). The F-14 shouldn't be able to accelerate while flying straight up. Still, as the only aircraft that can fire the long-range Phoenix missile, it's an interesting addition to the sim.

Also, the sim could have used a few more new aircraft, as some of the Chinese missions use airless models to simulate bombers. If it hurts your suspension of disbelief, I suppose you can pretend that a secret cartel somewhere is installing bomb racks on Boeing 707s...

The simulation engine has seen some small but welcome improvements. There are new wingman and carrier views but, alas, there's still no target view. A "bad aspect" warning on the HUD will let

you know when you have missile lock, but there's low probability of a hit. Joystick calibration has been dramatically improved, and you can now fully program the functions of each button on your stick. Also, the CH Products Force FX stick is now supported.



**F-22 CANCELLED?** The EF2000s in version 2.0 have American markings—perhaps it's an alternate future where the USAF decided to save a few bucks and buy European?

The sim's "stuttering" when loading new scenery has been reduced considerably, but it's still a factor. You can solve the problem by copying scenery areas manually to your hard disk, but this process should be automated.

Flight modeling has been improved a bit, with more realistic ladder effectiveness and better handling in general. While realism sticklers will have no problem picking out numerous inaccuracies in low-speed behavior, the handling doesn't detract from gameplay.

And it's gameplay that's key to JF119's appeal. A sim that puts F-22s on aircraft carriers obviously isn't shooting for the ultimate in realism. The original missions and the ECD additions are interesting, challenging, and entertaining, and no other sim has matched the sense of speed the sim provides when skimming the ground or making a carrier approach.

That said, speed has also been JF119's biggest handicap, with many players having to play in low-res mode to get smooth frame rates. Generosity in the works are patches with support for MMX processors, as well as Voodoo and Vrite 3D-cards. These may be available for download at [www.missionstudios.com](http://www.missionstudios.com) by the time you read this. ☺

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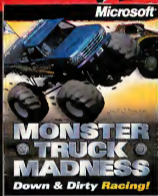
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# Strawberry Fields

Check Out *BASEBALL MOGUL* for a Brand-New Flavor in Baseball Sims

**A**ny computer baseball fan worth his joystick knows that there's an onslaught of baseball sims looming on the horizon this summer. It seems like everyone from MicroLeague to Microsoft has a new game emerging from the dugout. Sierra, EA Sports, Accelade, Virgin—all the big players are warming up to the on-deck circle. Titles in the stat-based sims like *STEVE-O-MANIA* and *DIAMOND MIND*, and there are more than a dozen baseball titles competing for your sports entertainment dollar. So why am I so unimpressed? And do you feel that way too?

Call me jaded, but as a gamer who cut his teeth on tabletop baseball sims back when Ken Cafferly, Sr., was in his prime, I'm beginning to feel like I've seen it all. And after last year's notorious Summer of Flux, when one highly touted sim after another resulted only in diamond disappointment, it's going to take more than just 3D acceleration and Major League licensing to get my attention. To paraphrase Casey Stengel, "Can't anyone here program this game?"

## NEW KID ON THE MOUND

The problem seems to be one of perspective. Up until now gamers had two choices when it came to baseball: vanilla

or chocolate. You could pick an aesthetically oriented sim with fancy graphics and some statistical and league management elements, such as *FRONT PAGE SPORTS: BASEBALL '96*. Or, you could eschew the glitzy, multimedia approach and go for a stat-based sim, like *DIAMOND MIND*. The former was pretty enough, but was hindered by a schizoid AI and a list of bugs

for a baseball sim that gives you a brand new take on the great old game, check out *BASEBALL MOGUL* from Infinite Monkey Systems. I've been spending far too much free time with the beta version, and have to report that the game is fresh, fun, and addictive. As the name implies, *BASEBALL MOGUL* removes you from field level, placing you in the owner's box

instead, where you have a chance to run your favorite team the way you see fit, from signing free agents to setting hot dog prices. Think of it as *THROW PEX* done up in pinstripes, since attendance will be a key to the ultimate success or failure of your team.

*BASEBALL MOGUL* will wow you because it's so very different from any other baseball sim you've played. Today, with making contracts as important a baseball skill as making contact, it's surprising that a managerial game like *BASEBALL MOGUL* never took the field before.

## WOODSHEDDING

As a boy, *BASEBALL MOGUL* designer Clay Deslough played Cadac's *AI Star Baseball*, which used spinners to generate results from simple player cards. He later swapped out his first computer games in pricey high on an Apple



that could keep a Terrence man busy through the World Series. The smaller solutions, with their text screens and near-religious zeal for statistical accuracy, can be about as much fun as watching the outfield grass grow. I mean, do you really feel warm and fuzzy inside if your backup catcher hits .224, just as he did in real life?

Fortunately, all of you "been-there-done-that" baseball gamers can now choose strawberry as your gaming flavor, and I don't mean Darryl. If you're looking



“ It's surprising that a managerial game like *BASEBALL MOGUL* never took the field before. ”

It+, and joined the design team at Stormfront Studios after college. While at Stormfront, he labored on *Tony LaRussa 3*, where one of his main tasks was tweaking the game's trio of announcers to sound just right. He also worked on an abortive Stormfront baseball game that the company was designing for Microsoft.

Like every other game programmer, Dreslough harbored a dream to one day build the "supergame," which in his mind was defined by a great action mode, a perfect statistical engine, and a realistic business side. After leaving Stormfront and moving back east, Dreslough started *Infinite Monkey* in a spare bedroom of his Connecticut home. He quickly found that he couldn't afford the resources demanded by his supergame vision, but realized the managerial side of the game filled a void in the market. Thus, *BASEBALL MOCUL* was born.

Seeking financial backing, Dreslough spent portions of 1995 and 1996 pitching the project to major publishers, and actually signed a contract calling for a large advance. After some corporate restructuring, however, the gaming house opted out of the deal this spring. With much of the code finished, Dreslough decided to push on, publishing and marketing *BASEBALL MOCUL* himself, primarily through mail order and the *Infinite Monkey* Web site, [www.infinitemonkey.com/](http://www.infinitemonkey.com/).

#### SIN STEINBRENNER

*BASEBALL MOCUL* is a game that focuses completely on baseball management. You run the team. Period. The games themselves are totally abstracted. The richness of *BASEBALL MOCUL*'s system underlies the complexity of making the right roster moves. For example, owners will be asked to make decisions on expenditures for scouting, for running the farm system, and for medical services. I found that if I scimped on scouting, I tended to get inaccurate eval-

Player	Pos	Age	Exp	Salary	Value
Johnson	C	24.12	0	\$5,000	\$10,000
Roberts	P	23.12	0	\$2,500	\$5,000
Smith	A	24.00	0	\$3,000	\$6,000
Clark	IF	23.12	0	\$3,500	\$7,000
Demaree	OF	24.12	0	\$4,000	\$8,000
Demaree	OF	25.00	0	\$4,500	\$9,000
Demaree	OF	25.12	0	\$5,000	\$10,000
Demaree	OF	26.00	0	\$5,500	\$11,000
Demaree	OF	26.12	0	\$6,000	\$12,000
Demaree	OF	27.00	0	\$6,500	\$13,000
Demaree	OF	27.12	0	\$7,000	\$14,000
Demaree	OF	28.00	0	\$7,500	\$15,000
Demaree	OF	28.12	0	\$8,000	\$16,000
Demaree	OF	29.00	0	\$8,500	\$17,000
Demaree	OF	29.12	0	\$9,000	\$18,000
Demaree	OF	30.00	0	\$9,500	\$19,000
Demaree	OF	30.12	0	\$10,000	\$20,000

**MONEY MATTERS** Success in *BASEBALL MOCUL* isn't based on wins and losses, but on dollar signs. You'll need to balance your desire for profits with an effective way of keeping the fans in their seats.

uations of my farm system talent. Once I upgraded scouting, I quickly found that my "potential All Stars" and "future Hall of Famers" were really marginal prospects at best. The bottom line? Invest wisely in your club's infrastructure. You'll be playing in the dark if you don't.

On the business side, you'll need to make some crucial marketing decisions concerning ticket and concession prices. Set them too high, and you'll turn off your fan base. Set them too low, and your baseball operation will suffer from unsteady income. Similar choices have to be made for television. Do you allow free coverage? Pay-per-view? Those critical supply-and-demand decisions turn on your evaluation of your fan loyalty, per capita income, and availability of competing sports franchises.

While *BASEBALL MOCUL* does not have MLB licensing, it's a simple matter to add names to the teams. The game does contain real player names, but not images. In addition, after completing a season, *BASEBALL MOCUL* generates a crop of fictitious rookies for each team. While most of these will be maintained at the Triple A level, it's up to the owner to review scouting reports and make key personnel decisions. Some rookies will benefit from additional minor-league seasoning, while others should be promot-

ed to The Show. Still others should be waived to make room for more promising youngsters.

And then there are the free agents, that grossly overpaid breed of modern athlete who places the sloughy back before everything else (and isn't there something wrong with a society that pays athletes more than game reviewers)? While you may think you've had it with their hefty paychecks and bad attitudes now, just wait until you play *BASEBALL MOCUL*. There's no frustration that quite matches shelling out \$10 million per year to a player who then proceeds to hit .299. You'll need to sell a whole lotta hot dogs to make up for a mistake like that. Again, having a good scouting department can save you some pain—not to mention skeletons—when trading in free-agent bonafides.

#### TOUCH MY MONKEY

Does *BASEBALL MOCUL* have any flaws? A few. The beta showed a tendency for a few elite teams to run away from the pack over an extended career. It was not uncommon for certain teams to win 110+ games year after year. Certain key business decisions were left out of the mix, such as hiring (and firing) a manager, building a new stadium, or even moving your franchise from one city to another.

But these are primarily design choices, and *Infinite Monkey* may opt to include them in subsequent editions. For now, be glad that someone has broken out of the mold. *BASEBALL MOCUL* looks like Rookie of the Year material from here.

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Left-Handed Pitches: 140,700	135,000	133,000	\$174,700
Left-Handed Pitches: 125,171	127,500	125,000	\$152,671

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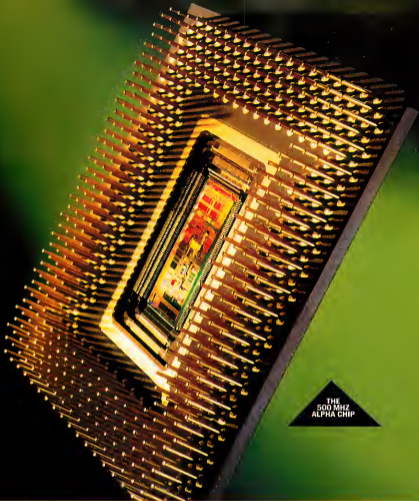
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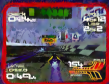
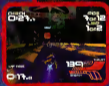
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# The Death of Science Fiction

When Bad Things Happen to Good Sci-fi Games



**S**ome of the most successful computer games ever made fall squarely in the science-fiction genre. Not even counting the inevitable *Star Trek* and *Star Wars* blockbusters, you can think of everything from old coin-ops like *SINCE BUNDLES* and text adventures like *PLANEFALL* to modern classics like *WING COMMANDER* and *MASTER OF ORION*. So, what I am about to say may sound a bit odd—but bear with me.

Sci-fi doesn't sell. I'm not talking about bad science-fiction games. Sometimes those do sell and sometimes they don't, depending mostly on things like how good the box-office returns were for the movie of which the game is a licensed spinoff. I'm talking about good science-fiction games, ones that try to capture, in the context of interactive entertainment, the essence of what great science-fiction writers have been able to capture on the printed page.

I can't think of a great Tolkien-style fantasy game that wasn't a hit, or a horror game that scored the points offshore but didn't do doddily at retail. There are probably some examples, but not many, and they don't readily come to mind. In science fiction, you don't even have to think hard. Last year alone, there was Harkin Elham's *I HAVE NO MOUTH AND I MUST SCREAM* and Roger Zelazny's *CHRONOMASTER*. This year, there's Arlaar C. Charles's *RAMA* (which appears to be

selling reasonably, but still isn't generating the kind of business Sierra sees from a new *LEISURE SUITE LARRY*) and Steve Meretzky's *THE SPECTRUM*. Going back to the old days, I recall Infocom's ambitious *SUSPENDED* and *A MIND FOREVER VIVID*, Epic's version of Isaac Asimov's *Robots of Dawn*, Telarium's version of Ray Bradbury's *Fahrenheit 451*, and Activision's *PURDLE*.

All these were well-written, creatively conceived games which deserved attention, but without exception they were duds from a revenue point of view. The bottom line is this: Zooming spaceships sell, strategy games with a sci-fi flavor sometimes sell, but science fiction itself doesn't.

## A LITERATURE OF IDEAS

Why is this? To understand the answer, we've got to understand what science fiction is—if it isn't just zooming spaceships and interplanetary strategizing.

Science fiction has sometimes been called a "literature of ideas," which is to say, a genre in which you might not always find the best prose or the most well-developed characters, but where you always find a rich vein of notions—what life?—that spark the imagination. What if Cernomy had developed the atomic bomb first? What if you could go back in time and kill your own grandfather?

What if humans colonized other planets, or built machines that could think, or discovered alien life—what then?

Now, each of these seminal concepts can be reduced to a rowdy, crowd-pleasing action genre: Time travel can become *Back To The Future*, discovering alien life can become *Independence Day*, and so on. But they can also be treated seriously. Great science fiction does treat ideas like these seriously and, in the context of a novel or short story, can do so unimpeded.

In a movie or television show, however, action tends to triumph over story. For every *Twilight Zone* or *Babylon 5*, there are ten *Back Rogues In The 25th Century* tales.

In the context of a game (whose explicit goal isn't catharsis or art or even storytelling, but simply entertainment), you can imagine how much less likely it is that the game would even attempt, much less succeed with, the sort of exploration of ideas that serious science fiction requires.

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**CHRONO BUST** Even the luscious graphics, clever puzzles, and participation of sci-fi author Roger Zelazny couldn't keep *Chronomaster* from dying quickly on retail shelves.



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# 3DRealms' Folly

*SHADOW WARRIOR's Ignorant Stereotypes Are Too Offensive to Stomach*

**A**

s we've seen with Puzzy Zedler's comments in the gaming world, race relations can be a pretty touchy subject. But, lest you think we're too concerned of political correctness, I'm not clamping of the bit to start fights over every little stereotype. I think they're bad, but I don't care if friends joke about such things, sometimes I do too. But, when such prejudice moves from the closed world of friends to being shipped onto retail products for consumers, I get offended. 3DRealms' most recent release, *SHADOW WARRIOR*, shareware, is

a perfect example of a game that is patently offensive in its racial humor and, even worse, shows great ignorance about its very own subject matter. East Asia and ninjas

I can respect a company for taking an admittedly appealing idea such as a ninja facing off against mythical Asian beasts and evil samurai, but only

when it's done well. As I played *SHADOW WARRIOR*, every time I heard Lo Wang's thickly accented voice spouting out some fortune-cookie wisdom, I got increasingly offended. It's not even an Asian person doing the voice; it's a white actor affecting a stereotypical Asian accent. Somehow I don't think we'd tolerate the same person doing voice-overs in *Ebonies* for an African-American protagonist.

#### FU MANCHU WOULD BE PROUD

The other thing that offended me was how 3DRealms didn't even try to create an authentic or accurate Japanese, or East Asian, atmosphere. Ninjas are Japanese, so why would the ninja hero be called Lo Wang, which at best could be considered a dirty joke on a Chinese-

sounding name? And why should Lo Wang pick up fortune cookies to gain health? Would we allow a game in which the African-American star picked up fried chicken for health? No.

The buildings don't look like attempts to imitate Japanese architecture but, rather, caricatures of the American stereotype of what a Japanese building should look like. Even some monsters, especially the zombies wearing the coolie hats, seem to be caricatures. Rather than take the time to create an authentic atmosphere, it looks as if the designers just decided to take all the offensive stereotypes that have been rampant in the American media for decades and use those as the basis for their character, level, and monster designs.

I actually liked the idea for *SHADOW*

*WARRIOR*. To play a ninja would be a great experience: backstabbing enemies with the ninja-to, scaling up walls with a grappling hook, taking out enemies with shankers. If *SHADOW WARRIOR* had a Japanese name, if the level designs were really based on ancient Japanese



**COOL IT** This coolie hat-wearing zombie, which itself is a caricature of offensive Asian American stereotypes, is a perfect example of just how bad this game can get.



“ **SHADOW WARRIOR** is a perfect example of a game that is patently offensive in its racial humor. ”

HH/Continued on pg 202

## CHARLES ARDAI

Continued from pg 212

From time to time, though, the attempt is made, and from time to time it succeeds, it is in these cases that I find audience apathy so frustrating. *CHRONOMASTER*, for instance, had plenty of excitement to please the *Back Rogers* crowd, but at its core was a story about revenge. If you had the power to avenge a wrong you suffered in childhood, but doing so meant obliterating entire universes, would you do it? *HOW NO MOUTH* told an even more troubling story about characters trapped and tortured by a sadistic computer. How can you defeat an external enemy, it asked, without first coming to terms with the forces inside yourself that torment you even more?

Merely's new game, *THE STRONG-BAM*, is a goofy comic romp, but it's also good science fiction that explores the different ways alien species might perceive the world, and how that would affect their behavior. An insectoid alien sees the

world fractured into a dozen tiny, identical images, and so do you when you're inside its head. A plant creature can neither see nor move, so neither can you, though while in its body you still have to find a way to solve adventure game puzzles. Merely's old game, *A MIND FOREVER VOYAGING* (which you can still get in one of the *LOST TREASURES OF INFOCOM* packages), took on more serious questions: What does it mean to be alive? How do the choices we make today lead to disaster in the future? It accomplished this by making you play the part of an artificially intelligent computer being put through a series of progressively more disturbing simulations.

Do I mean to suggest that people should play these games instead of *X-Wing vs. THE FIFTH*? By no means. People should play what they like. But I wish more gamers would give serious science-fiction games a try on the rare occasions that they do come along, since I think they'd like those games, too.

## A DISTINCTIVE MEDIUM

Computer games are not primarily about storytelling. They're primarily about motion and deductive and visceral excitement. But, as it happens, the medium is also capable of telling stories that couldn't be told as well in other media. A game can put you into the head (so to speak) of a plant or a computer, and can immerse you in alien environments and force you to interact with, rather than merely read about, all sorts of characters and situations. Interactive fiction has the potential to tell enormously powerful stories—but only if there are gamers to tell the stories to.

It seems inevitable that we'll get more spaceops and less real science fiction, and this is probably okay. One hundred *Star Trek* novels for every *1984* or *Flowers For Algernon* may be the right ratio, given public tastes. But if the lack of interest meant that the computer game equivalent of *1984* or *Flowers For Algernon* never got published, that would be a shame. ☹

## ELLIOTT CHIN

Continued from pg 221

architecture, and if the enemies were actually drawn from Japanese mythology, it would have been cool. And I wouldn't have even minded the accent, because the game would have been authentic.

But what I got was a game that catered to the stereotypes of Americans as to what a Japanese adventure should be: a fun Chinese ronic on a ninja who eats fortune cookies and shoots zombies wearing coolie hats. For Pete's sake, coolie hats are associated with Chinese, not Japanese, immigrant workers. It's bad enough to use blatant stereotypes in a game's design, but *3D Realms* can't even get their own stereotypes right.



**A MISFORTUNE** Not only is *Shadow Warrior* offensive in its depiction of the supposed ninja Lo Wang, but the game also betrays a complete ignorance and disregard for real Asian culture. There are no fortune cookies in Asia.

## SENSITIVITY TRAINING REQUIRED

The thing is, in general, there aren't too many minorities working in the gaming industry. So I guess it was easier for *3D Realms* to disregard how Asian Americans would feel about this material. If they created the character and atmosphere for laughs, I guess they succeeded, because some people find

the game's "Oriental" feel amusing. But it's just a gimmick, and a painful one, because it's achieved at the expense of Asians. If they worried about the feelings of Asian-American gamers, would they have released a game this stereotypical? I certainly hope not.

Next up for *3D Realms* will be *Prize*, in which the main character is a Native American. Knowing their track record of misogyny in *Duke*, and taking into account the stereotypes in *Shadow*, I would guess that they've probably already figured out how to work scalp-ling into the game. I just hope they learn to exercise a little sensitivity.

I want *Shadow Warrior* to be the last time *3D Realms* degrades a minority group for some cheap laughs. ☹

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January–July, 1997

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A-10 Cubes	Mar	164	Advent	★★★★★
Admiral Sea Battles	Jul	176	Megamedia	★★★★★
Advent AV370	Jun	88	Advent	★★★★★
Advent AV370	Jun	90	Advent	★★★★★
Age of Battles Campaign Disk	Jul	178	Strategic Simulations	★★★★★
Age of Sail	Mar	162	TalcoSoft	★★★★★
Air Warrior II	Jun	140	Interactive Magic	★★★★★
Albien	Jan	156	Blue Byte	★★★★★
Alien Landing ACS-66	Apr	80	Apogee Gaming	★★★★★
Amber: Journeys Beyond	Apr	82	Graphic Simulations	★★★★★
Archimedeon Dynasty	Apr	88	Blue Byte	★★★★★
Art of Fly Fishing, Vol. 1	May	150	Gametek	★★★★★
Asphalt's Tear	Jul	140	Y&R Image	★★★★★
Baku Gaku	Jan	195	Sega	★★★★★
Banzai Boy	April	138	Gender Interactive	★★★★★
BattleCruiser 3000 A.D.	Feb	208	Take 2 Interactive	★★★★★
Battleground: Ardennen	Apr	146	Blizzard	★★★★★
Battleship	Mar	142	Hasbro Interactive	★★★★★
Blood & Magic	Apr	164	Hasbro	★★★★★
Cambridge Microworks	Jun	94	Cambridge Soundworks	★★★★★
Caveknave	Apr	148	Amstar Int'l	★★★★★
CH Force FX	May	110	CH Products	★★★★★
CH Baseball	Apr	61	CH Products	★★★★★
Circle of Blood	Feb	134	Virgin	★★★★★
Cleopatra	Nov	98	TriByte	★★★★★
Clue	May	144	Hasbro Interactive	★★★★★
Creative Labs ARCADE Gold Prof	Nov	116	Creative Labs	★★★★★
Creative Labs GamePad	Apr	61	Creative Labs	★★★★★
Cyberzone	Jul	130	MicroAge (Warfield)	★★★★★
Daylena USA	Mar	160	Sega	★★★★★
Bendy Tale	Jan	186	Microson	★★★★★
Bosley	Feb	220	Interactive Magic	★★★★★
Destruction Derby 2	Mar	172	SegaSoft	★★★★★
Boys	Jun	124	ReadySoft	★★★★★
Blade	Mar	60	Blizzard Entertainment	★★★★★



**A-10 CUBES** What the flight sim lacked in graphics, it made up for in dazzling speed and superb flight physics.



**BATTLECRUISER 3000AD** Although I dropped the last year, Sierra's *Cruiser 3000AD* is just now getting close to being finished.



**DIABLO** A superb solo game, Diablo made its biggest mark with its support for free play over the Internet using Blizzard's battle.net.

Diamond MonsterSound	Jul	125	Diamond Multimedia	★★★★★
Diamond S2 Powered Speakers	Jun	54	Diamond Multimedia	★★★★★
Dissolution of Eternity	Jun	114	id Software	★★★★★
Eagle Max	Oct	138	NET Laboratory	★★★★★
Empire of the Falling Suns	May	174	SegaSoft	★★★★★
EmpireStar	Feb	162	Academy	★★★★★
F-16 Fighterstick	May	107	OH Products	★★★★★
F/A-18 Hornet	Jul	150	Graphic Structures	★★★★★
F-22 Pro	May	108	Thrustmaster	★★★★★
Falcon Northwest Block V	Jul	151	Edlan Multimedia	★★★★★
Fallen Haven	Jul	174	Interactive Magic	★★★★★
FIFA Soccer '97	Apr	118	EA Sports	★★★★★
First-Person Coming Assassin	Apr	70	First-Person Gaming	★★★★★
Flash 3D	Oct	136	Bentley	★★★★★
Flashpoint: Korea	Feb	168	Jane's Combat Simulations	★★★★★
Flight Simulator for Windows 95	Feb	132	Microsoft	★★★★★
Flying Corps	May	152	Empire Interactive	★★★★★
Fuck in the Face 3	Nov	124	Academy	★★★★★
Fragile Allegiance	Jul	170	Interplay	★★★★★
Front Page Sports: Football Pro '97	Mar	149	Sports Illustrated	★★★★★
Geno Wars	Jan	294	Electronic Arts	★★★★★
G-Force	Jun	134	7th Level	★★★★★



**FLIGHT SIMULATOR FOR WINDOWS 95** This included loads of new features, but still packed as much fun as the original. **8.5** (4/97)



**F/A-18 HORNET 3.0** The real-life version of this jet sim will introduce the beginner, but make a fan out of you. **8.5** (4/97)



**HEROES OF MIGHT & MAGIC II** Despite its age, this game is threatening to eclipse all others as the biggest time-killer on QWOP's network. **8.5** (4/97)

Grand Prix 1	Apr	70	Thrustmaster	★★★★★
Gravis Blackhawk	Apr	66	Advanced Gravis	★★★★★
Gravis Firebird	Apr	66	Advanced Gravis	★★★★★
Gravis Enhanced Pro	Apr	62	Advanced Gravis	★★★★★
Gravis Grip	Apr	61	Advanced Gravis	★★★★★
Grid Runner	Mar	128	Academy	★★★★★
Harpoon Classic '97	Apr	150	Interactive Magic	★★★★★
HEROES	Oct	129	7th Level	★★★★★
Heroes of Might and Magic II	Feb	216	New World Computing	★★★★★
Hunt	Jan	259	Interactive Magic	★★★★★
Hunter Hunted	Feb	166	Sierra On-Line	★★★★★
Hyperkinetic	Mar	164	Academy	★★★★★
IMTA2 Abrams	Jun	134	Interactive Magic	★★★★★
Interstate '78	Apr	131	Academy	★★★★★
Into the Void	Jun	166	Playmates Interactive	★★★★★
Jack Nicklaus 4	Jan	159	Academy	★★★★★
Jazz JS-300 & JS-900	Jun	90	Jazz	★★★★★
Jazz JS-300 & JS-900	Jun	140	Jazz	★★★★★
JBL Media 2, Media 4, Media Sub	Jun	92	JBL	★★★★★
Jeopardy III	May	176	Media Studio	★★★★★
John Madden Football '97	Jan	208	Electronic Arts	★★★★★
Korea League: Journey to the Edge	Apr	166	Academy	★★★★★
Krazy Ivan	May	140	Psychosis	★★★★★
Levi Express	Jul	149	Shogakukan	★★★★★
Leisure Salt Larry 7: Love for Seal	Apr	76	Sierra On-Line	★★★★★



**MAGIC: THE GATHERING - BATTLE MAGIC** Wizards' arcane effort to bring Magic to the PC. Microsoft-based victory over its console



**NASCAR RACING 2** For PC/PSX only, this Daytona racing game was so hot-drink, the only thing missing from the box was a can of Slurpee.



**SAMBA Series's** amplifier of Arthur C. Clarke's prediction that IBM was suspiciously skilled in the digital realm. It's a bit, math-boy.

Lords of the North 3	Mar	141	Strategic Simulations	★★★★★
Magic The Gathering: Battle Magic	May	158	Apogee Entertainment	★★★★★
Magic The Gathering	Jul	137	Apogee	★★★★★
Manic Karts	Jan	183	Virgin	★★★★★
Mercenary Madness	Nov	156	Judge Games	★★★★★
Marble Drop	Jun	145	Moxo	★★★★★
Masters of Deceit 2	May	175	MicroProse/Strategic Simulations	★★★★★
M.A.X.	May	166	Interplay	★★★★★
Microsoft Pro Football 97	Feb	115	Microsoft/Microsoft	★★★★★
Microsoft Golf 3.0	Apr	112	Microsoft	★★★★★
Microsoft Spiderman	Mar	87	Microsoft	★★★★★
MIDI Land MLI S25	Jun	89	MIDI Land	★★★★★
Multimedia Demos	Jul	125	MVA	★★★★★
Monster Truck Madness	Jan	184	Microsoft	★★★★★
Motor Vehicle	Nov	132	Colossal	★★★★★
NASCAR Racing 2	Mar	159	Sierra On-Line	★★★★★
NBA Full Court Press	Jun	214	Microsoft	★★★★★
NBA Live 97	Apr	104	EA Sports	★★★★★
NCAA Basketball Final Four 97	Apr	212	Microsoft	★★★★★
NCAA Championship Basketball	Feb	179	GTE Entertainment	★★★★★
Neardrone	Mar	138	Stratagem	★★★★★
Neo Hunter	Mar	124	Virgin Interactive	★★★★★
NFL Quarterback Club '97	Jun	210	ACT Lab/Entertainment	★★★★★
Noir	Mar	92	CyberDreams	★★★★★
Ovation	May	113	Segami	★★★★★
Othello	Jul	216	Hasbro Interactive	★★★★★
Outlaws	Apr	139	LucasArts	★★★★★
Over the Reich	Apr	132	Avolon Hill	★★★★★
Phenomena: A Puzzle of Flesh	May	36	Sierra On-Line	★★★★★
Platinum Sound SWS1600W	Jun	82	Platinum Sound	★★★★★
Poker Cosmos	Jun	118	Long Games	★★★★★
Powerramp	Apr	70	ACT Laboratory	★★★★★
Privateer	May	111	Parsons Technology	★★★★★
Privateer 2: The Darkening	Apr	124	Origin Systems	★★★★★
The League of Extraordinary Gentlemen	May	146	Global GameWorks/Origin	★★★★★
Pro Pedals	May	110	OH Products	★★★★★
Pro Turfball	May	205	OH Products	★★★★★
Qzone for Quake	Jun	118	Wizard Works	★★★★★
Raine	Jul	130	Segami On-Line	★★★★★
Realm of the Haunting	May	128	Interplay	★★★★★
Red Alert	May	150	Virgin Interactive	★★★★★
Red Alert Counterstrike	Jul	167	Virgin Interactive	★★★★★
Risk CD-ROM	Mar	138	Hasbro Interactive	★★★★★
Road Rash	Jan	182	Electronic Arts	★★★★★
Rockafella	Apr	98	Segami	★★★★★
Roland MA-8	Jun	90	Roland	★★★★★
Rubber Control System	May	110	Thornbrook	★★★★★

Scorched Planet	Apr	94	Virgin Interactive	★★★★★
Scourge of Armageddon	Jan	105	id Software	★★★★★
Scrabble	Jan	196	Hasbro Interactive	★★★★★
Sega Rally	Jan	122	Sega	★★★★★
Shattered Steel	Jan	282	Interplay	★★★★★
Shrek for Snake	Jan	110	Skidman Avenue	★★★★★
SimSelf	Mar	152	Maxis	★★★★★
SkyNET	Mar	116	Benetton Software	★★★★★
Slamcase	Jan	190	Viacom	★★★★★
Smart Games: Word Puzzles	Feb	174	Smart Games	★★★★★
Solid Ice	Jan	228	Empire Interactive	★★★★★
South Blaster SRS 380 & SRW 780	Jan	87	Sound Blasts	★★★★★
Spacorb 360	Apr	70	Spasotec/IMG	★★★★★
Stalker Wars: The Stalizer Mix	Mar	144	Syner-Plex/Midway	★★★★★
SSN	Mar	174	Simon & Schuster Interactive	★★★★★
Star Command Revolution	Jan	150	GF Interactive	★★★★★
Star General	Apr	129	Strategic Simulations	★★★★★
Steel	Apr	150	Empire Interactive	★★★★★
STB Nitro 30	Jul	138	STB	★★★★★
Steel Panthers II: Campaign Book #1	Jul	79	Strategic Simulations	★★★★★
Steel Panthers II: Modern Battles	Feb	218	Strategic Simulations	★★★★★
Stonewall Wars	Jan	157	Strategic Arts	★★★★★
Test Drive Off Road	Jul	206	Accolade	★★★★★



**USNF 97** This sequel took the action to Venice and gave players a chance to fly the MIG-17, F3 Crusader, and other planes.



**X-WING VS. TIE FIGHTER** Although the game isn't as highly as a single-player experience, its multiplayer sessions were quite engaging.

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2. Henry
3. Jane
4. Bryant

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**YOU DON'T KNOW JACK MOVIES** The other game-show was back and better than ever this time, testing your knowledge of classic TV.

Tekno Reich	Jan	257	Avance Ltd.	★★★★★
Tetris Quadram System	May	107	Thrustmaster	★★★★★
Thrustmaster Phaser Command	Apr	62	Thrustmaster	★★★★★
Thrustmaster Top Gun	Apr	56	Thrustmaster	★★★★★
Thrustmaster X-Fighter	Apr	66	Thrustmaster	★★★★★
Tigers on the Prowl 2.0	Jan	298	HPS Simulations	★★★★★
Titanfall	Mar	98	SEI Entertainment	★★★★★
Titanic: Adventure Out of Time	Mar	90	GTE Entertainment	★★★★★
Tomb Raider	Mar	100	Empire Interactive	★★★★★
Toonstruck	Jan	162	Virgin	★★★★★
Trophy Bass 2	Feb	186	Sports On Line	★★★★★
Turtle Beach Traper Plus	Jul	126	Turtle Beach	★★★★★
USNF 97	Feb	105	Sound Blasts/Syner-Plex	★★★★★
Virtual Squad	Mar	132	Sega	★★★★★
Wages of War	Apr	154	New World Computing	★★★★★
War Wind	Jan	280	SSI	★★★★★
Wargame Warrior	Apr	70	Logicon	★★★★★
Wooden Ships & Iron Men	Jan	286	Avalon Hill	★★★★★
X3	Jul	290	GF Interactive	★★★★★
X-Wing vs. TIE Fighter	Jul	144	LucasArts	★★★★★
Yoda Stories	Jul	79	LucasArts	★★★★★
You Don't Know Jack 2/Sports	Feb	171	Berkley Systems	★★★★★
You Don't Know Jack: Movies	Jul	376	Berkley Systems	★★★★★

# GAMER'S EDGE

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## STRATEGY & TIPS

# X-Wing vs. TIE Fighter

*Flight Training for Aspiring Imperial and Alliance Pilots*

by Vox Day

**T**here are two things to keep in mind when approaching X-WING vs. TIE FIGHTER for the first time: The first is that no matter what it says on the box, XVT was designed to be a multiplayer game. The second is that X-WING and TIE FIGHTER, which were great games in their respective days, were designed to be single-player games. Unfortunately many veteran Rebel and Imperial pilots operate under the mistaken assumption that because XVT is the direct descendant of X-WING and TIE FIGHTER, the same rules for success apply.

Nothing could be further from the truth. While good dog-fighting technique and a supple wrist are still huge assets, the days of a single starfighter blithely challenging a fleet of enemy starships and living to brag about it are over. Although the X-WING missions were tough, it wasn't uncommon for a single pilot to rack up 20 or more kills on a single sortie. XVT more closely approximates the real world, where six kills denotes an Ace, and mere survival is success.

### Pilot's Principles

Because XVT is a very rich and subtle game, it's truly best if you don't dive right into the nukes. They're not as fun as the cooperative training exercises and combat engagements.

It's important to note that combat engagements were not created with two-man cooperative play in mind, but were designed to be at balance when an equal number of human pilots are flying for the Empire and the Rebellion. If XVT seems ridiculously difficult when all the humans are flying for the same side, that's because it is. Split the humans into Imperials and Rebels, and both sides will find it easier to complete their missions. This is necessary because while the difficulty level on training exercises can be adjusted in the config

screen, difficulty cannot be directly adjusted in a combat engagement. Don't just choose a better craft either, because that will cost you potential victory points, and it also increases mission difficulty.

Success also becomes more attainable once you realize that XVT's attitude toward losing your craft is much more similar to DOOM than X-WING. On each mission, you are provided with multiple lives, and it is expected that you will frequently have to expend a few of them. Don't be afraid to jump (the "J" key) between craft in your Flight Group on missions where it's permitted, or to occasionally spend a life on a kamikaze run into a capital ship.

Dogfighting is tough in XVT, and whether you're fighting a human or an AI-controlled pilot, keep one hand on the throttle at all times. Since the physics of the game dictate that lower throttle settings provide more maneuverability, AI pilots will often drastically reduce throttle and begin a series of tight turns, hoping you will overshoot them. Repeatedly hitting the Enter



key allows you to match speeds and hold your position behind an enemy ship and shoot it down with repeated laser blasts. If you find yourself in a head-to-head situation, don't wait for missile lock but, rather, fire on yellow. Dive immediately, and target the enemy missile once it's fired. Because of the dive, the two warheads will miss each other. Use your lasers to detonate the incoming missile, then target the second ship in the formation.

Keep a constant eye on the power adjustments between engine and laser (F9), and engine and shields (F10), and always take the opportunity to recharge your shields while engaging slower craft. Chaff (C key) works very well against missiles and is absolutely imperative when attacking platforms and capital ships, while flares can take out a closely trailing fighter.

## MISSION HELP

Most of these mission-specific notes are focused on the combat engagements, but the first Rebel training exercise is mentioned because it demonstrates several principles that are vital to future mission success.

### Rebel Escort

When playing with another human pilot, divide responsibilities. One pilot should keep the fighters occupied, while the other takes out the bombers. Get behind the bombers and hit Enter to match speeds, then cut them up with lasers, not warheads. Both pilots must

save their missiles for the late appearance of Imperial gunboats. When the gunboats appear, speed immediately toward them or they will cut off the cargo ships near the run buoy.

### Imperial Factory Drekker

**Rebels:** Don't worry about the fighters too much, but hit the bombers hard, using only lasers. Save your missiles and watch for the arrival of the Omega group of shuttlecopter transports appearing on the opposite side. Engage them immediately and use your missiles to take them out.

**Imperials:** The key here is to drive the frigates off as early as possible. In order to do this, the TIE bombers must fire off their warheads in craft selection, choose to pilot a bomber, then use Shift-W to make your wingman wait while you make your attack run. Don't wait for a lock, but dumb-fire all of your missiles, then jump to your wingman's ship and make another attack run.

### Ambush in the Obran Cluster

**Rebels:** Stay away from the escort ship unless you're playing for bonus points. It's too risky because its rear lasers can pick off your warheads, and then pick you off. Surprisingly, your missiles are less likely to be shot down if you fire them at a distance and break off your attack, because warheads are usually hit by accident when the targets fire lasers at your incoming craft.

**Imperials:** The rebel reinforcements are your biggest threat. Because all



the rebel fighters have advanced missiles, don't waste your Decoy Beam while dog-fighting, save it until an enemy has lock on you and a missile has been fired. Don't forget to switch it off when the missile goes away.

### Attack on the Tortali Platform

**Rebels:** Human pilots will do better than AI pilots in the Y-wings, but the best solution is to fly cover in the X-Wings and use mag-pulse warheads to temporarily knock out the Platform's defenses as the Y-wings begin their attack run. One hit from a mag pulse will shut down the weapons system of a platform or capital ship for thirty seconds, and can dramatically reduce your losses.

**Imperials:** Concentrate on shooting down the Y-Wings. If you have two human pilots, one should harass the Y-Wings, and the other should stay close to the Platform and target incoming torpedoes. Keep your lasers set on single fire and save laser power, as a single hit will detonate a warhead.

### Ambush Smugglers Near Ythaa'c Cluster

**Rebels:** Target the ATs of Sigma group and take them out quickly. Without the transports, the Imperials cannot win.

**Imperials:** You must protect Sigma group at all costs, and make an attack run on the cargo ferries only if the transports aren't under attack.



### Interdict Starfighter Deployment

**Rebels:** One pilot should target the lead craft in the TIE advanced formation. Causing the lead craft to take evasive maneuvers will slow the entire formation down. A second pilot should circle around behind the formation and pick off the advanced fighters with missiles.

**Imperials:** Transfer all laser power to engines and use speed to outrun the Rebel fighters.

### Attack on Rebel Convoy Near Athega

**Rebels:** The gunboats are armed with torpedoes, and are the primary threat.

**Imperials:** Ignore the fighters as much as possible and, instead, concentrate on eliminating the corvettes.

### Rescue From Prison Ship Dargon

**Rebels:** Fly X-Wings instead of the default A-Wings and use mag pulse warheads to help your Y-Wings quickly disable the Dargon.

**Imperials:** Save your missiles, because the mission doesn't end when Dargon is disabled. Watch for the appearance of a Calamari cruiser and use warheads to eliminate the Rebel beaming party.

### Hit and Fade on Ellirad Platform

**Rebels:** Keep all Imperial ships away from the disguised escort shuttle.

**Imperials:** Be ready for the appearance of a disguised escort shuttle that will ID in Imperial red—it's actually carrying Rebel troops. Inspect it and its true colors will be revealed. Don't ask

everything to destroy it, though, the platform will open up on it once it's been inspected.

### Dreadnought Warlover

**Rebels:** Focus your energies on the advanced TIEs, which are targeting your transports. Don't worry about the bombers too much, because they won't get all the containers.

**Imperials:** Fire off your warheads immediately, then jump to the other bomber in your flight group and do the same.

### Raid on Goibniu Platform

**Rebels:** Don't wait for a lock but, rather, dumb-fire your torpedoes from a distance, then jump to the other Y-Wing in your group and dumb-fire again. When you're out of torps, stay away from the platform and help sweep fighters as the other Y-Wings make their attack runs.

**Imperials:** Harass the Y-Wings until the Rebel heavy lifts come in. Once they appear, drop everything and focus on taking them out.

### Raid on Rebel Factory Koensayr 42

**Rebels:** Imperial transports seem to be the root of all evil in this game. Take them out.

**Imperials:** Disabling the Koensayr will help the ATRs survive.

### Attack on Imperial Class Star Destroyer Tormentor

**Rebels:** Dumb-fire the Y-Wings' torps at 8 clicks, and then jump craft. An advantage of dumb-fired missiles is that the other side cannot target them with the "T" key. For a bonus, leave the containers alone and wait until the Imperial hater Bellboy picks up a special container. Take out the Bellboy and the container for extra points.



**Imperials:** Harass the Y-Wings that are making attack runs. One pilot should stay close to the Star Destroyer and target incoming warheads.

### Ambush of Rebel Leader at Airam Platform

**Rebels:** Stay close to the corvette and wait for Imperial gunboats to appear. Don't go out to meet them. Enemy strike forces will come in from both sides and, later, from the front of the platform. As always, the ATRs are the primary threat.

**Imperials:** Protect the ATRs from mauling X-Wings. Spending a life on kamikaze run with your first craft will help weaken the Platform's shields.

### Raid Imperial Convoy Near Atterol

**Rebels:** The ATRs will arrive when half of either side's fighters are gone. Focus on protecting them, not on killing enemy fighters.

**Imperials:** Remember that the mission isn't over until your ships are boarded. Hunt Z-95s until the ATRs appear, then forget the fighters and focus on the Rebel transports.

### Frigate Duel: Malevolent vs. Endeavor

This mirror mission is tough. On either side, focus on the enemy fighters first, then hit the first strike force as it comes within range. One pilot should stay home and target incoming warheads. The key here is to save your missiles for a later strike force that will come out of hyperspace (not from the enemy frigate). ☘





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## WALKTHROUGH

# Last Express

*Get Your Travel Arrangements in Order*

by Petra Schlunk

It's the eve of WWI, and you are an American fugitive, Robert Cash, boarding the famous Orient Express at the request of an old friend. After getting on the train and finding him dead, you assume his identity and are plunged into some truly strange events. To help you along on your journey, here is our friendly travel guide for Brotherhood's *LAST EXPRESS*.

## Sneaking Around

The best way to get into compartments when they are empty is to ensure that the conductor is gone or distracted. Frequently, the best time to do this is when another passenger is between you and the conductor (often just after a passenger leaves the very compartment you wish to search). To distract the conductor in your sleeping car, knock on door 5 and then walk past the angry harem owner and enter compartment 2 or 3. To distract the conductor in the other sleeping car, you can, after 2:00 on the second day, release Anna's dog from the baggage car when the trainmaster is away from his office. Then, while the conductor is ferrying the dog back to baggage, enter the compartment of your choice.

## A Fast Farewell

Once you board, go to sleeping compartment I. Open the window, pick up your friend Tyler's body, and unceremoniously toss it off the train. Put on Tyler's jacket and examine his luggage. When the police board the train at Epemay (after 9:45), climb through the window in Tyler's compartment or hide in the bathroom next to compartment A until they leave.

After assuming Tyler's identity, speak with Schmidt when you can. After 9:30, go to the platform by Kozlov's car and show Tatiana the poem you found in Tyler's luggage. Later in the evening you will have to fight someone. Duck a couple times when he starts to swing and then grab his arm to take away his weapon.

After the train passes Chalon, you can go to bed. Wake from the dream, go to compartment F, and speak with Anna. Follow her to compartment A, and then go back to sleep.

## A Whistle Swap

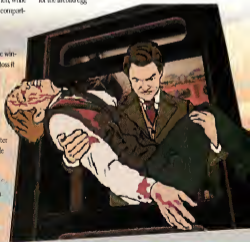
In the morning, talk to Tatiana in the dining car to get a translated version of the poem (you can give her the poem now if you didn't earlier). Talk to Schmidt, and visit Kozlov

afterward. To get the French boy's whistle, catch a bug for him in the salon, sit down at the table by the clock and use the empty matchbox to catch it. When you get a chance, trade the bug for the whistle. You can also do this later, but if you fail, you will find the whistle late in the game. Later in the morning, you will meet Schmidt in the corridor, speak with him.

## In Concert

During the concert, which runs from 3:00 to 4:15, you have much to do. Enter compartment E, climb out the window, and enter Anna's compartment. Find the letter in her dresser, search her jewelry box carefully (find the button at the front of the box), and retrieve a key. This key will open almost any door! The soonest that you can retrieve this key is after Anna leaves for the concert and while the two young ladies are still in the salon (around 2:45).

Use the key to enter compartment B and search Tatiana's bathroom for the fired red egg.



**MOVE FAST** The first order of the day is to dispose of the body.

Enter her grandfather's room through the bathroom to escape with the egg. Smash the egg in your room for now, but as soon as possible (before the concert ends) hide it in the dog cage in the baggage car. Play with the egg when you can and learn how to open it (using the geographic clues from the translated poem).

### It Takes a Thief

Climb on top of the train (unlock the door at the platform outside Kronos' car and climb up). Walk toward Kronos' car and smash the skylight. In the room you enter, press a button on the left side of a large wall hanging. Take the briefcase from the safe and walk out through the concert. Hide the briefcase under your bed until the concert ends.

After the concert, show Schmidt the briefcase. Then bring it to Kronos (you don't have much time to do this after Kalina threatens you). At about 5:00, Anna will go to the baggage car. Follow her or go there before she does—she'll catch you—and open the trunk near the antiques. You will enter another fight. Avoid getting hit (duck when a swing begins). After five or six swings Anna will come to your aid.

### Tick, Tick, Tick...

After the train leaves Vienna, search compartment 2 (between 7:45 and 9:30). Retrieve the detonator. Go to sleep when you can and you will awake at 10:30. Go to compartment A and listen to Alceci's dying words. You now have a little over five minutes to find the bomb and defuse it! Find the bomb in the electrical box between the two sleeping cars. Expose the wires and use a match to burn through them. In close-up, turn the box around and pull out the pins. Insert your telegram between the relays (to the right) to defuse the bomb. Talk to the Englishman in the

salon. Talk to Anna in her compartment to get to the next part of the story.

You will awaken to find yourself tied up in a baggage car. Roll around and try to get up until you hear your matches fall to the floor. Crawl on the floor to reach the matches and burn through the ropes binding you. As you leave you will have another fight. Hit your opponent several times (about 4) to knock him out. Untie Anna.



**ALL TIED UP** Here, just wiggle around until the matches fall out of your pocket.


### James Bond, Eat Your Heart Out

Leave the baggage car and get on top of the train at the platform before the sleeping cars. You will encounter two battles as you walk toward the dining car. For the first fight, hit your opponent several times (after ducking his swings) and finally, reach for the crowbar to knock him off. Immediately after, turn around and fight again. This is a difficult fight. You'll have to duck (watch how the swings so you know whether to block up or jump back) about 10 or 11 times and then your opponent will suddenly kneel. When she does this you must duck too. Otherwise you'll be thrown off the train as it passes through a tunnel!

Get back into the train and enter the dining car

through the salon (look for the whistle here if you don't have it yet). Make sure the egg is in the dog cage; then, unlock the cars between the salon car and sleeper cars. Get back on top of the train and head toward the locomotive. After Anna shoots the terrorist, turn left and pull the lever.

### Shell Game

Go back into the train and retrieve the firebird egg. Find Anna in the small just outside the trainmaster's office. If you haven't figured out how to open the egg yet, do it now! Go to the dining car with the firebird egg. Open the firebird egg quickly (or you'll be killed). Blow the whistle (don't close the egg) to end the game. 



**IT'S A BOMB!** Look for it in the electrical box between the two sleeping cars.



### Hatching the Firebird Egg

First, press the blue-green gem in Australia, then the blue gem north of west Africa. Press the red gem north of India. Go to the top of the egg and press the right gem, the top one, the left one, and the bottom

one (you may not have to press all of these). Then press the purple gem on an island west of South America. Last, press the green gem by Jerusalem. Put your finger in the open hole to complete the process.

 This is the first gem you must press to start opening the firebird egg.

## STRATEGY &amp; TIPS

# Hit or Missile



## How Guided Missiles Change the Rules of the Aerial Game

by Robin G. Kim



**ARMED FOR REAR** A fully loaded F-16 is a terror at medium range, but it handles like a slug. Use up those heavy AIM-120s to regain your agility if a dogfight appears imminent.



**ATOLL! ATOLL!** Missiles in F/A-18 Hornets 3.0 are easy to spoof, but only when you see them coming. Try to spot the inbound soon after you get the warning, while its smoke trail is still visible. If you drop chaff and flares while yanking back on the stick just before the missile reaches you, it will sail harmlessly past almost every time.



**ANRAAMSKI** The Russian R-77's onboard radar can only guide itself once it gets within 15km of its target. Until then, this launching Su-27 must maintain a radar lock, limiting its freedom of movement. Though there's no way to know precisely when the missile's radar has acquired the target, you can estimate when it's safe to break lock by counting the seconds-based time-to-impact readout (at launch time) and the firing range.

Many diehard fans of WWI and WWII flight sims see modern air-to-air combat as sterile and uninteresting. In their view, proficiency at pushing buttons has replaced flying skill as the major determinant of success, and wish-‘em-dead missiles have eliminated the need for good tactics. Fortunately, nothing could be further from the truth. Although combat between contemporary fighters often lacks the close-range intensity of guns-only battles between prop planes, jets must still maneuver to bring their weapons to bear. This, along with the fallibility of air-to-air missiles, means that piloting ability and sound tactics are still essential.

Despite the enormous advances made in aircraft performance since the age of the prop fighter, air-to-air tactics would probably remain relatively unchanged today if it were not for the introduction of guided missiles. Missiles change the rules of the game, multiplying each fighter's offensive capability and enabling combat beyond visual range (BVR). To understand the tactics of missile combat, you must first know what makes missiles tick.

### Guide Your Missiles

For a missile to score a kill in most sims, three conditions must be met: First, the target must be within the missile's

aerodynamic range; second, the missile must be able to guide toward the target, and third, the missile must maneuver within lethal distance. A host of factors influence the likelihood of satisfying each of these conditions. When attacking, you want to align as many factors as possible in your favor before launching. On the defense, the opposite is desired—prevent the attacker from firing at all or, failing that, take steps to degrade the quality of his shot.

A typical air-to-air missile accelerates for just a few seconds before its rocket motor burns out, then glides for the remainder of its flight time. Its peak velocity affects how far it can go, but as the missile's speed ebbs in the coasting phase of flight, so does its agility. The less maneuverable it becomes, the easier it will be to dodge. Consequently, shots at nearby targets tend to be most reliable. Note, however, that every missile has a minimum range below which it will not guide or fuse properly. Close range shots are great when you can get them, but the main benefit of carrying missiles is being able to reach out and flog someone.

Though simple in concept, a missile's maximum range is hard to pin down in practice because it depends so much on what the target does. If it comes head-on at you (see the *High-tech Jousting* sidebar), the range at launch is much greater than the distance the missile must actually travel. Conversely, if the target is running away, the missile must fly farther than the launch range. The avionics in most sims take this into account when deciding whether to give you a shoot cue, but even the cleverest computer cannot predict what the target will do after the missile is in the air. Don't automatically pull the trigger the instant the system gives you the go-ahead; if the target ussy evade or just turn and run, move as close before launching.

### Seek and Ye Shall Find

Air-to-air missile guidance systems can be broken down into three basic types: semi-active radar homing, active radar homing, and infrared homing (heat-seeking). The latter two are both

fire-and-forget to at least some degree, but SARH guidance demands a solid radar lock from launch to intercept. This makes SARH missiles the hardest to use because they reduce the attacking aircraft's maneuvering options and situational awareness.

While the target is locked up, the pilot loses contact with all other aircraft previously being tracked. When on the receiving end, these restrictions can be exploited. For example, if a SARH missile is coming for you, one possible response is to turn and run while ordering your wingman to engage. The bandit cannot detect your wingman on radar while maintaining a lock on you, giving your wingman a good chance of taking him by surprise. With the bandit neutralized, the missile will cease gazing on you.

### Artful Dodging

If a missile with your name on it has met its range and guidance requirements, your very survival will depend on your evasion skills. The optimal technique for defeating an incoming missile varies considerably from sim to sim, based on how missile trajectories and countermeasure effectiveness are modeled. In *Su-27 FLANNER*, for example, putting the missile in your rear hemisphere and dropping chaff and flares works nearly every time.

However, missiles in *FALCON 3.0* fly directly toward you and are not so easily spoofed. Each missile is best eluded by maneuvering until you are looking straight up at it, then pulling harder and harder to keep it in that relative position as it gets closer. In *EF2000* and *BACK TO BUCHHAD*, missiles extrapolate your future location based on your current velocity, heading directly to a predicted intercept point. Thus, the method that works so well in *FALCON 3.0* is almost suicidal here. For these sims, turn to place the missile at 2 or 10 o'clock, then when it is about four to five seconds from impact, turn hard either across the missile's path or perpendicular to it.

For example, if the missile is at 10 o'clock, you should either turn left, pull straight up, or go inverted and pull

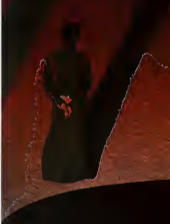
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straight down, rolling to keep the missile at the 10 o'clock position. These maneuvers are intended to change the missile's predicted intercept point too rapidly for it to follow.

With enough airspeed and the right technique, it is possible in most sims to defeat any missile you see coming.

The radar and missile systems available in modern fighter aircraft may have changed the face of air combat, but the technology is far from perfect. The key to success in BVR combat lies in understanding the opportunities and constraints that arise from these imperfections.

## High-tech Jousting

Head-on missile exchanges from beyond visual range are as common as they are nerve-racking. Ideally, you would like to destroy the enemy without being forced to eat a missile yourself. In this example, two aircraft facing each other fire missiles at approximately the same time. The F-22 pilot understands that the key is the distance between an aircraft that launches a missile and its target at the moment the missile reaches the target. Increasing this relative distance makes it more likely that your missile will impact before that of the enemy's.

Since each pilot is firing head-on, it's less likely that either will use a heat-seeking missile. Both missiles in this example require a radar lock to guide on their targets, which means that the first missile to arrive at its target can cause the enemy missile to "go stupid" in one of three ways: by destroying the bandit; by knocking out its radar system; or by forcing the bandit to break radar lock while dodging the incoming missile. Even if the incoming missile cannot be defeated in this manner, the increased distance still has the benefit of making the enemy missile fly further to reach you. The more distance a missile covers, the slower, less maneuverable, and easier to evade it becomes.

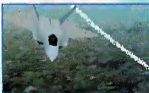
To maximize the distance (and your safety margin), slow down after launching your own missile, as the F-22 does here. Accelerating up to high speed before launching will also increase the relative distance by raising the missile's average speed and launch range.

Since our missile in this example requires that radar contact be maintained, the F-22 pilot turns to put the target near the limit of his radar coverage. If this tactic doesn't prove effective, he could actually turn tail and run after firing, possibly denying the enemy any opportunity to counterattack.

Keep in mind that missiles don't always hit. Also, avoid slowing down too much to increase the relative distance, because you will need some speed if the engagement evolves into a turning fight.



▶ **EURO ATTACK** The EF2000 fires a radar-guided missile at the enemy, since an infrared missile is often ineffective in head-on encounters.



▶ **DISTANT RAPTOR** Once the F-22 fires, it turns to put the target near the limit of its radar coverage, so as not to become a more attractive target itself.

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CIRCLE READER SERVICE #125



## First Look, First Kill

**S**urprise is often the decisive factor in an air-to-air engagement. Before the advent of radar, achieving tactical surprise usually involved visually

locating the enemy without being spotted in return, then trying to remain unobserved as you closed the distance by staying in the sun or hiding in the bandit's blind spot below and behind. These techniques still apply once you get into visual range of a radar-equipped bandit; to get that close, you just have to avoid appearing on his radar scope.

The first step is to find the enemy while still beyond visual range without being found yourself. This is easily done with friendly air- or ground-based early warning radar support. If the enemy has similar assets, however, you must fly low, relying on terrain and ground clutter to escape notice. To maximize your chances of surprise, only use radar when no other sensors are available. Radar almost always alerts a bandit to your presence. The only exception might be an ultra-modern "low probability of intercept" radar, such as the one the F-22 carries, which conventional radar-warning receivers have difficulty locating.

After you have pinpointed an enemy aircraft, the next step is to close to firing range while remaining undetected. The best approach is generally begun from the target's flank, outside its radar search cone, converting to a six o'clock position before entering visual range. A straight tail chase may be safer, but it requires much more time and fuel due to the lower closure rate. Stealth aircraft, which are invisible to radar at long ranges, have the additional option of a frontal approach. But since this would not result in an especially advantageous attack position, going around to the target's side is usually the wiser choice. Once within weapons range, blow the bandit away without hesitation. In air combat, you don't get any points for good sportsmanship.



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CIRCLE READER SERVICE #064

## Adventure/RPG

### THE LAST EXPRESS



**B**utton, button, who's got the button? Evidently, a lot of people riding *THE LAST EXPRESS* have button fixation—then again, this is a whodunit. We'll refrain from commenting, gentle reader, on how much the game's designers enjoy pushing our buttons, both figuratively and literally. At any rate, in an effort to save you the endless "hunt for the pixel" nonsense, we offer the following assistance:

To steal Anna's key, simply press the button at the front of her jewelry box.

While you're cruising Krauss' collection of Greco-Roman Art-Doo masterpieces, use the magnifying glass to find the button that opens his safe.

For more solutions to the hardest puzzles in *THE LAST EXPRESS*, check out Petra Schlink's walkthrough in this month's Camer's Edge section.



## Strategy/Wargames

### FRAGILE ALLEGIANCE

**I**nterplay's newest strategy game is surprisingly good, with depth and an interesting premise: building a mining empire among an asteroid field. Here are some tips direct from Interplay for getting closer to that mining monopoly.

**Basic Management:** For your very first asteroid, make sure you build missile and satellite slots, a weapons factory, a



shipyard, and a control center, in addition to the standard life-support systems and power generators. For additional asteroids, it is vital to set up air processing, food production, and hydration facilities.

**Using Environmental Control Centers:** When it comes to asteroids with a limited amount of precious ores, you don't want to waste money and time on a full life-support

system. In these cases, build an environmental-control center, which will provide you with all the necessary life support systems for a limited duration. It's usually enough to sustain your colony until you finish mining and leave. You can also build the environmental control center if you don't have the necessary cash to build full-fledged independent systems and need some life support while you wait for the cash to flow in.

**Technology:** There are several technologies you can purchase. Make sure you get the Selszac Penetrator (for reaching the deepest ores), and the M12 Mine and M12 Deep Bomb Mine (they double your mining facilities' speed).

**Attacking:** If you want to mount an attack on an alien rival, the order of attack should be as follows: 1) Send in agents to gather intelligence on the targeted base and to sabotage defense systems; 2) Fire missiles to weaken any defenses still left; and 3) Send in the fleet to destroy surviving buildings.

These tips should help you reach your ultimate goal of becoming an intergalactic mining tycoon.

## Action

### ECSTATICA II

**H**ere are a few hints direct from Pygnosis to get you through the beginning of the game.

Several areas will be locked to you in the beginning courtyard, but if you continue past the stables and the well (which is guarded by the big monster), you'll come to a guard tower to the right of a second stable. Go to the top of the guard tower to retrieve a key. It will be floating above a gargoyle's head, and to get it, you'll have to kick the head from the side (do it from the front, and you'll trigger a fatal trap). This key provides access to the main balconies. To get across the balcony to the prison tower, you'll have



to find the floating armor, which is also located on the balconies.

Once in the prison tower, you'll find a locked door halfway up. The key to this door is guarded by a monster further up the prison tower. Once inside the door, you'll find your first clue that will start to unlock the mystery of your predicament.

## Puzzles/Classics

### MARBLE DROP



When is a puzzle game like a stealth fighter? To solve the infernal Copernicus puzzle from **MARBLE DROP**, you must drop marbles onto invitable paths. Make sure when you follow the solution given here that you let each marble drop as far as possible (when you don't hear it moving anymore, that's usually good enough) before dropping the next one in the sequence.

FUNKEL	MARBLE	TO DROP
1.	right	any
2.	left	steel
3.	center	any
4.	right	steel
5.	left	any
6.	center	steel
7.	right	any
8.	left	steel
9.	center	any

### BATTLESHIP

There's been an upsurge of interest in this real-time game since the latest patch finally let you play over modem or LAN. Here are a few tips to get your fleet sailing toward victory.

Keep in mind that while the game is in real-time, you shouldn't get so wrapped up in the action that



you neglect to repair damaged ships. A good rule of thumb is, if your ship has 50 percent or less damage, it's generally worth docking it at a friendly port facility for repair. This assumes that the port itself hasn't been damaged more than, say, 25 percent; if it has, you're probably wasting your time.

AWACS planes are important, since their increased radar range helps you more easily spot enemy ships. Many admirals are over-protective of their AWACS planes, and invariably target those of their enemy. If your opponent shows similarly aggressive tendencies, set a trap using your AWACS as bait. As enemy vessels and aircraft close in, keep your aircraft and a wolfpack of subs just out of their detec-



tion range, and then jump them just before they tackle your AWACS. This method requires correct timing on your part, so we suggest that you try it out on the AI first.

You can't fire different weapons from the same ship at the same time. However, you can fire multiple rounds of the same weapon type simultaneously from any given ship—which is very useful in this real-time game.

## Simulation/Space

### X-WING VS. TIE FIGHTER

So you have more than three friends and you want to try **X-WING VS. TIE FIGHTER** over the Internet? There are a couple of ways to address the four-player limit you encounter when flying over the Internet Gaming Zone.

One is to use Kali, the shareware IPX emulator program available from [www.kali.net](http://www.kali.net). Even in this day of Internet-enabled Windows 95 games, Kali is still proving itself a must-have utility for the serious net gamer, as it offers more flexibility—and sometimes even better performance—than many games' built-in Net support. In this case, Kali version 1.1 lets you attempt to connect up to eight players in **X-WING VS. TIE FIGHTER**. Over standard modem lines, we were only able to hook up with six players, but that still beats the game's built-in limitations.

You don't need Kali or the Internet Gaming Zone for Internet play, though. Simply determine the IP address of the computer that will be hosting the game (to find this, click the Start button, choose Run, and type WINIPCFG) and input that number. Again, your luck in getting more than four players in the game will depend on the connection speed and latency of each player, as well as the mission you choose. You'll likely have the best luck in the deathmatch-style games that don't have squadrons of computer pilots flying around.



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1. What is the highest level of education that you completed? (Check one only)

01.  Some high school or less  
 02.  Graduated High School  
 03.  Some College or Technical school  
 04.  Graduated College  
 05.  Post Graduate school

2. Computer recently owned is

(Check all that apply)

01.  IBM compatible (Intel standard)  
 02.  Macintosh  
 03.  Neage  
 04.  Dedicated game machine  
 05.  None

3. What's your level? (Check one only)

01.  Power PC  
 02.  Portapak (MSX)  
 03.  IBM  
 04.  MSX  
 05.  IBM

4. Do you plan to plan to buy in next 6 months + CD ROM? (Check one only)

01.  Yes  
 02.  Plan to buy (Sometime)

5. How often do you usually buy computer games?

- (Check one only)  
 01.  Once a week  
 02.  Once every two to three weeks  
 03.  Once a month  
 04.  Once every two to three months  
 05.  Once every four to six months  
 06.  Once a year

6. Where are you most likely to purchase games?

- (Check all that apply)  
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 03.  Consumer electronic store  
 04.  Computer store chain  
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7. What is your (and others in household) favorite type of game? (Check one in each column)

	Yourself	Other 1	Other 2
01. Strategy			
02. Visualization			
03. Role Playing			
04. Action/Tactics			
05. Card			
06. Sport			
07. Action/Adventure			
08. Educational			
09. Miscellaneous			

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the records, established the benchmarks, and held gamers in delighted trances for hours untold.

## INDUCTION CEREMONY

### Panzer General SSI, 1994

**P**ANZER GENERAL remains the most entertaining operational-level WWII wargame to this day. Other wargames offer more options, more realism, or tougher AI, but PANZER GENERAL's overall package established a new benchmark for wargames: The game was attractive and addictive from the start, and it developed a strong following. Until the release of STEEL PANZERS in 1995 (also by SSI), PANZER GENERAL dominated the top wargame slot in CGW's Top 100 Poll, and it sold more copies than any previous wargame. PG became one of SSI's major profit centers, fueling a number of projects including STEEL PANZERS, AGE OF RUSSIA, and PANZER GENERAL II.

The game offered 38 excellent scenarios from either Allied or German command, but only by embarking on one of the German campaigns could you hear the stirring voice-overs from high command. The narrative served to familiarize you with Panzergruppe ethos, while outlining the strategic objectives and introducing one of the game's unique facets: prestige. By seizing objectives early or winning a "Major Victory," you received more prestige, which enabled you to purchase more units and even allowed you to make key decisions in the war.

The concept of prestige also allowed scenario branching, which took you in different directions pending the outcome of the battle. Major victories led you to greater glory, while minor victories (or losses) resulted in a downward spiral of ever more



difficult scenarios. Through it all, your orders from the German high command kept you coming back for more.

PANZER GENERAL's graphic presentation was also unique. Brushing away traditional wargame counters, SSI's Special Projects Group devised a miniatures look that minimized abstraction. The action unfolded on the most attractive maps of the European theater then seen in an operational-level computer wargame. Combined with an interface that is elegance redefined, the gameplay became a wholly engrossing, high-stakes chess game of strategic move and counter-move. The SSI team added further graphical immersion with inset blow-ups and audio cues depicting combat.

PANZER GENERAL's AI posed a stiff challenge to less-experienced Panzer pushers. Also, the AI was varied enough to offer hundreds of hours of gameplay. The PANZER GENERAL team carefully recreated each country's strategy, from Sealion's London fortress to Russia's winter counterattack.

Taken as a whole, PANZER GENERAL does more than offer an engrossing strategic challenge. It succeeds brilliantly at putting you in the boots of Guderian or Rommel, and forces you to devise the best combined-arms tactics. Should I lead with infantry or armor? Which units are best in what order to breach enemy lines? After just a few days, players learn how to maximize damage while allowing minimum casualties—the essence of good military planning.

For its many innovations, elegant interface, beautiful graphics, and wholly absorbing gameplay, we proudly induct PANZER GENERAL into the Computer Gaming World Hall of Fame as an outstanding example of wargame design.

## Modern Inductees

### Inductees Prior To 1989

BATTLE CRESS (Interplay Productions, 1988)  
 CRESSMASTER (The Software Toolworks, 1986)  
 DUNGEON MASTER (FTL Software, 1987)  
 EARL WEAVER BISHOP (Electronic Arts, 1986)  
 EMPIRE (Interstel, 1978)  
 F-19 STRIKE FIGHTER (MicroProse, 1988)  
 GETTYBURG: THE TURNING POINT (SSI, 1986)  
 KAMFGRUPPE (Strategic Simulations, 1985)  
 MACH BUCKAR (Strategic Simulations, 1985)  
 MIGHT & MAGIC (New World Computing, 1986)  
 M.U.L.E. (Electronic Arts, 1983)  
 PLEASANT (MicroProse, 1987)  
 SAND CITY (Maxis, 1987)  
 STREETFIGHT (Electronic Arts, 1986)  
 THE BIRD'S TALE (Electronic Arts, 1985)  
 ULTIMA III (Origin Systems, 1983)  
 ULTIMA IV (Origin Systems, 1985)  
 WAR IN RUSSIA (Strategic Simulations, 1984)  
 WASTELAND (Interplay Productions, 1986)  
 WIZARDRY (Sir-Tech Software, 1981)  
 ZORK (Infocom, 1981)

ALONE IN THE DARK  
 (Infocom, 1992)

BETRAYAL AT KNOXFOR  
 (Dynamic, 1993)

DAY OF THE TENTACLE  
 (LucasArts, 1993)

DOOM  
 (id Software, 1993)

FALCON 3.0  
 (Spectrum Holobyte, 1991)

FRONT PAGE SPORTS FOOTBALL PRO  
 (Dynamic, 1993)

GUNSHIP  
 (MicroProse, 1993)

HARPOON  
 (Three-Sixty Pacific, 1989)

KING'S QUEST V  
 (Sierra On-Line, 1990)

LEMONS  
 (Psychosis, 1991)

LINKS 386 PRO  
 (Access Software, 1992)

M-1 TANK PLATOON  
 (MicroProse, 1989)

MASTER OF MAGIC  
 (MicroProse, 1994)

MASTER OF ORION  
 (MicroProse, 1993)

RAILROAD TYCOON  
 (MicroProse, 1990)

RED BARRON  
 (Dynamic, 1990)

SO MIEN'S CIVILIZATION  
 (MicroProse, 1991)

THE SECRET OF MONKEY ISLAND  
 (LucasArts, 1990)

THIRTY FIRST HOUR  
 (LucasArts, 1989)

TECH FIGHTER  
 (LucasArts, 1994)

ULTIMA VI  
 (Origin Systems, 1990)

ULTIMA UNDERWORLD  
 (Origin Systems, 1992)

WING COMMANDER I, II, & III  
 (Origin Systems, 1990-91)

WOLFENSTEIN 3-D  
 (id Software, 1992)

X-COM  
 (MicroProse, 1994)

**C**omputer game programs have grown so massive, and the number of hardware configurations has become so huge, that incompatibilities and glitches are frustratingly common.

Software fixes, or "patches," for buggy programs have become a necessary evil until we reach the golden age of standardized platforms and bug-free programs. New patches are in red.

**A-10 Cuba!**: Faster frame rates, better messaging, and better joystick controls are but a few of the improvements to keep you in the air longer!

#### Age of Rifles V1.4:

Commanders may now name play-by-email files, and go into combat with greater confidence that the dreaded system freeze enemy will not harass their flanks. For other fixes, be sure to recompile the exhaustive READ.ME file.

**Age of Sail V1.05:** Bowstern chasers no longer reload after being destroyed. There are also improvements to the ship repair rules.

#### AH-64D Longbow Gold V1.04:

Fixes movie player and garbled speech problem for the gold version of this Jane's combat sim only.

**Air Warrior II V1.01a:** For better multiplayer funballs.

#### Battleground Shiloh V1.1:

Winner of CGW's best wargame is improved even more by this latest upgrade, which includes AI tweaks and more realistic casualty rates.

**Broken Alliance V1.1:** Latest upgrade for HPS Simulations' add-on to *Panthers in the Shadows*.

**Oggerfall V1.07.213:** Another patch for Bethesda's RPG.

**Oblivion V1.03:** All Dungeon Dwellers will benefit from this patch. No longer can illegal spells be cast in town, and this patch ends duplicate item generation at the Backsmith and Witch within the same game. Game speed, latency, and packet loss issues over the internet are also much improved.

#### Ghost Bear's Legacy V1.1:

Mechs will now move through their normal range of motion using various rudder/pedal input devices. Joystick throttle commands should work as well.

#### IM1A2 Abrams for Win 95

**V1.10:** New trends for Interactive Magic's tank simulator.

**Interstate '76 V1.05:** More than a dozen fixes make this the hippest, baddest multi-mile round—especially since the host no longer gets double kills.

**JetFighter III Update 1:** New wings for Mission Studios' flight sim, including better throttle/rudder joystick calibration, support for sound in Windows 95, sound board autodetect, programmable joystick buttons, and more. There are also separate files available for Thrustmaster support.

**MechWarrior 2 For Macs:** Mac 'Mech-masters now enjoy support for 603e and 604e processors and additional joysticks.

#### MechWarrior Mercenaries

**V1.06:** Regardless of clan affiliation, all will benefit from this latest upgrade, which repairs more 'mech deficiencies.

**MOO II V 1.31:** This latest in galactic technology repairs much of the damage to the diplomacy model, as well as adding an interactive-based system for ship combat.

#### NCAA Championship

**Basketball:** NEC Systems with Alliance Pro Motion Video Cards that are experiencing lock-ups will find this more refreshing than a 30-second timeout.

#### Privateer 2 The Darkening:

Since the movie is the best part of the game, it's nice that this patch solves most of the video difficulties.

**Third Reich V1.3B:** The latest version of Avalon Hill's WWII grand strategic game in Europe.

**Tomb Raider:** The 3DX support patch is now final, and is complete with mip-mapping and more hotkeys.

**WarCraft II Dark Portal V1.23 for Mac:** If your Orc grunts are "clipping" under System 7.5.5 or 7.5.3, this patch is as welcome as a new magic spell. It also solves CD-ROM compatibility problems, audio feedback dilemmas on Performa/LC 57x series Macs, and a host of saved game difficulties. It supports 256+ zones on an AppleTalk network.



► Check for new patches on the demo disc.



Patches can usually be downloaded from online networks (such as CompuServe and ZDNet), from CGW's Web site ([www.computergaming.com](http://www.computergaming.com)), or from the individual software publisher's Web site (see listing below).

## Publisher Web Sites

Many patches are available from the publishers at the following sites:

- Accolade: [www.accolade.com](http://www.accolade.com)
- Activision: [www.activision.com](http://www.activision.com)
- Apogee/3d Realms: [www.apogee1.com](http://www.apogee1.com)
- Avalon Hill: [www.avalonhill.com](http://www.avalonhill.com)
- Bethesda: [www.bethsoft.com](http://www.bethsoft.com)
- Big Time Software: [www.bigtimesoftware.com](http://www.bigtimesoftware.com)
- Blizzard: [www.blizzard.com](http://www.blizzard.com)
- Eidos: [www.eidos.com](http://www.eidos.com)
- EA: [www.ea.com](http://www.ea.com)
- Epic MegaGames: [www.epicgames.com](http://www.epicgames.com)
- HPS Simulations: [www.hpssims.com](http://www.hpssims.com)
- Id Software: [www.idsoftware.com](http://www.idsoftware.com)
- Interactive Magic: [www.imagicgames.com](http://www.imagicgames.com)
- Interplay: [www.interplay.com](http://www.interplay.com)
- Jane's Combat Simulations: [www.janes.com](http://www.janes.com)
- LucasArts: [www.lucasarts.com](http://www.lucasarts.com)
- MicroProse/Spectrum/HoloByte: [www.microprose.com](http://www.microprose.com)
- Microsoft: [www.microsoft.com](http://www.microsoft.com)
- New World Computing: [www.nwc.com](http://www.nwc.com)
- Origins: [www.origins2.com](http://www.origins2.com)
- Papyrus: [www.sierra.com/papyrus](http://www.sierra.com/papyrus)
- Sierra On-Line: [www.sierra.com](http://www.sierra.com)
- SSI: [www.ssi.com](http://www.ssi.com)
- Talonssoft: [www.talonssoft.com](http://www.talonssoft.com)
- Virgin: [www.vie.com](http://www.vie.com)

# THE COMPUTER GAMING POLL • A MONTHLY SURVEY OF CGW SUBSCRIBERS

Each month, 2,000 CGW subscribers are selected at random to rate 100 computer games. The results of that poll are combined with the results of previous months to yield a cumulative average for the best plays in gaming. If you receive a ballot, please return it with your ratings so that other gamers and game publishers can benefit from your feedback.

## TOP ACTION GAMES

RANK	GAME	COMPANY	SCORE
1	Teak Raider	Edios	8.45
2	Duke Nukem 3D	3DRealms	8.42
3	Command: No Retrospect	EA/Origin	8.17
4	The Hunt For Speed SE	EA	8.12
5	Duke	id Software	8.03
6	Command: No Retrospect	EA/Origin	7.90
7	Pro Pinball	Expansive	7.64
8	The Hunt For Speed	EA	7.57
9	Syndicate Wars	EA/Bullfrog	7.36
10	Descent II	Interplay	7.25

## TOP ADVENTURE GAMES

RANK	GAME	COMPANY	SCORE
1	Gabriel Knight 2	Sierra	8.31
2	Pandora Drive/ive	Access	8.31
3	Roma	Sierra	8.12
4	The Riverhead	Dynamworks	7.96
5	Circles Of Hood	Virgin	7.89
6	Spycraft	Activision	7.84
7	Larry T	Sierra	7.54
8	Full Throttle	LucasArts	7.53
9	Lighthouse	Sierra	7.50
10	Zork Nemesis	Adhesion	7.24

## TOP CLASSIC/PUZZLE GAMES

RANK	GAME	COMPANY	SCORE
1	You Don't Know Jack II	Berkley Systems	8.38
2	You Don't Know Jack Sports	Berkley Syst. ms	8.33
3	You Don't Know Jack	Berkley Systems	8.19
4	Power Chess	Sierra	7.46
5	Incredible Years	Sierra	7.25
6	Incredible Machine 2	Sierra	7.08
7	Metagol	Virgin/Westwood	6.99
8	Mind Grind	Microforum	6.99
9	Carol Chess	Coral	6.72
10	Baku Sabu	Sega	5.94

## TOP SIMULATION/SPACE COMBAT GAMES

RANK	GAME	COMPANY	SCORE
1	Wing Commander IV	EA/Origin	8.44
2	WitchWarrior 2	Activision	8.21
3	WitchWarrior 2: Mercenaries	Activision	8.15
4	Ali-64 Labyrinth	EA/Origin	8.13
5	Star Wars	SSI	7.93
6	U.S. Marine Fighters	EA	7.90
7	Warbirds	ICI	7.81
8	EP2000	Ocean	7.74
9	Privateer 2	EA/Origin	7.72
10	U.S. Navy Fighters	EA	7.60

## TOP SPORTS GAMES

RANK	GAME	COMPANY	SCORE
1	Links LS	Access	8.73
2	NASCAR 2	Sierra	8.33
3	NHL '97	EA Sports	8.29
4	NBA Live '97	EA Sports	8.20
5	Grand Prix 2	MicroPhase	8.17
6	FPS Football Pro '97	Sierra	7.71
7	Tripleplay '97	EA Sports	7.65
8	NASCAR Racing	Sierra	7.63
9	FPS Football Pro 96	Sierra	7.57
10	NHL Hockey '96	EA Sports	7.56

## TOP STRATEGY GAMES

RANK	GAME	COMPANY	SCORE
1	WarCraft II Expansion Disk	Bizzard	8.55
2	Heroes II	New World Computin	8.57
3	WarCraft II	Bizzard	8.55
4	Red Alert	Virgin/Westwood	8.55
5	Civilization II	MicroPhase	8.30
6	C&C: covert Operations	Virgin/Westwood	8.37
7	Command & Conquer	Virgin/Westwood	8.32
8	Civilization II: Scenarios	MicroPhase	8.15
9	Heroes Of Night & Magic	New World Computing	7.95
10	Jagged Alliance: Deadly Games	Str-Tech	7.90

## TOP ROLE-PLAYING GAMES

RANK	GAME	COMPANY	SCORE
1	Diablo	Bizzard	8.79
2	BanjoPinball	Bathsch	7.49
3	Arxil 66 Omega	New World Computing	7.25
4	Albia	Blu. Byte	6.11
5	—	—	—
6	—	—	—
7	—	—	—
8	—	—	—
9	—	—	—
10	—	—	—

## TOP WARGAMES

RANK	GAME	COMPANY	SCORE
1	Steel Panthers Campaign Disk	SSI	8.75
2	Steel Panthers II	SSI	8.52
3	Steel Panthers	SSI	8.44
4	Battleground: Antium	TalenSoft	8.13
5	Battleground: Shish	TalenSoft	8.10
6	Tigurs On The Prowl II	HPS	7.96
7	Battleground: Waterloo	TalenSoft	7.72
8	Battleground: Gettysburg	TalenSoft	7.52
9	Robert E. Lee: Civil War General	Sierra	7.45
10	Age Of Sulf	TalenSoft	7.08



	GAME	COMPANY	TYPE	SCORE
★	1	WarCraft II Expansion Disk	Bizarre	ST 8.95
	2	Hercules II	New World Computing	ST 8.87
	3	WarCraft II	Bizarre	ST 8.85
	4	Red Alert	Virgin/Westwood	ST 8.85
	5	Civilization II	MicroProse	ST 8.80
★	6	Duino	Bizarre	RP 8.79
★	7	Steel Panthers Campaign Disk	SSI	WG 8.76
★	8	Links LS	Access	SP 8.73
	9	Steel Panthers II	SSI	WG 8.52
★	10	Terri Raider	Edios	AC 8.45
	11	Steel Panthers	SSI	WG 8.44
★	12	Wing Commander IV	EA/Origin	SI 8.44
	13	Duke Hudson 3D	3DRealms	AC 8.42
★	14	You Don't Know Jack II	Berkeley Systems	CP 8.38
	15	C&C: covert Operations	Virgin/Westwood	ST 8.37
	16	You Don't Know Jack Sports	Berkeley Systems	CP 8.33
	17	NASCAR 2	Sierra	SP 8.33
	18	Command & Conquer	Virgin/Westwood	ST 8.32
★	19	Gabriel Knight 2	Sierra	AD 8.31
★	20	Pandora Obscure	Access	AD 8.31
	21	NHL '97	EA Sports	SP 8.29
	22	MechWarrior 2	Activision	SI 8.21
	23	NBA Live '97	EA Sports	SP 8.20
	24	You Don't Know Jack	Berkeley Systems	CP 8.19
	25	Grand Prix 2	MicroProse	SP 8.17
	26	Crusader: He Remorse	EA/Origin	AC 8.17
	27	Civilization 2: Scenarios	MicroProse	ST 8.15
	28	MechWarrior 2: Mercenaries	Activision	SI 8.15
	29	All-64 League	EA/Origin	SI 8.13
	30	Battleground: Artifacts	TalonSoft	WG 8.13
	31	Rena	Sierra	AD 8.12
	32	The Need For Speed SE	EA	AC 8.12
	33	Battleground: Shish	TalonSoft	WG 8.10
	34	Quake	id Software	AC 8.03
	35	The Heavenz	Dreamworks	AD 7.99
	36	Hercules Of Might & Magic	New World Computing	ST 7.95
	37	Steel Hunter	SSI	SI 7.93
	38	U.S. Marine Fighters	EA	SI 7.90
	39	Crusader: No Regret	EA/Origin	AC 7.90
	40	Jagged Alliance: Deadly Games	Si-Tech	ST 7.90
	41	Tigers On The Prowl II	HPS	WG 7.86
	42	Warbirds	id	SI 7.81
	43	EP2000	Ocean	SI 7.74
	44	Priestess 2	EA/Origin	SI 7.72
	45	Battleground: Waterloo	TalonSoft	WG 7.72
	46	FFS Football Pro '97	Sierra	SP 7.71
	47	Circle Of Blood	Virgin	AD 7.69
	48	Tripleplay '97	EA Sports	SP 7.65
	49	Spycraft	Activision	AD 7.64
	50	Pro Pinball	Empire	AC 7.64

	GAME	COMPANY	TYPE	SCORE
	51	Lords Of The Realm II	Sierra	ST 7.64
	52	NASCAR Racing	Sierra	SP 7.63
	53	U.S. Navy Fighters	EA	SI 7.60
	54	The Need For Speed	EA	AC 7.57
	55	FFS Football Pro '96	Sierra	SP 7.57
	56	NHL Hockey '96	EA Sports	SP 7.56
	57	Flying Corps	Empire	SI 7.55
	58	Larry 7	Sierra	AD 7.54
	59	Full Throttle	LucasArts	AD 7.53
	60	NBA Live '96	EA Sports	SP 7.53
	61	Battleground: Gettysburg	TalonSoft	WG 7.52
	62	Fantasy General	SSI	ST 7.51
	63	Advanced Tactical Fighters	EA	SI 7.51
	64	Lighthouse	Sierra	AD 7.50
	65	Daguerriol	Softcave	RP 7.49
	66	NWA '97	EA Sports	SP 7.49
	67	F-22 Lightning II	Novologic	SI 7.47
	68	Robert E. Lee: Civil War General	Sierra	WG 7.45
	69	Power Chess	Sierra	CP 7.45
	70	CivNet	MicroProse	ST 7.45
	71	PGA Tour Golf 486	EA Sports	SP 7.44
	72	Tony LaRussa 3 '96	Stormfront Studios	SP 7.41
	73	Syndicate Wars	EA/Bullfrog	AC 7.36
	74	Magic The Gathering	MicroProse	ST 7.35
	75	M.A.X.	Interplay	ST 7.28
	76	Anvil Of Dawn	New World Computing	RP 7.25
	77	Descent II	Interplay	AD 7.25
	78	Zork Nemesis	Activision	AC 7.24
	79	Road Rash	EA	AC 7.24
	80	Jetfighter III	Mission Studios	SI 7.23
	81	Virtual Pool	Interplay	SP 7.23
	82	Incredible Teams	Sierra	CP 7.21
	83	MissionForce Cyberslam	Sierra	ST 7.20
	84	Tomcat	Virgin	AD 7.17
	85	Terra Nova: Strike Force Centauri	Looking Glass	AC 7.15
	86	System Shock	EA/Origin	AC 7.15
	87	Magic Carpet 2	EA/Bullfrog	AC 7.12
	88	Heaven	Ravenhd	AC 7.11
	89	Wind	Interactive Magic	SI 7.10
	90	Air Warrior II	Interactive Magic	SI 7.08
	91	Ryder 3D Pinball	Virgin	AC 7.08
	92	Incredible Machines 2	Sierra	CP 7.08
	93	Legends Of Kyandia 3	Virgin/Westwood	AD 7.08
	94	Age Of Sail	TalonSoft	WG 7.08
	95	Flight Unlimited	Looking Glass	SI 7.04
	96	Star Trek: TNG, Final Unity	Spectrum Holobyte	AD 7.03
	97	Phantasmagoria	Sierra	AD 7.02
	98	Star! II	Empire	ST 6.99
	99	Monopoly	Virgin/Westwood	CP 6.80
	100	Mind Grid	Microforum	CP 6.80

Games on unnumbered lines are tied with game on line above. ★ = Top game of type. Red = New Game. AD = Adventure, RP = Role-Playing, SI = Simulation/Space Combat, ST = Strategy, WG = Wargame, AC = Action, SP = Sports, CP = Classic/Puzzle. Games are re-rated after two years and become eligible for the Hall of Fame.

# What's the Deal with...Style?



**S**tye. Sometimes you have it, sometimes you don't. Style is that certain something that distinguishes one computer game from the rest, making it more than just the sum of its parts. While it's not exactly radical to say that games benefit from having a style all their own, it is usually (and often erroneously) seen as a chrome issue, as opposed to being part of the substance of a game. While we are trained almost from birth to distrust flashy things as much as we desire them, perhaps it is time to modify our ingrained bias just a bit, and begin to see style as a valid concern in game design from the ground up.

To "serious" gamers, it may sound like heresy to put such an unquantifiable concept up on the same pedestal with such icons as gameplay and depth, but that kind of thinking on a designer's part may be fatal to many games, which start out as good ideas, but fail to take today's crowded marketplace into account.

With the plethora of titles these days, it is needlessly cruel to dismiss designers as unoriginal for dishing out another tight sim or realtime wargame. Guess what, folks—when you boil gaming down to basic concepts like that, there are really less than a dozen odd "types" of games out there! If people were as judgmental about novels being of the same "type," the written word

would have died out long ago. The truth of the matter is that computer gaming is doing well enough these days that good games, guilty of no crime but being uninspired, can easily be lost in the shuffle.

And maybe they should be. Maybe it's time that titles be judged a little more harshly on style and concept, instead of just mechanics.

“It's time to modify our ingrained bias and begin to see style as a valid concern in game design.”

Last year brought us a whole load of car-combat games, for example. While some, like *Nitrochrome*, offered some interesting twists, they were pretty much unremarkable and quickly forgotten. Should we have come to the conclusion that car-wars computer sims are generally a bad idea? The real lesson to be learned is that games shouldn't be created on the basis of one guy turning to the other and saying "Hey, let's do another deathmatch game...but this time they'll be in cars!!"

To illustrate how much better things can be when designers have a concept they actually care about instead of a bunch of game mechanics looking for a trend to ride, I present Exhibit A: *Ingressive '76* from Activision. Now, for all intents and purposes, all we have here is yet another roadkill game with graphics that are actually a little cruder than the fluff that had gone before. By gameplay logic, this one should be thrown in the bin, to land on top of *Demounk Deer* and *Screeners*...but one thing above all else makes *I'76* an easy call for a future Hall of Fame induction ceremony: style. This game was executed with such clear and cool Vision that it drips style from every pixel, and thus has a shot at immortality.

The same can be said of earlier games that had nothing spectacular going for them in terms of original gameplay. The original *X-COM* was just a basic computer version of the old *SnapShot* rules from the original *Traveler* RPG...but the very cool paranormal-chic that went into every aspect of the game made it a classic easily as much as the clean interface and elegant design did. Unfortunately, the first sequel (and probably the second) will not burn half as brightly as time goes by, because they simply have a deficit of style. The game is pretty much the same, but the Vision just isn't there. This is the difference between a person and a robot.

Projects have to come from the design team up, not from marketing down. With today's incredible development curve—even for a crappy game—there is no use wasting money trying to saturate the market with soul-less, meaningless, real-time sci-fi wargames or Civ-esque God games or *Myst*-y Adventure games or whatever else is deemed "Hot" during a given year.

And the final sad aspect of style is that the more crowded your genre is, the more you will need style just to break even. *MAX*, from Interplay, when played patched, is a fine little sci-fi wargame and is easily recommendable for a long shelf life. But unfortunately for everyone who must have worked so hard on it, the plague of C&C clones has raised the style ante so high on a real-time, sci-fi base-building tactical-combat game that *MAX*, simply lacks the style necessary to rise above the life chaff out there. *Red Alert* succeeds as a sequel as much due to the fact it is "about" something as it does because maps are bigger and the scenarios more complex. Any real-time game without a strong sense of identity and style will simply fade into yesterday's monotone glare.

So although "serious" gamers and Company Budget watchers often consider style to be the ring you throw onto a game if you have the time, it is becoming more and more the factor that decides it all the time and trouble were worth it in the first place. ☺

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- The football is larger and harder to throw. Do you take a chance on the pass or grind it out with a running attack?

1950



- Rules favor the running game.

- Goal posts were placed in the front of the end zone. The "Post" pattern was commonly used to run defenders into the posts for an easy touch-down reception.

1968



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