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ROBERTA WILLIAMS

PHANTASMAGORIA

MULTIMEDIA CD COMING SOON
FEATURES

18 MAGICAL MYSTERY FUROR CGW’s Alan Einrich conjures images of Sid Meier’s Civilization, MASTER OF ORION and MAGIC: THE GATHERING in this sneak preview of the latest collaboration between SimTex and MicroProse, MASTER OF MAGIC. Find out the latest on the metamorphosis from MOO to MOM in this exclusive first look at the upcoming grand strategic game.

22 FASHIONABLE GAMES The Summer Consumer Electronics Show is the place for entertainment software publishers to show off their fall line-ups. In this 12-page report, we examine the dominant trends in entertainment software and provide a genre-by-genre summary of upcoming games.

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One of my favorite scenes in Star Trek VI: The Undiscovered Country was the one where the Klingon emissary observes that one cannot fully appreciate Shakespeare unless the lines are spoken in “the original Klingon.” Most of us laughed warmly because it was not only strange to think of hearing Shakespeare in anything but Elizabethan English, but it was also an unexpected twist on the revisionist history often propagated by Ensign Chekhov in the television show. Yet, it underscores the truth that you don’t have to stray too far from the facts before the entire issue is muddled.

That’s what worries me about the current crop of computer games. One reason I like computer games is that they are often an incentive to learn more about history. Unfortunately, we have entered a realm of revisionist history. Though it started on a pretty small scale, it has begun to escalate.

First, simulation publishers were removing Nazi symbolism from their digitized German war machines in order to allow export to Germany. Germany currently outlawed Nazi symbolism as part of their attempt to put the atrocities of World War II behind them. Unfortunately, hiding the unpleasant past does not usually exorcise its demons, and Germany is currently facing a significant neo-Nazi problem even without the legal presence of the swastika. My concern has always been that when you hide the horror under the table in one generation, the next generation may find itself fascinated by the distorted view of the horror which they have inherited.

Yet, symbolism seemed such a simple thing. I said nothing because I didn’t want to be accused of being pro-Nazi (though, I suppose every wargamer has been accused of that at one time or another) and, since the historical orders of battle hadn’t been tampered with, I thought I could live with that compromise.

Second, we began reading some on-line debate about Origin’s Pacific Strike. Many gamers seemed to be offended by the racial slurs with regard to the Japanese. We asked Origin about the language and were told that, on both sides, the epithets were authentic to the time period and the theater of war. The design team felt that anything less would be untrue to the period being simulated. Frankly, we had to agree with and even applaud the design team’s choice.

Third, we heard that MicroProse was removing the entire Waffen SS from their upcoming Across the Rhine game. Now, suddenly, the historical orders of battle are being corrupted due to revisionist thinking. Of course, we all know why they did it. The historical record is clear on the number of atrocities perpetrated by the SS. Yet, the fact is that there are villains in real life, and you can’t make everything better or even learn the lessons of history if you are simply going to erase the “bad guys” in order to create a “feel good” simulation.

But that’s not all. Two upcoming games on the colonial era will excise slavery from the reality they are simulating: Sid Meier’s Civilization from MicroProse and Impressions’ High Seas Trader (working title). Both design teams find the idea of slavery, much less the institution of slavery, to be repugnant, and both teams resist the idea of “rewarding” the gamer for behavior which is and was abominable.

This reminds me of the film at Mount Vernon where the narration explains that Washington abhorred slavery, so he left wording in his will so that, upon his and Martha’s deaths, his slaves would be freed. To me, that’s tantamount to saying, “I’ll correct this immoral practice as soon as it doesn’t cost me anything anymore!”

It is obvious that George didn’t find it economically viable to be moral in that circumstance. So, if slavery was such an important facet of the colonial economy that even the “father of our country” couldn’t figure out how to build a successful business without it, how do we expect to understand the period in which he lived without having the same simulated tools at our disposal? Maybe we would have some belated appreciation for those early slaves if we didn’t try to ignore the fact of their existence.

Of course, we know what the answer is going to be. The game designers will say that they “only put in the cool parts” of history. We hear that. Yet, while there is nothing wrong with emphasizing the most entertaining aspects of a historical situation, there is a danger in misrepresenting that historical situation. Maybe it doesn’t add credibility to the revisionist argument that Auschwitz never happened when we remove the Waffen SS from a computer game, but what happens when someone removes Auschwitz from a map? What happens when it is removed from the history books?

Removing the horrors of history from computer games may not be a grand conspiracy to whitewash history, but it may well be a dangerous first step.
Designing Venom

As expected, our new redesign has stirred up strong responses on both the pro and con sides of the coin. Here are some of the first responses.

As usual, the middle of the month rolls around and I race to my mailbox every day to see if the postman has delivered my copy of CGW. I imagine my surprise when I opened up the current issue (July '94). On the surface, the changes looked great. I like the new colors and breakdown—a top-notch job. However, I then began reading your "Rants & Raves" column. Before I even finished the two and a half columns of smoke blowing, I knew you were going to begin posting ratings on the game reviews (gag).

I really don't know where to begin. First off, I think it is a slap in the face to your reviewers. They work hard and deserve to have their entire column read. I regularly read every reviewer's column, even the ones on games I have no real interest in. I appreciate their writing skills and who knows, they may convince me into trying out the game they review. Every "kid" magazine dealing with game reviews on the planet uses ratings. All you have to do is read their reviews and you'll see why. They are usually cheap gloss-overs of the game. You state that it will be easier for some readers to see at a glance whether a game is worth it or not. I have been reading CGW for almost two years. If I want to get a quick look at a game, I read the last one or two paragraphs of the review, which almost always contains a conclusion and editorial recommendation on the game. In conclusion, I think the addition of ratings was a big mistake to add to your already magnificent adult gaming magazine.

William Manneberg
Rio Linda, CA

I've read some of the new issue. The magazine looks great, and it's still the same editorial content we know and love. Especially Scorpio! I'm sure Origin isn't too happy about that one! And there was no rebuttal from Johnny this time, either.

The mini-reviews don't bother me much, and, if they bring in a few more readers, great. I just hope that editorial doesn't mean there will be some "dumbing down" in the future. I like an intelligent publication that covers all of PC gaming with the respect it deserves. Remember your core audience, CGW. There are enough Sega/Nintendo/etc. books out there.

Jim Bush
GE/Envir Subscriber

I thoroughly enjoyed not just the well-thought reviews, but the profiles of programmers, as well. I don't know what your old format was, but I like the look of the magazine a great deal. I enjoyed reading about games I would ordinarily pass over, and may even buy a few.

Timothy J. Sayles
Mundelein, IL

This was my first issue of CGW and I read it cover to cover. I love the new look. I especially like the new rating system, particularly for games I may not otherwise consider—but if it gets a good rating, I give it a second look.

Chris Morse
Mukwonago, WI

WRITE THINKING

First, thanks for your excellent publication. Contrary to your

The 5th Wave

By Rich Tennant

Some of the worries expressed here and on-line about "dumbing down" the editorial content remind us of the old programming joke, "Real programmers don't comment their code. It was hard to program. It should be hard to understand." By making the magazine easier to navigate, we've not made it any less useful. Our two and a half columns of alleged smoke were actually a sincere attempt to show why our philosophy has shifted. Dr. Wilson's own misgivings about adding a ratings system have been adequately summarized in these letters from our readers, and we

5th Wave Game Tip: To increase CD-ROM access speed, punch the Enter key over and over again as rapidly as possible. The computer will sense your impatience and move your data along more quickly than if you just sat and waited. Hint: This also works on elevator buttons and crosswalk signals.
Medieval England 1268 A.D.

In this time of castles and conquests, the throne sits empty. Serfs are restless; rebellion is in the air. The Lords of the Realm invite you to join their ranks:

Build your castles. Marshal your resources. Test your troops in siege and battle.

Behold! Your lands grow and your serfs prosper. Your armies swell and your castles dot the hilltops. On bended knee, your knights swear eternal fealty.

Go for the Crown.
July editorial’s implication, although I’m one of those newcomers (having only played computer games and read CGW for three years), I devour the magazine from cover to cover monthly. I appreciate your unwavering commitment to objectively and critically covering the field, and especially your incessantly prodding the industry to reach for quality in their game designs.

This prodding has included recurring jabs at those who emphasize technology over gameplay, I feel a related problem has often been overlooked: the underutilization of good writing to enhance gameplay. As an example, I’ll cite the author of Victorian horror, H. P. Lovecraft. Lately, with products like ALONE IN THE DARK and THE 7TH GUEST on the scene, Lovecraft’s name has cropped up in reviews. He deserves far better than service as an icon for scary games in old houses. Without graphics and no sound card, Lovecraft used nothing more than a writer’s craftsmanship to create worlds of pure terror in the imaginations of his readers.

Careful attention to nuances like word choice, meter and rhythm, and pacing is just as powerful today, but the creators of computer games often fail to use this power. While some authors of games are clearly also wonderful authors of words, not all gifted designers are so doubly blessed. With these notable exceptions, designers now seem to be game designers and programmers first, and (other than crafters of the not-yet-dead text adventure) writers a distant second. Even if we overlook the embarrassing grade school products, poor word selection and emphasis unnecessarily dilute the punch of many adventure game screens. Additionally, the branching chain nature of modern games increase the writing challenge severalfold. Maintaining pacing for each player when readers may arrive at a text section after traveling different paths would tax any author, not matter how able. Unfortunately, I get the sense that often when skilled writers are involved, they are brought in later in the process to polish a nearly completed product.

Yet, companies need to realize that hiring skilled writers will make more money, not just please the English teachers. Involving writing professionals to aid designers from the beginning will ratchet quality up another notch, as story boards move past art and branched tree plotting is to be influenced by composition and flow. As this quality improves, games get more entertainment bang for the same technical buck; better rhythm for the jokes’ punchlines, better maintenance of mood and atmosphere, and profoundly better suspension of disbelief. Better games mean more fun, means better sales. As none other than Sid Meier said, “The best experience is when the game leaves the screen and enter the player’s imagination.” Writers like H. P. Lovecraft have ably demonstrated that language, not technology, is the most reliable way to “interface” the imagination. His example could have great impact on the industry.

David Morris
Sandusky, OH

We would have been remiss to have avoided mentioning H. P. Lovecraft in connection with ALONE IN THE DARK. The technology was developed while the French developer, Infogrames, was working on a CYTHIAMA licensed product (eventually SHADOW OF THE COMET). So, it was very much inspired by Lovecraftian lore. The 7TH GUEST references are a typical example of the media trying to telegraph atmosphere in a few words. You want to convey horror in a bygone era, you label it “Lovecraftian.” You want to convey sexual vampires, you describe it as being like Rice. You want to convey modern horror, you call it King-like or Barkerish. The media shorthand doesn’t make it so.

Unfortunately, simply adding professional writers who are used to working in a linear medium doesn’t make for the automatic upgrade in pacing and atmosphere to which you allude, either. Projects which have used professional writers have not exactly had sterling success. Douglas Adams followed up the best-selling HITCHHIKER’S GUIDE TO THE GALAXY by taking Infocom into publishing the ill-fated BUREAUCRACY, even though they wanted to publish RESTAURANT AT THE END OF THE UNIVERSE. Adams worked with at least, four designers on the ill-fated program. Science fiction author Larry Niven’s RINGWORLD did not use Niven’s expertise sufficiently to satisfy his fans, and Harlan Ellison’s I HAVE NO MOUTH AND I MUST SCREAM has taken considerably longer to reach the market than expected. So, adding even the best professional authors is not a guaranteed formula to ratcheting up success.

Nonetheless, we would definitely like to see continued improvement in story, characterization, and atmosphere. We definitely think the addition of professional, if not famous, authors at an early point in the process would improve the chances of attaining this improvement.

LONG LIVE THE STING

My compliments to Scorpio for seeing through all the glitz and hype and telling it like it is. Being an ULTIMA fan since IV came out for the Apple II, I couldn’t have said anything better than she did in her review of ULTIMA VIII.

Ahmed Sahet
New York, NY

CALLING A SPAD A SPAD

The sneak preview of WINGS OF GLORY had some inexcusable factual mistakes:

1) The gyroscopic effect of a rotary engine is due to the entire crankcase and cylinders rotating around the crankshaft, not to the firing sequence.

2) You did not hold the stick all the way back to fly a Camel. Actually, the plane was tail heavy and in level flight, it required forward pressure. In turns, it needed left rudder to counter the nose up (left) and nose down (right) engine torque effects.

3) The Sopwith Pup did not have poor performance, nor was it anemic. It was very nimble and its light wing loading gave it superiority over Albatrosses at high altitudes. R.F.C. pilots named it as the most delightful WWI flying machine.

4) The Spad S.XIII was not a bomber. It was a fast, tough fighter.

5) The S.E.5A was hardly anemic and its top wing mounted gun was not its sole virtue (nor was it used for balloon busting). It was one of the best fighters of the war, over 5,000 being made (compared to only 320 Fokker DR.s), and was favored by the top British aces Mick Mannock (73 kills) and Billy Bishop (72 kills).

Janisch, "Snake Eyes" Hamilton
San Francisco, CA

I guess this means you won’t be buying our upcoming book, All I Needed To Know About WWI Air Combat I Learned From Snoop Dogg And The Red Baron. Seriously, one of the virtues of the Interface column is that it gives our readers a chance to correct occasional errors. We sincerely hope you won’t have to write again when the actual review comes out on WINGS OF GLORY.
Slow moving, "choppy" graphics cost lives.

If this guy owned a MACH V, he'd still be here.

It's a cruel fact of computer gaming: better graphics demand more computer power. Smoother animation requires a higher frame-rate. Your eyes can see 30 frames every second. If your computer is doing anything less, your aircraft won't roll smoothly, your axe will miss the dragon right in front of you, and your shotgun won't put a dent in the demons.

And if you think today's games are demanding, just wait until you see tomorrow's!

The Falcon MACH V and MACH Vp are not your average computers. They were specifically designed with the needs of gamers in mind: extreme frame-rates, brutal amounts of CPU power, unreal hard disk transfer rates, and all of the multimedia and gaming extras that you'd normally have to add yourself. Sure, they're great for spreadsheets, word processing, and general business -- any computer can do that. When you're ready for something more, you're ready for a MACH V.

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Wing Commander $3 Million

High Profile Sequel Spawns Big Budget

Wing Commander III is reported to be nearing the $3 million mark. Informed sources indicate that Origin projected sales estimates at around 80,000 floppy disk, 200,000 CD-ROM and 50,000 SDO versions of the game in order for it to break even. If industry observers believed that computer games were a hit-driven industry before, setting such an aggressive budget virtually guarantees that the computer game business has entered a new era of product planning, financing and marketing.

One reason for the expensive budget was reputed to be the extra expenses incurred in signing a cast full of Hollywood professionals. Sources close to CGW indicate that Mark Hamill received $153,000 up front and an escalator clause for 1.75% of the net from CD-ROM sales past the 175,000 mark. In other words, Hamill’s contract calls for royalties even before Origin recoups their initial investment. Jason Bernard is reputed to have made $60,000 up front with no royalty agreement for his approximately three weeks of filming. Bernard’s agent reportedly figured that three weeks of filming was roughly equivalent to three episodes where Bernard plays Mr. Bracken on Herman’s Head. Bracken makes $20,000 per episode.

Other salaries are not as spectacular. Malcolm MacDowell’s $50,000 for playing the admiral pales beside the $100,000 sought by Charlton Heston’s agent to have “Moses” play the same role. Indeed, Tim Curry is alleged to have made nearly $40,000 for doing the voice-over for Hobbes, the Kilrathi pilot who flies for the good guys. Finally, Ginger Lynn Allen, the seductress of many an adult film, was only paid $10,000 for one of her first “legitimate” film credits.

Add to these costs those associated with manufacturing the Kilrathi puppets, the nearly $15,000 spent to purchase and process 16 millimeter film (only to discover that videotape served their digitizing needs better) and extensive programming resources used by the project. These and other expenses pushed the budget to the $2.8 million where it currently stands. If, as has happened with other Wing Commander titles, the project slips, the budget could even eclipse the $3 million mark.

—J. Wilson

Old Games Shine Like New

Origins Highlights The Convergence Of Board and Computer Gaming

At the recent Origins Game Convention in San Jose, the world of gaming showed that it was moving beyond its board wargame roots to embrace computer games in a multitude of ways. The trend of paper games “going digital” was a central theme at the show. GMT’s Gene Billingsley, who entered the boardgame industry from a computer background, is working with programmer Dan Masterson (GEnie’s HUNDRED YEARS’ WAR) on THE GREAT BATTLES OF ALEXANDER. The complex rules

ZOBERRANZAN, the game developed by DreamForge about the Dark Elf city described in the bestselling novel, The Legacy. On the 3DO, they showed SLAYER, a first-person hack and slash (a la DOOM) where gamers can play as one of the basic AD&D character classes.

With rumors of Mayfair’s EMPIRE BUILDER being released by QQP and Avalon Hill finally preparing to release THIRD REICH for the IBM, the mining of computer gold from the rich lode of strategy boardgames will continue to increase.

—T. Coleman
### 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. **Doom** (id Software)
2. **Master of Orion** (MicroProse)
3. **X-COM: UFO Defense** (MicroProse)
4. **The Elder Scrolls: Arena** (Bethesda)
5. **X-Wing** (LucasArts)
6. **SimCity 2000** (Maxis)
7. **Harpoon 2** (Three-Sixty)
8. **Privateer/Righteous Fire** (Origin Systems)
9. **1942: The Pacific Air War** (MicroProse)
10. **Ultima 8: Pagan** (Origin)

### Notable Quotes

*Wit, wisdom and caustic quips from gaming’s harshest critics*

- X-COM is an excellent all around game. I have not been able to go back to MOO. Now this is high praise. - **Nameless Space Grant, X-COM Base, U.S.A.**

- X-COM! X-COM! X-COM! It's taken over my life! (well, what there was of one...) - **David Goodby, Sacramento, CA**

- I don't get what the big deal about DOOM is. The graphics are great, but it is too monotonous. All you do is run around blowing away bad guys that are as dumb as mud. - **Steve Bodnar, Ambridge, PA**

- BETRAYAL AT KRONITOR is one of the best RPGs released in the last 3 years. Dynamix should realize that a good story is more important than a dungeon crawl. Kiss and make up with Raymond Feist and release a follow-up! - **T. Verpoorten, Plano, WI**

- WARLORDS 2 is a great game! It's so great that I often dream of what it would be like with modern play. Sigh... - **Rick Perry, Belcamp, MD**

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**Mysterious Press**, a Time Warner book publishing subsidiary. The team will add new areas and new crimes into the game, and will interact with players on-line. In addition, Major mystery writers will script special plots for players each quarter according to says Neil Harris, VP of Simutronics. Harris says MODUS OPERANDI is being moved from a mainframe to Unix to increase the number of players to approximately 1,000. Considered the first game to offer player interaction across multiple services, the game will enter beta testing later this year and is expected to go live early in '95.

— K. Brown
How To Make War

Air Force Hosts Gaming Conference

The largest concentration of military strategists and wargame designers outside of the Pentagon met recently for the Second Airpower Education & Commercial Wargaming Conference at Maxwell Air Force Base, Alabama. Like laser-guided missiles, wargame designers zeroed in on the conference, including: Jim Dunnigan (HUNDRED YEARS WAR), Larry Bond (HARPOON), Mark Baldwin (Empire/Empire Deluxe), Charles Moylan (FIGHTER COMMAND). They were joined by dozens of representatives from the military and “think-tank”-type commercial institutions.

Sponsored by the Air Command & Staff College (ACSC), the conferences review commercially available games to see if they can be adopted by military planners.

Colonel John A. Warden III, the ACSC Commandant, developed the concept for the air war in the Gulf (1990-1991). His book, The Air Campaign: Planning for Combat, is the contemporary Command of the Air, and in many respects, Colonel Warden is a contemporary Billy Mitchell-type advocate of air power. He noted that we now have the capability to wage parallel war. This differs from the traditional serial warfare, where a set of targets was selected and suppressed, followed by another set of targets, etc., until the enemy surrendered. Today, air power can strike all essential targets simultaneously — overwhelming the enemy and compelling a quicker resolution. In World War II, it took 900 bombs to strike a one-mile deep target; by Vietnam, it took 300 to hit a target of several hundred feet. Today, a 10 foot target requires a single bomb. While fewer aircraft are needed for effective strikes, technological superiority becomes essential.

The Conference offered demonstrations of both civilian and military games and simulations. The ACSC requires its students to prepare multimedia presentations rather than written theses. Among the more interesting presentations was a complete database of the armed forces illustrating basic concepts and employment of each service (e.g. the carrier battle group, the armor division, etc.). A strike plan presentation showed how each aircraft is employed and appropriate ammunition for various targets. Perhaps the most unusual project was an air war symphony. Colonel Warden has a chapter in his book entitled “The Orchestration of War”; a student used quotations from Beethoven and the makeup of a symphonic work in order to illustrate the analogy of theater strike planning.

The Airpower Conference gave both the military and civilian worlds the opportunity to see how a more efficient use of computer simulations can be made in the future.

— M.E. Brooks

Harpoon Targets GENie, Apogee Towers Over ZiffNet

Would-be fleet commanders should keep scanning their sonar screens for multi-player HARPOON coming soon to GENie. Fans of the Larry Bond-designed NATO-USSR naval war simulation will be able to take the helm of a single vessel, group of ships or an entire task force, controlling submarines, surface ships, naval and land-based air power. The PC game's fans will be happy to learn that the on-line version will resemble the earlier game, but defeating human opponents promises not to be as simple as beating AI.

Unless players crank up the game's time compression, that is. Ariel Butler, software engineer for Kesmai, which is developing the game for GENie, admits that time compression "can be used for nefarious purposes" in multi-player HARPOON. "We have left (time compression) alone. We'd rather think of this as a cooperative game. You collect a set of people you want to play with. You're playing with a small circle of people, like bridge. Let's see if you can come up with a gentlemen's agreement for controlling time compression. If it turns out we get too much abuse, we'll start growing controls into the software."

Butler noted it will be possible to launch a missile strike and speed up time, eliminating any possible defense. "If people do that to you," he says, "our position basically becomes, 'Why are you playing with that person?'

GENie's HARPOON is currently in beta testing and is expected to go on-line by the end of the year.

Also on GENie, AIR WARRIOR has been upgraded with light sources and smoke. Also, the AI has been improved for flam. And if you're not already a late night player, you might become one when you check out Apogee Software's latest production, Mystic Towers. The villagers are counting on you to use Baron Baldric's "Wolf Magic" to rid them of the evil monsters in the Lazairne Tower and, you guessed it, restore peace to the valley. The Lazairne staff fires both weapons and tactical spells—but you have only a few lives to overcome the traps, dark forces and waves of creatures oont to throttle you. Less violent than other Apogee games (rated 'E' for everyone), this game won't put you in the doghouse when you play it on Labor Day. Mystic Towers is located in library 7, Shareware Sizzle, of the "Computer Gaming World Forum" on ZiffNet. The file name is MYSTICZIP. All you have to do to have an affair in the cyburb is unzip it.
Estimated release dates are based on the latest information from game developers.

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BetaBits

Even though '94 seems to be a Year of the Baseball Sim, football fans still have plenty to cheer about, as MicroProse has completed their approach in Ultimate Football. Reacting to criticism that their CC Football was graphically inferior to other football simms, MicroProse has converted the graphics, adapting techniques used in the hit flight sim 1942: Pacific Air War. The players are much more three-dimensional and are fully textured, with more realistic and fluid movements. The statistical approach is similar to that of CC Football, with each player individually rated for speed, blocking, stamina, and a host of other athletic abilities. The designers have corrected the data errors from the prior product, and they also signed an agreement with Fantasy Sports Products to download NFL stats on a weekly basis. Injuries, trading and spot players can now be emphasized more realistically, making Ultimate Football a serious challenger to the dominance of Dynamix Front Page Sports Football Pro. MicroProse is so confident in the program, they have signed Marv Levy to endorse the product, and will be advertising on ESPN's Prime Monday grand football pregame show. Projected release: September/October.

The Pure Wargame

The folks at QQP are developing The Pure Wargame, which focuses on paratroop actions throughout WW11. Relive the confusion of Crete, the tension of Kanev and the surprise assault on the "impenetrable" fortress of Eben Emael in but a few of the historical scenarios. If you enjoy solitaire designed "what-if" scenarios, it's hard to pass up Folkestone, a hypothetical Operation Sea Lion battle, modeled on the actual German plans to invade England in 1940. The AI looks good, and the order of battle research has an authentic feel, especially for a game designed to be playable in an evening. Even though the interface is still being tweaked, the ease of use combined with digitized sound, message delays, and many other wargaming perks, should make this one of the most anticipated wargames in the pipeline. Projected release: October.

September 1994 • Computer Gaming World
You're not the first human to battle the ancient alien legacy.

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Fly over detailed planets in search of essential resources and clues.

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Available for IBM PC/compatibles. See your local retailer or call 1-800-757-7707 [offer 0843].

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ANTENNAE STRAINING, the warriors raise the flag above the carnage. A stink bug lets a big one rip, and yet another falls victim to the horrors of chemical warfare. Welcome to Battle Bugs.

With over fifty strategically demanding levels, you command the field of battle. On your IBM or compatible, plan campaigns and give orders to 22 different bugs – each with different tactical abilities and armaments – who will storm junk food targets like cheesecake, poptarts and pimento loaf. While mental toughness and tactical savvy will serve you well, you must first visit the nearest retail store or call 1-800-757-7707 to enlist your battle ready troops.

Will your armada of spiders cross the cola lake in time to save the flag? Will the suicide run of a kamikaze mosquito take out the praying mantis? At what cost? What price victory?
Now That MOO (MASTER OF ORION) Has Gone Forth To Milk The Milky Way For All It Is Worth, SimTex Comes Home To Find That MOM (MASTER OF MAGIC) Has Redecorated The House In A New Milieu

by Alan Emrich with Petra Schlunk

L
IKE ALCHEMISTS BLENDING BASIC ELEMENTS IN SEARCH OF A FORMULA FOR GOLD, ARCHMAGE STEVE Barcia and his college of conjurers at SimTex Software are laboring over a cauldron of code that they hope will coalesce into the next hit strategy game. Their current project, MASTER OF MAGIC (lovingly known as MOM), is being cast in the spirit of their previous hit strategy game, MASTER OF ORION (MOO). Fans of the award-winning science fiction game are likely to be as enchanted by MOM and her wizards as they were mesmerized by MOO's alien hordes.

At its core, MOM is another 4-X strategy game (eXplore, eXpand, eXploit and eXterminate) of world conquest in a fantastic land filled with monsters and magic. Following others in this genre, from SSI's SWORD OF ARAGON to SSG's WARLORDS II, MASTER OF MAGIC is filled with a lot of conceptual promise. However, innovation is not the driving force behind what might make MOM great. Instead, it is the masterful synthesis of several proven strategy game elements that gives this game its magic.

Notice The "Civililities"
With one look at the main map display, strategy fans will be smacked in the face by MOM's graphic similarity to Sid Meier's CIVILIZATION. Rather than re-invent the wheel (that's CIVILIZATION's thing, after all), and with considerable urging from their publisher, MicroProse, SimTex agreed to use a look-and-feel already familiar to legions of CIVILIZATION players. While most of these "Civilities" are apparent in the graphics, the kinship of these two games runs much deeper.
Since the map designs are similar, the style of exploration is very similar. As with CIVILIZATION, the early version of MOM has crudely drawn units that blink away madly as they await the player's movement order. When they do move, blackened "tiles" overlaying the nearby unexplored terrain are removed, revealing familiar land types and special resource squares. Fortunately, MOM also provides several new mineral types and mana "nodes" to discover (so many, in fact, the map ap-
HAMLET, SWEET HAMLET Wintergreen looks a lot like a town from Civilization, until you notice that pentagram on the front lawn.

pears almost cluttered with them). Also, MOM features a second map that must be conquered—an “alternate plane” of a darker nature where six races and some new resource types reside. Players move between these planes either by casting a spell of planar travel or via the Towers of Wizardry found on both maps.

Traversing MOM’s map seems a bit easier than it is in Civilization. Since you can usually conjure up a flying creature fairly quickly, there is no long wait to discover boats to expand your horizons, though you can build scaring vessels in any developed coastal city. Settler units can found new cities, although there are plenty of neutral cities to conquer, providing an alternative to raising new ones from scratch. Replacing Civilization’s civil engineering settlers are special engineer units that not only build roads, they also destroy city walls. New cities in MOM begin as worthless outposts, teetering on the brink of extinction for many turns until they build up to their first full population point and grow into a real city that can be managed by the player.

Again, like Civilization, MOM offers a battery of advisors to provide you with the information you’ll need to manage your empire effectively. These advisors are essential to your success, and include a surveyor (who identifies the various terrain types on the map), the cartographer (who presents the strategic overview maps of both planes), the apprentice (who holds your spell book and keeps track of this vast area of the game for you), the astrologer (who keeps you updated on the other wizards competing with you), the tax collector (who allows you to adjust your tax rate in increments of 5%—with a direct deleterious effect on growth as taxes are increased!), and a magic mirror that tells you about your own character.

Finally, the city displays will make a lot of players feel right at home. New buildings are constructed when enough local resources have been accumulated. Most buildings can be upgraded to higher levels, each adding another special ability to that city (i.e., collecting mana faster for the wizard, adding a new unit type that it can build). The little population symbols along the top of the city screen can be converted between worker types by clicking on them, just as in Civilization.

MOM, however, features a simplified urban economic system. For instance, there are only two kinds of people in the cities: workers and farmers (having a surplus of food is required to support units on the map). There are no Einsteins, Tax Collectors or “Elves” representing specialized workers as there are in Civilization. Also, players cannot place workers in the fields and, thus, optimize the local economy as they can in Civilization. Instead, the computer does this chore and, further, the rules prohibit cities from being built too close together, so there are no overlapping resources or terrain squares. Finally, there is a simplified trading mechanism that allows cities to convert production directly into gold instead of establishing trade routes as in Civilization.

Milked from MOO

If you’re going to graft various gaming ideas onto your latest game project, you should only steal from the best. Fortunately, for SimTex Software, among the best is their previous game, MOO. Some of the finest con-
MOM also features a tactical combat display, though with a slight change of view. Up to eight units from each side can fight it out in an arena viewed from an overhead, 45-degree perspective. Units move and fight individually in their initiative order. Plenty of graphic flare has been added to the battle sequences so that each spell and each unit's special ability has its own pyrotechnic counterpart. Players will have plenty to ponder as major battles unfold.

**Magic: The Smattering**

Since *Magic: The Gathering*, the cult trading card phenomena, is very popular with the crew at SimTex, it is only natural that the card game should influence the design of MOM. The five colors of magic, black/death, white/life, red/chaos, green/nature and blue/sorcery, form the cornerstone of the game's fantasy environment. Naturally, both games feature many of the same generic spells (lightning bolts, creature summons, etc.), although many spells in MOM are quite specific to it (some even destroy the map over time!).

One important similarity, though, is that some spells in each color of magic are Common, others are Uncommon, some are Rare, and the ultra-powerful are Very Rare. The ever-changing assortment of spells from which you can choose (spell choices are influenced by the areas of magic in which your wizard is specializing) will so mix the batter from game to game that the replay value of MOM may prove to be limitless.

**MOM's Apple Pie**

There is more to MOM, however, than its many similarities to other popular strategy games. Many elements, in fact, are quite original. The most important of these elements is the ability to custom design your wizard character at the start of each game. While several pre-fab wizards are available, being able to mix the right amount and type of spell books with special abilities such as alchemy, internal power, sage master and fame allows you to impact the type of game you will play even before the first fireball flies.

The individual units in the game give MOM a lot of her personality, too. Your minions gain experience over time, or more quickly if they survive battles. Furthermore, they can be enchanted and influenced by heroes, and heroes can be further enhanced by any magic items they possess. You can even create custom artifacts for your heroes! On top of that, each race's units have their own unique abilities (the Dark Elves are real killers, the Dwarves make great engineers, and Halflings are unbelievably good farmers).

**A Drake's Eye View of Combat**

While MOM uses a fairly standard integration of fantasy gimmickery in its combat system, it does spice it up with several new flavors. Since only eight units can stack together (and a unit can be anything from a legion of troops to a single hero), putting together "hit teams" of elite units is an important tactic (as it is in *Warlords II*). However, when in doubt, quantity is more important than quality in most battles.

What sets MOM apart, though, is the ability to cast magic in battles. Sure, heroes will have magic items that might do this or that, and you may even have a lesser wizard in the battle, pitching in some support, but it is your overshadowing presence that can turn the tide of any combat. Each turn, a certain percentage of your mana can be "saved to your "wand." In a battle, this mana can be used to cast spells to influence its outcome, either by raising new units or helping/hindering those already on the battlefield. Conserving mana for protracted campaigns is an important strategic consideration.

**That Magic Touch**

Like *Civilization* and MOO, MOM will only provide solitaire play. Even if the easiest multi-human player feature were added to the game (play-by-e-mail), it would have to be done by sacrificing the tactical combat element and making several changes to the diplomatic game to account for human-to-human player interaction. Although disappointing (multi-player play is the most requested enhancement for both *Civilization* and MOO, according to MicroProse), the strength of the solitaire play should more than compensate for the multi-player lack.

Though still only a vaporous image in the realm of development, MOM is no illusion. There is nothing here to dispel this simple truth: when MOM is released, it will very likely be a game worth summoning.
“Apogee does not make the best games!”

These are the words of Scott Miller, President of Apogee Software, Ltd. “Our games don’t have Hollywood actors, they don’t have five minute cinematics, and they don’t have TV quality, full-motion video that requires a CD-ROM drive. Quite simply, those elements don’t improve the actual gameplay.”

“What we do make is superb action games,” said Miller. “In fact, our slogan is: Apogee means Action! Every one of our 20 plus games deliver nonstop, undiluted action. It’s a market hole left wide open by the big game publishers, most of whom have the mentality that every game needs to be huge in size, with a bulky manual and a complex interface.”

Apogee started it all

Apogee is the innovative game developer/publisher that pioneered the shareware approach now known by those in the industry as the “Apogee Model.” Apogee’s revolutionary marketing approach is to release one part of a game as shareware, and sell the remaining episodes directly to their customers via 1-800-GAME-123 or by mail order.

The amazing rise and success of Apogee is a two-part story, based on their focused attention on pure action games and on their try-before-you-buy shareware marketing system.

“The way the Apogee Model works,” explained Miller, “would not work for many retail games because they absolutely must be fun or no one will buy them. The Apogee Model allows potential customers to try our games before they fork over their money. When players buy games from retail stores, they don’t have this opportunity. Instead, retail games are mostly sold by advertisements, hype and magazine reviews. We at Apogee, on the other hand, have pioneered an approach that allows players to sample our games first.”

“Codie” award, given to Apogee’s blockbuster hit, Wolfenstein 3-D (developed by id Software). Apogee games have earned over 100 international honors. “More importantly,” says Miller, “they’re fun to play.”

“Apogee represents one of the most remarkable, if unheralded success stories in the entertainment software industry.”

Electronic Games

Recent and upcoming releases such as Raptor, Wacky Wheels, Hocus Pocus, Rise of the Triad, Mystic Towers and Planet Strike have more than fortified Apogee’s position as the leader in PC action entertainment.

Try Apogee’s games for free

The huge Software Creations BBS, voted the most popular BBS in North America by readers of Boardwatch Magazine, has developed an alliance with Apogee to bring you all of Apogee’s shareware games for free.

Anyone with a modem can call Software Creations, sign on as a non-paying member, and download Apogee’s games from file section #1.

The BBS numbers to call:
508-365-2359 @ 2400 baud
508-368-7036 @ 9600 14.4kv.32bis
508-368-2032 @ 16.8-21.6kHST/DS
508-365-4035 @ 28.8k v.fast (v.fc)

If you’re looking for genuine action games with boundless energy and playability, look into Apogee. As their slogan says, “Apogee means Action!”

Action games win awards, too!

Even though Miller has said his company’s games are not the best, Apogee has racked up more than their share of awards, including the industry’s most prestigious award, the Software Publisher Association’s...
Fashionably Late

The aisles at the Summer Consumer Electronics Show are somewhat like the fashion show runways where leading designers unveil their fall fashions. Both types of shows are media events where every nuance and innuendo is analyzed and commented upon. Both types of shows are surrounded by enough energy and excitement to power their respective industries through the next few months of laborious effort necessary for those products to be on sale in the Fall.

Yet, both types of shows have one similar drawback. At a fashion show, you can see how that particular attire looks on a model, but it takes an educated guess to consider how it will look on your loved one once you get it home. At CES, you can see some of the graphics, hear a few sound effects, learn the game concepts and watch a demo, but you don’t know how it will play until months later. Unfortunately, where you can usually try on clothing before you have to make a buying decision, you usually don’t get to try out software before you buy it.

At Summer CES, CGW’s editorial staff is literally bombarded with hundreds of aesthetic impressions, sound bytes, marketing cliches and interviews/demos. We work hard to sort out the value from the fashion show aspects of CES and try to provide you with the information you need as Fall approaches. So, here is the CGW staff’s take on the technological, design and marketing trends for the rest of this year and
or Software Stylish?

Our summary of the products we expect to see between now and next summer's CES.

Evening Dress (Digitized Video)
Showing the versatility of their technology, for handling digitized video were numerous products trying to prove that their graphics were dressed for the Christmas sales season. Chromakey and Ulimate techniques (the blue screen/green screen techniques where live actors are juxtaposed with digitized sets) were to be found in abundance (Under A Killing Moon from Access, Sierra's Phantasmagoria, Mediavision's The Daedalus Encounter, Ocean's Central Intelligence, Trilobyte's The 11th Hour, Philips Media's Burn: Cycle and Merit's Psychotron), but some games will use video more extensively. For example, Tsunami decided that sets created via computer graphics would always look like computer graphics. So, they filmed their Flash Traffic: City of Angels game at actual location settings. Interaction, in this FBI vs. the terrorists technothriller, will primarily consist of branching responses within conversations, but there will be some action sequences to change the pace. Three different storylines are interwoven within the game.
Three-Piece Suits
(3-D Rendering)
Rendered 3-D characters and ships will continue to be the rage with many cutting edge products. Silicon Graphics machines and powerful modeling tools like Alias have taken their place alongside Autodesk's near-benchmark 3-D Studio and the graphics programs from Microsoft's newly acquired Softimage. In addition, both Time-Warner Interactive and Atari Jaguar developers announced that they would be using the GameWare Dynamation (3D graphics), GameWare Paint software/hardware, and GameWare Composer (2D graphics) from Wavefront Studios as a major part of their graphics toolsets for SGI machines. The influence of these high-powered graphics programs has touched nearly every company's product line. At this year's CES, Interplay hosted an impressive preview of Cyberia, a new product from Atari Interactive Design. This dark future adventure alternates between three-dimensional actors moving through rendered environments and fast-moving vehicles cruising over pre-rendered 3-D terrain. In addition, Interplay is using SGI machines to rework many of the graphics in their long-awaited Stonekeep game.

European products abound with this technology. In addition to Delphine's unnamed product being developed for Electronic Arts (see The Runaway Bug), Ocean is hard at work on Inferno, Time Warner Interactive is revamping Mirage's Rise of the Robots, Sales Curve Interactive is polishing Cyberwar (its sequel to Lawnmower Man) and Psygnosis is readying Novastorm and Ectopic.

Inferno is a space opera handled with lots of cinematic cut scenes, 3-D actors, plenty of action, and a very impressive soundtrack. Cyberwar uses three CDs worth of ray-traced graphics to lead gamers through multiple levels of cyberspace as they try to destroy the weapons left over from the last game. Rise of the Robots, as noted in last year's European trade show...
Bombarded with flashy graphics, sound bytes, marketing cliches, and demos, the CGW staff must filter the finest gameware from the merely fashionable.

(ECTS) report, is basically a horizontally scrolling fighting game with some very impressive 3-D robot warriors. NOVA STORM is a fast moving REBEL ASSAULT-style game with SGI-rendered graphics. ECSTATICA is similar to ALONE IN THE DARK, but features more puzzles, better graphics and an interesting concept where the gamer tours the subconscious of a comatose young girl and faces the demons of her dreams.

On the U.S. side, TAKE 2 cordially invites gamers to the theological locale of eternal punishment in HELL, a cyberpunk game with Dante'esque imagery where the government literally sends malcontents to an infernal locale full of robotic demons. Less diabolical but also with robotic overtones, TAKE 2's BUREAU 13 boasts the prettiest 3-D rendered mecha matrix since Sigourney battled the alien queen in ALIENS. The player controls a cast of characters who must solve puzzles to investigate mysterious phenomena and exterminate supernatural entities.

Speaking of killing, most gamers are aware of MERIT'S HARVESTER, a 3-D interactive slasher flick with some of the goriest graphics ever to splatter computer screens. Meanwhile, CRYSTAL DYNAMICS is using ALIAS to revamp STAR CONTROL II for the SDO platform, and WESTWOOD STUDIOS is using 3-D STUDIO to create the backgrounds for KYRANDIA 3. Though the plot for the latter is still a guarded secret, we were told that Malcolm will return sans magic.

In addition, SIERRA'S PHANTASMA CGU uses SGI-generated interiors for the sets upon which their digitized actors perform. SOFTWARE TOOLWORKS is also nearing completion on THE DRAGON'S TALE, a 3-D studio-designed fantasy role-playing adventure, as well as U.S.S. TITANIA: DEFENDER OF LIBERTY, a simulation of the modern missile cruiser which uses 3-D modeling to portray both crew members and action stations. Finally, even though SOFTWARE SORCERY wasn't ready to show FAST ATTACK BOATS, they did unveil PHOENIX FIGHTER, their space combat game complete with, you guessed it, 3-D Studio-created ships and weapons. Different views from the cockpit are available, but it wasn't entirely clear from the demo whether the game is free-form a la TIE FIGHTER and WING COMMANDER or more hardwired like REBEL ASSAULT, SHOCK WAVE and CYBERIA.

**Business Apparel**

(Network Games)

Many games are dressed to kill for the work environment. Networkable games are making more appearances than ever before. NEW WORLD'S ZEPHYR, MERIT'S FIGHTER WING, SPECTRUM HOLOBYTE'S FALCON 4 (working title), ACCOLADE'S HARDBALL 4, BLIZZARD ENTERTAINMENT'S WARCRAFT: ORCS AND HUMANS, and FLIGHT UNLIMITED FROM LOOKING GLASS TECHNOLOGIES are tres chic in this regard. In addition, the delayed MECHWARRIOR 2: THE CLANS FROM ACTIVISION and next year's METALTECH: BATTLEDROME FROM DYNAMIX are both expected to feature modem-to-modem support, if not additional modem support.

NET VICTORY The drama of human competition will hit the wide, wide world of network gaming later this year as products like NEW WORLD COMPUTING'S ZEPHYR and MERIT SOFTWARE'S FIGHTER WING swing into action.

Both ZEPHYR and METALTECH: BATTLEDROME are futuristic sporting events based on combat vehicles. The former offers futuristic tanks in a world where megarations sponsor talented hovercraft pilots. The latter offers a Solaris-style world as in the BATTLETECH novels, Japanese animation or the ROBOCOP movie where 'mech pilots battle it out for big money in a blood-thirsty version of spectator sports. ACTIVISION's newest MECHWARRIOR game features the huge robotic engines of destruction in a full combat environment, as does the non-modemable/non-network METALTECH: EARTHSIEGE which is expected to ship in the Fall from DYNAMIX.

Combat flight simulators have worn
TOP 10
Sayings Overheard At CES

10. Where's the EA (or Sega) booth?
9. Where's the party?
8. Why do I have to pay for drinks here, when they're free at the CGW party?
7. I think we're undergoing a paradigm shift.
6. We're planning to ship in the Fall, but don't hold me to that.
5. It has to ship by Christmas or we're fried.
4. And it has Silicon Graphics-rendered backgrounds!
3. Who's going to buy Ziff? (Immediately followed by the questioner's pet theories.)
2. What's the hottest thing you've seen? (Once asked only one hour after the show opened.)
1. It's like DOOM, but better!

Three Things Not Heard At The Show

3. We know it won't make any money, but we had to do it!
2. It's like MORTAL KOMBAT, only better!
1. It's got mediocre sound and graphics, but incredible gameplay.

For the gamer who wants to create his/her own world, construction and recruit new soldiers, Software Toolworks' METAL MARINES FOR WINDOWS (a cross between BATTLESHP and SimCity) and Accolade's BATTLE ISLE 2290 with its 3-D animated battle sequences will both feature futuristic combat via modem or network.

Sports gamers won't be left out of networking, either. HARDBALL 4 still features the play-by-play of Al Michaels, but now features VGA graphics in 640x480 with 256 colors and, best of all, modern network support. Statistics are dynamic throughout the season, and league play features limited trading (there is no real GM utility). Spectators will enjoy the 28 detailed stadiums and the computer-determined highlight reel.

RUNNER: THE LEGEND RETURNS. Not only does the game have luscious graphics and some nasty new traps to spring on the AI baddies, it also has an extremely versatile utility for creating custom levels. Indeed, Dynamix is shipping the same toolset they are using to create the levels for the new game with the new game, so gamers should be able to create commercial quality levels from the start.

Maxis is trying something completely different with CLICK 'N PLAY. Why are we not surprised? The software toy publisher is now producing a powerful object-oriented construction set that will enable gamers to create all sorts of games — pinball games, racing games, platform games and more. It's easy to use compared to earlier products such as Broderbund's ARCADE CONSTRUCTION SET and Electronic Arts' early ADVENTURE GAME CONSTRUCTION SET, and it offers commercial quality graphics, as well.

Finally, Viacom presented a multimedia toy/toolkit called NICKELODEON DIRECTOR'S LAB. Although it is not a game, it is an interesting product that brings together a paint program, some audio mixing utilities, a video clip library and a multimedia...
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Award-winning Epic Pinball offers realistically fluid ball movement, a high-quality sound track and ultra-smooth scrolling graphics. It's all here: ramps, sink holes, kickbacks, drop targets, multiple-ball play, jackpots, skill shots and scoring rules just like real pinball tables.

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"Epic Pinball rings up a high score" - Computer Gaming World
"Up there with the best of the commercial releases", rated 91% - PC Format
"Perfected to the peak of playability", rated 5/5 - PC Power

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Travel Apparel
(Adventure/RPG)

Color the futures dark in most of the adventure/role-playing ensembles being assembled for this season. Philips Media's Burn:Cycle is a cyberpunk adventure where the player assumes the role of Sol Cutter, a data thief who picks up a deadly virus called "Burn:Cycle" and has it downloaded directly into his brain. The player has two hours of real-time game time to solve the puzzles and get rid of the virus. LucasArts' Full Throttle is a graphic adventure by Tim Schafer (Day of the Tentacle) that has graphic novel-quality graphics and a plot that reads like a cross between The Fugitive and Marlon Brando's The Wild One. The player takes on the persona of Ben, the leader of a motorcycle gang, who is framed for a murder and must clear his name. As mentioned earlier, Take 2's Hell, is a world of bureaucratic control gone awry where nightmares come true.

Empire's Cyberspace uses the Iron Crown Enterprises' role-playing system to depict a world of megalopolis and high-tech crime, but the light palette and crude polygon-filled graphics can't match other offerings. Empire's DreamWeb, however, has a convincingly grim graphic look, plenty of violence and a wild plot involving a force called the DreamWeb. Players have to discover what the DreamWeb is and how to stop the evil forces that are trying to use it for nefarious goals. Merit's Harvest doesn't take place very far in the future, but The Order of the Harvest Moon (an elite secret society that controls everything in the game's world) is not an organization that anyone would want to meet outside of the on-screen world, and the graphics are both eerie and gory as the plot necessitates. Superhero League of Hoboken, the latest from Steve Meretzky and Legend, also takes place in a post-apocalyptic future. As noted in last issue's sneak preview, however, the hybrid adventure-role-playing game is done strictly for laughs. Speaking of superheroes, EA wasn't at CES to show Nocturnox, their graphic novel noir approach to superheroism which uses digitized video and backgrounds similar to Frank Miller's art, but the game should ship by November at the latest.

If the adventuring future seems dark, so is the past. 1-Motion's Alone in the Dark 3 moves its hero, Edward Carnby, through time to the Old American West (a favorite of the game's designers). Gunfights, rustlers, saloons and ancient Indian tribal myths are but a few of the elements awaiting horror fans. Enhancements to the game system include player control over camera angles and smoother 3D movement. The same company plans to release the second Call of Cthulhu game, Prisoner of Ice, for those who prefer the frightening universe of H.P. Lovecraft in a purer form. Prisoner of Ice takes players characters to the Mountain of Madness where Arctic adventures with evil Nazis, submarine rides, and the all too familiar multi-tentacled beings converge into an ominous adventure. Also, for those who are not superstitious, there is even a new graphic adventure game based on the Scottish play. Simon & Schuster Interactive is publishing Macbeth: The Game as a Macintosh CD-ROM adventure, and they're not afraid to call a thane a thane.

The present also has its elements of the fantastic. Perhaps, we should actually say, "Phantastic," since Roberta Williams' Phantomasmagoria is Sierra's talk about the modern owner of a house that used to be owned by a prestidigitator/illusionist. Evil threatens the young woman who must, struggle to discover the dreaded secret of the old manse.

Even younger gamers get a taste of delightful horror in Vicom's A Friend of the Dark. Based on the Nickelodeon television series of the same name, this CD-ROM game has the player "tell" a scary tale as part of his/her initiation into the Midnight Society. The production values make the game look like a cross between The 7th Guest and Myst, even though it was designed especially for younger gamers.

Modern police and detective adventures will also have their place in this year's ad-

STYLE COUNTS Graphics are becoming progressively more important in the adventure and role-playing genres. Publishers are using everything from cel animation and 3-D rendering through digitized video to take gamers to new and different worlds. (Clockwise from top left) Sierra's King Quest VII: The Princeless Bride uses cel animation to create screens that rival theatrical productions. LucasArts' Full Throttle offers a rich graphic look using their traditional tools. Merit Software uses several 3-D rendering techniques to build the Clive Barker-esque world of Harvest. Tsunami filmed all of its scenes on location for Flash Traffic: City of Angels.
Scope out the terrain.
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ventures/role-playing crop. Tsunami’s FlashTraffic: City of Angels and Mergit’s The Psychotron are interactive movies dealing with terrorists and spies, respectively. Interplay’s Voyeur is a direct port to IBM and Macintosh of the Robert Culp film developed for CD-i. Culp plays a powerful politician turned politician who finds himself embroiled in the kind of conspiracy H. Ross Perot may have only imagined. The gamer gets to watch the entire soap opera unfold through a computerized Rear Window perspective.

Two different styles of adventure games will also appear during the latter part of this year. Cyberflick will take gamers into the wild west in their new interactive movie, Dust: A Tale of the Wired West. Next, LucasArts, Sanctuary Woods, Legend, MediaVision and Paramount Interactive will take gamers into the far future of science fiction adventure. LucasArts has worked with Steven Spielberg on The Dig. Loosely based on an original Amazing Stories television script, the game has been through several designers and iterations on its way to its upcoming extra-terrestrial encounter. LucasArts has also worked with world-famous Industrial Light & Magic in order to create several special effects for the game and expects this to be the first of many successful collaborations between the game division and the special effects house. Sanctuary Woods will be distributing the sequel to the well-received Journeyman Project — Buried in Time. MediaVision’s The Daedalus Encounter is a kindler, gentler Alien where the salvage crew working on an alien spacecraft finds that they need a non-violent solution to their problem. Legend’s Mission Critical places the player in the position of having to repair his cruiser and counter-attack the enemy, even though the rest of his crew is dead. The adventure features strategic and tactical combat elements in addition to typical adventure game puzzles. Of course, Paramount will publish an adventure game based on their Deep Space Nine property. Like many adventure games in the present crop, Deep Space Nine will be conversation-driven. Gamers will play one of four different characters, each from one of the four major races in the television series’ universe. Conversations are handled via emotional compass points and is delivered by voice actors. No text are displayed on screen.

Naturally, the traditional fantasy genre has not been ignored. Bethesda Softworks will release the second product in their Elder Scrolls saga with next year’s Daggerfall. The 3-D engine is better, the conversations will be richer, and the world will hang together more realistically. As good as Arena is, Daggerfall has the potential to eclipse it.

Another 3-D fantasy role-playing game is Domark’s Lords of Midnight. The game uses real-time action and boasts the capacity to fight entire wars from a first-person perspective. As noted earlier, Interplay has raised the ante on their 3-D workmanship on the long-awaited Stonekeep, and they will also publish the sequel to the award-winning Dungeon Master — Dungeon Master II.

Several fantasy games will feature quality animation reminiscent of traditional cel-based animation. Most impressive was the Disneyesque movement and backgrounds of The Princess Bride, Sierra’s King’s Quest VII. Fans of animation will also enjoy Interplay’s Kingdom: The Far Reaches, a point-and-click adventure with very fluid animation that draws gamers into a world of dark magic and ancient prophecies, and MediaVision’s Discworld: The Problem With Dragons, a delightful adventure featuring full-screen animation and a virtually transparent interface.

Strategic Simulations, Inc. will wind down their relationship with TSR by publishing the next Dark Sun game, Dark Sun: Wake of the Ravager, and a role-playing game dealing with the dark elves of Menzbírrranzan. The latter is a creation from DreamForge, the developers of Ravenloft and Dungeon Hack. It is based
Join The Battle!

Zephyr is the ultimate 3-D, futuristic tank simulator from New World Computing. Strap yourself behind the control panel of a state-of-the-art Zephyr battle craft and blast the competition to atoms. Pilot your Zephyr through subway systems, under water, and over alien landscapes as you vie for fame, glory, and corporate sponsorship.
Meet Mutt. He's grouchy. He's grumpy. But hey, let's face it, a little time in the underworld can make anyone a little edgy. And now Mutt has a problem. You see, he was chosen to get the Mystical Pizza of Plenty for his friends. And with all due respect to the eternally damned, the service in the underworld really sucks. In "Lilil Devil," you can help Mutt as he makes his way through five soul-repenting levels in the Labyrinth of Chaos. Along the way you'll encounter gigantic spiders, demonic fish, and a few other things your priest never warned you about. All in a search for a double pepperoni with cheese. A few hours with Mutt, and you'll really appreciate that 30-minute-free-delivery thing.
on the best-selling novel, The Legacy. Another best-selling fantasy novel, Death Gate, will be brought to the computer screen in glorious SVGA color from Legend. Death Gate will feature the Xanthi interface with the best art yet seen from the company.

Another venerable player in the fantasy role-playing market is Sir-Tech Software. Their Wizardry series is about to get a face-lift, due to their new venture with Europe’s Delphine Software. The new, as yet untitled Wizardry, is graphically a cross between Ultima Underworld and Dungeon Hack. We especially liked the autowalk feature and the intriguing aboriginal theme. We also like the new Cartographer and Beast Master skills, as well as the expanded roles for thieves. Finally, Star Trail is the sequel to Realms of Arkania. It sounds like the game will function much smoother in combat and that skills will mean more than they did in the first game of the series.

**Flight Suits (Simulation)**
As usual the field of simulation games will “dress right”—military style. Software Sorcery wasn’t quite ready to show their follow-up to AEGIS, but they did tell us it was to be called Fast Attack Boats. Aficionados of naval combat shouldn’t be disappointed, however, since Dynamix is nearing completion of their WWII U-boat simulation, Aces of the Deep, which was described in earlier reports, and Software Toolworks announced a modern simulation called U.S.S. Ticonderoga, based on the modern missile cruiser. Matthew Stibbe, the Oxford historian turned designer of Imperium (the classic “space-plottigation” game from Electronic Arts), has assembled a team to develop the product.

Modern air warfare will also be simulated in Tornado: Operation Desert Storm. This is a campaign version on CD-ROM of a simulation originally distributed in the U.S. by Spectrum HoloByte. Acclaimed in the original release for its extremely realistic approach to mission planning, this new edition will be distributed by Trimark Interactive and features 18 Desert Storm missions in addition to 54 generic European combat missions. Those who prefer air-to-air combat may be more interested in Mission Studios’ JetFighter III. The latest in the JetFighter series, JetFighter III will allow you to pilot F-14s, F-16s, F-18s and F-22s, as well as simulate training missions out of California’s Miramar Naval Air Station and Nevada’s Nellis Air Force Base.

Those looking for more modern warfare on the ground will need to turn to Novalogic’s Armored Fist, the near-future game of armored combat using voxel-graphics to depict such vehicles as the M1A2 Abrams, M3 Bradley IFV, T-80, and BMP. The graphics are similar to those in the company’s Comanche: Maximum Overkill, and, as noted earlier, the game allows you to create your own battles with the built-in construction set.

Domark is focusing on WWII with their next two simulations. World War II enables DOS gamers to fly missions during D-Day and the Battle of Midway, and Out of the Sun allows owners of the new Macintosh to fly in Midway or the Battle of Britain. In addition, the former allows owners of Flight Sim Toolkit to add improved AI to their dogfighting routines.

---

**A SIM FOR ALL SEASONS** Domark continues their Flight Sim Toolkit saga with FST: World War II, with everything from B-17s to Buzz bombs at your command. Meanwhile, Empire Software has imported a graphically appealing flight sim for aficionados of WWII air combat, entitled Dawn Patrol.
Since WWII wasn’t purely won in the air. MicroProse is releasing 1944: Across the Rhine. MicroProse continues to combine the best elements of strategy gaming and simulation in order to create fascinating, playable products, but see this issue’s editorial for some comments on their handling of historical orders of battle.

Empire Software goes back to WWII with their upcoming simulation, Dawn Patrol. The new challenger to Damon Slaye’s classic Red Baron will allow gamers to fly 15 different aircraft in a nice looking, texture-mapped 640 x 400 resolution.

Active Wear (Action)

The action category will showcase both a traditional and non-traditional look during the fall season. First, there are plenty of games that will remind you of old favorites. As noted earlier, Dynamix’ Lode Runner: The Legend Returns, the quintessential platform game on personal computers, has been reincarnated with new traps and gorgeous SVGA graphics. The original AI was so good that some of it was kept for the new incarnation. GEX is a 3DO platform game from Crystal Dynamics which features a gecko lizard with an attitude in place of the bobcats, hedgehogs and Italian plumbers usually seen in these games, and a lot of “B” movie satire not usually seen in this style game. 21st Century Entertainment’s Pinball Arcade for CD-ROM features eight different pinball games to play and more than 100 classic machines to “explore” via a built-in multimedia pinball museum. Those looking for space combat games reminiscent of Stellar 7 and Starglider will find them complete with 3D rendered ships and controller-breaking action in Psygnosis’ Novastorm and Crystal Dynamics’ Total Eclipse (3DO). In addition, Bethesda Softworks’ Delta V offers something of the same feat in a cyberspace motif. Jeff Tunnell’s The Incredible Machine is even imitated in a real-time puzzle game from Merit Software called Sink or Swim.

A new Tetris-style game from Spectrum Holobyte will be called Breakthru and will launch a new line of such games. In this one, gamers try to destroy the wall of colored bricks that fills the “well” by clicking on adjacent bricks of the same color. It is a very flexible real-time game and as addictive as the original. There is also a new Lemmings game coming out from Psygnosis. Lemmings 3 will feature much larger animated characters and, like Lemmings 2, some new types of lemmings. Even those looking for a more socially acceptable form of horizontal scrolling combat than that found in Mortal Kombat will enjoy Skullcracker from Cyberflix (which has monsters going after each other and creating lots of blood and gore instead of realistic looking people) and Rise of the Robots from Time-Warner (where robots go at each other instead of people). Another group of releases that will fit into the action set will include games that aren’t quite simulations (since they don’t model anything real in our experience), but use similar technology (physics models and polygon-filled graphics with attendant texture maps and gouraud (sic) shading). Both the MetalTech series from Dynamix and Activision’s MechWarrior 2: The Clans are examples of this genre, and both are taking longer than expected. These games owe their inspiration to Japanese animated videos with giant robots and powered armor. MetalTech: Earth Siege will arrive in the marketplace this year and MetalTech: Battledrome won’t appear until 1995 (largely because of its modern capability). Activision is cautiously optimistic that MechWarrior 2 will reach store shelves in late November. Software Sorcery’s Phoenix Fighter will feature 3-D Studio-rendered weapons and space combat from a first-person perspective. Velocity Software’s Ski or Die is a jet-ski racing game with an emphasis on fast action and fun as competitors jump from one jet ski to another, frantically dodging civilians and sharks. Like the two games Velocity wasn’t showing, Quarian (a futuristic game of armored infantry versus (continued on page 146)
According to the old wisdom, if you build a better mousetrap, the word will be a path to your door. The new wisdom has modified the adage with a warning: beware those who will set up shop along your path and sell imitations of your trap. This CES the new mousetrap was DOOM, and the 3-D full scrolling, intense action games — aka DOOM Toos — were out in force. Some were good imitations, some pretty mediocre by comparison, many trying to add new innovations to the 3-D action concept, but all described as "like DOOM, but better."

On the silly side of the DOOM Tool games is The Fortress of Dr. Radinsky from Merit Software. This 3-D bloodfest has some great texture-mapped walls and 3-D Studio rendered baddies that include a sword waving Samurai, a slithering lizard creature, and a toaster-headed robot that spews overly-crisp toast when destroyed. Dr. Radinsky's fortress will have 15-20 levels and will only allow a single player under its roof.

One of the more exciting DOOM Tool games is coming your way from LucasArts. Dark Forces is a first-person trek into the Star Wars universe, where waves of StormTroopers will take the place of DOOM's imp. The 3-D texture-mapped and gouraud shaded environment of the Empire's base looks terrific, and the world mechanics enable you to look up and down, jump and duck. It will even support the new Forte helmet for those who really want to be seduced by the Dark Side of the digitized Force. Unfortunately, Rebel soldiers will only be able to battle the Dark Side alone — no multiplayer option.

Capstone will be following up its Wolfenstein-like Cannon 7 with a new 3-D scroller, Body Count. Here, you play a member of a special forces team assigned to eradicate the ungodly horde of terrorists that have taken over the U.N. Towers. Your team will climb 40 floors of booby-trapped hallways and fire-bombed rooms as you make your way to the hostages held on the top floor. Body Count will support modem and network play, but even when playing solo you'll be accompanied by three computer-controlled squad members. We'll have to see how the AI works out on that feature.

Tired of demons, terrorists, samurai, and lizardmen? SSI's CyCrones takes gamers to Belleville, WI. Belleville is purported to be the "UFO Capital of the World," so the game is, naturally, a science-fiction DOOM where players face invading aliens in a 3-D environment. For those who tend to get dizzy and lose their sense of direction, the game includes an interesting isometric auto-mapping using polygons. The mission-based game features five different missions of increasing difficulty, uses full-motion video for the cinematic sequences, and is being developed for SSI by DreamForge, those nocturnal folk who brought you Ravenheart. SSI's Slayer for 3DO is a next-generation Dungeon Hack. The random dungeon generator creates billions (the company claims four billion) of possible dungeons and comes equipped with tools to customize the number of levels, monsters, traps and puzzles. Also, gamers aren't stuck with one character type, since they can create A&D characters to use in several different dungeons.

One DOOM Tool game is even going to be DOOM-like in its distribution plan. Interplay's Descent puts gamers in a vehicle that travels in a true 360 degree 3-D environment. The interplanetary mining vehicle not only flies horizontally through the levels of the mines of Pluto, but it has to travel vertically through mine shafts as well. It even has AI that learns from the player as the adventure continues. Although the graphics are only VGA, the 39 levels of 3-D alien blasting are designed to work on 386DX-33 and up.

As for the future, we also saw some Macintosh graphics from Sage Technology. Frankly, they blow the DOOM graphics away. We particularly liked the real-time expanding and contracting wall orifices and the ability to edit worlds on the fly within the 3D perspective! Lighting, perspective, and color palette can all be changed instantly. Again, this was a technology demonstration and not a game, but we can't wait to see their DOOM Tool. Unfortunately, upcoming titles or subjects have not been announced.

We'll leave it to our readers to determine if any of these DOOM Tool games will actually be a better mousetrap — or, more accurately,-time trap.
DELTA V

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In Delta V, a new type of Virtual Reality has been brought to the PC!
“So chummer, you want to know about runnin?"

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END

—GROTHAN JHIR, ex-Netrunner.

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Circle Reader Service #217
Something Old, Something New

As we all know by now, it has been a rather dismal spring/summer in the area of adventure and CRPG games. Releases have been few and far between, though the situation will probably be very different once the usual Holiday rush begins.

Things were looking a bit grim for this issue, with no new product for me to talk about, when Psygnosis released HEXX: HERESY OF THE WIZARD. It showed up near the end of the month (of course), which didn't leave a whole lot of playing time, but I jumped into it, fairly confident of getting it done in time for the column.

Then I took a little detour: I finally got a CD-ROM drive! Naturally, I had to try out my new toy, and the first thing I bought for it was a game I had been eager to play for a long time, THE 7TH GUEST. I was only going to fool with it for an hour or so before getting back to HEXX. Then I looked at the old invisible clock on the wall and noticed it was tea time, and tea time is usually about 7:30 in the evening. Somehow, that one hour had stretched into six and half.

As it turned out, I finished THE 7TH GUEST but not HEXX. So this month, the Sting is a look at both games. I can't do a full scale review of HEXX since I haven't finished it (yet), but I got far enough to get a pretty good feel for it.

HEXX is a typical dungeon crawl in the DUNGEON MASTER/EYE OF THE BEHOLDER mold. Your party of four hacks its way through various towers using the age old principle, "if it moves, kill it." The only interaction with NPCs is in the shops, and that is restricted to simple buying and selling. The shops are in the dungeon; there are no outdoors, towns, etc.

An evil wizard captured the spirits of the four gods of magic and imprisoned them in crystals, which were scattered amongst four towers. Your job is to recover the crystals, freeing the gods.

Instead of creating a character, you choose from a pool of pre-created characters, comprised of four fighters, four mages, four rangers and four assassins. You are not bound to take one of each; the party may be composed of all four mages or two rangers and two assassins, or whatever.

Everyone can use magic, by Scorpia
although mages are naturally best at it. Each character is dedicated to a particular magic school (one for each of the four gods), but can learn spells from any of the others. New spells can only be learned from the gods, and only after gaining a new experience level. Mages get a new spell every level, rangers every two levels, assassins every three, and fighters every fourth level.

The perspective is standard 3D, you are there, but with the full motion of an Ultima Underworld rather than the step-by-step of Dungeon Master. Movement can be made with either the keyboard (which allows for all motions) or the mouse. I found the mouse to work well for continued fast movement, and the keyboard better when the party had to move carefully or slowly.

Combat is simple and automatic. By left-clicking on the fight icon when an opponent is near, all characters with ready weapons will attack and will keep attacking at targets in range. A right click (or the space bar) will begin combat, and also send off any readied spells. Spells are for one round only; to cast more, you have to right click or hit the space bar again.

Spells can also be cast individually by bringing up the readied spell of one party member. Any spell of whatever type can be cast at any time. To some extent, this makes fighting easier; you don’t have to whip the mouse around clicking on individuals to make them fight or cast spells. Since all fighting is real time, that’s a big advantage.

However, even with that, matters become complicated after your characters have learned a few spells. Trying to maneuver the party in a fight while flipping through spell books is not easy.

My own experience so far is that it is best to have someone ready with either Terr or Confuse spells. These spells cause your opponents to move away from you for a time, thereby allowing you to beat them without resistance. In all fights in which I didn’t use that spell, my party had a hard time and often lost the combat. Sometimes even with it, the party was trapped, because these opponents (all more or less humanoid to this point; I haven’t run into any slavering, beast-type critters yet) are very tough.

They have a lot of hit points. In one combat, I watched as my assassin backstabbed a retreating target, hitting three times for 90+ damage points per shot, and the thing was still going. Monsters hit hard, too. The two characters up front have well over 200 hit points, but those points melt away pretty fast.

The front line takes a lot of damage, and whoever is in the front right position seems to get hit the most. My ranger is in that spot, and I’ve lost track of the number of times he has died and died first. The monsters just seem to pick that spot as the target of choice.

Fortunately, resurrection has no negative consequences. Characters are revived with full hit points and stats; the only loss suffered is the experience points for the combat in which they died (which is reasonable). There is a resurrection spell, and also restoration chambers can be...
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from floppy. So while *The 7th Guest* may be "old news" in one sense, for a lot of gamers, it's still very new.

*The 7th Guest* is one of the most visually beautiful games I've ever seen. The graphic presentation is stunning, and that, along with good musical scores and the background story, is the secret of the game's success.

Puzzle games generally don't do all that well in the marketplace. They show up, linger a while, and then vanish beneath the sea of titles on the shelves, however good or ingenious the puzzles may be.

*The 7th Guest* escapes that fate by wrapping the puzzles up in a mystery and visual drama that plays itself out as you progress through the game. You don't know who you are, or why you're there, except that you must go through all the rooms of a creepy old house and solve all the puzzles in them.

The house was built back in the '30s by Henry Stauf, a toymaker who was something worse than mad. He invited six guests one night, and after that, none were ever seen again. The house has stood deserted (of the living) since then.

When you enter a room for the first time, you see a ghostly re-enactment of some event that happened in the past. When you finish the puzzle, you generally get another little drama, and there may be others yet lurking about the room that you can find by moving the cursor around.

The interface is quite simple, with the cursor changing to different forms as you move it around the screen. Beckoning skeletal hands show in which directions you can move; a skull with a pulsing brain indicates the puzzle spot; the drama mask indicates a ghostly vignette; chattering teeth are for little sur-

**UNEXPECTED GUEST** Scorpius's feeling a lot less lonely since she dropped by Stauf's house to visit some spirited friends.

This is a good game for people who enjoy puzzles of manipulation and position rather than, say, jigsaws and anagrams. There are little games where you exchange the positions of black and white bishops, or black and white knights, and even that old chestnut, the Eight Queens problem, is there, too.

Sorry to say, you'll have to traverse a nasty little maze to get to one puzzle. There is a map for this, although you'll have to transcribe it to a sheet of paper for use when the time comes.

One puzzle I didn't do involves microscopic amoebas. This is an Othello variant where you try to get your critters to engulf the enemy. I have no talent for strategy games and, after a few hours of embarrassing results, resorted to the library book for the solution. Fortunately, this one lapse on my part didn't affect the ending.

The game ran flawlessly on my double speed CD drive, using the Gravis Max card and MegaEm to emulate Roland Sound Canvas (music) and Sound Blaster (effects and voices). This is the first time in quite a while that I haven't experienced a technical problem.

Overall, I enjoyed *The 7th Guest* more than so far this year—not only as a change of pace from the endless dungeon corridors, but because it's a beautifully crafted piece of work. The fancy graphics alone, or the puzzles alone, wouldn't have made it. Together, they create a satisfying whole. Anyone with a CD drive, who is looking for puzzles outside the usual adventure game fare, should certainly consider *The 7th Guest*. 

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Circle Reader Service #109
It Has A Familiar Ring

Tsunami Returns With RETURN TO RINGWORLD

by Charles Ardai

Today's lesson, class, falls under the heading: "Be Careful What You Wish For, You Might Get It." Back when the first Ringworld game came out, I was one of several reviewers who griped that Tsunami had pretty much missed the point of Larry Niven's classic SF novel, which was that the eponymous Ringworld was huge—many millions of times the size of the Earth—and home to an almost unimaginably varied and extensive population. Ringworld, the game, was strictly episodic and most of the half dozen episodes it contained were fairly brief; as a result, the game conveyed none of the Ringworld's immensity and offered too little content to satisfy an experienced adventure gamer.

Taking this criticism to heart, Tsunami has gone out of its way to make the sequel, RETURN TO RINGWORLD, roomy and difficult—for which they deserve my thanks, and the thanks of the legions of gamers who bought Ringworld only to find themselves breezing from start to finish in a single session. However, they also deserve some fresh criticism. The new game is big and it is difficult; but it is big and difficult in what I regret to report are some very annoying ways.

When they get their first assignment, I think all game designers should be tattooed on the forehead with the motto, "It's fun or it's nothing." That way, any time they find themselves unsure of what to put the player through next and say to themselves, "Hey, I know, how about another maze?" they would catch sight of their reflection in the monitor and force themselves to come up with something better. RETURN TO RINGWORLD could certainly have benefited from that sort of sanity check. All it would have taken is for someone to have said, "When players realize that they have to backtrack through 25 screens of snow and ice, will they be excited or disgusted?"

I won't leave you guessing as to my reaction: I was disgusted, not the first time, when I made the frosty trek as human explorer Quinn McQuarry, or even the second time, when I covered the same ground as Quinn's furry Kzin cohort, Seeker of Vengeance, but the third time, when, having just plowed through a hundred-screen vampire lair (which was an ordeal in itself), I found that I had to go back and forth through the ice village yet again. 'Tedium' is too kind a word for this sort of thing—it's torture, pure and simple.

It's also a shame. Though by no means a great game, in all other respects RETURN TO RINGWORLD is a much better game than its predecessor. It's got a more compelling storyline, better graphics in its movie scenes, and a couple of very clever puzzles, plus some excellent voice acting in the CD-ROM edition. The game will be a dream come true for Niven fans who have always wondered how to pronounce words like "kzii" and "tructipun." There is even a little card game thrown in as a bonus and, as computer card games go, it's not bad at all.

But plenty of gamers will never get to enjoy all that is good about RETURN TO RINGWORLD, simply because they won't have the superhuman patience required to wade through all the padding. In a well-intended effort to do better the second time around and to give gamers what they asked for, I'm afraid that Tsunami has just managed to shoot itself in the other foot.

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lucky, they might even turn up some evidence that will clear their names? So, after effecting repairs on their stolen ship, they set a course for their old stomping ground.

No sooner have they arrived, however, than they stumble across another plot, this one even more sinister than the first. Agents of the interstellar United Nations have been slaughtering innocent aliens and laying waste to the landscape while hunting for more samples of the powerful, ancient technology Quinn turned up at the end of the first game. Psychotic U.N. General Carson Teal is out to conquer the universe, you see, and with the secrets of the Ringworld at his disposal, he might just be able to pull it off. It's up to you to stop him.

Like the first game, Return to Ringworld can be divided into roughly half a dozen segments, though not as neatly, in part because this time the characters split up and have to be controlled separately. Miranda is captured and thrown in the U.N. Brig; her job is to escape. Seeker is stranded on an icy mountain-top and has to carry out a quest for the natives before he can get down. Quinn, who is still the central figure, has to do all sorts of things, from jumping off a ledge with a helium balloon strapped to his back to constructing a spaceship out of spare parts when he and Seeker get stranded on the Ringworld's outer wall. The various sequences dovetail nicely, and the chance to switch from character to character makes the game feel somewhat less rigidly linear than Ringworld.

If there is a weakness to the game's writing, it's not in the plotting, but in the dialogue, which is as cheesy as can be. General Teal doesn't have a mustache, but you imagine that if he did, he'd twirl its ends like a villain in a silent movie—he's always storming around being ominously polite and saying things like, "Revenge? Such an ugly word. I prefer 'divine retribution.'" The other characters' lines are no better. It's all rather embarrassingly melodramatic, all the more so by comparison to the source material; Larry Niven may not be the best writer in the world, or even in science fiction, but his dialogue is Shakespeare compared to the stuff that writers Ken Allen and Susan Frischer have cooked up.

Working very hard to keep the player from erupting into peals of hyena-like laughter over the overripe dialogue are the game's voice actors, who for the most part are quite good. Quinn, as played by Paddy Myers, speaks in a satisfyingly world-weary, self-assured brogue. Seeker is gruff but seductive: Dan Clarke conjures a voice somewhere between Lt. Worf's from "Star Trek: The Next Generation" and the Beast's from "Beauty and the Beast." Gordon Moore has the thankless assignment of delivering Teal's lines, and he does better with them than most actors would.

On the downside, Cindy Schoonmaker's Miranda is whiny and nasal, and has a habit of emphasizing the wrong words in each sentence. The Ringworld natives, primitive but oh-so-noble, can similarly be a trial to listen to, especially Fred Bologna's orphaned alien ghoul, whose dramatic line readings call to mind a different luncheon meat.

WITH THIS RING...

Return to Ringworld has other shortcomings as well, including some of the usual ones for a Tsunami game. For instance, I found three persistent bugs, one of which crashed my system repeatedly in the endgame.

Also, it's clear that Tsunami is still unwilling to hire a proofreader, since the package contains numerous errors that a competent editor would have caught, such as my personal favorite, a line from the game's box: "Explore countless virtual environments, including...the denizens of the Vampires." (Perhaps they mean the "den" of the Vampires? The "demense"? A denizen, after all, is an inhabitant.)

There is also the matter of what vampires and ghouls are doing in a science fiction game to begin with. Niven could get away with it in a novel, because he'd construct a rigorous scientific explanation and then a primitive mythological overlay; here, thrown in with little explanation, they seem a peculiar choice at best, at worst a desperate attempt to find something, anything, to fill up the game.

Still, the biggest problem is that in trying to flesh out the Ringworld environment, the designers have expanded the space unreasonably. It is fine that Seeker has to climb down three or four
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screens of empty elevator shaft before reaching his destination—not that watching these screens go by is fun, mind you, but it does convey the size of the place and is tolerable. But when you have to go past screen after screen in a high-speed train before you even find the elevator; when you have to canvass a 600-screen section of the Ring wall to find the spaceship pieces you need; when you have to go through a duct

mazes, and a maintenance tunnel maze, and an icy city maze, and a "flip tube" maze; and when you have to cross empty screen after empty screen to get where you are going solely because the designers listened to people like yours truly who foolishly complained that the first game was too small, you just give up. Life's too short; it's not worth spending several hours of it sending a little man across an empty computer screen.

What could Tsunami have done instead? I don't know. Maybe they could have included a feature that would let you just jump to the location you wish to reach after you have been through a given maze once. Maybe they could have devised mazes that had exits at both ends, not just one. Or maybe they could have licensed a different novel to turn into a game.

I do know that they could have taken greater pains not to bore the player—that's the cardinal sin of computer game design, as it is of filmmaking, novel writing, and any other part of the entertainment business, and Tsunami commits it egregiously here. RETURN TO RINGWORLD reminds me of a bowl of raisin bran: the raisins are tasty, but unless you have the stomach to digest all the bran surrounding them, you're probably better off ordering something else.

THE EDITORS SPEAK

RETURN TO RINGWORLD

RATING ⭐⭐⭐

PROS Strong, hard SF puzzles featuring lots of odd alien technology. Decent voice acting, and a good deal of "Niveniana" for the hard-core fan.

CONS Lots of empty screens and too many mazes, and you've got to cross (and re-cross) every last one.

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Inca Nations of Immortality

More Baffling French Sensibilities
In Sierra's Inca II

by Charles Ardai

The Inca games are like someone's nutty uncle. They look odd, they tell strange stories that no one quite gets, they behave unpredictably and sometimes embarrass you, but they also fascinate you, almost in spite of themselves. Imported from France, the original Inca told the story of an ancient, star-faring Incan civilization, with the player cast in the role of a warrior named Eldorado who had a mystical prophecy to fulfill. Along the way, Eldorado had to battle conquistadors in outer-space galleons, more than one sword-waving nemesis, and the queasy feeling brought on by soaring through too many swooping, trippy animations.

In the sequel, Eldorado is back for more interstellar adventuring, though this time the next generation gets to take the helm of the ancestral cheese-wedge spaceship: Atahualpa, Eldorado's son, who looks like Buster Keaton on a particularly depressing day and sounds like Gilbert Gottfried with PMS. (Most of the male characters sound like Gilbert Gottfried, strangely enough, but more on that anon.)

The game begins when Dad, now an Establishment Conservative who has to think of how he looks to the war council, refuses Atahualpa's plea to let him take the family spaceship out for a spin. Junior bonks a guard on the head with a log, steals the ship, and heads into orbit to check out an asteroid that has mysteriously turned up in the neighborhood.

The ensuing space combat sequence—one of several in the game—is almost good enough to make you forget the goofy movie and puzzle sequences that preceded it. Soon enough, though, you're back in la-la land, when Sonny Boy blows up and Eldorado has to come to the rescue. The remainder of the game follows Eldorado and new pal Kelt Carrier, a flight googgle-clad Indiana Jones wannabe, as they hop from planet to planet in an effort to stop rival warlord Aguirre from harnessing the power of the asteroid to rule the universe.

What sort of adventures do they have? Plenty of first-person outer-space dogfights and the chance to repulse a raid on a moving locomotive, for starters. There are also numerous traditional adventure game puzzles for them to solve, though these tend to be pretty simple, and a maze for them to navigate. In between each pair of game sequences, short movies bring the player up to date on the latest plot developments.

The kindest thing you can say about Inca II is that it looks great most of the time, particularly in the movie sequences that feature the game's various spaceships gliding through one confrontation after another. These scenes are as good as the computer-generated sequences from the TV series Babylon 5 or the film The Last Starfighter, which says a lot, considering the relative power of the computers used to create and display them.

Unfortunately, the spaceships eventually have to land and disgorge their passengers and, once on-screen, the passengers can't resist the urge to open their mouths. Once they do that, there's no hope. When it starts to talk, Inca II makes the films skeddered on Mystery Science Theater 3000 look like high art.

DON'T KNOW SQUAT

"I bet," says Eldorado to Kelt Carrier upon entering a cave and sniffing around, "that some gold prospectors have squatted here."

Yes, it's the glory of translation, with all the potential for unintended absurdity and embarrassment you might expect. Not only are all the characters in the game obviously speaking some language other than English since their lips keep moving long after the overdubbed English audio track stops, but the lines they speak, which probably were not gems of literary expression to begin with, have been turned by the translators into dreck of the first order. Dialogue this stiff and cliché would be laughed off a movie screen; even the deliberately crappy films produced by such direct-to-video distributors as Troma or Prism are better written.

What's more, Troma and Prism films have a sense of humor about how bad they are, something the very serious-of-purpose Inca II lacks utterly. The voice actors are, without exception, depressing-ly awful, but they seem to think that they are Master Thespians who have been
Coming This Fall on IBM CD-ROM.
TUMI-ACHE The artwork is gorgeous, but it's still no proof against the tedium of the lackluster space combat.

hired to perform Shakespeare. The ponderousness is oppressive, the hair-tearing and breast-beating just plain silly. There is more ham on display in this game than in a Bear's Head factory tour.

Of course, even good actors would have a hard time with this material. It is never entirely clear who these Incas are that we are watching. Similarly unclear is the "where" and "when" of the story. At one point a character mentions Earth, but none of the planet-hopping appears to take place in our solar system, judging by the appearance of the planets themselves.

So where does an Earth-style locomotive come from, on a planet far from Earth? Don't ask. That's just one of the many disjointed pieces INCA II offers in its rambling tableau. Nothing is attached logically to anything else. It all reminds me of a child who, unable to find the pieces that actually go together, forces two jigsaw puzzle pieces to join in a dissonant but firm union, and presents the result to you with a look of enormous satisfaction. Alas, what is satisfying to the budding artist who has managed, by force of will, to link the unlinkable is baffling to the viewer who has to make heads or tails of the picture that results.

BLOOD RED INCA

To the "not much fun" list you can add the locomotive battle sequence, where aiming at the center of the screen and shooting blindly is the best way to carry the day. But if you write this scene off, too, what's left to enjoy? Two things, basically: the dogfights and the great animation. Just how good are the dogfights? They're enjoyable...but no more than that. There is a good variety of weapons at the player's disposal and opponents on whom to test them out. The player's "tumi," a ship that looks a little like a stone doorstop, handles well, and the sensation of flying in the vacuum is successfully conveyed.

Problem is, despite some dart-and-chase activity as foreplay, when the battles get hot and heavy, they frequently end with the tumi barreling down on an essentially immobile foe, guns blazing. Even when three bad guys go after you at once, they tend to attack politely, one at a time—until the endgame, anyway, when it is more like fifty-against-one.

Novices may find themselves enjoying these space battles, but those whose flight training has included WING COMMANDER or X-Wing are more likely to find themselves yawning and turning on their internal autopilot. Even gamers who find the scenes challenging at first will no doubt have mastered them (and tired of them) by the ninth or tenth repetition.

If INCA II's dogfights are fair, the adventure game elements limp, and the acting dismal, what does the game have to offer? The answer is its art, and very little else. Jaded starfighters will gape right along with the novices when the computer cuts away from the first-person view of a battle to show a gorgeous side-view clip of the ships in action.

Whenever Eldorado brings the tumi in for a landing, the graphics are breathtaking. A thunderstorm outside an Arctic lamasery is genuinely thrilling, as is Kelt's climactic entrance at the head of an armada of boomerang-shaped tri-planes. The same "anything goes" quality that makes the storyline so incoherent adds vitality and excitement to the visuals. You never know what you'll see next, zooming across the screen, and the anticipation as each new sequence loads is exciting. To the extent that INCA II is worth any attention at all, this is why.

INCA II contains some of the best animation ever seen in a computer game. But then it doesn't do anything with this animation, except attach it to some dreadful dramatic scenes, some utterly minor adventure gaming, and an action game which, though tolerable, is far from being the best of its kind. INCA II is fun to watch, but it isn't all that much fun to play. The designers tacitly acknowledge and heighten this imbalance by including a "video" feature that allows players to replay their favorite movie sequences and a "demo" feature that displays some of the best scenes, but not a "save game" feature or any real, storyline-altering interactivity.

I applaud Sierra's decision to give this unique and occasionally stunning title a shot at the U.S. market, but I urge them and their French counterparts at Cokil Vision to give their next game a better shot, by the simple expedient of making it a better game.

THE EDITORS SPEAK

INCA 2: NATIONS OF IMMORTALITY

RATING ★★★

PROS Gorgeous animation makes the so-so space combat simulation look better than it actually is, and gives you a reward for playing through the low-grade adventure game sequences.

CONS Unless you like watching Frenchmen in weird get-ups and hearing untalented voice-over actors deliver hokey lines worse than the post office delivers your mail, this game will get on your nerves very fast.

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A Thorn in Hitler’s Side

Blazkowicz Hurls The Spear Of Destiny Once Again

by Paul Hyman

When we last left “B.J.” Blazkowicz, he had nabbed the Spear of Destiny from Adolph Hitler and all was right with the Allied Forces. While his name may not be instantly recognizable, the popular hero of Wolfenstein 3-D and its sequel, Spear of Destiny (Spear), has returned via two new mission disks from FormGen, the folks who published the original game for id Software.

Legend has it that the Spear was the weapon used to pierce the side of Christ when he was nailed to the cross, and that no man can be defeated with the Spear in his possession. It is, of course, left to you to wrest this all-powerful weapon from Hitler and his henchmen, who (as dastardly villains are wont to do) have managed to procure the Spear once again.

The first add-on disk, Mission 2: Return To Danger, has 21 levels, but that only takes you halfway to the Spear. Don’t expect to complete the mission until you’ve blasted your way through 21 more levels on the second disk, Mission 3: Ultimate Challenge. Whether you’re up to another 42 levels of Wolf 3-D-like action really depends on how much you enjoyed the original game and how anxious you are to tackle more of the same.

Although the battle takes place not in Castle Wolfenstein but in Hitler’s new atomic research laboratory, the look of the new Spear levels will be instantly recognizable. Each level begins with B.J. in an elevator, the door slides open with a clank, and all hell breaks loose.

As in the earlier games, the task at hand is to scout the corridors and rooms for keys, “one ups,” weapons, food, and ammo—anything that will keep B.J. alive while he searches for that next elevator. There are prizes that award points along the way, but survival, rather than point counting, is the ultimate goal. While most of the baddies are the same as in the original game, there have been some changes. There are still plenty of armed-to-the-teeth guards, officers, and the infamous SS, but the mutants have been replaced by machine gun-wielding vampire bats. A new cast of bosses will challenge you, led by the lobotomized Submarine Willy, mad scientist Professor Quarkblitz, Major Hans “The Axe” von Schlichten sporting his dual chainguns, and more. The trick to survival is saving your game frequently before enemy bullets do their worst.

Gamers will notice immediately the improvement in the graphic details as well as the greater variation in musical themes and sounds. The growls of the killer Dobermans, for example, are more menacing, and the soldiers no longer just shout “Achtung!” but “Alarm!” (“Danger!”), “Glück gwahnt!” (“You were lucky!”), “Mammit!” (“Mommy!”), and “Ahh! Das tut weh!” (“Ow! That hurts!”).

Another development suggest the game designers’ took pity on frustrated players. In previous versions, to find and open hidden doorways, it was necessary to “feel” along every wall. Now, more times than not, a dead rat laying next to a wall is a clue that the wall is worth further investigation. According to the manual, when the Nazis enter a secret area, a rat occasionally gets splattered when the wall moves. Purists who would rather find secrets without the aid of squashed rats may also resent the detailed floor plans in the manual which can make winning Spear a breeze. At least, the manual can
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But one thing never changes for B.J., and that's the violence. When Wolfenstein was first released in 1992, parents were horrified. Not only were their kids shooting Nazis (which wasn't so bad) but also guarding dogs (which was bad), and the screams and blood were too much. Adding to the realism was the game's unique 3D, first-person perspective. Some players got caught up in racing down the hallways that reported symptoms of seasickness from the illusion of rapid movement. Thankfully none of that has changed; Spear is still as satisfyingly violent and is still voluntarily rated PC-13 for "profound carnage," and parents should still use their best discretion with the youngsters.

Owners of less-than-leading edge PCs will appreciate one more aspect of Spear. The game moves like lightning, even on a lowly 386SX machine. If that doesn't impress you, try playing the currently popular Doom on the same machine. While Doom may have a superior look to Spear, it moves like quicksand on older machines.

Wolfenstein and Spear have been widely imitated, but, for our money, only Doom has improved on the thrills and excitement of the originals. This set is well worth spending quality carnage time on, at least while we're waiting for Doom II to be released.

The Editors Speak

**Spear of Destiny**

**Rating:** ★★/2

**Pros:** Great for action gamers whose computers are not up to Doom's tough standards.

**Cons:** MOTIFS—More of the same SS soldiers and graphics which are beginning to look dated.

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This Column Sucks

I was sitting at my desk minding my own business when a co-worker walked in my office. "Have you heard? We have to use a different system to access Internet news groups. Here are the new instructions." He handed me a small piece of paper listing commands and directories I'd need soon.

Using the new information, I signed on to my new computer. Everything was different. My old news reading program was long gone, replaced by what could no doubt be a better, more advanced successor. I executed the new program, and after an hour of beating unfamiliar keys, deciphering cryptic error messages, and rereading the same exact message about a dozen times I finally exclaimed in finest Beavis and Butthead fashion, "This sucks!" (Bear with me, I'm building up to something.)

After about another hour I'd deciphered most of the arcane messages and strained a few muscles in my left hand learning new, convoluted key combinations, but I found myself moving semi-intelligently through various news groups. Success at last! It took a couple of hours, I had to unlearn a few things and change a few expectations, but I finally beat the unattainable creature into submission. I won't say I liked the new program better than my trusty, well-proven news reader of the bygone era, but the new program was not totally inept and did show a few remote signs of being rather useful. (Honest, I'm building towards a point.)

I promptly "bopped" (highly technical Internet jargon) over to one of my favorite news groups, comp.binaries.bm.pcgames.flight-sims where I found a massive discussion of the fledgling 1942: Pacific Air War that had hit store shelves mere hours before. The subject lines were brief, direct, and generally binary in nature: "PAW is cool" or "PAW sucks."

Naturally, the message threads surrounding these subject lines were more complex and diversified: a few results of initial exploration, some complaints regarding hardware aids, questions over real-world operations, and a minority who had totally written the product off as garbage. One poster gleefully exclaimed, "I played this thing an hour, I hate it, and I'm taking it back to the store tonight." (Wake up, we're hitting that big point now!)

Unable to believe my eyes, I began a ranting dissertation directed at no one in particular. An hour? A whole whopping hour? How much can you really find out in an hour? I remember discovering surprises

RANTS ABOUT
GAMING IN A ONE-HOUR-PHOTO
SOCIETY

Fans of campaign-oriented combat flight sims will enjoy the intelligence coming in concerning Carrier Wing, the new Iverson/Grace team-up at Electronic Arts. The new sim will feature a built-in campaign with very detailed custom AI for each of the campaign scenarios plus the capacity to create random scenarios with a more general AI by using the mission creation utility. The campaign will emphasize resource management by giving the player a limited supply of weapons and aircraft to get through the campaign. If the player fails, he could end up having to use the default reinforcements of A-7s for the rest of the game. The campaign takes place in a fictional near-future where the U.S. is allied with an independent Ukraine. So, gamers will have a chance to fly F-14s, F-18s, F-22s, A-7s and SU-27s. Our imaging technology indicates that pilots will usually fly two missions per day during the campaign, and the game will feature video debriefing scene.

by Tom "KC" Basham

(Continued on page 78)
in FALCON 3.0 after flying several hundred hours. Why, I recall having flown FALCON 3.0 for several weeks when I stumbled on a target I couldn’t radar lock. I closed to visual range and saw two black dots moving below the horizon. Curious, I moved in closer and my jaw nearly hit the floor when I recognized the faceted shape of two F-117s. You can’t even explore all facets of a flight envelope in an hour, how could you possibly condemn the program? Why, it took longer than an hour for me to figure out this stupid news reader.

I had to stop and ponder what I had just said. In a mere hour, I’d condemned the new news reader as total garbage. I only proceeded with it because my favorite system was nearing extinction and I was forced to learn the new reader or give up Internet news groups. I began to rationalize how a flight simulator was significantly more complex than a simple news reader and that a sim justified longer learning curves, but that argument was far from sufficient to get me out of the contradiction I found myself in.

The new news reader irritated me because it did not conform to what I knew. It took significant thought to perform tasks I used to do automatically with little or no thought at all. The new news reader didn’t meet my expectations and that was a source of unending and intolerable grief. Only after considerable digging did I finally realize the depth the new news reader offered. I then remembered when I tried a beta version of MicroProse’s F-14 Fleet Defender. Beta versions rarely include comprehensive documentation since the manual is still being written. After struggling for a few hours with a foreign menu system and keyboard layout, I walked away from the program with a headache. The next day I played some more and was hooked. Soon I boasted Fleet Defender’s triumphs all over CompuServe.

So here’s the big point: First, every new product gets tons of hype before it ships. Every publisher describes their product as “revolutionary” or “ground breaking” or “unprecedented,” etc. Nobody is going to advertise their product as “average” or “about the same as FALCON 3.0.” That’s not what advertising is about. Second, human nature causes us to stick to what we know and to exercise anything even remotely different. So, we wind up imagining a magnificent breakthrough in home entertainment technology that somehow conforms to the friendly, familiar structure we’re used to. Such expectations can only lead to disappointment.

Now, I’m not saying we should embrace every product that comes our way. Some products do suck, or more accurately, some products completely fail to meet the needs of a given user. I’m simply suggesting that we not be too hasty in passing judgment. A well-designed program will have many layers and hidden aspects that take time to explore. I flew FALCON 3.0 for months before I found the backpackers in the Grand Canyon or saw the soldiers leap from burning tanks. Simulation users would fail if they judged every product just on the premise of what it is.

Every publisher describes their product as “revolutionary” or “ground breaking” or “unprecedented,” etc. Nobody is going to advertise their product as “average” or “about the same as FALCON 3.0.”

Unfortunately, hardware and software conflicts are a fact of PC life. If you haven’t encountered one yet, you will. It’s just a matter of time. I work hard to keep my gaming machine in peak condition, but invariably find myself pondering interrupt requests, memory managers, and device drivers. There are so many different hardware configurations out there, so many different software packages, so many cloned items that approximate (but not duplicate) functionality that it is impossible for simulation publishers to prepare for all eventualities. Most simulation publishers are trying to squeeze every minute drop of performance out of the PC through less-than-standard means. The potential for failure always lurks inside your PC awaiting the right software package. Fortunately, most of these problems are solvable, although they may take time. I’m not suggesting you shouldn’t get angry in this situation; just understand that the odds are you will suffer a hardware/software conflict someday.

OK, so what about the product that just doesn’t work or just isn’t what you like? If the product really doesn’t meet your needs you have three options: 1) provide constructive feedback to the publisher about your likes and dislikes, 2) return the product, 3) put the product on a shelf and forget it. I fully support anyone who says, “I don’t like this product so I’m taking it back,” as long as they’ve spent enough time with the product to make that determination. How long is enough time? That varies with each individual and each product. In general, though, I’d say one gaming session is not enough.

Ultimately, each user must determine their own threshold and tolerance for computer-induced pain. Just remember that ground breaking revolutions in simulation software usually force a new way of thinking on the user. Those generally willing to adapt to the new system often find creative new worlds awaiting them.

RADAR (continued from page 77)

quences after each.

For those who want to rub shoulders with real people in addition to pixel pilots, our early warning system indicates that there will be a 1994 Air Warrior Convention from September 1 through September 4 at the Hyatt Fair Lakes in Fairfax, Virginia. The conference costs $100 (in addition to room charges) to cover food, bus trip to the National Air and Space Museum, head-to-head competition, presentations by CH Products and Thundermaster, and an awards dinner for the tournament winners. For more information, contact Gary Cooper on the Internet at coop@digex.com. For room reservations, call (703) 818-1234 or (800) 233-1234.
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More Than Atmosphere
The Flight Plan For Looking Glass Technologies’ FLIGHT UNLIMITED
by Johnny L. Wilson

As a pilot, physicist and programmer, Seamus Blackley brings an ideal mix of skills and interest to the world of flight simulation. With FLIGHT UNLIMITED, Looking Glass Technologies will both launch their first product under their own label (they previously developed the Ultima Underworld series and System Shock for Origin), and simultaneously offer an entirely new approach to simulated flight. Not only will FLIGHT UNLIMITED feature the most photo-realistic terrain ever seen in a PC flight sim, it also offers a new approach to modeling flight, and the most transparent interface that the designers could possibly imagine.

When Blackley and his Looking Glass flight crew started working on FLIGHT UNLIMITED, it was their goal to produce, “Not a game, but a playground.” Their stated goal was to model the flight experience, as opposed to merely replicating the plane itself. Further, they wanted a program that would be totally accessible to novices, because it didn’t rely upon a complex interface with keyboard overlays or require would-be pilots to infer that polygons represented terrain. Instead, computer pilots would get the opportunity to work with full-screen or split-screen views (the latter offering peripheral perspective) on a standard monitor and a real 3-D cockpit (built off six angular perspectives for users who have Cybermax goggles or the Forte headset.

The good news for hot rod computer users is that powerful machines will be able to fly in a hi-res mode (1024 x 768) that features photo-realistic terrain with relief; the bad news is that the program slows down so much in that resolution that most pilots would consider it unacceptable for doing anything other than ground gazing. Those with 486/50s can take heart that the program is being developed on that performance level, but it is primarily designed and optimized for high performance Pentiums. Because of this, the program’s performance requirements are steeper than a power climb in an F-15 with both burners lit. Even on a Pentium 90, the unfinished FLIGHT UNLIMITED flew below 8 frames per second at the optimal 640 x 480 resolution with detail set at the highest level. While code refinements may improve that rate, gamers with 486s will probably need a 486/66 with local bus video just to fly the sim smoothly in 320 x 200. Regardless of machine or res mode, the software manages to update instruments on the cockpit panel at a frame rate twice the speed of the rest of the sim. (Check out the frame rate meter in the alpha version cockpit pictured below. It is

THIS IS FOR REAL Ground detail shows surpassing realism in 640 x 480 as the Sukhoi SU31 carves riverine canyons near Sedona, Arizona.

SNEAK PREVIEW Game Still In Development

LOOKS COUNT
Instead of building polygon-based terrain from geographical survey data, the team decided to work off aerial photographs to build their photo-realistic world. The real
Trick is to find enough color aerial photos so that they can stereo-match the photos and create texture maps based on the highest level of detail possible. As a result, the game doesn’t look like a lot of simulators. The only time it really looks typical is when buildings pop up close to the plane and the program uses a shaded voxel technology to represent the 3-D shapes, or when a pilot flies beyond the detailed 13-mile square regions of stereo matched photography. Then, the program must use data to build polygon-filled terrain that “fakes it” until the plane reaches the next detailed area.

The painstaking details are more than just “eye-candy” for computer pilots. All of the terrain in the 13 mile squares is active. This means that simulated emergency landings can take place in fields, on mesas, and along highways if you so desire. Thus, the simulated world seems more real than in simulators where you can only go from one airport “hot spot” in the program to another.

The interface also looks a little different. All flights begin in what Looking Glass calls an F.B.O. (Fixed Base of Operations). These are rendered 3-D environments where you walk and look around using the mouse and joystick. Initial points of embarkation (Yucca and Sedona, AZ, as well as Aspen, CO, grace the alpha version we examined) and up to 25 different flight lessons can be accessed by looking at a 3-D bulletin board, moving the joystick to highlight a desired notice, and pressing a button. The flight lessons include: rolls, loops, half-loops, Immelmanns, Cuban Eights, Reserve Cuban Eights, hammerheads, spins, snap rolls, tailslides, inverted spins, vertical rolls, knife-edge flight, hesitation rolls, square loops and rolling circles.

The airplanes are selected by a different means. There is a 3-D desk in each F.B.O. with model planes revolving on the desk. In fact, each one of these models is being rendered on the fly as it rotates. As the desired plane is bathed in a light-sourced highlight, a simple click puts you in the cockpit and, more importantly, if you want to skip take-offs and landings and get right to the entertaining aerobatic stuff, in the air. Airplanes expected to appear in the final product include the Bellanca Decathlon, Pitts Special S-2B, Extra 300S, Sukhoi SU31, P-51 and Grob 103 Aerobatic Sailplane.

**Physical Education**

Where most flight simulators work off a basic flight model built from the performance characteristics of the aircraft, FLIGHT UNLIMITED factors in more than one physical model. Many flight simulators simply gather the available data on a plane from measurements taken in a wind tunnel. However, such measurements do not take into consideration the fluid dynamics of atmospheric behavior and their relationship to a given maneuver or angle. Blackley observed that such models do not take radial Gs, control reversal, pitch oscillation, and other phenomena into account. Not only does the simulation figure in the performance characteristics of the aircraft, but it also models the fluid dynamics of the atmosphere around the aircraft and the G forces which affect the pilot’s head. Blackley explained that, “Flying is about feeling the atmosphere and reacting to it. By not simulating the actual atmosphere, other flight simulations left me feeling cold. As a pilot, I knew that there were aerobatic maneuvers that I wanted to try on a computer sim that just didn’t act like my experiences in the air. Because of the way we’ve modeled the air around the airplane, as well as the plane, this may very well be the first aerobatic flight model in the world.”

To get the feel of the atmosphere, Blackley performs some very in-depth physics calculations. The computer sets up some boundary conditions for both the airplane’s performance and the atmospheric model. Then, the program checks all the maps for changes in elevation, as well as such man-made terrain effects as parking lots. Modeling updrafts and wind convergence for mountain passes and valleys may seem relatively elementary, but the program assumes that parking lots full of metal cars will give off heat which rises and creates turbulence. The turbulence then affects the atmosphere around the plane and, in turn, by adapting the boundary conditions for the atmosphere, impacts the performance of the aircraft. Other flight models work off the idea of the “angle of attack” (where the air hits the structure of the plane), but FLIGHT UNLIMITED models the atmosphere so that even a lawn chair would function realistically within the atmosphere according to its inherent aerodynamics (or lack thereof).

As Blackley told us, “We’d rather set up the world so that it runs itself and is really cool, rather than trying to hack some special situations all the time.” The bottom line for gamers is that would-be pilots can now do aerobatic maneuvers such as tail slides, where the plane is positioned in a vertical stall and allowed to fall backward, and the plane will act as it would in real life (eventually nosing over to recover the stall). Computer pilots will even be able to
experience knife-edge flight where the wings act as rudders and the rudder impacts altitude adjustments. In fact, to illustrate his point that the simulator is an aerodynamic playground, Blackley did a full backwards tail slide and shoved the rudder full in one direction in order to see what would happen. Naturally, an actual pilot wouldn’t do this because the maneuver would rip the rudder completely off, but it was interesting to see the program deal with this situation.

Even the sounds for the simulation are defined by the physics. The team used digital audio tape (DAT) to record the engine sounds of airplanes at various speeds, then added digitally-recorded wind sounds. In the game, the engine sounds are modified by wind sounds according to wind speed, as opposed to being strictly based on the plane’s air speed.

Perhaps most amazing of all, considering all the calculations being handled to model the physics for atmosphere, plane and pilot, is the fact that only 1% of processor time is used to perform the physics algorithms. The rest is spent rendering the terrain. That says something about the cost of realism versus aesthetic.

**PERFORMANCE CHECK**

For gamers who thrive on multi-player experiences, there is more good news on the horizon. Even though there is no combat, the game is networkable and allows up to 64 planes to share the same game world. This allows head-to-head aerobatic competition and friendly one-upmanship to take place on the network. Network play also enables dedicated computer pilots to set up two extra monitors for their peripheral vision so they don’t have to use the split-screen view.

So, the way I see it, two big questions remain. First, how realistic is the simulation and second, how soon will there be a combat version of the game? The sim is getting high praise from real pilots. Patty Wagstaff, three-time U.S. Aerobatic Champion, and another aerobatic pilot are consulting on the program, but Blackley has little difficulty in getting more mainstream pilots to look at the program.

As for the combat game, Looking Glass would love to do it. Blackley quotes a combat veteran named Jeff McChane as stating, “Combat is about getting the energy out of the airplane in order to do maneuvers.” If Flight Unlimited can pass the civilian tests, the military version should be right behind it. It looks like it should fly high on both counts.

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Behind The Wheel of Thrustmaster’s
Formula T1 Driving Hardware

by Gordon Goble

IT’S BEEN QUITE A JOURNEY FOR THE PC RACER. IN JUST A FEW YEARS, WE’VE GONE FROM KEYBOARDS, TO TEENY TINY JOYSTICKS, TO BIG DURABLE JOYSTICKS, TO FLIGHT YOKES, TO STEERING WHEELS, TO STEERING WHEELS WITH PEDALS, AND NOW TO STEERING WHEELS WITH PEDALS AND GEARSHIFTS. SO, WHAT’S NEXT? HORNS? CIGARETTE LIGHTERS? AUTHENTIC ROADKILL? A LITTLE DEVICE THAT DROPS FROM THE CEILING AND SMACKS YOU AROUND EVERY TIME YOU GET IN A COLLISION?

The next step in the evolution of driving hardware is the FORMULA T1, a combination of wheel, gearshifter, and gas/brake pedals from veteran input device builder, Thrustmaster. If the physical world of computer racing wasn’t encompassing enough for you, it should be now.

For the most part, the FORMULA T1 unit has a professional look to it, with all components being encased in sleek black metal cabinets. The wheel and gearshifter are mounted together in a base that can be clamped or affixed to Velcro to a desk, and the pedals are housed in a box that sits on the floor. In application, the FORMULA T1 is an interesting mix of the good and the bad. From initial setup onward, there are a number of little obstacles that stand in the way of an otherwise total package.

Mounting is awkward, to say the least. Control devices of this size and complexity require more than the non-skid feet we’ve become accustomed to with joysticks, and most do indeed come with table clamps. But the FORMULA T1 somehow skips that technique, and opts instead for suction cups and Velcro strips. Unfortunately, the suction cups do not render the unit completely immobile, and choosing the latter option means having Velcro strips permanently affixed to the desktop Whether the unit is in use or not. Adding to the complications, but understandable considering its elaborate nature, the FORMULA T1 will not work with anything but a dual joystick port (in order to engage foot pedals). Ah well...such is the price of realism.

Yet once the FORMULA T1 is up and running, its advantages begin to shine through. The wheel is a bit thin for my liking (same wheel as Colorado Spectrum used for its less than impressive MOUSE WHEEL), but it turns smoothly and accurately while operating in absolute silence. The gearshift lever is located just a couple of inches from the right side of the wheel, permitting easy “on the fly” shifting, and the pedals are...well, what can you say...the pedals are really there! That the FORMULA T1 incorporates one of the first pedal units to actually make it to market is in itself a step in the right direction.

Yet, the pedals (a curious, yet functional solution involving rollers on the end of levers) feature an overly large throw with no discernible stop. Mounted side by side, they are perhaps set a little too close together for lengthy competition, and that combined with a similarly large steering wheel arc and a minuscule gearshift throw could result in a grumbling gamer over the long haul. Then again, each person has his or her preferences, and none of this may matter to some drivers.

Those sincerely interested in advanced digital driving products such as the FORMULA T1 will undoubtedly be partaking in the genre’s top games, and the Big Two—INDYCAR RACING and WORLD CIRCUIT—are at the top of the list. Following a hard morning’s test session and road test comparisons, the FORMULA T1 was found to perform better than most other wheeled devices. WORLD CIRCUIT presented little problem for the unit, but several devices (including Suncom’s G-FORCE, and the CH VIRTUAL PILOT and FLIGHTSTICK) scored marginally better on INDYCAR tracks. Lap time disparity was most noticeable (although still in the tens of seconds) on INDYCAR courses, where absolute precision is mandatory, and the FORMULA T1 was not quite as adept handling heavy traffic areas. Yet the natural feel of real foot pedals was welcome, and kept the simulation test score close. A good joystick remains the preferred method of control for quick reflex arcade-type racing games, but most assuredly this was not the use envisioned by its creators for the FORMULA T1.

Over the course of the last year, several similar products have been announced, put on hold, and fallen through. Actually, just getting a stand-alone pedal unit on the shelves has proven to be a nearmiracle task for those brave enough to try. Thrustmaster is to be congratulated for being one of the few companies to follow through on its promises, and the FORMULA T1 is a great start on a new era in realism. Who knows what lies around the next corner?

For more information on the FORMULA T1, contact: Thrustmaster, 10150 S.W. Nimbus Ave., Suite E-7, Tigard, OR 97223. Tel: (503) 639-3200.
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How to Survive The Many Planned and Unplanned Challenges Of 1942: THE PACIFIC AIR WAR

by Michael Rymaszewski

THERE WAS ONCE A SIM PILOT WHO EXCELLED AT EVERY NEW GAME WITHIN A FEW HOURS. HE DECIMATED THE evil Nazis trying to invade Britain, and taught Japanese pilots who dared grapple with him that they could be unwilling kamikazes. At the mention of his name, 'johnnie' Johnson spilled his tea, Galland muttered dark things in German, while Sakai mopped his sweating brow and, with characteristic Eastern forbearance, said nothing...

I rather wished I was this imaginary character when I first sat down to MicroProse's 1942: THE PACIFIC AIR WAR, but many a pilot was dropped in the drink before I mastered the game's idiosyncrasies. Coming to terms with 1942's quirks is what this article is all about, and we'll look at the various ways and means in which you can consistently outscore the historical characters featured in the 1912 Halls of Fame.

There are three basic steps involved: the first is understanding the flight model; the second is discovering ways to sidestep some of the game's design flaws and glitches; the third is re-learning aerial gunnery.

**CARRIER BATTLES OR FLIGHT SCHOOL?**

The flight model in 1942 is one of the more advanced on the market. In other words, flying a plane in a straight line is quite difficult. If you haven't yet learned that operating the throttle constantly is the only way to fly a plane in combat, you will in 1942.

Like most sims, 1942 features a selection of training missions, but there is a more interesting way to attend flight school: Carrier Battles. Fighting a Carrier Battle in 1942 is as thrilling as a rainy weekend in Reykjavik, and won't be interesting to anyone who has ever played a good strategic war game before. All you can do is locate the enemy quickly, keep changing the course and speed of your carrier forces, and send out the appropriate number of fighters with each strike. The outcome of each encounter is determined by statistical formulae.

The bright point of Carrier Battles is that you can actually jump into one of the attacking airplanes. If you get shot down or crash, you'll be moved into the next plane. You can also change planes yourself by pressing a key. It's the best way to quickly familiarize yourself with a variety of aircraft in combat situations without having to take off and fly to the target, which can be a very lengthy process.

**FLYING MECHANICS**

Flying missions can also be a risky process, for 1942 has design flaws that can easily kill your pilot. So, before discussing how to become the top ace in the simulated history of the Pacific War, let's discuss how to avoid getting killed by one of the glitches.

Each mission starts with a briefing, where you are shown a map and told where you'll be flying, and why. It doesn't tell you what other units will take part in the mission. It doesn't tell you the distance to the target, the briefing map does not have a scale, and the manual does not specify maximum range for any of the planes. If you want to put bombs on your fighter instead of a drop tank, think twice.

After you're done with the briefing and have armed your plane, you'll find yourself on the carrier deck or the landing strip. Wherever you take off from, you'll either do it manually or through autopilot. And here we come to the game's biggest flaw: the autopilot in 1942 crashes planes. Try to switch on the autopilot and accelerate the time frame while in the 3-D world and you're asking for it. If you're taking off using the autopilot, make sure you're in the normal time frame.

What's more, the game's AI crashes other planes too, so don't be too alarmed if you see planes flying into each other or hurtling down in suicidal dives for no apparent reason. It's part of the game.

If you do take off with the autopilot, make sure you're in the normal time frame, then switch to the map right away. The autopilot seems to work all right in the map mode.

The map will show you plane icons representing the flights in your group. This is your first chance to find out how many planes are flying with you, and what they are. Move your cursor over the icons and you'll get a window listing individual flights and specifying the number of planes in each. How do you find out which flight you're in? If you're flying a fighter, you're in the first fighter flight on the list; a bomber, in the first bomber flight, and so on.

The mechanics involved in using the map are as follows: if you switch it on and there are enemies around, the game pauses; if there aren't, time is running. If you haven't switched on the autopilot before switching to the map, and there are no enemies nearby, you'll crash.

The map does not show your position unless your plane is the only one remaining from the whole flight. Otherwise,
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you'll be informed where your friends are, but not where you are. It’s irritating, to say the least.

**THE MOST DANGEROUS ENEMY**

When the enemy is sighted, the map will switch off and return you to the cockpit. Pause the game instantly. Switch on the external view and find out where your plane is in relation to the others. Then switch on the action, and instantly dive away from the formation, returning to take position behind and slightly below it. It's that autopilot—you just never know.

You can risk the autopilot if there are no enemies around, and the planes in your formation are flying straight and level. But the only way to be sure that your pilot stays alive is to fly manually until you see the enemy.

So, you've clashed with the enemy, done what you could, and you're on your way home. You switch on the autopilot, there are no other planes around. It seems safe...

It isn't. The autopilot will always attempt to link you up with the other planes in your flight. If the rest of the flight is flying at sea level and you're high up, there's a chance that the autopilot will tear the wings off your plane in an attempt to rejoin the flight. At other times you'll be running for home without any ammo, and the autopilot will promptly return you to the danger zone.

The safest policy is to pause the game when all that remains is the flight home. Switch on the map, click on the icon representing your flight, and tell them to go home even if they already appear to be doing so. Then, to make sure everyone keeps climbing, reset the cruise altitude to at least 5,000 feet higher. Continue flying manually until the map tells you your flight is at a respectable distance from the enemy and at a respectable altitude. Then, whisper a quick prayer, switch the autopilot on, see what it's doing to your plane, and if things are okay, switch to the map.

Occasionally, whenever you attempt to turn on that dreaded autopilot to get home, you'll get the message that you can't, because you're over the target. Press the 'quit' key. Often, you'll find out that you've completed the mission. If not, you have a choice: fly manually until death from boredom, or bail out. I bailed out twice, and got picked up by friendly forces, even though on both occasions the friendly forces were much more distant than the enemy's. Thank goodness for those Allied rescue dolphins!

**CHOOSE YOUR WEAPON**

Having dealt with this, let's turn to the planes you get to fly, and the tactics you can use to outshine all those historical heroes.

First you'll have to choose to fly for the Americans or the Japanese. The Japanese pilots get to fly better planes, while the Americans get to be decorated at the drop of a hat. There are bound to be some raised eyebrows at this, so let me explain. The Americans start off with the Wildcat, the Dauntless and the Devastator. The Devastator is superseded by the Avenger in August, 1942; the Wildcat and the Dauntless soldier on till the beginning of 1943 when they are gradually replaced by Corsairs, Hellcats and Hell-divers. The vast majority of the missions take place in 1942, and you won't get to fly a Hellcat in the career mode until many, many dogfights later. Also, the number of missions you can fly in the newer planes is limited. So, most of your American fighter or bomber pilot's career will be spent flying the inferior machine.

After you've chosen a side, you'll be presented with a list of pilots. The American list features fame-hungry MicroProse personnel. The Japanese list features historical characters, and this is where you put your thinking cap on and come up with authentic-sounding Japanese names, unless of course you want to go the Jakel Bill 2, Jim 3 route. Why? Because, contrary to established practice, both Halls of Fame are filled with names of historical pilots. Consequently, if the Saburo Sakai on your available pilots' list does well, you'll end up with two Saburo Sakais in the Hall of Fame.

After you've confirmed the name of your pilot, you'll choose the type of aircraft—fighter, bomber, or torpedo. The manual says you should choose with care, because each plane calls for different battle skills. Quite frankly, I don't agree. The most important skill here is being a good pilot. If you're good, you'll do well in any of the categories. If not, then you won't. And anyway, since there is only one type of aircraft in each category, you'll want to try your hand at all three.

What each category does involve is different tactics. Because most of the action takes place in 1942, I'll limit myself to the planes available in that period. If you do well with the Wildcat and survive till 1943, you can be sure that when the Corsair and the Hellcat come along, you'll do even better. The same goes for the new Zero and the Hell-diver (as long as you don't try carrier landings).

**ACES IN THE MAKING**

Basically, there are just three ways to shoot down an aircraft. One is from dead astern; second, head on; and the third, and most common, is deflection shooting.

In 1942, shooting down planes from dead astern is dead easy. Line up the sights, press the button, and wham!—that's another scalp on your fuselage. Even the vaunted Flying Fortress does not require more than a two-second burst.
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from your Zero’s 20mm cannon.

Head-on attacks are more dicey. The trick here is to find out whether the enemy pilot is after you, or someone nearby. If it’s you, duck. If it’s someone else, go for it.

Deflection shooting is another story. What seems to matter is not the distance to the plane you’re shooting at or its speed, but the angle between the planes. If your target is 500 yards away, doing 250 knots, and turning gently, you can give him the standard deflection and you’ll get him. If he’s 50 yards away, flying at 100 knots, and traveling at a 45 degree angle to you, things get tricky.

The best tactic here is to get in as close as you can, at most 50 yards, preferably less. Get the enemy plane in your sights, turn in the same direction until it slides out of view under the nose of your plane, then fire. Unlike most other big guns you won’t crash into your victim, provided you break away promptly.

The Zero outperforms the Wildcat on every count. My Zero pilots (flying at maximum difficulty level) score an average of 2.0 victories per mission; the Wildcat flyers score 1.3. I’ve always believed one of the Wildcat’s greatest assets was that it could outdive a Zero, thus getting away at leisure for another one of those famous hit-and-run attacks. It can’t, not in 1942. However, it can outmaneuver it.

I can hear gasps of horror all around, but it’s true. The Wildcat tends to slow down dramatically whenever you turn relatively sharply. When that happens, let the nose drop to pick up speed, and keep turning. Soon, your adversary will be circling above you, not knowing where you are.

When you find yourself behind a Zero and fire, you’ll find it has a standard evasive maneuver: a steep climbing turn. Slam on the power and follow it, using opposite rudder to gain height. As soon as your Wildcat starts to falter, lower your nose and go into a tight bank with full rudder. You can turn quite tightly in this manner flying at low speed. You’ll often see the Zero you’re hunting before you’ve completed a full circle, just as it’s about to turn in the opposite direction. That’s your chance—for a couple of seconds, the deflection angle is very small, and you ought to get him.

The Zero’s superior performance means that, ironically, it’s better suited to hit-and-run attacks than the Wildcat. One option is to dive on the American fighter, fire, and roll away for another pass. Another is to go in slowly, cutting your throttle and lowering your flaps if necessary, following the Wildcat through its inevitable stall turn, firing at close range.

The Zero does have a major disadvantage: it tends to explode when hit, and you have to exercise extra care when tack-
ling bombers—the rear gunners in 1942 are lethal. Keep jinking and dodging, especially on your way out.

VIRTUAL COCKPIT: IS IT ANY USE?
The fighters in 1942 feature the first worthy attempt to deal with a common problem. Instead of hitting several 'F' keys to get the various views, you can press 'Alt+F1', hit the second button on your joystick, and your pilot's head will move the way you move the joystick.

While you're in the virtual cockpit mode, you can also choose to keep a chosen plane in view by pressing the 'J' key when it is in your sights. Every time you press the second joystick button, your pilot's head will turn to look at that particular plane.

It sounds great, but it has its drawbacks. Because the view is controlled by the joystick, you can't control your plane while you're looking around. Flying a plane in 1942 is difficult, and letting go of the controls even for a couple of seconds is not a good move. If you're in a vicious dogfight right above the waves, it invites disaster.

The 'J' key option is good when you're flying against a single enemy, with no other bandits around. However, that's rare, and you'll find that while you're chasing one particular plane, others will be shooting down the bombers you're supposed to be escorting, bombing the ships you're supposed to protect, or—worst of all—shooting at you. I designated two fighter pilots to fly in the virtual cockpit mode with the 'J' key option, and it quickly became apparent that they did not do as well as the others. In dogfights, it simply doesn't pay to get fixated on one enemy—you'll be missing out on both your duties and other enemy planes that might make easier targets.

The second thing that discouraged me is that 1942 is the best-looking flight sim I've ever come across, and the stark ugliness of the cockpit in the virtual mode really turned me off. What's the point of all this beautiful detail when your cockpit resembles a crooked cage?

DIVE BOMBERS, OR HOW TO HIT A RUNNING ANT
If you've ever wondered how a swarm of bombers could dump their loads all around the target without damaging it, this is where you find out. The truth is, hitting a ship that's taking evasive action is extremely hard.

When you're flying a dive bomber, you'll want to play follow-your-leader. Detach yourself from your flight on the way in (never fly in on autopilot—if you don't crash, the defending fighters will probably get you). Keep close behind the planes from your flight, and follow all their maneuvers. The computer-controlled planes always go for the most valuable target, and all you have to do is dive after them.

The manual recommends attacking
from the side. Don’t. Approaching from behind offers the best chance of making some hasty last-moment corrections, and you’ll be making plenty of those.

Don’t attempt to climb after you’ve dropped your baby. You want to get the hell out of there, and you’ll do it faster if you dive to the deck on maximum power. Keep twisting and turning on your way out.

Both the Dauntless and the Val can dogfight enemy fighters. You not only have double machine guns up front, but you also have your trusty rear gunner, and as I’ve said before, the rear gunners in 1942 are lethal. The Val is especially good against Wildcats—I’ve shot them down while still carrying a bomb load. Don’t overload it, though; if there are more than one enemy fighters against you, run.

As seems to be the rule with American and Japanese planes, the Val is more fragile than the Dauntless, but is more maneuverable, faster, and has a better climb rate. At high altitude and without bombs, it’ll do 270 knots.

One final note: if you miss that defenseless transport, you can always strafe it. Amazingly, a couple of bursts will set it aflame. You won’t get points, but it will make you feel good. This only seems to work for Vals, as I’ve strafed transports flying other planes with no results.

THE DEVASTATING EFFECT OF LOW-FLYING KATES

Torpedo pilots face a tough choice. If you choose to fight as an American pilot, you’ll have to start with the Devastator, which is a pig to fly. To conduct a successful torpedo attack you have to fly below 300 feet, at no more than 110 knots, otherwise your torpedo won’t run. Now, the manual says the Devastator handles really well at low speeds. It doesn’t. If you’re carrying a torpedo, skimming the waves, and your speed drops below 100 knots, it’s good-bye Johnny—it goes into a gentle dive to the left and doesn’t respond to controls.

Your goal then, when flying the Devastator, is to stay alive until the Avenger becomes available. It’s difficult, so here are a couple of hints:

On torpedo runs, get down to 300 feet, get your speed down to the required 110 knots, then drop your flaps and give it 60-70% power. You’ll mosey along at the required speed, and you’ll still keep control. Beware of being hypnotized by the target; keep the rate of climb indicator in view.

When you’re required to bomb land targets, remember that the Devastator can’t dive. It starts to shake at around 180 knots, and loses its wings not long afterwards. Indeed, you’ll see that happening to the other planes in your flight. Descend on the target in a last glide at minimum power (press ‘I’, then press ‘-’ once), and you’ve survived all those missions on the Devastator, you simply can’t fail.

The Kate is a much better plane than the Devastator, and you can drop the torpedo from 400 feet while traveling at speed, which helps. It’s more fragile, and—as far as I can tell—it has no rear gunner in the Carrier mode. Beware of fighters.

Before you drop your torpedo, remember that both American and Japanese torpedoes travel at just a shade below 30 knots (according to historical sources—this information isn’t supplied in the manual). Go to the map to check on the speed of the ships you’re attacking, and make the proper allowances.

SCORING, PROMOTIONS, DECORATIONS

If you play at the maximum difficulty level, you’ll find you only need half a dozen missions to get into the Hall of Fame—as little as four if all are big successes. The ships you hit and the planes you shoot down count less than the overall success of the mission as measured against enemy resistance. To use the McClusky’s SBD attack off Midway as an example: my pilot got 9000 points and the Medal of Honor without hitting anything, but there were three Japanese carriers burning by the time it was over, and the whole flight made it home.

You can expect to get promoted after a couple of good missions. Subsequent promotions are harder to come by, but I did get several pilots promoted for the second time after four missions. American pilots receive medals after almost every successful sortie. It’s harder for the Japanese, and even then, it’s not accurate historically—they almost never get promoted or decorated.

1942 is probably the most engrossing flight combat sim I’ve ever played. However, because it’s so close to perfection, all its flaws really stick out like sore thumbs. Don’t get turned off by the glitches; hopefully, this article will help you to sidestep most of them, so that you can truly enjoy what is a great game. Once the problems have been fixed, it could be the best, ever.
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Circle Reader Service #444
The E-Mail Warriors

In multi-player gaming, which is most important, real-time modem play or Play-By-Electronic-Mail (PBEM)? A few weeks ago, that's the question that Frank Hunter of Adanac posed to GEenie members regarding the next (2.0) version of his Road From Sumter To Appomattox. The game is coming along fairly quickly, but he has been holding it up in order to implement both modem and play-by-email (PBEM) options. He asked if the GEenie gamers really felt the game must include both of these features, and if not, which would they prefer.

The players responded en masse and forcefully. Even I chimed in. "Just give us the PBEM feature!" we cried. Frank was taken aback. He expected the answer would be a solid call for modem play.

This might surprise you, too. After all, CGW has long been a proponent of multi-human player gaming, and has always extolled the virtues of modem play. However, each game should be examined separately to see whether head-to-head, direct connect modem play is right for it, or if a customized file generated for transfer by electronic mail is more appropriate. In the case of Road From Sumter To Appomattox, a turn-based wargame, PBEM is certainly the best way to go.

Quite simply, games where you would be sitting and waiting with little to do while your opponent plays don't lend themselves to direct modem play. Turn-based war and strategy games without a fairly interactive sequence of play are better served by a PBEM feature.

For example, The Perfect General, while turn-based, has a sequence where the defender lies in wait to conduct opportunity fire during the attacker's turn, so direct modem play works very well for that game. Turn-based games along the lines of HPS Simulations' Tigers On The Prowl or Avalon Hill's Operation Crusader are better served by their PBEM features.

Play by email also has the advantages of being both cheaper (long-distance phone bills for long Empire Deluxe games can add up fast, believe me!) and more convenient for busy gamers. Finding a time when two gamers are free for a modem game can be difficult, whereas turns in...
G-2 (continued from page 95)

Custer's Last Stand game. This might be followed by the battle of Peleliu (since their father fought at that one). So far, we haven't been able to convince them that a Ronke's Drift/Zulu wars game would be well received.

Warlords II enthusiasts want to check out all of the scenarios being uploaded on ComputServe of late. With the scenario editor in the hands of creative gamers, many interesting scenarios, including Roman, Aztec and several Tolkien'esque games, have been showing up in the Gamer's Forum, Library #3. Note that this is also the library where scenarios abound for games like Tanks!, Empire Deluxe, and others.

Did someone say Tanks? What will Norm Koger do now that his tanks? game has rolled? Apparently, his time machine is headed back to the 19th Century to visit the Mexican War, the American Civil War, the Crimean War and the British Colonial period.

And speaking of the Civil War, Robert E. Lee, Jr. (his real name!) has contracted with MicroProse to do Command HQ II (a working title). It will feature four-way and perhaps network play versions of this perennial favorite. Naturally, Lee will be incorporating all of the latest CHQ 3.x enhancements he's already made to the game, and they are many, including a map builder and random map generator.

On the boardgame bridge, Scott Hamilton of HPS Simulations has released a new version of Aide de Camp (V1.15) that uses in an email game can be made at each player's leisure.

WE'RE NOT ALL SOCIAL OUTCASTS, YOU KNOW!

Truly, solitaire-only war and strategy games are starting to irk me, and I know I'm not the only one. I hear constantly that the most requested feature for Sid Meier's Civilization is multiplayer play with email/modem options. Our wargame and strategy games of the year, SSI's Clash of Steel and MicroProse's Master of Orion would both have benefited greatly from the inclusion of a PBEM feature. Sure, Master of Orion would have to sacrifice its tactical combat feature in PBEM mode, but it can't be that much work to save a game in such a way that it is automatically compressed (both to make it cheaper to send and to keep it from being easily edited by cheaters) and ready for another player to load on his or her computer and do their turn.

Granted, this is another challenge for programming teams, but a minor one, I think. After all, Mark Baldwin and Bob Rakowsky were able to give us both real-time modem play and a PBEM feature in Empire Deluxe. We think designers should follow this sound model when possible. When in doubt, however, give us PBEM. It is not only the easiest multi-player solution to implement, but in many cases it is the least expensive option for the gamer, as well.
Rock 'n Roll
Panzer
Pushing

SSI's Panzer General
Will Test Your Mettle With Metal For Medals

by Alan "King Tiger" Emrich

"Would you believe," I ask in my best Maxwell Smart imitation, "that the next wargame from Strategic Simulations will be a Nintendo cartridge from Japan?" Okay then, would you believe it's actually a 16-bit SEGA cart from Japan? No? How about a strategic level WWII wargame for the PC that's inspired by the Japanese cartridge game, Daisan-Ryku? I can see the hard core wargamers getting ready to turn the page. Please, don't do it! Hear me out. Rather than being stereotypically simplistic, Daisan-Ryku on the SEGA 16 was cleverly designed to get every ounce of horsepower out of its 16-bit machine. I personally witnessed the veteran wargamers inside SSI playing this Japanese cartridge game at their office (presumably on their breaks, but you know how that is) with a crude translation of the Japanese manual laying beside the SEGA Genesis. As people kept cycling through to take their turns, I asked what game they were working on, and they admitted they weren't really working on anything—they were just playing this game for fun. However, they were so addicted to it that no one in the company could deny it was a fast and fun little wargame. From these humble origins, SSI found the inspiration for Panzer General.

Just to make a good thing better, SSI has revved up the excellent game engine for Panzer General and, I'm happy to report, the playability of Daisan-Ryku has remained firmly intact. Besides the mouse-driven interface and keyboard commands that an IBM wargamer expects, several important enhancements have been added that have Panzer General far surpassing the SEGA game that inspired it.

Where's the History?
In game play, Panzer General is probably most similar to SSI's The Great War or Ubi Soft's Battle Isle. In all of these games, a core group of diverse unit types with a wide array of values (supply level, ammunition, experience, initiative, firing range, movement allowance, defense strength and target type, attack strength vs. soft targets, hard targets, ships, planes, etc.) fought over a series of battles. In Panzer General, you can ponder all of these figures, or you can ignore all of this minutiae and simply push the pieces around, and have a great time doing it. Veteran wargamers, however, might pooh-pooh the embraceably simple game play mechanisms and ask "Where's the beef?" meaning the "meat" of simulated history.

The historical elements in Panzer General come into play via a number of sources that grognards will recognize. First, there is the extensive unit database. Countless ship, aircraft and troop types are available for play, and these can be upgraded during each scenario. Numerous historical and a few "what if?" scenarios are provided with reasonably accurate maps depicting a wide variety of terrain features. Although the scenario orders of battle were in a state of flux in the preview copy examined, I expect that SSI will play a hit fast and loose with them to ensure better game play.

In the early version I previewed, there were two scenarios covering the invasion of Poland (1939), one for the German attack on Norway in 1940 (a particularly fascinating campaign to play) and others for the overrun of the Low Countries. There were also scenarios for the final moves against France (1940), Operation Sea Lion (the proposed German invasion of England in September, 1940), Rommel's arrival in North Africa, and the German air assault on Crete. SSI hopes to have about
30 scenarios in the finished version of the game.

Each scenario can be played solitaire from either the Allied or the Axis side, or by two human players sharing the same computer. Fortunately, the screen is covered between moves, making it difficult to get a free look at your opponent's forces during turn changes. At this time, there is no modem or play-by-email option under consideration, which is a shame since the game's turn structure and high playability level make it ideal for e-mail and tournament style play (see my "Broadsides & Gripe shot" column this issue).

**WARGAMING CUSTOMS**

Like all good wargames, Panzer General allows players to customize the game a bit. Toggles are included for a wide variety of things. You can play with enemy units revealed at all times, for instance, or have them hidden if they are not currently "spotted" by friendly forces (making air units even more valuable). A separate toggle either shows or hides enemy troop movements that are not sighted. Likewise, the entire element of logistics can be toggled off (an important consideration for people like me who follow supply rules!). Animated battle displays can also be switched on or off. The ability to temporarily remove units from the board to see the entire map, strategic map overview, unit information cursors, optional weather, different ways to scroll through your forces and many more to cavort in formations of about 40-60 planes, and individual capital ships and groups of smaller ships abound upon the seas.

Utilitarian options are accessible with a simple click or two of the mouse.

**MATTERS OF SCALE**

The game scale is a bit amorphous. Turns generally represent one day in the scenarios reviewed (each simulated about three weeks of campaigning), and units appear to be at about the regiment-brigade-division level for ground troops, while artillery and anti-tank units approximate regiments or battalions. Air units seem to advance (and fall back!) in the correct order makes employing proper tactics a vital concern.

Overall, Panzer General's elegant rewarding of proper combined arms tactics works very much to my satisfaction. To capture a fortified locale, it is wise to send in an air unit to bomb it, lob in as much long range artillery or shore bombardment fire as can be brought to bear, then assault with some good infantry units. Likewise, an open field engagement is best handled with a bit of preparatory bombardment followed by an armored attack.

In combat, each unit has an initiative rating. The higher the initiative, the more likely that unit will get to shoot first when fire is exchanged, thus damaging the enemy piece before it gets a chance to return fire in that attack. Losses reduce a unit's normal 10 strength points (representing a full strength, fully manned and equipped formation), and a unit that reaches zero strength is simply eliminated.

As previously mentioned, each unit has a supply and ammunition rating when that option is used. Land units in the field can replenish themselves by doing nothing for a turn when not adjacent to an enemy unit, while ships must sit in port and planes on one of the precious few air bases in order to gas up and rearm. Units that are adjacent to enemy pieces will only be able to receive partial supply and replacements.
Thus, rotating troops into and out of the front lines is another element of a successful General’s concern.

**DEUTSCHLAND UBER ALLES**

Panzer General’s beauty, though, lies in its campaign game. Here, a single player can play the German side, taking his core forces from one campaign to the next. Units gain experience in battle (shown by five stars next to their unit designation) and their experience diminishes as regular replacements are added. Units are even supposed to earn medals and citations from the various campaigns they’ve fought in, giving each of them their own “personality,” although this particular feature was not in the version previewed. This campaign game element of linked scenarios provides a great system for teaching players the military principle of Economy of Force, because today’s troops must be preserved in order to live and fight tomorrow’s battles.

Perhaps the game’s best feature is the use of “Prestige Points.” Garnered by capturing cities and eliminating enemy units, these points are used as a sort of currency for buying and upgrading units. Instead of giving a unit normal replacements that dilute its experience level, you can give it “elite” replacements, which costs some prestige but allows you to maintain troop quality and even create oversized (11 or more strength point) formations.

Likewise, reinforcements can be purchased and units already in the game can be upgraded, usually to add a transport element or change their primary equipment type. Of course, each scenario limits the unit and troop types to those that were historically available. The ability to modify your order of battle at a cost in time (this is because it not only takes a turn to upgrade/build new units, but it is done in rear areas at friendly cities and air bases) and prestige points is a clever gimmick. It neatly simulates a commander’s economic and political clout, which translates into his ability to get what he needs from “the powers that be” so that he can get the job done.

Panzer General has begun playtesting and should be released later this year. Personally, I have found this little wargame to be truly addicting, even if I am not basking in any great new historical insights from playing it. Being able to use all the sound military principles and a few clever gaming techniques to win is enough for me when a wargame is this downright fun to play. If SSI can figure out a way to add a play-by-email feature, campaigns from the Allied players’ sides, and a scenario builder/editor, then they will know the meaning of the phrase: “Tomorrow, the world!”

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Circle Reader Service #184
The Turnstile Of The Spew

Finding Profit In The Puke
In Bullfrog’s THEME PARK

by Randall Black

ANYONE WHO’S BEEN TO THE MIDWAY OF A COUNTY FAIR CAN RECALL THE OVERPRICED, UNWHOLESALE FOOD, the two-hour wait in line for a boring, two-minute ride, and the disturbing aroma of fresh vomit in the night air. If you remember that experience with fondness, then THEME PARK is for you.

From Bullfrog, the makers of POPULOUS, POWERMONGER and SYNDICATE, THEME PARK offers gamers the chance to build and manage an amusement park. In the process, one has the singular opportunity to witness the clean-up of tons of litter and gallons of graphically accurate vomit deposited by park guests.

The game begins with a vacant park and the ability to install four cheap, mechanically inferior, boring rides: the Bouncy Castle, Tree House, Merry-go-round and Ghost House. The excitement rating of the rides ranges from “bad” for the merry-go-round, to “poor” for the tree house, to a barely adequate “okay” for the other two rides. The rides also possess varying degrees of mechanical reliability, ranging from “very bad” for the Bouncy Castle to “very good” for the Ghost House. When a ride breaks down, you depend on mechanics who rush to the scene when they’re not otherwise occupied. With these balky, unsatisfactory machines, you must lure customers to the park to support the real moneymakers: your shops and sideshows. Admission ticket revenue also depends on the variety and quality of your rides.

The initial shops and sideshows include a Coffee Shop, Mr. Whippy Ices, Balloon World and the Duck Shoot. For every commodity you have the option of setting some parameter that will affect the customers who ingest it. For example, more sugar in Mr. Whippy Ices makes them more addicting and increases sales.

A high level of caffeine at the Coffee Shop causes customers to sprint around the park. Customers seem to remain perpetually hungry and thirsty and will pay almost any price for food and drink. To keep shops stocked, you must periodically order supplies from a goods menu, an annoying task that’s easily forgotten and results in lost revenues (but less litter and vomit). The real cash cow at the beginning of the game is the Duck Shoot, a mildly addicting game of skill whose price, odds of winning and prize value may be carefully tuned to fleece the suckers. Shrubs, trees and fences may be installed to increase the park’s aesthetic appeal.

BATHROOM HUMOR
The existence of food and beverage shops also demands placement of public facilities, which at the game’s outset consist of outhouses—disgusting, odoriferous structures that can trigger a cascade of vomiting among customers. Beginning with loans, a la RAILROAD TYCOON, you proceed to lay out sufficient paths, rides, toilets, shops and sideshows to open a small, seedy amusement park. Buses periodically disgorge new waves of guests, the number depending on your park’s reputation.

On opening day, customers stream in to careen randomly around the park, riding rides, patronizing shops, and befouling your creation with litter and vomit.

To combat the mess, handymen must be hired and assigned routes. Without handymen, litter and vomit accumulate and the park quickly becomes a grim place indeed. Other employees include guards, stern figures responsible for crowd control and ejecting hoodlums, and costumed entertainers such as Squid Man, Chicken Man and Shark Man.

Customers display their feelings about their experiences within the park by way of cartoon-style “thought balloons” that tell you their individual happiness level, degree of satiation and emotional reactions to prices and the presence of litter. When a customer is moved by a particular feeling, his or her head also may swell with an oversize facial expression, telegraphing the mood to the alert player. Because the number of newcomers and the volume of future business depends on the overall happiness of customers, the park’s reputation rides on making customers as happy as possible—a doomed undertaking at the game’s outset. It turns out that cus-
customers only are made truly happy by good, exciting rides.

The only way to improve the quality of rides, sideshows, landscape features and restrooms is by investing money in the Research Department. Using a Rube Goldberg network of hydraulic valves, you set the amount of money to devote to each category. The early discoveries are only slight improvements on the initial options. The outhouse eventually is replaced by the "boggy crapper" (the game's developers are British) and the meager shops and sideshows are augmented by Big Time Fries, Pokey Cola and the lucrative Novelty Shop. Rides gradually improve both in excitement and reliability as research develops the Plane Flyer and the Rubber Tubing (an inner tube water ride).

As research continues, new rides appear with the power to genuinely excite and satisfy customers. The boggy crapper is replaced by the self-cleaning, odor-free Super Toilet. Cheap, low-profit shops are joined by Toyland, Saloon and Steak House. Finally, the Roller Coaster and the mechanical equivalent of ecstasy. The Dipper, arrive on the scene. Using these machines and the proper layout, the player becomes capable of making Theme Park one of the happiest places on Earth.

The simulation continues to run as the player inputs commands, and the march of time is merciless. The days tick away even inside off-screen menus when trying to decide what rides, goods or staff to order. This real-time interface and competition for processor time created real problems on an older 386; the mouse had to be clicked repeatedly before a command would register, and the game had a frustrating tendency to crash, wiping out hours of sweat, tears and other bodily fluids. These problems disappeared on a more powerful 486, however.

The game information, while abundant, often is presented in a confusing way; for example, individual shop profits are displayed in total as of their construction, even though prices may have changed in the meantime. The documentation lacks detail, organization and clarity. Originally written with critics, such as "tick" for "check mark," the manual has been Americanized but in one spot now says, "while the seconds check mark away."

**ROUGH RIDES**

Theme Park contains several extraneous subroutines that add little more than distraction from the main attraction. The game begins with an irrelevant, cheesy video sequence that fails to entertain. Mercifully, it is sequestered in a separate program that can be circumvented. On the other hand, the video interlude following bankruptcy is well-done and humorous, at least the first few times. Excruciatingly annoying, the music lags to be immediately silenced. Occasional labor strikes and goods negotiations are resolved with a somewhat silly arcade sequence that interrupts gameplay. Confusing in layout, the stock market menu seems to offer little interest once the threat of takeover is eliminated through the simple expedient of purchasing all of your stock. It's possible to buy a majority in opponents' stock and even take them over without actually controlling them. Although you have the option of selling out and starting over in a new location elsewhere, beginning again means returning to a level of zero research development and the unpleasant prospect of dragging oneself back out of the boggy crapper.

Despite these and other problems, Theme Park has a number of redeeming qualities, not the least of which is its remarkable addictiveness. Russian peasants are known to entertain themselves with slapping contests that go on for hours, perhaps rewarded by some kind of endorphin rush. Endowed with a masochistic streak and sufficient patience to endure years of research, the gamer discovers that Theme Park offers hours of absorbing play. Anticipation of new research advances, especially the rides, offers ongoing novelty akin to that in Civilization. Held captive by the latest problem or opportunity, it was quite possible to remain fixed to the screen for more than 12 hours without a break. Offered the possibility of further ride development, I would still be playing.

The graphics are excellent, and watching the expressions of hapless customers trapped in the mechanized nightmare of an early park caused me to laugh out loud. The sound effects are well-done and include fairly realistic retching sounds that eventually grow tedious.

Although frustrating, the game remains interesting until all the research advances have been discovered. Reminiscent of Sim City, once the ultimate Theme Park is constructed, replay value seems limited. In the meantime, this sometimes funny, sometimes frustrating game grabs the lapels and won't let go. Engrossing, occasionally with the emphasis on gross, Theme Park simply refuses to be ignored.

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**THE EDITORS SPEAK**

**THEME PARK**

**RATING** ★★★★☆ 1/2

**PROS** Funny, addicting and endearing. An evil mixture of Walt Disney, B.F. Skinner and Lemmings.

**CONS** Often overwhelmingly detailed. The interface and the confusing presentation of data can leave you dizzier than after riding a Tilt-A-Whirl.
Frolicking In The Serf

SSI's German Import, SERF CITY,
Is LEMMINGS-Cute And Wargame-Tough

by Robert L. Hayes, Jr.

When I got my copy of SERF CITY, I thought it was the strangest game I had seen in a long time. It looked like SimCity vs. Lemmings vs. M.U.L.E., with a touch of Populous, as interpreted by methamphetamine-crazed German programmers who lost as much sleep writing the game as I lost reviewing it. Even the box art is strange, depicting a bug-eyed, mani-wielding lunatic in yellow lederhosen and a similarly daffy inmate carrying a pig in a wheelbarrow. Despite (or perhaps because of) this oddness, it is a solid winner and one of the best games this side of serious strategy gaming.

"Any game with a pig in a wheelbarrow on the box is a good game," is my new Computer Game Rule of Life.

Upon first booting up SERF CITY, those with apprehensions based on the box art are not soon soothed. The introductory control screen is a cluttered nightmare of buttons, graphs, arrows, pictures and text. Careful reading of the manual will make all clear, however, and it is no great task to start conquering worlds (oh, it's a world-conquering game). The manual, which one suspects was very well-written in the original German is helpful but not very well organized; any would-be resource manager (oh, it's a resource-management game) will want to read it carefully in the course of learning the game. There are several options to choose from on the control screen; you can play on a custom world, play a scenario, or play one of the six training games. Warning to would-be strategists (oh, it's a strategy game): play the tutorial games first. Your heroic reviewer, knowing his manly prowess was more than a match for any wimpy game where the action(257,649),(742,957)

**SERF CITY: Life Is Feudal**

- **Price:** $44.95
- **System:** IBM
- **Requirements:** 386-25 or faster, 4MB RAM, VGA graphics, 10MB hard drive, space, mouse, supports AdLib, Gravis Ultra Sound, General MIDI, and Sound Blaster sound cards
- **Protection:** Documentation Check
- **# of Players:** 1-2 (cooperative, same computer)
- **Designer:** Volker Wertich
- **Publisher:** Strategic Simulations, Inc.
- **Sunnyvale, CA**
- **(500) 245-4526

forward, so far. To kill your enemies, you need knights. To get knights, you need gold. To get gold, you need gold mines. To get weapons, you need coal mines, iron mines, blacksmiths, foundries, etc. Still with me? To get the various mines, you need food to feed the miners. To get food, you need fishermen, farmers, bakers, etc. To build the buildings for all these people, you need timber and stones. To get lumber and stones, you need lumberjacks, quarrymen and sawmills. We're almost done, so don't despair. To get the room to put all this stuff, you need guard houses to extend the borders of your serfdom. To man your guard houses, you need knights. The astute reader will note that we're back where we started, more or less—the need for knights. The point of all this is that your serfdom requires a more-or-less complete economy to function—pull out any one aspect, and the whole thing falls to pieces. This is possibly the most realistic medieval economic model ever built into a computer game.

You start with your castle, a handful of serfs (a serf can hold one of 25 jobs), a modest stock of tools (all 12 kinds), and reasonable quantities of the basic building materials. You then begin to build all the stuff mentioned above, while prospecting for mineral wealth, expanding the serfdom, fighting off incursions from the other players, building the transportation network, and all the other aspects of serfdom management. Lest the potential player begin to gibber, I should hasten to point out that after playing the tutorials and reading the manual, all of this makes perfect sense and is quite easy to do. It isn't easy to do well, but that's the point of the game.

**ISO-WHAT-TRIC?**

The world is presented in the now-standard 3-D isometric overhead view, with the limitation being that rotation is not possible. This can pose a problem when trying to build "behind" large buildings; often you can't see what you're doing, or what's causing that roadblock. It soon becomes second nature to plan buildings so that they won't cause such problems, how-
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However, there are two possible resolutions for the world display: a standard VGA resolution which is somewhat blocky but shows good detail of a small part of your serfdom, and a truly breathtaking SVGA resolution which can show your whole serfdom at a glance. I suggest playing at the lower resolution until you know all of the building shapes and are familiar with what all the different types of serfs look like, then switch to the higher resolution and see the big picture. The interface for ordering your serfs about is straightforward point and click; the only wrinkle is a special click (hold down the right button and click the left one) used to access some functions.

The serfs themselves are adorably cute. Transporter serfs walk up and down the roads hugging goods, or sit at intersections scratching their heads and waiting for more cargo. Construction serfs hammer away at buildings, while lumberjack serfs chop down trees methodically. Geologists pick at the ground, then joyfully leap into the air and shout “yippee” when they locate a promising mineral deposit. The knights fight with bravado, acrobatically ducking their opponent’s blows and wailing with despair when they die. This very cuteness is the major cause of the cognitive dissonance Serf City can impart: you find yourself making serious strategic and resource administration decisions about cute little cartoon characters.

Aside from the serfs, the game graphics are excellent, especially in the SVGA mode. Buildings are crisply and artistically rendered, the terrain is inobtrusive and easily interpreted, and the building animations (mine elevators working, blacksmiths pounding, sawmills cutting) are smooth and well-done. The game sounds are excellent as well, though there were some fairly significant static and popping problems with my SoundBlaster Pro whenever too many things were generating sound at once. However, the sounds are a convenient guide to what’s happening on the screen, not a necessary part of play, and most players will shut them off eventually in order to be able to think straight.

Serf City can be played by two people at once on the same machine, a sign of its European origin. While I was not able to test this feature thoroughly, it seems to work well. Head-to-head play is not supported, however you and your friend must help control the same serfdom against the computer opposition. This is still a unique way to play, however, and I can see how two gamers who cooperated well would have a major advantage. Aside from the unknown, but large, number of regular scenarios, the game can generate seven billion scenarios of a more random nature.

THE PACE OF FEUDAL LIFE

That leads into Serf City’s biggest potential flaw: scenarios take quite a while to play. There’s nothing wrong with this, of course, but the reason for the length of each game is the slowness of the game engine. The game runs with acceptable speed, but within the framework of the game world, things take a long time to happen. It may take 20 or even 30 minutes for a large building to be constructed under good conditions, or hours (literally) if it has been poorly placed or if your serfdom has a transportation or raw materials problem. The fact that you can do a great number of things at once is helpful in ameliorating this problem somewhat, as is the fact that the computer players do not immediately attack your serfdom (at least in the early scenarios); you can lay out your perfect serfdom, give the orders to start constructing the buildings, and go out to dinner without worrying that your serfdom will be torn apart before you get back. This slowness of pace also ameliorates what I would otherwise consider to be a major flaw—there is no pause control. The only way to pause the game is to go into the save menu and leave it there, workable, but not elegant.

Another problem arises in the military area. Combat, or at least killing off the other players, is the prolifered reason for the whole game. However, the actual combat sequences themselves, despite the cuteness of the characters involved, are very dull and predictable. A line of knights arrives at an enemy building and its defenders duly line up to fight, they smack each other for a while, then the
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TINKER, EMPEROR, SOLDIER, SPY Whether cute and cuddly or wild-eyed and frantic, all the various inhabitants are important to the growth of your SERF CITY.

winner takes possession. There are no tactics or options involved; you can't attack until you lose a certain number of knights and then run away, it's all or nothing. Knights do not interfere with the civilian population or buildings at all; warfare is strictly military vs. military, a design decision which does make for a "happier" game (who likes ordering atrocities?) but which further reduces the interest level of the military part of the game. Combat also takes a long time and is difficult to construction, but not nearly so well for combat. Quite often my attack orders have resulted in wave after wave of inexperienced and unhappy troops being slaughtered by high-ranking defenders, while the elite troops who could have taken the building with no casualties sit in their garrison towers.

Despite these problems, SERF CITY is a terrific game. It is challenging and enjoyable to lay out a well-designed serfdom, with the proper admixture of buildings and tasks, and absolutely fascinating to watch it grow. While the combat portion of the game lacks flash, it can be safely left in the hands of the computer—just order your attacks and wait to be notified of defeat or failure while paying attention to other aspects of your serfdom. SERF CITY is not for the LEMMINGS fan seeking another adorably cartoon character game, and in fact I suspect SSI will lose sales due to people misperceiving the nature of the game. However, more serious gamers will find it intriguing, enjoyable, and compelling in its detail. Some games go on the shelf and some games stay on the hard drive; on my hard drive, SERF CITY has found a home.

THE EDITORS SPEAK

SERF CITY: LIFE IS FEUDAL
RATING ★★★★ ★/2

PROS Blends a unique medieval economic model with elegant design and charming graphics—like leading Lemmings to war. Replicable.

CONS Weak, hands-off combat system. Game's time scale makes for very long games.

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Eisenhower’s Triumph In Miniature

An Impressionistic Look At D-Day, 50 Years Later

by Jeff James

On June 6th, 1944, the largest amphibious invasion in the history of warfare began with the Allied landings on a handful of beaches code-named Utah, Omaha, Gold, Juno and Sword. Less than a year later, the victorious Allies stood over the crumbling ruins of Hitler’s Third Reich, completing the costly journey begun that day on the Western coast of France. The release of D-DAY: The Beginning of the End by Impressions Software gives computer gamers the opportunity to recreate those same harrowing battles, including the famous Bulge of 1944 and the race towards the heart of Germany in early 1945.

Your job in D-DAY is to assume complete command of the armed forces of the Allies or Germany and see your side through to victory. You can play against the computer or another player, although modern play is not supported. Two types of games are available: standard and historical. In the standard game, play begins with a historically accurate setup of Allied and German forces on June 6th, 1944. Under the historical play option, three scenarios are offered. “Race to Berlin” is similar to the standard game, but gives you the opportunity to toy with the starting conditions of the war. Using this scenario, you can reduce the economic strength of the Allies, build more German Panzer divisions, or even move the D-Day landings to a different location. The second two campaign games, “Normandy Breakout” and “Battle of the Bulge,” model the Allied breakthrough from Normandy in July, 1944 and Hitler’s last western offensive in the Ardennes forest in December, 1944, respectively. Just as in the “Race to Berlin” scenario, starting conditions can be altered in these scenarios if you desire.

Regardless of which type of game is selected, D-DAY gives you a wide range of control options. Multiple levels of complexity allow you to tailor the difficulty to your ability level. If you’re a wargaming tenderfoot, an easy mode limits the strategic ability of the computer and slows its reactions. Grenadiers who scoff audibly at such limp-wristed settings may turn on the fog of war option for realistic sighting and troop reports. For even greater difficulty, a supply option allows you to personally make sure that each of your divisions is getting beans and bullets, and a personality feature imbues your generals with distinct personality traits. Using this last option, glory-loving commanders like General George S. Patton may take liberties with your orders and attack when the mood strikes them.

The game system used in D-DAY is a refined version of the one used in Impressions’ THE BLUE & THE GRAY, with several minor performance tweaks and interface enhancements, including zones of control and temporary unit disruption. Daily turns include both day and night phases, and take place on three separate map levels. The reinforcement screen is the highest level interface, and it is here that you can allocate resource points for the construction of new planes, troops and tanks. On the next level, the campaign map, individual divisions can be selected and moved. Finally, the micro-miniatures level provides the highest amount of detail, where groups of soldiers, tanks and artillery are moved about the battlefield much like a digital version of a conventional tabletop miniatures wargame.

MOVE OUT!

You’ll spend most of your time on the campaign map, moving units into position to attack the enemy. Units are represented by some 14 unique counters, with Allied units in typical wargame green and the Germans decked out in fieldgray. Selecting and moving units is a point and click process; right-click on the unit to select it, then left-click on its intended destination. Movement points for units vary as expected with unit type, but the movement rates are unusual: two points to enter plains or roads (in most games, roads.
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are assumed to provide quicker movement, with proportionally higher costs for rougher terrain. Strangely, units cannot be given movement orders that span across several turns. Using the current system, players are forced to select a unit, move the unit manually, end the turn, then repeat the process all over again the next time around. A far more playable alternative would be to have each unit remember lengthy movement orders from previous turns, moving towards their objectives automatically. As it stands, players may find themselves spending most of their time laboriously selecting and moving rear echelon units towards the front, which hardly seems an appropriate task for a theatre commander.

After maneuvering units into position, you may attack the enemy, initiating combat by simply moving one of your units onto an enemy unit. Any adjacent units eligible to join the combat are added, then you move to the micro-miniatures screen and enjoy a detailed close-up view of the conflict. As playable as the miniatures system is, it does become tedious at

ally appear and give you a bit of historical background on D-Day and the events that followed. Accompanied by a polished VGA image and a few paragraphs of descriptive text, these serve to keep you informed of the historical events that you're recreating. The D-Day package also bears a full bomb-load of documentation: four well-written manuals are shipped with the package, including an excellent tutorial and a tersely written overview of Operation Warlord.

WHAT RED ARMY?
As polished as the D-Day playing interface appears, its beauty is only skin deep. Windows users familiar with the visceral, positive feedback of clicking on a button and seeing it sink into the screen will find the stiff operation of the D-Day interface to be somewhat disconcerting. Another caveat concerns the design of the game itself. Although Western Europe is the focus of the game, D-Day almost totally neglects the importance of the eastern and southern fronts. Designer Grabowski did give a cursory nod to the importance of these fronts. The Allied player is allowed to place new divisions in Italy after August 14th,

mandy undoubtedly hastened the end of World War II by opening up a two-front land war in Europe, the vast bulk of Hitler's resources were thrown against the advance of the massive Red Army from the east.

VICTORY CONDITIONS
Shortcomings aside, D-Day does have a great deal going for it. The computer AI can be particularly tough with the most realistic options activated (supply, fog of war, personality options), while other options make the game accessible to novices. If you like your games quick and decisive, look elsewhere: D-Day requires too much of a time investment to be a casual player's game of choice. However, if you'd enjoy orchestrating a perfect tank offensive at the close-up miniature level, it's time to get that ticket to Cherbourg, because D-Day should fit the bill nicely. This game is arguably the best Impressions micro-miniatures release to date, and an upgrade to the program should offer support for modern play. With two human players painstakingly plotting the course of the war, the battle might continue well beyond the 51st anniversary of D-Day.

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D-DAY: THE BEGINNING OF THE END

RATING 🌟🌟🌟

EXCELLENT strategic design on the whole, and a detailed miniatures combat system. Superlative documentation.

CONS Clunky interface, time-consuming game play, and some questionable strategic design decisions (re: Eastern Front).
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Defend The Alamo!

The Mexicans Are Charging. Where’s John Wayne When You Need Him?

by Alan Emrich

The Texas Tourism Board recently described Texas as being like a “whole nother country.” This seems particularly apropos since, long before its admission as a state, Texas had to fight for its independence from Mexico and, as a result, became a “whole nother country.”

In February of 1836, when railroads were still a new-fangled invention and the professional Mexican army still dressed and drilled much like soldiers of the Napoleonic era of a generation before, Texas went into open rebellion. While these upstart Texans had no real army of their own, Mexico did—and a respected, professional army at that. Under the ruthless leadership of Generalissimo Antonio Lopez de Santa Anna, it was sent to crush the rebellion and regain Texas for Mexico. The first major clash of arms was to be the fateful siege at a tiny fortress called The Alamo.

In Defend the Alamo!, an unassuming little wargame from Incredible Simulations, the player is put in the role of William Barrett Travis, leader of the fort’s desperate defenders. With a small garrison of about 180 men, you must stop the formidable Mexican army. The Texans are individually named, but they are formed into squads of six men, with three-man units manning the cannons. Key units are identified by their leader’s initial—'B' for Jim Bowie, 'T' for Travis and his 18-pound cannon, and 'C' for Davy Crockett—and these units are particularly deadly in both fire and melee. In general, it seems that one Texan is worth about eight Mexicans in combat. It’s too bad the 183 defenders are outnumbered by about 30 to 1....

TIME IS ON THEIR SIDE

Defend the Alamo! is played in real-time, with the game pausing whenever a menu is accessed. The time scale is 15 minutes per pulse, dropping to about 10 seconds per pulse when the Mexicans approach a wall or, worse, are running around inside the fortress. The real-time play can test the patience of strategists who favor turn-based action, but I found coordinating the battle to be manageable if I was not distracted. (A word of caution: due to the game’s engrossing play I found myself snapping at every interruption. One gaming buddy called while my walls were being scaled and I told him the Alamo was lost because of him! Of course, as a brother-in-gaming, he was understanding.) The trick to conserving time on the game clock is to use the strategic and tactical phases to your best advantage, remembering that reloading takes a while. Proper deployment of troops in the fort and the timing of ranged fire are the keys to success.

Your Texans begin by keeping watch on Mexican movements while dispatching their three most crucial operatives—the messengers—who sally forth seeking reinforcements. Among the four nearby towns, one hosts a group of 100 fighting men, while another sports 30 soldiers. If the local leaders can be persuaded to your cause, they will add their units and gunpowder to your defenses. Unfortunately, it might take three or four plea attempts before they begin to move out. By the time they finally

NO HOPE OF ESCAPE The strategic view confirms what any Texan at heart already knows—the Mexicans have the tiny Alamo garrison surrounded, and they are moving in for the kill.
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While the Texans have more cannons than the attackers, the limited supply of gunpowder makes every shot extremely precious. Firing a 2-pound cannon won’t use much powder, but Travis’ 18-pound gun burns the stuff up very quickly.

The Mexicans, with no gunpowder limitations, set up their guns several hundred yards outside the fort, blasting away at your walls in an effort to breach them. Should a breach occur, a massive, four-wall assault soon follows (as opposed to Santa Anna’s normal attacks against one to three walls at a time). When that occurs, your cause becomes hopeless and it’s just a matter of how many of the enemy you can take down with you.

Therefore, the battle turns upon whether or not your Texans can take out the Mexican cannons before they breach your walls. This can be accomplished either by counterbattery fire (during the day—and I recommend using your 12-pound guns for this) or by sorties against them at night. Silencing Mexican cannons is a difficult but ultimately rewarding task, as they’re worth a lot of victory points.

By day 13, if you can hold out that long, Santa Anna is through wasting his time and men, and he makes his massive, coordinated assault on the fortress even if he has not succeeded in breaching your walls. While I’ve yet to completely hold out, I’ve had a tremendous time going down fighting and inflicting as much damage to the Mexicans as possible.

Points are scored for destroying enemy soldiers and cannons, although the rules don’t indicate the exact formula for this. (It turns out that you get one point for every 10 Mexicans killed, and five for each Mexican artillery piece destroyed. Historically, the defenders got an impressive score of about 175 points.) The included 32-page booklet is long on historical color while short on specific game hints. When I mentioned this to the designers, they quickly put together a playing tips sheet, which is now included with every copy of the game. Still, I managed to put a plan together quickly through trial and error, burning down the neighboring village of La Villita, which was providing cover for the enemy, and mopping my ramparts efficiently.

In the end, though, Santa Anna has worn me down every time and wiped out my desperate defenders to a man. Each time, though, I seem to be exacting a heavier toll and improving upon the Texans’ historical performance. Defend the Alamo! includes three variations for play. The historical option provides 30 men from the nearby town of Gonzalez to reinforce you. A “Fannin arrives” option guarantees you will get the 300 men from Fort Defiance, along with those from Gonzalez. Finally, a random scenario has the two groups of men in random locations; your messengers must locate them and, with luck, persuade one or both groups to join you.

REMEMBER THE ALAMO!
It’s exciting to discover a new game, particularly when it comes from a garage door, mom-and-pop wargame company, and nothing is more exciting than to be able to recommend a tremendously enjoyable wargame from such a company. DEFEND THE ALAMO! is just such a game.

So practice up on your John Wayne imitation, don the coon skin cap, and get ready to jump into the history books for a heroic stand. The Mexican huggers are sounding, and Santa Anna will not accept surrender.

**THE EDITORS SPEAK**

**DEFEND THE ALAMO**

**RATING:** 3/4

**PROS** Fast, fun, and furious little wargame with lots of nice historical touches. Turns a distant, textbook history lesson into an impassioned, hands-on experience.

**CONS** Not state of the art in terms of graphics and interface. It would have been nice to play the Mexicans for a change of pace.
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Circle Reader Service #229
Strike Package Delivered!

Three-Sixty’s HARPOON II Drives Its Point Home

by Tim Carter

"Captain, we have a new contact, bearing 040, closing fast."

"Identity?"

"It would appear to be a new electronic warfare device, sir. Appears to be capable of disabling large numbers of computer terminals for hours on end."

"Take evasive action, ensign. Lock the men in their quarters and disable every PC on the vessel."

"Too late, sir. The first officer just reported that half the crew has reported sick, while the other half stormed off the ship shouting something about deficient missile modeling."

A fanciful scenario, perhaps, but certainly not without a grain of truth. With Three-Sixty’s Harpoon II threatening the store shelves for the last few months, more than a few gamers have tied up their affairs in anticipation of losing all contact with civilization.

The long awaited sequel to Harpoon takes players back into the heart of modern naval warfare. The original game broke new ground by providing players the opportunity to simulate modern naval conflict with an exceptional degree of sophistication, complexity and realism.

However, despite the large following that Harpoon had, few would argue that the game did not suffer from a number of serious flaws. The program was disturbingly unstable, and a number of serious anomalies in the combat model led to strategies which purists found unrealistic.

(Although I quite enjoyed sinking the entire Soviet surface fleet with ASW aircraft.)

Harpoon II, therefore, has a lot to live up to, as well as improve upon.

"She Sails Well, Admiral"

The designers at Three-Sixty have completely redone the user interface for Harpoon II. While pop-up windows remain, the majority of functions are now icon driven. A toolbar across the top of the main window provides almost all of the commands you will need to issue in that window, while secondary windows each have their separate toolbars.

Secondary windows? That’s right, gone is the single screen view of the action. In its place is a system of customizable windows that allows players a far more flexible and functional view of the action. For instance, suppose you are engaged in a wide ranging air battle with multiple enemy groups while simultaneously hunting an enemy submarine immediately in front of your flagship. In Harpoon, it would be necessary to constantly zoom the screen in and out to view each battle, or concentrate on one at the expense of the other.

In Harpoon II it is possible to draw a window around a unit on the main screen and have this window function as a completely separate view. Each window has its own level of magnification and may be ordered to keep one unit centered at all times. This is particularly useful for viewing missions that require high levels of magnification or that take place a long way from the scene of the action.

The formation editor, which may be called up as yet another window, has changed as well. In addition to the regular patrol zones, threat zones are now designated for each formation. These zones may be tied to an outside location (i.e. an enemy airbase), a hostile group, or simply a compass heading.

The use of threat zones makes for some realistic, as units maintain station relative to the expected avenues of attack, rather than just points on a compass. However, many players have complained that they find the formation editor user-hostile, some to the point where they refuse to use it. While I did not find it quite so cumbersome, some additional work does need to be done both to simplify it and to better document it.

Rather than struggling with extended and expanded memory, Harpoon II uses empty space on the computer’s hard drive to store much of its operating information. The result is that the game is considerably more stable. However, it still tends to slow down when a large number...
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Circle Reader Service #79
of units are active at once, even on a high performance machine. Gamers with less than a 486 may not wish to waste their time.

“LOADED AND READY TO LAUNCH, SIR”

HARPOON II also comes with new platforms, including several navies not seen in the past. The Japanese AEGIS destroyers (!) put in a couple of appearances, as do the units of several South American countries. There is even a hypothetical US battle cruiser, equipped with a seemingly endless supply of Tomahawk missiles.

Speaking of endless supplies, HARPOON II incorporates logistical questions to a much greater degree than its predecessor. In-flight refueling is now possible, as is at-sea replenishment. Unfortunately, a number of fairly significant holes remain in the logistical model, particularly with respect to aircraft.

Aircraft are ready for action 30 minutes after landing, and may be rearmed at any friendly airbase. While refueling is not unreasonable, it seems unlikely that an airbase in England would have stockpiles of Phoenix missiles on hand for any F-14s that happened to drop in for tea. Pilot fatigue, aircraft carrier arsenals, and aircraft maintenance are not considered either.

“I SHALL RETURN” Only this time, it’s North Korea instead of the Philippines. A scenario right out of the headlines pits the U.S. against North Korea.

“CAPTAIN, WE APPEAR TO BE GOING BACKWARDS!”

Not all of the changes in HARPOON II are positive. The new platform database is a case in point. While the new database provides comprehensive information on every platform available, it is considerably more cumbersome than the original. Simple things like the ability to call up all of the platforms available in the current scenario are gone. At the same time, the presentation of the weapons information is considerably more clumsy, as now three different screens must be accessed in order to get all of the pertinent information.

The manual is another aspect of the game that could be improved considerably. In this case it is not a question of moving backwards, as anything would be better than the documentation of the original HARPOON. Indeed, the manual is a considerable improvement, and is very helpful on some points. The problem here is really one of unrealized potential.

At a whopping 257 pages long, the manual includes a tutorial, a reference section, and a guide to tactics and strategy. The tutorial, while providing an amazingly easy and accessible introduction to the new interface, does not go far enough. At the very least, a section on the formation editor ought to have been included.

“AN INTERESTING ARRAY OF TARGETS AWAITS US”

HARPOON II provides a new and entertaining set of political conflicts and strategic and tactical problems. The scenarios are no longer limited to a single strategic map, and now range all over the world. Only a few involve the superpowers, and most are at least somewhat plausible politically. The U.S. versus Japan and the U.K. versus the European Common Market are a bit far fetched, but as they are among the more fun to play, who cares?

You can also relight the Falklands war, take sides in a renewed conflict between China and Taiwan or between North and South Korea. While the scenarios are well done, more than 15 might have been included, given the price tag of the overall package and the fact that the first battle set is expected to be shipping within the month.

“DARN FUN SAILING”

For all of the bells and whistles, the essence of both the old and the new HARPOON is the simulation of modern naval warfare. Despite all of the changes to the interface, HARPOON II still feels like the original HARPOON. This is not to say that it plays the same, however. Combined with the changes to the offensive and defensive weapons models, a smarter computer AI means that the scenarios are no longer the cake walks found in HARPOON. While the computer is hardly invincible, it can be relied upon to launch CAP aircraft, to not try too many stupid maneuvers, and to defend itself credibly.

Some players have complained that HARPOON II is too hard on human players when modeling missile combat. Both AAW and ASW weapons appear to be more accurate when used by the computer. However, given the ridiculous ease with which one was able to sink enemy assets in HARPOON, I don’t consider this to be a serious problem, except that it may not reflect actual mission kill probabilities.
Mom, why is the video on the computer so TINY? An' how come it's so weird and JERKY?

That's what they used to call “multimedia,” Melvin.

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staff assistant particularly dislikes groups, splitting up both ships and aircraft every chance it gets. This is both aggravating and dangerous; most players will, for better or for worse, want to keep control themselves.

"CAN YOU CONFIRM A SUCCESSFUL LAUNCH, COMMANDER?"

HARPOON II is one of the few games on the market that can credibly claim to be able to simulate both large fleet actions and very small engagements in the same package without sacrificing playability or excitement at one or both levels.

A number of problems remain, including the usual bugs, quibbles over the accuracy of some weapons models, the lack of comprehensive logistical planning and the clumsiness of some aspects of the interface. According to the design team at Three-Sixty, an upgrade which solves many of these nagging problems is on its way.

In the end, the decision to buy this product ought to be based upon your overall gaming preference. HARPOON II is an immensely technical treatment of a complicated subject. It therefore requires considerable effort in order to play, and for users not familiar with the system, will involve a lot of work. However, it remains a benchmark in terms of modeling of modern warfare. The nature of the product ensures a tremendous amount of flexibility in terms of additional scenarios and add-on products which should keep gnomards happy for years. While it will never be the King of Beer and Pretzels, for serious wargamers, HARPOON II truly is the Queen of the Sea.

THE EDITORS SPEAK

HARPOON II

RATING

PROS

Immensely technical, complex and detailed, HARPOON II offers lots of new platforms, scenarios and a versatile Windows-like interface.

CONS

The strong points are also the weak points. Immensely technical, complex and detailed, the mission editor doesn't alleviate the need for serious micro-management.

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ONCE IN A VERY LONG TIME, YOU FIND SOMETHING THAT IS GENUINELY GOOD. WHEN IT’S A SOULMATE, YOU MARRY THEM. WHEN IT’S A RESTAURANT, YOU TAKE YOUR FRIENDS THERE. AND WHEN IT IS A COMPUTER GAME, YOU PLAY IT UNTIL YOUR MOUSE EXPLODES.

Strategic Simulations’ new Wargame Construction Set II: Tanks! would seem to contain all the elements that spin a wargame’s wheels, from Nazi Panzers and Chinese hordes to friendly fire and limited intelligence. Machine gun companies and Sherman tanks alike are yours for the taking in a limitless number of scenarios from the entire 20th century. It’s got all the right pieces, but how well does it all come together?

Actually, Tanks! as a title is something of a misnomer. While it does have a wealth of information on armored warfare, the design focuses almost as much on infantry-only battles. While the units are represented by the standard NATO symbols or silhouettes, the graphics sport more color and crispness than is usually the case with wargames, with movement, range, and attack strength being shown on the unit display. There are graphic representations for units firing, with corresponding explosions when a target is destroyed.

The audio segments are interesting, with each unit type having its own noise for movement. Infantry marches, tank treads grind, and truck tires squeal as they go scooting across the map. However, players wishing to play a quieter game, or let their spouse sleep in, may turn off the audio and miss out on the atmosphere.

POINT, CLICK...FIRE!

Tanks! uses a simple point and click interface with each unit equal to a platoon, and groups of platoons organized into companies. The computer activates a company based upon its speed and morale, leaving you to select any platoon of the active company by simply clicking on the unit. You then pick a target hex and right-click with the mouse to move there, or left-click to fire at the position—an exceptionally simple and efficient way of commanding your troops on the battlefield.

Despite the interface, Tanks! strives to be more than just an introductory game. The database of the grognards happy, as well as novice tank commanders.

SUDDENLY, A TWIG SNAPPED...

The entire game is played with hidden units and spotting rules, currently the rage in computer wargames. Sending your forces through dense woods in a blinding blizzard in search of the Chinese Army while listening to the marching of the hidden enemy creates an appropriately eerie sensation. Even the most jaded of gamers will be pleasantly surprised by the unpredictability of play, as both armies struggle to find each other.

The computer opponent has three different difficulty levels, but is pretty good at even the average setting. Stupid moves meet with disastrous results, as the computer does not sit idly by while you search for its forces. I will never forget the time I sent my cocky column of Abrams tanks straight down a road into entrenched Iraqis, only to have it completely destroyed by one Sagger missile unit. While I enjoyed being challenged by the computer opponent, I wondered at the results. Even the most well-laid ambushes rarely achieve such a high kill ratio as in this game. However, if you don’t mind playing with a lot of caution and hugging the terrain, the battles are tense and, for the most part, well-balanced.

The handling of air power is done in a creative fashion. Rather than becoming bogged down in deciding the difference in attack strength between a Sopwith Camel and a B-52, air forces are broken down into four generic classes: light propeller, heavy propeller, light jet and heavy jet. Depending on the era and technology level of the army, air units are either controlled by the computer, or the player will have limited control over...
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placement and timing of air strikes. Once a target is chosen, the aircraft must make an approach on the enemy unit and survive any anti-aircraft fire. This serves to show the importance of developing close support tactics for aircraft, and how modern communications have forever changed the face of war.

THE OBSCURE WARS SERIES
The TANKS! random scenario designer may bring you back to the days before hard drives, because it recalls nothing so much as MECH BRIGADE. Eras covered are 1918, 1950, 1967, 1973, 1991, and a hypothetical near-future, with the battles taking place in either arid, temperate, or frozen climates. Another menu lists the amount of habitation, roads, wilderness, and roughness of the terrain. Finally, the computer will ask what the average mobility of the forces should be, and how large of a force the player wants to commit. Once these commands are issued, the computer will devise a scenario based on actual orders of battle for the number of bi-monthly magazines which include a boardgame, as well as having more companies turning out a variety of titles. Let's face it, MicroProse or QQP will never do the Siege of Malta nor win as great Battles of Yemen series, but now we don't have to wait for the computer companies to design our battles. My favorite war of the 20th century has always been World War I, but most game designers seem convinced that this era was composed of nothing but bi-planes and Dreadnoughts. In an attempt to rectify this situation, I sat down to design a battle based on the Meuse-Argonne. Creating terrain was simple enough, as all the terrain tiles need only be selected from a list and placed on the map. After laying down plenty of woods and trench lines, I moved on to the unit selection screen.

The unit selection screen allows you to build companies out of any forces that were historically available. Again, it was a simple process of pointing and clicking: before I had a German Army with machine guns and heavy artillery being assaulted by hordes of light American infantry supported by French 75s. While the battle had the right result—an eventual American victory—it had far too many casualties for even a WWI battle. The feeling is much more generic than the marketing hype on the box would have you believe. There is no provision for selecting individual units, for instance—you take what the computer gives you, trusting that it will select appropriate units within the parameters you define. Thus, the “realistic orders of battle” are more than a little suspect.

Now, I don’t expect every game to be the ultimate in realism, but when a product claims to be the definitive treatment of 20th-century combat, there is a certain expected standard to which it should aspire. Overall, TANKS! is a good game, but a coherent view of tank warfare isn’t. For all the data poured into the design, it doesn’t really capture the feel of platoon/company combat, even in a broad sense. While I enjoy blasting away enemy units as much as the next guy, the inability of units to retreat or rout is a huge drawback. Most of the trappings of tactical combat are included, such as opportunity fire, but it often seems so incredibly inefficient that you wonder about the accuracy of the combat algorithms. Surely, some of the time, well-trained soldiers (and even green recruits) must know to run for cover.

Should gamers madly retreat from TANKS? It really comes down to what they want from a game. Much older games are no more complex or no less fun—but they do lack the crisp graphics and sound of TANKS! Hardcore gamers will be disappointed that all the data included doesn’t make for much of a simulation, but those who simply want to push around military hardware and approximate their favorite conflicts of this century will have the rough approximate of a very good time.

TO THE GREEN FIELDS BEYOND In WWI scenarios, tanks provide the crucial new element in a combined arms force poised to break the four-year deadlock of trench warfare.

THE EDITORS SPEAK

WARGAME CONSTRUCTION SET II: TANKS!

RATING ★★★★

PROS Easy, fast, and challenging to learn and very playable. The best looking wargame since the V For Victory series.

CONS Very unrealistic combat mechanics and results. The construction kit aspects are not as flexible as one would expect from a product billed so heavy as such.

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Poised To Strike

Scott Hamilton's One-Man

TIGERS ON THE PROWL Show Begins A Blitz Tour

by Terry Lee Coleman

The lumbering tanks moved forward, their clanking treads protesting like noisy steel serpents navigating the rough, broken terrain. The commander looked at his maps one last time—just ahead was Hill #35. Determined that his troops would attain the objective first and hold the position until the slower infantry could establish an observation post, he brought his unit forward with caution. Yet, almost before he had finished giving the order to move forward, a tremendous explosion left men tumbling about the belly of the tank like seeds inside a dry gourd. Quickly determining that no one was seriously injured, the commander turned to his radio operator: "Get HQ and request an airstrike. It looks like the Russians got here first, and we'll pay hell getting that artillery off that hill by ourselves."

I COULD HAVE HAD AN 88

While firepower may be the modern era, in WWII tanks were the undisputed masters of the battlefield. Fast for their time, they combined awesome striking power with mobility, protected by armor so thick they seemed like dreadnoughts on dry land. Scott Hamilton proved he was a designer to watch with his realistic Point of Attack, but here his fascination with armored units is laid bare, as TIGERS ON THE PROWL examines the eastern front of WWII in excruciating detail.

While tank games are certainly making a comeback, this is the game for panzer freaks. Here the emphasis is tactical, with individual units representing companies or sections. All the expected stars are here, from the behemoth Tiger of the game's title, to the T34/85, the quintessential Russian tank and one of the finest armored vehicles in history. The tanks on your computer screen look pretty lame when compared to their historical counterparts, however, and many will be turned off by the lackluster graphics. HPS Simulations, as a one-man company, does not attempt to match the graphics and sound of bigger companies (those familiar with the graphics in AIDE DE CAMP will feel right at home here), but one has to wonder why some digitized sound sampling couldn't have been used. Still, those looking for a pretty game are missing the point, as Hamilton focuses on making his games the most realistic on the market.

THE COMBAT CALCULATOR

As one would expect from Scott Hamilton, however, the physical modeling of weapons systems is very accurate. Armor thickness and angles of penetration/de-
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FUTURE VISION™
Night fighting is included and contrasts the lethality of the weapons with the confusion of finding the enemy in the darkness. Weather is an option, and playing a normally sunny scenario in a muddy quagmire will cause you to refine tactics on the fly.

The big question is the AI, and Hamilton's design is just as thorough here as the rest of the game. The decisions of the computer opponent are based on sound military principles derived from the designer's military experience and, more importantly, they play by the same sighted rules as any human, a big plus for most gamers. Replayability, always important in a wargame, is enhanced by the fact that the AI's strategic choices have some randomness factored in to force you, through its unpredictability, to make adjustments. It may not be the same as playing a human, but Tigers offers the best silicon opponent, along with Carriers at War II, that I've seen this year.

The design also factors in mines, so often ignored in wargames because US forces aren't exactly adept in their use (to be kind). Kursk is therefore simulated properly, as are many smaller battles with an emphasis on mines, as you learn the fine art of clearing approach lanes.

Even with all these details, movement is fairly simple to execute, as the computer will figure the best way for a unit to maneuver.

This means, of course, that hills become extremely important for observation and are often the focal point for assaults. This is where the infantry comes in. Tigers shines with regard to combined arms. Though the "grunts" may have to play second fiddle to the tanks, they do have a few tricks of their own. Flame-throwers can destroy treads and Panzerfausta can knock out an entire unit. Infantry units have the ability to infiltrate enemy positions, and more than one player will grimace at the prospect of having to use tanks to pry infantry out of towns, as their ability to disperse makes them difficult to destroy. If you like to gamble, you may even close assault enemy vehicles, but if the tank survives...

Airstrikes may be called in TGERS, as well, but you select only the general area, and the aircraft pick the specific target from their vantage point in flight. Similar to artillery plotting, selecting a target too close to your own troops may bring losses to friendly fire. This may well be one of the best treatments of a sensitive (and rarely simulated) topic in computer wargaming. Another controversial aspect of the game is that flames may spread from one area to another affecting woods or even towns where you never fired a shot. It makes you think a little before going crazy with that flame-thrower.

The editors speak

**TIGERS ON THE PROWL**

**RATING** ✭✭✭✭ 1/2

**PROS** Incredibly detailed and realistic model of armored combat, including hard data and "soft" factors. Excellent documentation and customer support.

**CONS** Lackluster graphics and sound with a difficult interface. Heavy number-crunching will require at least a fast 386.

As can be seen from this unit manifest of Waffen SS units at the battle of Prokhorovka, Tigers doesn't let controversy compromise its attention to historical detail.

HEINRICH HIMMLER, WHERE HAVE YOU GONE

As can be seen from this unit manifest of Waffen SS units at the battle of Prokhorovka, Tigers doesn't let controversy compromise its attention to historical detail.
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Tactics And Tips For X-COM: UFO Defense

by Jeff James

With its first-rate infantry combat engine, intense strategic game, and sleek futuristic setting, MicroProse's X-COM has all the markings of an addictive gaming classic. As the supreme commander of Earth's defenses against an alien invasion, you enjoy an incredible number of options. While this flexibility is undoubtedly central to the popularity of X-COM, it also serves as a stumbling block for many aspiring X-COMmanders. You're required to simultaneously don the hats of a politician, administrator, research scientist, construction engineer and combat trooper. This strategy guide will help you keep these hats firmly on your head and, hopefully, prevent the removal of that head by a well-placed alien plasma bolt.

A BASE WITH A VIEW

After choosing your first base site, immediately add extra living quarters and storage space. Follow with an alien containment facility so you can capture and hold live aliens for study. Buy as many scientists as your base can hold, and immediately get them started on researching laser weapons. After you start making some money, you should build base defenses. Keep in mind that base defenses are ineffective when a base's combined defense value is under 2500 (you can see this figure displayed on the base information screen), so purchase a considerable amount of weapons to keep your bases safe. The ideal solution is to have plasma base defenses teamed with a gravity shield and a mind shielding facility to prevent aliens from finding your base in the first place.

When building new bases, try to position them in areas with a high concentration of wealthy countries. North America and Europe are obvious choices, as is a down or where interceptors are launched.

Although you're stuck with the basic structural layout of your first base, you should try some different design ideas with newer bases. When building a new base, try to isolate the access lift and hangars from the rest of the compound. For example, locate all your hangars on one side of the base with the access lift connecting the hangars and the rest of your base. The reason, of course, is that when aliens attack, they enter the base through hangars and access lifts. By limiting the number of entry points invading aliens have available and by channeling the invaders to designated choke points, a small number of X-COM soldiers can defend a base against a much larger force.

CALM AMIDST THE CHAOS

Heavy Weapons Platforms tend to make a shambles of the playground, but they provide instant cover for X-COM troops, and are immune to alien mind control schemes.

AIRCRAFT AVAULANCHE

As soon as the game begins, you should remove and sell the Stingray missile launchers from your interceptors and replace them with Avalanche missile launchers. You'll eventually want to equip each of your interceptors with plasma and laser cannons as soon as you are able to produce them. This will extend the usefulness of your interceptor aircraft and eliminate the need to constantly restock cannon rounds and missiles. While you're waiting for your researchers to develop those new weapons, you can team up your interceptors—up to four at once—on one
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UFO. To do so, have all your available fighters attempt to intercept the alien craft. As soon as your first intercepter engages the UFO, click on the “standoff” button and then minimize the window. Wait until your other intercepters engage the UFO, then order them all to attack. This tactic works especially well on large and very large UFOs which tend to pack a considerable amount of firepower.

When you are finally able to start building advanced craft—such as the Firestorm, Lightning and Avenger—be mindful of your Elerium consumption. These craft need Elerium for fuel, which can usually only be found by attacking alien bases and larger UFO crash sites. Using conventional intercepters equipped with laser and plasma cannons is a more prudent method. Although the Skyranger troop transport is slow and has a small carrying capacity, it is very cheap and effective. Build and use the Avenger only if you have large reserves of Elerium handy.

SCIENCE GOES TO WAR

To succeed at X-COM, you need to constantly research new alien technologies. At the start of the game, you should immediately research the following items in order: laser weapons, laser pistol, laser rifle, heavy laser, laser cannon. This line of research will give you laser rifles, which are cheap, effective weapons that never run out of ammunition. Laser cannons can be used to replace the shell-using cannons on your intercepters. Once you’ve investigated at least one UFO crash site, you should research these following items: Plasma Rifle (and Clip), Heavy Plasma (and Clip), Plasma Cannon, Alien Alloys, Personal Armour, Alien Grenades. Researching the plasma weapons will allow your troopers to use the most common weapon of the enemy, so rather than produce the weapons yourself, your grunts can recover them from successful skirmishes with aliens. Without personal armor, your soldiers are going to die with alarming frequency. Researching alien alloys allows you to build personal armor, which will boost your soldier’s survival rate by a substantial margin. With plasma weapons, alien grenades and personal armor, your soldiers will have a much better chance of survival. Finally, never let your scientists or engineers sit idle: there are always new research projects to start and new weapons to build.

TONS O’ FUNDS

There’s no doubt about it: money makes X-COM’s beautifully delineated tile-based world go ‘round. You receive funding from three sources: donations from member countries, the sale of captured alien objects, and the sale of arms you manufacture.

Donations From Countries: The major countries of the world will continue to fund the X-COM project so long as you keep their skies free of UFOs and their cities free of alien invaders. At the end of every month, the program assigns a point value to every action you performed in the previous month. You’re given a certain amount of points for destroying UFOs (the larger the ship, the higher the point value), and half that amount for shooting them down intact. Ultimately, the highest point values are given when you shoot down a UFO and then investigate the crash site. If you choose to shoot down UFOs and not investigate crash sites you’re missing out on roughly half of the total point value, plus the opportunity to capture live aliens and research new technologies. Killing aliens in tactical combat gives you points as well; capturing them will give you double that amount. In addition, invading an alien base pays off with a hefty point boost. But combat isn’t the only way to keep funding nations happy: successful research will also earn a small number of points each month. If you botch things up—let too many civilians get killed in terrorized cities, lose a few to many soldiers, or lose too many X-COM craft to hostile UFOs—the program counts those actions as negative points. At the end of the month, both positive and negative points are totaled and you’re given a qualitative rating. Do well, and your funding will increase. Do poorly, and it may decrease—even to the point of a country removing its funding entirely, withdrawing from the X-COM program, and signing a pact with the aliens. To summarize, aggressively pursue UFO contacts, investigate all UFO crash sites, eliminate every alien base you can find, and continuously research new technologies to keep countries happy.

Selling The Spoils: After most alien encounters, your troopers will recover large quantities of alien weaponry, supplies and corpses. If you haven’t yet researched an alien artifact, sell off every unit you stock except one; the same goes for alien corpses. Heavy Plasma weapons, UFO Navigation and UFO Power Sources all fetch tidy sums on the open market.

Arms Dealing: As a last resort, you can manufacture goods and sell them on the open market. Although you do gain some cash for doing so, the cost of paying the engineers to build the item, plus the cost in material and man-hours lost is usually not worth the expense.

COMBAT: KEEPING THE SQUADDIES ALIVE

Tactical Tips: The best advice for combat is to use the best troops. Review each of
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your soldier’s ability ratings and sack any soldier with less than 50 bravery or firing accuracy points. Replace the fired soldiers with new recruits and repeat the process. Soldiers with high strength ratings are better at carrying heavy weapons, while others make better marksmen and scouts. Unfortunately, the game doesn’t allow you to view soldier stats in the equip soldier screen, making it far too easy to equip your weakest soldier with your heaviest weapon. To compensate for this design flaw, attach a one or two letter identifier to a soldier’s name to indicate what he or she is best at. For example, a soldier strong enough to carry heavy weapons would have an “-HW” attached to his name; soldiers with high firing accuracy can be tagged with an “-M” for marksman, and so on.

Avoid night missions whenever possible; wait until dawn to approach a UFO landing or terror site. If it absolutely, positively has to be there over night, equip your troops with electrofrogs and incendiary munitions, which burst into flame upon impact, illuminating the target area. Before combat, make sure that every soldier has a primary weapon in one hand and a grenade in the other.

Once combat begins, always end your soldiers’ movements in a kneeling position and under cover. When dispersing group of your soldiers, that trooper may decide to shoot the alien—and kill your soldiers in the process. To get around this, consider using up all that soldier’s time units before the end of the turn.

If you have several rookies in your squad, equip a few of them with auto-cannons and heavy cannons loaded with high explosive rounds. Since the aforementioned weapons have a larger area of effect than standard weapons, this will offset a rookie grunt’s poor shooting ability and allow him to bag more aliens. When choosing shot types, aimed shots may be effective, but they also consume most of a troopers movement points and are next to useless when the trooper is a rookie. Rely on snap shots for long distances, and auto fire for short to mid-ranges. When moving your troopers, spread them out in a loose skirmishing formation, 5-6 spaces apart. This will minimize the chances that they’ll all get killed with well-placed grenade, and it will also increase their alien detection ability. Advance in leap-frogging movements. Move some soldiers, keeping their movement covered by other soldiers with a large reserve of time units. Always (except in the special case of troopers with area effect weapons) leave your troopers with enough time units to perform a snap shot during opportunity fire.

When assaulting aliens hunker down in their UFOs, a good tactic is to toss proximity grenades in front of the UFO’s entry door. Although it may take some time, most aliens will eventually exit their craft and trigger the primed grenades. If your squad is equipped with flying suits, you can jump up to the top of most UFOs and enter them via a top hatch. Dropping through the top hatch of a UFO is also a good method to use when attempting to capture aliens alive, which is essential to finishing X-COM. The stun rod is next to useless in this endeavor, so rely upon the small launcher equipped with stun bombs to incapacitate these aliens. You’ll need to interrogate three different alien types to get all the information you need: an alien officer, an alien leader, and an alien commander. Most high-ranking aliens will be found at alien bases and in the upper levels of multi-level UFOs. While on the topic of stunning your foe, you can also stun any civilians you encounter during a city defense mission. Alien soldiers will treat stumped civilians as dead ones, so you will gain points for keeping them alive. Finally, don’t worry about having your soldiers pick up discarded alien weapons and other goodies during combat; they will automatically be recovered when the combat is over.

Messing With Your Mind: If you’re losing battles to alien mind attacks, there are a couple of things you can do to improve your situation. IHWs (see below) are immune to mind control, making them ideal for rooting out hidden Ethereal and Sectoid aliens. If you have one soldier that is being repeatedly mind controlled, chances are that he has a low latent psionic ability. Sack any soldier that is frequently mind-controlled and replace him with a new recruit. For the ultimate defense against mind attacks, you’ll have to capture a living Ethereal (any) or a Sectoid leader or commander. After you’ve researched those living aliens you’ll be able to build your own psi-lab and train your soldiers to perform mind attacks of their own. Once your soldiers are enrolled in a psi-lab, you’ll be able to see all of their psionic abilities. As with any other ability, if a soldier is pitifully low in psionic ability, he should be sacked or assigned to a non-psionic combat team.
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Tanks For Everything: One of the most effective weapons in the X-COM arsenal is the heavy weapon platform, or HWP. Basically a miniature tank, an HWP gives you a number of advantages on the battlefield. They normally have a large number of movement points, making them perfect for scouting out enemies, and they're also immune to mind control, making them extremely effective weapons against Ethereals and Sectoid aliens. The HWP Rocket Launcher is a good first choice, but you should replace that tank eventually with the vastly superior hover tank as soon as you can build it. To build hover tanks, you must have completely researched the Firestorm craft, plus plasma weapons for the hover tank/plasma and the blaster launcher for the hover tank/launcher. On the downside, HWP are expensive, make for large targets, and don't take much damage to destroy (with the exception of the hover tank HWP).

Defending The Homefront: In the unfortunate event of an alien attack upon an X-COM base, you'll need to move quickly to destroy the alien invaders. Your best defense is to equip your soldiers with armor beforehand and stockpile plenty of weapons in your base storage. Any weapons stored on a Skyrunner, Lightning or Avenger transport craft will not be available during combat, as these craft are evacuated before any base invasion.

If you've designed your base properly, you'll be able to hold the aliens by securing the access points—access lifts and hangars. Aliens invading an X-COM base usually carry at least one blaster launcher, which launches devastating blaster bombs that can decimate your entire squad in one blow. To avoid having your squad killed in this fashion, try hiding your troops behind doors during alien movement, then zip out into the passageway to fire at any aliens, then dash back behind closed doors. You may want to keep a spare HWP at each base to serve as your "eyes and ears" during a base assault. Another good tactic is to lay down a gauntlet of proximity grenades in front of your access lift and hangar entryways, providing a ready-made minishield that the aliens must cross to reach you.

IF ALL ELSE FAILS—CHEAT! If you want to employ the ultimate weapon against the alien menace, you can use a hex editor to edit the data files in X-COM to give you unlimited funds, invincible soldiers and other special powers. Two of the most popular offerings for editing X-COM saved games are Michael Chen's X-COM saved game hex editing tutorial (available on many networks) and an X-COM saved game editor by a programmer who calls himself "Findline." Using either of these utilities will give you an overpowering—albeit un-sporting—weapon to use against those bug-eyed nasties. Die-hard X-COM commanders may bristle at the thought of using a wimpy cheat file or hex editor to improve their position, but cheating can rescue the floundering commander in a hopeless situation. Regardless of the means you use to finish the game, you should still keep an eye on the shelves of your local software shop. According to a spokesperson, MicroProse is planning one, but two follow-up products patterned after the original X-COM. Some of these idle banter—get out there and save humanity!

A special thanks to Julian Gallop, High Commander, X-COM UK Forces, for his assistance with this article.
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The Play's The Thing

Ascending The Throne In Avalon Hill's KINGMAKER

by M. Evan Brooks

While KINGMAKER sports a relatively accurate historical milieu, the game mechanics do not reflect a simulation of the War of the Roses per se. Rather, KINGMAKER recreates the spirit of the period in a more impressionistic fashion, emphasizing shifting alliances and loose coalitions coupled with randomness and luck. Victory is attained through having the last surviving Royal Heir crowned monarch of England. The power of the game lies in the noble houses, much like a game of chess wherein the king is essential, but is hardly the most powerful piece. Historically, the Yorks and Lancasters were more powerful in their own right than is reflected in the game, but this is not a game flaw as much as an intentional design parameter.

Originally designed as a boardgame by Andrew McNeil in 1974, KINGMAKER was released in the United States by Avalon Hill two years later, and has become a classic of wargaming. There were some minor differences between the early British boardgame and the Avalon Hill version, and of course, there are minor differences between the boardgame versions and the computer game.

Possibly the greatest advantage of the computer game over the boardgame is the automatic movement. When a mission is ordered to the Cinque Ports, the computer will move the affected forces there. No longer are you forced to squint at the map and determine where the Cinque Ports are located (never noted on the map; only historical triviaists and veteran players knew such locations). Road movement and control is similarly easy to determine—in the board game version, heated debates occurred over whether or not Shrewsbury controlled York in the road.

Uneasy lies the head that wears a crown.

Henry IV Part II, Act III, Scene 1

While ultimate victory is awarded to the player with the last surviving heir, the initial stages of the game generally engender a mad scramble for all potential claimants. Securing a Royal Heir tends to make you a target for the other factions, so it is often a good strategy to let the other factions weaken themselves first.

The major advantage of possessing a crowned monarch during the game is the ability to call parliament into session (if no monarch is extant, or if there are two rival crowned monarchs, then the Marshal of England has this power). This power is less effective than it seems. As a New York judge once noted, “No man’s life, liberty or property are safe while the legislature is in session.”

A convening of Parliament allows you to distribute offices to various nobles. To your dismay, you will often discover that when you finally have the power to call Parliament, your strength is such that the distribution of offices fails to significantly improve your position. This is exacerbated by the fact that you must distribute offices in a pro rata method to rivals as well.

Although a disadvantageous position may be improved through a calling of Parliament, this set of circumstances seldom arises. A more
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subtle benefit of a Parliamentary call is that it may be used to split up a rival's force. After the Parliament is concluded, the King's Peace assures that no hostilities will ensue between attendees for another turn, but if the locations of rivals are propitious, you may use the Parliament to call a rival noble, and then afterwards pursue him and destroy his power after the King's Peace has ended.

A horse! A horse!
My kingdom for a horse.

Richard III, Act V, Scene 4
Horses are invaluable: when you simply must get there, the horse is the 15th century equivalent of Federal Express. Still, you cannot count on always having equine transport available, so use it only in situations that will radically improve your position. Frittering horses away for mere tactical expediency is a movement towards defeat.

Let's talk of graves,
of worms, and epitaphs.

Richard II, Act III, Scene 2
You have two options when you capture a rival noble: ransom or execution. When considering a ransom, you have the opportunity to view a captured noble's assets before deciding. Unfortunately, ransom is a one-time demand; there are no negotiations and counter-offers. If the captured noble rejects your offer, then the prisoner is executed.

In terms of game play, it is recommended to set the ransom as high as possible. If it is accepted, the enemy noble will be released, and the player will not want a strong force left in his rear. If the ransom is rejected, the prisoner's execution will remove him as a threat. In fact, in the mid to end game, with the bulk of nobles in play, execution may well cause the same noble (or more specifically, his heir) to join the player's faction. This is ahistorical, since heirs were generally somewhat alienated by the execution of their father and reluctant to join those responsible. Discussions with project manager Jim Rose revealed that Version 2.0 may well recognize the negative impact of this action and not allow the player to benefit from a noble's execution.

Once more unto the breach,
dear friends, once more.

Henry VI, Act III, Scene 1
Combat operations are more regulated than is normal in the wargame genre. The odds of victory in the open field are:

<table>
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<tr>
<th>Ratio</th>
<th>Victory</th>
<th>Indecisive</th>
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<tbody>
<tr>
<td>1:1</td>
<td>15%</td>
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<td>3:1</td>
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<td>4:1+</td>
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Inclement weather can prevent even the most propitious battle from occurring. Thus, make sure to prepare contingency maneuvers, so that a non-occurring battle doesn't leave your forces ripe for a fatal riposte. Even a victorious battle can still cause casualties among the victors. A battle in which you defeat the enemy, but lose your strongest noble together with 100 mercenaries cannot be considered more than a Pyrrhic victory. Do not over-commit your forces (see "Done Like a Frenchman" below for an appropriate response).

Advanced combat operations allow you to "take the field" in tactical battles. Note that the combat odds table generally favors the attacker; the same is true of tactical combat. Generally, the best use of tactical combat is to form "Assassination Divisions." If the enemy force has a powerful noble whose demise would severely weaken the opposition, choose the tactical battle and commit all efforts to the assault on that particular noble. Most other tactical maneuvers will be moot versus the computer opponent.

Interestingly enough, siege operations also favor the offense—only even more so than open field combat. The defender will face an 85% chance of surrender, provided the attacker has enough in his force to besiege. When defending, rather than waiting patiently for defeat within the castle walls, sally forth into the open field to improve the odds. Remember—an indecisive result is always better than an outright defeat.

We few, we happy few,
we band of brothers
For he today that sheds his blood with me
Shall be my brother

Henry V, Act IV, Scene 3
Use the Force! (Oops, wrong millennium.) But do examine your forces carefully. Decide which noble will publicly join your faction and where he will start. Since several nobles have more than one castle to choose from, experience in recognizing which nobles can meld together quickly is an advantage. All nobles are not created equal. For instance, Stanley is a strong noble, but one who begins in the Isle of Douglas. Without a ship, he has no chance of becoming a serious force. Even worse, he is often called back to the Isle of Douglas after it has taken numerous turns to get him to the mainland. There are two
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**EURO PC CD-ROM MAGAZINES**

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4th Dimension Ent., a Div. of Computer Basics, Inc., 1490 N. Hermitage Rd., Hermitage, PA 15124
Customer Service 412-962-5223. Orders normally shipped in 1 business day. Overnight shipping as low as $5.00. No hidden handling charges. All Express Service: $5.00-7.00. $1.00 to $5.00 (Minimum $7). $2.00-4.00. Minimum $10. Over $500 call. COD orders ok, add 5% Sales tax subject to change without notice. Adjustments made within 10 days of purchase. Restocking charge may apply. Returns are accepted without price authorization. Customers responsible for return shipping.

Circle Reader Service #205
KILL ALL THE LAWYERS You don’t have to be Perry Mason to issue a writ and pull dangerous rivals away from their massed forces to Parliament.

DELAYS HAVE DANGEROUS ENOS Random events not only make KINGMAKER replayable, but reward the opportunistic gamer.

solutions: (1) assign a ship to Stanley and after he is on the mainland, commit this “Stanley Steamer” to the Isle of Douglas, ever ready to return Stanley as necessary; (2) assign Stanley a title and a major office. The offices of Marshal or Chancellor of England will insure that he stays on the mainland; this may not be exactly where you want him, but such a force is useful as a “Risk Force,” analogous to the Imperial German Navy’s role in W.W.I.

Done like a Frenchman; turn, and turn again! 

Henry VI Part I, Act III, Scene 4

KINGMAKER does not reward “perfect play” schemes, which is a large part of its charm. In fact, concentration and massing of forces simply makes a good target for The Black Death. There is no easy way to avoid the utter devastation of disease, and unlike most aspects of feudalism, the plague was non-discriminatory of rank or station in life. In fact, with the nobility living in damp dank castles, disease was even more virulent among the high born, but in game terms, home castles are plague exempt, although Royal Castles are not.

But knowing that disease is an equal opportunity device provides little consolation when your last Lancastrian or Yorkist Heir falls victim to disease, together with the bulk of your titled nobility. There are two methods of plague...
avoidance; dispersion and cheating. Dispersion simply keeps your forces from uniting in a mass target for disease. Historically, armies of this period could not be logistically supported for any period of time, and conditions were ripe for disease. Therefore, keeping subordinates in separate but manageable armies can do much to offset the ravages of plague. Concentration of forces should only be done when the end move is ready. On the other hand, dispersion does make one more subject to defeat in detail by the opposing forces.

For the less ethically-inclined, the surest way to avoid the plague is simply to save and save often. Massing a large army and laying waste to the opposition can be done safely and securely. And remember, the opponents are computer opponents and their memory can be erased with a flip of a switch (i.e. they won't tell).

Even more important than plague is the initial draw and placement of your forces. Since this is a purely random operation, close examination of friendly forces is a must. While anyone can become Kingmaker with an outstanding starting hand, the challenge lies in achieving dominance when dealt from the bottom of the deck. However, there are some hands that are best folded. With an atrocious starting hand, gameplay can become tedious and self-defeating. In games where you begin with fewer than two nobles, at least one of whom is either entitled or has the assets to become entitled, you would be well-advised to restart the game. Of course, this advice is only for real Kingmakers, who always play with advanced weather, plague rules and five computer factions.

Now is the winter of our discontent...

Richard III, Act I, Scene 1
Of course, no computer game is ever perfect. KINGMAKER did have some "undocumented features," most of which have been corrected in Patch Version 1.51 (available on GEnie or CompuServe). The patch offers the following fixes:
(1) One may now readily exit to DOS at the beginning and end of a game;
(2) Computer nobles cannot be assigned offices if they lack a title;
(3) Ships are more vulnerable to storms at sea;
(4) When all of your nobles in play are killed, the computer will allow you to bring another noble into play.

But the biggest "flaw" according to most boardgame enthusiasts (and the review in CGW # 120) is the lack of multiple player input. Clearly a design decision, the solitary play of KINGMAKER may well give way to a multi-player or e-mail option in Version 2.0 (due to be released within the next 12-18 months). I can understand the desire of a user for multiplayer capability. At the same time, I confess that in all the years I've owned the boardgame, I never played a multiplayer session to the conclusion. While the fanatics are the most vocal on-line, I would imagine that the number of players grateful for the ability to complete an entire game in one evening is even greater than those crying for multi-player options.

Finally, I must make a confession. Although I have read many Shakespearean plays, I had never read one of the historical plays. Computer KINGMAKER motivated me to read all of the plays covering this period of English history (Richard II, Henry IV, Parts I and II, Henry V, Henry VI, Parts I, II and III, and Richard III). Any mere game that can accomplish this must have something going for it!
alien viruses) and Hot Shots: Le Interactive (a sim-like flight game with a twisted sense of humor), Ski or Die uses a reasonably intriguing physics model, resembling many detailed flight sims.

ROBINSON'S REQUIEM from ReadySoft provides a 3-D experience in an action/adventure format. The real-time action game puts you in the position of a shipwrecked spacelander who is stranded on a dangerous alien planet from which he must escape. Though it wasn't shown at CES, we are also aware of a unique new action game from Bullfrog (to be distributed by EA). Called Magic Carpet, it is a 3-D flying carpet "simulator" where the gamer flies over three-dimensional terrain and casts spells in order to escape an evil wizard who is chasing him.

Another zany game is Capitol Punishment, a combination of arcade titles from Sierra's Al Lowe, which include "Bill and Hillary's White Water Adventure," a "Dan Quayle Spelling Bee," and Ollie North's "Shredtiris."

Finally, we are intrigued by SSI's Alien Logic. This real-time action-role-playing game is based on the boxed game The Sky Realms of Jorune, and is being produced by veteran boardgame designer Bill Dunn (a Chaosium alumnus). The game has enough action to please the most dedicated platform gamer, a marvelous real-time spellcasting system and some other surprises, too.

Sports Togs (Sports)

Dressed for the international stage, soccer was a major story during CES and, at press time, the Brazilians had just nailed down the World Cup. In computerdom, U.S. Gold is bringing the licensed World Cup Soccer game to the market, complete with the German National Soccer Team's chosen fight song, "No Pain, No Gain," to be played by the Scorpions. World Cup Soccer will be fairly standard treatment, however, compared to the import from 1-Motion. The latter's Planet Soccer offers a true 3-D perspective with regard to on-field action and allows gamers to make strategic decisions while playing through the entire World Cup competition. Players are rated for speed, technique, fitness, aggressiveness, and ball-handling skills, all of which improve with play against better competition. Fans will love the play-calling and 15 different formations included, as well as the view, which includes the entire field (plus an inset translucent map of close-ups, if desired).

Planet Soccer will offer tough computer teams, realistic goalies, FIFA rules, exacting officials, and even sudden death overtime.

More to pure American tastes, three new baseball games are currently under development. As noted earlier, Accolade's Hardball 4 will feature network/modem play and dynamic statistics (adapting for player performance throughout the year) in more than 50 categories. Another neat feature is the automatic highlight reel for recapping league play where the highlights are determined by the computer.

Front Page Sports: Baseball from Dynamix is the logical sister game to the Premier-winning Front Page Sports: Football. In addition to using the Major League Players Association license, the game has a data entry option (for creating your own teams). Another nice feature is the multitude of camera options available for following each play. You can become a regular television director in setting up FPSB. In addition, Stormfront Studios is working feverishly on Tony La Russa Baseball for 3DO. Details concerning game play are sparse, but you can expect lots of full motion video in the game.

On the gridiron, there looks to be plenty of action on the way. With actual video and color commentary by Al Michaels and Pat Haden, Accolade's All-PRO Video Football will allow gamers to coach an NFL All-Star game. Rather than using standardized footage from NFL telecasts, the design team staged 600 actual plays using the Orlando Predators of the Arena Football League as stand-ins for NFL greats. Dynamix didn't show any of the expected Front Page Sports: Football '95 at the show.

No filmed stand-ins are required for Accolade's Brett Hull Hockey '95, since video doesn't factor into the play. However, the publisher licensed the names and statistics of 700 NHL players for this product, and the game also allows you to customize the attributes of individual players. Perhaps the most innovative aspect of the game is that you have more control of the goalie than in most computer/video games based on professional hockey.

Bethesda's NCAA: Road to the Final Four 2 offers much more fluid animation than the "paper doll cut-out" look of the players in the original version and the game play is significantly improved thereby. With its emphasis on action, it is questionable that this will entice would-be coaches away from the excellent stat-based text games on this subject, but it should bring would-be players onto its computer court.

International Tennis Open from Philips Media is being developed by Info-grammes, the leading name in computer tennis games. Available on both CD-i and CD-ROM, the game offers beautiful graphics, digitized video, digitized voice and game play that seems as tough as ever from the French design team.

On the more sedate side, Amtex is releasing Gone Fishin', a fishing game that...
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**HINT BOOKS**
- Generation of Game: $16
- Sonic Strategy Guide: $16
- Turbo Grafite: $10

Circle Reader Service #200
sports some 42 different computer bridge companions, as well as all the latest bidding conventions. Of course, poker fans will get a chance to play against celebrities via the magic of full motion video in New World Computing’s Multimedia Celebrity Poker. Gamers looking for a bargain assortment will look for Cap-stone’s Anyone For Cards? with cribbage, gin rummy, hearts, spades, whist, crazy eights, hell, 31, 99, euchre, pinochle and George. In addition, Cap-stone is introducing an Ultimate Backgammon game with 3-D rendered SVGA graphics. Meanwhile, on the chess front, Mission Studios is working on Bobby Fischer Teaches Chess, and Software Toolworks is about to release Chessmaster 4000 CD.

Space combat games serve as action/simulation/strategy hybrids. We previewed Mission Studios’ Battlecruiser 3000AD in our May issue, but joining this epic space game will be three other hybrids.SSI’s Renegade: The Battle for Jacob’s Star will integrate the Renegade Legion license from FASA and flight sim graphics in VGA resolution. Take Two’s Star Crusader and Interplay’s Star Reach will also fight to conquer this niche.

Looking for a new challenge in the SimCity arena? Children will gravitate to Maxis’ SimTown, a kids’ SimCity with Playschool-looking architecture, and parents will try to find computer time for Maxis’ Tower game, SimCity goes vertical in a micro-managed arcology. In the same vein, Swfie International has The Big One, a SimCity-style simulation where you rebuild Los Angeles after a cataclysmic earthquake. With a slightly different twist, Software Toolworks is working on Metal Marines for Windows, somewhat like Konami’s (Gremlin’s) Utopia, but with two-player strategy.

Gamers looking for a bit of history with their strategy gaming will have plenty of choices. Koel’s Celtic Tales: Balor of the Evil Eye takes gamers back to the Emerald Isle during the days of Finn McCool’s Tuatha de Danann. With a mixture of magical, strategic and exploratory elements, you try to become the High Ruler of Ireland. Impressions puts gamers on the other island, allowing players to become the ruler of a tribe in medieval England. Lords of the Realm puts more emphasis on the economy than on warfare, but as in real life, the lord of the manor will have to be proficient in management, diplomacy and warfare to ensure the welfare of his people.

Meanwhile, US Gold will publish a real-time strategy game with a unique blend of role-playing, reflex-testing action and strategic warfare. Originally scheduled to be published by ASCII Software, Domnus gives players the opportunity to blend their reflexes and synapses into a concert ed attempt to conquer a fantasy world. Similarly, New World Computing’s Heroes of Might and Magic unites strategy and adventure elements in a new game that suggests an SVGA update of the King’s Bounty, an underrated game that we enjoyed a lot. Also, don’t forget Master of Magic, the hybrid strategy game from MicroProse (this month’s cover story).

The colonial era provides the backdrop for three intriguing games. In early ’95, Impressions will release High Seas, a strategy/ adventure game that will allow gamers to assume the role of a 17th Century privateer or trader. The game features a very intuitive interface to allow sailing from port to port and the most impressive graphics yet from Impressions. Sid Meier’s Colonization is an upcoming MicroProse release that allows gamers to build a New World colony from the ground up. It uses an interface similar to Sid Meier’s Civilization and looks like it will offer the same depth of play, (See this issue’s editorial.) Moving into the 18th Century, Avalon Hill will release a computer version of their Blackbeard game (more than “Wooden Ships & Iron Men with cards” as some have called this hybrid adventure/strategy game) in 1995.

Those who want to experiment with AI and enjoy two games due in 1994 and another on the way for 1995. Sir Tech has been showing their Jagged Alliance design for a couple of years now, but the game al-
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)

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SYSTEM REQUIREMENTS:

MACINTOSH: 13" or larger monitor, 256 colors, and 4MB RAM.

WINDOWS: 386 or faster processor, Windows 3.1, 256 SVGA monitor, 4MB RAM. Supports SoundBlaster® and other Windows compatible sound cards.
lows you to appoint AI secret agents/mercen-
aries to fight alongside your player char-
acters and help you meet the objectives. 

**Merit Software** is distributing another 

game that should sound familiar. Imagine 

D.C. True’s **Shadow President** with in-

finite replayability and enriched cyber-cabi-

net members. Then, imagine that one of 

those cabinet members will definitely 

betray you. That’s **Cyberjudas**, D.C. True’s 

new game to be distributed by **Merit**. 

With regard to abstract strategy games, 

**Accolade’s Battle Isle 2200** lets you 

wipe out far-future 3-D battleships, and **New 

World Computing’s Zephyr** lets you wipe 

out far-future tanks. Both offer multi-

player campaign games with necessary re-

source management, but the former is 
e-mail-based while the latter is real-time. 

Naturally, **MicroProse** is not wasting 
in preparing a sequel to **X-COM**, as **UFO 

2** is already in the works, with even better 

3-D modeling and the core of the comb-

bat/strategic system intact. Unfortunately, 

there are no solid details on the sequel to 

**Dune II: Command & Conquer**, which is 
supposed to provide **Dune II**-like combat 
in multiple theaters of war. In a similar 

vein, **Psynosis** has an interesting game 
called **Theatre of Death** that lets gamers 

command air, land and space troops from 
a geo-stationary spy satellite. It looks very 
similar to a **Dune II** perspective. 

Another interesting non-historical game is 
**Battlegrounds**, based on a board game 
by Bruce Williams Zaccagnino. The game’s 
premise is that the science of war is 

future, requiring you to fight various conflicts throughout the 
ages to learn your craft. A departure from the 
normal **QQP** game, combat occurs 

within the hex, each space blowing up into 
it’s own existing map. Variable rounds of 

combat, camouflage units, commandos, 
rangers, anti-tank weapons, numerous 
artillery, and bazookas, are but a few of the 
electric items which keep this game lively. 

For even more flexibility, the battles may 

be either real-time or turn-based. 

On the wargame front, there is a great 

variety of games on the way. (See **Panzer 

General** this month on page 97). New 

World’s **Iron Cross** is a real-time game 

featuring the Western Front, and **Avalon 

Hill** had a working demo of **Third Reich 
for DOS**, considerably changed from the 

Atari ST and Amiga versions. The game 

now features more pleasing graphics and 

completely reworked strategic AI. Of 

course, **Avalon Hill’s Operation Crusader** 

for DOS should ship soon, and in the wings is 

**Stalingrad**, featuring both tactical and 

operational campaign play. ETO: D-Day by 

**Arsenal Publishing** will cover the same 

front with phased movement, but will not 

5TH FLIGHT is **Avalon Hill’s** game of mod-

ern naval warfare. Rather than micro-man-

aging every weapons platform in a **Harpoon 

II**, or **Alliance’s Harpoon Classic on CD**, 
you spend more time with fleet maneuvers. 
The heart of the game lies in locating ene-

my forces. There are plenty of weapons 

platforms to choose from, and the data has 
been updated and enhanced from the 

award-winning board game. As for modern 

land warfare, **Arsenal’s TacOps** has already 
been previewed in **CGW** (#116). 

**The Quality of Fashion** 

So, there you have it—**CGW’s** report on 

the offerings from the most famous des-

igners and our take on what will adorn 

the well-dressed computer monitor during 

the coming season. Be sure to let us know how fashionable these games are once 

you get them home. That’s really 

more important than how they look at 

the Summer Consumer Electronics (Fashion) Show! 

---

**THE ULTIMATE ROLE-PLAYING AID**

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My daughter (11 years old) and I have become "Oxyd" addicts. We cannot wait to begin exploring the many other levels. Thanks for creating such an excellent product.
R. S., Germantown

This is, without question, the most impressive game I have ever seen. I am amazed at the artistry, vision and action.
George E. Takes

Wow! That's all I can say about Oxyd. What an incredible game! One of the finest games I have seen in a long time.
Thanks for creating such a challenging piece of software.
I'm completely hooked! The game is really slick, well designed.
Those first 10 levels alone were worth paying for! It's rare to find such a visually appealing, addictive and playable game.

One of the most enjoyable games I've played. Jeffrey Sendel, San Diego

I enjoy this game a great deal and so do my children and their friends.
It is just what I have been looking for! Jerome Wescott, Minneapolis

Oxyd has to be the most artistically superb piece of programming I have ever seen. From my position of having completed about one third of the single-player levels, the landscapes have been continuously varied with a marvelous attention to graphic and audible detail that makes each new one a continuing delight. I especially appreciate how the remarkable interests in seemingly realistic but different ways when rolling over or bouncing against different "natural" or unnatural substances like stone, wood, swamp, frost etc. At this point, I'm already worrying that I'll run out of levels.
Jeffrey R. Horrow

Even our 2yr old enjoys the game.

I just had to write to you how much fun I've been having playing Oxyd. The attention to detail - the sounds, the textures of the surfaces - really adds to the fun of the game. It invites the imagination for a ride.
Thanks also for making all of the landscapes challenging but not impossible.
Tom Phoenix, Portland

I'm really impressed with your game, Oxyd. Congratulations on a unique and fun product, and best luck to you all.
John M. Dodd

Oxyd Credits:

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Australian Multimedia

Best Brain Game 1993

MacWorld Game of the Year 1992

Game of the Year 1992

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The variety of play is literally, incredible.
Score this game a solid 10

A" rating - Wow! Exquisite.
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PC Zone's Game of the Year, 12/92

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Smooth Moves On The Field

How Dynamix Used 50-Year Old Technology To Produce Breakthrough Realism In Their Sports Games

by Paul C. Schuytema

WHAT DO PERFORMER CAB CALLOWAY, SHORTSTOP OZZIE SMITH, AND WIDE RECEIVER JAMES LOFTON ALL HAVE IN COMMON? THEY ALL HAVE SMOOTH MOVES OF ONE SORT OR ANOTHER, AND THEIR GRACE HAS BEEN TRANSLATED INTO GRACEFUL ANIMATION. TRACK DOWN ANY OF THE DEPRESSION-ERA MAX FLEISCHER ANIMATED SHORTS (OR THE QUIRKY 1940 FEATURE "MR. BUG GOES TO TOWN") AND YOU WILL SEE CHARACTERS MOVE WITH A FLUIDITY THAT IS RARE IN TODAY'S SATURDAY-MORNING FARE. SIMILARLY, BOOT UP FRONT PAGE SPORTS FOOTBALL FROM DYNAMIX AND YOU'LL SEE THE SILKIEST RUNNINGBACK CUTS, DIVING TACKLES, AND LEAPING RECEITIONS TO BE FOUND IN A SPORTS GAME. ALTHOUGH SEPARATED BY 50 YEARS, THESE ANIMATED CHARACTERS WERE CREATED USING A TECHNIQUE CALLED ROSTOPICING, AN ANIMATION PROCESS PIONEERED BY FLEISCHER IN THE EARLIEST DAYS OF THE ART.

Basically, rotopsicing is a way to capture the subtleties of human motion in the fanciful world of animation. Fleischer's studio in California was set up as a rotopsicing production facility. For an animated dance number like the incredible Minnie the Moocher routine from "Snow White and the Seven Dwarves," Cab Calloway would come into the studio and perform a soft shoe behind a linen screen, completely back-lit. A camera would film his silhouette, and then that film could be viewed, frame by frame, on a special animator's light table. The animator would use Calloway's image as a guide for drawing the movement of the character. It was a painstaking process, often taking more time than traditional animation, but to see Cab Calloway, reborn as a rubber-legged Koko the Clown, dancing around Betty Boop, is surely worth the effort.

In their Front Page Sports line of games (FRONT PAGE SPORTS FOOTBALL AND BASEBALL), Dynamix turned to the time-honored technique of rotopsicing to craft animations of unparalleled realism. The art team at Dynamix is quick to point out that with "traditional" animation, such as that in many other sports titles, an individual frame of animation might have more detail and graphic appeal than an individual Dynamix frame. But when those frames are joined together in an animation, the level of realism is inferior to Dynamix' games. For Dynamix, though, choosing rotopsicing as the imaging process for gameplay animation was a commitment to massive amounts of labor-intensive, pixel-by-pixel work.

Fluid computer game animation may be created in a number of ways. The most common technique is to have an artist draw the character frame by frame. The best example of this type of animation can be seen in LucasArts' Day of the Tentacle. Another popular technique is to model an image in a computer and then animate it by setting "key frames" and letting the computer handle the animation in between (more on this in next month's column). Some companies are now using motion trackers attached to a human body to transcribe joint positions into a stream of computer data. This data is then used to animate a "virtual actor" (look for an upcoming column on Origin's use of this technology in Biodome). Finally, an animation may be created by using footage of live actors as a movement reference, which is called rotopsicing.

IF YOU BUILD IT (RIGHT), THEY WILL COME This rotoscoped image gives a much more natural and fluid-looking view of a catch than could be achieved with traditional animation.
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Thumbelina, our second new game, will have plenty of impact too. It just won't make as much noise. This delightful Hans Christian Andersen fairy tale has over 17 unique characters (and voices), an original musical score and 4 complete songs! We're sure Thumbelina will earn at least "two thumbs up" from you.

In addition to these exciting games, Trimark will also be introducing two more great titles in the near future: Blind Date: A CD-ROMance Adventure and The Emperor's New Clothes, another delightful story by Hans Christian Andersen.

Pick up both of our new games today, because even the one that bombs will be a success.
When the Dynamix team got together to begin work on the first football title, several members had recently come from the now-dead Cinemaware, where they had experimented with rotoscoping in the TV Sports line of games. The team felt that the limitations seen in the other product's animations (such as a tackle in which a running back was standing in one frame and lying prone in the next) could be overcome by rotoscoping.

Mounting a Hi8 video camera atop a cherry-picker, the team headed out to a local gridiron to capture the footage they needed. Since Front Page Sports Football animates from eight different angles, the film crew had to capture eight unique takes of each action they required. They taped down markers on the field, set their camera to a 23° lift, and adjusted the focal point to optimally capture the action. Then the action began. Players, suited up in pads and helmets, ran moves back and forth, over and over again, until the Dynamix team had checked off all the moves they needed. Then, it was back to Dynamix headquarters for the real work to begin.

Working with a video editing deck, Thomas VanVelkinburgh, the team's lead artist, set up the portions of the video he needed. He would then capture the individual frames into a crude video image file, matching the final resolution of 320 x 200 pixels. Finally, using a paint program, the Dynamix artists would paint over the image, pixel by pixel, to create a frame of game animation. Special care had to be taken by the artists when working with footage of a player running to or from the camera; in the real game-field, the player is all modeled at the same size (it makes for easier player control rather than dealing with too much perspective), so some video images had to be collapsed or expanded to fit the generic player height.

When a move was set down in animation, the artist would review the work, often tweaking things to make it look just right. Arms, often only a pixel wide, would require the most work to look realistic and natural when moving or going for a block. After the cleanup work, the team would name each little animation "packet" (sometimes consisting of only a pair of frames, while other animations, such as a diving tackle, might be composed of up to 14 frames). Naming was very important, because it had to be clear when assembling the game animation which clip to show for which game event. Beyond that, the animation packets would have to flow seamlessly together, so that a running back could leap for a catch, land, spin, then sprint for an end zone. Often, single frames of animation were hand-created to serve as transitions between event animations. In Front Page Sports Baseball, many of the animations conclude with the player returning to a "neutral position," either standing up or with the ubiquitous hands-on-knees stance. This meant that fewer transitions had to be hand-created, so more frame packages could be put together to create unique animations to match the gameflow.

The FPS Football team was very pleased with the final results in both of their products. Players seemed to come alive on the screen, so much so that the mind's eye would vest the image with even more realism than was actually displayed. Patrick Cook, executive producer for FPS Baseball, said they have received stacks of letters describing things which never actually happen in the game. "People are seeing things that aren't there; the mind's-eye is filling in those details," he said. Some customers swear they saw a lineman trying to strip the ball from a running back while others claimed to witness illegal blocks and stiff-arm tackles.

**SAME TEAM, DIFFERENT BALL**

Essentially the same art team was assembled to work on Baseball. (When I talked with the Dynamix crew, they were literally working around the clock to finish the game; even with gallons of coffee pumping through their veins, they seemed lucid enough, and genuinely excited about the game.) From their experiences in FPS Football, they learned volumes about rotoscoping and applied that knowledge to the baseball project. First, instead of filming on an actual field, where the background is an image which must be cut out in a pixel-by-pixel operation, they rented a warehouse and painted an entire corner of it in "photo matte blue" so the background was electronically "invisible." They also put yellow tape on the player's main joints, the knees, shoes and wrists, to make the positions more clearly defined when the image was translated into VGA resolution. Finally, they captured the images directly into the computer. This eliminated a middle step and allowed the work to proceed directly to the artists' work on each frame.

In Baseball, as well as in the upcoming Football '95, the player can position the camera anywhere on the play-field. While this might seem to mandate a large number of animation angles, they still only shot footage from eight angles. "When you see it," explained Cook, "with the field lines converging the way they should, then your eye is fooled; it looks completely natural." Keeping the animation tightly controlled was a prime logistical issue. Each Front Page Sports game features thousands of frames of animation that are stored in compressed form, "streamed" off the hard drive, and uncompressed as the game plays.

For Patrick Cook, the technology of video captures and other computer imaging techniques truly enhances the realism of the animation, but he feels that artists are still the fulcrum on which all of a game's art balances. "You still need the skilled artist to push it out to where it needs to be."

For Front Page Sports Baseball, the art crew will feel like they've done their job if a customer says, "Wow, those look like real players!" I asked the Dynamix team if there were any animations which stood out for them. They hemmed and hawed for a few seconds, throwing out such animations as a collision at home plate, or leaping up to catch a ball, but after a pause, there was an unilaterial response: "the coil." This is the animation when an outfielder loses a high fly ball in the sun and recoils at the last moment to avoid being smacked in the face by the ball. "It's very cool," they enthused.
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* Please see advertisement for contact information.
## Business Reply Mail
First Class Mail Permit No. 433
Riverton, NJ
Postage Will Be Paid By Addressee

### Computer Gaming World
P.O. Box 10126
Riverton, NJ 08076-8626

---

### Computer Gaming World
FREE PRODUCT INFORMATION

**It’s as easy as 1, 2, 3**

<table>
<thead>
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<th>CIRCLE FOR FREE INFORMATION</th>
<th>1. What is the highest level of education that you completed? (Check one only)</th>
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### Literature Request Form

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### Literature Request Form

<table>
<thead>
<tr>
<th>Literature Request</th>
<th>3. The literature will be mailed to you free of charge.</th>
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</thead>
<tbody>
<tr>
<td>010</td>
<td>Void after December 31, 1994</td>
</tr>
</tbody>
</table>

---

**In a Hurry? Fax This Card To:** (609) 829-0692

---

**Please send me a one-year subscription to Computer Gaming World for $27.94 (U.S. price), all other countries add $11.00 for additional postage.**
### Computer Gaming World

**COMPUTER GAMING WORLD**

1. Fill in your name and address and check off the 10 questions that correspond to the ads or articles you like more information about.
2. The mailing list will be mailed to you from the advertiser's free-of-charge.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>1. What is the highest level of education that you completed? (Check one only)</td>
<td>01. Some high school or less 02. Graduated High School 03. Some College or Technical school 04. Graduated College 05. Post Graduate school</td>
</tr>
<tr>
<td>2. Computer currently owned is: (Check all that apply)</td>
<td>01. IBM compatible (Intel standard) 02. Macintosh 03. Amiga 04. Dedicated game machine 05. Other</td>
</tr>
<tr>
<td>3. In what level? (Check one only)</td>
<td>01. Pre-PC 02. Personal (512) 03. 1.44 MB 04. 512K 05. 288K</td>
</tr>
<tr>
<td>4. Do you own (or plan to buy in next 6 months) Live-ROM? (Check one only)</td>
<td>01. Own 02. Plan to buy (6 months)</td>
</tr>
<tr>
<td>5. How often do you usually buy computer games? (Check one only)</td>
<td>01. Once a week 02. Once every two to three weeks 03. Once a month 04. Once every two to six months 05. Other</td>
</tr>
<tr>
<td>6. Where are you most likely to purchase games? (Check all that apply)</td>
<td>01. Independent computer store 02. Computer store chain 03. Mass merchandising store 04. Mail order</td>
</tr>
<tr>
<td>7. What is your (and others in household) favorite type of game? (Check one in each column)</td>
<td>01. Strategy 02. Simulation 03. Sports 04. Racing 05. Other 1 06. Other 2</td>
</tr>
</tbody>
</table>

**In a Hurry? Fax This Card To: 609-829-0692**

**FOR QUICKER RESPONSE**

**FAX TO**

(609) 829-0692

**Free Product Information**

**BUSINESS REPLY MAIL**

FIRST CLASS MAIL  PERMIT NO. 433  RIVERTON, NJ

**POSTAGE WILL BE PAID BY ADDRESSEE**

**COMPUTER GAMING WORLD**

P.O. BOX 10126  RIVERTON, NJ 08076-8626
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Get Your Virtual Front End Aligned

CGW's Technical Editor Returns From CES With A Stiff Neck

by Mike Wexler

Lost in the maze of VR technology? Does "virtual reality" leave you virtually flat? Well, help is on the way, as our resident techwarrior returns from CES, sporting the latest VR helmets and wielding the newest virtual weaponry.

VR helmets were everywhere at this summer's CES in Chicago, yet most proved to be merely head mounted lower displays, without head-tracking capability. The technical nod at this point goes to Forte, who has been showing the VF1, a head-tracking VR helmet, for the past few CES shows. Even though it's the best we've seen, it still reminds us of two Sony Watchman TVs hung in front of your face, but only offering a low res image. A bit much, perhaps, for the $1000 price tag.

Forte's Doom demo was disconcerting, since my head didn't move independently of my view. I found myself spinning like a top, scanning for nasties, while using a "virtual joystick" to move forward and backward. I can only imagine using this at home, a whirling dervish flailing around the living room knocking over lamps, trying to maintain balance like a tightrope walker.

The Flight Unlimited demo from Looking Glass Technologies (see the sneak preview in this issue) actually used the headset for looking around in the virtual world and cockpit, but movement was all controlled by the joystick. This demo showed that VR headsets are more suited for moving your head around to see what's going on than for controlling movement. Flight simulations such as 1942 Pacific Air War from MicroProse and the forthcoming plethora of Doom-like games that allow separate head movement from body movement are perfectly suited for adaptation for VR headsets. In short, three things need to happen before VR becomes a reality: higher resolution, lower price, and more support from game companies.

Other cool hardware included the new Thrustmaster F16 FLCS flight controller. Modeled after the real F16 stick, this baby has more knobs and switches than a UNIVAC, all of which are programmable with the Mark II Weapons Control System. A new Thrustmaster Weapons Control System (the Mark III?) is on the horizon. Building on the features of the Mark II, the new controller looks as though it was lifted straight from a fighter cockpit. The cheesy-looking buttons on the Mark II have been replaced with realistic looking, feeling, and moving knobs and switches. Sometime in the future, Thrustmaster may release their golf controller, which will let you haul off and whack a real ball into a net from a tee, or hit their hanging ball-on-a-string. A device hooked up to your computer will then give you clubhead angle, speed, etc., and it will be compatible with a special version of Access' Links 386 Pro.

Gravis' new Phoenix game controller offers a built-in joystick, a pseudo-mouse and lots of programmable buttons. The interface is a snap to use and the device should certainly help clear your desk of that keyboard, mouse, and joystick.

SpaceTech showed off their highly innovative hand-held Spaceball for action games. It has a strain-gauge ball which interprets forces exerted on it into the appropriate character movements. The grip portion has plenty of buttons to play with, but it's a bit awkward to get the hang of at first. STD, known for their high end video game hardware, showed off their new PC Optix, which uses a frictionless optical sensor, providing fast feedback. Requiring less calibration than mechanical joysticks, it can be used as either a digital or analog joystick with the flick of a switch.

In the sounds category, 3D audio is going to do to your ears what the stereo-scope did for your eyes. The SRS-licensed 3D audio products from Nu Reality run between your PC's sound card and speakers. The result is a surround-sound-like field that seems to come from all over the room, even though it emanates from just two speakers. Nu Reality's product, Vivi3D Studio, has controls for spatial width and virtual center-channel depth. Unfortunately, the SRS effect—a process applied to the signal—is lost when headphones are used. headphone junkies might want to check out the UltraSound Max from Gravis. In addition to being General MIDI-compatible with TSR utilities to access the 128 General MIDI patches, the card uses the Focal Point 3D audio system, which works with headphones only.

From low-res headsets, to new controls and immersive audio products, we're getting closer to home VR for computer games than ever before! For more information on these products, call the following:

Forte (716) 427-8595
Thrustmaster (503) 639-9200
Gravis (604) 431-5020
SpaceTech (508) 970-0330
STD (410) 785-5661
Nu Reality (714) 442-1080

Why don't you share your technical adventures with your fellow CGW readers who may have the same problems? Send your questions, cool hacks, and tips to Under The Hood, c/o Computer Gaming World, 130 Chaparral Ct. Suite 260, Anaheim Hills, CA 92808, or at any of our email addresses (Internet: 76703.622@compuserve.com). 

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*Suggested Retail Price $549.95. © 1994 Creative Technology Ltd. Game Blaster CD, Sound Blaster, and the Sound Blaster and Creative logos are trademarks of Creative Technology Ltd. All other trademarks are the property of their respective owners. U.S. inquiries Creative Labs 1-800-998-5227 or 408-428-4600. International inquiries Creative Technology Ltd. Singapore. TEL. 65-723.4055 FAX. 65-723.4053.

Circle Reader Service #131
These Just In

Here are our quick takes on games that arrived just before press time.
You can be sure that the more prominent titles will be given a full review in the next issue.

ALIEN ARCADE

Out of the noise of Street Fighter clones and concern over violence in video games comes this collection of non-violent arcade games for the youngest joystick waggler in the house. The look of the six games is decidedly cute, low-tech, and approachable. Game play is simple, with instructions included to let you capture Stink Snakes, clean up nasty lungs, or get those Klutzy Quasars under control. Of all the six games included, Nerdown offers the most arcade challenge, but none of these are going to give cartridge veterans any sleepless nights. In keeping with the non-violent theme, nothing dies in any of the games. ALIEN ARCADE might be a good choice for the youngsters, as long as it doesn't take away any of Dad's Doom time. Mac, $49.95. Circle Reader Service #1.

LUXEMBURG SOFTWARE, INC. 254 FERN ST., WEST HARTFORD CT, 06119, (203) 236-1993

THE BIG ONE

Many Southern Californians live with anxiety over The Big One, the large magnitude earthquake that seismologists have been predicting for years. Troubled Angelenos might find it therapeutic to take the Big One into their own hands with this product. After determining the size of the earthquake and its location along one of many major fault lines, you must handle the after-effects of the quake. As the Super Mayor of the Southland and chief organizer of disaster relief, you will have plenty of fires to put out, riots to quell, power to restore and freeways to reopen. A Windows game reminiscent of the disaster scenarios in SimCity, The Big One is a detailed simulation developed with the aid of several government agencies who were consulted to determine their effectiveness in the face of such a disaster. Although the game is trivially simple to win (getting re-elected after a week's worth of clean up), its fascination comes from sending out the ambulances, calling in the national guard, setting up field hospitals, all in the face of gas and power outages. As the death toll and amount of damage fluctuates, so does your popularity in the polls. If you decide to check out The Big One, do us a favor and restore the power to Anaheim Hills as soon as possible. IBM, Windows, $49.95. Circle Reader Service #2.

SUPER INTERNATIONAL, LTD., STONE MILL OFFICE PARK, 722 YORKLYN ROAD, HOEKESSEN DE, 19707, (302) 234-1740

BLUES BROTHERS

Anyone familiar with the characters created by Dan Akroyd and John Belushi for Saturday Night Live would marvel that they could be contained on just one floppy disk. Our musical heroes are reduced to jumping, climbing and scrolling around a variety of screens in fairly mundane arcade fashion. The plot plays lip-service to the pair's musical heritage, as Jake and Elwood must find lost notes in order to escape from an evil jukebox. While the characters look the part, right down to the dark sunglasses, this is the only mark to distinguish this game from so many other arcade exercises. All of which is a shame, because this product could have included voice bits from the Blues Brothers routines, as well as some of the group's real hits, rather than the lame remixes found here. If you're missing the brothers Jake and Elwood, check out the Nickelodeon SNL reruns or rent their movie. IBM, $44.99. Circle Reader Service #3.

TITUS SOFTWARE, 20432 CORINCO ST., CULVER CITY CA, 90231, (310)709-3692

CORRIDOR 7

Recipe for a Capstone Cocktail: License Wolfenstein-3D engine from id and mix ideas from Terminator: Rampage; shake thoroughly. Add an "aliens overrunning the secret desert compound" motif for flavor; mix well. Even topped off with an olive, the taste may be too dry for many, as the result is yet another "find the key, unlock the door, see what's left to explore" maze game. While Corridor 7 has adequate music, cool enough sound, and the requisite funky weaponry, the colorful
The Invasion Begins On CD-ROM.

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ISM, INC. 2103 HARMONY WOODS ROAD, OWINGS MILLS, MD 21117, (410) 560-0973

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PRO LEAGUE BASEBALL
This latest pitch from the computer baseball mound is delivered by those veteran switch-hitters at Micro Sports, and, like most sports products, features official major league licensing. A nice touch is that the league set-up module contains the new (and controversial) 1994 Division alignment. Realizing that baseball is the ultimate statistical sport, the designers have thrown in an encyclopedic array of player information, all of which can be printed out for your own baseball archives. The usual draft/trade options are included, but a wily human general manager can...
NOW PLAYING

usually cut better deals than the AI owners. The graphic look is improved over recent Micro Sports products, most noticeable in the great looking ballpark. Add modem play to this product's scouting report and you've got a game that just might make it to The Show. IBM, $49.95. Circle Reader Service # 9

MICRO SPORTS, INC., ONE NORTHGATE PARK, SUITE 103, CHATTANOOGA TN, 37415, (800) 937-7737

SPACESHIP WARLOCK

Hearken, space rangers, to a tale from CD-ROM galaxies past. Now Windows users may tour the cosmos where only Mac gamers could venture before. In this MPC version of Reactor's first release, you must set out in search of planet Earth, which has been hidden away in deep space by the evil Kroll, conquerors of all humanity. Documentation is scanty fuel indeed for the intrepid adventurer, but the interface is so simple, even a humanoid could figure it out. All actions, whether fighting alien thugs, procuring stolen credit, or exploring the labyrinthine tunnels of a Kroll base, are effected by a mere mouse click (the latest in futuristic technology). Conversations are largely on value perception. Sure, the USA team is available, but the package features only eight teams in all, hardly allowing fans to replay significant World Cup rivalries (although Brazil is available). The joystick controls are much better than most imports, although the ability to affect shot trajectory after striking the ball takes this game into Arcade Never-Never Land. Managing aspects receive more emphasis than in the typical arcade soccer game, and you may select players as well as set up your own offensive and defensive formations. A good enough cartridge port, it unfortunately fails to take advantage of the home computer's capabilities in any significant way, graphically or otherwise. Amiga, IBM, $19.95. Circle Reader Service # 11

DAVIDSON & ASSOCIATES, INC., 19840 PIONEER AVE., TORRANCE, CA 90503, (800) 556-6141

SURGEON 3: THE BRAIN

No time for those med school classes on neurosurgery? No need to worry—one weekend with this little package and you'll be carving craniums like a pro. SURGEON 3: THE BRAIN is an unpretentious educational program that is as difficult to master as it is visually spartan. Despite coloring-book graphics, this program will have your own brain squirming within minutes. Don't even think about going to the operating room until you've studied the medical journals in the hospital's library. Then you'll be able to diagnose the patient by odering the correct lab studies—after all, it wouldn't do to lose the patient before the operation. Success in surgery depends on many factors, including operating on the correct hemisphere, careful use of the drill, and being able to handle a variety of complications. The staff will help you in the lower difficulty levels, but make one wrong move and your patient's not only off to the morgue, you're staring at a letter from the bereaved family's attorney. There's a life under your knife, and the EKG is showing cardiac arrhythmia. What shall we do, doctor? Doctor? Mac, $39.95. Circle Reader Service # 12

ISM, INC., P.O. BOX 247, PHOENIX MD 21131, (410) 560-0973

TIE FIGHTER

The Rebel Alliance is teetering on the brink of dissolution, awaiting only our final stroke. A Tie Fighter awaits you, young pilot—go forth and destroy the rabble that has dared to defy us. If you succeed in your dangerous missions, you will have the gratitude of the Empire, and perhaps, a glimpse of the glory of the Dark Side of the Force. You know that you cannot resist—the seductive graphics, the Gouraud-shaded ships, reach out to you; the digitized sounds, the bannsce typed in Galactic Infocom Standard—an ancient method of communication, so be wary of the dreaded text parser translation syndrome. The VGA graphics are packed into "wide screen" format and have a strong Blade Runner feel with decent animation (for such primitive 20th-century effects), provided you run the game on a fairly fast machine. A good upgrade of an older Mac title, this shouldn't be left to rot in the time capsule. Mac/MPC, $57.95. Circle Reader Service # 10

REACTOR, INC. 445 WEST ERIE, CHICAGO II, 60611, (312) 573-6080

SENSIBLE SOCCER

This month's entry in the Soccer Sweepstakes comes with a better pedigree than most. A best-seller in Europe, its acceptance on American shores will hinge scream of your TIE Fighter, rush from one speaker to the other. Grasp the joystick and feel the Force flow through the computer system, the fighter moving almost effortlessly from your touch. Let your hatred for the rebels be your strength. We will train you in the training grounds and the virtual combat chamber, and then you shall lead the Empire to a new era of greatness in 50 missions, interspersed with cinematic cut screens to tell your story. Choose your fighter from one of six craft and be gone...and don't bother to return if you fail! IBM, $63.95. Circle Reader Service # 13

LUCASARTS ENTERTAINMENT, P.O. BOX 10307, SAN RAFAEL, CA, 94912, (800) 782-3394

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KING'S QUEST V (Sierra On-Line, Inc., 1990)
M-1 TANK PLATOON (MicroProse, Inc., 1989)
MECH BRIGADE (Strategic Simulations, Inc., 1985)
MIGHT & MAGIC (New World Computing, 1986)
M.U.L.E. (Electronic Arts, 1983)
Pirates (MicroProse, Inc., 1987)
Railroad Tycoon (MicroProse, Inc., 1990)
Red Baron (Dynamix, 1990)
SIMCITY (Maxis, 1987)
STARFLIGHT (Electronic Arts, 1986)
The Secret of Monkey Island (LucasArts, 1990)
Their Finest Hour (LucasArts, 1989)
Ultima III (Origin Systems, Inc., 1983)
Ultima IV (Origin Systems, Inc., 1985)
Ultima VI (Origin Systems, Inc., 1990)
War in Russia (Strategic Simulations, Inc., 1984)
Wasteland (Interplay Productions, Inc., 1986)
Wing Commander (Origin Systems, Inc., 1991)
Wizardry (Sir-Tech Software, 1981)
Zork (Infocom, 1981)

H.O.F. HIGHLIGHTS

SID MEIER'S CIVILIZATION
MICROPROSE, 1991
Though we have only anecdotal evidence to support us, we would guess that more hours have been invested in conquering the worlds of Civilization than in any other computer game in the hobby's history. Economics, exploration, military strategy and diplomacy are all elegantly bound together in this magnum opus of world conquest games. Designer Sid Meier has long been synonymous with great game play, but in this design Meier truly out-did himself, creating an experience conducive to a vicious case of what we call "game lock"—that overwhelming state of mind where you are glued to your keyboard, promising yourself that you'll play "just one more turn, one more turn, one more..." The upcoming Colonization will use the basic design of Civilization, but will focus in on a specific historical period.

DUNGEON MASTER
FTL SOFTWARE, 1987
If you set aside Ultima IV, you would have trouble finding a game that had more influence on role playing games than Dungeon Master. Originally released in 1987 on the Atari ST, Dungeon Master's trend-setting graphics moved away from the "windowed" screen look, and its realistic sound effects created a terrific adventuring atmosphere. The game instantly became a showcase title for the Atari and Amiga machines. Though in many ways it was a typical hack 'n' slash dungeon romp, it introduced many subtle twists to the mechanics of role playing, many of which have been emulated by other games over the years. The only blemish on this game's history is that it took FTL over two years to complete the IBM conversion of the game, by which time many other games had adopted and improved upon its innovations. Fans of the game will want to keep an eye out for a sequel coming this Fall from Interplay Productions.
### Top Adventure Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day of the Tentacle</td>
<td>LucasArts</td>
<td>9.94</td>
</tr>
<tr>
<td>Monkey Island 2: Le Chuck's Revenge</td>
<td>LucasArts</td>
<td>9.83</td>
</tr>
<tr>
<td>Indiana Jones: Fate of Atlantis</td>
<td>LucasArts</td>
<td>9.75</td>
</tr>
<tr>
<td>Quest for Glory III</td>
<td>Sierra</td>
<td>9.56</td>
</tr>
<tr>
<td>Sherlock Holmes CD</td>
<td>Vivacom</td>
<td>9.55</td>
</tr>
<tr>
<td>Gabriel Knight</td>
<td>Sierra</td>
<td>9.52</td>
</tr>
<tr>
<td>Star Control II</td>
<td>Accolade</td>
<td>9.33</td>
</tr>
<tr>
<td>The Seventh Guest</td>
<td>Virgin</td>
<td>9.32</td>
</tr>
<tr>
<td>Sam &amp; Max Hit The Road</td>
<td>LucasArts</td>
<td>9.30</td>
</tr>
<tr>
<td>Lost Files of Sherlock Holmes</td>
<td>Electronic Arts</td>
<td>9.20</td>
</tr>
</tbody>
</table>

### Top Role Playing Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultima Underworld</td>
<td>Origin</td>
<td>10.22</td>
</tr>
<tr>
<td>Betrayal at Krondor</td>
<td>Dynamix</td>
<td>9.56</td>
</tr>
<tr>
<td>Ultima Underworld II</td>
<td>Origin</td>
<td>9.42</td>
</tr>
<tr>
<td>Night &amp; Magic II</td>
<td>NewWorld Computing</td>
<td>9.41</td>
</tr>
<tr>
<td>Lands of Lore</td>
<td>Virgin</td>
<td>9.38</td>
</tr>
<tr>
<td>Night &amp; Magic: Darkside of Xeen</td>
<td>NewWorld Computing</td>
<td>9.37</td>
</tr>
<tr>
<td>Eye of the Beholder II</td>
<td>SSI</td>
<td>9.34</td>
</tr>
<tr>
<td>Night &amp; Magic: Clouds of Xeen</td>
<td>NewWorld Computing</td>
<td>9.34</td>
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<tr>
<td>Ultima V</td>
<td>Origin</td>
<td>9.25</td>
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<tr>
<td>Eye of the Beholder II</td>
<td>SSI</td>
<td>9.10</td>
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### Top Simulation Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
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<tbody>
<tr>
<td>Falcon 3.0</td>
<td>Spectrum Holobyte</td>
<td>9.59</td>
</tr>
<tr>
<td>World Circuit</td>
<td>MicroProse</td>
<td>9.44</td>
</tr>
<tr>
<td>Fleet Defender</td>
<td>MicroProse</td>
<td>9.40</td>
</tr>
<tr>
<td>Aces of the Pacific</td>
<td>Dynamix</td>
<td>9.38</td>
</tr>
<tr>
<td>Indy Car Racing</td>
<td>Virgin/Papyrus</td>
<td>9.36</td>
</tr>
<tr>
<td>Comanche: Maximum Overkill</td>
<td>Novalogic</td>
<td>9.27</td>
</tr>
<tr>
<td>Secret Weapons of the Luftwaffe</td>
<td>LucasArts</td>
<td>9.19</td>
</tr>
<tr>
<td>Horobot</td>
<td>Spectrum Holobyte</td>
<td>9.06</td>
</tr>
<tr>
<td>Starship Troopers</td>
<td>Disney</td>
<td>9.00</td>
</tr>
<tr>
<td>Gunship 2000</td>
<td>MicroProse</td>
<td>8.95</td>
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</table>

### Top Strategy Games

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
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<tbody>
<tr>
<td>Master of Orion</td>
<td>MicroProse</td>
<td>10.33</td>
</tr>
<tr>
<td>Warlords II</td>
<td>SSG</td>
<td>10.00</td>
</tr>
<tr>
<td>Solitaire's Journey</td>
<td>QQP</td>
<td>9.97</td>
</tr>
<tr>
<td>Sim City 2000</td>
<td>Mads</td>
<td>9.91</td>
</tr>
<tr>
<td>Vioce II</td>
<td>Virgin</td>
<td>9.82</td>
</tr>
<tr>
<td>Merchant Prince</td>
<td>QQP</td>
<td>9.50</td>
</tr>
<tr>
<td>Chessmaster 3000</td>
<td>Software Toolworks</td>
<td>9.40</td>
</tr>
<tr>
<td>Hong Kong Mahjong Pro</td>
<td>Electronic Arts</td>
<td>9.13</td>
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<tr>
<td>Syndicate</td>
<td>Electronic Arts</td>
<td>9.07</td>
</tr>
<tr>
<td>The Lost Admiral</td>
<td>QQP</td>
<td>9.05</td>
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### TOP WARGAMES

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
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<tbody>
<tr>
<td>V for Victory: Velikiye Luki</td>
<td>Three-Sixty Pacific</td>
<td>9.73</td>
</tr>
<tr>
<td>Carriers at War: Construction Kit</td>
<td>SSG</td>
<td>9.68</td>
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<tr>
<td>The Perfect General</td>
<td>QIP</td>
<td>9.67</td>
</tr>
<tr>
<td>V for Victory: Utah Beach</td>
<td>Three-Sixty Pacific</td>
<td>9.63</td>
</tr>
<tr>
<td>V for Victory: Market Garden</td>
<td>Three-Sixty Pacific</td>
<td>9.53</td>
</tr>
<tr>
<td>Conquered Kingdoms</td>
<td>QIP</td>
<td>9.44</td>
</tr>
<tr>
<td>War in Russia</td>
<td>SSI</td>
<td>9.34</td>
</tr>
<tr>
<td>Pacific War</td>
<td>SI</td>
<td>9.24</td>
</tr>
<tr>
<td>Empire Deluxe</td>
<td>New World Computing</td>
<td>8.94</td>
</tr>
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</table>

### TOP ACTION GAMES

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
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<tbody>
<tr>
<td>Doom</td>
<td>Id Software</td>
<td>10.46</td>
</tr>
<tr>
<td>Wing Commander II</td>
<td>Origin</td>
<td>9.97</td>
</tr>
<tr>
<td>X-Wing</td>
<td>LucasArts</td>
<td>9.55</td>
</tr>
<tr>
<td>Wolfenstein 3-D</td>
<td>Id Software</td>
<td>9.55</td>
</tr>
<tr>
<td>Privateer</td>
<td>Origin</td>
<td>9.22</td>
</tr>
<tr>
<td>Lemmings</td>
<td>Psygnosis</td>
<td>9.21</td>
</tr>
<tr>
<td>Tetris Classic</td>
<td>Spectrum Holobyte</td>
<td>9.14</td>
</tr>
<tr>
<td>Oh, Not More Lemmings</td>
<td>Psygnosis</td>
<td>8.89</td>
</tr>
<tr>
<td>The Horde</td>
<td>Crystal Dynamics</td>
<td>8.61</td>
</tr>
<tr>
<td>Out of this World</td>
<td>Interplay</td>
<td>8.57</td>
</tr>
</tbody>
</table>

### TOP SPORTS GAMES

<table>
<thead>
<tr>
<th>Game</th>
<th>Company</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links 386 Pro</td>
<td>Access</td>
<td>10.33</td>
</tr>
<tr>
<td>Front Page Sports Football Pro</td>
<td>Dynamix</td>
<td>9.75</td>
</tr>
<tr>
<td>NHLPA Hockey</td>
<td>Electronic Arts</td>
<td>9.56</td>
</tr>
<tr>
<td>Jack Nicklaus Signature Golf</td>
<td>Accolade</td>
<td>9.27</td>
</tr>
<tr>
<td>Hardball III</td>
<td>Accolade</td>
<td>9.16</td>
</tr>
<tr>
<td>Tony La Russa Baseball II</td>
<td>SSI</td>
<td>8.78</td>
</tr>
<tr>
<td>NFL Pro League Football</td>
<td>MicroSports</td>
<td>8.54</td>
</tr>
<tr>
<td>The Games: Winter Challenge</td>
<td>Accolade</td>
<td>8.50</td>
</tr>
<tr>
<td>4-D Boxing</td>
<td>Electronic Arts</td>
<td>8.37</td>
</tr>
<tr>
<td>Wayne Gretzky Hockey III</td>
<td>Bethesda</td>
<td>8.30</td>
</tr>
</tbody>
</table>

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**Vote!**

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.

**The Computer Gaming World Poll**

A MONTHLY SURVEY OF THE READERS OF COMPUTER GAMING WORLD.
AEGIS Patch: Eliminates the Electronic Book crash. 4/28/94.

Air Warrior V1.13 Update: New execute files, fixes several problems. 3/1/94.

Bane of the Cosmic Forge Patch: Replacement file for players who get a divide overflow when starting the game. 3/23/94.

Battles of the South Pacific Upgrade: Latest patch for QQP’s WWII naval strategy game. 5/24/94.

Cactus League Pro Basketball Upgrade: Corrects stats of 70-71 season disk. 6/29/94.

Chessmaster 4000 Turbo v1.04: Newest upgrade for Software Toolworks’ chess program. 6/28/94.

Comanche Joystick Drivers: Adds Flightstick Pro support. 5/24/94.

Command Adventures Starship Patch: The latest fixes for Merit Software’s Sci-fi game. 5/19/94.

Companions of Xanth Points List: Complete point totals for Legend’s adventure game. 5/22/94.

Detroit Upgrade: Fixes include finances, the December crash and the 255-worker bug. 5/31/94.

Diamond Dreams Upgrade: Fixes all known bugs, and features greatly improved AI for computer manager strategies. 3/29/94.

Empire Deluxe V1.1 Mac: Latest version of New World’s strategy game for Mac gamers, fixes include cleaning up PBM. 6/1/94.

Falcon 1.02 Mac Upgrade: Fixes sound problems on Mac's. 3/20/94.

Fleet Defender V1.2 Upgrade: Latest version of MicroProse flight sim, with 41 new features. 5/17/94.

Global Domination Update: Fixes modern play bugs. 6/23/94.

Goblins CD-ROM Patch: Fixes sound card and CD-ROM driver problems. 3/1/94.

Great Naval Battles v1.1 Upgrade: Several corrections listed in readme file. 6/24/94.

The Horde V1.1 Revision: Now supports Media Vision Pro Audio sound cards. Fixes lockups on some Sony drives, dead knights not disappearing after snowball hits, and also slows down the end credits. 4/28/94.

IndyCar Racing V1.94 International: Different patches for owners of IndyCar Spanish, Italian, German or French language versions. 5/19/94.

IndyCar Racing Patch: Improves AI and cleans up tracks. 6/28/94.

IndyCar Racing Modem Patch: Cleans up difficulties with modem play, and fixes scrolling menus for steering devices with no y-axis. 4/7/94.

Julaland V1.1 Upgrade: Allows non-penetrating shells, adds more graphics, runs smoother, and most significantly, includes time compression. 3/30/94.

Julaland Patch: The game will now recognize different sound card addresses, rather than just the default 220 address. 5/3/94.

Kingmaker V1.51 Upgrade: Latest version of Avalon Hill's strategy game with many fixes. 5/25/94.

Lands Of Lore CD-ROM V1.22 Upgrade: Fixes lockup problems on fast machines, allows retrieval of Dawn's key and allows use of Waveblaster/Soundblaster 16 combo. 3/7/94.

Lands Of Lore Floppy V1.23 Upgrade: Fixes "Dawn's Key" problem and Pentium lockups when choosing a character. 4/28/94.

Lucky's Casino Update: Latest version of QQP game. 5/19/94.

MegaRace v1.1 Upgrade: Solves Sound Blaster difficulties. 6/28/94.

Merchant Prince Update: Newest version of QQP's strategy game. 3/11/94.

MicroProse Sound Drivers: New AdLib sound drivers for many older games which had problems running with 486 and Pentium machines. 4/7/94.

1942 Pacific Air War: Fixes all known bugs, specifically those affecting joystick control. 6/4/94.

Pacific Strike V1.19: Contains 9 fixes for Origin's new flight sim. 5/27/94.

Police Quest 4 Patch: Fixes all known problems and speeds up restoration of saved games. Disk version only. 4/5/94.

Prophecy Patch: Solves graphics problems with fast systems. 6/15/94.

Rally V1.1 Upgrade: Fixes joystick calibration and other problems. 3/24/94.

RavenLoft 1.1 Upgrade: Latest version from SSI, floppy and CD-ROM. 4/29/94.

Red Baron Patch: Configuration fix for IBM only. 3/29/94.

Seawolf Patch: Allows 16-bit Sound Blaster sound effects and music. 3/30/94.

Shanghai II V1.05 Update (Mac): Fixes tournament crash bug. 3/24/94.

Sierra Sound Patches: A variety of fixes and drivers for Sound Blaster, Gravis Ultra Sound and General MIDI users, for a number of older Sierra games. 5/19/94.

Subwar 2050 V2.02 Update: Corrects cursor drift time and date problem. 4/28/94.

Tigers on the Prowl V1.1: Fixes the mortar problem, among others. 5/28/94.

Tony La Russa Baseball 2 Patch: Fixes stadium lockups. 5/3/94.

Ultima 8 Patch: Fixes AdLib problem with some machines. 4/15/94.

Victory At Sea V1.01 Upgrade: Corrects numerous problems with the initial release. 3/14/94.

Warlords II Update: Latest version, for those who don't have the construction kit. 6/17/94.

X-Wing Enhancement: This TSR allows use of extra Thrustmaster buttons. 6/2/94.
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by Baron Phillippe Masson Gallo

Temecula is more than an old California town where gangs of train and stage robbers used to hide out. Sure, it has its Old Town section of historical buildings and antique stores, but it is also the home of a boutique wine industry and a popular gathering area for classic car buffs. In fact, it was just such a convoy of '56, '57 and '59 Fords that awakened me from a lazy afternoon nap just as I was having this weird dream about Software Toolworks' MEGARACE 2. It seems I had been hired to host the competition in the sequel and, complete with bag, become the man everyone loves to hate. A lot of our readers thought the original MEGARACE was too simplistic. This time the game will feature dynamic tracks with hazards like opening/shutting gates, enemies that fire at you, and improved artificial personalities to compete against.

I suddenly realized that I was going to have to race the clock, myself. I was supposed to meet an industry source for lunch in an open-air cafe. I raced upstairs to the shower at a pace akin to the chase scenes on the old Benny Hill television show. It made me think about another British humorist—science fantasy writer Terry Pratchett. Pratchett's Discworld series of humorous novels is coming to the computer courtesy of Psygnosis. I had seen some of the animation for that game and became convinced it could become this year's DAY OF THE TENTACLE in terms of quality animation and delightful humor. Of course, I reminded myself, it would have to compete with MediaVision's off-the-wall X-DUCK 2000 to garner top comedic honors.

Arriving at the restaurant, a loud crack rang out, and a man who seemed to be waiting for a table crouched and whirled around looking for unseen assailants. Guessing him to be my out-of-place Hollywood connection, I scurried and said, "Just some poppers. They're set to go off randomly in the vineyards to scare birds away from the grapes. You must be J.T." He smiled and handed me a large manila envelope detailing MGM/UA's BLOWN AWAY for PC and Macintosh CD-ROM. The game picks up at the end of the movie, and the players have to use knowledge, intuition and speed as opposed to guns and violence to defeat a disciple of the movie's villain, Gaery.

We ordered our meals and began to talk of other studios entering the computer game industry. He hadn't been aware of Trimark Interactive's new CD adventure, BLIND DATE. He grimaced as I quoted the press release reference to a CD-ROMantic game, but he thought the idea of surviving a blind date fraught with disaster by being witty and inventive was an intriguing idea for a computer game. He also didn't know that Pepe Moreno, the designer of Time-Warner's HellCam, has signed to do an adventure game for MediaVision. I couldn't tell him much about Moreno's new product except that it is supposed to be called RIVERS OF DAWN and will use manipulable video. "That's good," he responded, "we can use some games where the video is more interactive. I got tired of watching movies on my computer screen."

"What I'd really like to do," he said, gazing across the vineyard-covered hillsides of the valley, "is destroy L.A. so that everywhere could be this beautiful." His abrupt shift in demeanor was alarming. I quickly glanced about to see if anyone else had heard him.

"Well," I ventured, "you could try to keep people from destroying L.A. in FormGen's upcoming RISE OF THE TRIAD game. It's 3-D action that uses digitized actors and lots of explosive effects. I guess you could even be an evil Triad member and try to destroy L.A. in the head-to-head action mode."

He looked at me in startled confusion. "Did I say, L.A.? I meant EA." He said it with such conviction that I didn't know how to take him.

I was starting to get worried. I pacified him by sharing that Electronic Arts had just signed a deal with Europe's Delphine Software. It appears that Delphine has taken their 3-D technology yet another step further than OUT OF THIS WORLD and ALONE IN THE DARK. The fiction may change from the somewhat juvenile story in the European version, but the technology is impressive.

Suddenly, two male nurses appeared, one on either side of my source. "Can't let you out for a moment, can we Johnny?" Before I could say anything, they began to haul him away. One of the nurses turned to me and apologized, "Sorry, he went a little crazy editing Tim Burton's rushes for BRETTELJUICE 2. He'll be okay if we can just keep him away from you media types."

"But the rumor?" I asked, "Is it real?"

"It's real," he replied, "as real as anything you could steal from a Hollywood mailroom."
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