COMPUTER GAMING WORLD

The #1 Computer Game Magazine

SPECIAL SECTION

New games of '95

PLUS...

Adventure
Hell, Voyeur, Jorune: Alien Logic

Action
Heretic, Zephyr, Inferno, Cyberia

Strategy/War
Advanced Civilization, Transport Tycoon, Flight Commander 2, Zeppelin

Exclusive!

COMMAND and CONQUER

Heavy metal combat in Dune II-style

Page 32
“Triad is a truly awesome game!” But don’t take our word for it.

RISE OF THE TRIAD
DARK WAR

“Rise of the Triad is sure to have every DOOM freak in the world lining up just to drool all over it.”
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Circle Reader Service #295
Introducing Avalon Hill's

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Following fast on the success of Operation Crusader comes STALINGRAD, Volume II of the World at War series of computer wargames. This collaboration between Avalon Hill and Atomic Games highlights the epic struggle that sealed the fate of Hitler's Third Reich. Multiple historical scenarios simulate the grim battles ending with the annihilation of the German 6th Army. In a unique advance in computer gaming, players will be able to switch from the sweeping strategic scale (depicting such actions as the collapse of the Axis flanks) to the tactical scale (simulating the block-to-block bloodbath within the city itself). Built upon the award-winning Crusader game system, Stalingrad is jam-packed with stunning graphics (the terrain even changes as the weather changes!). Documentation includes a detailed, full-color manual and large battlefield map.

Stalingrad is sure to excite even the most sophisticated gamer.

The Avalon Hill Game Company
4517 Harford Road * Baltimore, Maryland 21214

Stalingrad can be found in computer game stores near you. For order information, or for the name of a retailer near you, call Toll Free: 800-999-3222; ask for Dept. CGW 1.

Circle Reader Service #234
FEATURES

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36 GAMES '95 FORECAST Do you feel left out in the cold by interactive movies? Parched by the drought of good RPGs? Washed away by the flood of Doom clones? Tune in to your trusty CGW meteorologists, as we guide you through the fog of games for 1995.

54 CD-ROM UPGRADE KITS & 4X DRIVES The simple truth: If you want to play the hottest games of 1995, you're going to need a CD-ROM drive. To help you in your hunt for hardware, we gathered together the best CD-ROM upgrade kits and quad-speed CD-ROMs and put them to the test. The results, please!

ADVENTURE/ROLE-PLAYING

65 SCORPIA'S STING Role-playing's most rational mind tries her hand at ALIEN LOGIC.

78 SCORPION'S TALE The patron saint of Adventure helps players pass Legend's DEATH GATE.

90 VOYEUR Become a peeping tom in Interplay's CD soap-opera. Charles Ardai finds room for his view.

98 HELL: A CYBERPUNK THRILLER Charles Ardai goes to HELL and back to find that Hollywood names (like Dennis Hopper and Grace Jones) can't save a weak story.

ACTION

104 HERETIC Armed with his Ethereal Crossbow and Elvenwand, Vox Dei meets his DOOM with a smile.

108 ZEPHYR The 24th-Century Battle Circuit ain't all fun and games. Gordon Goble takes a mad dash around the arena and fires off his report.

112 INFERNO From the space-time vortex of England comes this space combat game with a flair for the cinematic. Vox Dei transmits his translation of an alien tongue.

116 CYBERIA Old-style arcade action meets new-style silicon graphics. Charles Ardai tells us if there is any substance to the style.
PRAY IT’S ONLY A NIGHTMARE

Go ahead and scream. From deep within your nightmare, utter a piteous cry — as though your life depends on someone hearing you. Because, in this reality, it does.

From the master of computer gaming comes an interactive suspense thriller so shockingly real you’ll pray it’s only a nightmare: Phantasmagoria.

Phantasmagoria is no ordinary game, no tawdry attempt at horror. We wouldn’t dare. Blending the talents of best-selling game designer Roberta Williams and a team of the world’s finest cinematographers, Phantasmagoria unleashes an incarnate evil you never knew existed inside your PC.

PLEASANT DREAMS.

ROBERTA WILLIAMS

PHANTASMAGORIA

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A SIERRA PUBLISHING PRODUCTION

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DIRECTED BY PETER MARIS

PRODUCED BY MARK SEIBERT

MUSIC BY NEAL GRANDSTAFF AND MARK SEIBERT

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Relentless
Twinsen's Adventure

Check out the interactive demo on America Online* by using keyword Relentless!

*Don't have America Online? Just call 1-800-827-1384, ext. 10007 for free software and a free 10-hour trial membership.
122 UNNECESSARY ROUGHNESS ’95 Accolade goes for the long bomb with an enhanced Super VGA version of their action-oriented football engine. Jim Gindin tells us if there really is more hot-dog underneath the new mustard.

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129 BOGEY’S BAR & GRILL Think you’ve mastered the nuances of Flight Simulator 5.0? The challenge of “instrument approach procedures”? might put some pep back into your prop.

134 FIGHTER WING A modern air combat simulation for the rest of us? Martin Cirilus climbs into the canopy to see if this Everyman’s simulation is for anyone.

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130 BROADSIDES & GRIPESHOT CGW’s resident military strategist reflects on how SSI’s Panzer General brings a fresh air of role-playing to wargaming—and why that’s a good thing.

142 SNEAK PREVIEW! ADVANCED CIVILIZATION Finally, one of Avalon Hill’s most popular multi-player board games comes to the PC. Alan Emrich, foiled in his attempt to corner the salt market, consoled himself with this preview.

146 TRANSPORT TYCOON Building an empire of planes, trains and automobiles has kept Robert Hayes truckin’. He pulls into a rest stop long enough to determine if this cross of SimCity and Railroad Tycoon has enough gas for the long haul.

152 ZEPPELIN The great-grandfathers of the Goodyear blimp take to the skies in this MicroProse release. Johnny Wilson fills some pages with his own hot air.

156 AIR HAVOC CONTROLLER Trimark Interactive puts some silly spin on a serious topic. Alfred Poor wonders if air disasters are really a laughing matter.

162 METAL MARINES Dodging cute missiles from diabolical anime opponents, Martin Cirilus survives this light Windows strategy game from Mindscape, his spreadsheet mostly intact.

166 FLIGHT COMMANDER 2 Modern air combat without a joystick? Tim Carter has so much fun splashing bogies in this Avalon Hill wargame that he never even misses his Thrustmaster.

172 CENTRAL INTELLIGENCE Would a superpower intelligence agency ever incite a bloody rebellion in a small, Latin American country? Why, of course not! But if they did, the situation might look a lot like Ocean’s latest game. Chuck Moss explores this hypothetical scenario.

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✅ Super VGA
✅ Voice

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- Trent Ward, PC Gamer

"Excellent” – Johnny Wilson,
Computer Gaming World

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- Steve Wartofsky, Strategy Plus
Long ago after centuries of war, the Sartan race smashed the World Seal and sundered the earth into separate magical realms, each sealed from the other by the powerful Death Gate. In isolation, magic was corrupted, knowledge lost and the common humanity that once bound the world was forgotten. The defeated Patryns, trapped in the nightmarish prison realm of the Labyrinth, became twisted with hatred and plotted their revenge. Born in this savage and unforgiving land, you escape and undertake a new quest - to find the pieces of the World Seal, wreak revenge upon the Sartan and deliver your people from the daily torment of their living hell.

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Dazzling multimedia technology! A professional cast of over 40 speaking characters, 3-D modeled animation, symphonic musical score

Weave together ancient runes to cast magical spells

Actual Super VGA graphics shown

Circle Reader Service #1-45
Deja Vu All Over Again
by Johnny L. Wilson

Former major league player and manager Yogi Berra is reputed to have said, "It's like deja vu all over again." Would it require a Department of Redundancy Department to suggest that the entertainment software industry is experiencing deja vu all over again? I recently suggested that we were in a period of "derivative consolidation." After everyone finished snickering at my pompous assertion, I went on to explain.

Every so often, software publishers reach an equilibrium point with regard to technology. They have to wait for enough penetration of a new technology to create a sufficiently large user base to have a reasonable expectation of finding new customers. We saw this with the shift to EGA, VGA and SVGA color. We saw this with regard to the penetration of 8-bit, then 16-bit and finally, General Midi capable sound cards. We've seen this in regard to chip advancements from 286 through 386 and 486 and on through the Pentium.

Early in the cycle, a few pioneering companies would have tremendous sales success by supplying the early adopters of a new technology with showcase products. The early adopters had to have certain products because they showed off their new machines or new add-on cards. So, naturally they bought the games on the technological edge. As a result, other publishers assumed that you had to use certain technologies in order for your games to be taken seriously in the marketplace. You would then see a period in which every game boasted a certain graphic resolution, sound proficiency or processor performance.

For a time, every game would start to look the same. Then, a designer or publisher would take a risk, be successful and have everyone try to incorporate that innovation into their games. This has been exacerbated by the growth of entertainment software publishers. As companies grew in size, they brought in more and more marketing specialists from outside the hobby and industry. These specialists approached our hobby in much the same way as they approached other markets. They made demographic studies, measured software successes, and tried to find the success formula that would "guarantee" best sellers.

When will we get our chances to be mafia godfathers, running intricate illegal empires where we plan hits, run rackets and stage robberies?

As a result, the computer game hobby is facing the same crisis experienced by consumers in many other hit-driven industries—lack of innovation. Where are our dream games? When will we get to play real-time network WAR WARS and equip our custom speeder to blast our way around arenas with missiles and machine guns as we watch the lavish crashes and explosions which reward us for our efforts? When will we get our chances to be mafia godfathers, running intricate illegal empires where we plan hits, run rackets, stage robberies and either negotiate with our opponents' "families" or "hit the mattresses for a gang war? When will we get to play a superhero role-playing game that is as mature as many of the graphic novels being published today? When will we get to play Horatio Hornblower or Richard Bolitho and ascend PANZER GENERAL-style through the ranks of a navy in the age of fighting sail? Or in an American Civil War army? Or in Napoleon's army? When can we play a fictional Perry Mason or a real-life F. Lee Bailey, initially assigning our investigators to get the facts in a strategy game and enjoying a rip-roaring interactive courtroom drama finale? When will we ever get that general manager/mogul game where we get to handle everything for a professional sports franchise, including drafts, contract negotiations, arbitration, minor league operations, ticket prices, special events, and strike management?

We probably won't. Why? Because instead of looking for fresh subjects, new angles and the ability to circumvent current technological limitation, we find publishers all trying to fit together the same requisite amount of 3-D rendering, the same mixture of first-person action, the same interface paradigms and the same feature sets. At most publishers, the question isn't "How can we use the techniques, tools and storage media at our disposal to present a more satisfying and unique experience?" Instead, the question is, "How can we quickly repurpose our tools and materials to exploit this trend in the market?" So, it's no wonder that today's games require us to explore a horde of empty 3-D environments, watch digitized video that serves no purpose, wait through cinematic cut-scenes that do not enhance, endure chunky frame rates because of excessive texture mapping demands, and listen to voice acting that couldn't win an audition for a high school musical.

A related reason for the sameness in many computer products is the assembly line approach to product development.
Welcome to MTV's 1st Cerebral, Cinematic, Adventure CD-ROM

In the future, the posh jet set, hell-bent on synthetic experience go to Club Alexandria to get their fix of "V" (Virtual Reality)... Trouble is people are going belly-up like flies.

Now you—Sam Frost (cyberplumber)—have 4 days, your logic, instinct and the things you trip over (in 40 different locations across 17 floors in the Alexandria) to figure it out... and stay alive.

- 90 minutes of video with over 40 actors—directed, produced and edited by MTV
- Original MTV soundtrack

Circle Reader Service #358
being attempted by many publishers. It may make sense from a perspective of efficiency to have a sound specialist, an AI specialist, a connectivity specialist, an interface team, an animation team, and a 3-D team, but it doesn't make sense if these specialists and teams are not integrating throughout the project's timeline. For example, this year we have seen games where publishers expected AI to be injected as the last module and games where publishers expected to add-on modern and network play at the very end of a game's development. This doesn't work. Good artificial opponents and efficient connectivity both require some early input into the design decision process. Neither AI nor connectivity are afterthoughts. At some companies, the low-level programmers and the high-level programmers don't talk to each other. So, is it any wonder that a recompilation of one set of code could set the other side back by months?

With the assembly line approach, project leaders have a tendency to try to reuse the code or techniques from other games to jury-rig aspects in a given game. What this means is that the design teams aren't considering the "best" way to accomplish something in a game, but are merely re-engineering old code to meet the minimal requirements of a design. Few seem to be asking how to accomplish a game function in the best way to meet a need within a specific game environment or necessary game mechanism. Is it any wonder that some interfaces seem clunky and some musical scores and sound effects seem repetitive?

Indeed, after observing this year's deja vu all over again, we have two requests to make of the industry as a whole. First, don't be afraid to try something different. You don't have to copy your competitors to be successful. Second, get some synergy going within your design teams. Cross-pollination may not only help you build the products more seamlessly, but it may help you build them better.

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**HOW DO WE RATE?**
The Guide To CGW's Review Rating System

⭐⭐⭐⭐⭐ Outstanding: That rare game that gets it all right. The graphics, sound, interface, and, of course, the game play combine to form a Transcendent Gaming Experience.

⭐⭐⭐⭐ Very Good: A quality game that succeeds in many areas. May have minor problems, but is still worth your time and money, especially if you're interested in the subject matter/genre.

⭐⭐⭐⭐ Average: A mixed bag. Can often be a game that reaches for the stars, but falls short in significant areas. Can also just be a game that does what it does well, but lacks flair or originality.

⭐⭐⭐ Weak: A game with serious problems. May be buggy, may not have much play value, may be ill-conceived—and you may want to think twice about buying it.

⭐⭐ Abysmal: That rare game that gets it all wrong. Usually a buggy, incomplete, and/or valueless product.

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14 COMPUTER GAMING WORLD • MARCH 1995
The graphics in today's games look just like photos. If you'd rather play movies than watch a slide show, you'd better get them developed on a Falcon.

"You want to go all out for games, the Falcon is the best buy for your money." 
Raul C. Schuytema, Computer Gaming World

The Pentium 90 they sent me is a beautiful piece of work, primarily because they don't go with the lowest bidder when buying standard components.
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Circle Reader Service #141
VIDEO CARD POKER

First of all, I would like to say that I am really enjoying the current direction of CGW. Your magazine is consistently a cut above the rest. Secondly, I would like to thank you for the fine job you did in the December issue of breaking down the PC gaming system component by component. Not only did I find the articles interesting (particularly those examining sound components), but you helped me make an informed buying decision.

I got into the PC as my computer gaming platform of choice about 10 months ago with a 486 DX-33 VLB, 8 MB RAM, 540 MB hard drive and Trident 1 MB video card. Over time, I bought a 2x CD-ROM drive, a Sound Blaster-16 sound card, the Roland SCD-10 General Midi daughter board, upgraded my CPU to a DX2-66 and my video card to an ATi Graphics Pro Turbo 4 MB VRAM VLB. That last item is of particular importance. I bought the ATi card with performance in both DOS and Windows in mind, and was persuaded to do so when it was offered at an unbelievably low price. Being quite an expensive card (about CAN $699 street price), and having extremely high Winstone scores, I expected it to serve all my needs exceedingly well. However, when I installed the card (at the same time as upgrading the CPU), I noticed very little improvement in the speed of DOS-based games. In fact, TIE FIGHTER was still choppy to the point of being almost unplayable at the highest detail levels. I was frustrated, but blamed the poor performance increase on the CPU. Surely a card with 4 MB couldn’t be bottlenecks my system!

Well, after reading your article on video hardware in the December issue, I found that that was exactly what was happening. So, I sold my card, and using the magazine as my guide, traded in my VLB motherboard for PCI local bus, and selected a Diamond Stealth 64 2MB DRAM PCI card, costing only CAN $285. MY SYSTEM ROCKS!

I don’t know if it was more the video card or the PCI bus or a combination of the two, but the difference is staggering. The same DOS Speed 200 program that clocked my ATi at 9,000 cps now reads 23,000 cps. My games are all smoother—TIE FIGHTER runs without a hitch. In WING COMMANDER III, where space combat was once choppy even in VGA, I can now play in SVGA, high detail, with a consistent frame rate of 12-20 frames per second. I couldn’t be happier!

I don’t know how many people are aware of just what a difference the video card can make on game performance, but take it from me: it’s just as important a consideration as the CPU. After all, why invest in a highly efficient processor if it’s unable to funnel the information at its maximum rate?

Thank you, CGW, for helping me improve my system by leaps and bounds, and helping me dodge the inevitable Pentium upgrade for a long while to come.

Josh Holmes
Vancouver, BC, CANADA

You’re welcome. Just don’t tell Intel that we cost them a sale, okay?

HEAD-TO-HEADS UP

I would like to see an article or list or both about games with multi-player modes. I invested in a second 486-66 to play DOOM with my friends. Now, I need more games.

Dave Krotee
Baltimore, MD

If you’ve already purchased our February issue, you may think we responded very quickly to your request. Actually, Martin Cirulis had been working on that multiplayer survey for a long time. Unfortunately, we are aware of two errors in the survey. THE LOST ADMIRAL is listed as allowing head-to-head play via modem when it does not (it’s hot-seat only) and CORRIDOR 7 is not given credit for modem support, even though it offers such.

UNDER A KILLING SWOON

I am not necessarily writing this letter because I disagree with your review of UNDER A KILLING MOON, but because I also want to show your readers the other side of the coin.

I agree with you on a few points made in your review. The acting will certainly never win an Oscars, but it certainly is some of the best acting ever seen on a computer game, and I feel it is adequate at this time in the industry. I found the story to be quite interesting and the puzzles were well thought out. As for the cases, I felt they were motivating enough to keep you playing. Even though the first case was unrelated it was appropriate in that it got you used to the interface and the type of gameplay to come. The rest of the cases were all interconnected, and were there for a good reason. The story was good enough to keep me playing without boring me. Which I feel is good enough, considering the technology Access presented the story with. If they had spent any more time with the story, UAKM would never have gotten out the door. I understand where you were coming from with your review, but I feel you were overly harsh. You spent too much time in the review looking at the negative parts of the game, in the end, giving the
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Circle Reader Service #78
reader an exceedingly negative view of the game. You very rarely mentioned the many positive aspects of the game. When I got UAKM, I was expecting state of the art gameplay with a captivating story, and I got it. I'm not sure if the fact that I was entertained by this story says something about my tastes, but I'm sure that many of your other readers will enjoy the story just as much as I did. You can go on about how bad the puzzles, the acting, or even the story were, but all I know is that I enjoyed this game immensely. I just wanted to show your readers that even though you may not have been impressed by this game, I sure was.

It took me about two full weeks to beat this game. I am now playing it the second time through and am just as impressed this time around. Now, if that doesn't say something about this game, then I'm not sure anything will. In an age where play per buck and replay value are very important, this is an obvious plus. I'm pretty sure I won't play it a third time, but two times is still a lot better than most of the adventure games I've played.

Now that Access has the engine developed, maybe with their next release (you know it's coming), they will take the time to perfect the story and the acting. All I can say is that if you buy this game, you definitely will not regret it.

Owen Mackwood
Rocky Mountain House, Alberta, CANADA

We simply don't agree that the acting was "good enough," but we appreciate your view. When you describe the acting as the "best" and "adequate" in the same sentence, though, you are basically describing one definition of our three star rating -- "Can often be a game that reaches for the stars, but falls short in significant areas." With a better story and better acting, we think UAKM would have gotten a higher rating. We didn't say it was terrible. By the way, your assumption about the sequel is correct; our sources at Access tell us plans are already underway.

ONE PILL MAKES YOU LARGER

"White Rabbit Syndrome" was a great article (CGW #126, Rants & Raves). I applaud companies that ship LATE to have games that work. I carefully review games prior to purchase and don't buy buggy ones.

Tony Doran
Silverton, OR

Well, being LATE doesn't guarantee that they won't be buggy, but taking the kind of extra time that Origin took with Wing Commander III certainly doesn't hurt.

STRATEGIC REMARKS

I love reviews and previews, but the strategy section was a great read. CGW is consistently great. Keep it up!

Chuck McMath
Hillsboro, VA

Your best issue in years!!
The strategy section was outstanding. Keep it up!!

Fred Brooks
Newport Beach, CA

Best strategy articles ever!
Ray S.
South Bend, IN

Great strategy section!
More! More!
Jim Eckert
Rochester, NY

As strategy gamers, we love doing strategy articles and expect to do more special sections and supplements in the future, but the acclaim wasn't universal. Not all of our readers are strategy gamers. For instance, consider these anonymous remarks:

Too much strategy! Do we need two magazines?

Strategyless in Seattle
Seattle, WA

I much prefer replays to vague strategy. Why were the strategy articles before the reviews of the same games?

(Anonymous)

Expect to see replays complete with game saves appearing in our on-line edition of the magazine on the new Interchange Network. The strategy articles were placed before the reviews because we wanted all of the strategy articles in the special section. Naturally, the reviews were placed in the appropriate section by genre.

CRITICAL EVALUATION

I enjoy reading your magazine. However, I think some articles are too critical and others aren't critical enough.

Doug
Albuquerque, NM

That's what happens when you publish more than one viewpoint. Your observation reflects well upon all of us. It probably indicates that, as a magazine, we are hitting a proper balance somewhere in the middle and that you, as a reader, are perceptive enough to make your own decisions.

ALREADY DUNE

Best PC gaming magazine ever! How about doing a preview on DUNE III, aka COMMAND & CONQUER?

Reader Incognito
Vancouver, B.C.

Would this issue be soon enough?

ARTIFICIAL SIGNIFICANCE

I just recently started reading CGW and one thing is bothering me. What exactly does "AI" stand for as used in the review of games and such? By the way, I love the magazine and just got a subscription.

Who Is That Masked Ranger?
Fort Worth, TX

In the gaming lingo, "AI" stand for "artificial intelligence," or a game's computer opponent. The term overstates the case a bit, since computer game opponents usually come no where near "intelligence," but it has stuck and we use it as, a handy shorthand.

The 5th Wave
By Rich Tennant

"WE NEVER HAD MUCH LUCK BUILDING A DECENT HANDWRITING RECOGNITION SYSTEM, BUT ROY THERE'S DONE REAL GOOD MAKING A FLAT SCREEN NOTEBOOK THAT READS UPS."
BREAKING AWAY FROM THE FLEET

Ever wanted to sail into the sunset? Visit ports of call known only to grizzled 18th century sea captains?

Then let our unique first-person perspective and stunning 3-D graphics put the wind in your sails! Swashbuckle away as you trade goods, vanquish enemy ships and create routes to riches. Take time to gossip in local taverns, repair cannonball damage, and stoke up your crew’s morale. (A little rum, perhaps?)

Chart your progress with our authentic navigational aids, and revel in a world long gone: Where fortunes are fiercely defended, and only skill stands between you and the deep blue sea!

Features:

Variety of goods to trade and passengers to carry.
Command a crew of soldiers, sailors and apprentices.
Defend against pirates and enemy men-o’-war.
Buy and enhance ships from several models.
Highly intuitive interface.
Dynamic pricing and political models.
Strong replayability.

Travel the world in search of riches.
Visit exotic ports on many continents.
Engage enemy ships in realistic sea combat.

Impressions

© Impressions Software, Inc. 222 Third Street, Cambridge, MA 02142

IBM PC Screenshots may vary
Bring Out Your Best!

Announcing Our 1994 Premier Awards Finalists

It's that time of the year, again. The time when movie stars have their limousines waxed, directors dust off their only tux, and the presumptuous clear a space on their mantel for Awards. It's also the time when the CGW editors look back over the previous year and recall the many late nights and lost weekends spent with this year's best games.

In adding up the hours spent with our addiction, we've put together a list of the top games in each of our game categories. This is the list from which we will choose the Premier games in each category, as well as a Premier Game of the Year.

There are some tough decisions to be made this time around. It was an incredible year for action games, and strategy and wargaming had strong showings. We'll debate the fine points of these games, cast our votes, and announce the Premier winners in the May issue of CGW. In the meantime, here's some fuel for your own debates.

**Action**
- **DOOM II** (id Software)
- **Magic Carpet** (Electronic Arts)
- **System Shock** (Origin)
- **TIE Fighter** (LucasArts)
- **Wing Commander III** (Origin)

**Adventure**
- **Death Gate** (Legend)
- **Drachtsphere** (MicroProse)
- **Ecstasia** (Psygnosis)
- **King's Quest VII** (Sierra)
- **Relentless** (Electronic Arts)

**Role Playing**
- **The Elder Scrolls: Arena** (Bethesda)
- **RavenLoft** (SSI)
- **Star Trail** (SirTech)
- **Superhero League of Horiknoen** (Legend)
- **Wolf** (Sanctuary Woods)

**Simulations**
- **1942: Pacific Air War** (MicroProse)
- **Aces of the Deep** (Dynamix)
- **Fleet Defender** (MicroProse)

**Sports**
- **Bourside College Basketball** (Lance Haffner)
- **FPS: Football '95** (Dynamix)
- **NHL Hockey '95** (Electronic Arts)
- **PGA Tour Golf 486** (Electronic Arts)
- **Strat-O-Matic Baseball 5.0** (Strat-O-Matic)

**Wargames**
- **Flight Commander 2** (Avalon Hill)
- **Genghis Khan II** (Koei)
- **Operation Crusader** (Avalon Hill)
- **Panzer General (SSI)**
- **Tigers on the Prowl** (HPS Simulations)

**Strategy**
- **Lords of the Realm** (Impressions)
- **Master of Magic** (MicroProse)
- **The Grandest Fleet (QIP)**
- **X-COM** (MicroProse)
- **WarCraft (Blizzard)**

CGW Surfs Onto World Wide Web;
Descent Beckons Gamers On ZiffNet

Surf this: Computer Gaming World now has its own site on the World Wide Web. By jumping to the CGW Web site using a browser like Mosaic or Netscape, you'll be able to access and download feature stories, select reviews (all with screen shots), and the CGW games patch list. Hypertext links will let you instantly jump to the FTP sites of computer game companies, check out their new products and download patch files. Watch in the weeks to come for articles unique to the Web site, like game replays and up-to-date mini-reviews. The new gaming gateway can be reached at "http://www.ziff.com/".

Meanwhile, back in our other on-line forum, the Computer Gaming World Forum on ZiffNet, you'll find the shareware version of Interplay's DESCENT. DESCENT's dizzying three-dimensional flight has been giving large numbers of gamers a delicious form of delirium. For more dope on the game, see the DESCENT write-up and screen shot in Now Playing. For the game itself, GO GAMEWORLD on ZiffNet and download the DESCENT.ZIP file in Library 7.
PLAYING LATELY?

Here are the titles that gamers are spending the most "quality time" with. Let us know which game you've been playing lately, by writing the name of your current addiction in the "Playing Lately?" section of the CGW Top 100 poll card.

1. Wing Commander 3 (Origin)
2. DOOM II (id Software)
4. Master of Magic (MicroProse)
5. Panzer General (SSI)
6. TIE Fighter (LucasArts)
7. Front Page Sports Football Pro '95 (Sierra)
8. Warcraft (Blizzard)
9. Colonization (MicroProse)
10. Aces of the Deep (Dynamix)

Notable Quotes

Wit, wisdom and caustic quips from gaming's harshest critics

"Between Master of Magic and Colonization, MicroProse has me dreaming about fighting tiny little people in my dreams. Please, no more great games!"

Jason Sabotin, Miami, FL

"I have a crack X-COM force that could easily take out any Star Trek crew."

Andrew Prescott, Queens, NY

"Now there are only two types of computer games: those before Wing Commander 3 and those after."

W.S. Corney, Oneida Castle, NY

"As a former diesel sub officer, I think Aces of the Deep is the best sub simulation yet! Can't wait for a 3D sub sim to make periscope approaches realistic."

"Captain Nemo", San Diego, CA

"Panzer General is the highlight of my 20-year gaming career. Not since Civilization has any product captivated me so completely. Simply superb!"

Steve Carey, Burbank, CA

"Slashing down an ore in Warcraft is no different than pummeling a rocket launcher in DUNE 2. It's so fun!"

Matthew Chiang, Yorba Linda, CA

"The most informed choice they can instead of just making it for them."

"X-COM UFO DEFENSE: The Official Strategy Guide. By David Ellis, Prima Publishing 374 pgs. $19.95"

MARCH 1995 • COMPUTER GAMING WORLD 21
**ALONE IN THE DARK 3**

It is his fate, case after case, to match muscle and wit with the supernatural. He is Edward Carnby, and for the third time he is ALONE and IN THE DARK, courtesy of 1-Motion. On this occasion, some seismic activity near the infamous San Andreas Fault, combined with the mystery of a missing Hollywood film crew, conspire to draw Carnby to the lost town of Slaughter Gulch. The place, of course, turns out to be a ghost-town in the truest sense of the word, and once again it is time for the hero to put more than his share of evil spirits to rest.

For ALONE IN THE DARK 3, Carnby is noticeably leaner and meaner than in his previous adventures, so that the rag-doll look of sewn-together polygons is almost completely gone. While 1-Motion's characters may not have quite the same polish as those seen in *Psygnosis' Ecstasy* (which used a similar, ellipsoid-based technology) still they are capable of a greater range of motion and activity. In addition to several types of weapons, Carnby will need to rely on his variety of punches, kicks and head-bashings in order to survive. Players who found the previous games in the series too combat-intensive will appreciate the more evenly-matched puzzle-to-punch-out ratio. As an

**RACK 'EM UP!** A wide variety of angles, zooms and other views go a long way toward helping you run the table in *Virtual Pool* from Interplay.

**DEAD-EYE SALOON** Edward Carnby fights ghost-town ghouls with a six-gun and good sense in ALONE IN THE DARK 3.  

according to individual taste.

**VIRTUAL POOL**

Unless you like breathing second-hand cigarette smoke and getting snookered by hustlers, you should be interested in *Interplay's Virtual Pool* parlor. The new computer pool game offers nearly everything except the smell of chalk and the color of money. The interface is clever: you hold down the "S" key and move your mouse forward like a cue stick to hit the cue ball. Other key and mouse combinations allow you to zoom towards or away from the object ball, to move and rotate the table, and to put all the "english" you wish on the ball. The physics of the balls ricocheting off the rails is nicely captured, and

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the game tries to reward touch as well as power. Games available include 8-Ball, 9-Ball, Straight Pool and Rotation, with the possibility of Snooker included in the final release. You can play this solo or against a friend, but if you insist on facing those hustlers, the game also includes eight opponents ranging from the inept Phil Fowler (for whom scratches are a way of life) to the worthy Steady Eddie and Dead-Eye Dan. Until Willie Mosconi is signed for a pool game license, these opponents should do nicely. When available, Virtual Pool promises a host of multimedia enhancements and tutorials to bring out the Minnesota Fats in any user.

**Iron Assault**

Ever since Japanese animators brought gigantic, bulking robots to the screen, these futuristic centurions have captured the imagination of science fiction fans. These mechanoids of the future are a futuristic cross between knights in armor and advanced tanks, but offer the advantage of being personified enough to be extensions of their pilots—the stuff of which combat legends are made. From the beginning, Virgin's Iron Assault builds upon our fascination with these oversized combatants. Instead of using 3D Studio to design a flashy, glamorous introduction, the producers opted to create "real" footage of miniature models slugging it out. While slightly pixilated (as most digitized video is) and somewhat monochrome, the end result gives the game a lot of character. We felt like we were watching an old science fiction movie. All the cinematic cut scenes are presented in this manner, and Virgin is promising over 30 minutes of video in the game.

With regards to the main attraction—action—it looks as though Iron Assault will be fast-paced and uncomplicated, more of an action game than a complex simulation. So, the controls are simplified to the basics: moving, firing, and calling up various informational screens like radar, maps and rear-view cameras. Independent gun turret controls and other advanced features are not included. The action, though, is intense. The graphics are attractive, the enemies challenging, and the sound incredible. Blasting open an enemy HQ with a few missiles and then storming in to take out the enemy brass is particularly cool. Our only concern is that, in the beta version we played, the motion was so uniform and fluid that it often felt as if we were in a tank, not a 'mech. Thankfully, "uncomplicated" and "easy to learn" do not carry over into the difficulty and size of Iron Assault. With over 60 detailed campaign missions that have various primary and secondary objectives, as well as a mission simulator for trainees, 'mech fans won't have to worry about breezing through this game in an afternoon.
**Descent**

Apparently, Doom II wasn't enough to satisfy gamers' appetite for first-person action; Interplay's Descent has been released in a shareware version, and it has set the networks on fire. When we buckled up into our flying machine, we found ourselves ducking and dodging in our seats as we sped down the metal corridors of an abandoned space mine, blasting away enemy ships at every turn. The action is fast paced on the right kind of system (at least a 66 MHz 486) and the range of control is absolutely unbelievable. Gamers have 360 degrees of gravity-free movement, able to wing their ship up and down, left and right; you'll need a joystick with lots of function buttons (the CH Flightstick Pro works well) to handle all the motions. The mechanized enemies have a vested interest in killing you off, for not only are you trying to destroy them, but you're also trying to cart off their prisoners to safety. And if they pose no challenge for you, there's always multiplayer network play (Interplay has reportedly played a network game with over 20 people!). Although shooting up machines isn't half as interesting as blasting away Imps and Cacodemons in Doom, Descent's speed kept us riveted to the screen. The shareware version is available online and from Interplay, and the registered version should be available shortly. IBM, Shareware. Circle Reader Service #1. Interplay, Irvine, CA, (800) 969-12637

**The Incredible Machine 2**

The Incredible Machine that gave puzzle fans a reason for living (and put Rube Goldberg's name back into circulation) has given birth to a child, Sierra's The Incredible Machine 2. Like its predecessor, The Incredible Machine 2 presents players with dozens upon dozens of mechanical puzzles that must be solved by creating "machines" out of household items. For instance, you might be asked to "put all four bowling balls into the baskets" by way of ropes, pulleys, see-saws, trampolines, and dozens of other objects. The sequel has added many more objects to the puzzle solver's tool box, including lasers, dynamite, can-openers, blenders, and others more bizarre. Our only complaint is that there are so many wonderful devices with which to solve a puzzle that it can be overwhelming. On the other hand, the diversity of objects can be a boon when in the rechristened "The Incredible Time Sucking Machine." IBM CD-ROM, $44.95. Circle Reader Service #2.

Sierra, Bellevue, WA, (800) 757-7707

**Hardball 4**

With Hardball 4, Acclaim is sticking to their guns. Great graphics and fantastic arcade action are what have made the Hardball series the most popular action-oriented ball games around. Step up to the plate and you'll be amazed at how clear and detailed the action is. Each rotoscoped batter has several frames of animation which provide a near-3D quality experience. We appreciated the unique pitching interface: you can pick a pitch location, and it's up to the pitcher's control ratings whether or not he can hit the spot. Of course, like all previous versions, statistical power is nonexistent—you get the "basics" and that's it. But while the real life players found in the MLBPA add-on won't re-create their real-life performances with any sort of accuracy, that's not the point. The point is snatching the ball around in an offensively-oriented game that is really easy to get into. Our only complaint is that it seems a little too easy, as we were beating up on All-Time Great teams with the Colorado Rockies in no time. Serious statistics nuts should definitely pitch around when that old copy of Mean Street when you can Rube Goldberg to your heart's delight in Incredible Machine 2?
Gazillionaire

Take a very random economic market replete with bizarre alien commodities subject to a wicked supply/demand curve, and mix in an element of monopoly, minimal exploration, weird random occurrences (just to keep you off-balance) and cutthroat competition. That's the winning formula for GAZILLIONAIRE, a game for 1-6 "hot-seating" competitors seeking to build interplanetary shipping empires in a fictitious solar system. Spectrum HoloByte has brought what was originally a shareware game to market as a CD-ROM with extra sound-effects and some new animation that should spice up a solid game. You have to maximize your profits and upgrade the speed and size of your ship fast enough to be able to cut your opponents off at the dock and leave them languishing with worthless cargo and a severe cash flow disadvantage. Each planetary market is so supply-driven that the owners of fast ships can manipulate commodities by arriving ahead of their opponents and dumping a cargo. So, the game becomes more than just an economic strategy game, but a tense multiplayer "space" race, as well. IBM CD-ROM, $23.95. Circle Reader Service #4.

Spectrum HOLOBYTE, ALAMEDA, CA, (510) 522-1164

Scotty Pippen's Slam City

Takin' it to da hoop is the name of SLAM CITY, an action game that uses some of the best full-screen video we've seen. In a nutshell, you're "Ace," a Woody Harrelson-looking hoopster who's trying to earn a little respect at the local gym by schoolin' the locals in a game of one-on-one. The game puts you right on the court in a first-person perspective, staring at the back of Ace's head. Playing the game consists of pressing the right key combinations at the right time in order to score, rebound, and block shots—all in the name of winning the game and earning respect. Earn enough respect and you'll find yourself hip-to-hip with Scotty Pippen himself. Although the action might be too limited for some gamers, a funky soundtrack, goofy but appropriate acting, and a unique street edge give SLAM CITY a lot of character. IBM CD-ROM, $69.95. Circle Reader Service #5.

Digital Pictures, San Mateo, CA, (415) 345-5300

Knights of Xentar

Scantly clad, buxom, bright-eyed, Japanime-style white women: this is the foundation upon which Megatech has built its quirky line of adventure games. Traveling in a land that looks straight out of a Nintendo game, you're on the usual "find the magic sword and destroy the King of Darkness" mission. Moving your little hero around Xentar is easily accomplished via the mouse or keyboard, and fighting is handled by the computer, although you can determine a basic combat strategy (basically whether you want to fight offensively, defensively, or run away). As with most games in the Megatech line, KNIGHTS OF XENTAR has dialogue that would make those dubbed "Karate" movies sound like Shakespeare, as well as a sexual sensibility that is distinctly Japanese. The beginning of the game finds our hero prancing around the city streets buck naked, having just been robbed of all his possessions. Until you find his clothes, you'll have to endure comments like "I hope puberty treated me a lot better than it treated you." That's the humor at its best. From there it goes down, all the way down, to a rather crass treatment of a group sexual assault. PC CD-ROM, $49.95. Circle Reader Service #6. Megatech, Torrance, CA, (310) 339-9177.
Sony Imagesoft Unleashes SPAWN

Comic Hero's Arcane Energy Meets The Computer

In 1992, comic book artist and self-proclaimed writer, Todd McFarlane, raised industry-wide eyebrows by publishing the first issue of the comic book SPAWN. Now, he is making the move to interactive comics via a new pact with Sony Imagesoft.

That first issue of SPAWN spawned a new comic universe. With many harsh words aimed at his former employer, Marvel Comics, McFarlane joined ranks with several other ex-employees in order to form Image Comics. Despite harsh criticism of the company's emphasis on artistic dazee over literary quality, as well as a production run which missed far more deadlines than it met, Image Comics became one of the first major success stories of the 90s, allegedly turning the young McFarlane into an overnight millionaire.

McFarlane wasted little time in spawning a line of successful "Todd Toys" based on his creation, and attracted quite a bit of attention by traveling around the country in his "Spawmobile" to attend various comic-book events. Now, McFarlane has once again created waves in the comic-book world by announcing that he will unleash his character on computer and video game software. The games are to be produced by Sony Imagesoft, and will be available on CD-ROM for the IBM, Macintosh, and nearly every dedicated video game system on the market.

Spawn is the reluctant hero whose mutilated form has been sent back from hell to earth with a limited supply of arcane energy. Trained in life as a military man, Spawn would rather use his earthly resources than his precious, supernatural energy to fight evil. This is because, once his energy is depleted, he knows that he will return to hell.

Heretical Utterances
(aka Heretic Cheat Codes!)

Are you tired of having D'Sparil kick sand in your face in Heretic? Wanna play in a rank above "Thou Needest A Wetnurse" but keep getting spanked before you can reach that magic "morph ovum"? Then strap on some of these, wizard boy, because that needest some cheats!

RAMBO: Get all weapons
SKEL: Get all keys
QUICKEN: God mode
KITTY: Toggles clipping mode
MASSACRE: Kills all monsters on a level
SHAZAM: Power-up weapons
RAVMAP: Shows full map in map mode (retyping
RAVMAP shows all objects)
PONCE: Full health
ENGAGENY: Warp to different level. X = Episode,
Y = Level
COCKADOODLEDOO: Turn into a chicken
RAVMAP: Reveals all of the map while in map mode.
GIMME: Get artifact
When using the GIMME cheat, type GIMME and one of the following artifact letters:
a: Ring of Invulnerability
b: Shadowsphere (Invisibility)
c: Quarrz Flask (25% health)
d: Mystic Urn (Full health)
e: Tome of Power (Power-up weapons)
f: Torch
g: Time Bomb of the Ancients
h: Morph Ovum
i: Wings of Wrath
j: Chaos Device (Emergency teleport)

HOME OF THE HELL SPAWNED Todd McFarlane's Spawn offers detailed and dreadful views of Hell—including pterodactyls which soar like birds on the unnaturally hot winds.
Get Your Piece of the ACTION
From APOGEE
the world leader in action gaming!

Hot off the press from the coolest game mags:

“...The graphics will amaze you and the sound will astound you... a super star!”
— Interactive Entertainment

“Did you like Wolfenstein 3-D? If you did, you’ll love Blake Stone.”
— PC Magazine

“The first-person viewpoint and smooth movement will have you peering sideways into the monitor to see if there’s another monster around the corner.”
— PC Magazine

“Mystic Towers has the kind of gameplay that will devour entire evenings.”
— Computer Gaming World

“Looking for something silly yet highly entertaining? Hocus Pocus will do just fine... Give your brain a break, and enjoy 40 levels of sheer mindless mayhem.”
— Home Computing & Entertainment

★ Six white-hot action hits!
★ Top-quality fully registered versions!
★ Sizzling graphics & sensational sound!
★ Top value — all under $30!
★ Now available in stores for the first time!

- Alien Carnage — Halloween Harry’s awesome mega-battle against invading aliens!
- Blake Stone: Aliens of Gold — High-tech space station action featuring Blake in deadly combat with a mad scientist!
- Raptor — The addictive, action-crazed, shoot ‘em up warplane weaponry saga!
- Duke Nukem II — The world’s most ruthless warrior “kicks butt” in a blast-fest with evil aliens!
- Hocus Pocus — A sorcerer’s magical quest into dark and dangerous realms!
- Mystic Towers — Fast-paced magical mystery fun with hilarious monsters!

Get all six at your local software store... NOW!
Orc Intelligence & Human Spies
Blizzard Releases Unit Editor and Cheat Codes For Warcraft

A chilling wind has blown out of Blizzard Entertainment, carrying with it information that could aid Orc commanders and Human generals in Warcraft: Orcs & Humans. Blizzard has just released the Warcraft Unit Editor, a free program that allows players to alter the values of units and buildings. The editor, which has been released on America Online, CompuServe, the Internet, and Blizzard's IceNet BBS (714-556-1602), has the power to alter units' attack range, armor value, time and cost to build, and other attributes. Users can also change the range of spells as well as the attributes of structures. Using these tools, a player could adjust the play-balance of a scenario to his or her taste.

Blizzard has also released undocumented codes that allow gamers to cheat their way past tough scenarios. To access the secret codes, hit the enter key once a scenario has started; this will cause a message prompt to appear at the bottom of the screen. To activate the cheat codes, type "CORWIN OF AMBER" at the prompt. From that point you can hit enter and type the codes below. Note that these cheats will affect both sides of play in a two-player game (not that anyone would ever cheat their human opponent!).

YOURS TRULY: Takes player to current scenario's victory sequence.
CRUSHING DEFEAT: Takes player to current scenario's loss sequence.
IDES OF MARCH: Takes player to the finale sequence for the campaign.
POT OF GOLD: Adds 10,000 gold and 5,000 lumber to player's reserves.
EYE OF NEWT: Upgrades magic users with all spells.
IRON FORGE: Upgrades all technologies immediately.
SALLY HEARS: Uncovers the entire map area.
HURRY UP GUYS: All buildings, units and upgrades are built at an accelerated rate.
THERE CAN BE ONLY ONE: All units are invulnerable to everything except a direct catapult hit, and will inflict 225 points of damage per hit.
ORC11, HUMAN10, etc.: Type the race and level number to jump to a scenario.

For more information, call Blizzard Entertainment at (800) 953-SNOW.

Last month on "The 64 Gigabyte Question," we journeyed with Larry Holland in a worthwhile craft that could explore Earth and its life forms by traveling through time. This month we bring you Tim Schafer, co-designer of the colorful and sappy adventure game DAY OF THE TENTACLE, whose ghostly vision of a dream game matches his quirky wit. Time in next month as we continue our quest for the ultimate game design assuming unlimited hardware resources and no budget constraints.

"What game would I make if I didn't have to worry about technology? Well, I hesitate to go into that, because I like to think that game design principles don't change with technology. Sure, that's a little naive, but you know somebody could have written Tetris on their TRS-80 in 1980! The technology was all there! We only lacked the idea. That makes me wonder what great game isn't getting made today? There must be some blockbuster just waiting to happen, but it's being held back by a lack of ideas, not technology. So I would say that the secret to good games isn't in advanced technology but in creative thinking.

"Then again, who's got time for that? Give me more MIPS [millions of instructions per second] and I'll give you a great game. If you could create realistic images so convincing that you could convince the player he or she is moving through a real environment, and generate that environment on the fly, you could really have some fun. I would use it to satisfy my urge to sneak into people's private lives and mess them up. You, the player, could move like a ghost through every room of a high-rise condominium or dormitory, and spy on the people there. You could follow them from room to room, eavesdrop on their every conversation, and see just what they do when they're alone. And then you could start doing stuff—knocking books off the shelves, turning on the sprinklers, giving them cold chills. Basically, you could haunt them if you wanted to. Toy with them like rats in a cage! Ha-ha-ha!

"Or you could just have Tetris, but every little square would be a tiny TV set running a different episode of Baywatch!"
Never Lose Sight Of How Pinball Should Be Played.

A truly great pinball game is more than great graphics and spectacular sounds, more than the latest arcade features like 3D ramps and three multi-ball play, more than fast ball movement and precise flipper control, and it's more than being able to see the whole playfield at once so you can aim your shots. A great pinball game has that unique quality of playability and never-ending challenge that keeps you coming back for...just one more game and a shot at your new high score!

Washington Post—"Crystal Caliburn perfectly captures the essence of a great pinball machine."

New York Times—"The realism is striking...[Crystal Caliburn] will be at the top of Silicon Santa's gift list this year."

Inside Mac Games—"ARCADE GAME OF THE YEAR"

Computer Game Review—"Crystal Caliburn sets a new standard. For realistic pinball on a computer, there's nothing like this game."

Electronic Entertainment—"Crystal Caliburn is simply the best, most realistic, most challenging pinball simulation for the Macintosh yet." (Rating: 9 out of 10)

GAMES Magazine—"You'll forget you're playing on a two-dimensional computer screen...the realism is astonishing."

MacUser—"Electronic pinball's Holy Grail." (Rating: 4 1/2 out of 5)

Crystal Caliburn

From the creative genius of LittleWing™, developer of TRISTAN™ and Eight Ball Deluxe™ for Macintosh. Available from your favorite retailer or mail-order catalog. Interactive DEMO on AOL® and CompuServe®.

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Years ago, it set the standard for role playing games. Now, just when the nightmares are starting to fade, it's back ... and it's bigger and badder than ever. Introducing Dungeon Master II: The Legend of Skullkeep.

From its storm ravaged villages to trap-filled dungeons you’ll face creatures and characters that actually think for themselves and react to your actions.

It's the most realistic role-playing world ever created. Where real-time combat combines with finely-tuned traps and puzzles to test your logic and reflexes to the limit. Featuring an all new version of the interface that defined point-and-click, 3-D sound effects and stunning visual effects, it's the ultimate quest of magic, dungeons and monsters.

Dungeon Master II. You’ll be its prisoner once again.
The Wait Was Torture.
Westwood Studios Discovers A New World Of Real-Time Warfare, Just Beyond The “Dunes”

by Chris Lombardi

Imagine Stormin’ Norman Schwartzkopf at Desert Storm HQ. He’s got state-of-the-art satellite technology that gives him a dynamic overview of the battlefield; he can see every squad of men, every tank, every aircraft, both enemy and friendly. He’s got state-of-the-art communications that give him instant contact with every unit. He’s in total command of the situation.

What Norm doesn’t have is the traditional military command hierarchy. His lieutenant generals have been given early retirements, his captains have fallen to the legislator’s pen, and his sergeants have been stripped of their chevrons and folded back into the ranks. All by his lonesome, Norm must orchestrate the entire Allied attack, scheduling bombing runs, F-16 CAP patrols, special forces insertions, and the main thrust of the ground war. Can you see the poor General huffing, puffing and dancing around the command console, barking orders to his units? Saddam might have had a chance.

**THE REAL-TIME ZONE**

What the General has demonstrated is the challenge offered by “real time” strategy games. These games are very similar to your typical war and strategy game except that they don’t afford the luxury of time to plot your moves. You give a command to a unit and it responds. Bang! There’s no time to calculate attack factors, no counting movement points, no such thing as a well-considered strategy. You make your decision now, or the enemy will be climbing down your throat. If you make the wrong decision, well, you quickly assess and adjust. It’s the ultimate in “gaming on your feet.”

The most popular of these real-time tests has been DUNE 2, a game set on the desert planet of Frank Herbert’s popular science fiction novels. Designed by Westwood Studios and distributed by Virgin Games in 1992, DUNE 2 put the player in the commander’s shoes of either the Atreides, Harkonnen or Ordos, the “houses” battling for control of Dune’s precious resource, Spice. You commanded tanks, rocket launchers, and squads of men in attacks against the enemy; you ordered harvesters to gather Spice; and you built a military base, structure by structure—all while the game clock was ticking.

When it came time for a sequel to DUNE 2, Westwood had done some serious thinking about the next game’s setting. They might have gotten the Dune license to create a DUNE 3, but they decided against it. They felt that they had mined the Dune universe of all its spice, and they wanted room for more interesting scenar-
ios, vehicles and structures, without the constraints of an established fictional world. So they put the Dune universe behind them and dreamt up their own.

What they’ve come up with is COMMAND & CONQUER, a “near-future” story that lumps together a hodgepodge of sci-fi concepts with today’s newspaper headlines. It involves a fallen meteor, a mad scientist, an ancient, quasi-religious organization, some creative Internet hacking, impending ecological doom—and it all goes something like this...

### METEOR, MINE

The place is Earth, the time is sometime in the next few weeks. The planet has scheduled a rendezvous with a small but intriguing meteor with a magnetic personality. The meteor is made of Tiberium, a mysterious alien element that has the odd ability to draw precious elements out of the soil and gather them into nice, neat globules of ore. So, wherever the meteor fragments land, one finds conveniently-packaged chunks of gold, silver, platinum, uranium, etc.

Call it strip-mining made easy.

Recognizing Tiberium as a wonderful new source of wealth and power, the powers of the world make plans to capture and control this resource at any cost. Out of the woodwork leaps the Brotherhood of Nod, an ancient, clandestine fraternity that has been waiting for centuries for the right time to seize the world’s reigns. Now, they decide, is the time.

In the other corner is the G.D.I., or the Global Defense Initiative, a worldwide coalition of nations not unlike the U.N. This group has a serious problem with the Brotherhood’s plan, and so sets out to slap its greedy, grasping hands.

In the middle of all this is Mobius, a mad scientist type who doesn’t like how either side is handling the matter. He has studied the meteor’s effects and gained some insight into its origin and implications for the earth’s eco-system. Without any military brawn to back up his brains, he can’t take part in the war, but can only manipulate the two warring powers by disseminating bits of info to each side. The story swims in the backwaters of credibility at times, but it gets the Westwood designers where they want to go. It gets them away from the DUNE 2 universe, but it doesn’t go so far that they have to abandon all the things they liked about it. Of course, the new setting opens up new plot possibilities, but DUNE 2 players may have also noticed that the fiction retains the harvesting element of that game, since Tiberium is functionally identical to DUNE 2’s Spice. Furthermore, the near future setting allows the designers to draw from the current stock of modern arma-

TV waves, getting news of the meteor’s effects and of the world’s response to it. Then you get a dual video feed, one feed being propaganda for the Brotherhood of Nod, the other for the G.D.I. Here, you must choose the side you’ll lead.

That choice made, you’re into the heart of the game. Like DUNE 2, COMMAND & CONQUER is an episodic affair with 30-40 possible scenarios for each side of the war. Also like its predecessor, the core of the game is built around harvesting the rare mineral to finance the construction of a war machine, and build up a force capable of knocking out the opponent’s base. But there’s some variety thrown in to keep players on their toes. There are plenty of harvest-build-destroy scenarios, but there are also strike-and-capture objectives where you’re in and out—no building required. Then there are escort scenarios where you’ll have to lead key civilian vehicles through war zones.

Unlike DUNE 2, the scenarios don’t progress in lockstep linearity. Like a WING COMMANDER game, there is a “critical path” through the scenarios that leads to success, but there are also scenario branches. Losing a scenario doesn’t necessarily mean it’s time to start over—you might be able to fight your way back onto the winning path. There are also alternate “win” branches you might be able to win a scenario and continue the story by destroying an enemy research facility, but you could also take the harder route of capturing the facility. The capture route may take you on a new branch of scenarios and enable you to build a new weapon of war.

And of weapons there are plenty. Westwood has 15 different vehicles on the
drafting board, each with an upgrade enhancement, including M-1 Abrams tanks, flame throwing tanks, huge Mammoth tanks, HumVees, Apache attack 'copters, single-man attack 'copters, battle cycles, amphibious landing craft, A-10 "Warthogs" and more. That's not to mention your foot soldiers who can tote flame-throwers, rocket launchers and grenades. Throw in special weapons that are unique to each side of the war, and you've got enough rockets-red-glare and bombs-bursting-in-air for a month of July 4ths.

A TIME TO BUILD,
A TIME TO DESTROY
But the joy of Dune 2, and now of C&C, is just as much in building things as in destroying them. Like Dune 2, many C&C scenarios will require that you build a military base from scratch, placing the oddly-shaped buildings with the care of SimCity zones. In one preliminary scenario I played, I had to land an amphibious force on a hostile beach and set up camp. With the help of coastal bombardment from a ship, I was able to land some grunts, take out an enemy guard tower and an armored buggy, and secure a perimeter. Then the reinforcements rolled in, bringing with them a mobile construction vehicle. With but a mouse click, the construction vehicle rolled to a nice clearing and plopped itself down—instant HQ. From there I added a harvesting facility, which comes with a harvester to gather up the precious Tiberium, then a training facility for more grunts, and a vehicle factory to build basic armored cars.

And so it goes in C&C. As you harvest more Tiberium, you can afford more structures, which, in turn, will crank out more weapons. Of course, all the while the enemy is sending units to harass your base. If the enemy is too pesky, you'll want to throw up some fortifications around your base, building walls around sensitive areas and guard towers where the enemy foot-fodder is coming in droves. In the later scenarios, ground-to-air missile defenses are a must to stop the napalm-spewing A-10s or the mean-spirited Nod bombers whose payload drops slowly, but ever so surely, on your panicked, scattering troops.

All of this action is delivered with crisp graphics and detailed animation. Perhaps bored silly by the endless yellow dunes of Dune, Westwood's artists have composed some lovely VGA terrain with varied features for you to pock-mark and blaze. There are coastal areas for beach invasions, temperate areas with lush forests, darkened terrain for night strikes, and, yes, even some desert zones (you can take the boy out of the sand...). They've also spiced up the unit movement with multiple "death animations." Squads of foot soldiers will drop to their knees in a firefight, and if they get shelled too hard, they'll lie prone and try to belly crawl out of harm's way.

Happily, the improvements over Dune 2 don't all lie in the realm of flash. The interface is getting a few needed adjustments, including new group movement logic that allows you to command several units at once. Then there are small but significant tweaks, like the fact that the health of a unit and your overall energy supply will be visible at all times.

The artificial opponent is also getting an overhaul. The Dune 2 opponent was famous for having easily exploited weaknesses, and while I'm sure C&C will have its own Achilles heels, it will certainly offer a less predictable foe. The C&C design team has completely rebuilt the opponent intelligence using "genetic algorithms," allowing the AI to generate multiple approaches to a strategic situation. If it tries one possibility and fails, it will try another. The AI will also have three different "personalities" depending on the objective of the scenario.

But the best news about the computer opponent is that it won't be the only opponent. Yes, Westwood has heard the cry of gamers demanding multiplayer options. COMMAND & CONQUER will support two-player modem and four-player network games, and will include a few extra terrain maps just for that purpose.

The big question for C&C is how well the cinematics and the gameplay will come together into a tightly-wrapped package. I've seen some of the animation—it's superb. I saw a little of the digital video—it seems competent enough. But as yet, the cinematics are in the chaos of the editing room. However, I have seen the important part—the gameplay—and it looks like Dune 2 with a face-lift, more scenario variety, and more firepower—which is to say that it looks fabulous. Fans of frantic real-time play—Stormin' Normans in their own minds—will really have their hands full with this one. Just be sure you properly stretch that mouse-hand to avoid the risk of injury.

Again, as a package with all its cinematic ribbons and bows, who knows? At its worst, COMMAND & CONQUER will be Dune 2 with the volume cranked up and cinematic cut scenes that can be ignored. At its best, it could be the strategy game equivalent of WING COMMANDER 3.
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eluge of mult medioc rity? Will simulation games continue to
ride their current heat wave?

Will wargaming experience a
cooling trend? Find out as CGW
predicts the

highs and

lows

for this year’s computer games.

W

ith graphic flurries covering most
of the industry, high resolution
fronts are moving toward 3-D ter-

rain in many genres. Watch for un-
derlying fog of war in many game
designs and offshore interface sys-
tems to disrupt normal gaming
patterns. The extended forecast calls for MYS T over
much of the industry and a pervading sense of
DOOM in action-oriented regions.

In short, this year’s computer games will look a lot
like last year’s games only more so. In spite of
cLOUDS that make it seem like graphics and special
effects have forced design and playability to take a
back seat, each genre has its own particular rays of
sunshine and potential rainbows. So, here’s the out-
look as we see it.
Prevailing Winds:
The sure thing in action games, whether on cartridge platforms or the personal computer, has always been to license popular characters from other media. Characters from the comics and motion pictures seem to be the most commonly licensed properties, and this year will present no exceptions. Film characters from **Lawnmower Man 2** (a sequel that promises to be better than the original from SCI), an **Aliens** game from **Mindscape** (which may turn out to be more of a graphic adventure), and **Capstone's** Zorro, capitalizing on the upcoming Spielberg film, will lead the way. **Fox Interactive**'s first high profile venture into the market will be an action game, **Diehard With A Vengeance**, based on the latest "Diehard" film. The game will feature driving sequences and first-person perspective combat interlaced with footage from the film as reward sequences.

From the world of comics, **Acclaim** will publish games based on **Batman Forever**, **Spiderman**, and **Judge Dredd**. Unfortunately, all three are largely horizontal side-scrolling shooters with very little of the comic heroes' flavor to commend the games. **GTE Entertainment** is going the alternative comic route by building a game around Australia's **Tank Girl** (published by **Dark Horse Comics** in the U.S.). Due in the Fall, the game is expected to have both an action and strategy component. Finally, as noted in this issue's READ.ME, **Sony Imagesoft** is publishing a **Spawn** game, based on the Image character.

Technologically, the biggest news in the world of action games is the same as in many other genres—the third dimension. **GTE Interactive's** F/X Fighter is being developed in conjunction with Nintendo. It's a standard console-style fighting game, but it features full 3-D combatants (both human and alien) that look like those in the recently released **Sento** from **47Tek**, a fighting samurai game bundled with many new graphics cards. **F/X Fighter** has the same type of extremely smooth animation as **Sento**, but in **F/X** the fighters pulverize each other in front of moving, texture-mapped backgrounds. Another 3-D fighter from **47Tek** will be called **HARDJACK**. It looks like it will feature one-on-one combat within an adventure set in a cyberpunk world. **Merie's** **Total Domination** is a slightly different fighting game that marries medieval man-to-man combat with 3D Studio sets. **1-Motion's** ** Chaos Control** is a **Cyberstrike**-style 'mech game with more detailed graphics, insectoid opponents, and occasional tanks and helicopters to enhance the action. **GTE Entertainment's** **Rapid Assault** is like a networkable **Quarantine** without the absurd background premise. With 20 solitary levels and nine multiplayer levels, this attempt to capture the feel of a real-time car Wars is keyed around network play. **Activision** is still promising **MechWarrior 2** and it still looks like 3-D 'mech-to-'mech combat. It may not have all of the features initially promised, but it still looks like a player. It will have to compete head-on with the futuristic 3-D infantry (**Starship Troopers**)

**Looking Glass Technologies' Terra Nova: Strike Force Centauri**, an action/strategy game that blends full-motion video cut scenes with real-time 3-D combat. Another game soon to hit was described in a February "Beta Bl:" **Tank Commander** is a 3-D search and destroy game from **Domark** that comes complete with network play.

**Highs:** Watch out for **Apogee's** **Terminal Velocity**. It's a 3-D vehicle shooter that's part **Star Wars** and part **Descent**. You zoom over and through a 3-D cityscape much like the trench run on the Death Star, but instead of
bombing that little exhaust vent, you have
to dive into it with your ship. Then, you
tool about in caverns with 360-degree mo-
bility, like Descent, but faster. We also like
the innovative nature of Rocket Science's
Dark Ride, essentially a psychedelic roller-
coaster. It is an extremely disorienting,
fluidly animated first-person experience.
Another innovative development is the
Delphine engine for the EA action game
described in this issue’s “Rumor Bag.”

**Lows:** Be prepared for a preponder-
ance of cartridge publishers entering the
personal computer arena in 1995. With
the decline in 16-bit console game sales,
they are being forced into the PC market
as an interim position until the new gen-
eration of cartridge machines establish a
solid user base. Unfortunately, they do
not understand the more sophisticated
PC market and are not adjusting their
game design philosophies to meet gamers’ needs.

**Extended Forecast:** Expect continuing
releases of space combat games. SSI is
nearing completion of Renegade, their
first 3-D flight game since Dragon Strike.
In this game of SVGA graphics so crisp
and clean they seem almost antiseptic,
gamers will lead combat missions in order
to protect their home base during a seven-
day onslaught. In addition to twirling a
quick joystick, players will be heavily in-
volved in resource management as they
lead the defensive cause.

Other games involving ship-to-ship combat,
but on planetary surfaces, include: Activision’s MechWarrior 2,
Looking Glass’ Terra Nova and
Domark’s Absolute Zero. Absolute
Zero will feature 12 different texture-
mapped vehicles fighting across the sur-
face of an icy mining planet. One of the
nearest aspects is that, as you complete
various missions, you will play seven dif-
ferent human characters. Then, once
you’ve finished the game from the hu-
man side, you can play it again from the
alien perspective. In addition, Dynamix
is preparing a MetalTech: EarthSiege
Expansion Pack with two new weapons
and both urban and black ash terrain to
fight across. Finally, although the 3-D ve-
hicles don’t fly through space, Gremlin
Interactive’s Slipstream 5000 is set in the
21st century and does feature ten cir-
cuits in which to fly futuristic craft against
live (via split-screen two-player mode or
network play) or artificial opponents.

On the DOOM and Doomjd front, be
on the lookout for Apogee’s Duke
Nukem 3-D. It’s sort of a “DOOM
Does True Lies” adventure with plenty of
new special effects, including an under-
water mode with special underwater
weapons.

You can also expect a deluge of cartridge
 conversions over the next few months. Activision
will convert their updated Pitfall: The Mayan Adventure from Genesis to
PC, Acclaim will do the same for Mortal
Kombat II, and U.S. Gold will do the same
for EA’s Jungle Strike. In addition, Activi-
sion is nearing release of its Atari 2600 Ac-
tion Pack, a compilation of oldies that
should bring a lump to any video game
junkie’s throat. A different type of conver-
sion is being released by GT Interactive.
They are developing a PC CD-ROM ver-
sion of Williams’ SuperKarts coin-op, but
it features a split-screen two-player mode
for play on the same computer and an
eight-player network mode for those who
can’t wait to dust real-life opponents.

Looking for something off the beaten
path? You might try Rocket Science’s up-
coming Rocket Boy, a claymation-esque Q-
bert with a wacky, cosmic backstory. Want
something more down to earth? Try Rocket
Science’s Flying Aces, a game that seems
designed to answer the question, “What
would happen if Hogan’s Heroes had been a
World War II flying squadron?”

**Terminal Velocity**

Anyone ever stuck in an ur-
ban traffic jam has wished to
sprout wings and soar over
the gridlock. The atmospheric
flight portion of Terminal Velocity
makes part of that dream come true.
You zoom through the skyline of a fu-
turistic city and risk “buying it” between
skyscrapers as surely as if you were
making the final trench run on the
Death Star. The frame rate is
fast and the controls
are responsive.

Then, as if that wasn’t enough,
you emulate that Star Wars
trench run with a far more difficult ma-
nevure—breaching the gauntlet of a
tunnel opening with your entire ship
instead of a few energy weapons. Then,
the game transforms into a Descent-
like tunnel romp. You have full 360-de-
gree rotation and plenty of action.

**March 1995 • Computer Gaming World**
Downpour Of New Strategy/Wargames Expected To Hold Few Bombs

Prevailing Winds: 1995 will be the “Year of the Boardgame Conversions.” It’s not only taken this long in computer game history for the machines to be able to provide screens as pretty as some of the traditional boardgame maps, but it’s taken this long to convince some software publishers that computer gamers want straight boardgame conversions. Mindscape is hedging their bets, since they will have both a role-playing game based on the Warhammer 40,000 AD universe and a Fantasy Battles game based on the Warhammer rules for table-top battles. QQP is definitely being true to the feel of Awful Green Things From Outer Space, if not recreating the exact boardgame look. Based on the Steve Jackson design, Awful Green Things emphasizes the frantic, silly sci-fi action of trying to rid your spaceship of a nasty alien infestation with such exotic weapons as robots, hypodermic needles and fire extinguishers. Numerous spaceship types offer tons of replayability, and QQP is even working on a campaign scene.

Meanwhile, MicroProse has elected to keep the very clean mechanics, near-perfect play balance, and aesthetic appeal of Magic: The Gathering in their computerized version of the card game.

One intriguing conversion is the boardgame Power. The playing pieces represent tanks, cruisers and so forth, but this is really an abstract game, almost like chess with a dash of Empire Deluxe. Power is so simple you can learn the rules in ten minutes and, in addition to its multiplayer capacity, offers an addicted blend of feint, maneuver and economy of force that provides Chess-like replayability.

Avalon Hill has a very busy year underway. Third Reich is nearing completion for the PC. The artificial intelligence, problematic on other versions, has been redesigned to be flexible with objectives and aggressive in exploiting breakthroughs, making it a more competent opponent. All of the boardgame’s complex rules have finally been implemented, as well as two-player options and a new interface. The maps even include the dull 1974 version of the map for gog-niards, or an updated full-color version as an alternate. Another classic is 1830, the robber baron classic that has been developed so cleverly by Sintex that gamers are likely to accuse the computer opponent of cheating because it’s so tough. Advanced Civilization is also close at hand (see this issue’s sneak preview).

Avalon Hill will also publish WWII games that are not based on boardgames. Beyond Squad Leader, bearing no more than superficial resemblance to its namesakes (Squad Leader and Advanced Squad Leader), is a real-time game with each infantryman and tank represented individually. A multi-level interface allows you to issue orders to your troops, and it offers a modicum of role-playing, as your soldiers progress through the campaign, earning medals and improving in skills. Unfortunately, the detailed animation of the soldiers is currently too small to be aesthetic or effective. Avalon Hill will also ship Atomic Games’ version of Stalingrad, covering the broad campaign sweep and bitter street-to-street fighting in the Volga with scenarios so huge they made Operation Crusader seem almost minuscule by comparison. Another product in Avalon Hill’s coverage of the era will be Charlie Meylan’s adaptation of the Flight Commander 2 engine to WWII combat.

Other WWII games will include World War II from Impressions, a grand strategy game in the Axis & Allies or Risk style; QQP’s The Pure Wargame, which recreates WWII paratroop actions via a simple move-and-fight system complete with group attacks, overruns, and five levels of AI; and SSI’s inevitable sequel to the hugely successful Panzer General, which will cover British, US and Russian exploits.

SSI’s Great Naval Battles 3 will ship with two dozen fixed scenarios ranging from the Battles of Midway and Coral Sea through the Leyte Gulf encounters and more. It features 24 new ships, lots of new planes, submarine operations, customizeable options and a scenario editor. Also, SSI will publish Steel Panthers, a WWII tactical combat game that allows gamers to build random scenarios using a point-based purchase system. Gamers can play small, interconnected mini-campaigns, or engage in a full-scale campaign where they can use the point and click interface to maneuver past individual buildings, pillboxes, drilling smoke and rubble.

Highs: The introduction of elegant, replayable games like Power that can be played over a modem, network, or the Internet, should do much to increase the community of on-line strategy gamers. We also look forward to playing Multi-Player Civilization, the long-awaited sequel to Sid Meier’s classic from MicroProse.
Playable by hot-seating, network or modem, the design employs a modified turn-based structure which lets you modify your cities while you are waiting on other players to finish their moves.

Particularly commendable are wargames which feature scenario editors like Impressions’ Front Lines, SSI’s Steel Panthers and SSI’s Great Naval Battles 3. Such games will broaden interest and competition within the hobby.

Lows: We see two dangerous trends in the strategy/wargame genres. First, use of real-time combat to attempt to cover up the inadequacies of the artificial opponent; and second, the tendency to take control out of the player’s hands in the name of command perspective. The latter has a tendency to shape games which can be won with virtually no player intervention and diminishing satisfaction.

Extended Forecast: 1995 will bring new approaches to many classics, several hybrid approaches to strategy games, and more customizability for the gamer. In the classics era, QQP plans to unveil two versions of its foundation releases: Perfect General 2 and Lost Admiral 2. The former is prettier than its ancestor and adds new units and a chat mode for its modem option. The latter has new animated sequences and improved graphics, but also adds abstract land units to capture enemy ports and a variety of random storms and natural disasters. In much the same way, Activision has updated its very successful Shanghai game as Shanghai: Great Moments, augmenting the mah jongg game play with multimedia flash commemorating great people and moments, and New World has improved both the look and game play of King’s Bounty with their upcoming Heroes Of Might & Magic. New World will also release White Wolf’s new Empire II (working title), a new design with some powerful new editing tools.

Two companies will base games on the American Civil War. Civil War Battles from Impressions will use a different system than Ed Grabowski’s in The Blue and The Gray and Empire’s Civil War will attempt a comprehensive strategic view of the entire War Between The States, using a tactical module and emphasis on morale and training as well as maneuver. Legions, Mindscape’s game of ancient warfare and economics, has always needed a tactical module. The new Legions CD will include one.

For customizability, Impressions’ Front Lines is sort of an Aide De Camp with more graphical flash. In addition to the scenarios included, almost any battle can be simulated and set up with the flexible editing tools. Unlike ADC, Front Lines has a computer opponent.

With regard to hybrid games, SCI has an intriguing one called Gender Wars. A deliberate B-movie-style plot has the sexes separating due to “too much political correctness,” among other reasons. While males and females from different lands war against each other, the human race must still continue, and that means raids to capture members of the opposition. Im-
pressions' High Seas Trader is a hybrid sailing sim/strategy game set in the period just before Sid Meier's PIRATES. Carousing around coastal towns, trading and navigation are key elements, and the boarding sequences have more options than sword fighting one-on-one. In a similar vein, Koei's sequel to Uncharted Waters is New Horizons. New Horizons features six different characters who go on a variety of missions to trade, explore and get in trouble. It has an interesting economic model, gambling and even an auto-sail command (to known destinations), but will have to overcome a dated graphic look.

Another historical game with hybrid overtones is Koei's Celtic Tales with its role-playing aspects set in a clear-cut strategy game. Interactive Magic's Exploration has a mixture of hero and strategy, too. You play one of five historical explorers and use your economic base and successful exploration to expand your sphere of influence. Combat is handled just like that in Sid Meier's Civilization and the game is played on a random map, solitary or host-headed with multiple players. I-Motion's Marco Polo has similar mechanics. You play one of four different "wheeling and dealing" characters in this strategy game of building and maintaining caravan routes. In another historical hybrid, Impressions' Caesar II will once again place gamers in Sim-Ancient City strategy mode.

Empire's Red Ghost is a real-time, mission-based, action/strategy game where the player controls a group fighting against a global terrorist group founded by Lenin. As you assign helicopters, tanks, armored boats, and other vehicles to capture objectives, you jump into those vehicles and play from an action game perspective.

Impressions' Powerhouse makes you an energy czar where you compete against either another computer opponent or other humans. It is also equipped with professional voice acting, network play, and the capacity for random set-up. Jesse Bock is essentially Aunt Bessie in space with trading on an intergalactic scale, but with a combat element. If you really want to destroy your competition, you'll also want to look at the gangster-controlled economy of MicroProse's Pizza Tycoon. Another game of economic warfare is AIV Networks from ArtDink, the developers of A-Train. I-Motion will publish this game built around the idea of creating your fortune and controlling the world through constantly-expanding monopolies (the networks indicated in the title). If you prefer less overt conflict in your economic challenges, you'll want to try Smillie (originally SmRainforest) from Maxis. It allows you to develop and assign non-player agents to the tasks of maintaining, exploiting or carefully developing a South Pacific island paradise.

Software publishers continue to look for the Tetris solution, a real-time puzzle game as addictive as the classic game from Russia. In 95, Spectrum Holobyte will try with a repackaged and expanded version of the European game, Spin Doctor, as Clockwork. Ice Breaker from Magnet Interactive is making its original appearance on the 3DO, but the real-time game where you move animated pyramids around to change colors and control the map may be ported to the PC. It looks diabolically addictive.

Even traditional parlor games will get new faces in 1995. QQP's Card Player's Paradise offers a Solitaire's journey-like quest built around Rummy, Pinochle and other classic card games. New World will bring showbiz to poker with their Multimedia Celebrity Poker, your chance to play against Joe Piscopo, Morgan Fairchild and Jonathan Frakes. Perhaps the most unusual repackaging of traditional games, however, is Virgin's Hobo N' Pody, a hodgepodge of clever games connected by a cute plot line that was designed by Steve Meretzky, VirtuaChess from Titus and ChessMaster 5000 from Mindscape are both purported to play far stronger on their highest levels than the average human player. So, the choice will inevitably come down to quality of tutorials, style of opponents, and other bells and whistles.

Science fiction strategy games will also be in vogue in 1995. In addition to Westwood's Command & Conquer (see this issue's feature), Virgin will publish Iron Assault, a battling 'mech game, and Z, a Dune 2-like game being developed by the U.K.'s Bitmap Brothers. New World will publish MechLords, a multi-player strategy game from SimTex which is built around 'mech technology, and MicroProse will reprise X-COM with new underwater aliens and underwater weaponry as X-COM: Terror of the Deep.
"One Must Fall 2097 is the best fighting game available for the PC, bar none"
Prevailing Winds:
Expect many computer sports games to use voice-overs by famous announcers to augment their appeal and lend more suspended disbelief to the experience. Accolade will continue to use Al Michaels, the veteran announcer for computer game play-by-play, as the announcing workhorse for their sports line. His commentary work in Brett Hull Hockey ’95 and HardBall IV is up to his usual standards, but he is now up against veteran East Coast announcer Ernie Harwell in Miller Associates’ Ernie Harwell Broadcast Blast, a special edition of their popular Baseball for Windows. Both Accolade products feature smoother commentary than the earlier Michaels efforts, but the Ernie Harwell soundtrack sounds more like a real radio broadcast. MicroLeague hasn’t revealed their intended announcer for their new Sports Illustrated license, but the animation we’ve seen for the Sports Illustrated Baseball game shows that they are very serious about making this stat-based game into a richer experience.

Sony’s ESPN Basketball is also expected to use a celebrity voice-over, much like Dan Patrick’s play-by-play in the ESPN Baseball Tonight product, but the actual announcer has not been signed.

Highs: Stat-oriented gamers will be very pleased with the way Miller Associates’ Bill James Encyclopedia of Baseball integrates with their Baseball for Windows draft disk. In fact, the product integrates SABR metrics (Bill James’ creative statistical tools) and custom search functions so smoothly that it is just what we had wished Microsoft’s Total Baseball product could have been. We also like the more robust statistics model in Accolade’s HardBall IV with MLBPA Players Disk. Football fans should like the host of league play functions, including drafts, trades, and season replays in 15-20 minutes on a 486, in the NFL 75th Anniversary Edition of MicroSports’ Pro League Football. The player animation isn’t a threat to Ultimate Football or FVS: Pro Football ’95, but the on-screen images are reasonably sized, and the four different types of stadiums have nice detail, including actual team logos in the end zones. Another welcome sports game is All-American College Football.

Lows: The drought in five-on-five basketball action continues. Acclaim hopes to duplicate its cartridge game success with NBA Jam: Tournament Edition, a PC CD-ROM title with the same action as the cartridge game, plus extra players, new power-ups, and even secret plays, but it is still only two-on-two. Sony’s ESPN Basketball is also two-on-two action, promising the three top players on each NBA team. Unless Electronic Arts’ NBA Live performs the same kind of transition from cartridge to PC that NHLPA Hockey was able to accomplish, don’t expect to see a good five-on-five game this year.

Extended Forecast: The trend toward lavish visuals in golf games continues with U.S. Gold’s World Cup Golf: Hyatt Dorado Beach, a beautiful two CD game that runs smoothly on a 486-33. The designers rendered 500 shots of each hole and created marvelous hole-flybys. It is a four-player “hot seat” game with match play, skin game, and World Cup Championship play. Accolade’s Jack Nicklaus Golf For Windows product will feature the Colleton River course. With mirrored water effects and ambient animal animation, it is even more graphically intensive than the U.S. Gold product. The CD version will contain Jack’s 36 favorite holes and a course building utility. Using the Windows tools, though, this new architect feature is even more powerful and easier-to-use than the previous incarnation.

At another sports venue, FVS: Baseball fans will rejoice in Sierra’s expected release of a Stadium add-on disk with new stadiums, classic teams and additional players. Fans of Tony LaRusso Baseball II will want to check out MicroSport Baseball I, a Windows-based game with terrific sound effects and a physics model developed by Stormfront Studios, developers of the LaRusso game.

For something completely different, MicroLeague Sports is nearing completion on Blood Bowl, a computer version of the popular Games Workshop strategy game where the players are really out for blood.

Other sports titles to watch for in 1995 include: Troy Aikman Football from GT Interactive, a new Wayne Gretzky Hockey game from Time-Warner and cartridge game conversions of NFL Quarterback Club and Frank Thomas Baseball from Acclaim.
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**Enhanced Campaigns Provide Updrafts To Keep Sims Lively In ‘95**

**Prevaling Winds:** In 1995, simulation games will torque up the realism, both in terms of mission planning and in terms of graphic appeal. SST’s *Silent Hunter*, a submarine game based on Pacific Theater action during World War II, has near photo-realistic periscope views that are incredible. Every ship, port facility and building is a 3-D object that can be light-sourced accordingly. So, you get the right glare and shadows according to their day-to-night calculation. When you appear in a harbor, you see them accurately as the designers have reconstructed them according to period maps and geographical survey information. And, with a veteran sub commander advising them on realistic mission data, *Silent Hunter* should be as groundbreaking for the Pacific Theater as *Aces of the Deep* was for the Atlantic Theater. Speaking of *Aces of the Deep*, *Dynamix* is nearing release on the *Aces of the Deep Expansion Disk*. You will now patrol the Mediterranean, but you get to do it in a top-secret XXI U-boat. The XXI U-boat was sometimes known as an Electro-Boat. It was faster, had greater range, better fire control and used radar. It also wasn’t introduced until 1945, but gamers can use it much earlier in their Mediterranean campaigns.

In the world of combat flight simulation, *Digital Illusions* (developers of *Tornado*) is creating a mission-based *Apache Gunship* simulation for new publisher *Interactive Magic*. It will feature active areas for nape-of-the-earth level missions representing 200 x 200 mile squares of detailed geographical survey maps set within three geographical areas: Korea, Yemen and Cyprus. Each geographical area has its own campaign.

*Spectrum Holobyte’s* Top Gun, admittedly designed to be an entry-level flight simulation, will take a different approach to the campaign idea. The real-world feel will arise from the interpersonal conflict depicted in the cinematic cut scenes played between missions. In this sense, the flight sim will be something like a *Wing Commander*-style approach with real-world atmospheric flight and weapon models. They also hope to recruit more computer pilots with lots of on-line help using digitized video.

**Highs:** In addition to the great graphics advancements in *Silent Hunter*, we’re excited about the emphasis on mission planning in *Apache Gunship*. One of the great strengths of *Tornado* was its mission-planning module. Now, in *Apache Gunship*, *Digital Illusions* has added a replay capacity that features an intriguing mission debrief. When you view the replays of missions in *Apache Gunship*, you quickly get to see how well you stuck to the plan and how often you had to ad-lib. You may also be evaluated on how well you planned the mission. So, you’ll “love it when a plan comes together!” We also like the *Dynamix* approach to multimedia products in this area. Their *Earn Your Wings* product features information on the history of aviation, but its heart is the ability to watch hi-res videos of Red Baron maneuvers being performed as you simultaneously watch a large diagram of flight controls moving through the maneuver.

Then, you can jump into a scenario from the game and try to perform the maneuver yourself, since it contains both full versions of *Red Baron and the Red Baron Mission Builder*. It looks very cool.

**Lows:** The only downside to this year’s flight sims seems to be that the current machines can-
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Prevailing Winds: Icy temperatures are in store for traditional adventure games and role-players. 1995's emphasis will be on 3-D environments and digitized video rather than on character building and storycrafting. This year's crop will feature lots of virtually empty 3-D rendered spaceships, castles, ruins and mazes where the only interesting characters you meet are those outside your time and space.

One class of games will feature 3-D environments to explore and will emphasize puzzle-solving over either combat or characterization. A Canadian publisher called Discis Knowledge Research is about to release a puzzle-based game set in a pre-Sumerian civilization, JEWELS OF THE ORACLE is a non-linear Myst-like game which features 30 puzzles, 3-D texture-mapped walls with authentic hieroglyphics, and great sound. Legend's MISSION CRITICAL starts out as the old abandoned spaceship to be explored and repaired scenario, but in addition to its beautifully rendered 3-D spaceship, the game boasts a challenging strategy game as part of its finale. Magnet Interactive's BLUE STAR also boasts a beautifully rendered 3-D spaceship. The twist is that you play a dolphin in this non-violent, exploratory mystery.

Activision's PLANET FALL: FLOYD'S NEXT THING returns you to that wonderful Infocom universe where Steve Meretzky's colorful robot named Floyd provides both challenging puzzles and robust chuckles. Now, the alien 3-D rendered environments are no longer merely extensions of Meretzky's prose to be imagined, but rendered in dizzying xenopluor on your VGA monitor. BURIED IN TIME is the sequel to THE JOURNEYMAN PROJECT. This time, you have been framed and must visit two historical sites (a 15th Century castle and a Mayan pyramid) and one near-future site in order to prove your innocence.

3-D will also play a role in Fox Interactive's RETURN OF THE APES, scheduled for next year. The adventure game will be based on the Oliver Stone movie and will use Stan Winston's 3-D models from the film as the basis for the apes in the game. Fox is hoping for simultaneous release with the motion picture and promises that the adventure game will be deeper than the movie. Mindscape's INFILTRATOR will take a somewhat different approach, using "claymation"-style figures to create a Blade Runner-esque atmosphere.

As previewed in last October's cover story, Interplay's STONEKEEP will feature 3-D mazes for role-players to hack their way through and 3-D rendered encounters with the major monsters. New World's WETLANDS will alternate adventure game puzzles for its underwater psychic detective with vehicle chases and other action scenes. 1-Motion's ALONE IN THE DARK 3 will use the same kinds of 3-D environments and characters that made its two ancestors successful. The main difference between ALONE IN THE DARK 3 and its predecessors is that the latter will take place in a western town. Meanwhile, Merit is nearing completion of HARVESTER, a vivid interactive horror story that's something like an episode of The Twilight Zone on acid. Your character wakes up as an amnesiac and sets about reorienting himself through the use of blood-spattering chainsaws, holes blasted with shotguns, and other gory effects.

Highs: The character generation in Bethesda's THE ELDER SCROLLS: DAGGERFALL could be the best feature in an RPG this year. Not only does it include disadvantages which can be traded for strengths, powers, skills or spells, but it allows interesting customizability. Another worthy and interesting concept we are anticipating in this genre is that of MILLENNIUM, a time travel game from Take 2 in which players will travel to different ancient civilizations in order to alter the destiny of a given civilization. Want Rome to reign for a millennium? Figure out how to avoid the fall. Details on gameplay are still sketchy, but we're very interested.

On the graphic front, we are very impressed with the cinematics in FRANKENSTEIN: THROUGH THE EYES OF THE MONSTER. Interplay's 3-D adventure lets you play the monster and see the doctor standing over you as you come to life, or look down on those of smaller stature than
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Full Throttle

Imagine a dark future where everything is dingy and overcast, where crime is rampant. Then, imagine you are a hawg-riding hero framed for the murder of a prominent businessman—who is ironically the president of the company that built your motorcycle. That’s the set-up for LucasArts’ Full Throttle, a graphic adventure that combines vehicular action à la Rebel Assault, a punching sequence while riding your hawg that should make you feel like a Hollywood stunt man, clever puzzles like you would associate with the best of LucasArts’ graphic adventures, dialogue as funny as that in the Monkey Island games, and backgrounds as detailed as an expensive graphic novel.

Hunt down Jack the Ripper across the Net before he can completely carve the personality out of your skull.

Phantasmagoria, the long-awaited horror opus from Roberta Williams and Sierra, is nearing completion. It won’t be long before you are able to find out if this mysterious 3-D house, a complete architectural creation built in 3-D studio but replete with digitized video horrors and on-screen actors, can drive you as mad as it seems to be driving the game’s protagonist. At least, this 3-D environment doesn’t have the empty feel of many graphic adventures for 1995. Interplay will publish Cyber Hood, a cyberpunk send-up of Robin Hood, using live actors. Merit’s G-Nome uses digitized film to cast you as a Space Marshal (somewhat better equipped than Sean Connery in Outland) who must track an enemy long thought extinct through numerous SVGA alien landscapes. Executive Producer on the project is Todd Mitchell Porter, designer of the extremely detailed Knights of Legend RPG for Origin. Later, in 1996, Magnet will unleash
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Helleraiser, a nonlinear horror game which blends video with 2-D and 3-D technology as it takes you to virtual hell. This one combines design talent from the venerable SWORD OF THE SAMURAI (MicroProse) and THE ELDER SCROLLS: ARENA (Bethesda) to craft the role-playing elements.

In more traditional styles, Sanctuary Woods has hired screenwriter Lee Sheldon (Star Trek: The Next Generation) to script THE RIDDLE OF MASTER LU. Believe it or not, you play the part of Robert Ripliey in an INDIANA JONES-style adventure that features scaling animation, multiple puzzle solutions and a fascinating array of weird artifacts to collect. It takes the Dragonsphere engine and kicks it up a notch. Bureau 13 is TAKE 2's adventure game tribute to TV's THE X-Files, with a hint of Mission: Impossible thrown in. As leader of the bureau, you choose special agents like a hacker, a mechanized woman, a priest, thief, vampire or witch and guide them in investigating supernatural and paranormal phenomena.

Koci's BRANDISH lets you play the part of a criminal who falls into a subterranean maze (with graphics similar to ULTIMA V, over 40 levels and 45 types of creatures) while trying to escape from a bounty hunter. QQP's NORTHLANDS takes you out of the dungeons to seek treasure; the perspective is different, as walls and doors loom above you as you walk toward them, noise increases as you approach, and monsters truly wander, instead of patiently waiting in one spot.

1-Motion's PRISONER OF ICE is an RPG set in the Arctic. It is based on the same Lovecraftian myths as SHADOW OF THE COMET, but the graphics will improve and the game will take significantly more time to complete.

SSI will be rolling out a new RPG line called THUNDERSCAPE. The setting combines styles as disparate as "steam punk" or "mechamagic" and traditional role-playing magic. It will offer a flexible character skill system and a full-screen, 3-D environment with light-sourced objects. Although the adventuring will be in real time, the combat will be phased. SSI hasn't forgotten its traditional audience, however. Ravenloft 2: STONE PROPHET will use the RAVENLOFT engine developed by Dreamforge, but will feature an Egyptian motif, instead of yet another medieval setting.

Off the beaten adventuring path, LucasArts has a new INDIANA JONES game in the works. It's not for hard-core adventurers, but INDIANA JONES' DESKTOP ADVENTURES is a Windows program that randomly generates mini-adventures. You view the world from a top-down perspective while you solve very simplistic puzzles.

Those who like action/adventures in the DRAGON'S LAIR tradition should watch for Readysoft's BRAIN DEAD 13. Players take the role of Lance as he tries to escape the evil machinations of Fritz, a demented scientist type. The animation, all traditionally drawn, is marvelous, and many death scenes are to die for.

The following games are expected to ship near the time this issue is on sale: Spectrum HoloByte's STAR TREK: THE NEXT GENERATION; THE FINAL UNIFIED, PSYDOSIS DISC WORLD, and Virgin's LOST EDEN. Titles which have been announced, but are not expected to ship until the end of this year or early '96 include: ACTIVISION'S ZORK: NEMESIS, a sequel to last year's RETURN TO ZORK; CAPSTONE'S WITCH HAVEN, a dungeon crawl using maps designed by paper game designer Mike Pitt; CAPSTONE'S TEKWAR (see "Sly Sight"); NEW WORLD'S DarksPrye III (working title), a DreamForge design which marries their old DarksPrye universe to a new STONEKEEP-style look; CAPSTONE'S CRYSTAL SKULL, a game written by Indiana Jones and the Last Crusade contributing scriptwriter Rob MacGregor, MINDSCAPE'S Warhammer 40,000 A.D., an RPG set in the Games Workshop universe of dark fantasy; CAPSTONE'S unannounced Roger Zelazny project, a science-fiction game built on a game universe being created by Zelazny specifically for the game and being developed by DREAMFORGE: MINDSCAPE'S ALIENS, based on the movie, and DOMARK'S ORION CONSPIRACY, an adventure set in a dark future where megacorporations control the universe.
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You've probably seen the recent TV commercial for the Apple Macintosh. You know the one, where the Dad is trying to get a multimedia upgrade kit running on his PC clone. After a while, his son gives up and goes next door, to a friend who has a Mac.

Unfortunately, the ad is altogether too real. Macintosh owners do have an easier road when it comes to software and hardware installation. But what the Apple ads don't show you is the huge shelf of games that the PC owner can select from as opposed to the comparatively minuscule selection for the Mac.

As you probably know if you've toured those aisles upon aisle of PC games at your local software shop, a CD-ROM drive is becoming a required device to enjoy the latest PC games. By the end of this year, the majority of games will be available on CD, and a good chunk of them will be released exclusively on CD. So if you haven't yet taken the CD plunge, it's about time to stick your toe in and test the waters.

To make your dive easier we gathered together a sampling of the best CD-ROM drives and the best "multimedia upgrade kits" and given them a test spin. We've included a few stand-alone quadruple-speed CDs as well as the best double-speed and quad-speed CD-ROM upgrade kits. The quad-speed drives will probably best suit the gamer who has a decked out PC with a high-end sound card, speaker system, joystick and game library, but is looking for the highest performance in a CD drive.

The upgrade kits are more for the newer gamer, or the gamer who has just purchased a stripped down PC without all the gaming accessories. These kits contain a CD-ROM drive, sound card, speakers, and a bundle of CD games and applications, in addition to a few other odds and ends.

When testing the CD-ROM drives, we ran the units through several benchmarking tests that together give a good indication of how they will perform with games.
COMING SOON ON MULTIMEDIA CD

KING'S QUEST VI
THE PRINCELESS BRIDE

SIERRA
When analyzing the upgrade kits, we looked at the CD drive performance, but we also looked at other components to give you a feel for the value of a kit as a complete package. We also looked at ease of installation, because, as we’ve been told by our friends at Apple, this is a major concern for PC owners, especially those that aren’t used to the wily ways of the PC. Some of the manufacturers of the current crop of upgrade kits have been working hard to make them easier to set up and use, but there’s still some ways to go. And some vendors have yet to learn.

**Sigma Designs**

**REALMAGIC MPEG CD-ROM KIT**

This upgrade kit ships with a workhorse Sony CDU-33A double speed CD-ROM drive—not exactly a compelling device, although sturdy and servicable. The Real reason for this kit’s existence is the RealMagic MPEG decoder board. MPEG, which stands for Motion Pictures Expert Group, is a video compression standard. MPEG-1, the current standard, can compress up to 55 minutes of full motion video onto a standard 680 MB CD-ROM. However, MPEG compression is expensive and time-consuming, so games supporting it have been slow to appear.

The new RealMagic board comes with a Windows MPC driver that allows you to play back CD-I (Compact Disc - Interactive) movie CDs. Unfortunately, we couldn’t get better than quarter-screen video on our testbed system. Every time we tried to expand the video, we would get an effect that looked like the kind of scrambling your local cable company uses on the pay channels. Sigma-style CD movies fared better, using the DOS player that’s installed.

Installation was straightforward and smooth, a pleasant surprise since the early RealMagic products had some teething problems. The installation manual is terse, but straightforward. A video pass-through cable needs to be connected from the RealMagic card to the VGA pass-through on the video graphics card. Unfortunately, our testbed system used a Number Nine GNE video card. Sigma Designs only supports the GNE in 256-color mode. The CD-ROM drive attached to a connector on the RealMagic board, and the cable was just barely long enough to reach from the slot to the CD drive in our full tower system. Performance of the Sony drive was pretty much as expected, although we couldn’t test the 16-bit video because of the 256-color limitation mentioned above. Sound Blaster emulation was flawless; the FM music was pretty typical fare, not great, but serviceable. Digital audio was clean and easy to understand.

This is an interesting product, but limited in scope until it gathers more support from game companies. More companies are coming on board with MPEG decompression hardware, so more software developers are expressing an interest in supplying MPEG-compressed software. If your video card is supported by the RealMagic card in 65,000 color mode, this could be an interesting product to consider.

**RealMagic MPEG CD-ROM Kit.**

Price: $699.00 (MSRP). Contents: Sony CDU-33A double speed CD-ROM drive, RealMagic MPEG decoder board (Sound Blaster compatible), stereo speakers, and bundled software including the MPEG version of Return to Zork, a CD-I MPEG movie (Top Gun), and a sampler CD. For more info: (510) 770-0100.

**Diamond Multimedia Systems, Inc.**

**DIAMOND MULTIMEDIA KIT 5000**

Diamond recently changed its name from Diamond Computer Systems to Diamond Multimedia Systems—clearly an indication of their future direction. Sure enough, soon after the name change, Diamond shipped two multimedia kits. The 5000 is the high-end kit, shipping with 30 software titles, a Sound Blaster-compatible sound card (with a Wave Blaster-style connector for Diamond’s own wavetable upgrade daughtercard), and a Teac CD-55A quad-speed CD-ROM drive. The CD-ROM drive connected to the sound card via the Panasonic connector; the board supports four different CD connectors (Sony, Mitsumi, Panasonic, and IDE), although SCSI was not one of the choices.

Installation was very smooth and straightforward. The documentation supplied with the Diamond kit was uniformly excellent, among the best we’ve seen. There’s a full explanation of technical concepts in the back of the install guide, but Diamond doesn’t clutter up the installation section with too much detail. There’s even an illustrated quick install guide for someone with some technical savvy. Diamond supplies an installation video, but it only covers hardware installation.

Although Sound Blaster compatibility seemed reliable, the sound quality wasn’t up to other FM synthesis sound cards. MIDI samples played on the card sounded distorted, even at low gain. The default DOS mix seemed a little low, and we had to crank up the volume to get good sound. Digital audio sounded clean and voices were easy to understand. You should note that the sound card has a Wave Blaster-type daughtercard connector, but, due to the physical design of the card, the only card that will fit the connector is Diamond’s own wavetable daughtercard. With or without Diamond’s wavetable upgrade, we’d rate music quality as mediocre, but digital audio as very good. The performance of the Teac CD-ROM drive was slightly below the other quad-speed units, mainly because of the significant CPU load required. However, the drive performed well in all our tests and ran the Wing Commander 3 video segments without a hitch. Overall, this is a good value for the money, although we’d like to see better MIDI music at this price.

**Diamond Multimedia Kit 5000.**

CGW CD-ROM BENCHMARKS

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<th>Wing Com 3 Load Time (sec)</th>
<th>MPC Access (ms)</th>
</tr>
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<td>17</td>
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Notes:
Sony Drive was part of the Sigma Designs RealMagic upgrade kit
Teac Drive was part of the Diamond, Impressions, and Platinum 16 upgrade kits
Panasonic Drive was included in the two upgrade kits from Reveal
* False reading due to 1 MB buffer

How We Tested

THE TESTBED

The following system configuration was used in the testing of these CD-ROM drives.

Hardware
486/66 EISA/VLB Micronics system board, 256 KB cache
16 MB RAM
Adapter 2742A SCSI host adaptor
National Semiconductor Infomover LAN card
Quantum LP540S 340 MB SCSI hard disk
US Robotics Sportster 14.4K internal modem / fax
Number Nine GXE level 12 SVG video card

Speakers
Allison Acoustics Mini 2P self-powered speakers. These speakers have a 15-watt per channel amplifier and audiophile quality sound. These are NOT "multimedia" speakers, but speakers built to use with CD players and offer flat output to from 50 Hz to 20 kHz. They sound terrific.

Software
MS-DOS 6.22, no disk compression
HIMEM.SYS and EMM386.SYS memory managers
Microsoft Windows 3.1 (vanilla installation)
All configuration files (CONFIG SYS, AUTOEXEC.BAT, SYSTEM.INI and WIN.INI) were restored to a "vanilla" state before each installation.

THE BENCHMARKS

Here are the software utilities used to generate our numbers.

Microsoft VIDTEST. VIDTEST, among other things, tests CD-ROM performance. The VIDTEST throughput numbers indicate the amount of data (in kilobytes) transferred by the drive per second. The CPU utilization numbers indicate the percentage of CPU used while transferring the data in the throughput tests. The lower the percentage of CPU usage, the better. In addition, we performed video streaming tests at 8- and 16-bit color depths to see if any video frames were lost during video playback at 15 frames per second.

MPC Wizard Access Time Test. MPC Wizard is a handy set of utilities by Softkey International. It includes some useful tests that measure MPC level 1 and level 2 compatibility. We used the access time test to tell us how long it took for a drive to access a random piece of data on a CD-ROM. The lower the number, the faster the drive.

Wing Commander 3. The Wing Commander 3 installation routine displays a CD-ROM data throughput rate. The higher the number, the faster the drive. In addition, we tested load time by clocking the time it took from starting the game to when we saw the opening credits.
ward, although the photographs in the installation guide were too small and grainy to be very useful. One plus: the CD drive I/O cable was plenty long enough, and didn't require a Herculean effort to connect.

Due to the simple bundling of the OEM components, there wasn't a single, unified installation program. Instead, we installed the CD drivers first, then the Sound Blaster software. The Teac installation runs under Windows, which can be problematic if you don't have Windows installed. The Sound Blaster installation behaved as expected and caused no problems. The Teac performance was pretty much as expected. The Sound Blaster 16 FM audio was pretty much standard FM fare, but soundclean and undistorted. The digital audio was also pretty clean, save for the occasional pop.

Overall, the ACMA Impressions kit would be one more suited for someone who is setting up a small business or home office, and only occasionally plays games.

**Impressions Multimedia 4x Upgrade Kit.** Price: $429.00 (MSRP). Contents: Teac CD-55A quad speed CD-ROM drive, Sound Blaster 16 value edition (not wavetable upgradable), and stereo speakers. Bundled software includes Microsoft home products such as Escaria, Works, Money and Entertainment Pack. For more info: (800) 786-6888.

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**Multimedia Innovation**

**PLATINUM 16 UPGRADE KIT**

This is yet another upgrade kit that includes the Teac CD-55A quad speed drive. The installation process for the CD drive is the worst yet, both confusing and baroque. We had to step through a seemingly endless series of menus to install the CD drive. In addition, the sound card had quite a few jumpers to set, which will bring no joy to those who've never dealt with them. The default settings for the jumpers were good choices, but most sound boards shipped these days have only a few jumpers, and some have none at all.

Since the Platinum 16 sound card claims Sound Blaster Pro compatibility, we assumed that the CD ROM interface would be the same as a Sound Blaster. In this particular version of the CD-ROM drive, it's not, and it's only documented in the section on jumper settings towards the rear of the Multimedia Platinum Utilities Manual. Additionally, the board emulates the Microsoft Windows Sound System, which can be a plus for Windows users. However, the default interrupt setting for Windows Sound System is IRQ 11—which happens to coincide with the interrupt of our Adaptec 2742A SCSI host adapter. Users who are less technically adept might wonder why they would get a "CANNOT READ FROM DRIVE C:" error when trying to start Windows. The Platinum software installation went a lot more smoothly, but on an aesthetic point, the install program had to be one of the ugliest in appearance we've ever seen.

When we powered up the computer, a loud "pop" issued from the speakers. Sound quality was pretty typical FM synthesis, although the default mix in Windows added a slight amount of reverb that was pleasing to our ears. If anything, the FM sound was even cleaner than the Sound Blaster 16 audio. Digital audio was equally clean sounding. And you can even upgrade the music quality, because it has a Wave Blaster-compatible connector. So despite being one of the most difficult kits to install and set up, the sound quality was good and the performance on a par with most of the quad speed kits.

**Platinum 16 Upgrade Kit.** Price: $399.00. Contents: Teac CD-55A quad speed CD-ROM drive, Platinum 16 sound card (wavetable upgradable), stereo speakers, and some bundled software including Camanché: Maximum Overkill. For more info: (408) 379-2900.

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**MULTIMEDIA FX QUANTUM KIT**

Opening this kit is kind of like opening a lot of presents on Christmas. The number of goodies in this collection is nearly overwhelming. In addition to a large pile of CD-ROMs, there are a pair of speakers that look like they should sound great (more on this later), a (cheap) joystick, a great pair of headphones, a microphone that's a clone of the one that ships with the Microsoft Windows Sound System, and a wavetable sound card based on Esoniq's Soundscape 2000. The only disappointment is that the Panasonic CD-ROM drive is a mere double-speed drive that connects to the Panasonic interface on the sound card. This bundle also ships with everything you need to connect, including drive rails (if you need them), and an installation video. One of the nice touches is a little black-and-white manual that gives a brief rundown on the installation procedures of every included CD title. The installation video is limited to only hardware installation, but it's the most complete video of its type we've seen yet.

The installation program runs under Microsoft Windows and is very easy to use. The CD-ROM installation was part of the overall installation process, and went very smoothly. Overall, we'd rate installation as excellent.

The sound of the Esoniq-based wavetable board was exceptionally good, especially when compared with the FM synthesis of the rest of the boards in this round-up. (In the December issue, the Esoniq placed in the middle of the pack compared with other wavetable boards. We did notice that the problems we experienced with Windows sound drivers in the December review have apparently been solved.) Like the Soundscape 2000 reviewed in December's issue, Sound Blaster compatibility is problematic. For example, even when you follow the instructions in Reveals application setup guide, Strike Commander will not run with Sound Blaster digital audio. MIDI music is terrific, but the Strike Commander CD has a lot of digitized voice that a buyer will never hear. However, games that support the Esoniq directly sound terrific. Wing Commander 3 has Esoniq drivers for both music and digi-
Life Sucks. Rock And Roll Is Dead.  
So Blast A Few Heads.

In the year 2055, life is just another word for chaos. Sure, your music has given you some moments of escape, but your rock superstar status has also given you too many nights locked away in hotel rooms, away from the din of crazed fans. Virtual Reality is the only reality that means anything anymore. In the world of Virtuoso you'll blast cyborgs in cavernous, sub-Martian passages, encounter the living dead in a Haunted House and submerge yourself with strange life forms in an Underwater Biosphere. Now, isn't that just what you needed?
ital audio, and hence the audio, both MIDI and digital, is outstanding.

As for those speakers...well, they sound pretty good, although not as good as the audiophile-quality Allisons we used on our testbed system. Still, they are by far—by far—the best speakers in any of the kits we tested. They would be a welcome addition to any gamer's setup. The headphones are pretty darned good, too. Overall, the Reveal Quantum Kit is our best buy of the lot. Reveal's choice of components, attention to detail and vast software library will keep a gamer happy as a pig in slop for quite a while...and it even has some educational value. Now if they'd only bundle it with the Plextor CD-ROM drive....

**Multimedia FX Quantum Kit. Price:** $549.00 (street price). Contents: Panasonic double speed CD-ROM drive, wavetable sound card based on Ensoniq's Soundscape 2000, 40 watt stereo speakers, headphones with boom mike. The bootload of bundled CDs includes front page sports football pro, wing commander ii deluxe edition cd, strike commander cd, 7th guest, and many family titles. For more info: (800) 326-2222.

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**Plextor 4PLEX QUAD-SPEED SCSI**

The Sound FX SC400 sound card is Sound Blaster and Microsoft Windows compatible. Installation went smoothly, although our test system locked up during the sound test. After rebooting, we started up Windows and noticed that the interrupt for the Windows Sound System was set for IRQ 11, but the SC400 Windows driver detected that IRQ 11 was being used and switched to IRQ 7 on the fly! We fervently wish other sound card vendors would take note of this and implement similar behavior in their drivers.

The audio quality can be simply described as very clean FM sound. Digital audio was also clean and crisp. The SC400 also has a Wave Blaster-compatible connector, which will allow high-quality wavetable MIDI to be added at the buyer's convenience. Overall, the Explorer kit is a decently priced, entry-level upgrade kit that's easy to install and use.

**Multimedia FX 16 Bit Explorer Kit. Price:** $249.00 (street price). Contents: Panasonic double speed CD-ROM drive, Sound FX SC400 sound card (wavetable upgradeable), stereo speakers, headphones with boom mike. Bundled CDs include wing commander ii deluxe edition cd, return to zork, and dr. t's sing along. For more info: (800) 326-2222.

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**Toshiba XM3501E1**

This external quad speed drive ships with a complete accessory kit, including the same Future Domain SCSI host adapter as the Plextor. Since this is an external device, Toshiba thoughtfully included a termination resistor. The SCSI addresses are set with a switch that requires a pointed object (e.g., a pen) to press the switches. The address is displayed in a tiny window. If you use an external CD-ROM drive, you need to route a CD audio cable (not supplied) either to your sound card line input (using an RCA to mini-plug cable) or to a stereo (using an RCA-RCA cable). Plugging it into your sound card is the best bet, for those few games that use Red Book audio (e.g., CD audio) for music, or for listening to your own audio CDs through your computer's speakers (providing you have better than average speakers).

The reported access time by the MPC Wizard benchmark was faster than the 4PLEX, which jibes with the official specs. However, the Toshiba did drop one frame on the 16-bit AVI file, probably because its
As you set down on the docking pad in the station hangar, you are a little puzzled. You remember that on Station Zeus there must be at least a hundred crew members, and not one is here. And while the mystery begins to unfold, the clue by the abandoned remains of some poor souls may not be very easy to digest. In the meantime, an unimaginable terror strikes the few colleagues that you have left aboard Station Zeus.
buffer is only one-quarter the size of the one megabyte buffer in the Plexor. The Wing Commander 3 install routine reported a transfer rate in line with the actual specs of the drive. One strength over the Plexor was the reduced CPU usage when transferring data at 600 KB per second (36.5% vs. 55.7%).

XM3501E1. Price: $545.00 (with adapter kit add, $140.00). For more info: (714) 457-0777.

Mountain Network Solutions

CD-7 CD MINICHLANGER

This unique device handles up to seven CD-ROMs simultaneously. It requires no caddies; instead, you load the multiple CDs one at a time through an eject tray, much like most caddyless drives. It needs its own custom ASPI driver (ASPI is a SCSI driver standard originally developed by Adaptec), which is supplied by Mountain. The install program is smart enough to comment out any existing CD drivers. The driver “grabs” seven drive letters, which represent each of the seven trays. However, the drive is smart enough that, when a program requires a particular CD to be addressed as a particular drive, it loads the correct CD. The drive is very easy to set up and install; SCSI termination is handled by flipping a little switch on the back of the drive. Our test unit did not arrive with a SCSI card, so users will have to purchase their own.

The drive exhibits benchmark performance that would have been exceptional a scant 15 months ago. The CPU utilization at 300 KB/second (i.e., double speed) is less than 35%, and the average access time is well within MPC level 2 specs. Unfortunately, in this day of quad speed drives, it’s now an also-ran in terms of performance. Nonetheless, its price, ease of use and feature mix make it an interesting contender.

CD-7 CD Minichanger. Price: $649.00. For more info: (800) 458-0800.

DECISIONS, DECISIONS...

Of the three stand-alone CD-ROM drives tested, it was a tight race between the Plexor, 4PLEX and the Toshiba XM3501. In the end, we gave the nod to the Plexor because of its huge one megabyte buffer. Most gamers spend a lot of time waiting for large data files to load, and any help in this area is welcome. The Mountain CD-7 was an intriguing component, easy to set up and use, but was somewhat hobbled by its limited performance. Still, it might make a useful addition for someone who already has a fast CD and needs some reference CDs always on line.

Of the upgrade kits, we feel that the Reveal Multimedia FX Quantum Kit offers gamers the most bang for the buck. Although the Ensoniq-based sound card has some problems with Sound Blaster emulation, it is garnering wide support in the industry, so compatibility problems with future games will eventually fade. It’s the best sounding board of the bunch. The speakers, other components, weight of titles and attention to detail make the Reveal Quantum Kit our package of choice in this roundup.

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Circle Reader Service #12

62 COMPUTER GAMING WORLD • MARCH 1995
Welcome To Silverload, A Devil Of A Town.

Folks don’t come to Silverload much anymore. A’nt been no silver here in years. And when they do come, they don’t stay any longer than they have to. Missing persons? No, mister, a’nt never seen no missing persons. Of course, folks here don’t pay much attention to strangers. Have a look around? Can’t say anybody will stop you from looking around, mister. Except the last man who came here looking for kin is buried over there on that hill.

© 1995 Millennium Interactive Limited
Some Things Are Better Left Dead And Buried.

Its spell brought a city's populace, enfeebled from the cult of the dark god, Nyachtetep, and ensured that the blood of the serpents, people ran through the veins of all his descendants. Centuries would pass, and it would be buried at the end of a long, lost tunnel in a temple beneath the unsuspecting city of Alexandria. But in 1920, one Yusuf Al Rashid begins to dig in a hiding place for his ill-gotten money and unearths the 2,000-year-old magical scroll which sets in motion an adventure which begins with death and could finish with the end of the world.
Leaps Of Alien Logic

Alien Logic is a game hard to categorize by genre. It has combat like a computer role-playing game, and a form of character improvement, but there are no stats, experience points or levels. It does not feature the puzzles of a traditional adventure game. There is a little jumping around, but it certainly can’t be called an action/arcade game. It has a science fiction background and alien races, but there is no flitting in a space ship hither and yon across the galaxy. All in all, while having elements of several types of games, Alien Logic occupies a niche of its own.

The action takes place on Jorune, a world colonized 3,500 years ago by settlers from Earth. At first, the Earthers got along well with the native Shantha race. Then war broke out back home, and the supply ships were canceled. Panicked, the humans began large-scale agricultural development, intruding on sacred Shantha lands. Naturally, the Shantha fought back, and the humans were on the losing side until they turned to bio warfare, wiping out about 99% of the Shantha population. The survivors retreated to remote areas, and their dwelling places became ruins over the centuries. Shantha are rarely seen or heard from these days, except for one race. That race is the Red Shantha, who descend on small human villages and make off with the inhabitants for unknown reasons. Your character is a human who managed to avoid capture when the Red Shantha kidnapped the rest of his village, and who has vowed to track down this evil alien and free his friends.

Naturally, that is no easy task, and most of the game is taken up with developing the hero’s Isho powers and abilities so he can accomplish his mission. Isho is a sort of energy force that permeates Jorune, which some people (especially Shantha) can channel into what are, effectively, offensive and defensive spells, called dysha.

DOING THE DYSHAS
Your character knows only two dyshas at the start and must learn more as the game progresses. There are two ways to do this: going through training sessions at a "kerning bay," and finding Shantha artifacts that bestow or increase dysha powers. There aren’t many artifacts around, and they are often hard to come by, so most increases will come from training at the kerning bay in the city of Ardoth.

Another thing you must do is become a master of WarpWorld by opening 25 warps across the surface of Jorune. Warps are teleporters that get you quickly to different areas.

THE SHINE WEARS OFF JORUNE WHEN SCORPIA CAN NO LONGER DO THE DYSHAS

by Scorpio

Scrooge

Trilobyte is ready to begin filming on Dog Eat Dog, an adventure in office politics based on a script originally being developed for Disney. The original design used a '50s era romance comic look, but Trilobyte's production will be a full-scale multimedia production using the GROOVIE toolset developed by the company. The game starts on your first day in the office when, through dialogue-intensive interaction, you have to figure out how to save your job while dealing with an impossible boss.

Capstone is publishing a TexWar game, based on the William Shatner novels. Shatner will assist in the writing and development of the action/role-playing detective game which is expected to ship in November of this year.
of the planet. These portals can be opened only by using devices known as "cle-eshta," scattered around the wilderness and throughout many Shanthic ruins.

Travel otherwise is by foot alone; there are no riding animals, vehicles, or ships. Walking is thus a major activity in the game, as that's how you find interesting sites to investigate, and you have an item called the Tracker to help you locate important areas.

The Tracker mode charts your progress in the outdoors by displaying the immediate terrain and your character as a red dot with white crosshairs. As you move around, the view scrolls as well. Also displayed, when you're close enough, are locations with critters, herbs (called limilates), crystal patches, warps, villages, ruins or cle-eshta.

The real action happens in sideview exploration mode, where you see a full-figure close-up of your character and his immediate surroundings. It is this mode that allows you to explore ruins, pick up and use items, weave dyshas, and save or restore the game.

Left-clicking on an item picks it up (there is no way to drop anything) and puts it into the inventory. Calling up the inventory and clicking on an item will use it, if appropriate to the situation. Moving close to, or clicking on, a nearby being will start a conversation, so long as it isn't hostile.

Clicking on the dysha icon or hitting one of the function keys (F1-F10) puts you in dysha mode. Casting dysha is the only way to fight in the game; there is nothing along the lines of weaponry or melee combat. Once in this mode, right-clicking on an opponent sends an offensive spell at it, while holding the shift key and right-clicking activates a defensive spell around your character.

**JUICING UP AT THE ISHO BAR**

The one thing you have to watch carefully is the Isho bar that measures the amount of energy you have, because this is real-time combat, not turn-based. It takes energy to cast dysha, and while this is self-renewing, Isho tends to come back slowly. Weave too many dysha too quickly, and you could find yourself in big trouble, especially when facing multiple opponents.

The function keys are important, as they allow you to set up ahead of time different combinations of dysha for fighting different types of opponents. You can even switch from one combina-

**PERSONAL DIGITAL ASSISTANT**

Your right-hand-device is the Tracker, a screen which charts your progress outdoors and indicates proximity to "good stuff" with the icons on the right.

much more useful than Shield, whereas Shield is better against those who can't weave dysha and attack physically. With a little experience and thought, you will soon come up with combinations to help defeat most anything you have to fight. Providing, of course, you have a selection of dysha to choose from, and this is one of the game's sore points.

As mentioned earlier, your knowledge of dysha will come mainly from training in town. For that, you need weave crystals. The crystals are used in WeavingWorld to "lead" a dysha to the center, when its power becomes yours. There are many dysha to learn, they can go up to power level 3, and many times they aren't very close to the center of the screen. You need a lot of weaving crystals.

How do you get them? Often, you can pick up a few in Shanthic ruins. Crystals can also be purchased in town, which naturally requires money (called gmlinks), and which also quickly becomes expensive. And you can dig up your own, with biological constructs called reco diggers and reco miners.

You ramble over the wilderness until you find a crystal patch, then send your reco to dig. Unfortunately, a reco can only dig up one crystal at a time, and you don't even know what it will bring back. There are also rate crystals and power crystals in the game, and your tracker doesn't distinguish among the different types. Only by sending a reco down will you find out what type of crystal is in the patch.

This is also true of digging for limilates, or herbs. It seemed strange to me that plants would be growing underground, but this is an alien world, so we'll allow for that. In any case, again you don't know what's down there until the reco comes back with it.

All this is just a lot of time-consuming make-work that stretches the game out artificially; it's fun the first few times, but after that, merely boring and mechanical. Yet you need those weave crystals, so you have to go through with it, along with digging up limilates to sell, and grabbing artifacts from ruins to sell, too.
What are you waiting for?

"This game kicks a hell of a lot of ass!"
- Fire Boy1 - AMERICA ONLINE

"Wow! At last! A true Doom KILLER!!!!!!!"
- Patrick Simmons, Compuserve 72017,2374

"With the six-degrees of freedom, true 3-D game engine. Descent has set the new standard that all other 1st person shoot-em-ups must now live up to."
- Jon Salaga, Compuserve 72712,450

"Descent kicks BUTT!"
- Rick Johnson, Compuserve 74431,1624

"Descent is an incredible game. Descent is to Doom as Doom was to Wolfenstein."
- Al Hunt, Compuserve

"Doom with a Jet Pack...It's not like playing an arcade game, it's like being in one."
- Electronic Entertainment

"Descent is superb."
- Apogee

"The weapons are awesome, the game play is awesome, the motion sickness is awesome..."
- Eric Rose, Compuserve 71221,2660

"Cool game, just need to find my Dramamine to play it."
- Mike Hulan, Compuserve 74023,3004

"Holy Bat farts, Batman!...I have never experienced an enemy intelligence anywhere near the way these robots act. They pock, they fire, they chase you, they take cover, they wait."
- Marty Parrella, Compuserve 74147,33

"The sensation of speed is amazing, and the 3D texture mapped graphics make this game a genuine joy to behold."
- PC Gamer

"It's Doom with a twist, a turn, and a gravity free flip."
- Computer Gaming World

"Played it...and I have one thing to say. Wow."
- Sir Ryck AMERICA ONLINE

"If you still have Doom loaded on your HD you're just wasting space."
- Big Joe D, AMERICA ONLINE

"Fantastic graphics, incredible 3-D animation, support for modems and LANs, music, you name it. The best I have ever seen."
- Jon Yardney, Compuserve 70563,2311

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Circle Reader Service #76
UNDER THE GUISE OF ALIEN LOGIC

ALIEN LOGIC has the appearance of being an open, non-linear game, but this is deceptive. You can spend quite some time just running around the world and exploring ruins before you realize nothing much seems to be happening in regard to the storyline. That's because all the major events are actually triggered by repeated visits to Salrough Gomo, the Thriddle scholar (Thriddles are a race of researchers and librarians).

It is only by seeing him from time to time, and having him send you on little errands, or provide you with certain necessary information, that the plot advances. This can also be the source of a fatal crash in the game.

At approximately 214,187 is a ruin called the Crossroads. If you explore this ruin before Salrough tells you about it, the game inevitably crashes later on when you try talking to the Cleash general. So you must stay away from this place until after Salrough gives you the coordinates, as seeing the general is part of the main line. SSI is aware of this, and a patch is in the works. Meanwhile, be careful where you go poking around.

Graphics are VGA only, so you will need either a VESA or VESA-compatible card with drivers to run the game. The disk comes with UNIVBE, a utility for VESA-compatible cards. I have the registered version, and it worked quite well not only with Jorune, but all other SVGA games I've played so far. If you need drivers for your card, try this one first.

Sound in the game is minimal. There are only two or three tunes, of which the jazzy traveling music is the one you'll be hearing most. Sound effects occur mainly during combat, and there is no speech at all except during the automated intro.

AN EMPTY ARENA

What comes across most is a feeling that  Jorune is a big, empty world. Ardath is the only city; aside from the Thriddle enclave, a small Crugar village and a small Trarch (ogre) village, there are no towns at all. After traveling around for a while, you begin to think that the planet is inhabited mainly by hostile critters and not much else; most of the sentient beings don't appear to live anywhere, they just wander around in the outdoors.

The Shantih ruins, interesting at first, become rather "ho hum" after you've been in a few; they're all pretty much based on the same pattern. That's the problem here: everything is the same. In this respect, the game is reminiscent of ARENA: big world, lots of clone dungeons, linear main line, repetitive actions, and very little real involvement with the world.

Yet, like ARENA, this series holds promise for the future. Jorune, with its multitude of alien races (and not a Dwarf or Elf in sight, hurray!) could be a fascinating place to adventure in, if the designers sit down and really start thinking about the story. Getting someone who has an ear for dialogue would also help (some of these conversations are teeth-grinding experiences).

ALIEN LOGIC is the first new thing to come along in quite a while, at least in premise. With the addition of depth, characterization, and decent plotting, future games could be very superior products. This entry, however, as most first games in a series tend to be, is rather superficial and lightweight. We'll hope this changes for the better in times to come; Jorune is a world I'd like to see again.
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Unlatching The Death Gate

Scorpia Offers Assistance With Legend’s Latest Adventure

Well, the Christmas season came, the Christmas season went, and Santa’s bag wasn’t all that well-filled this year. Barely enough to stuff the stockings, never mind covering the floor under the Christmas Tree Monster. The poor thing is half-starved and hardly has the strength to blink its lights and swish its tinsel. If this keeps up, it’ll soon be at death’s door...or maybe Death’s Gate.

Death Gate is the pick of the recent adventure game crop. While not an especially hard game, it does have a few tricky places. It is also completely linear; once you leave one of its mini-worlds, there is no going back. Since it is quite possible to leave before you have everything you should have picked up, the wise adventurer will keep a save from each world in reserve in case backtracking is necessary.

And So It Begins

So here’s Haplo the Patryn, off to help Lord Xar restore the world that was split asunder by the nasty Sartan way back when. He toils around in a nifty little ship that can pass through the Death Gate, the only connection between the pieces. First stop on the tour: Arianus.

Home of the (not-too-bright) Dears. Currently, they’re being imposed upon by some big glowing guys who claim to be gods. We know better, but the short folks don’t. This makes things a bit more difficult, but our hero can overcome any obstacles.

In this segment, as in all the rest, remember the Second Rule of Adventuring: if it isn’t nailed down, grab it! (The First Rule is save early, save often). You need a bunch of items to get through the game, and some are picked up in one world to be used in another.

So, after talking to Jarre, Limbeck, and Grawple, it’s time to snoop around the Elvish ship. A hot little diversion should be sufficient. Upstairs, you find the glowing figurines, but those have to wait. Down below are some human slaves. A quick chat with one of them, and a new place appears on the map, and Haplo can’t wait to visit.

Not that the king is all that helpful, but at least you can walk around without being tossed into a dungeon. Take advantage of that and wallt down the side path to the shattered window. Naturally, you open it (by sheer genius).

After the interesting little vignette, pop inside yourself (in more ways than one). You ought to have something to make the Elf a little more congenial. Learned a spell there, eh? Just what you need for the “gods” on Drevlin. Oops, you just learned another one, the hard way, but not to worry, you’ll be free soon enough.

Okay, time to bring the curtain down on those phony divinities. Shouldn’t be too hard to perform the blackout. Then make tracks for the hold, because there’s no way off this ship now. Good thing you have a place to hide. Adventuring, what a racket!

However, you’re a long way from done yet, even if the king did save your neck. Now (because you were smart and asked for information...and this is an island...hmmmm...nanaa) it’s off to charming Skurwash, home of assassins and other delightful people.

The Skurwash Scam

Gee, poor little waff. Go ahead, Haplo, help him out. Ummm, maybe not such a poor little kid, since he just conned you on the head, netted you up, and is rifling your pockets. As the saying goes, “a fair exchange is no robbery.” That changed his attitude pretty fast, and now you can (really) trust him.

You need some goodies, but a little
Long ago, in a Land of Five Kingdoms, the amulet known as The Hand was shattered into five pieces and hidden throughout the Far Reaches. Dark magic spread and the evil wizard Tortlok began his reign of terror and suffering.

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- Professional voice actors bring the story to life.
- Simple point and click controls, with multiple difficulty levels make play equally thrilling for players of all levels.

Now Available for DOS CD-ROM*

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*Coming soon to the 3DO Entertainment System and CD-ROM for Macintosh.
prying in the right place settles that matter. Now you can grab Hugh’s attention, and before long you have a contract on a merchant. Of course, you’re not really going to kill him (besides, he left town some time back).

Inside the house is a poetry book, quite a timely little item. That should set you up for your chat with the merchant. So what if he took off some time back? Reality is in the mind of the spellcaster. A bit of careful conversation, and before long you’re handing Hugh the amulet as “proof” of your success.

Then it’s off to the HQ of the Brotherhood. I don’t recommend hanging around to sign up. No, you can’t slip out the window, but you should take a look anyway. The necklace room ought to be easy, if you’re animated enough. And now it’s time for a handy bit of work to open the vault. The clue on the paper is simple. Don’t go looking for anything complicated here; just follow your initial instincts to open the door and enter the vault.

Unfortunately, Hugh and friend happen by while you’re stuffing your pockets. Uh oh. Better move fast. In this instance, it is better to take then to give. After which, a hasty retreat out the door (and tower) is a good move, followed by a trip back to Drevlin.

Finally, you can repair that “censored” pipe! Do that little thing, and chat with Grapwle (you ought to have a map to show him, too; if not, you’re really in a jam). Then you get the digger working and follow it along to a very unsettling place. No matter, you’re almost done. One obvious thing to do, and you can collect the air seal piece and head back to Lord Xar. Whew!

**Pryan Open the Gate**

Pryan is the next stop. Not much is happening right now around that crystal tower (and you don’t want to mess with the Tytans), so grab what you can and head up for the treehouses. Nothing like a little honest labor now and then.

Hmm, guess our hero isn’t cut out to be a doughboy. After making a friend, however, you get to rescue a prince (another totally hopeless person). Talk to him and you’ll see what I mean. Then just hang out for the big appearance of Ziflak, who is Sartanly a mage (hehe).

When he figures out what you are and disappears, go right after him. Don’t worry, that’s a friendly dragon. Really.

Gab a little with Ziflak, do the usual adventuring stuff, and get back over the chasm. You gotta retrieve the staff, after all. How to reach the location is pretty much black and white.

Now you just have to deal with the giant spider. As someone once said, “Sweets to the sweet.” Don’t be afraid to raise a stink, or indulge in pyramidania, either. The rest is easy, and before long you should be handling the prince everything he needs to make an impression on the princess. Haplo can talk to her now, too.

Nope, the butler won’t give up the key, but he will open the door at tea time. And there is that handy clock tower nearby. What comes next is obvious, just move quickly here and worry about examining other stuff later. When you get into the study and read the book, a new place appears on the map: the palace of Kleitus.

Not a nice person, Kleitus. Not when he poisons Haplo and leaves him to die a slow death in the dungeon, with a similarly-affected prisoner for company. Not a cheery outlook, so best do something about it while you can. Like grab the antidote from upstairs. Even if you can’t see color, those flasks aren’t all the same. Look closely, and you should be able to see clearly.

Then it’s off to the refugee camp, where you have a fascinating little chat with Balthazar. Hmm, the dog sure is acting strange. Maybe he can detect something you can’t; why not find out? Before long, you’ve had an unpleasant experience and learned the secret of Necromancy, among other things.

Back to town you go (hold onto the runes for later; you can’t play the rune game). Time for the great impersonation, once you get past the snake. Nanny and Jethro make a good team (and don’t forget the clock tower). Fiddle with the door or use the hints, whichever suits you.

Once again in the palace, tracking the nasty Dwarf should be simple. What to do in the Colossus Chamber should be equally simple, and before long you’re off to the east out of here.

**Aberrach Bound**

Aberrach is the next destination. Not a great place, being inhabited mainly by zombies. Luckily, they’re friendly, more or less. Careful in the cave; you don’t want to get too close to that snake (that’s very much a living critter). Scope out the house next, where you’ll meet a couple more undead.

**Chelestral Count**

Chelestra is the last stop on the tour. This is a quick one. Forget the cave; you can’t enter that...yet. Check out the ward instead. This is a good time to refresh your memory on the possession spell. Poof! There goes the ward...and here comes a dragon. A mean, nasty, rotten, cruel, and very, very evil dragon. Better
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think fast, Haplo; you’re about to be fried to a greasy spot. Better run fast, too.

So at last you get to meet the head Sar-tan, and learn that not everything is the way Xar thought it was. Maybe it’s time Xar and Samah had a meeting. Only the dragon just flew off in your ship. This does not improve the situation.

First you have to get that paperweight back. Remember how it glowed when the dragon was around? Maybe, somewhere, you can find a little bit of evil to help with this problem.

Then notice the rug. Pretty as a picture, isn’t it? Soon enough, with a little pushing and shoving, you’ll be on your way back to the Nexus...where you find Xar gone, but you do finally get your hands on that history book (an extremely important one, at that). You’re gonna have to go back into the labyrinth now.

Charming place, with those killer vines around. Just the thing to help with those vicious tigermen. While you’re at it, spare a few thoughts for that Zinger you’ve been lugging around since the beginning; it might just give you some other ideas after you’ve been inside the tigerman cave.

Especially since you have to rescue a group of Patryn under attack by another bunch of bipedal kitties. That should help get you on your way to the Vortex entrance. Have a heart-to-heart talk (heh) with the nasty critter outside. And guess, just guess, who’s waiting inside for you. Right, Mr. Nefarious Dragon. This is a good time to call in your backup unit.

After a whizbang but inconclusive fight, there’s nothing for it but Haplo going on alone to finish the job. A hero’s work is never done. So you might as well move along; there isn’t much time left.

Well, you’ll move along if your mirror image wasn’t in the way. Very frustrating; almost makes you wanna kill yourself. Also frustrating are the tentacles beyond; you’ll need a fully operational set of choppers to get past those.

And here you are at the island, with the dragon doing a pretty decent impersonation of Haplo. Luckily for you, in this instance Haplo can prove who he is without your assistance (this part is automatic). So the dragon reveals his true self, and pressures Xar into getting on with it.

Only Xar has a trick up his sleeve. Unfortunately, it’s not the best trick, and the poor guy soon has a hole in his chest. No, you can’t cheat by bringing him back as a zombie; sorry Charlie, ah, Haplo, you gotta do this on your own.

First is to put the three remaining seals back in the proper order; proper meaning keeping Mr. D off your back. Go by the forms he uses and it isn’t hard. Now comes the big moment: sliding the focus over to the proper rune. Which is it? Xar knew, but you can’t ask him. I’ll just say, I hope you read that history book very carefully.

Whoa! That one was a little too close for comfort, but yet again, the world has been saved (saved, no doubt, for some other villain to come along and mess things up in the future).

In the meantime, if you need help with an adventure game, you can reach me in the following ways:

On Delphi: Visit the GameSIG.
On GEnie: Stop by the Games Round-Table (type: Scorpio).

By US Mail (enclose a self-addressed, stamped envelope if you live in the US): Scorpio, PO Box 338, Gracie Station, New York, NY 10028.

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Here's Peeping At You, Kid

VOYEUR: Interplay's Game of Peeping Tom Thrills

by Charles Ardai

For those connoisseurs of strip tease who prefer the tease to the strip, INTERPLAY'S new CD-ROM edition of that hoary CD-I chestnut, VOYEUR, should be a source of endless delight. Women are forever unfastening their bra straps in this game, or opening their towels while conveniently facing away from the camera, or walking around in unbuttoned vests that don't quite reveal what you think they're going to, or leaning toward each other for lesbian kisses that somehow never get completed.

Men have it worse in some ways: they get led around in bondage collars, handcuffed to hedges, and violently groped by their sisters. No one actually manages to have sex, though; all they do is go around interrupting each other.

No wonder that after several hours of this someone ends up murdered.

Based on the sort of story idea that ever since Jimmy Stewart took up his telephoto lens has been called a "Rear Window" story, VOYEUR posits a would-be Presidential candidate played by TV veteran Robert Culp ("I Spy," "The Greatest American Hero") who retires to his mansion over the weekend before he is to announce his bid for the Oval Office to spend time in consultation with his loving family. Ah, but what a family! As one member succinctly puts it after a day of ever-increasing tensions, "This family is completely nuts."

The Carringtons and the Ewings have nothing on the Hawkes. Reed Hawke is the boozing, lascivious, underhanded Man Who Would Be King; he's got a thing going with his sister, Margaret, and a different sort of thing going with her daughter, Chloe. Meanwhile, he's stolen his son Zack's plans for a missile defense system and claimed them as his own, which has led Zack to be inattentive to his wife, Laura. This frees Laura up to fall prey to the predatory amorous attentions of Chloe, a turn of events that should surprise no one since Chloe rides a Harley, and in soap opera-land, lesbians a) are predatory, b) are the product of childhood molestation by their uncles, and c) ride Harleys.

Oh, but that's not all. While Zack taps away at his computer keyboard, fuming ("It's my idea...he comes and steals it from me...everyone thinks he's a hero, and it's a lie...I'm not going to let him get away with it..."), his sister, Jessica, is going toe-to-toe with her conservative papa, trying to get him to commit to the environmental causes that are dear to her heart. Meanwhile, the sinister boyfriend she's brought back with her from Japan, Masa, is sharpening a samurai knife and doing his best to conceal a shady past; at least that's what he's doing when he is not taking time out to oil up Chloe's back when she teasingly unfastens her bra straps for him. (This is soap opera-land, remember. All Japanese boyfriends are named Masa and have a shady samurai-ninja past to conceal, and all lesbian sisters-in-law live to torment men by parading past them with unfastened bra straps.)

But that's still not all. There's a Chief of Security in this house, male, and a Chief of Staff, female, and she's a secret dominatrix and he's a secret masochist and when she's not dragging him around on a leash or feeding him dog biscuits they're nosily rolling around on the floor just out of our sight and howling like wolves. Meanwhile, we learn that some years back Margaret and Reed collaborated on the murder of their father, the dears. Later, Reed makes a pass at his son's wife. Elsewhere in the house, matters are heating up between Chloe and Laura. ("I thought leather would be rough," says the neglected wife in the red leather mini-dress. "Only when you want it to be," says the Harley-riding lesbian.) And all the while, behind another window, there's the inscrutable Masa, sharpening, sharpening.

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mongering? Watching through the eyepiece of a tripod-mounted video camera set up in the window of a building across the street. Your job is to scan the camera lens across the facade of Hawke Mansion, poking at the building’s dozen opaque windows and waiting for them to turn into hotspots. If an eye appears when you pass the cursor over a window, it means a video scene is going on behind the glass. If an ear appears, it means that the shutters will stay closed, but you can listen in on a conversation. (That must be a hell of a video camera you’ve got.) If a magnifying glass icon appears, it means that you can zoom in on a still photo of the room in question to look at any interesting objects it contains.

If no icon appears, it means there is nothing for you to see or hear, so you scan onward, darting from window to window in the hopes of being at the right one at the right time to get in on a juicy bit of business. This is how you spend most of your time: weaving back and forth across the screen, covering all the territory, trying not to miss anything. At this you are guaranteed to fail, since scenes are usually playing out in two or more windows at the same time, with other windows offering you the chance to look at clues or listen to audio, and you can’t peek in at one without missing the others. As a result, VoYEUR is one of the rare games that has real replay potential—though, in fairness, there are only so many scenes, and even the second time you play you see a lot that you’ve seen before.

Replay value is heightened if you devote some of your precious viewing time to the rooms marked with a magnifying glass icon, since while you’re doing this you’ll miss all the video scenes going on elsewhere during that session. (The game is divided into about a dozen three-minute “sessions” representing different times during the weekend, such as “4PM Saturday” or “10AM Sunday.” During any given session, you only have time to watch one long video clip or maybe two short ones; if you prefer, you can spend the time poking around in Chloe’s bedroom, looking at her teddy bear.)

Why would anyone choose to spend time looking painstakingly at clues, or for that matter listening to portentous phone conversations, while bra straps may be played the game several times. The first time you see Chloe confront Reed about abusing her, you may not know that she is wearing a wire to record his admission of guilt; the next time you play, you might catch the scene where she puts the wire on (in her cleavage, naturally), and then it all makes more sense. The first time Zack arrives at the house, you might watch him using the intercom downstairs to communicate with Frank, the Chief of Security. The next time, you might listen to the same event from Frank’s point of view and discover the unnatural pleasures he enjoys in his room while sounding so grave and professional over the intercom.

All this admittedly is fun, in a naughtly, guilty-pleasure sort of way. Culp is a great old ham with a mannered, sarcastic delivery that works perfectly for the char-
You can hear your breath, your boots pounding on metal stairs. There's only one way out. 20 more feet...15...10. You're almost there when suddenly from out of nowhere an 8-foot-tall green alien drops down and lunges at you with a spear, leaving you approximately .08 seconds to act.

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actor he is playing. Grace Zabriskie has the sister role, which calls for her to plunge her head inside Culp's robe and down his shorts, an act which—what the hell, it's a paycheck—she accomplishes with a minimum of apparent distaste. The other actors and actresses would pass muster on daytime's finest shows; they sputter and pace and look beautiful when they're angry, just like good little soap opera stars should. I'm a little disappointed in myself that I've reached the point where actors in a computer game merely have to be as good as soap opera actors to satisfy me, but when you think about all the games that aspire to be much more than soap operas and cast actors who are just awful, you can't help but appreciate a game like this one that has more modest ambitions and achieves them nicely.

SEE YOU SOON

As noted above, there isn't much of a game to VOYEUR; a bigger problem is that there isn't much of the stuff that isn't a game, either. Because time keeps marching along even if you don't do anything, and because each session is so short, the whole shebang is over in a little more than half an hour. Just when things are starting to get interesting, in other words, they stop. This is a shame. When other CD-ROM games are boasting several hours of video and more hours on top of that of gameplay, it's hard to think of VOYEUR as anything other than slight.

The script is as good as a random episode of "Dallas," which is to say competent but about as filling as popcorn. The visuals are blandly ordinary: nothing awful, nothing great. The single most disappointing thing about the game is this air of averageness and timidity that hangs around the project. Modest ambitions are one thing, but for a title that wants to sell itself as pushing the envelope to trade in nothing but conventional characters, conventional images, and conventional events is a matter of imaginative impoverishment.

As for the rest of it, I can only shrug. Why make a game called VOYEUR and have people in it half-undress and half-kiss and flirt tentatively like teenagers on a first date? Making a game that is a little bit sexy is not a way to please everyone—the prude will still be offended, and the libertine will go away unsatisfied. If you want to make KING'S QUEST, make KING'S QUEST. If you want to make an interactive movie about lusty, nefarious, backstabbing scallawags, drop the towel, fling the bra on the floor, and be done with it.
There you are, flying through the air with the greatest of ease when the air-to-air missile locks on you and starts homing in. Let it close to 4 miles. Roll 90 degrees into it and start laying chaff and flares like crazy. It's still coming. Keep turning. G forces. Everything's going black. Turn harder or you're dog meat. You're dog meat.

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Speak Of The Devil

Take 2 Takes Gamers Into The Deepest Pit of HELL

by Charles Ardai

Too often these days I find myself feeling like the kid in "The Emperor's New Clothes." There's a crowd gathered and cheering in the streets, oohing and ahhing over something truly magnificent, but when I scamp to the head of the line to take a look at it myself, there's nothing there.

The main difference is that in the story there's a real emperor and no clothes. With too many recent multimedia games, all you get is the clothes—there's no emperor inside. With some, even the clothes leave a good deal to be desired.

Case in point: HELL: A CYBERPUNK THRILLER, a major new star-studded release from Take 2 Interactive Software. Big advertising spreads in all the computer game magazines have touted the thing; software stores have pyramids of it in their windows; readers of this magazine saw it mentioned several times before its release; and now, finally, it's here. So, what does it turn out to be?

People will think I am trying to be cute. I'm not. HELL is—it must be said—abysmal.

Halfway between what used to be called an adventure game and what is currently called an interactive movie, HELL is a dark-toned yarn about two renegade government agents on the run from their murderous, fascist bosses. The year is 2095, the city is Washington, D.C., the United States is under the rule of a group of religious zealots, and for reasons that no one ever bothers to explain, demons roam the streets day and night. There is also a place called "Hell," as crimson-hued and sulfurous as any Sunday school primer could paint it, to which bad people get sent when the government doesn't like them any more.

Rachel Braque and Gideon Eshani are "ARG agents" working for the Feds, turning in underground hackers who use technology for illegal purposes and helping the government winnow out the faithful from the undesirable. One night, a government hit squad (complete with dark glasses, big guns, and bad aim) shows up while Gideon is showing; in the game's opening animation the tables are quickly turned (a karate chop! a laser blast through a bad guy's eye!) and Gideon and Rachel flee into the night, he flexing his biceps, she showing her panties. They hide out with a hacker buddy (complete with long hair and sassy cyberhippie jargon) and plot a mission to find out why their old bosses now want them dead. The secrets they uncover will not only blow the lid off the biggest government conspiracy since JFK snuck his mistress into the White House but also destroy the reign of the strangely androgynous uber-ruler, Emperor Solene Solux, and, who knows, maybe also cure gum disease.

Ho-hum, says I. Double ho; triplet hum. Anyone who has read Ray Bradbury's Fahrenheit 451 knows how much a good writer can do with a universe like the one designers John Antinori and Laura Kampo posit here; that these two do so little is embarrassing. That they do it in a setting that is visually distasteful and with sound effects that are almost literally painful to listen to is the (sour) icing on the cake. That they manage to get no better than mediocre performances out of their stars—Dennis Hopper as the chief demon, Geoffrey Holder as a well-connected doctor, supermodel Stephanie Seymour as a sexy hologram, and Grace Jones in the Jaye Davidson role as Solene Solux—almost goes without saying.

Worst of all, the writing is astonishingly bad. Scenes drag on endlessly, long past the point at which any sane listener would give up listening. The dialogue is convoluted and incomprehensible; at a certain point, you stop hearing the words as bearers of meaning and start hearing them just as sound, a sort of fluffy verbal quilt that's being knitted around your head.

What could they possibly have had in mind? My guess is that they were trying...
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Circle Reader Service #356
If the gameplay is better than the writing, it's only because it would be hard to imagine something being worse. Even the game's much-talked-about graphics are a disappointment.

To start with, most screens, however lavishly painted, contain only a few items or characters with which the player can interact. The opening scene in the hacker's apartment is typical: it looks like it ought to give the player lots to do since at first glance it appears to contain lots of objects, but you soon discover that the only thing you can click on is the hacker himself. And once you do that you'll regret it, since it launches the first of the game's many in-

Even when a screen does contain multiple objects to take or multiple characters to talk to, it rarely contains more than a few of either, and there is no depth or complexity to your interactions with them. Each screen presents its puzzles to be solved in the most banal fashion imaginable. Either you get straightforward instructions ("If we get you a still, will you tell us about Brian?"), or you get brain teasers taken out of a third-grade puzzle book.

In one case, you have to figure out the password to get into a speakeasy; even an inexperienced gamer or one who somehow fails to notice what the first letters of each word on the door spell might guess that the answer is "Sesame." Elsewhere, a virus-infected computer presents a jumbled letter puzzle, tiles on the floor of one room in Hell offer a musical note sequence puzzle, and a horse racing parlor offers a decode-the-color-coded-racing-silks puzzle. This is the legacy of The Seventh Guest, where adventure games used to aim for character- and situation-based puzzles, and would only include one or two brain teasers to fill out the disk, they are now content to include nothing but filler.

And stunning graphics, of course. At least that's the idea, that gamers are supposed to be willing to put up with brain-dead game-

**RECOGNIZABLE FACES** In the bowels of Hell are some high profile characters, like Stephanie Seymour's beautiful, holographic Cynna Stone, and Dennis Hopper's strange and deadly Mr. Beautiful.

play because at least they're getting pretty pictures to look at. Unfortunately, while the graphics here are certainly impressive, in the sense that smooth full-screen computer animation is still something of an achievement, they're not much fun to look at. Setting aside the

**TO HELL IN A HANDBASKET**

You don't have to go to the game's script to find something to gripe about, though. Terminable yakfests. (Incidentally, it's worth mentioning that although you occasionally get some limited control over what direction a conversation takes, more often, as in this case, you don't. It just goes on and on while you sit there looking at your watch.)
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Circle Reader Service #81

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question of whether watching bloodied torture victims writhing in torment is your idea of a good time (it’s not mine), the dark-red color scheme is annoying, the surreal perspectives look badly drawn rather than bizarre or compelling, and the articulated mannequins used for character animation are stiff, clumsy, and slow.

Stephanie Seymour is a hologram and Geoffrey Holder appears on a video screen, so they get to be represented by actual video footage; the rest of the characters have human faces superimposed on bodies that fall somewhere between the hunching polygon creatures of 1-Motion’s Alone in the Dark and the animated torsos of Interplay’s Cyberia. Who wants to watch these lumbering things move around the screen? Cyberia’s characters are ugly but at least have a certain grace. Alone in the Dark’s are ugly but have a stylized charm to them. Hell’s are just ugly.

To add insult to injury, Take 2 has been true its name: instead of springing for enough animation to fill out the various scenes, they used the cheap workaround of repeating the same frames of animation again and again. So, when hacker Scub Stevens matters on about this and that, you have to watch him raise his beer glass and swallow the same swallow of beer something like 20 times. When you talk to a topless punkette, you watch her brush her hair away from her bare breast and back on top of it, away and back, away and back, like some kind of obsessive-compulsive Lady Godiva. Gideon raises his arms and lowers them, raises and lowers, raises and lowers. It’s bad enough that the characters look and move like marionettes—do we have to see each wooden twitch repeated a dozen times?

**WHEN HELL FREEZES OVER**

Apart from aesthetic concerns, there are some more concrete warnings that gamers deserve to have before they accidentally plunk down their cash on this dog. Although the game comes on CD, it won’t work unless you also install the patch files that come on a separate floppy. Even once you’ve done this, you can’t count on a bug-free ride. Twice the game froze when I tried to do something as innocuous as check one of my characters’ inventory or initiate a conversation; once it threw me out to DOS and rebooted my computer.

The first time I went to the horse-racing parlor, before I did anything, one of the characters said, “Holey Moley! You won!” and another said, “Aren’t you the smartly-pants, figuring out the stuff with the silks?” Not only had I not figured out the stuff with the silks, but now I no longer could—the computer wouldn’t let me enter the next room, where the stuff with the silks needed to be done. At another point, although I had successfully unlocked a door with a lockpick, the computer wouldn’t let me step through it, no matter where on the screen I clicked. And these are only two examples; there are plenty more.

If Hell had no bugs, it would still be a pitiful game; with bugs, it’s beneath contempt. Though I am sure the designers did not mean for it to, Hell amply lives up to its name.
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Circle Reader Service #171
Heretic, Meet Your Doom!

HERETIC Adds Magic And More To id Software's DOOM

by Vox Dei

It would be easy to dismiss HERETIC as just another DOOM game from id Software, and one that they didn’t even bother to create themselves, at that. But that would be a mistake, because in turning over their 3D engine to Raven Software, id has produced a game that is an exemplary heir to the legendary DOOM name.

Armed with an Elvenwand and the knowledge that D’Sparil is somewhere within.

THE GRAVE PLOT

A cohesive storyline is the first of HERETIC’s many improvements over its vaunted forebears. While DOOM was supposedly a sci-fi game, its futuristic aura was never very convincing due to the Dante-esque motif of the levels and plot. HERETIC is from beginning to end a fantasy game, and if you have any doubts, there’s even a poster by BROM, the classic fantasy artist, on the other side of the fold-up manual. Hard-core action freaks may not care much about what the plot is, or even if there is one, but it’s a good sign for the future that action games are starting to develop a deeper aspect.

Of course, the first thing you’ll notice upon booting up HERETIC is the new weapons. Although it’s not exact, there is a general correspondence between the old and new armaments. The Elvenwand replaces the pistol, while the Ethereal Crossbow is functionally similar to the double-barreled shotgun of DOOM II, and will probably be your mainstay. But the Dragon Claw has no equivalent, nor do the Gauntlets of the Necromancer, which cast a furious electrical storm that may only be useful in close combat, but looks amazingly cool. The Firemace is a magical machine gun, the Hellstaff is very much like the plasma gun, and the Phoenix Rod is basically a rocket launcher, although in power-up mode it operates like a flame thrower. You too will laugh evilly when you finally come across one.

Power-up mode and artifacts are other features that add a powerful new element to the game. Except for the Crystal Vials that add instantly to your health, there are 14 artifacts to be collected and used when you deem the moment right. Tomes of Power dramatically increase the firepower of your weapons, Quartz Flasks and Mystic Urns give health, Silver Shields and Spirit Shields provide armor, though for one level only, and the ShadowspHERE provides near-invisibility. Other new items are the Chaos Device, for teleportation back to the beginning of the level in the event of emergency, the Time Bomb of the Ancients, and the Morph Ovum, which turns your opponents into chickens. And Inhilon’s Wings of Wrath let you take flight for a spell, although you can’t take them with you to the next level.

And it’s the Wings of Wrath that really let you see how id has improved upon their 3D engine in HERETIC. Not only can you fly, but you can also switch your viewing angle to look up and down. It’s truly a dark ecstasy to be floating silently above and behind your Deathmatch opponent, waiting for just the...
right moment to unleash a hailstorm of ethereal arrows. The Wings also come in hand when traversing the huge canyons and waterfalls of Heretic's beautiful and elaborate world.

**THE MONSTER MASH**

Raven has done an excellent job in creating a whole host of fantastic monsters that look good, sound great, die impressively, and have an abundance of interesting and creative attacks. Each monster is a carefully-designed creation that fits very well with the storyline and setting. And while the first few monster types look okay, they keep getting better and more original throughout the entire 24 levels.

Heretic's foot soldiers, the Gargoyles, are very pesky little creatures that fly and come in flame-throwing and non-flame-throwing varieties. If you walk into a room with a high ceiling, remember to look up, because there's probably a Gargoyle lurking above. Golems only attack up close, although their Nitro version fires a screaming, heat-seeking skull at you. Golem philosophers have never

---

**GAUNTLETS OF THE NECROMANCER** These lightning-casting mitts pack quite a wallop at close range. The only problem is that when you're at close range, so are they.

**ETHEREAL CROSSBOW** This weapon casts triple bolts of pure green energy, and is similar in power to Doom's shotgun.

**DRAGON'S CLAW** This tri-pronged claw fires rapid pulsating blue bursts of energy that can whack a monster from a safe distance.

**HELL STAFF** Reminiscent of the Plasma Gun in Doom, the Hell Staff spews forth crimson death. You'll be even more impressed when you power it up.

**PHOENIX ROD** This golden staff is perhaps Heretic's most powerful weapon, but don't fire it too closely to a target or it'll kill you. When powered up, it becomes a ferocious flame thrower.

**FIREMACE** Shooting big balls of death in a rapid-fire fashion, these weapons are few and far between. Enhancing the Firemace with the Tome of Power will kill almost anything with a single shot.
worried about whether they have souls or not, because a Golem literally gives up the ghost when it dies. Undead Warriors look rather like zombie Roman legions; they toss ethereal axes that aren’t very hard to avoid once you get the Sidhe sidestep down. Sabreclaws are wicked quick, but they only fight hand-to-hand, and you’ll really appreciate the knock-back power of the crossbow when dealing with them. If you’ve got a crossbow and can find a corner to back yourself into, they’re no problem at all.

Wererdragons breathe fire, but they aren’t too quick, so your best bet is to fight them in the open where you can sidestep the flames. Ophidians are very tough and like to fire a delayed second shot, so don’t just sidestep their first attack, or you’ll be continually eating flame. With both Wererdragons and Ophidians, be careful if you’re using the Hellstaff; it’s tempting to hold down the fire button and blast away, but you can’t see their projectiles coming at you if you do. Sticking with the crossbow and the sidestep is a better tactic for both monsters.

The Disciples of D’Sparil are the biggest pain, and you’ll quickly learn to cast the Tome of Power as soon as you hear their dark chanting. They also fly, or rather float, and cast three missiles in a spread pattern that makes them hard to avoid. If you can’t find a wall to duck behind, a direct charge while holding down the fire button can be effective in preventing a disciple from getting off its spells. The Iron Liches are really wild, casting a variety of attacks including tornadoes that actually pick you up and throw you around, while you’ll find the Mallotours more initially overwhelming than any monster since the first Hell Baron. Among their violent repertoire they also have the coolest-looking attack I’ve ever seen in a game.

And while I won’t give anything away about D’Sparil himself, I have to confess that if I hadn’t cheated and scored nine Kings of Invincibility, I’d still be getting wasted. It may be possible to kill him without cheating, but I’d have to see someone do it to believe it. And even when you do manage to take him out, there’s still more to play since there are three additional levels, one for each episode, hidden somewhere inside Heretic. You can warp to them using cheat keys, of course, but why take the easy way out?

The comparisons to DOOM are inevitable, perhaps, but HERETIC is truly an excellent game in its own right. The solo game plays very differently, thanks perhaps to absence of rapid-fire weapons among the monsters. In DOOM, charging blindly ahead meant certain suicide, while there are certain points in HERETIC where

In addition to being entertaining, some of the levels are quite beautiful. While the Citadel (E1L3) and the Cesspool (E3L2) are fantastic places to hold Deathmatches (E1L4). I was amazed by the aesthetic appeal of the Cathedral (E1L5) and the Ice Grotto (E2L4). Watch out for the slippery surfaces in the Ice Grotto, though, because the ice slows down your movement, and you’ll have to sidestep sooner than you’re used to in order to avoid incoming projectiles.

NO HARM, NO FOWL
Heretic’s network play is still limited to four players, but is more fun than ever before thanks to Chicken. It doesn’t matter if you’ve got 100% health, the Phoenix Rod, and a 200% Spirit Shield; there’s just not much you can do once you’ve been fowled. Deathmatch 2.0 miles are in effect, and suicide both purposeful and inadvertent will count against your Frag total, and objects reappear a short time after being collected. Options for no monsters and respawning are present too, and you can warp to any level. And if you can’t find the three hidden levels, you can simply warp there—they are listed as the tenth level in each episode.

While HERETIC may not be the watershed event that DOOM was, it is an excellent game and certainly a candidate for the top ten of 1995. The shareware version containing the first nine levels is probably floating around a BBS near you, but you’ll need to call id Software to get the registered version in order to play Hell’s Mayhem and The Dome of D’Sparil episodes. If you didn’t like DOOM, you probably won’t like HERETIC either, but hey, good luck on your next game of Solitaire. But that whirring noise you’re hearing is millions of DOOM lovers’ hard drives clearing space for HERETIC.

THE EDITORS SPEAK

HERETIC

RATING

PROS The action is there, the multi-machine play is there, the graphics are there, and they even threw in a plot this time—what more could you want?

CONS If you’re totally Doomed out, you may see this as more of the same. HERETIC also crashes occasionally on various systems.

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Fight & Flight

Gun Like The Wind In New World's ZEPHYR

by Gordon Goble

QUESTION: Take two parts Wing Commander, one part Doom, one part NASCAR Racing, and what do you get? Answer: You get what New World Computing's Zephyr could have been.

As it is, Zephyr stands as a 24th century fly-n-shoot (kind of a mechanized "Rollerball") that, despite its "all-the-rage" first person format, "3-D" environment, comic interludes, and similarity to the above stellar examples of gamery, just doesn't embody that magical addictive pull that we gaming types are drawn to. In short, if Zephyr were a hamburger, it would be a triple-decker with all the trimmings. Certainly it would look mouth-watering enough, and taste just great initially. But after a few bytes you'd be asking yourself the age old question, "Hey, where's the beef?"

LOOKS GREAT, LESS FILLING

Zephyr is a visually stunning yet confusing affair that moves just too damn fast for it's own good. Around it, the designers have constructed an intriguing storyline, one that holds much promise and takes up the bulk of the 32-page manual. But in actual gameplay, Zephyr is an elemental, repetitious exercise in arcade-ism that just won't, in my mind anyway, leave you with a craving for more.

The promising plot goes something like this: It is the 24th century. Mankind has moved beyond the limiting confines of this tiny planet, and has settled on various worlds in various solar systems throughout the immediate galaxy. Leading the way is Big Business. Over the years, big companies have been eaten up by bigger companies, and ultra-giant corporations have swelled to such monolithic proportions that they tend to outweigh and out-govern governments. For centuries now, the top corporations have competed for the rights to new planetary resources through organized combat, namely the Interplanetary Battle Circuit.

The player is (or was, I don't know what happened) Zephyr's pilot. As the program loads, we are at first showered with some impressive introductory scenery and rock music/sound effects, then it's on to the main menu, where we pick a difficulty and our pilot's name. We are taken to the IBC Universal Broadcasting Sportcenter—the control center from which each round of the IBC is beamed around the galaxy. A typically bombastic host opens the show, introducing us to oddsmakers like the green-skinned "Jimmy the Orion" who gives us the betting line on the opening event. Everything is very tongue-in-cheek, including IBC telemarket sponsor promotional spots: "Jag Synthaholic Stout - Enjoy all the flavor without that cranial chemical imbalance."

SHIPS & SPONSORSHIPS

Finally, it's down to business. Pilot preparations before entering the arena of battle include a choice of ship and alliance with any one of the six Megacorps. As old adage is that each corporation has customized its own ships—within the rules of combat, of course—and while the "Positronix" ship is strong on armament, other vessels have their own strengths and weaknesses. New World Computing couldn't resist throwing themselves into the fray as a competing megacorporation (now if that isn't a vote of futuristic self-confidence, I don't know what is!), and the NWC ship sports superior radar and tracking capabilities. It is to this point that Zephyr's strong delivery would appear to hold much promise.

Unfortunately, once into actual gameplay, that promise of something extraordinary goes somewhat unfulfilled. While the intent is certainly interesting and the graphical requirements are definitely met, there is simply way too much stuff happening way too fast. Thought processes? Forget 'em—each race is over in five minutes, and there is virtually no time to develop strategy, never mind enjoy or take advantage of the graphically intense maze-like environment. To make matters worse, the race course itself is difficult to define. Nowhere is it document-
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ed just how each course is laid out, and although it becomes apparent that there are a number of checkered pylons scattered through each “arena” as a course guide, so much is going in terms of garish graphics and manic action, that in early runs, one may finally succumb in a heap of frustrated confusion.

After a little exposure to the blinding intensity that is Zephyr, the visual daze will dissipate somewhat, but never disappear. As you grow more acclimated, however, you will come to realize that there are certain things that a good Zephyr pilot must do in order to outscore the competition. Most importantly, there is no substitute for completing laps, and while flying really fast will do this, flying real fast will also deplete power. Fortunately, scattered throughout each arena is various items that, when flown through and “picked up,” will replenish a ship’s waning power supply. In the best arcade fashion, such items are not limited only to ship power, but may also include weaponry, automatically repair ship shielding, etc.

Also randomly placed in each arena are various small-time thugs, anti-corporate types, freedom fighters, and any number of mechanized and bothersome objects. Meanwhile, the other Zephyr pilots are trying their best to emerge victorious from each round, to which end they are constantly blasting away at each other. Best instruction here: shoot everything, while keeping an eye on depleting power resources.

Specifically, taking out a fellow competitor (especially one that has been rated a key target by your corporate backers) will usually rate a lot of points, so some emphasis should be placed on that “mission within a mission.”

A DOOM WITH A VIEW

On screen, the Zephyr pilot will be monitoring the action from a first-person perspective in the cockpit of his craft. He’ll have the usual arrangement of visual aids at his disposal, including a damage screen detailing the status of defense shields, a countdown clock, radar screen, weapons energy level, ship energy level, and the like. In a nice touch, the Zephyr cannon is turret-mounted and moves independently of the vehicle itself, and while one may be flying as fast as his little wings will take him, he can be mercilessly pounding on the infidel that is speeding along behind.

DRIVE-BY SHOOTIN’ The street of this city-turned-arena are pretty rough. Enemies and enemy fire can come from anywhere and everywhere.

SPONSOR-SHIPS Pick a corporation—any corporation. Each big bid has a technological advantage (of course, New World Computing has better computing radar).

So, does this first person perspective and the ability to hide behind certain objects while popping around others to engage whatever nastily villain lays in wait remind us of anything? If you said “DOOM,” that is of little surprise, grasshopper. And though on paper it is indeed reminiscent, in practice, the overwhelming graphics and raw play speed detract from any of that eerie and believable DOOM-type feel. There simply isn’t the time to soak up the environment. Also, there’s no way of telling how well the competition is doing, little rhyme or reason to their tactics, and a limited field of view which can only be compensated by rotating the entire ship. Furthermore, mobile objects possess this remarkable and annoying capacity to transpose through one another with no ill effects whatsoever, and, aside from some differing colors and enemy fire, there is extremely little playable variance between each world and its respective battle arena. To say that Zephyr becomes a bit repetitive in very short order is to put things mildly.

JUST BECAUSE IT’S PRETTY DOESN’T MEAN IT’LL FLY

Zephyr directly supports a multitude of control devices such as the CH Products Flightstick Pro, Thrustmaster Mark I, Logitech Cyberman, and the mouse. New World didn’t do much to support players, though, with its skimpy Zephyr manual, nor has it delivered on its advertised multi-player network play. The package does contain a card promising a free multiplayer upgrade in the near future.

The appearance of the compact disc as a storage space for tons of data has no doubt had its positive effects on the world of computer gaming. In ever-increasing doses however, the window dressing around a given game has blossomed while the game itself has not. Zephyr is an example of this “Married With Children” tendency. You know...Kelly Bundy...great to look at, but not much to write home about. ❌

THE EDITORS SPEAK

ZEPHYR

RATING ★★★★★

PROS Looks and sounds great (from a non-gameplay point of view) and the story is fun tongue-in-cheek stuff.

CONS Way too much nonsensical and repetitive stuff happening way too fast. No network play.
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Can't Stand The Heat?

Then You'd Better Get Out Of INFERNO's Kitchen

by Vox Dei

I don't know about you, but I can always seem to tell when I'm watching a British television show. Even without the obvious clue of the accents, it's usually something I realize immediately. I don't know if it's the lighting, or the sets, or the acting, but there's always something that just doesn't jibe with my Continental sensibilities.

My Brit sixth sense went wild when I first booted Ocean Software's INFERNO, an import from our friends across the Atlantic. This probably tells you more about the game than you could learn without playing it yourself, because INFERNO is more than a little different in a lot of ways.

INFERNO purports to be a space combat game with a multimedia twist—sort of a Wing Commander put on by the BBC. Despite its English pedigree, it has that "Sillywood" vibe to it, a term that rather accurately describes the quirky results one has learned to expect when Hollywood wendies are mated with game developers. There aren't any B-movie actors or stars from bad Fox sitcoms involved, but there is a Director's Cut version waiting to be played. Hey, like Bladerunner, right?

The plot is a generic one involving humanity's war with an alien race called the Rexxons, who have green skin, big tusks, and look rather like the Creature From the Black Lagoon. Many years ago, humans defeated the Rexxons in the first Epic game, and now their descendants are back to have another go. Fortunately, humanity has a hero and the most powerful space fighter ever devised—the INFERNO space craft.

If this is starting to sound like something you've heard before, maybe an old sci-fi movie from the 50s, you're on to something. Not only does the manual have an actual comic book woven into it, but one that boasts lines like: "By walking into my little trap, you have unwittingly provided us with the technology to bring about the annihilation of your species!" It was awful, though not quite bad enough to cause me to do anything as extreme as opening a vein.

**INFERNO: The Odyssey Continues**

Price: $59.95  
System: IBM compatible 8088-33Mhz or better, 4 MB RAM, VGA graphics, 4 MB hard drive space, CD-ROM; supports AdLib, Roland, and Sound Blaster sound cards; supports Thrustmaster FCS and WCS controllers.  
**Protection:** None  
**Developer:** Digital Image Design  
**Publisher:** Ocean Software  
San Jose, CA  
(408) 289-1411

NO JOY  
However, I did find myself seriously contemplating a first degree CD-ROMicide after an hour of wrestling with the joystick configuration. As the proud owner of a Thrustmaster Flight Control Stick, I was pleased to see that there were two joystick options: normal and Thrustmaster. Unfortunately, the setup program and I were apparently not reading the same astral chart, because the program insisted that I did not have a Thrustmaster, despite the convincing evidence of my naked eyes. I managed to get the game to successfully recognize the FCS as a normal joystick, but upon entering the actual game itself, discovered that the joystick didn't work at all. I'm still trying to decide whether it's more fun to: a) play with the keyboard, b) play with the mouse, or c) perform manual labor on U.S. Air Force bases in Japan.

Once you've entered your name and call sign, you're given three choices of play: Arcade, Evolutionary, and the aforementioned Director's Cut. The Director's Cut is the "interactive movie," while the Evolutionary game offers control over both the strategic direction of the war against the Rexxons as well as tactical command of the INFERNO fighter. However, the Action option, which promises "a quick blast," is hardly that, due to an intro sequence longer and more tedious than the average dental examination.

But if you grit your teeth and manage to find the ESC key in time, you'll eventually find yourself in command of your spacecraft, ready and waiting for your command to launch. At this point you may recall the great graphics on the box and in the ads, but you can forget about them. Those lovely 3D renderings are only seen in the cut-scenes, not in the gameplay. Flat-shaded polygons in primary colors are pretty much what you're left with.

Believe it or not, the game itself bears more than a passing resemblance to some of the original CGA flight sims. The action is very fast and furious once you figure out what's going on, which is rather difficult because the cockpit looks as if it was designed to be displayed on an amber monochrome screen. Unfortu-
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nately, INFERNO offers a remarkable application of that old saying about not judging a book by its cover.

Now you might think that I'd be in serious trouble playing only with the mouse and keyboard. After all, without a joystick you'd survive about 3.2 seconds in FALCON 3.0 or TIE FIGHTER. But surprisingly, this isn't the case at all. Instead, I found it relatively easy to take out the Rexxon fighters simply by holding down the space bar and waiting until their flight path intersected with my constant stream of laser fire. They don't have much in the way of armor or shielding, so you can regularly take out a squadron in a single burst if you plot your trajectory correctly.

**ZERO GRAVITY**
The flight model, such as it is, isn't. Which is to say that Ocean has taken the reasonable position that by the time humanity has established an interstellar empire, we'll probably have turned gravity into humanity's lapdog. When flying the Inferno craft, there's little difference between cruising through deep space and cutting through the thick particles of a planetary atmosphere. Essentially, the rule is to simply point your nose and go, without worrying about little things like G-forces and the like.

Other than the handy new anti-gravity technology, the Inferno fighter also boasts an impressive array of auto-assistance. There's auto-navigation, auto-pilot, auto-docking, and auto-combat options, which will almost let you cruise automatically through the game if you have the patience for it. While the rest of the auto-assistance works fairly well, the auto-combat doesn't handle the Inferno much better than you'd expect R2D2 to handle an X-Wing against Vader. But keep in mind that you don't score points for success garnered this way, and the manual seems to consider it bad form.

And speaking of bad forms, one thing that cannot pass without being mentioned is the truly unbelievable cinematics. While the dialogue between the armless Emperor and the prosthetically-enhanced protagonist is cheesy enough to stun senseless nearly any sentient being, I find it very difficult to believe that anyone with a pulse can be expected to listen to over two-and-a-half straight minutes of subtitled alien grunting. Two-and-a-half, I swear, I timed it! Rumor has it that the CIA is looking into buying the rights for use in interrogations. "HNGH GAGH GRRLLL GRAAKCKH?" "gwo heegge krakrak Krak krak unmaath nee whoni!" Okay, I'll talk!

There are some positive aspects to INFERNO. The sound effects are quite good, as is the music soundtrack provided by Alien Sex Fiend, a British band of some renown in the mid-to-late 80s. Fans of the band might be a bit disappointed, as the music sounds more like pop MIDI techno than the band's traditional sound, but it's good pop MIDI techno, and there's nothing wrong with that!

Also, while it seems that the designers of INFERNO have fallen a fair ways short of their lofty goals, they do succeed in creating a game universe with a very large feel to it. While the cheesiness of the plot and weak combat prevent one from caring much about the fate of this particular universe, it seems clear that there was the potential for a very good game in INFERNO. It's unfortunate that the potential was left waiting at the altar.

INFERNO isn't a bad game, just a terribly mediocre one. But in a world with games like TIE FIGHTER and Wing Commander III, it's really impossible to recommend INFERNO to anyone.

**THE EDITORS SPEAK**

**INFERNO**

**RATING**

**PROS** A CD space combat game that'll run on 386 PCs.

**CONS** Combines mediocre action with paralyzingly dull cut-scenes.
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Hot Graphics, Cold War

Interplay's CYBERIA Shows Us The Future of Graphics, The Gameplay Of Days Gone By

by Charles Ardai

The French have been saying it for a century and a half, but who listens to the French? The famous aphorism forgotten, we're continually surprised when, no matter how much they change, things remain the same. I know I am.

For example, you see a game called CYBERIA being advertised as the next big thing, the game that will out-REBEL Assault Re-AL ELles Assaiult with its hopped-up hyperspeed action and its pick-your-jaw-up-it's-scraping-the-floor graphics, and you say to yourself, "Gee whiz, that baby's gonna be a bang-up arcade adventure the likes of which the world has never seen before!" I know I did.

Then you play it—and, lo and behold, it's nothing but Firefox, the old laser-disc quarter-gobbler you played back in 1983. It's not really Firefox, of course; for one thing, it doesn't have Clint Eastwood in it. But it's Firefox in the ways that count, at least for the middle third of the game. And for the first and last third, it's...well, it's what you imagine Firefox would have been if they'd had better computer animation back then.

What was Firefox? It was the first laser-disc arcade game ever licensed from a movie, the movie being Clint Eastwood's 1982 technothriller of the same name. The plot of the movie involved an American fighter pilot who sneaks into Russia, steals a high-tech bomber the Reds have invented, and flies it out to the West, stopping briefly to refuel at the Arctic Circle. The movie starts with James Bond-style espionage as Eastwood skulks his way to the plane and ends with one of the highest energy dogfights ever committed to film.

The arcade game cut out the espionage, starting and ending with the dogfight. Computer-generated adversaries were superimposed over background video snipped from the movie; your job was to track crosshairs over them and press the fire button. Periodically, the scene cut away to a close-up of Eastwood grimacing in his cockpit, but the game was basically a gussied-up shooting gallery. The action was stiff and the crosshairs hard to control, but the swooping, swerving diving video was fantastic, and the thing was quarters like a starved poodle turned loose in an Alpo factory.

What is CYBERIA? It is, as Roger Ebert wrote about Firefox, "a slick, muscular thriller that combines espionage with science fiction." The hero is a renegade hacker named Zak retained by the government to snatch a plane off an oil rig in the Norwegian Sea and fly it into Russia. Once in Russia, Zak's mission is to infiltrate the enemy complex, code named "Cyberia," and locate the secret weapon being built there. Along the way, just to drive home the homage to anyone who might otherwise have missed it, he flies through an ice canyon while being pursued by enemy planes, just as Eastwood did in Firefox's best-remembered scene.

In short, CYBERIA is a mirror image of Firefox. Eastwood started at the top secret Russian weapons lab and flew out to safety; you start out in safety and fly in to the top secret Russian weapons lab. There's even a mid-flight refueling bit, though in Cyberia the scene takes place a few miles south of the Arctic Circle. Quite a difference.

Look at the Firefox arcade game and the similarities become even more apparent, since CYBERIA is also a gussied-up shooting gallery. You're still in the cockpit of a fighter that navigates on autopilot, and your sole responsibility is still to place the crosshairs on your enemies and fire. The terrain still swoops and swerves dizzyingly around you, though in Cyberia the visuals are all computer generated. The controls are still stiff and difficult to handle. The only real difference is that CYBERIA gobbles up a couple of hundred quarters up front.

FIGHT PATTERN

The game opens with the sequence on
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the oil rig, the duration of which depends on whether or not the player accepts a victory kiss after the introductory shoot-em-up scene. If not, it won't be two minutes before you're up in the air with the happy consent of the rig's owners. If you do kiss your female co-gunner, her boss gets jealous and tries to kill you. As a result, you'll have to do some Eastwood-style skulking to get away with the plane.

The animation of Zak and the bad guys running down catwalks and corridors is fluid and gorgeous, but very little of it is under the player's control. When Zak reaches a crossroads at which he could turn one way or another, he stops moving and the player gets to push one of the four cursor keys to get him started again. When Zak enters a situation where he can use his gun, the player gets to push the space bar to make him raise his arm and fire. But that's really all there is to do, and in most situations you only have one or two of these choices, not even all five.

Fortunately, Zak occasionally comes across puzzles that are not action-based. The one in the opening sequence involves defusing a bomb planted on the underside of the plane; you have to use your Geordi LaForge-style visor to scan the bomb and then press its buttons in the proper sequence to deactivate it. A combination of trial-and-error and common sense should get players past this puzzle, even if they've chosen to play the game on the "Difficult" puzzle level rather than "Medium" or "Easy," but at least it is a puzzle and a welcome break from the single-key-stroke gameplay offered elsewhere. Five or six such puzzles break up the monotony in CIBERIA's second infiltration sequence, the invasion of the Russian base at the end of the game.

The action portions of these two infiltration sequences ask little of the player other than that he jump, duck, and shoot at just the right instant. Occasionally, some one-time cleverness is required—how do you sneak past a guard posted behind a glass wall?—but since the game is entirely pattern based and since you have five or fewer choices at each juncture, it is a simple matter to try every option and identify the one that moves the game forward. Doing so is not necessarily loads of fun, since the game's lack of a save function means that you have to memorize and repeat the sequence of moves to get you from one "milestone" event to the next, but at least it's unlikely that you will ever get stuck and not be able to figure out what to do next.

The more likely case is that you will know exactly what to do, and may even have pulled it off once, but subsequently will have trouble getting the timing right to pull it off again. Beginner's luck saw to it that I successfully blasted the main guard on the oil rig the very first time I tried—but when I was sent back to that sequence after dying a few scenes further on in the game, I had to play through it nine times before I could replicate my initial success.

These criticisms are equally true of the air combat scenes, of which seven are sandwiched between the two infiltrations. Your flight path and the paths of your enemies are entirely pre-determined, so that the second time you fly a given leg of your mission, you know exactly where the unfriendly fire will come from and where your targets will be. If it weren't for the fact that the crosshair is so sluggish and the timing so crucial, there would never be a reason to play any of the sequences a third time, other than to show your friends the nifty graphics.

As it is, you'll know very quickly exactly what you have to do, but because of the poor controls you may have to play through a scene 10 or 11 times before you manage to do it. Sometimes you have to drag your lead-bottomed targeting sight all the way across the screen in a fraction of a second, and all I can say is "good luck."

The relative difficulty of the air combat sequences scales independently of these difficulty settings, which are set when you start a game and cannot be re-set thereafter; the scenes generally get harder as you go along. However, they don't do so in a well-thought-out fashion. The very first action sequence in the game, without beating which the player cannot do anything other than regret his purchase, plants Zak behind a stationary gun on the oil rig and asks him to blow an onslaught of planes out of the air and mines out of the water. Bizarre but true, this is one of the hardest action sequences in the game, in part because the gun has a restricted range of motion, in part because it lacks crosshairs, in part because the sequence goes on for an awfully long time with no indication of how close you are getting to completing it, and in part because it does not function with the mouse. Gamers who have no joystick have no choice but to struggle through the scene with the keyboard, which is like trying to drive a nail with a Q-Tip.
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Circle Reader Service #143
Things improve once Zak is airborne, but the escalation of difficulty still seems haphazard. The first flight sequence, over the open ocean, is quite tough; it took me seven tries to get through it. The next three I completed in a single run—I didn’t die once. Then, out of nowhere, the nearly impossible fifth sequence, in which Zak flies into a narrow tunnel filled with explosive fuel trucks and charging enemies, clobbered me. I lost count of the number of times I played this sequence. It was more than 50. The speed is tremendous, and the view is limited, the targeting boxes pile up into an unreadable mess of yellow and blue lines, and if you shoot so much as a single fuel truck, you bring the entire tunnel crashing down around you.

**COLD COMFORT**

Reach the Cyberia base and the story takes a couple of interesting turns. Two unexpected action sequences have you clearing viruses out of a vaccine and out of the base itself. There’s also some really nice character animation, though I for one will be glad when a designer finally comes up with “synthetic actors” that look like people rather than puppets.

But people will buy Cyberia, if they buy it, not for the character stuff but for the flying sequences that are its showpiece. And basically I see nothing wrong with this—heaven knows my pocket and my heart were both a good deal lighter when I left that Manhattan arcade more than a decade ago, and maybe that’s as much as you can ask of a game.

But I’d like to think it’s not. I’d like to think we’ve made some progress over the past 12 years, that we could do better than recreating, with today’s glorious technology, the rather elementary games that I played as a kid. Mind you, I don’t expect target-shooting games to vanish—I wouldn’t even want them to. I’d feel better about it, though, if they weren’t being heralded as one of the hottest new developments in computer gaming.

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**FLY BY WIRE**

Cyberia’s SGI-generated flight sequences are certainly rich, but fixed flight paths limit you to targeting and shooting. Every time you fly a mission, it will be exactly the same.

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**THE EDITORS SPEAK**

**PROS** Visually, it’s awesome: the game takes you soaring over landscapes so well-rendered it feels like you could touch them.

**CONS** The action is uneven—sometimes much too hard, sometimes much too easy—and there is something sad about putting this much energy and talent into a game that’s little more than an old-fashioned shooting gallery.

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With UNNECESSARY ROUGHNESS '95

by Jim Gindin

In developmental psychologist Jean Piaget could have studied UNNECESSARY ROUGHNESS '95, ACCOLADE's action-oriented football game, he might have observed four distinct stages in the evolving attitude of its players.

STAGE ONE: ADMIRATION

UNNECESSARY ROUGHNESS '95 puts a smooth-scrolling, SVGA product on the playing field. On a Pentium-73, you even have to slow the game to medium speed with all the graphics options enabled in order to secure a realistic pace for a football game. Uniform numbers proudly adorn the chests and backs of each of the 3-D modeled, slightly-pixelated players. Sure, it looks a little like your fourth-grader was playing with some glue and a set of pipe cleaners, but these are recognizable, bona fide uniform numbers and no sports action game this side of lawn bowling should be without them.

As they did with HARDBALL 3 & 4, ACCOLADE employs the dulcet tones of Al Michaels for the play-by-play announcing. While the sound is sometimes out of sequence and often repetitive, it does add to game play. UNNECESSARY ROUGHNESS '95 doesn't crash, either. In dozens of test games, the only program hang up came in the opening coin toss sequence. In today's entertainment software world, you're lucky if you can make it through the first safety blitz without witnessing a bad memory reference or a segmentation fault. This game's programmers clearly put a premium on keeping you up and running.

UNNECESSARY ROUGHNESS '95 is set up to run NFL-style leagues of 28 teams. League simulation requires 28 teams and deals only with 16-game, 17-week schedules. You can create your own teams and players, complete with NFL team names and logos. ACCOLADE also bought NFL Players Association rights, which means most NFL players are represented by name and picture. When one of those players makes a big tackle or a nice reception, you see his picture on the screen.

STAGE TWO: FRUSTRATION

UNNECESSARY ROUGHNESS '95 reached store shelves just a week before Christmas, which perhaps explains the feeling that the game was finished in a feverish panic. Minor bugs and bugs so plague this program that you begin to wonder if any of the testers have ever witnessed a football game. Return yards are added to total yards. Penalty yards are added to individual running and passing totals. Rushers are credited with neither yardage nor a rushing attempt on fumbles.

Worse, the interface is inundated with little playability problems. In the recommended joystick mode, moving from page to page through the playbook is an exercise in freakish dexterity. If you don't select a play on offense before "17" appears on the 40-second clock, you will end up with a delay-of-game penalty. You can turn this penalty off, which I would recommend unless you're playing using a gamepad or the keyboard.

Long field goals are amazing. My first attempt in a game was from 65 yards, and it sailed through with plenty of room to spare. That exceeds the NFL record of 63 yards. Extra points and short field goals are not so simple, and it wasn't until I switched to a gamepad controller that I was kicking those accurately. The game's computer opponent seems to have mixed feelings about the field goal. In autoplay mode, it attempts about six field goals per game, yet the average human-controlled kicker succeeds 50 times each season. Former Michigan and New York Giant standout Ali Haji-Sheikh, who holds the NFL record of 53, would be disappointed. In head-to-head mode, however, the computer-controlled team will not attempt a field goal; even on fourth-down-and-goal from the 20 yard line in a tie game, you'd better select a pass defense.

Aside from watching the computer zip through the pages of its playbook, you have no way of knowing what formation the computer has selected. Obviously, you want to be in a pass defense when you see the computer with four wide receivers in position. Even more so, you want to be in a punt return mode when the AI is punting. Rushing success is determined entirely
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numbers during the closing seconds of the game because they're lost forever once the final gun sounds.

**STAGE THREE: ACCEPTANCE?**
This is, after all, an action game, with smooth-scrolling views and generously sized players that respond well to the controls. Of course, accolade gains that smoothness by limiting the number of poses possible per player and by greatly reducing the frame rate. As a result, you don't actually see animated receptions, fumbles or tackles; they simply occur.

The game comes with only 89 designed offensive plays and 38 defensive plays, but the play editor allows for individual playbook design. Three of the 36 plays of your playbook may be specified as audibles (although audibles do not work properly during game play). You can assign strategies to each play, which allow the AI to thrown, you must guide your receiver into position to catch the ball.

In easier modes, either receiver selection is sequential, receivers guide themselves into position, or both. Unfortunately, you can't determine the arc of the ball and you can't make players dive for receptions or tackles. You can, however, change a pass into a run simply by handing the ball off to a running back. Or, if it looks like the defense has your ball's path well defended, you can give the ball to the fullback. You can even turn a run into a pass if you're fast enough with the controls. This freedom adds to the game's feel.

**STAGE FOUR: BOREDOM**
Does it really matter if Barry Sanders gains 4,000 yards in a purely action game? Probably not, but even the most casual football fans will be disappointed that Unnecessary Roughness '95 allows you to beat the opposition with ease. For instance, the AI is supposed to recognize play-calling patterns from the opposing coach. While the computer will call more pass-oriented defenses if you pass a lot, certain passes will succeed regardless of the defense chosen. Although the "long bomb always works" syndrome from the original Unnecessary Roughness is gone, it has been replaced by the dreaded Multiple Personality Disorder. If you put three receivers in a very small area one of them will catch anything thrown in their vicinity.

Late in a game against the computer, I ran a "Hail Mary" pattern, which features three receivers running 20 yards down the right sideline. The completion looked so easy that I tried it again and again, gaining the winning touchdown. I made some modifications to the play, improving the blocking and using the middle receiver as a decoy to get the other two receivers behind the secondary. I then made this the only play in the team's playbook. Sure enough, the quarterback completed 14 of 1728 passes for 13,428 yards and 152 touchdowns during an AI-simulated season. This team defeated the mighty San Francisco 49ers, 70-13, for the league championship.
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Incredible Stats—News at 11! Emmitt Smith is certainly a great back, but if he gained the yards in real-life that he does in this game, the Cowboys would go bankrupt renegotiating his contract.

If you eliminate the Multiple Personality Disorder from your playbook, passing is more challenging. You can't beat the computer by rushing the ball constantly. It will adjust, and your running plays will not gain as much yardage. Unnecessary Roughness '95 also has a well-implemented fatigue factor which limits your running backs to a realistic number of effective runs per game. But the computer's offense is no match for a human-controlled defense.

Safety blitzes kill just about any offensive option and even without blitzes, simply having control of one player on defense devastates the computer's running game. After a while, you discover that Unnecessary Roughness '95 runs plays as if there were 11 robots on the field. A player goes to a specified location and performs a specified task. If, for instance, a lineman is told to run three yards to the right and block, he will do exactly that. If no one is in the area, the lineman will impersonate a statue.

All the computer really can do is pass. Passes are hard to defend, but if you're willing to accept a lot of interference penalties, you can easily hold the computer to about 40 percent completions. That, combined with a complete shutdown of the run, is enough to hold the computer under 10 points in most games.

Unnecessary Roughness '95 desperately needs changes to pass defense and offensive blocking algorithms, but even with these changes, it wouldn't be as good an action game as John Madden Football. Certainly, anyone interested in re-creating a football season will be disgusted with the ludicrous individual statistics. So, despite the SVGA graphics and smooth action in Unnecessary Roughness '95, both the action and the statistics fan would be a lot better off with Sierra's Front Page Sports Football Pro.

The Editors Speak

Unnecessary Roughness '95

Pros SVGA graphics with real jersey numbers and NFLPA licensed names and faces.

Cons Ridiculous statistics, huge game play gaffs (i.e. you can't refuse a penalty), and the action just doesn't compare to its competitors.

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Approach With Caution

If you fly Microsoft Flight Simulator very much, especially version 4.0 or 5.0, you probably already understand the basics of radio navigation. There’s a huge amount of scenery and many navigational aids available in either version, and exploring the virtual world via radio navigation is a very entertaining challenge. Also, if you’re a Flight Simulator fan, you probably handle the aircraft well and can follow the ILS for a perfect landing every time. But, there’s still another challenge awaiting your mastery: instrument approaches.

If you’ve ever watched the skies near a busy airport, especially Chicago’s O’Hare, you’ve probably seen a long line of aircraft spaced a few miles apart approaching a busy runway. One aircraft lands and taxis out of the way just in time for the next one to land. How did they get so neatly stacked? The diligence of watchful air traffic controllers keeps things under control, vectoring aircraft to and fro as needed. Additionally, most airports provide “published approaches.” Also called “instrument approach procedures” (IAPs), these maps provide guidance into the airport. An IFR rated pilot should be able to follow these maps in, line up with the runway, and execute a perfect touchdown. In my conversations with real world pilots I’ve heard differing opinions on the effectiveness of IAPs in the real world. Some pilots indicated IAPs are not very useful given the presence of a radar air traffic controller (ATC) who will simply guide you where you need to go. But the conspicuous absence of ATCs in the virtual world presents a unique opportunity for simulated IAPs. Following an IAP ensures a reasonable lineup and approach to the runway under realistic circumstances in the simulator world given the limited ATC presence. I’m sure you’re asking yourself, “Self, how do I get instrument approach map plates and how exactly do I interpret them?” I’m glad you asked.

ON THE RADAR

Domark Software and Interactive Creations have teamed up to develop a multi-player air combat simulator entitled CONFIRMED KILL (a project that was formerly confirmed dead, but has arisen again). A stand-alone version of the game will allow eight players to link via modem, serial and network. Special modem code will also enable three-player games over normal telephone lines. But the big news is that a dedicated high-speed Internet host will also allow over 300 players to duke it out in cyber-airspace at prices far below any other major on-line game. Players will be able to choose from an initial offering of over 50 fighters and 12 bombers rendered with an enhanced version of Domark’s SVG texture-mapped graphics engine. Concerted efforts are under way to woo the “hard core” on-line sim fan with superior graphics, realism, and scope, while giving budding sim aces a friendly and fun environment to wage war in. Testing is under way now, and the final product is scheduled to debut in May.

ADD A FRESH CHALLENGE TO MICROSOFT FLIGHT SIMULATOR WITH “INSTRUMENT APPROACHES”

WHERE TO GET THEM

The actual books carried by pilots are available from numerous sources, but your best bet, of course, is pilot-supply stores. Many airports have plates for sale, or you can mail order them. Sporty’s Pilot Shop in Batavia, Ohio carries a full line of up-to-date Terminal Procedure Publications containing instrument approach procedures and other information. Each book is $5.60 and covers large geographical areas. One book covers all of Texas, another covers Colorado, Utah,

by Tom “KC” Basham

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Nevada, Arizona, and New Mexico. Sporty’s phone number is 1-800-LIHTOFF. Alternatively, you can visit my favorite place: CompuServe’s Flight Simulation Forum (GO FSFORUM). If you have a CompuServe account, the Flight Simulation Forum library 6 contains a shareware Windows-based approach plate tool called FINAL APPROACH and over 1,000 approach plates for airports around the world. The shareware version of FA allows viewing of existing plates and creation of new ones. For the $30, the registered version allows printing of all plates. The author will discount the registration fee $1.50 for each plate you design; if you use FA to create five new approach plates, the author discounts the registration fee by $7.50. The 1,000 available plates cover major airports in North America and around the world, including Hong Kong, Glasgow and London.

Being user-designed, the IAPs are subject to error or omission. While I haven’t examined all 1,000+ available at the time of this writing, all that I have used are sufficiently accurate for simulation navigation.

**HOW TO USE THEM**

OK, once you have IAPs for your favorite airports, how exactly do you use them? Fully understanding the myriad of IAP abbreviations, terminology, and symbology exceeds the space limitations of this magazine and probably the attention span of most simulator-only pilots! Numerous conversations with fellow flight enthusiasts, especially FSForum sysops Bill Ciciora and Rick Lee, determined that numerous IAP details apply to situations not modeled in the FSX 0.0 world. Therefore, we’ll focus on the main elements of an approach procedure required to get your simulated Lear, Cessna, or DC-9 on the simulated ground and hope the IFR-rated pilots among us forgive the abridged description. Let’s look at IAPs in four pieces: the header, the plan view, the profile view, and “the other stuff.”

**THE HEADER**

First, the header explains information about the airport (see Fig. 1, The Header). The right side of the header details the airport’s city, its name and the name of the approach. Our first example indicates that “O’Hare International” is the airport name, situated in Chicago, Illinois. The approach is named “LOC Rw 04L,” indicating a localizer-only approach to runway 04L. “LOC” indicates the runway has no available glideslope; you can use ILS or line up with the runway but you have to manually judge the proper altitude during the descent. An approach name beginning with “ILS” indicates full ILS with localizer and glideslope available. “NDB” indicates there’s only an NDB. You can use the ADF to point toward the runway, but you must manage to line up and descend on your own (similar to a landing waypoint in Falcon 3.0).

**THE PLAN VIEW**

The left side of the header gives radio frequencies and airport elevation. The statement “LOC 111.3 IINNA” indicates the type of navigation aid you’ll be using, in this case a localizer at frequency 111.3 with the call letters IINNA. In the real world, Morse code for IINNA would be transmitted as well as the localizer information, letting pilots audibly identify the nav-aid. For the most part, FSX 0.0 only models the ATIS (weather information), the nav-aid type, and the airport elevation.

**FIG. 2 - The Plan View**

The plan view shows a top-down view of the landing area (see Fig. 2, The Plan View). The concentric circles symbol indicates a radio nav-aid. In this particular example for O’Hare RW 04L, we have three VORs: Northbrook 113.0 with call letters OBK, DuPage 108.4 with call letters DPA, and O’Hare 113.9 with call letters ORD. The indicated rectangle represents the runway. The arrow symbol represents the landing path. The triangles along the arrow are intersections, named ELLYN and LAPPs. The lines between DPA and the intersections indicate what radial to fly along. Let’s assume you wanted to pick up the ILS at ELLYN intersection. You could tune VOR1 to 111.3 (the ILS frequency) and select radial 40 (the indicated heading of the runway) and tune VOR2 to 108.4 (DPA). With VOR2 active, you would fly to DPA, then select radial 110 and fly from DPA to ELLYN. Once en route to ELLYN, switch to VOR1. When you intersect radial 40, you’ve crossed the ILS. Make a left hand turn to heading 040 and follow the ILS down.

The football shaped symbol along the landing path is a marker. A large football symbol represents the outer marker while a smaller one represents the middle marker. In this case, the LAPPs intersection is directly over the outer marker. Beneath each intersection name is the letter “D” followed by a number and letters. This indicates DME distance in nautical miles; in this case the ELLYN intersection is 13.5nm from the ORD VOR. LAPPs is 5.8nm from ORD VOR.

Most plan views label some point “IAF” for Initial Approach Fix. This point is generally considered the “start” of the landing procedure. Pilots are expected to report their status, altitude, etc., to the tower when they reach the IAF. This particular plan view does not show an IAF. In the simulator world that’s not critical, so I arbitrarily designated the ELLYN intersection as the IAF.

Lastly, the oval near OBK indicates a holding pattern. Aircraft would fly at heading 088 to OBK, turn right to heading 268, extend west of OBK, then turn right again to heading 088. We’ll come back to this holding pattern in a moment.
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THE PROFILE VIEW

The profile view shows a side view of the landing path (see Fig. 3, The Profile View). Notice 5,000 beneath ELLYN. When arriving at the ELLYN intersection, your aircraft must be no lower than 5,000 feet above sea level (MSL). The asterisk indicates ATC can authorize an altitude for ELLYN as low as 2,700 feet. In any event, you must be no lower than 2,500 MSL at LAPPS. This plan view shows an additional intersection called RACCCY near the runway with a minimum altitude of 1,260 MSL. The numbers 7.8 and 3.6 along the horizontal line indicate the horizontal distance (not the DME distance) between ELLYN, LAPPS, and RACCCY.

The inverted triangle under LAPPS indicates a marker. A tall triangle represents the outer marker while a shorter triangle represents the middle marker (not shown here). The “X” where the landing path crosses the outer marker is called the Final Approach Fix (FAF). If no “X” is specified, assume (for simulator purposes) that the outer marker is the FAF. Notice that the landing path bends upwards just at the end of the runway. This is the Missed Approach Point (MAP). At this point you must decide to either execute a missed approach procedure or press on with the landing.

Speaking of missed approaches, the plan view normally contains instructions for such eventualities. In this case, you must climb to 1,200 MSL, then execute a climbing left-hand turn directly toward OBK. Level off at 4,000 MSL, then enter the holding pattern over OBK described in the plan view.

![Fig. 3 - The Profile View](image)

THE OTHER STUFF

So far it hasn’t been too difficult, but now there’s more data to contend with. Real-world IAP complexity exceeds that of this sample, describing different conditions for different class of aircraft and pilots, etc. For our purposes we’re ignoring that type of data. We’re concentrating on the standard, “direct in, follow the ILS approach.” In this particular example, we see a box labeled straight in approach (see Fig. 4, The Other Stuff). This box may give you a Minimum Descent Altitude (MDA). If specified, descend to the MDA, hold altitude until reaching the MAP, then continue descent. Alternatively, the box may specify a Decision Height (DH). When you reach the designated DH you must either have visual contact with the runway or execute a missed approach.

![Fig. 4 - The Other Stuff](image)

Below that we have the FAF to MAP table. This tells us that the MAP is 4.4nm from the FAF and how long it takes to travel those 4.4nm at various ground speeds (for example, 2 minutes and 56 seconds at 90kts). At 2:56 after you cross the FAF at 90kts you must make a decision to land or execute a missed approach.

Those are the basics. Some details have been left out either to conserve space or because they aren’t applicable to the MS Flight Simulator world. This information helps navigate various airports around the virtual world, making for better landing approaches and adding a touch of realism to the experience. Land softly! 😊
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Circle Reader Service #349
REVIEW

Light As A Feather

Merit Software’s FIGHTER WING Wants To Be
The Everyman’s Sim

by Martin E. Cirulis

Before I get on with this review, I feel I should set something straight. I don’t tell people I’ve flown a real jet, I don’t belong to a pretend fighter squadron, I don’t think more air missions would have won the war in Vietnam, I don’t own a pair of mirrorshades, and I still say “Take care,” when bidding goodbye to friends, instead of “Check six!” If someone has to do all these things in order for you to take their opinion on a flight simulation, then you might want to pass on this article.

On the other hand, I do know my aircraft; I hold my own little opinions on what was the best fighter of any given era, and I’ve been playing flight sims since the WWI module on the first MICROSOFT FLIGHT SIMULATOR for the Atari ST was the hottest thing around. I may not be able to tell you what the nose wheel of an F-15 weighs, but if the screen doesn’t go blank when I pull back hard on the stick of a Hornet at Mach 1, I know a sim’s flight model may be on the fluffy side. So when I was asked to look over FIGHTER WING, a new, network-capable flight sim focusing solely on high-performance jets, though it was the networking aspect I was most interested in, I felt I could do the package justice. Unfortunately, it seems that this is a flight sim so fluffy that even I might be over-qualified.

Talking the Talk...

FIGHTER WING allows the player to fly five “NATO” fighters (the F-4, F-15, F-16, F-18, and F-117) as well as five models from the other side of the fence, (MIGs 21, 23, 29, 31 and the SU-27). In addition to these jets, players will encounter ten other types of aircraft that fulfill the “target” role in various scenarios. Weapon loads are not forgotten, and all major external weapon systems popular in the conflicts of the past 30 years, “low-intensity” or otherwise, are included, along with a utility that allows players to choose their own load-outs—with

Of course, it might depend on your political persuasion.

FIGHTER WING boasts a full 3-D engine and the graphics are very good, somewhat better than FALCON but not in the realm of the dumb-but-pretty STRIKE COMMANDER. Aircraft are very well rendered, up to and including nationality markings, and hold their lines consistently as the viewing angles rotate, while the ground is modeled on actual map terrain. Unfortunately, this graphic joy comes at a very heavy price, and anyone using an older graphic card will have to settle for the lowest resolution the game offers—or figure out how to play at frame rates well below a half-dozen per second.

For CD-ROM users, there is an added visual bonus in the form of “video clips” that can appear in response to various events like taking off or launching a missile, showing real footage of what you are trying to do. This is enjoyable at times, but can be disconcerting when the whole game goes away in the middle of a dogfight to show you 30 seconds of a Sparrow leap-

YANK AND BANK FIGHTER WING aircraft hold their crisp lines even as the viewing angles rotate, as this well-detailed MiG-29 illustrates while maneuvering above a city.

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So, you want a perfect game. Get Hardball 4. Get cutting-edge graphics that are incredibly real. We're talking about wake-the-neighbors-and-call-your-friends kind of real. Get stat compilation that would make any sports bureau envious. Get all 28 stadiums with different altitude, field, and wind conditions. Throw in an add-on disk with over 700 major league players. And you've got a masterful gem that compelled Computer Entertainment News to label it One of 1994's Ten Best Games. Now, to get a perfect game you don't have to be in the zone. Just the right software store.
ing off your wing tip and going on to rip a target drone a new posterior orifice. After a few doses of this, all but the player desperate to get the most out of his CD-drive will turn this option off for the sake of combat continuity.

The real novelty in this sim is the network capability, which allows up to 16 players to fight against each other in two teams; up to three players can play scenarios together against the computer's forces, as well. At the moment, the network protocol of choice is NetBIOS, but there are plans to include an IPX patch that would make the game accessible to virtually all network users.

...STUMBLING THE STUMBLE

FIGHTER WING is the type of flight sim that tries to cover a number of aircraft instead of concentrating on a single type. Traditionally, there has been a slight tendency to assume that sims of this kind sacrifice the flight model for variety. Unfortunately, this game does nothing to dispute this stereotype. While there are obvious differences in the handling characteristics of the different aircraft, FALCON OF US NAVY FIGHTERS are in no danger of being left-behind in any "reality" war. The same can be said of the various HUDs and cockpits; they vary, but bear little resemblance to the actual models.

In fact, anybody who needs serious realism should invest their time and energy in buying and then complaining about this product. While the package tries to cover everything, the treatment is very superficial. Radar modeling is simple; the most a player can control, other than turning it on and off, is the range and target selection. Also, there is nothing like the padlock-views so popular with today's sim crowd. The only thing resembling situational awareness in this sim is a change of views to the outside camera.

To be honest, if these were all the drawbacks to the game I'd still be somewhat happy with it. I personally believe that there is a place for "fluffier" flight sims in this world, where some people actually don't want to choose between their marriages and the learning curve for a computer game; FIGHTER WING could have reserved a nice little niche for itself, especially with its multi-player capability.

Unfortunately, there is much worse afoot. The real problem with FIGHTER WING is that for all the demands it makes on processing power, it delivers very little—and what it does deliver is flawed. While the ground looks very nice, how relevant is this in a game designed mainly for fighter missions? And while I am no stickler for detail, even I have a little problem with a cloud-layer that grays-out the inside of the cockpit as you pass through it, causing you to try and roll up the window in your F-16. That's a comical example, but this kind of sloppy graphics work annoys me in a game that runs far slower than STRIKE COMMANDER at full detail level. Combine this with a tendency to crash every 15-30 minutes, and this is not a very rewarding or fun simulation to play at the moment.

A truly 3-D engine is a nice thing; there is just nothing here that would let you guess or even care that you were playing with one.

TAKING ADVANTAGE
OF THE LAW

Luckily for the future of FIGHTER WING, it is an enjoyable multi-player brawl in network mode, when it isn't locking-up—and 16-player capability could mean a serious reduction in AIRWARRIOR bills for some of us. This all depends, however, on Merit following through on its promise of a patch that adds IPX compatibility (as well as fixing the more glaring bugs). The easy learning curve might attract the more casual players who have been scared away from multi-player FALCON by flight-suited weekend wingmen with the optimal RPM settings memorized.

THE EDITORS SPEAK

FIGHTER WING

RATING

PROS Potentially a good introduction to modern flight simulations; even more potential as a light, fun multi-player sim.

CONS Requires a lot of hardware for a little bit of sim; riddled with bugs, errors and omissions.
bureau 13

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Live the life of a top secret agent with the highly classified government team Bureau 13. Your mission is to investigate, contact, and if necessary, exterminate supernatural entities. Build your own team from confidential Bureau files, each character with his own unique and special abilities. The government has kept the widespread reports of paranormal incidents a secret for fear of mass hysteria. Are you prepared for what you might encounter? And can you deal with it when you do?

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PC CD-ROM
OLDER BABY BoomERS MAY FORGET HOW THEY LEARNED HISTORY IN GRADE SCHOOL, BUT I WOULDN'T. IN ADDITION TO THE FORGETTABLE BOOKS, WE WERE TREATED TO ONE HIGHLY MEMORABLE FILM SERIES ENTITLED YOU ARE THERE. THESE 22-MINUTE VIGNETTES (DESIGNED TO BE AIRED IN HALF-HOUR TV TIMESlots) WERE CLASSIC '50s BLACK-AND-WHITE TELEVISION EPISODES. OUR HOST, WALTER CRONKITE, WAS INJECTED INTO SOME HISTORICAL EVENT, SUCH AS THE BOSTON TEA PARTY. THERE, HE WOULD FOLLOW THE ACTION AND INTERVIEW THE PRINCIPALS, REPORTING "THE NEWS" OF HISTORY IN A WAY THAT HONORED THE SERIES TITLE. I'VE NEVER FORGETTEN THOSE WONDERFULLY CORKY SHOWS.

While I'm waiting for my local cable station to pick up the History Channel in hopes of seeing those nostalgic You Are There episodes, I've been reflecting on the role-playing aspects of war and strategy gaming. While cross-genre gaming will always be with us (hence those fine lines between space flight simulations and arcade games), there has been a great dearth of games with role-playing elements blended with war and strategy game elements—at least, a great dearth of memorable products.

What prompted this line of thought is the success of SST'S PANZER GENERAL. While some might argue that it's more of a game and less of a historical simulation, one aspect is not debated: the campaign game element is a triumph. Now, PANZER GENERAL is not the first game to have a player's core units follow him from scenario to scenario, stringing them together into a "campaign," but it is the latest and has been particularly well received for it.

In addition, PANZER GENERAL goes out of its way to personalize the player as the Panzer General. Your marching orders are given to you, success or failure in a scenario begets a personal commendation or condemnation. At the campaign's end, the goal is how history will remember you, as a Panzer General, that is the game's great reward. When combined with the individual unit citations and campaign ribbons and the personal feelings a Panzer General develops for his core forces, the sense of You Are There is complete.

While other games always seem to put you in another person's shoes, PANZER GENERAL puts you in a pair of comfortable, glistening jack boots that fit your feet just so. While war and strategy games, by their nature, put the players in a "role," the type of role-playing that so effectively permeates PANZER GENERAL, deserves some special recognition.

Other war and strategy games, too, incorporate more role-playing elements than most in their genre. MicroProse's Master of Magic, for example, draws players in by al-

By Alan Emrich

(continued on page 140)
loving them to create their own custom wizard. By blending various colors of magic spell books, wizard skills (such as Alchemy or Runemaster), and selecting from among several starting races (from Elf and Human to Klackon and Lizardman) at the beginning of every game, there is more than a whole new world to explore—there’s a whole new self to explore. MASTHER OF ORION also personalizes your strategy by having an elaborate routine for diplomacy and vote bargaining is necessary for success.

While true wargames might put you in the shoes of a commander, such as Avalon Hill’s OPERATION CRUSADER allowing players to assume the role of Rommel, O’Connor, or Montgomery, they’re not much of a role-playing experience. Neither is being the abstract commander of forces in NEW WORLD’S SPACEDWAR, Ho! or EMPIRE DELUXE. But when games of this caliber manage to transcend these given roles for human players, and personalize them in ways that PANZER GENERAL and MASTER OF MAGIC do, then they raise our niche a notch and cap their games to a broader base of gamer appeal. Although I see little hope for adventure game puzzle solving to make its way into war and strategy gaming, role-playing well, I hope, continue to make some inroads. While it is worthy to mention that simulations go together with war and strategy games like bread and butter, and action game elements have had their place in our niche (thanks, largely, to Dani Bunten’s designs, in particular COMMAND HQ), these are not in discussion here. Here, I want to commend the war and strategy game designers who looked to role-playing games to add a special element to our war and strategy gaming experiences. May my disbeliefs remain suspended as it was (all too often) in Junior High School.

62 (continued from page 139)

In the something-for-nothing department, Blizzard Entertainment has released the editor utility for their popular WARCRAFT: ORCS AND HUMANS as freeware. Players can adjust unit strengths, ranges, hit points, etc. It should be posted on America On-Line, CompuServe, or the Internet elsewhere, or you can call Blizzard directly at (800) 953-SNOW.

Also blowing in from Blizzard is their announcement that they will develop Pax Impexa 2 with Changeling Software. The game should be released in both Mac and Windows formats by Christmas of ’95.

New World and SimTex’s battle-mech game (working title: MECHLORDS) could potentially have up to 18-players per game (there will be six great houses with three key nobles each). Each player is a noble who must decide what missions will be conducted on which planets each turn. There will also be individual pilots (with personalities) commanding key mechs. Strategically, the game is on a star map with point-to-point movement and has something of a Master of Orion feel for fleet maneuvers and politics. Much of the action takes place on individual planets, where players set up mining and manufacturing operations, played out on operational-level maps (a la EMPIRE DELUXE). Each planet will feature indigenous towns and races. Since it takes a while to get planets up and running to their economic potential, players will be able to drop in some pre-fab cities and factories to seed their growth. Naturally, there will also be an evil alien race that threatens all players, who must combine...

to thwart it. Thankfully, e-mail play is being strongly considered.

SimTex and MicroProse have also lost the MOOD. Instead of pursuing a Master of Orion DELUXE (MOOD), SimTex will release a major upgrade of MOO. This budget-priced add-on disk, Master of Orion 2, will feature greatly beefed-up AI, one or two new alien races, faster game play and—brace yourself—multi-player capabilities. This project is boardgame. Here’s to the gamer-as-perfectionist, Thomas Nicely, who brings new meaning to the term “Nicely done!”

In addition to BEYOND SQUAD LEADER, Atomic plans to convert AH board games BLITZKRIEG and STARSHIP TROOPERS, and re-release the upgraded V FOR VICTORY series.

Other Avalon Hill news finds COMPUTER THIRD REICH finally ready to release in the second quarter of this year. Computer BLACKBEARD, due in the third quarter, will include lots of extra material that would have overburdened players in a boardgame environment, but which a computerized version now makes easy to incorporate. BLACKBEARD will also incorporate more of a role-playing element.

Now that the 2.0 version of his THE ROAD FROM SUMTER to APPOMATTOX is out (available through HPS Simulations), Frank Hunter is beginning work on THE ROAD FROM MARENGO TO WATERLOO and an exciting new title, BETWEEN WIND AND SEA: THE AGE OF SAIL. Heave, ho, Frank. Keep us posted!

While TACOPS is currently only available for the Macintosh, it is being ported to Windows with all dispatch. Paul Pucci of Arsenal Publishing projects a mid-1995 release.

In answer to a recent obscure information request, FLEET COMMANDER is on a back burner at RAW Entertainment. Alan Zimm, who published the original ACTION SIXTIONS (along with Dave Isby) is still on active duty with the United States Navy.
OWN THE PACIFIC.

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This Is Not Your Meier's Civilization

Avalon Hill's Advanced Civilization Seeks To Make Its Own Name

by Alan Emrich

Is there any question that celebrity watching is the world's most popular spectator sport? Just think how many tons of ink have been splashed across the tabloid pages in England over the exploits of the Royal family. And how many broadcast hours and tons of paper have we Americans devoted to the escapades of our own surrogate royalty—the jocks, starlets, and crooners in the pop spotlight?

In the computer gaming world, the stars are few and far between, but we're not completely without our royalty. If we had to crown a king, the jewels would have to go to Sid Meier, the humble guru of "god" games (Pirates!, Civilization, Railroad Tycoon).

So it was with no small amount of guilty pleasure that I got to do my own celebrity watching at the recent Consumer Electronics Show, where I saw Sid wandering the aisles of new computer games on display. I watched carefully as he stared at screens and occasionally pushed a few keys. After all, if Sid Meier expresses interest in a game, the headlines are sure to follow!

Naturally, I smiled when Sid moseyed over to the Avalon Hill Game Company booth and, in the most unassuming way imaginable, ventured to look at Computer Advanced Civilization. After all, Sid has admitted that their Civilization boardgame was an inspiration for many of the basic elements of his game. Like Sid's own CiviliZation, Avalon Hill's computer game version of the successful boardgame challenges gamers to build a civilization from the ground up, using trade, diplomacy and expansion as tools. Unlike Sid's game, Advanced Civilization ends at 250 B.C. (where Sid's game is just getting warmed up) and offers multiplayer games (a feature Sid's fans have been requesting for years).

The History of Civilization

Avalon Hill has the license to publish the Civilization boardgame in the United States, but the game was originally released in England by Hartland Trefoil, whose 1829 railroad boardgame served as the inspiration for Avalon Hill's upcoming 1830 (another former boardgame that Sid Meier was eager to see, by the way). The original Civilization boardgame was driven by the trading of commodities such as Dye, Gold, and Ochre, calamities such as civil wars, and the goal of acquiring Trade Cards, each providing special benefits.

It was only when Canadian lawyer/game designer Bruce Harper entered the picture that Civilization headed into its "Advanced" state. Harper's terrific enhancements included cleaner and more comprehensive rules, streamlined trading, plus newer and more calamitous disasters. The new elements all combined into a critically acclaimed boardgame that continues to withstand the test of time.

On top of the Advanced game, many layers of enhancements have been added like sinful pleasures on a triple-decker cake. These include player variations ("house rules") published in boardgame magazines and in Avalon Hill's published expansions. Both the unofficial and the sanctioned additions will contribute to a rich play experience for computer users. Specifically, Civilization's western extension map and expanded trading cards have been fully incorporated into Advanced Civilization.

From These Humble Beginnings

Players of Advanced Civilization don't begin with much. Just as Sid Meier's new rulers started with a single group of settlers, so players of Advanced Civilization begin play with but a single token to represent their civilization.
From that point, Advanced Civilization is played in epochs. Time is recorded on the Archaeological Succession Table (AST) beginning in the Stone Age. From there, the various players at the various starting positions (Africa, Italy, Ilyria, Thrace, Crete, Asia, Assyria, Babylon, and Egypt) try to meet the minimum requirement to advance into the early Bronze Age, where the player owns two cities. After three to five turns in the early Bronze Age, players must leap the hurdle to advance into the late Bronze Age (which requires three cities and ownership of Civilization Cards from at least three of the following groups: Arts, Crafts, Sciences, Civics, and Religion). From there, the requirements for the early Bronze Age (four cities and nine Civilization Cards with all five groups represented) and the late Bronze Age (five cities and specific point totals of Civilization Cards) must be met in future turns. Failure to meet these requirements by the specified turn keeps your people from advancing on the AST, and you fall behind in the race to the finish.

What can players do with the single token they start with somewhere along the edge of the map? Grow! Each turn, there is a population growth phase where every area that contains one token receives another, and those areas with two or more tokens can receive two others. Early in the game, tokens multiply like rabbits. Each area on the immutable map (there are no random map variations—the terrain is fixed from Gibraltorr to Basra, and Ireland to Upper Egypt) has an agricultural support value ranging from one to five and, possibly, a city site, volcano or flood plain. The agricultural value is the unit stacking limit, with the number of different tribes able to coexist in a given area adding up to that value. When exceeded, tokens are removed alternately among players until a stasis between tribes and agricultural value exists. Thus, combat consists of simply removing excess tokens in an area until the unit numbers no longer exceed the location’s agricultural support level.

It is here where I perceive a weakness in Computer Advanced Civilization’s basic design. While it is often interesting to watch every player move every one of their pieces every turn, more often it is not. Even with my Pentium 90, the movement phases of the latter game crept along to the point of boredom. I would like to see an option that would expedite the computer players’ unit movement and just show their final placement.

**URBAN MAJESTY**

Cities are the engines of Advanced Civilization. They are built at the various historical city sites dotting the map by combining six tokens, or 12 tokens on any non-city site. With cities come trade cards and taxes which, in turn, create an economy, and the game progresses rapidly from there. Taxes are received at the rate of two tokens from the player’s “stock” per city per turn (with Coinage, you can set your own tax rate of 1, 2, or 3 tokens per city per turn). One’s stock of tokens, however, is also where population growth comes from, and players have a set limit of pieces at the beginning of the game. Hoarding too many tokens in your treasury means that only selective population growth occurs and, if there are not enough tokens available when tax time comes around, untaxed cities revolt (there’s an interesting twist in logic for you). The simple management of your stock of tokens is a game within a game. The cities also allow for the collection of trading cards, which serve as the lifeblood of the game system. The more cities you own, the higher the value pile of trading cards reached. For example, if you have four cities, you receive a card from pile 1 (the cheap stuff, Hides and Ochre), a card from pile 2 (better junk, Iron and Papyrus), a card from pile 3 (Salt and Timber) and one from pile 4 (Grain and Oil). Similar to the classic card game Porr, the goal of trading is to corner the market on a given commodity. Thus, the more of a single commodity you acquire, the greater the value of the set when cashed in to purchase Civilization Cards such as Astronomy or Military.

While the mechanics for trading cards have evolved into something more-or-less intuitive...
itive in this computerized version of **Advanced Civilization**, it might seem a bit Byzantine to new players at first. That's because the trading mechanics were designed for ease of play via e-mail. In the end, it works well, and Avalon Hill is to be commended for working through such a thorny problem on behalf of e-mail gamers everywhere.

**CALAMITIES R US**

With up to eight players involved, there is a lot more than just trading going on. Shuffled into almost every pile of trade cards is a disaster or two. These cards are like hot potatoes: whoever is stuck with them at the end of the trading session suffers a disaster. Since trade cards must be moved in groups of at least three, many are the times that you will find Greeks bearing gifts. These disasters are **Civilization's** great equalizers, allowing players to bring the leading player's (or some other foe's) empire to ruin without the need for direct military action. Fortunately, empires quickly rise as well as fall in **Civilization**, so these setbacks, while moderately devastating, can often be overcome in two or three turns (barring more calamities, of course).

As it is with tokens crossing one's perceived borders, however, computer players seem to have no memory of being picked on by others via disasters. The faceless, soulless AI seems to take it like the perfect patsy, rather than steamy and plotting revenge against someone who passed it that damnable Civil War card.

**CIVILIZATION CARDS AND THE NEW DEAL**

Of the many treasures inside **Advanced Civilization**, foremost are the new types of Civilization Cards included. Every card provides a discount toward the purchase of other cards in its category on future turns, in addition to having its specific effect. Astronomy allows your ships to move across the open seas (i.e., your ships no longer need to hug the coast), while Cloth Making increases ship movement by one per turn. When combined with Engineering (for more easily reducing enemy cities) and Military (allowing a player to move after other players who do not have this card), you're looking at a player who is a serious, long-range threat.

**Civilization Cards** also have considerable influence over the severity of calamities. While the benefits of Mining are terrific (allowing any set of ore trading cards to be cashed in as if there were an additional card in the set), should that player suffer a Slave Revolt calamity, look out! Another example is the calamity of Iconoclasm & Heresy, which is exacerbated by players owning Monotheism and reduced for those who have Theology, etc. The acquisition of **Treachery**

**WHAT'S IT ALL ABOUT, ALEX?**

Although **Advanced Civilization** ends circa 250 BC, enough happens on each turn that players will feel they've completed a worthy challenge. Surviving calamities long enough to acquire needed Civilization Cards, all the while planning military ventures and cornering the market in Gems, makes for seriously absorbing game play. Of course, a great deal of the game's appeal stems from its multi-player aspects, as up to eight humans can play (by e-mail or host). For e-mail play, one player is designated the host, while the others send their moves through that player's computer. Regardless of whether they play e-mail or solo, gamers will be fortunate to have such a thoroughly tested and developed game on an interesting subject with broad appeal. Wouldn't it be nice if every computer game could make this boast? In the meantime, I've got 15 in Dye and Salt and I'm looking for Grain and Cloth. But if you slip me that Civil War card again, I'm coming after you!
**TALISMAN**

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- New game pack, to include brave adventurers taking part in a quest to defeat the Dragon God himself and conquer the crowded markets and shops of the city of the Emperor. Can one find the lost artifact? 
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Move It
Or Lose It

Haulin’ Mass Is The Name
Of TRANSPORT TYCOON’s Game

by Robert L. Hayes, Jr.

MICROPROSE’S TRANSPORT TYCOON IS THE NEWEST CAR ON A LONG TRAIN OF GAMES WITH transportation management as their theme. Sid Meier’s Railroad Tycoon (MicroProse) let you build a rail network mile by mile while playing both dispatcher and financier simultaneously. Impressions’ AIR BUCKS allowed you to recreate the history of airlines. A-TRAIN (Maxis) not only allowed you to manage Japanese-style railroads, but to deal with entire economies. Now, TRANSPORT TYCOON lets you dabble in all parts of the transportation infrastructure.

Is TRANSPORT TYCOON designed to help us understand the profound implications of transportation policy on the future of our infrastructure? Hardly. You’d be just as likely to gain insight from this game as you would Sensitivity Training from a session of DOOM. TRANSPORT TYCOON is a game, and a really good one at that. You’re not likely to become a real-life shipping magnate like Aristotle Onassis, a railroad robber baron like Collis P. Huntington, or aerial pioneer like Howard Hughes after playing it. But if you like the kind of “toying around” and micro-management offered by SimCity, you might find that your romantic partners will split up with you, you will lose your job, your pets will starve, your computer will overheat, and you won’t even notice.

You begin in the role of the all-powerful head of a transportation conglomerate, starting out with a modest loan of $200,000 and a blank canvas on which to lay the foundations of empire. Over the course of a full century (from 1930 to 2030) you must lay rail lines, build airports, construct roads from town to town, establish shipping lanes, negotiate with local governments, and of course, cash the lucrative checks that begin to roll in once the transportation network begins moving cargo and making profits.

The game is set in a randomly-generated world (ca. 200 miles in breadth) sprinkled with industries, raw materials, cities, forests, rivers, oceans, mountains and valleys. Your transportation network must connect all these locales and commodities with other parts of the world, whether by road, rail, air or sea. For example, a railway might convey wood from a forest preserve to a sawmill where the wood is converted into consumer goods. These goods might then be trucked to a small port and loaded onto an ocean liner where they are carried halfway across the map to a large city with an insatiable demand for toilet pa-

per, notebooks and newsprint. Alternatively, small airports scattered across the map might convey passengers and mail from hamlets and small towns to major metropolitan areas, or barges might carry thousands of tons of coal to an electrical generating station. As the game progresses and your bank account swells, the transportation network may expand until every resource and city on the map is connected into an all-encompassing web of monstrous proportion. You won’t be unchallenged in this quest, however, since up to seven computer-controlled firms are also out to make their mark on the world.

SIGHTS AND SOUNDS OF THE INFRASTRUCTURE

TRANSPORT TYCOON’s slightly tilted overhead perspective on the world provides excellent visibility for everything happening within the view area. There are three zoom levels to assist you in observing the vast SVGA world: a close-in view which doesn’t show much of the map, but provides both impressive detail and an ideal scale for laying rail or road through difficult terrain; a medium view wherein most of the game is played; and an extreme but usable distant view that shows vast segments of the map with a corresponding drop in detail.

The game is lushly animated. Smoke puffs from the stacks of steam engines, water surges around the bows of merchant vessels, sails of may appear and disappear on farms, new buildings go from foundation to completion with cranes and girders. Clicking on a transport station or vehicle invokes an animated dialogue box which provides all information on the vehicle or station, al-
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SUBSIDIZED SUBSIDIARIES During the course of the game, various cities will offer financial incentives for shipping goods and services to their cities.

allows for control of movement and cargo loading, and opens an independent animated view (for vehicles) that updates constantly, even if you move your point of view to a different area of the map.

The graphic quality is uniformly superb and is matched only by the professional-caliber sound and music. Buses roar into life with a growl, steam engines whistle, diesels hum, jets scream into the air, and news bulletins jingle with the sound of teletypes. The volume of sound effects changes according to the magnification level, so at close range the trucks sound like they are in the same room, while at the medium level, the sound has a distance to it. Fortunately, the sound is spaced and paced so that you won't get tired of it. On top of that, the music is superlative. Rather than commission an original score, the designers wisely chose over 20 jazz and R&B tunes with transport themes (mostly trains, of course), all faithfully rendered and non-intrusive. After over 100 hours of play, I have yet to turn off the music for more than a few moments—it fits into the game that well.

TACTICAL TIMETABLES All is not glitz and flash in the world of TRANSPORT TYCOON, however. The budding mogul must make many strategic decisions. Will the high payoffs of heavy long-distance rail lines make up for the massive expenditures which overland rail construction can incur, or would limited funds be better used to beef up inexpensive but lower-yielding bus lines? Choosing the layout of your original stations and lines can have drastic effects on profitability over the 100-year course of the game; a poorly-designed rail net will collapse under its own weight, and the player will have the ignominious experience of seeing computer players passing them by in the ratings list. As time passes, new decisions must be made. That new bus carries several more people and is cheaper to operate, but is much less reliable. The tycoon without a strong air presence will soon be as penniless as the Monopoly character with his empty pockets pulled inside out. Cargo pays more as you carry it farther, but pays less if the delivery time is too long. Also, no two types of cargo have the same rate of decline over time; for example, mail will hold its value better for a full month, while passengers start paying less with each passing month their trip takes.

The game's "influence model" is interesting. Each city rates each company on how well that company services its people and industry, and that rating affects your dealings with that city. So, ignoring Charfield for too long and you may find that the city council refuses permission to build an airport in later years. Provide excellent service to the city, though, and you may find the government will prove very amenable to your rezoning ideas. The more cargo taken in and out of a city, the faster it grows, so there is a definite incentive to provide good service.

The economic model is also generally realistic. Ignore a factory's need for raw materials and it will output only a pittance of transportable cargo. Feed it with steel and other raw materials, and it will boom, producing a wealth of high-value cargo. The old model of chaining transit lines together for maximum profitability from SIEF MEIER'S RAILROAD TYCOON (iron ore to foundries produces steel, carry the steel to a factory to make goods, carry the goods to a city for final sale) is definitely part of the economic world of TRANSPORT TYCOON.

CARGO HANDLING WITH ALL DESPATCH
Your control over operations is admirably complete without delving too deeply into the perils of micro-management. Vehicles will cover their designated routes on their own without constant player involvement, and will even take themselves to service depots when it is
Choice of armament and explosives for air strikes, including armor piercing, high explosives, and the deadly incendiary. Historical accuracy rivaled by no other.

Command Axis or Allied forces
Authentic Battalion insignias
Uninterrupted multimedia offers continuous dynamic game play. POWs, killed, and wounded will also be counted for and against each player.

The Pure Wargame, D Day From Above, Vol. I
QQP with each volume offering a different theatre, airborne operations. Each historical scenario embodies the actual units, specific landing sites, and company/battalion makeup. TPW centers on tactical level operations of airborne warfare using ranks, Company and Battalion size forces. The eight scenarios include Arnhem, Maleme, Saint Marie-Egle, Casablanca, Reckling, Syracuse, and the what if scenario Folkestone, the airborne portion of Operation Sea Lion (Germany's plan to invade England). Each scenario is succinctly described in the game, including the code name, date, and a map of the operation. Warfare is tumultuous and unpredictable. TPW embodies the real feel and challenge of airborne assault. TPW was designed to be a "Whole gaming experience" as opposed to just a Tactical Wargame.

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time for maintenance. Unfortunately, the vehicles will not automatically replace themselves when old and worn out, so you must order each vehicle back to a depot, manually sell the vehicle, and buy the replacement. This is generally not much of a problem for big-ticket items like trains and boats, but road vehicles are both numerous and short-lived, so the tycoon trying to establish a Greyhound or Trailways will find himself constantly ordering buses back to the depot for replacement. However, pop up message boxes will tell you when it’s time for a vehicle to be replaced, so you will at least be spared the considerable tedium of monitoring vehicles for signs of age.

Vehicles such as boats, which do not have fixed routes, can sometimes become confused, especially over long distances. As a young tycoon, you will quickly discover that establishing navigational way stations is a key element in making sure that ships stay on schedule and on target. You will also notice that trains that are not profitability in the player’s road vehicle accounting. These problems are relatively minor, however, and once the player is experienced with the mechanics of vehicle movement there will rarely be any trouble.

**MOGUL MINDS**

Of weaknesses, Transport Tycoon is strangely deficient. The “intelligence” of the computer players is not terrific, and they will occasionally build extremely convoluted and inefficient rail or road lines where a straightforward track or road is possible. They do not tend to be highly aggressive, generally preferring to pick their own favorite cities and industries and concentrating on those. The player wishing a more nonconfrontational game can turn the level of competition down or off, but there is no real way to get a challenging game out of the computer players. For the most part this is not an issue, however, as the “transit construction kit” aspect of Transport Tycoon is the real meat of the game, and the computer players merely add a bit of spice when opening new markets.

I have found only one bug in the game, an astonishing fact when the size, scope, and complexity of the program are considered. Fortunately, that bug is easily avoidable. When saving, you must make sure the music is turned off or there is a slight risk the game will crash without saving. This is annoying the first time it happens, but it generally only happens once. Computer speed can also be an issue: on a 486-25 the game begins to get rather slow once a few dozen vehicles are on the roads, rails and sea. Fast 486 and Pentium owners will not notice any significant slowdowns even with large numbers of vehicles, however. The game manual is somewhat weak, briefly explaining the controls rather than examining the game more closely, but players who love finding out things on their own will be like pigs in mud. Finally, each game takes a long time to play, on a fast 486, the rate of time passage is about three years per real hour, once things start to get complicated.

On balance, Transport Tycoon is an addictive, strongly strategic game with great depth, replay, beautiful production values, and fantastic gameplay. Players who must have constant strong conflict will be unmoved by the relatively tepid level of interaction between human and computer opponents, but anyone who has ever looked at a model railroad and felt the rumble of the 5 o’clock freight in their heart will be in heaven.

---

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**THE EDITORS SPEAK**

**TRANSPORT TYCOON**

**RATING** ★★★★☆

**PROS** Fans of “software toys” will have plenty to do in this world of clean graphics and superior sound effects.

**CONS** The competitive element is limp-wristed, and the game may be too long and involved for casual players.
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Dead Zeppelin

MicroProse Brings Out The Proud Old Airships In ZEPPELIN

by Johnny L. Wilson

When they aren’t tracking whales or observing weather patterns, dirigibles are multi-colored flying billboards for Budweiser, Fuji, Goodyear, Met Life, even rock group Pink Floyd. These great-grandchildren of the majestic airships of yesteryear are part of an aerial comeback. Westinghouse is building a huge blimp as part of the United States’ air defense system. A German company is even proposing the rebirth of cruise ships reminiscent of the Hindenburg. So, it’s an auspicious time for a game celebrating the golden years of those noble airships, the nascent aviation industry of the early 20th century.

MicroProse has done just that with ZEPPELIN, a strategy game covering 40 years of the glorious era. Its economic model covers everything from supply and demand for production to stock market speculation. In ZEPPELIN, courageous souls strive for ever-lengthier distance runs and enter flight competitions, trying to set new altitude and speed records. You can invest in technological improvement and harvest the larger profits of your success. It is even possible to build a solid enough network of scheduled flights that you make profit simulated week after simulated week without doing anything.

From the beginning, ZEPPELIN tries to establish a delightful period look and feel. All of the screens are sepia-toned graphic menus using buttons, sliders and active areas to allow you to input your commands. You choose a period portrait, name your character and ship, figuratively sign an advertising contract (apparently, your character was ahead of his time in more ways than one, which means free money for you), and get ready to fuel up the ship. By this time, however, you are likely to have discovered the game’s chief weakness. Every time you want to do something, you have to switch to another graphic menu. You can’t even check your fuel level without shifting to the Airship sub-menu. All of this menu-shifting takes time, and in a game that simulates 40 years of aviation history week by week, time is critical.

You begin with a Z-1 class zeppelin—the first of eight progressive airship designs—and two million pounds. Depending upon which of the three difficulty levels you are playing, your creditors will allow you to spend your initial funds and go a ways into debt (three million on the Easy level) before foreclosing and bringing about a premature end to the game. Since you’ll need money to fund your research and development, as well as your ordinary operations, it is fortunate that there are several ways to make money during the game.

First, take one of those advertising contracts—you’ll often be grateful for that stipend from Boring Bier, Zorn Witner Motors, Desert Oil or Berlinger Unzeiger. Second, you can incur income from passenger fares. You set custom fares each time you decide to fly one of your ships (you can operate up to three zeppelins as charter vessels and as
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many scheduled flights as you can make profitable) and the program calculates passenger response. If you are constantly reaching full capacity, you are probably ahead of the game. Third, you can transport special, time-sensitive cargo for extra income. The downside to this method is that you have to search through extra graphic screens to find out what special cargo may be available at a given city, and there are penalties for late deliveries that can consume all of your potential profit and then some.

Fourth, you may speculate in the stock of other companies (Zorn Winer, Desert Oil and Delag, Germany's first airline). These companies are cyclical, since the economic model is roughly based on the actual world economy during this era.

You have the advantage of knowing that these companies never completely go away, so you can confidently buy when they are priced under 100 pounds and sell when they are priced over 200 pounds. Unfortunately, you have to go through significant screen switching to get to the stock prices, so it is not convenient to check the market each week. Fifth, there is your own IPO (Initial Public Offering), the first time you sell your stock. This is likely to be the best price you are going to get per share for a while, so don't sell your initial percentage until you really need the money.

Your stock price will immediately begin declining until you reach a comfortable earnings curve, so get your capitalization while the hype is hot. Also, note that you cannot buy back stock as treasury stock in order to reduce the float and support a stock price. Once sold, you're at the mercy of the market. The good news is that as the game progresses, the stock price accurately reflects the current performance of your company.

Sixth, you can establish well-paying routes between cities to provide for consistent income. Initially, you'll need to make these routes pretty short. As technology improves, however, you can make more money with routes of moderate distance.

Even with Z-8s, however, I never found a way to make really lengthy routes pay off. Once I had medium-sized ships, I never found it profitable to run multiple ships on the same line, either. Also, be sure to pay for a Professional staff at each office. The added efficiency will take care of the extra cost in no time. Once established, however, these routes do not reflect the historical realities of the era being simulated. Though your San Francisco office will be shut down for the year of the great earthquake, war doesn't seem to slow down the cruise line business. The cash machine just keeps pumping.

Seventh, you can win 50,000 pounds in prize money for setting an altitude, distance or speed record. Eight, you can chase the lovely Roxanne around the world until you can coax her to marry you. The Kaiser gives you a generous wedding present for doing so. I found that I only pursued Roxanne when it was convenient, however. The initial statement plus three multiple choice response conversations weren't worth the trouble of chasing her from city to city or switching between those graphic menus. I did eventually marry her, but the simulated courtship seemed longer than my real-life engagement.

Finally, you can build airships for other countries and private investors. To do so, you must watch the ticker tape at the bottom of the main screen and observe where the negotiations are going to take place. Then, you travel to the specific city, register for negotiations (a lengthy menu swap), and wait until you get a chance to enter an individual tender or haggle head-to-head via a sliding scale. The downside is that you have to take the time to switch back and forth between screens in order to keep enough raw materials in the pipeline to keep those airships coming. The upside is that the process is usually quite lucrative and you should regularly make at least one million pounds in profit per vessel.

With so much to do, what's not to like? For starters, ZEPPELIN is an interesting game design badly in need of an interface. The sepia-toned playing screens and sparing use of postageseal videos are a nice touch, but looks don't make up for good game play. I wanted to like this game, but there is no way to "win" without reaching the magic year of 1940, and, even in easy mode, that can take in excess of 60 hours to accomplish. It isn't 60 quality hours, either. It is 60 tedious hours of jockeying between graphic menus that take a long time to access. It is 60 tedious hours of searching for cargo instead of having some type of cargo speculation model. It is 60 tedious hours of setting every possible flight record, building an asset base of well over 2 billion pounds, courting and wooing the romantic interest in the game, and being awarded every conceivable medal without winning. Worse, I was seven simulated years (and down circa 70 hours of real-time) away from victory, had no debt and almost 2.5 billion pounds in cash when a pop-up window told me that my creditors had taken away my company for back debt. Game over!

Frankly, ZEPPELIN could have been a tribute to those great airships of long ago. Instead, it crashes and burns like the Hindenburg. Fortunately, the cost in human life was only about 70 hours of mine.

THE EDITORS SPEAK

ZEPPLEIN

RATING ★★★★★

PROS Unique subject matter, artful use of sepia-tone graphics, and lots of decision points.

CONS It's difficult to see the decision points through the awful, tedious interface and the major crash bugs.
A Double-Click From Disaster

Take Charge Of Phoenix Airspace With AIR HAVOC CONTROLLER

by Alfred Poor

All other activity in the large, darkened room faded into the background as I huddled next to the circular screen, focusing intently on the glowing jewels of text that crawled across its surface. My headset was plugged in next to the air traffic controller's jack so I could hear every transmission between him and the pilots acknowledging his instructions. Out of a chaotic scramble of arrivals, he created two samba lines on his screen, funneling flights onto final approach.

Suddenly, he turned and looked directly at me. "Do you see it?" he asked with adrenaline glowing brightly in his eyes, "do you get the flick?"

The "flick" is ATC-speak for the big picture, the gestalt of the situation, the carefully-structured flow of dozens of interlocking factors of altitude and speed and heading and destination—and lives.

CONTROLLING HAVOC
You may never have the chance to patch in next to a working controller, but a new game from Trilmark Interactive can give you an appreciation for the constant juggling act that a controller must perform. But be advised, AIR HAVOC CONTROLLER is not above putting entertainment before realism, as you might infer from its name.

It's no surprise that this Windows-based program comes on CD; given the huge amount of multimedia material included, you'd need a shoe box of floppy disks to contain it all. Installation is easy, and includes an installation of Video for Windows so your system will be able to play the animated clips. And since it runs under Windows, there's no configuration to worry about. You do need to be concerned about your system's horsepower, however; the heavy multimedia component boosts the recommended configuration to 486DX2-66, 8 MB memory, and a local bus graphics adapter, not to mention the 16-bit sound card.

One thing that is missing from the box is a comprehensive manual. The liner notes in the CD jewel box will be enough to get the program installed and running, but there's nothing to tell you what you're supposed to do or how to do it. The reason is that the manual is on the disc, and installs as a Windows Help file in the Air Havoc Controller group in Program Manager.

The Help file is a must-read resource. It explains the objective of the game (direct the planes to their destination), how to do it, and how the results are scored. There is no "winning" in this game; each round has a potential top score of 1,000 points, no matter what level of difficulty you choose. Points are deducted from the perfect score for a variety of factors, including how long planes sit waiting to take off at your field, the efficiency of your routing, and "whether or not anybody dies during your shift."

After you get past the title credits (and a soundtrack that is above average, to my tastes), you are presented with the image of a desktop. Click on the VCR to view images, click on the books to access the aircraft encyclopedia, or click on the monitor to start the game. I'll get to the references in a bit, but first let's cut to the chase.

I CAN SEE FOR MILES
Your assignment is to handle all air traffic transiting Phoenix Sky Harbor International Airport airspace. The tower handles arrivals once they are on final approach, but you're on the hook for all the rest—including clearances for departure from Phoenix.

Some planes are just passing through, others are coming to Sky Harbor or one of the two other airports in your airspace: Deer Valley and Scottsdale. The flights departing from Phoenix will either leave your airspace or head for one of the other two airports. All you have to do is vector all the aircraft so that they end up at an appropriate altitude and speed for landing or handing off to the next sector. Of course, you must also ensure sufficient altitude and distance separation so that there are no collisions or near-misses.

Sounds easy, right?

The play screen is divided into four main regions. The top half of the screen
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is the view from your control tower; you can see planes arriving and pushing back from the terminal gates below. This is also where the animated clip windows appear when they play.

The left third of the bottom portion of the screen has a Pending section where flight information appears for aircraft which you have not yet acknowledged. Below this area is a box where the text of all communications appears. The program can also play digitized voice files for all communications, but the same voice reads both the controller's instructions and the pilots' verification. This gets a bit monotonous, literally, and the game could be greatly improved by adding a few different voices for the pilots.

After you acknowledge an aircraft (either by releasing a pending departure from Phoenix, or establishing radar contact by double-clicking on the Pending entry), the flight information is moved over to the right side of the screen, into the Active area. The flight information includes the aircraft's call sign, the heading, airspeed, type of craft and altitude. The information also includes the flight plan; you need to get to the proper destination, but how it gets there is up to you.

**PICK A PLANE**

The type of aircraft is an important factor. There are 27 different types of aircraft in **Air Havoc Controller**, and these include both commercial and military planes. These planes have different cruise speed ranges and service ceilings. The aircraft encyclopedia mentioned earlier lets you see three views of the planes, review a list of basic specifications, and see a three-dimensional view in a hangar.

The bulk of the action takes place in the middle of the lower part of the screen—this is where your radar scope appears. The view includes permanent features: the three airports with their approach vectors, and a dozen waypoints that you can use to route the aircraft. Aircraft are represented by little pictures of a generic plane, and they move around the screen in small increments.

You send an instruction to a plane by selecting it. All planes and their flight information are blue until you select one, at which point the plane and the flight information turn yellow. There are five commands you can give at that point: Heading, Altitude, Speed, Direct To and Handoff. You can choose these from a pop-up menu by double-clicking on the flight information or by clicking on the plane with the right mouse button. You can also use keyboard shortcuts to give a command to the selected flight.

Real air traffic controllers use a trackball and keyboard, and while your preference may vary, I have to agree with them. I found that it was much easier to pick the aircraft and give commands using a trackball to select a function and the keyboard shortcuts to trigger it. It's a two-handed operation, but I found it to be most efficient.

Efficiency gets to be important, too, when your screen is full of planes. Before you start each game, you pick how many planes you want to handle and the length of the session. There are eight presets, ranging from "Short & Easy" (five planes in 10 minutes) to "Panic Button" (40 planes in 30 minutes), but you can also choose your own custom challenge. Anything greater than about a plane per minute will keep you busy.

**MOVING PICTURES**

When you clear a plane to take off or land at Phoenix, the program plays an animated clip illustrating the event with the appropriate craft. If you lose separation between aircraft, or even worse, manage to direct two planes into each other, you will see an animated clip that demonstrates the effects of your errors. Some include a soundtrack that ghastly adds terrified screams to the explosions.

The only problem with these animations is that they slow down the performance of everything else (although the planes still keep moving on your radar screen). It can be difficult to get your commands through while animations are playing. Also, some activities get queued up until after an animation is completed. This can result in an unbroken string of spoken acknowledgments and hyper-active movement of planes on the ground that can take on a Keystone Kop appearance.

Fortunately, the animations can be disabled. You can still view them in the collection of stills and animated clips mentioned before with the main menu screen. The graphics are excellent, with three-dimensional shading and realistic ground and sky effects, but you may...
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find it better to enjoy them separately and focus just on the radar while playing a round.

BEYOND VIRTUAL RANGE

The program has some flaws, especially in terms of realism. The radar images of the airplanes on the radar screen are not graphics, but instead are Windows display font characters. There are eight airplane pictures—for the four compass point headings and four diagonals—so you can’t really tell where a plane is headed by its symbol. And the key information about the flight is located on a different part of the screen, so you have to split your attention between different parts of the screen.

It's actually easier on a real ATC scope, even though you don’t get a little picture of a plane. Instead, you get all the key flight information right at the target’s location, and you can call up a trend line that projects where the target will be in a given length of time. Also, you get a much larger field of view on a real scope, so the granularity is smaller and your control can be finer than with AIR HAVOC.

On the other hand, the program is fairly forgiving—you can hand off a landing flight even though it isn’t exactly lined up on the approach vector or even headed directly for the airport.

Overall, the combination of pretty graphics and sweat-inducing workload overcome the shortcomings. Provided you’re not training to pass an FAA controller exam, but simply want some high-tension challenges steering some heavy metal through crowded skies, AIR HAVOC CONTROLLER is a game you’ll want to play.

THE EDITORS SPEAK

AIR HAVOC CONTROLLER

RATING

PROS

Stunning animated clips and customizable scenarios. Easy to play, difficult to master, and each session is as challenging and fun as the last.

CONS

Only one geographic area, and the small radar scope provides limited information. The animated clips hurt performance, and the designers have placed a greater emphasis on entertainment than realism.
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Missiles, ‘Mecha and Mayhem

Mindscape’s METAL MARINES Will Blast Holes In Your Windows

by Martin E. Cirulis

As a writer of science fiction, I often find myself thinking of possible futures. Some are dark and dystopian, like the one where David Hasselhoff is President and his music plays all over the world, instead of just in Germany. Others are more hopeful, worlds where Baywatch is only shown to small children who have misbehaved and Windows Entertainment Packs are really filled with enjoyable games instead of drive-in. In such a bright and happy world, these genuinely entertaining packs would contain guilty little pleasures like the one I’ve been indulging in lately, namely METAL MARINES, a Japanese import brought to us by the newly invigorated Mindscape.

This real-time strategy/action Windows-based game, while not exactly Machiavellian in its subtlety, still delivers an addictive kick that will keep you from getting more important things done. Fortunately or unfortunately, depending on your priorities or point of view, it’s something that will probably pass sooner than it should.

THE ROCKETS RED GLARE...

The background for METAL MARINES, such as it is, is pure Japanese anime. This future Earth has been devastated by a war in which various powers reached out and touched someone with anti-matter weapons. The resulting blast shattered the continents into small island chains, (yes, folks, yet another SF strategy game fought island by island—the Gods of Originality sigh and sink deeper into oblivion...) and society is, of course, bustled up pretty badly as well. In fact, the only real power left is in the orbital stations led by “the brutal military factionist, Zorgeut, and his terrorist band” who, apart from giving a great show at Woodstock, are out to conquer the weakened remnants of Earth.

Opposing these rejected guests from the Rush Limbaugh Show are a series of island bases commanded by you. In a series of island vs. island battles, you attempt to build up your area while ravaging your opponent’s turf. Initially your opponent is one of Zorgeut’s three underlings, who will each give you a hard time based somewhat on their particular personalities (i.e. all out attack, methodical and careful, just plain dumb, etc.). Finally you face the great Zorgeut himself, who is the most vicious of them all, probably from all the teasing in dictator-school over his dumb name. Should you run through all these battles and opponents then the Earth is saved—but remember, failure means death, Mr. Bond, or at least doing the battle again and again until you get it right.

“THAT BLEW UP REEEEEAL GOOD!”

Gameplay in METAL MARINES basically boils down to a cross between SimCity for Windows and MISSILE COMMAND. The player is faced with four windows, two of which are scalable and all of which can be moved to suit your desktop needs. Apart from the two island views, there is one depicting your control room, for purposes of passing along construction updates and taunts from your enemy, and another showing the 12 structure tiles you are allowed to build a la SimCity. There isn’t a lot of careful infrastructure building to do here; basically you choose from systems that allow you to attack (Missile Bases and the devastating Anti-Matter ICBM), defend (Radar Towers, Armored Gun Pods, Anti-Air Missile Launchers and minefields), or in the case of the weapons that lend their name to the game, a system that does both, the fearsome 40 ft. tall combat robots known as Metal Marines. Other construction choices either help you disguise your vulnerable command silos or generate money and power more quickly.

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terrain. Trees, buildings and rubble can be bulldozed flat, but hillsides are forever, so the makeup of your island is extremely important to your construction strategy. Tile choices are completely your own, but are limited by money, which trickles in at a paltry million every couple of seconds.

Though special buildings can improve your income rate, you will find yourself always critically short of funds, and crucial choices to be made are plentiful—usually along the lines of "Should I play it safe and protect myself, or spend the dollars on a couple of new missile racks and hope I can get this fight over with in a hurry?"

And speaking of missiles, let's talk about the enemy island for a moment, because while you are busy playing sim-fascist, so is your opponent. The visceral fun of this game comes when the two islands interact, solely through acts of destruction. Only two things travel between the territories, Missiles and Metal Marines—and both make quite a bang on arrival. While defenses fire automation display, where anti-air missiles will rise in smaller rooky displays and try to detonate the incoming missiles like Patriots with the right stuff. If they fail, though, even greater tributes to Vulcan follow, as your warhead "MiRVs" into enough warheads to incinerate the impact zone and all of the directly neighboring "squares." If it was a "mech you sent over, the giant warrior begins striding across the landscape shooting up anything in its path, to be stopped only by destruction (by mine, gunpod or enemy Marine) or by a lack of targets in its scanning range, in which case it will return to its base of origin.

The point of this mayhem, besides to do unto others and then split, is to hunt down and destroy your enemy's command silos before he or she does the same to you. Winner takes all. The computer opponents can be pretty tough as you get further along in the game, and any lack of cleverness is compensated for by ever-increasing levels of initial firepower and infrastructure for your enemy. A head-to-head mode via modem or null-cable exists for a consistent good time, the ultimate version of the old Artillery game.

"...BOMBS BURSTING IN AIR." Unfortunately, there was a reason why this game brought to mind a desire to see it in an entertainment pack, because, while it is fun as all heck, I can't say it has the depth or technical precision to justify the standard 40-odd smackers at the Software Store. This is more like Nintendo for Windows than what the average PC gamer is used to paying for. The game is filled with nagging little technical omissions, not the least of which is the

**The Editors Speak**

**METAL MARINES**

**RATING**

**PROS**

A quick and easy strategy game with colorful Japanese-style graphics; modem-to-modem play.

**CONS**

A bit too quick and easy for the long term, and so not worth the asking price.
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No Joystick Required

Avalon Hill's Flight Commander 2 Does Flight Without the "Sim"

by Tim Carter

AIR-TO-AIR COMBAT, ESPECIALLY IN THE MODERN ERA, HAS BEEN THE EXCLUSIVE DOMAIN OF HIGH SPEED, RAM-chewing, joystick-bending flight simulators, all of which require good eyesight, excellent hand-eye coordination, and agility to fly. As wargaming grognards are often devoid of the necessary dexterity, and as their eyesight is generally wretched from staring at a murky map of Europe wondering why Stalingrad isn't 400 miles closer to the Polish border, air-to-air combat has been an under-covered and unappreciated subject for the typical wargamer.

Until the release of Avalon Hill's Flight Commander 2, that is. Flight Commander 2 simulates modern air combat from the Korean War to the present, including the usual "near future" variants. Players are given control of anywhere from two to 30 aircraft for missions which will generally last less than a half hour of game time. Happily, Flight Commander 2 is everything a simulation is not: mouse-based, turn-based, and generally rewarding of planning, tactical thinking and logic, rather than a fast trigger finger. It is also a beautifully executed program, and a tremendous amount of fun.

As with other recent Avalon Hill products, the interface, gameplay and appearance of the game all feel like a traditional boardgame. The computer handles most of the paperwork, as well as the fog of war, thereby pushing Flight Commander 2 well beyond the capabilities of any similar boardgame.

A welcome addition to computer gaming is the concept of basic and advanced games, a concept which aficionados of Avalon Hill's board games will be quite familiar with. The basic game is easy to access, as players can be up and flying within minutes. When you have grasped the basic principles of the game, a range of advanced rules gradually introduce more complexity and realism.

The basic game is more than a mere tutorial, however, as the full range of scenarios may be accessed using the basic rules. This provides players not only with an easy introduction to the game system, but also with a solid beer-and-pretzels version of Flight Commander 2, which is enjoyable to play even after the advanced rules have been mastered.

The advanced rules, which begin by introducing altitude and then move to more sophisticated missile combat, air-to-ground attacks, and more realistic electronic warfare, provide an accurate yet enjoyable recreation of air combat. Dogfights can and do become immensely confusing, as both sides twist and turn to avoid the enemy without sacrificing too much speed or altitude.

The manual is accessible, easy to read, and seems to cover every aspect of the game quite well. The discussion of tactics is particularly well done, with advice that is both helpful and well-integrated into various aspects of the game. Since it is important to understand why things happen before you can develop your own creative tactics, the manual is especially important and appreciated.

STAY IN FORMATION

Turns are divided into an order phase and an execution phase. In the order phase each unit is given a set of commands for the upcoming execution phase. With all of the advanced rules in effect, the full range of aircraft maneuvers, including split S's and Immelmans, are available. When giving orders to aircraft, the flight path for the selected unit will be displayed, so that players may see where their aircraft will end up at the completion of the execution phase. If a particular pilot is deemed by the computer to be in an advantageous position relative to the enemy (on his tail, for instance), the controlling player will be able to plot the movement for that pilot in a special "advantageous phase." Pilots in an advantageous position have the ability to see the planned movement of enemy aircraft, allowing them to remain on the tail of an aircraft or set up a missile shot. Things do not always work as the players plan, however, as engines may
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stall, aircraft can go into spins, or pilots may black out as a result of high-G turns (or fail to execute them at all). When attempting difficult maneuvers, the computer will display the likelihood that the pilot will succeed, based on pilot skill, type of maneuver and the characteristics and speed of the aircraft.

As it only takes a few minutes to give orders to an entire squadron, the game moves quickly, and full fledged dogfights are exciting and occasionally stressful. Missiles are fired in the orders phase, but do not move until the execution phase, heightening the tension and uncertainty, as the sky begins to fill with crisscrossing missiles and wildly maneuvering aircraft.

A range of pre-set missions are included with the game, as well as six campaigns, each of which consists of a string of missions using the same pilots, aircraft and arsenal. Campaigns do add some strategy to what is otherwise an exclusively tactical game, but their real benefit is to provide a sense of continuity—success in one mission will make later missions easier, while defeat can make them much more difficult. Campaigns are also affected by random variables, so that the sequence of missions may change, as well as the enemy forces encountered in each mission. This gives the campaigns considerable replay value. Sadly, however, each campaign can only be played from one side, so those wishing to try their hand as the Argentines in the Falklands war or the Iraqis in the Gulf are out of luck.

You may also give the computer general parameters from which it will generate random missions. After you choose the air force nationality, aircraft, and mission type, the computer then creates scenery and sets up units. A random element may also be factored into scenario generation, so that players will not be certain of the size or content of the enemy force they are facing. Unfortunately, players are unable to build their own missions without the aid of the computer, and campaigns may not be generated in any form. The inability to expand on the campaigns provided, along with the lack of any integrated system for tracking one's success (as in QQP strategy games) tends to give Flight Commander 2 a slightly disjointed feel. Missions can be completed in a single sitting, which is great for gamers pressed for free time, but it would be nice if there was some sense of progress. Avalon Hill has promised that a mission builder/campaign planner add-on product will be released in the near future.

A LOVELY DAY FOR SCUD-BUSTING The mission generator will randomly create battles from Korea to the Gulf War and beyond for your high-flying pleasure.

The game may be played against either the computer or a human opponent. The combination of a quick order-giving phase with an execution phase that may be viewed by both players makes this game very well suited for “hotseat” play against another person. In addition, Avalon Hill has built into the game an e-mail interface so that turns may be saved and sent electronically to an opponent. The artificial intelligence is quite competent, although it will not challenge a skilled and experienced human player if the forces on each side are roughly equal. Fortunately, there are many opportunities for realistic campaigns or missions where the balance of forces is not equal. Flying MiG-25s against computer controlled F-15s is no joke, even on a low level of difficulty.

THE MEAT IS IN THE FUR

Although the game simulates both air-to-air and air-to-ground combat, the real meat is in the “furballs,” the jumbled-up dogfights that reward solid technique, good planning and, most of all, opportunism. Changes to aircraft design, technology and weaponry over the last 40 years are effectively modeled in the game. Korean War dogfights, for instance, are essentially identical to those of WWII, except for the speed and performance of some of the aircraft. Success depends upon getting on the tail of an enemy aircraft, then shooting him down at close range with gunfire.

Sophisticated weapons such as air-to-air missiles and electronic warfare are preeminent in the modern battles, as the side that is able to fire first gains a huge advantage. Missile fire presents each side with a dilemma: because most radar guided missiles require the firing aircraft to keep the target within the (rather limited) arc of its radar, once a missile is launched the pilot must keep flying straight ahead, minimizing his ability to dodge incoming enemy missiles. On the other hand, while taking evasive action can be effective against long-range missiles, it forfeits the initiative and can bleed off important speed and altitude before the intense combat begins.

This dilemma is an important part of dogfights in Flight Commander 2. The side with the better weapons will usually get away the first shots, while less well-
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equipped forces will have to struggle to gain the initiative while avoiding barrages of incoming missiles.

**FLIGHT COMMANDER 2** comes with an impressive database of aircraft and weapons. When the variants of some aircraft are included, there are more than 100 different planes to fly. The database contains a wealth of information on each aircraft, one which budding commanders will do well to study. The information includes the technical capabilities of each aircraft as well as a brief description of the history behind it, and its strengths and weaknesses. Unlike the information in many game databases, the data in **FLIGHT COMMANDER 2** is actually used in the game. Winning often depends on taking advantage of the particular strengths of your aircraft while preventing the enemy from doing the same.

The only flaws I could find with this program were ones of omission. The terrain is completely flat, with no hills, canyons or other features. While it is easy to see how including this sort of detail might have caused numerous problems with the display, the fact remains that an essential element of strike missions is missing.

Furthermore, as noted above, over time there is a real lack of continuity in terms of one's accomplishments. A simple chart, top ten list, or other recording feature—which would not have been difficult to add, would have given the game a much longer shelf life.

Even so, **FLIGHT COMMANDER 2** is an impressive product. It has the benefit of being easy to learn and very quick to play, without sacrificing realism or complexity. The programming is virtually flawless—a rather unusual feat these days—and sound and graphics are attractive, adding considerably to the playing experience. Most of all, this game is just darn fun. Finally, the skies are open to those of us without the dexterity or eyesight to play the simulations, but who can still put up a good fight.

---

**THE EDITORS SPEAK**

**FLIGHT COMMANDER 2**

**RATING**

**PROS** A quality treatment of a unique wargame subject, with elegant graphics and interface to boot.

**CONS** Lacks a campaign builder to keep you coming back after the initial campaigns are completed.

---

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Ya Say Ya Want A Revolution?

Then Start Your Own In Ocean's CENTRAL INTELLIGENCE

by Chuck Moss

OOD MORNING, MR. PHLEPS. YOU SEE BEFORE YOU THE CARIBBEAN ISLAND of Sao Madrigal, lying near the coast of Brazil. Recent discoveries show it to be a major potential producer of oil and chemical products. Sao Madrigal has recently fallen under the control of a brutal fascist dictator, supported by the Chinese.

"Your mission, should you choose to accept it, is to mount a covert operation to restore democracy and recover our national and economic interests. As always, should any of your team be killed or captured, the Secretary will disavow any knowledge of your actions. Good luck!"

Well, maybe CENTRAL INTELLIGENCE, the new CD-ROM strategy game from Ocean of America, doesn't really start like the opening of "Mission Impossible."

But you get the idea: a small, important nation must be freed from fascist tyranny by covert means. You, the player, are sent to run the operation. Any means, fair and foul, are acceptable. Rob banks, kill policemen, blow up factories, spy on people...hey, it's all in the name of God and Country in this lavishly detailed and highly complex game that's easy to lose, but oddly intriguing.

The game is played on the small island of Sao Madrigal, which is depicted in astonishing detail. Every building, road, house, and corner cantina can be seen and accessed from a top-down, spy satellite perspective. The sheer weight of detail is a strain to bear. Sao Madrigal is a whole world waiting to be explored, with 1360 characters, social classes, factions, rebels and a political hierarchy. Designed in England, the game has that peculiar "Euro" feel to its interface and graphics.

All this detail doesn't come easy. CENTRAL INTELLIGENCE requires a CD-ROM with 4 meg of memory—and don't try to run it from Windows. The package says you can run it on a 386-33, but I sure wouldn't try. I had the devil's own time booting it up on a Pentium with 16 MB of RAM. Fortunately, the tech support folks at Ocean were very helpful, and perseverance paid off. But this game is not for the technologically challenged, so pay attention to the system requirements!

THE PEASANTS ARE REVOLTING
So just how does one go about organizing a revolution, anyway? In Sao Madrigal, the hopeful CIA agent has a network of operatives in-country, divided into three divisions: Political, Propaganda, and Military. Each division is made up of eight agents, headed by a specialist.

Agents are the player's eyes and hands. To access materials and characters in any given location, one must first dispatch an agent—preferably a political agent—to spy (their word!) on the city, township or hamlet. Once the spy is in place, the
ZIG ZAG

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adventure.

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Can you deduce the word before the puzzle ends?
Prepare your deductive powers as you embark on
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player can pull down the overhead terrain view and start looking around. The fun can then begin!

Revolutions are made by helping the locals win their freedom. There is an opposition party and a rival leader. There are also guerrilla bands roaming the hills, and radical students are always ready to make trouble for the government. Plus, sympathetic citizens and even leaders are itching to contribute to the cause. You must weave all these strands of diffuse dissent into a firm, unified movement strong enough to dislodge El Jeffé from his palace.

To do this, you must find out where money, weapons, medicines, and media tools are located, and get these supplies into the proper hands. Sympathetic characters must be contacted, and wavering leaders won over to the cause, blackmailed where less-than-amenable, assassinated where intransigent. The opposition must be fed information and money, with data from the "telex" coming in at lightning speed.

On top of this, your network has operations of its own. Want to arrange an anti-government TV broadcast? Bribe the TV director. Need bribe money? Send an agent to rob a bank. Where is the bank and how much cash is on hand? Send an agent to scope out the town. If needed, military agents can be used to attack and damage installations, as well as to ferry weapons and medicines to the guerrillas.

All this action is done against a real-time ticking clock that counts the simulated "hours" and "days." Time speed is adjustable. So is the degree of difficulty, with three levels generally determining how loyal the island is initially toward the government.

The actual action of the game is done via point and click menus. CENTRAL INTELLIGENCE is totally mouse-driven. Click on an agent to activate him or her, and a screen will pop up detailing the skill level and, most importantly, the supplies available to that agent.

**THIS AIN'T NO FOOLIN' AROUND**

For example: want to rob a bank? Click on a selected agent to give the agent a mission. Then go to the main map screen and zoom in on a sector of the map grid. The sector will show buildings, along with several icons on the side. Click on the question mark icon to display the buildings in the sector. Click on the bank. If you've spied out the area, a box icon will show what supplies are available at the bank. Click on the money. Then go back to the agent, access the missions icon, and click on the "steal 1000 dollars" text line. A moving icon will appear when the heist is complete. Got it?

So you see, there's a lot of pointing and clicking. Up/down, in/out, point at icon/click on icon, point at another icon, etc. All the while little blue and red flags efficiently, separating gold from dross, and retrieving important data quickly (remember that clock!). CENTRAL INTELLIGENCE leaves you on your own. The 28-page instruction manual is fine as far as it goes, and should be studied by any player. However, the manual is mostly photos, graphics, and very large type. It does not go nearly far enough in orienting a newly inserted CIA chief.

There is no map whatsoever included. I had to make a map of my own of the larger cities and towns, square by square, with a list—often long—of what was where. This took hours and did not even cover the larger hamlets. Where are those TV stations, police posts, factories, colleges and universities? Heck, where are the two largest cities? You've got to find 'em yourself.

Plus, the important places are hard to locate, and their locations hard to remember. A few terrain features and neighborhoods in towns will become as familiar as your own street. But that is enough for a point-and-clickin' maniac. Where is that State Police post that the telex mentioned? Or the "hamlet?" where Hamlet Chief Smith is hiding? Or "College #8." I found a bank—but had to point-and-click somewhere
CASA DEL JEFFÉ The President's Palace is the final destination for your rebel troops, once you've whipped the people into a revolutionary frenzy.

else—now where was that pesky bank?

It would have taken little for Ocean to stick in a database so that players could access the University sites, the police posts, etc. After all, you won't be able to do anything or know what's there without an agent spying on the place, so game challenge is preserved.

Another criticism concerns the icon-driven play. There is just too much point and click. Remember the bank-robbing routine? That's an easy one. To grab supplies and give them to a rebel takes even more points and clicks. Too much of CENTRAL INTELLIGENCE is spent blundering around the overhead map looking for stuff, or else working on a heavy case of Carpal Tunnel Syndrome. That's not fun.

The learning curve on CENTRAL INTELLIGENCE is tough, and the busyness factor is high. This is very, very sad, because I think the folks at Ocean are on to something. This game is so very near to the mark, yet misses the bull's-eye. The best strategy games have just the right mix of complexity and challenge, yet rarely let the process impede the actual play. CENTRAL INTELLIGENCE, alas, forces the player to spend so much effort in mechanics that there's little time for strategy.

For those players who are turned on by political simulations (like myself), persistence will eventually be rewarded. It's fun to bash around in somebody else's country, performing acts that could land you in front of a Senate Investigating Committee someday. And the world of Sao Madrigal is so seductively real, that you find yourself wanting to shrink and actually walk those colorful streets.

But the average computer gamer may find the payoff insufficient reward for the sweat investment necessary to access CENTRAL INTELLIGENCE. It's too bad really, and a fault that could be corrected, albeit not with an uploaded patch. CENTRAL INTELLIGENCE is indeed a feast of detail—but then, revolution is not a dinner party.
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Mad Max, Madmen, And Mutants

by Chuck Miller

As a long-time fan of "Mad Max," I enjoy films about barbaric, futuristic societies in the throes of moral and technological decay. Not that I find that milieu preferable to our own; it's just that these kinds of stories present extreme challenges to the hero or heroine to overcome before they can get back to eating, drinking and being barbaric.

By the same token, it's a thrill when I find games that build on this kind of sick futuristic story. Unfortunately, they are far too few in number. (Okay, Hollywood! How about a "Mad Max" action-adventure where the player is rewarded for his object retrieval and manipulation skills by being treated to video clips of the hero's successful escapades?) Occasionally, however, a title in this general category comes along. And, while it may not fit the bill perfectly, Safari Software's HIGHWAY HUNTER comes fairly close.

FREEWAY FUGITIVE

A futuristic Earth teeters on the brink of disaster under the repressive control of the Axis of Allied Planets. As a fugitive on the run, you have to take matters into your own hands and fight back against your oppressors. Seizing an opportunity to escape, you steal the MASTER, a Multi-Attack Super Turbo Energy Ranger, a vehicle that makes Mad Max's rig look like a little red wagon. Once in the cockpit, you head out onto the highways to wreak a little overdue vengeance. The hunted becomes the hunter!

HIGHWAY HUNTER is a fast-paced shooter of the top-down, vertical-scrolling variety, and it's as smooth as they come. With the feel of a coin-op machine, this arcade game puts many comparable titles to shame. The graphics are crisp, music and sound effects are excellent, and the action is as fast and furious as you like thanks to a variable speed option for game scrolling.

The idea of the game is to traverse each scrolling level and reach the end-level boss with as much firepower and shielding as possible. Surviving the ensuing onslaught rewards you with advancement to the next level. On the way you'll find plenty of upgrade modules, weapons, and shields strewn across the landscape. Some upgrades emit a massive photon pulse, damaging all enemies on screen, while others provide temporary invincibility or increase your weapons loadout. A total of nine weapons are available, each requiring increased amounts of energy to operate. Shields, which never last long enough, protect your vehicle from mines and the ravages of oncoming enemy attacks.

As enjoyable as HIGHWAY HUNTER can be, it does have a flaw that's characteristic of this kind of game—a crappy driving model. Your vehicle always travels faster than the other vehicles on the road, you're unable to slow down and plan a strategy for dealing with the vehicles in front of you, and the freeway never stops scrolling by. You can adjust the overall speed of the scrolling, but not the speed of your vehicle. This design not only makes play more difficult, but it can lead to a certain degree of boredom after a while. The game doesn't offer much challenge in destroying or maneuvering past opponents; it's simply plow ahead and shoot everything! In HIGHWAY HUNTER and its ilk, racking up the kills usually boils down to quick reflexes rather than strategy.

Apart from this one design weakness (common to many arcade titles), HIGHWAY HUNTER is a very challenging and fast-paced game that any coin-op fan will relish. Although Mad Max would find the action a little vanilla for his tastes, it still offers those with spastic digits a good deal of entertainment in a very attractive and modestly priced package.

HIGHWAY HUNTER requires a 386 or better system and VGA graphics, and supports Sound Blaster-compatible sound cards and the Gravis PC GamePad. The first episode is available as shareware (HIGHWAZIP). Registration nets you all three episodes for $29, plus $4 shipping and handling (Maryland residents add 5% tax). To order HIGHWAY HUNTER contact: Safari Software, 10406 Holbrook Drive, Potomac MD 20854, (800) 238-1393. Safari ships a free bonus disk of games with each order.
EČSTATICA

You’ll have nightmares playing this game! Never before has such realistic gameplay been combined with such maddening adventure. Screams abound when a young girl’s nightmares terrorize a town gone mad. Suddenly you’re caught up in a role-playing horror story that features ellipsoid 3D technology for the ultimate in realism. Over 200 beautifully animated sequences, incredibly detailed 3-D backgrounds and a broad mixture of action and horror make this game a unique, cinematic experience.

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GOING ABSOLUTELY BATTY
If you blew your life savings as a teenager at video arcades on a game called Galaga, then Invasión of the Mutant Space Bats of Doom will bring back many fond memories, though none of your spent quarters. While this blast from the past offers nothing unique or technologically stunning to the shoot-'em-up genre, it nonetheless offers a nostalgically fun experience.

Your goals are simple: stay alive, eliminate the space bats, and power up. Your first goal is accomplished by maneuvering to avoid the bats and their weapons. Meanwhile, you must blast as many bats as you can, making sure to time your shots accurately (there is a “lag” in space). Finally, you can power up by collecting the crystals dropped by annihilated space bats. Some crystals increase the speed of your shots, others widen their spread, slow your opponents, give you MEGA guns, or provide you with extra ships. Survive and you’re a hero. Succumb to the Mutant Space Bats of Doom and you’ll be mummified in bat guano.

Mutant Space Bats offers nothing significantly new to the shooter genre, aside from some interesting bonus levels. It’s a lot of fun blasting the little bats’ brains out, but the shareware version (BATS.ZIP) is a bit lean on gameplay. It wasn’t long before I could play all 20 shareware levels in under five minutes, which is pretty short compared with most shareware games. However, the registration fee of $15 is modest enough that another 44 levels are obtainable at a fair price, which is worth it for those who could never get enough of Galaga in the first place!

Invasión of the Mutant Space Bats of Doom is available from Pop Software, P.O. Box 60995, Sunnyvale CA 94088, and runs on any 386 or better PC compatible with EGA or better graphics. An additional $15 (or $24 for both titles) buys you the sequel, Return of the Mutant Space Bats. Include $5 shipping and handling (plus, 8.25% sales tax for CA residents).

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In Search of Dr. Riptide marks the return of the beloved madman-scientist-bad guy. In this action game of undersea exploration, you assume the role of Nick Nautilus, Special Naval Agent T (SNAT) 1138, on a mission to seek and destroy the undersea laboratory of quack scientist Dr. Tiberius Riptide. Unlike other kill-the-madman

A YELLOW SUBMARINE Watch out for any octopi who get a crush on your sub in The Undersea World of Dr. Riptide.

location from which you can easily retrieve them. This one feature increases the strategic element immensely, making Dr. Riptide a refreshingly unique action game with a strong element of strategic play.

Rock-tossing crabs, pellet-spitting eels and submerged mines are the least of your worries. When the octopi and ravenous piranhas get a hold of you, there won’t be much left. In fact, the only real gripe I have with the game is that the piranhas are a bit too ravenous when it comes to devouring poor Nick and his submersibles. Still, in spite of this “biting” issue, Dr. Riptide is one of the freshest and most entertaining shareware titles I’ve had the pleasure of spending time with this past year. I highly recommend you download a copy and try Dr. Riptide’s undersea world for yourself.

In Search of Dr. Riptide (RIPTIDE.ZIP) is best played on a 386-33MHz or faster computer and requires 256-color VGA graphics. It supports Aurora’s Interactor vest, although I wasn’t able to test this feature. To order a registered copy, send $29 (Florida residents add your required 6% sales tax) to: Pack Media Company Inc., P.O. Box 1357, Pompano Beach FL 33061-1357, (800) 628-3266. You’ll be glad you did!

Chuck Miller is the Editor of Interactive Gaming and CGW’s Shown of Shareware. He can be reached on CompuServe at 74774, 1476, America Online at IGAMING and through the Internet at interactive.gaming @swchool.com.

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Do-It-Yourself Game Design

Explore The Essence Of Game Creation With Maxis’ Klik & Play

by Paul C. Schuytema

Computers games. We play them for hours, lose sleep, and through the fog of the next day, we think of nothing but spending another night trying to do just a little bit better. If you’re an avid CGW reader, I’m sure you’ve played dozens of games, but I’d lay down a wooden nickel that there are only one or two that really take your breath away. Why those games and not the others?

COOKIN’ IN THE KITCHEN WITH MEGABYTES

A game design, for me, is a lot like a recipe. You need the finest ingredients, of course, but if you don’t blend them together in just the right proportions, you get some inedible garbage. High class doesn’t necessarily mean high quality. I whipped up a fancy Dijon salsa for last year’s Superbowl party, grabbed the recipe from THE source, Gourmet Magazine, and yet it tasted like crap. The recipe just didn’t work. The same is true for games. A game coming out of a high-profile publisher may have the authority of glamour and mega-buck production, but if the game design isn’t sound, you end up with crap in a very pretty box.

As a contrast, consider the venerable WOLFENSTEIN 3D. This game was cobbled together by a handful of programmer/game-addicts with virtually no budget. And yet, the balance, the recipe of the gameplay, was nearly perfect.

Last month, I gave you a list of resource hooks to help you hone up on the skills needed to become a game programmer. I emphasize “programmer,” because none of those books delve into the realm of design. Surf the Internet for a while, stop by “rec.games.programming” or flip through the game design encyclopedia you can download, and you will discover a very common misconception: that game programming equals game design. If you can program a DOOM-like engine, the thinking goes, then you can make a great game. Absolutely untrue! Just take a look at the majority of DOOM rip-offs. They offer great sounds and cool graphics but boring gameplay. The beauty of id Software’s level design just isn’t there. Moral: there’s more to a great game than programming. Much more.

Just how do you blend all of the components of a game together? What is the common thread? A game may have many, many parts, from video clips and sound files, to sprite animation and control interfaces. What makes a game work is its design and gameplay, how the player perceives the motion of the game from start to finish. Game flow and game design are all about relationships.

ALL I WANT TO DO IS CLICK AND PLAY

Making a killer game is about building exciting, challenging relationships between the components of your game world. Perhaps one of the best tools I’ve found to experiment, not with game programming, but game design, is Maxis’ excellent Klik & Play game design tool for Windows (though I have to give Maxis a major thumbs down on the fluffy name for this powerful program).

Klik & Play gives you the opportunity to build a complete game from the ground up. Klik & Play allows you to work with game designs at their most fundamental level—objects, actions, relationships and events.

One thing that you will discover almost immediately in K&P is that it probably can’t do things exactly how you want them done. For the purpose of studying game design, you can consider this limitation as analogous to the limitations designers face every day when attempting to meld their design vision with the constraints of current technology, time or budget.

I WANT MY INTERACTIVITY!

According to Chris Crawford, long-time game designer and editor of Interactive Entertainment Design, a game, at its simplest, has three fundamental elements: representation, interactivity and conflict. That is to say, a game reflects or represents some aspect of reality (or fantasy), has a “game world” which reacts and interacts with the player, and poses obstacles for the player to overcome.

A principle of game design that escapes many novices is that a game’s environment must not only be inherently interesting and challenging, but it must respond to the player. In the old classic DONKEY KONG, our friend Mario (not
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then the star he is today) had to run and jump to climb up the steel girders of the building, all the while avoiding the barrels that Kong rolled down to stop him. This was challenging, but Kong never really responded to what the player did. He only rolled the barrels according to a pre-programmed (slightly random) pattern.

Compare that with the rather DONKEY-KONG-esque ending to the first level in the Sega classic (ahem, yes, I know we all play PC games in this club), GHOULS AND GHOSTS. You must run your knight up a series of platforms to get to the top. Only, in this game, there are these ugly pig-like creatures who vomit green bile on you. They, however, are not constrained to a pattern, but will move to the best position to vomit directly on your head. This type of interaction makes the game play far more exciting for the player. You can see this type of reaction to the player's actions in Sierra's LODERUNNER—the cloakies actively chase you down instead of running around in pre-programmed patterns.

In DOOM, the monsters turn and try to kill you. They don't just move around and burp out fireballs according to some pattern. They are keyed in on your actions. In DOOM, though, this interactivity goes even one step further. Monsters can react to other monsters, turning to attack them and giving you a moment to collect your thoughts.

A PLATFORM TO STAND ON
For the purpose of this column, we'll focus on building a "platform" game à la LODERUNNER and its minions using KLIK & PLAY. I know you might be letting out groans, but you can learn volumes about game design by crafting such a simple game. While, if we're comparing apples to oranges, you might liken WING COMMANDER III to Milton's Paradise Lost, then a game such as CENTIPEDE or TEMPEST to LODERUNNER can be seen as a bakfi: a small splash of genius, but many of the same artistic sensibilities apply. Besides that, K&P is a game-design tool for building mostly hand-eye coordination games. You can use K&P to create card games and adventure games and the like, but unless you cut your teeth on a simpler design, you'll end up hopelessly lost.

Maxis bills KLIK & PLAY as an "instant game creator," which is as far from the truth as can be. Using K&P involves a significant learning process, and it will take you many evenings to nail down even one cleanly playable level. To make matters worse, the games included on the K&P CD showcase the worst in game design: flashly graphics which attempt to copy other games (there's a MISSILE COMMAND clone and a GALAXIAN clone), but don't focus on the nuances of solid gameplay. It's a shame, since K&P can really create some challenging and exciting games.

Finally, in the "Game Design Tips" section of the manual, we are told to focus on nailing down the cool, high-quality graphics first and focus on gameplay second. This is a misconception which, unfortunately, is all too prevalent in the industry. The focus should be the other way around: nail down the gameplay and balance, and polish your gemstone after you're sure of its value. While polishing graphics in K&P, you can get as involved as you want; you can even do pseudorotoscoping.

MICROMAN?
KLIK & PLAY will immediately force you to come to grips with two of the constants game designers must battle with every day: handling "events" (actions and reactions) and struggling with the balance of play.

Event processing is one thing we really don't think about when we ponder game design or game programming, but it is, in fact, one of the foundation elements in the game creation process.

Beginning work for my "masterpiece," a game which I've dubbed "Microman," I spent a lot of time scrawling down ideas on yellow legal pads, doodling, making flowcharts and generally making a mess. First and foremost is tailoring your ideas to the limitations of your game design. For me, it was abandoning the moving platforms (I wanted Microman to leap from molecule to molecule). That doesn't work in KLIK & PLAY, so I opted for static platforms, corresponding to the fuel rods in a nuclear reactor (the platforms looked like bridges at first, but remember: I'm working on gameplay first, and I'll go back and change K&P's default graphics to my own design after the game flow has been nailed down).

After getting a workable idea, I turn to the level editor, basically an object-orientated graphics package which allows me to place things such as my microman, the platforms, the single molecule (in later levels, there will, of course, be more molecules and a few radioactive isotopes for microman to deal with), and the wavy, heavy water at the bottom. The level editor is much more than just a "place and move" sub-program. You have the oppor-
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tunity to set the properties of the components you are placing. With the microman, I selected the type of movement I wanted (called “platform movement” in K&P), and adjust variables such as jump strength and gravity.

**THE MAIN EVENT**

After putting together the objects of the game (or, in this case, a game level), it was time to come to grips with the meat and potatoes and in-the-trenches aspect of game design: event processing.

Never before have I seen such an intuitive way to work through event processing as in K&P. Once the building blocks have been set in place, we transfer to the step-through editor and begin the game. Right now, there’s not much to it. The molecule bounces around, and you can move your little guy around, leaping from platform to platform. But wait! As soon as the molecule moves to the edge of the screen, the game halts. An event has been triggered. When an event occurs, the logic of the game must take some action. In this case, it is as simple as clicking on an action, and telling the molecule to bounce (we could also have it wrap around to the other side of the screen).

The step-through editor allows you to build an elaborate script for any event you choose. Take the event of the molecule colliding with microman (to be avoided at all costs). Once the event is triggered (I actually jumped microman into the path of the molecule to trigger this event), you can then build your script. For this event, I first created an explosion (by using the “create an object” command), then destroyed microman. Then, I used a game logic query to reduce the available lives by one. Finally, I created another microman at the initial starting point (otherwise the game would just sit in stasis, waiting for a non-existent event to occur).

**RISKY BUSINESS**

One of the things I’ve noticed during my “long strange trip” through the last decade and a half of daily game playing is that a game which “works,” be it an arcade game, a (gulp) Genesis game, or a PC game, seems to have an almost mystical “completeness” about it. As I learned by talking with the folks who designed some of the early Atari arcade classics, there are some serious philosophical underpinnings to great game design. Perhaps the most relevant to our exploration here is the concept of risk and reward.

Players should be encouraged to participate in risky play during a game, and if they succeed, great spoils should go to them (whether it be in the form of bonus points, powerups, or a scroll containing a nifty magic spell). If they fail, they should be punished (lose points, take damage, etc.), but the punishment shouldn’t take them out of the game, it should just make them work harder to get back where they were.

In this first level of Microman, I played around with the concept of risk and reward. There is a small platform, only accessible by jumping off a higher platform. On that platform is a blaster which will allow microman to shoot at the molecule and affect its bounce. The weapon makes it far easier for microman to do his job of jumping on all of the platforms to trigger the appearance of the end-of-level button. But to get there, microman must make a “leap of faith.” If he fails, he’ll fall into the heavy water and lose a life, and must start the level over again. Should he succeed, he’ll still have to leap down to one of the lower platforms and then perform a difficult timed leap to get back into the main playfield.

I’ve given the player a carrot, but there is a risk in getting it and some effort needed to pull off the retrieval. One important concept to note about gameplay risk and reward is that the player should not necessarily have to follow the risky game path. Microman can most certainly complete his level without the blaster. It’s a perk and not a requirement, and that’s what adds to its fun. Players want the option to choose a path, and not be forced to jump through hoops just because it was the designer’s whim.

**GO YE FORTH AND CONJURE!**

Game design is a topic discussed far less often than it should be, but it is the “black magic” which is at the heart of any great game. Graphics are cool, sound effects and music can jazz up an experience, but a game’s interface must be clean and efficient, and more than anything, the design and flow of the gameplay must play like a sweet symphony, not like some discordant dirge.

If you want to dabble in the “dark art” of design and event processing, dive into KLK & PLAY. You’ll learn volumes about why some games play like poetry and others are only as enjoyable as a hairy wombat with whooping cough.

For more information about KLK & PLAY, contact Maxis at (510) 254-9700.

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CONFIG.ASSIST

Our Mad Hacker Offers Tips For Optimizing Your Memory

by Mike Weksler

There are many different ways an MS-DOS-based computer can crash when you attempt to run a game. Often when you try to start a game, the screen goes blank, the keyboard won't respond, and you have to reboot the machine. Other times, the game may start, but then the machine freezes—perhaps just as you were about to save—causing you to power off and start all over. Then there is the worst kind of crashing—the spontaneous reboot. This one pins the needle on the Hard Tramimeter to the max.

Sometimes these problems are caused by conflicts with sound cards, CD-ROMs, and other peripherals, but usually they're the result of a poor memory configuration. Yes, the answers to most of our gaming problems lie in those nasty, cryptic CONFIG.SYS and AUTOEXEC.BAT files, the mere mention of which will send many a gamer into a screaming, ranting fit.

Many of you send me your CONFIG.SYS and AUTOEXEC.BAT files out of pure frustration. I forward the majority of these to the Vatican, because most of them are so ill-formed and mishapen that they will only function with a Papal blessing. But occasionally I see some configuration files that are almost there—just a few keystrokes away from Gaming Nirvana—and I can't help but lead the aspirant to full computing consciousness.

Such was the case with Dave Stein of Newport News, VA, who sent in the CONFIG.SYS and AUTOEXEC.BAT files that you see at left below. His files are rather typical of what can go wrong with our two favorite files. To the right you'll find the files that I tweaked for maximum (well, maybe better) gaming performance. I'll step through the changes I made to help those who may have similar memory configuration problems.

The first step when doing any configuration hacking is to make backups of your current configuration files, preferably in a bootable floppy disk. The next step is to type "MEM /C" from your C:>

This command will show you which device drivers and resident program files are loading into memory and where. If you'd like, you can type "MEM /C > MEM.TXT" to print the listing to a text file for easy viewing. Then, for readability, I like to place all the SET commands at the beginning of the AUTOEXEC.BAT.

Dave's configuration has some problems: right off the bat, I can tell that he is having low memory problems and Windows CD-ROM problems. First of all, he has important commands (including one of the CD-ROM drivers) that follow the command to start Windows ("WIN") in his...
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**UNDER THE HOOD**

AUTOREST.BAT. The problem is that the commands that follow the "WIN" command will only be executed after you exit Windows. This explains why Dave isn't getting his CD to work in Windows until he exits and runs Windows again.

You might also notice that Dave's configuration is loading two mouse drivers—one in the CONFIG.SYS file and one in the AUTOEXEC.BAT—and thereby wasting a few precious K of RAM. I eliminated the redundant mouse driver call (C:\MOUSE\MOUSE.COM) from the end of the AUTOEXEC.BAT file and used MOUSE.SYS in the CONFIG.SYS file because it takes up less memory when loaded. As an aside, note that you don't need an MS-DOS mouse driver to use your mouse in Windows, but you do need the driver for DOS games.

Dave's configuration is also loading SMARTDRV.EXE twice. I eliminated the redundancy and added the "X" option, which tells SMARTDRV.EXE to turn off "write-back caching." This eliminates the possibility that you might lose data that is stored in the SmartDrive cache when you turn your computer off.

The main problem with this configuration is that it did not have the Upper Memory Blocks (UMBs) set up. Upper memory is a 384K area of RAM above and beyond the conventional 640K into which you can load some of your drivers (think of it as extra trunk space in your car). Drivers can be loaded into this area with the "LOADHIGH" command. While Dave had the all important "DOS=UMB" (which you can also have as "DOS=HIGH, UMB") and "DEVICE=C:\DOS\HIMEM.SYS" commands, he was lacking the essential EMM386 driver. You see, HIMEM.SYS doesn't set up UMBs, only EMM386 does that, so whenever Dave's computer tried to "load high," there was no room at the inn.

To fix this UMB problem, I added the EMM386 command with the "NOEMS" option (just remove this option to configure your computer for EMS memory). That sets up your machine for extended memory (XMS), using the EMM manager to establish the UMBs. You can use this configuration to load all your drivers into upper memory. The only killer is that most versions of "protected mode" games hate EMM386.EXE and refuse to run if you even think of running it. If you have a protected mode game, disable the EMM386 command by placing a "REM" statement in front of it. You won't be able to load your drivers high, but that's okay, since most protected mode games can run on less conventional memory.

If you just finished this paragraph and are totally lost, don't worry—that's what memory managers like QEMM (Quarterdeck), 386MAX (Qualitas) and Netroom (Helix) are for. These three software packages will eliminate a lot (but not all) of configuration tinkering. My favorite is QEMM 7.5 because it can optimize multiple configs and has a handy Quickboot feature, but the others will do fine as well.

Now that we have upper memory set up we can start putting stuff in it. We'll start with SBGCD.SYS. We can easily tuck this little file into Upper Memory with "DEVICE=HIGH=C:\SBGCD.SYS." I placed the MOUSE.SYS, MISCDEX.EXE (CD-ROM driver) and SMARTDRV.EXE in upper memory in a similar manner, using the LOADHIGH command in the AUTOEXEC.BAT file.

With these few changes, I was able to load a lot of stuff into upper memory and enjoy around 610K of free conventional memory. I also made some other minor tweaks. For instance, I nuked SETVER.EXE because you don't need it with DOS 6.2. Additionally, I mixed SHARE.EXE because it is mainly used in Windows network situations.

There are also remnants of someone trying to use the MS-DOS's MEMMAKER (all that stuff before the first SMARTDRV.EXE command in the un-hacked AUTOEXEC.BAT file). Don't use MEMMAKER if you have a multi-config MS-DOS 6 boot menu. MEMMAKER will think you have one big configuration file and completely trash your boot menu (bet you wonder how I know that!). For more on this uniquely bizarre subject, check out the book Memory Management in a Multimedia World by Joel Powell (Waithe Group Press (800) 788-3123). It offers a thorough immersion into the subject without assuming that you're a dork.

Finally, be aware that one configuration will probably not run every game. You'll have to try different configurations for those really cool high-end games that require a really un-cool amount of computing resources. Your best bet is to have multiple configurations on hand, preferably in a DOS 6.0 boot menu (see my column last month).
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**FALCON 3.0**
**SPECTRUM HOLOBYTE, 1991**
Over the next few months, CGW will be inducting some new honorees into the Hall of Fame. This month, we celebrate *Spectrum Holobyte's FALCON 3.0* and Access' *Links 386 Pro*.

The Falcon simulations have always been Spectrum's flagship and the long-awaited FALCON 3.0 was no exception. Over two years after its release, FALCON 3.0 is still the benchmark of combat flight simulators. It advanced the state of the art in terms of graphics, flight model, campaign design, and simulation of advanced radar instruments. Also, in spite of its limitations, it offered an advancement in AI routines for the artificial opponents. Perhaps most importantly, it was the first to offer the padlock view, an improvement added because the design team actually flew in some aircraft and noticed that pilots don't stare out of the cockpit at all times. FALCON 3.0 also took seriously the need for head-to-head modem play and integrated follow-on products into the human-to-human challenge of modem and network dogfighting.

**LINKS 386 PRO**
**ACCESS SOFTWARE, 1992**
While the original LINKS was a fine game in its own right, *Links 386 Pro* was a revelation for PC golfers. The photo-realistic SVGA vistas of famous courses could entice even the most casual of armchair golfers—and for a lot less money than playing at the real Pebble Beach or Firestone. The physical modeling was improved, so that the game played more like true golf than its predecessor, and the putting—too easy in *Links*—was made tough enough to be challenging for veteran golfers. It's fair to say that the game's wide appeal, combined with the high demands the program placed on hardware, caused several users to upgrade to a 486. Even two years after the release of *Links 386 Pro*, the animation of the club swing, the quiet ripples of the lakes, the sound of an errant iron shot crashing through tree branches, all capture the essence of golf on a computer screen in a manner not yet surpassed. With newer designs, such as EA's PGA TOUR Golf 486, now offering the opportunity to play against simulations of Tom Kite and others, it's reasonable to assume that *Links 386 Pro* will move in a similar direction.

**CIVILIZATION** (MicroProse, 1991)
**GUNSHIP** (MicroProse, 1989)
**HARPOON** (Three-Sixty Pacific, 1989)
**KING'S QUEST V** (Sierra On-Line, 1990)
**LEMMINGS** (Psynopsis, 1991)
**M-1 TANK PLATOON** (MicroProse, 1989)

**RAILROAD TYCOON** (MicroProse, 1990)
**RED BARON** (Dynamix, 1990)
**THEIR FINEST HOUR** (LucasArts, 1989)
**THE SECRET OF MONKEY ISLAND** (LucasArts, 1990)
**ULTIMA VI** (Origin Systems, 1990)
**WING COMMANDER I & II** (Origin Systems, 1990-91)

**INDUCTEES PRIOR TO 1989**

**BATTLE CHESS** (Interplay Productions, 1988)
**CHESSMASTER** (The Software Toolworks, 1986)
**DUNGEON MASTER** (FTL Software, 1987)
**EARL WEAVER BASEBALL** (Electronic Arts, 1985)
**EMPIRE** (Interstel, 1978)
**F-19 STEALTH FIGHTER** (MicroProse, 1988)
**GETTYSBURG: THE TURNING POINT** (SSI, 1986)
**KAMPFGRUPPE** (Strategic Simulations, 1985)
**MECH BRIGADE** (Strategic Simulations, 1985)
**MIGHT & MAGIC** (New World Computing, 1986)
**M.U.L.E.** (Electronic Arts, 1983)
**PIRATES** (MicroProse, 1987)
**SIMCITY** (Maxis, 1987)
**STARLIGHT** (Electronic Arts, 1986)

**THE BARB'S TALE** (Electronic Arts, 1985)
**ULTIMA III** (Origin Systems, 1985)
**ULTIMA IV** (Origin Systems, 1985)
**WAR IN RUSSIA** (Strategic Simulations, 1984)
**WASTELAND** (Interplay Productions, 1985)
**WIZARDRY** (Sir-Tech Software, 1981)
**ZORK** (Infocom, 1981)

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### TOP ADVENTURE GAMES

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<td>Day of the Tentacle</td>
<td>LucasArts</td>
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<td>Sherlock Holmes CD I</td>
<td>Id Software</td>
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<td>Gabriel Knight</td>
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<td>Rambo</td>
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<td>Star Control II</td>
<td>Accolade</td>
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<td>Sam &amp; Max Hit the Road</td>
<td>LucasArts</td>
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<tr>
<td>The Seventh Guest</td>
<td>Virgin</td>
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<tr>
<td>Under A Killing Moon</td>
<td>Access</td>
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<td>Quest for Glory I (VGA)</td>
<td>Sierra</td>
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<td>Eric the Unready</td>
<td>Legend</td>
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### TOP ROLE PLAYING GAMES

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<td>Betrayal at Krondor</td>
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<td>Ultima Underworld II</td>
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<td>Lands of Lore</td>
<td>Virgin</td>
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<td>World Circuit</td>
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### TOP 100 GAMES

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<td>9.37</td>
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<tr>
<td>World Circuit</td>
<td>MicroProse</td>
<td>ST</td>
<td>9.36</td>
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<tr>
<td>Carrier War Construction Kit</td>
<td>DUP</td>
<td>ST</td>
<td>9.35</td>
</tr>
<tr>
<td>Pacific War</td>
<td>SSI</td>
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<tr>
<td>System Shock</td>
<td>Origin</td>
<td>AC</td>
<td>9.34</td>
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<tr>
<td>Star Control II</td>
<td>Accolade</td>
<td>AD,AC</td>
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<tr>
<td>Sam &amp; Max Hit the Road</td>
<td>LucasArts</td>
<td>AD</td>
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<tr>
<td>Comanche: Maximum Overkill</td>
<td>Novologic</td>
<td>SI</td>
<td>9.27</td>
</tr>
<tr>
<td>Lands of Lore</td>
<td>Virgin</td>
<td>AD</td>
<td>9.25</td>
</tr>
<tr>
<td>The Seventh Guest</td>
<td>Virgin</td>
<td>AD</td>
<td>9.25</td>
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<tr>
<td>Fleet Defender</td>
<td>MicroProse</td>
<td>SI</td>
<td>9.23</td>
</tr>
<tr>
<td>V for Victory: Golden Sword</td>
<td>Three-Sixty Pacific</td>
<td>WG</td>
<td>9.18</td>
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<tr>
<td>Privateer</td>
<td>Origin</td>
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<td>9.16</td>
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<td>Might &amp; Magic: Clouds of Xeen</td>
<td>New World Computing</td>
<td>9.11</td>
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<tr>
<td>Under A Killing Moon</td>
<td>Access</td>
<td>AD</td>
<td>9.10</td>
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<td>The Grandest Fleet</td>
<td>DUP</td>
<td>ST</td>
<td>9.08</td>
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<tr>
<td>Merchant Prince</td>
<td>DUP</td>
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<td>9.08</td>
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<tr>
<td>Ultima VI: Part Two Serpent Isle</td>
<td>Origin</td>
<td>RP</td>
<td>9.08</td>
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<td>Syndicate</td>
<td>Electronic Arts</td>
<td>ST,AC</td>
<td>9.07</td>
</tr>
<tr>
<td>Quest for Glory I (VGA)</td>
<td>Sierra</td>
<td>AD,RP</td>
<td>9.05</td>
</tr>
<tr>
<td>Eric the Unready</td>
<td>Legend</td>
<td>AD</td>
<td>9.04</td>
</tr>
<tr>
<td>Legend of Kyrandia 3</td>
<td>Virgin</td>
<td>AD</td>
<td>9.02</td>
</tr>
<tr>
<td>Stunt Island</td>
<td>Disney</td>
<td>SI</td>
<td>9.00</td>
</tr>
</tbody>
</table>
You've read our take on the latest games, now here's a chance to see what your fellow gamers think. The CGW Top 100 is a monthly tally of game ratings provided by our readers via the CGW Poll ballot found in each issue. Approximately 50 games are rated each month, and the results are added to the aggregate results from past months. This historical database serves as a terrific reference for what you, the gamers, feel are the best plays in gaming.

### Top Wargames

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panzer General</td>
<td>SSI</td>
<td>10.25</td>
</tr>
<tr>
<td>V for Victory: Market Garden</td>
<td>SSI</td>
<td>9.58</td>
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<tr>
<td>V for Victory: Volkhovya</td>
<td>Sixties</td>
<td>9.52</td>
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<tr>
<td>War in Russia</td>
<td>SSI</td>
<td>9.44</td>
</tr>
<tr>
<td>Operation Crusader</td>
<td>Avalon</td>
<td>9.43</td>
</tr>
<tr>
<td>Carrier at War Construction Kit</td>
<td>SSI</td>
<td>9.35</td>
</tr>
<tr>
<td>Pacific War</td>
<td>SSI</td>
<td>9.34</td>
</tr>
<tr>
<td>W for Victory: Gold Juno Sword</td>
<td>Sixties</td>
<td>9.18</td>
</tr>
<tr>
<td>Tanks</td>
<td>SSI</td>
<td>9.00</td>
</tr>
<tr>
<td>Clash of Steel</td>
<td>SSI</td>
<td>8.98</td>
</tr>
</tbody>
</table>

### Top Action Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIE Fighter</td>
<td>LucasArts</td>
<td>10.34</td>
</tr>
<tr>
<td>DOOM</td>
<td>id Software</td>
<td>10.24</td>
</tr>
<tr>
<td>DOOM II</td>
<td>id Software</td>
<td>9.89</td>
</tr>
<tr>
<td>X-Wing</td>
<td>LucasArts</td>
<td>9.60</td>
</tr>
<tr>
<td>System Shock</td>
<td>Origin</td>
<td>9.34</td>
</tr>
<tr>
<td>Privateer</td>
<td>Origin</td>
<td>9.16</td>
</tr>
<tr>
<td>The Horde</td>
<td>Crystal Dynamics</td>
<td>8.50</td>
</tr>
<tr>
<td>Prince of Persia 2</td>
<td>Broderbund</td>
<td>8.49</td>
</tr>
<tr>
<td>The Lost Vikings</td>
<td>Interplay</td>
<td>8.46</td>
</tr>
<tr>
<td>Dark Legions</td>
<td>SSI</td>
<td>8.43</td>
</tr>
</tbody>
</table>

### Top Sports Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Page Sports Baseball</td>
<td>Dynamix</td>
<td>9.64</td>
</tr>
<tr>
<td>HFL: Hockey</td>
<td>Electronic Arts</td>
<td>9.49</td>
</tr>
<tr>
<td>PGA Tour Golf 458</td>
<td>Electronic Arts</td>
<td>8.85</td>
</tr>
<tr>
<td>Tony La Russa Baseball II</td>
<td>SSI</td>
<td>8.78</td>
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<tr>
<td>Front Page Sports Baseball</td>
<td>SSI</td>
<td>8.70</td>
</tr>
<tr>
<td>Wayne Gretzky Hockey III</td>
<td>Bethesda</td>
<td>8.30</td>
</tr>
<tr>
<td>MicroLeague Baseball 4</td>
<td>MicroLeague</td>
<td>8.23</td>
</tr>
<tr>
<td>Jordan In Flight</td>
<td>Electronic Arts</td>
<td>7.85</td>
</tr>
<tr>
<td>Ultimate Football</td>
<td>MicroProse</td>
<td>7.40</td>
</tr>
<tr>
<td>Microsoft Golf 2.0</td>
<td>SSI</td>
<td>8.43</td>
</tr>
</tbody>
</table>

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Games on unnumbered lines have scores equal to the line above. 
- Top game of type: 1G = Game, 2A = Adventure, RP = Role Playing, SI = Simulation, ST = Strategy, WG = Wargame, AC = Action, SP = Sports

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The Computer Gaming World Poll

A MONTHLY SURVEY OF THE READERS OF COMPUTER GAMING WORLD
Aces of the Deep V1.1: Updates floppy version of Dynamix' sub sim. Fixes reported problems, including random lockups, faulty time decompression, and others. 10/27/94

Armored Fist V1A14 Update: CD-ROM/floppy updates address a number of compatibility issues, including: mouse, video, memory, and missing sound effects. 1/5/95

Dark Sun II: Wake of the Ravager V1.1: Fixes reported problems. Separate floppy and CD-ROM versions available. 1/5/95

Delta-V CD-ROM patch: Fixes the problem with lock-ups on levels 6 and 9. 12/22/94

Flight Commander 2 V1.02: Patch fixes PBEM feature and reported problems with some video drivers. Also makes the game compatible with the CD-ROM version. IBM compatibles only. 1/8/95

Flight Commander 2 V1.01: Macintosh-only patch addresses PBEM problems and other minor bugs. 12/22/94

Front Page Sports: Baseball '94 V1.01: Upgrade fixes many reported problems, including crash bugs and General Manager AI. 12/22/94

The Grandest Fleet Graphics Update: CD/Floppy patch fixes most graphics problems. 12/19/94

Harpoon Classic V1.56a: CD-ROM update corrects some bugs with setting aircraft speeds, air-to-air refueling, and some other long-standing bugs, as well as using less memory. Missiles launch against targets correctly. Works with all previous versions. 12/28/94

King's Quest VII Update: Corrects all known problems, but is not compatible with V1.1. 1/11/95

Knights of Xantar V1.08a Patch: Fixes some graphics bugs as well as some hardware compatibility problems. 1/4/95

Lode Runner Windows Upgrade V1.03: Corrects problems listed in the Readme file of the initial release. For Windows versions only, not DOS. 11/18/94

Lode Runner CD-ROM Upgrade: Corrects a problem with restoring saved games with the small installation option. For CD-ROM only. 12/24/94

Manzanarranzan V1.01 Update: CD-ROM/floppy upgrade fixes numerous bugs, including: NPC movement, scribes the Light spell, Malice will now appear in the endgame for everyone, and Jump potions will not disappear when saving the game. 1/9/95

Master of Magic V1.2: Latest upgrade to MicroProse' strategy/magic game with numerous fixes, new features, and major AI enhancements. 12/1/94

NASCAR V1.1 Upgrade Patch: Fixes in this version include: pole bug, interrupt 10 or higher for sound card settings and some problems with SET CONTROLS function when using ThrustMaster T1 and other pedal units. 12/19/94

NCAA2 V1.02: Fixes S3 chipset problems and excessive fouling. Also, inboarding players no longer receive assists. 11/22/94

Panzer General V1.1 Update: Separate CD-ROM and floppy patches fix some reported problems. 1/6/95

PGA 486 Update: Updates PGA.COM file and eliminates GOLF.EXE error message. Also includes use of Universal Vesa Driver. 12/4/94

Shadows of the Cain Update: Fix for fantasy/adventure DOS/Windows game adds joystick calibration profile, help for character movement, new dungeon sound effects and fixes DOS sound setup. 12/8/94

SimCity 2000 for DOS V1.1: Fixes problems reported, including crashes: also includes some minor cosmetic fixes. 10/28/94

Tigers on the Prowl V1.15b: Latest patch fixes problem accessing multiple units and adds some new features. 11/23/94

Transport Tycoon Sound Setup: Fixes sound card recognition bug during setup. 1/10/95

Ultimate Football V1.31 Update: Replaces previous update V1.3. Adds crowd noise, fixes reported problems. 11/8/94

Under a Killing Moon V1.04: For use with the Cyrax microprocessor. 11/8/94

Under a Killing Moon GUS Driver Update: Works with Gravis UltraSound and Gravis UltraSound Max. 11/8/94

Wing Commander III Joystick patch: Fixes reported joystick lockups when starting up WC3. 1/25/95

Wing Commander Armada Proving Grounds Add-on: Adds 6 player network support to Armada. 1/25/95

Wing Commander Armada V1.0 Patch: Fixes reported problems. 1/25/95

Publisher BBS Numbers Many of these patches are available direct from the publishers' bulletin board systems. Call with your modem parity settings at N-8,1.

Accelade CA (408) 396-8800

Activision CA (310) 820-1278

Apoge MA (508) 368-7036

Bethesda Software MD (301) 990-7552

Broderbund CA (415) 883-5889

Capstone FL (305) 374-6872

Creative Labs UK (405) 742-6668

Impressions Software MA (617) 225-2012

Interplay Productions CA (714) 252-2822

LucasArts CA (415) 257-3070

Maxis CA (510) 434-8869

MicroProse MD (410) 785-1841

Microsoft WA (206) 936-6735

Novalogic CA (818) 774-9528

Origin TX (512) 328-8402

Papyrus MA (617) 576-7472

Sierra Online CA (209) 683-4463

Spectrum Holobyte CA (510) 529-6480

STI CA (408) 739-6137 or (408) 739-6623

Virgin Interactive CA (714) 835-3305
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TouCh thE FutuRe!
The Rumor Bag

Bag Guy In Jeopardy

by Bill "Alex" Barker

was pretty excited about the opportunity to appear as a contestant on Interactivity, a pilot for a new syndicated quiz show, especially after the call for contestants. By the time all of the potential contestants were auditioned for our ability to fake an orgasm like Meg Ryan in "When Harry Met Sally," I felt like I was one of those thoroughbreds in Koel's upcoming Winning Post II. Based on the thoroughbred racing game developed for SDO, Winning Post II will be a PC version which will focus on American horse racing, as opposed to the Japanese horse racing in the original.

Suddenly, the announcer began to warm up the audience with his sotto voce impression of Brad Grey at the beginning of HBO's Larry Sanders Show and the studio audience clammed expectantly as the "Applesauce" ...er ... "Applause" light went on. The first contestant, a former executive from Epyx, ColecoVision, Mattel, and Sega, picked "Best Dead Computer Game Companies" for $200. I don't like thinking about dead computer game companies, but the category fondly reminded me of 3M Corporation's original Bookshelf Games, the ones acquired some years ago by Avalon Hill. Now, Avalon Hill plans to release a new version of COMPUTER ACQUIRE, the hotel merger game. It will incorporate graphics and features from a new version of the boardgame that is nearing release. It will also have some computer-version-only variants. In fact, Avalon Hill also plans to release COMPUTER TWIST, based on another popular 3M strategy boardgame, later this year.

Unfortunately, while I was reminiscing, Contestant #2, a PR spokesperson for a Silicon Valley software publisher, came up with the correct question, "Who was Cinemaware?" I started to add that Koel's upcoming ROMANCE OF THE THREE KINGDOMS IV was going to be a full-fledged multimedia product with hot graphics and lots of cinematic cut-scenes, but she was requesting Release Dates for $400 before I could speak. She missed, I buzzed, and asked, "What is BATTLECRUISER 3000AD?" to take the lead. Mission Studios is no longer funding the Derek Smart venture, but Smart expects to eventually upgrade the product to SVG, 32-bit code and global texture-mapping.

I chose Famous Game Designers for $300 and suddenly felt a stiletto heel trying to pierce my instep. To the answer, "Larry Holland," I was only able to utter a squeak as the lovely one asked, "Who is developing an adventure/strategy game set in a historical epoch for Microsoft?"

She gave me the smile, that sensuous little smirk that every female PR professional learns in Corporate Communications 101, at the same time she shifted her hips and gave me that clear body language signal that said, "Just getting your attention, sucker." Body language should be one of the cool features in Fujitsu's new online environment. They have purchased the LucasArts technology for Habitat, one of the early experiments in Multi-User Dungeon (MUD) design. The company has redesigned it as a new, fully animated graphic environment where you'll interact with people—animated body language, facial expressions and all. Code-named Reno, it is expected to be renamed and announced in March.

Meanwhile, she responded correctly to one of the Bad License answers, "Who was cross-promoting a 3-D action game with Hertz?" when we came to a commercial break. I told her that even with a bad license the game wouldn't be a total loss if the publisher was using Delphine's new engine. Electronic Arts is planning to publish a 3-D action game with a revolutionary new engine, and it will be set in the land of Delphine's FlashBack. You follow your 3-D character from an isometric view or play from a first-person perspective. You can use the keyboard to look right or left, just like in a flight simulator, and in addition to having lots of puzzles, you can aim your weapons and crouch behind cover.

She seemed so impressed that I asked her out to dinner after the show. Her answer? Release Dates for $400. I was sort of hoping for the $200 answer. 😊

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PHOENIX
FLIGHT & WEAPONS CONTROL SYSTEM

Take control of your elevators, ailerons, throttle, rudder, and flight and weapon commands with this unique two-handed joystick – the Phoenix Flight & Weapons Control System.

Each of the 24 buttons can be programmed using a graphical interface, designed for simplicity. The Phoenix is compatible with all games and flight simulators that support a standard joystick and keyboard controls. No special support is required.